Competing Agendas in Theories of Congress: Assessing Agenda Control Using Counterfactual Data

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ABSTRACT

In legislative studies, a "roll rate" refers to the proportion of votes where a member or group of members is "rolled"—voting no on a measure that passes. Roll rates analysis is a potentially useful tool for evaluating arguments that the majority party in the House exercises influence by controlling what does and does not make it onto the agenda. Despite its promise, so far the use of roll rates to test these arguments has faced the problem of observational equivalence—that the predictions of partisan theories of agenda control are indistinguishable from those of arguments that have no place for parties. I address this problem by calculating party-less and partisan counterfactual roll rates data to "pin down" the predictions of these theories. This offers a powerful research design to evaluate observed roll rates from a sample Congresses. The results provide intriguing evidence for partisan theories of the House agenda.

> For the purposes of analyzing and interpreting congresional voting patterns, one important consideration regarding the agenda... is that the alternatives themselves are endogenous. That is, the choices of what issues members will consider and what particular votes they will face are shaped by the same kinds of considerations that govern voting decisions. Not only do the operative preferences of members govern choices among alternatives on the floor; subsets of members and *their* operative preferences determine the nature of those alternatives.
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> —David W. Rohde, *Parties and Leaders in the Postreform House*, p. 43.

Introduction

As the study of congressional organization has progressed, the debate over the role of parties in Congress has become more and more central. Questions of agenda control and agenda effects have become particularly important in this debate. As the argument goes, if a legislative actor controls the procedures by which the agenda is constructed then she needs to do little else to gain political and policy advantage for herself. As Representative John Dingell (D-MI) has been (loosely) quoted, "If you let me write the procedures... I'll [beat] you every time" (Oleszek 1996, 12). But any attempt to grapple empirically with the congressional agenda leaves us with the problem of finding a critical test between often observationally equivalent partisan and nonpartisan arguments, with the added problem that *the agenda itself* is to a large degree *unobservable*.

Using an approach similar to Cox and Poole's (2002) analysis of party pressure on roll call votes, this paper addresses questions of agenda control *and* the problem of the agenda's unobservability by constructing counterfactual data from hypothetical nonpartisan and partisan agendas and comparing them to real-world observations, thus subjecting these arguments to a 'truer' test than previous scholarship has managed. As the results show, while a counterfactual agenda that is *by assumption* unmanipulated by the majority party can indeed suggest a party effect, this finding is distinct *and* distinguishable from the much stronger finding of a party effect, independent of preference, when the real agenda is examined. For partisan counterfactual data on the other hand, while the party effect is much closer to that found in the real world data, it is larger and statistically distinguishable, suggesting that the politics of the real world House of Representatives are more consensual than the strictest of partisan

stories would suggest.

Beyond its use in trying to adjudicate this particular debate in the Congress subfield, the method of calculating counterfactual data from the assumptions of a theoretical competitor in pursuit of a critical test (in the spirit of Taagepera 2008) and analyzing these data in parallel with observed data using Seemingly Unrelated Regression or related estimation techniques has potential application in debates across the discipline. This is especially true in applications where the received empirical specification(s) is(are) more complex.

Roll rates and inference

The phenomenon this paper focuses on, positing it as a means of assessing the effect of agenda power on legislative outcomes, is the *roll*. A roll refers to a vote in a legislature where an individual member or the majority of a group of members votes no while the measure being considered nevertheless passes. A roll *rate*, then, aggregates across votes and measures the proportion of total votes (usually of a subsample of all votes cast) on which an individual or group was rolled. This measure may appear overly specific. Why not simply count the number of times a member or group votes on the winning or losing side (e.g. Lawrence, Maltzman, and Smith 2006)? The problem is that not all wins or losses mean the same thing, especially when we are looking to roll call outcomes to provide insight into the politics of agenda construction (see Cox and McCubbins 2005, 232-4).[1] Roll rates are relevant to many recent debates in legislative scholarship because they help to overcome some of the severe limitations of conducting theory-driven empirical analysis of the legislative agenda.

Using roll rates is to look at the second-order consequences of legislative agendas. If we had our way, we would look for first-order consequences by observing the locations of status quo policies targeted for change and the location of proposed legislation throughout the process of its consideration; and we would observe both in a meaningful policy space of appropriate

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[1]Because of the setup of the counterfactual data described below, though, rolls and wins end up being perfect complements of one another in that every hypothetical 'bill' is located at the floor median at the time of final passage *and passes*. Every bill 'wins', and each member who votes against a bill is rolled. This is not far from reality, though. From the 83rd through 110th Congresses less than 3% of House Bills (vote code 11 in the Rohde/PIPC data) failed on final passage.

dimensionality. But with the current state of the art this is difficult, if not impossible (though see Richman 2011 and Peress 2013). Roll rates analysis is one means of inferring important things about the choice between proposal and status quo at the vote on final passage, and about how that choice is shaped by the agenda power of relevant legislative actors.

Doubt remains about what roll rates analysis can tell us, however, due to the problem, pervasive in this literature, of observational equivalence between partisan and nonpartisan, preference-based theories of congressional organization (Krehbiel, Meirowitz, and Woon 2005; Krehbiel 2006; 2007). Patterns in roll rates seem to support the notion of majority party dominance in agenda politics, but the general alignment of party membership and preference still complicates such an inference, as it complicates so many other analyses of congressional politics (Krehbiel 1993).

The key to using roll rates as a measure is the notion of backward induction (Cox and McCubbins 2005, 42-3). If a member knows that a dispreferred proposal will pass *and she possesses the means to prevent the proposal from being considered in the first place*, then she should do so to prevent a loss of policy utility. Regardless of the institutional tools a member of a legislative body uses to block consideration, this ability is referred to generally as *negative agenda control*. When individual legislators or groups of legislators are rolled on final passage, the strong suggestion is that they failed to exercise negative agenda control, either because they chose not to or, more likely, because they lack the necessary institutional tools. By this logic, a roll rate works as a measure of the capacity for (or exercise of) negative agenda control possessed by an individual or group. The higher the observed roll rate, the less likely it is that the member or group of members is exercising negative agenda control (or being protected by someone else's exercise thereof).

Using roll rates to make inferences about agenda control requires some important assumptions. Notably, we need to assume a unidimensional policy space[2], single-peaked Euclidean preferences, sincere voting, and an open rule procedure. When these assumptions hold, a roll suggests something very important—that the status quo is farther away from a rolled member's ideal point than is the final proposal. Tendencies in the status quos targeted for change,

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[2]At least with respect to consideration of any particular bill/issue.

which we infer from who gets rolled, should reveal who, if anyone, is exercising negative agenda control. Further, it is crucial to limit a roll rates analysis to final passage votes, since these are the only votes on which the status quo is evaluated against the proposed legislation, which is, by assumption, located at the floor median's ideal point.[3]

The mechanics of negative agenda control in the House

The Rules Committee in the House controls access to the Committee of the Whole procedure, which has long been the means by which important *non-consensus* legislation makes its way through the House (Tiefer 1989; Oleszek 1996). In the minimal cartel agenda model (see particularly Cox and McCubbins 2005, 66) the House Rules Committee's primary role is to use its power to grant or not special rules in contributing to the maintenance of a "majority-party blockout zone," which consists of the set of status quos that the majority party median prefers to the ideal point of the floor median to which, in the model, all bills end up being amended. A more powerful majority party goes further, using the Rules Committee to craft restrictive rules to make take-it-or-leave-it offers to the floor median or even to make ex post changes to legislation that may have emerged from committee in a form less than optimal from the majority party median's perspective (Marshall 2005, Monroe and Robinson 2008).

A nonpartisan view of agenda construction (see especially Krehbiel 1991) has no place for a Rules Committee that uses its position to bias the agenda, either in its own interests or as an agent of the majority party. Given Krehbiel's (1991, 16) "majoritarian postulate," the Rules Committee must be an agent of the floor median in the nonpartisan view. The Majoritarian Postulate states that "objects of legislative choice in both the procedural and policy domains must be chosen by a majority of the legislature" (Krehbiel 1991, 16). Krehbiel's subsequent argument, then, is that a majority (i.e. the median member of the legislature) would not acquiesce to the creation of institutions that limit its prerogatives unless they

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[3]This is not strictly true, as conference report votes also involve evaluation of the status quo against the proposal. Roll rates on conference reports, though, may tell us as much about interinstitutional dynamics as they do about agenda control in the House. And special rules votes, while procedural on their face, often directly imply the choice between status quo and alternative at the final passage stage, suggesting that roll rates analysis may be appropriate. See Carson, Monroe, and Robinson (2010) for an analysis of roll rates on these other types of roll calls.

provide informational gains. It is unclear, though, how giving the median of the majority party caucus a procedural veto across multiple issues would produce *informational* gains for the floor median. So from this perspective, there is little or no negative agenda control, since the floor median is the only actor in the House whose support for changing the status quo (and moving it to her ideal point) is both necessary *and* sufficient.[4]

Different agendas, diverging predictions of roll rates

Roll rates constitute a valuable albeit somewhat limited tool that allows us to make empirical statements regarding real world agendas, going beyond theoretical statements about the *potential* for creating bias in outcomes through control of the agenda. Roll rates measured at the level of the individual legislator or at the level of a coalition of members can reveal whose interests are taken into account when the legislative agenda is constructed.

The ground on which partisan and nonpartisan theories diverge relates to the set of status quos in a unidimensional policy space that are 'targetable' for change.[5] This, in turn, leads to the divergent predictions of the theories with respect to the pattern of roll rates we should expect to observe.

In their most fundamental form, nonpartisan theories of the legislative agenda view the entirety of the policy space as containing status quos that are 'targetable' for change. This means that no members in the legislature possess the ability to protect status quos[6] that they prefer to the floor median's ideal point. Under the minimal cartel agenda model, the majority party median (M) protects all status quos she prefers to the floor median's ideal

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[4]See Appendix B for further discussion of nonpartisan depictions of the House agenda.

[5]Focusing on the minimal cartel agenda model means consciously eliding differences between partisan and nonpartisan perspectives in where proposed bills are expected to be located at final passage.

[6]This leaves aside other nonpartisan arguments, principally Krehbiel (1998), that point to institutionally-empowered 'pivotal' members as exercising negative agenda power. Despite their appeal, these arguments focus, largely, upon the institutional details of the Senate and veto bargaining with the president to identify these pivotal members, and it remains unclear how these should shape the internal agenda politics of the House, which is my focus here. The notion of a House majority party that struts and frets its hour upon the stage, full of sound and fury, with little or no regard to whether its legislation can pass the Senate and/or be signed by the president should not be outside the experience of observers Congress. See Evans and Oleszek (2001) on partisan message politics, and how they can shape the agenda politics of the House and Senate, specifically with an eye to how even legislation un-passable in the other chamber or (especially) un-signable by the president might be politically useful.

point (F). These are found in the interval bounded by F and the point equidistant from M in the opposite direction. Since more majority than minority party members occupy this interval (though minority party members *could* be in this protected interval), majority party members should have an observable advantage in roll rates. As I will show, though, the question of what the baseline is for evaluating that observable advantage is crucial.

Diverging predictions about the agenda may be crucial from a theoretical perspective, but serious empirical limitations arise. Principally, how do we measure status quos? Roll rates analysis was proposed as a solution to this problem, but scholars have proposed other potential methods to wrestle with this and related challenges. Richman (2011) combines candidate surveys with roll calls to estimate status quo locations and presents results suggesting that partisan theories of the agenda may complement the pivotal politics version of the nonpartisan theory. Peress (2013) combines cosponsorship and voting data to estimate proposal and status quo locations in the Senate, also finding evidence that these theories are complements and not necessarily rivals.[7] Jenkins and Monroe (2012) use assumptions similar to mine to identify which members of the House majority party should be harmed (in terms of net policy loss) by the party cartel arrangement, and present intriguing evidence that these members are compensated with side payments in the form of campaign money from their leaders' warchests. The solution I propose in the following sections is to derive simple counterfactual agendas, calculating counterfactual individual roll rates, and then moving on to compare them in various ways to observed individual roll rates calculated by Cox and McCubbins (N.d.).

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[7]One issue that deserves further emphasis is that the pivotal politics model uses important aspects of Senate procedure at the theoretical stage (notably, the cloture procedure) while the cartel agenda model is premised on the institutional features of the House (notably, the role of the Rules Committee), though see Den Hartog and Monroe (2011) for a treatment of the Senate giving party effects a central place. Cartel and pivotal politics theories may compliment one another when thinking about bicameralism, but this potential complement still falls short of a fully-formed, internally consistent depiction of bicameral lawmaking. Despite that, see Appendix C for empirical results showing robustness to the inclusion of some variables capturing the pivotal politics argument.

Calculating nonpartisan counterfactual roll rates

Turning to the data, I begin with a unidimensional space ranging from -1 to 1.[8] This is the familiar NOMINATE (Poole and Rosenthal 1997) policy space (or at least the NOMINATE space as most secondary applications have used it).[9] It is important to start here because NOMINATE scores form the basis for calculating counterfactual roll rates *and* for conducting some simple tests of partisan and nonpartisan predictions about agenda politics utilizing this counterfactual. One potential objection is this—I am using ideal point estimates derived from the roll call record to explain roll rates derived from the very same roll call record. One potential alternative, presidential vote in the district as a non-roll-call-based proxy for induced preferences, raises its own objections (Gerber and Lewis 2004; Clinton 2006). Despite these objections, I have checked the core findings for robustness to this alternative measure, and they are actually strengthened.[10]

For better or worse, when it comes to *testing* the implications of models of Congress, we as a subfield live primarily in the NOMINATE space.[11] This is despite the fact that many such theoretical models are premised on assumptions about the policy space *and* about roll call voting that diverge from the assumptions of the NOMINATE procedure (in its various iterations) and the characteristics of the estimates derived from it. Whatever the problems raised by taking NOMINATE as the starting point, they have proven largely unavoidable in attempting novel tests of competing predictions about the power exercised by the majority party in the House.

The next step is to calculate counterfactual roll rates, first for the nonpartisan story and later for the partisan story. To do this, I make some strong limiting assumptions that are necessary to make comparisons to the observed roll rates *and* to existing analyses in the literature attempting to trace the empirical implications of these sorts of theoretical models.

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[8]Please see Appendix B for a further discussion of what assuming unidimensionality in this context means.

[9]Please also see Appendix B for a discussion of issues surrounding the breadth (or scale width) of the NOMINATE space, and some discussion of the advantages and disadvantages of assumptions other than $[-1, 1]$.

[10]Please see Appendix C for these results.

[11]Though see Jackman (2001), Clinton, Jackman, and Rivers (2003), Bafumi et al. (2005), and Clinton (2006) among others for work evaluating alternatives to NOMINATE for estimating ideal points. Please see Appendix B for further discussion.

The policy space is one-dimensional and finite. What the nonpartisan counterfactual baseline posits is, perhaps, the most basic process by which an agenda might be constructed— a series of draws of status quo policies from a uniform distribution over this unidimensional and finite (though infinitely dense) space, with open rule consideration, leading all status quos that get targeted for change to be moved to the floor median's ideal point, and all members voting at the final passage stage by evaluating their relative distance from the status quo and the proposed new policy.[12] While a series of random draws from a uniform distribution of status quos is the analogy for how the agenda is generated, *the counterfactual roll rates used here are derived from a closed-form calculation, not from simulations.*[13]

The calculation for the nonpartisan counterfactual roll rate of member i in Congress t, $E_{NP}(RR_{it})$, is presented in two forms in Equations 1 and 2, the first presenting the general case and the second simplified by plugging in terms reflecting the properties of the NOMINATE space as I use it. In Equation 1, L represents the leftward terminus of the space and R rightward terminus, while MH_{it} represents the ideal point (however measured) of the i-th Member of the House in Congress t. Equation 2 substitutes -1 for L and 1 for R, while substituting the first dimension DW-NOMINATE score for the Member's ideal point.

$$E_{NP}(RR_{it}) = \begin{cases} \frac{|L-F_t|}{|L-R|} & \text{if } MH_{it} \leq F_t - \frac{|L-F_t|}{2}, \\ \frac{2 \times |MH_{it}-F_t|}{|L-R|} & \text{if } MH_{it} > \frac{|L-F_t|}{2} \text{ and } MH_{it} < \frac{|R-F_t|}{2}, \\ \frac{|R-F_t|}{|L-R|} & \text{if } MH_{it} \geq F_t + \frac{|R-F_t|}{2}. \end{cases} \tag{1}$$

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[12]Weakening the notion of infinite density is one means of explaining seemingly partisan roll rates without any meaningful party effect. If policy 'piles up' at the floor median at time t and the floor median shifts along with a change in majority control at time $t+1$ (as tends to happen empirically), then the change in roll rates could suggest party effects without a causal relationship. This is a more difficult explanation to sustain, though, when roll rates retain a majority party bias even during long stretches of time when party control does not change and when the floor median does not otherwise shift much from Congress to Congress. See Krehbiel (2006), and also Ragan (2010) for a wide-ranging discussion of the issues surrounding "inherited status quos.", and see Appendix C for an admittedly simple robustness check along these lines.

[13]The simplicity of this calculation is due to the properties of the uniform distribution. Integration is unnecessary (or, more accurately, *trivial*), as the density under the curve is constant. Simulation of a realistically-sized agendas built of draws from a uniform distribution adds little beyond a bit of noise around the counterfactual roll rates, something that can be accomplished in a different way as discussed in Appendix C.

$$E_{NP}(RR_{it}) = \begin{cases} \frac{|-1-F_t|}{2} & \text{if } DWNOM1_{it} \leq F_t - \frac{|-1-F_t|}{2}, \\ |DWNOM1_{it} - F_t| & \text{if } DWNOM1_{it} > \frac{|-1-F_t|}{2} \text{ and } DWNOM1_{it} < \frac{|1-F_t|}{2}, \\ \frac{|1-F_t|}{2} & \text{if } DWNOM1_{it} \geq F_t + \frac{|1-F_t|}{2}. \end{cases} \quad (2)$$

What the calculation represents is relatively straightforward—the proportion of all status quos in the space that the member would seek to protect if she possessed negative agenda power. Put differently, it is the roll rate in expectation, *given no strategic manipulation of the agenda.* The farther any particular member's ideal point is from the median member on the floor, the higher that member's baseline roll rate would be under a nonpartisan agenda, because that member prefers more and more status quos to the floor median's ideal point. Because the space is finite, though, the baseline roll rate only weakly increases in distance from the median. As a member's ideal point becomes more extreme in either direction, her baseline roll rate increases until her ideal point passes the point halfway between the floor median and the terminus of the space in that direction. Beyond that point, members become indistinguishable in terms of their roll rates because they have an interest in defending precisely the same set of status quos in the space, as there are no longer any status quos on their side of the policy space so extreme that they would benefit by seeing them replaced by a proposal at the floor median.

[Figures 1 & 2 about here]

Figures 1 and 2 illustrate the result for the 103rd and 104th Congresses graphed against observed roll rates. The counterfactual roll rates calculated take on a characteristic shape when plotted over the NOMINATE space, resembling the symbol for a square root when the floor median is to the left of the center of the space, and a mirrored square root symbol with a right of center median.[14] When the floor median shifts significantly with changes in

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[14]See Appendix A for a discussion of this shape and its consequences for generating roll rates that could suggest a party effect result any time we conceive of agenda construction as simply a series of draws of status quos from a uniform distribution over a finite policy space in the presence of a median voter who is off-center.

party control, which it almost always does, especially in recent decades,[15] even the nonpartisan baseline roll rate can shift dramatically for certain equidistant members despite the lack of any party-based mechanism for advantaging majority members and disadvantaging the minority, or any weakening of the assumption that the distribution of status quo over the space is infinitely dense.

Testing a theoretically-informed null hypothesis

The observed empirical data to which these counterfactual data are compared are provided by Cox and McCubbins (2007), and I focus on the individual roll rates data constructed for the chapter (Cox and McCubbins N.d.) on individual roll rates that was excluded from their book, *Setting the Agenda*.[16] I look specifically at individual roll rates from the 83rd through the 105th Congress. Per the rationale outlined by Cox and McCubbins (N.d.; 2005) and discussed above, the sample of roll call votes from which the roll rates are calculated is limited to final passage votes. The NOMINATE scores I use in constructing the counterfactual data *and* in testing the nonpartisan and cartel predictions about the effect of ideological distance on roll rates are drawn from the DW-NOMINATE version of the procedure.[17]

The predictions to be derived from partisan arguments about the agenda are straightforward. Majority status should lower members' roll rates, while distance from the floor median should increase them (Cox and McCubbins N.d., Carson, Monroe, and Robinson 2011). But while this pattern of findings is more straightforwardly consistent with partisan theories, it has not been demonstrated to be inconsistent with nonpartisan theories, meaning that looking for this pattern does not constitute a test of competing theories, but rather a refutational challenge to one (or both). In other words, previous work in this area has tended to suffer from a lack of precision in translating theoretical predictions into their empirical implications. This is where the counterfactual data becomes so useful.

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[15]This is one of the principal insights of the theory of conditional party government—that the floor median is closer in terms of policy preferences to the majority party median under these conditions, making the exercise of power by the majority party less costly for the floor median and therefore more likely to happen (Rohde 1991).

[16]The data used can be found at http://hdl.handle.net/1902.1/10581 in the archive individualrolls.zip.

[17]These scores are also provided in Cox and McCubbins (2007).

I begin with naïve comparisons of majority and minority party roll rates, both counterfactual and observed. Table 1 shows a difference of means t-test of the observed majority and minority party roll rates from the pooled sample, with majority members enjoying a statistically and substantively significant advantage suggestive of the agenda control exercised on their behalf by the majority party and its leadership. It also shows the same for the counterfactual nonpartisan roll rates. The problem from the perspective of partisan arguments is that even the counterfactual roll rates, derived from the assumptions of a nonpartisan agenda argument, seem to suggest a majority party bias. And so the familiar problem of observational equivalence rears its head once again.

[Tables 1 here]

But to employ a slight reworking of Gelman and Stern's (2006) warning, the difference between two statistically significant results can still be statistically significant. To stop with the fact that nonpartisan counterfactual data are consistent with a statistically significant finding for the majority party variable is not sufficient. What this points to, really, is a failure in this literature (as in much of the applied statistical work in the social sciences) to appropriately specify our null hypotheses. Instead, the practice is to test what Krantz (1999, 1376) refers to as a "straw-person null hypothesis," which is almost always that some β of central theoretical interest is zero. What should be done whenever possible, and what the counterfactual data I have here allow for, is to specify a theoretically-informed null hypothesis against which to test the alternative hypothesis.

An improvement over simple side-by-side t-tests that allows for testing against a theoretically informed null while admitting of a multivariate analysis is to use Seemingly Unrelated Regression (SUREG) analysis (Zellner 1962) with observed and counterfactual roll rates as the respective dependent variables. This way, one can compare the relative effect of a common explanatory variable on two related dependent variables by testing the cross-equation restriction that the associated coefficients are equal. This approach allows for the evaluation of the predictions of a theory or theories, where the purported data generating process is reasonably well known and relatively precise, whether the subsequent empirical model is simple

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or complex.

[Table 2 about here]

In this case, I use a simple specification to generate the estimates for this test, found in Table 2. Observed individual roll rates aggregated by Congress are modeled as a function of majority party status and distance in NOMINATE space from the floor median. The nonpartisan counterfactual roll rates are also modeled as a function of majority party status and distance from the floor median. Each also includes Congress fixed effects, which are excluded for the sake of presentation. The results for the model(s) require some explanation. The SUREG procedure produces diagnostics that should look like familiar OLS regression diagnostics. What is different here is the inclusion of the Breusch-Pagan Test of Independence, which suggests that we can confidently reject the null hypothesis that the residuals in the observed and counterfactual regressions are unrelated.

To look at the $\hat{\beta}$s alone might lead one to despair of finding a party effect. Nonpartisan data, which are so *by construction*, are consistent with the pattern of coefficients that advocates of partisan theories of the agenda have claimed as supporting evidence. The coefficient associated with the majority party variable is negative and significantly different from zero and the coefficient for the variable measuring distance from F is positive and significantly different from zero *in both models*. But this observation is not the test.

Instead, look at the test of cross-equation restrictions, and in particular the test of the null that $\beta_{1Counterfactual} = \beta_{1Observed}$ for the majority party variable. Rather than just point to the fact that the estimated coefficient associated with the majority party variable is larger in magnitude when looking at the observed data, the χ^2 statistic of 2544.55 says that this difference is hugely statistically significant in a direction that makes intuitive sense.

The nonpartisan theory of agenda politics is indeed consistent with a partisan bias in roll rates. It is important to give credit where it is due to proponents of these theories who have long argued this point. Members of the majority party would indeed be predicted to have lower roll rates even without a partisan causal mechanism. Apparent party effects could be explained without an appeal to a partisan theory of agenda politics in the House—*but*

apparently not party effects of the magnitude we see when comparing the observed roll rates to the nonpartisan counterfactual.

To further sum up these findings, the observed and nonpartisan counterfactual roll rates would seem indistinguishable in terms of just the pattern of sign and significance for coefficients associated with the central variables of interest, but this is only if one takes zero as the appropriate null hypothesis against which to evaluate the significance of these coefficients. Individual members of the majority party are more advantaged with respect to roll rates than they would be if the nonpartisan depiction of the House agenda were to hold. When compared to an appropriate, theoretically-informed null, the observational equivalence between partisan and nonpartisan predictions for roll rates seems to go away. As I show in the next section, though, there is more to be said about this.

Including hypothetical partisan data

If it is possible to derive counterfactual data from party-less arguments about how the House agenda works, shouldn't it be possible to do the same thing with arguments that emphasize the agenda-setting role that the majority party plays?[18] The answer is yes, though it does get rather more complicated.

The partisan argument (or at least the version of the argument I focus on here) about the agenda is not that every member of the majority party is protected equally, but that all are protected to some degree by the creation and maintenance of the "majority party blockout zone" by a self-interested median member of the caucus (or her agents).

For the purposes of calculating *partisan* counterfactual roll rates, this means giving individuals who fall in the majority party blockout zone at or between the majority party median M_t and the floor median F_t an expected partisan roll rate, or $E_P(RR_{it})$, of zero, and giving other members roll rates that are now a function of distance from the left and right termini of the space *and of distance from the blockout zone.* An additional wrinkle is that the blockout zone implies that a portion of the policy space equal to the distance between M_t and F_t is no longer part of the possible agenda, and must therefore be removed from the calculation

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[18]I thank an anonymous reviewer for raising this question.

of the denominator. The new denominator is $AGENDA = |L - R| - (2 \times |M_t - F_t|)$. The calculations for these partisan counterfactual roll rates are shown in Equations 3 and 4.

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E_P(RR_{it}) = \begin{cases}
\frac{|L-M_t|}{AGENDA} & \text{if } MH_{it} \leq M_t - \frac{|L-M_t|}{2} \text{ and } M_t < F_t, \\[2ex]
\frac{2\times|MH_{it}-M_t|}{AGENDA} & \text{if } MH_{it} > M_t - \frac{|L-M_t|}{2} \text{ and } MH_{it} < M_t \text{ and } M_t < F_t, \\[2ex]
0 & \text{if } M_t \leq MH_{it} \leq F_t, \\[2ex]
\frac{2\times|MH_{it}-F_t|}{AGENDA} & \text{if } MH_{it} > F_t \text{ and } MH_{it} < F_t + \frac{|R-F_t|}{2} \text{ and } M_t < F_t, \\[2ex]
\frac{|R-F_t|}{AGENDA} & \text{if } MH_{it} \geq F_t + \frac{|R-F_t|}{2} \text{ and } M_t < F_t. \\[3ex]
\frac{|L-F_t|}{AGENDA} & \text{if } MH_{it} \leq F_t - \frac{|L-F_t|}{2} \text{ and } M_t > F_t, \\[2ex]
\frac{2\times|MH_{it}-F_t|}{AGENDA} & \text{if } MH_{it} > F_t - \frac{|L-F_t|}{2} \text{ and } MH_{it} < \frac{|R-F_t|}{2} \text{ and } M_t > F_t, \\[2ex]
0 & \text{if } F_t \leq MH_{it} \leq M_t, \\[2ex]
\frac{2\times|MH_{it}-M_t|}{AGENDA} & \text{if } MH_{it} < M_t - \frac{|R-M_t|}{2} \text{ and } MH_{it} > M_t \text{ and } M_t < F_t, \\[2ex]
\frac{|R-M_t|}{AGENDA} & \text{if } MH_{it} \geq M_t - \frac{|R-M_t|}{2} \text{ and } M_t > F_t.
\end{cases}
\tag{3}
$$

$$
E_P(RR_{it}) = \begin{cases}
\frac{|-1-M_t|}{AGENDA} & \text{if } DWNOM1_{it} \leq M_t - \frac{|-1-M_t|}{2} \text{ and } M_t < F_t, \\[2ex]
\frac{2\times|DWNOM1_{it}-M_t|}{AGENDA} & \text{if } DWNOM1_{it} > M_t - \frac{|-1-M_t|}{2} \text{ and } DWNOM1_{it} < M_t \text{ and } M_t < F_t, \\[2ex]
0 & \text{if } M_t \leq DWNOM1_{it} \leq F_t, \\[2ex]
\frac{2\times|DWNOM1_{it}-F_t|}{AGENDA} & \text{if } DWNOM1_{it} < F_t + \frac{|1-F_t|}{2} DWNOM1_{it} > F_t \text{ and } \text{ and } M_t < F_t, \\[2ex]
\frac{|1-F_t|}{AGENDA} & \text{if } DWNOM1_{it} \geq F_t + \frac{|1-F_t|}{2} \text{ and } M_t < F_t. \\[3ex]
\frac{|-1-F_t|}{AGENDA} & \text{if } DWNOM1_{it} \leq F_t - \frac{|-1-F_t|}{2} \text{ and } M_t > F_t, \\[2ex]
\frac{2\times|DWNOM1_{it}-F_t|}{AGENDA} & \text{if } DWNOM1_{it} > F_t - \frac{|-1-F_t|}{2} \text{ and } DWNOM1_{it} < F_t \text{ and } M_t > F_t, \\[2ex]
0 & \text{if } F_t \leq DWNOM1_{it} \leq M_t, \\[2ex]
\frac{2\times|DWNOM1_{it}-M_t|}{AGENDA} & \text{if } DWNOM1_{it} > M_t \text{ and } DWNOM1_{it} < M_t + \frac{|1-M_t|}{2} \text{ and } M_t > F_t, \\[2ex]
\frac{|1-M_t|}{AGENDA} & \text{if } DWNOM1_{it} \geq M_t + \frac{|1-M_t|}{2} \text{ and } M_t > F_t.
\end{cases}
\tag{4}
$$

Figure 3 and 4 depict the resulting data for the 103rd and 104th Congress. With a leftward/rightward majority, a set of members in the blockout zone have a roll rate of zero while members further to the left/right have roll rates weakly increasing in distance. Members opposite the blockout zone have consistently higher roll rates than they do in Figures 1 and 2 above, since even though they are not "protecting" any more of the policy space, there are fewer available successes (votes on which they vote yes and the bill passes) because of the status quos being protected by the majority party agenda setter.

As with the nonpartisan counterfactual data, it is useful to start with a difference of means test. The results are found in Table 3, and a few things are worth particular attention when comparing this to the difference of means test for the observed roll rates presented in Table 1. First, in both sets of data members of the majority party have lower roll rates, and the difference is hugely significant in each case. Second, the size of that difference is larger in the counterfactual partisan data than it is in the real-world data. Third, and crucially, the reason for this difference is not because majority party members are rolled so much less often in the counterfactual than in the real world, but rather because minority party members are rolled even more in the partisan depiction than they are in the real world.

This last point is important to keep in mind as we look at the Seemingly Unrelated Regression results presented in Table 4. An eyeball of the majority party coefficients across the two equations lends hope to the partisan story, but the test of the cross equation restriction tells a more nuanced tale. The χ^2 statistic is 1002.8. The coefficients are therefore not statistically indistinguishable, as the most ambitious expectation might suggest, though they come *much* closer than in the nonpartisan counterfactual comparison. In part, this may be because the sample size is quite large and contains repeated observations of the same units, thus deflating the standard errors.

But a more direct and more striking way to evaluate these competing theories and their predictions about roll rates is to use the two counterfactuals as regressors in a model of

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observed roll rates. Each counterfactual provides a precise prediction of the roll rate for each member of the House for each Congress, so why not let them compete head-to-head? Why not directly adjudicate between the competing agendas these counterfactuals represent? Table 5 presents three different versions of such a model. Model 1 is obviously the simplest and its findings have the most straightforward interpretation, as adding Congress fixed effects (Model 2) and even including the Constant (Model 3) while dropping the fixed effects does nothing to change the substance of the finding. Any counterfactual that *perfectly* predicted the observed data should have a coefficient of 1.0. Perhaps more importantly, for present purposes, a counterfactual that adds little or no explanatory power *when accounting for the other* should have a coefficient indistinguishable from 0.0. In Model 1, the partisan counterfactual has a positive, statistically significant, and substantively significant effect on observed roll rates (though it does not have a coefficient of 1.0), but the nonpartisan counterfactual produces a counterfactual that cannot be distinguished from 0.0.

The results are more than encouraging, but they still seem to point to the fact that something more is going on here than the basic partisan story would suggest. It helps to think about what the basic difference of means tests in Tables 1 and 3 revealed in interpreting these results. Members of the minority party seem to do better in the real world than partisan theories of the agenda would expect. But crucially, they don't seem to do so at the expense of majority party members, at least if we conceive of "harm" in terms of being rolled on final passage of bills. While this might be true of the post-WWII House of Representatives, though, the next section presents findings from an era during which the majority party could not always protect itself from such harm.

Analyzing aggregate party roll rates, and an illustration using "Reed's Rules"

Cox and McCubbins use roll rates aggregated up to the party level in many places in *Setting the Agenda*. Their analysis of individual roll rates was relegated to an unpublished supplementary chapter. First, I briefly show that the counterfactual method I use can be applied to data at this level of analysis.

Simply taking the majority party median's NOMINATE score from each Congress one can then plug them into Equation 2 above. This produces the nonpartisan counterfactual roll rate for the majority party as a whole. For the 83rd through 105th Congresses, this averages approximately 0.22, meaning that, if the nonpartisan counterfactual agenda represented the true data generating process, the majority party would be rolled about 22% of the time. This can then be compared to the observed average roll rate, which is 0.017, meaning that the majority party, as a whole, is rolled less than 2% of the time on final passage votes over the 23 Congresses in this sample. The majority is rolled at less than one-tenth the rate of the nonpartisan prediction, and the difference of means test yields a t-statistic of 17.2, which has a p-value < 0.0001.

As a compelling illustration of the findings and the method discussed throughout, I have also looked at nonpartisan counterfactual versus observed majority party roll rates before and after the introduction of a set of procedures known as 'Reed's Rules'. Introduced by Speaker Thomas Brackett Reed (R-ME), first in the 51st Congress and then for good in the 53rd, Reed's Rules were intended to limit obstruction and thereby strengthen majority party agenda power. For Cox and McCubbins (2005), the Reed's Rules Era has been characterized by the majority party's ability to exercise unconditional negative agenda power.

Here I again use the aggregated majority party roll rates. The Post-Reconstruction replication data[19] for *Setting the Agenda* start with the 45th Congress, meaning that there are only seven Congresses providing pre-Reed Era data. A fair comparison, then, is to look only at the first seven Congresses of the Reed's Rules Era, which is the 51st and the 53rd through the 58th Congresses. The findings presented in Table 5 are striking. During this earliest part of the Reed Era, observed majority party roll rates are significantly lower than the counterfactual baseline ($t = 2.26$, $p = 0.032$). This suggests that Reed's Rules had their intended effect on the House, since prior to this era, *the observed and counterfactual results cannot be statistically distinguished* ($t = 0.71$, $p = 0.252$).

This finding suggests that the House prior to Reed functioned according to something like the stylized nonpartisan model that produces the counterfactual roll rates. In other words, the

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[19]Cox and McCubbins (2007)

pre-Reed House seems to have featured a minority party that did not just block the majority from acting on its own priorities, but a minority party that (with the cooperation of some members of the majority) could sometimes act on priorities that were diametrically opposed to those of the nominal governing party.

[Table 5 about here]

Conclusion

This paper began with an invocation of the agenda as the place to find how party 'matters' Congress, followed by a discussion of roll rates as the measure from which to draw evidence, proceeding then to wrestle with problems of observational equivalence both in the specific case of roll rates analysis and more generally. From there, I proposed an approach to these problems consistent with a common bit of advice about research design: first, imagine the ideal research design you would employ if the limitations of resources and/or ethics were suspended, and then do what you can to approximate that design given the limitations you face. So while I cannot rerun each of twenty-three past Congresses with a different agenda in order to establish something akin to a control group, I *can* characterize what the roll call record might have looked like if theoretically-important alternative agendas had been the state of the world by making some simple, albeit important assumptions. To the degree that these assumptions are at all plausible, some difficult inferential problems can be overcome by producing some counterfactual data from the assumptions of competing theories and comparing them to our real world observations. Zellner's (1962) Seemingly Unrelated Regression (and related statistical techniques) can be a powerful tool carrying out such analyses.

Put in the language of statistical hypothesis testing, this approach allows for evaluating an alternative hypothesis against a theoretically-informed null hypothesis. It is too little recognized in applied statistics and econometrics, often because of the compartmentalization of theoretical and empirical work, that the null hypothesis against which we evaluate our estimated coefficient is not always and forever zero, but rather it is whatever the coefficient

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would be if the data generating process underlying some other causal mechanism were the state of the world. Sometimes that *is* zero, but often it is not. Not every debate in political science can yield such precise competing predictions, but where they can be found, scholars should find ways to address them in their research designs and empirical models.

As it turns out, neither a nonpartisan nor a partisan depiction of agenda politics in the House produces counterfactual roll rate data that are statistically indistinguishable from real world data. The partisan counterfactual is certainly closer, given that the coefficient for the majority party for the nonpartisan counterfactual is a full order of magnitude smaller than for the real world data. But there is clearly more to the data generating process underlying these data than partisan theories would suggest. Most interestingly, this finding suggests that advocates of partisan theories underestimate the consensual nature of a good deal of the agenda.

Extensions of this research could do a few things. First would be to consider more nuanced nonpartisan depictions of the agenda—at least more nuanced than a depicting the process as a random draw of status quos from a uniform distribution. While the nonpartisan argument I argued against here is simplistic, it has its support in the literature, especially as a depiction of how a nonpartisan process of agenda construction might play out in the particular institutional environment of the House of Representatives. Indeed, a look at the mid- to late-19th Century reveals that something approximating the nonpartisan counterfactual *has* characterized the agenda politics of the House, and that it may have been the catalyst for important institutional changes that are still shaping the House of Representatives today.

Other extensions could deal more with finite vs. infinite policy spaces both in terms of breadth and in terms of density. The import of a 'horizontally' restricted policy dimension is underexplored in the literature. Not wanting to rig the game in my favor, I have stuck to $[-1, 1]$ policy space, but the 'fit' of the partisan roll rates as depicted in Figures 3 and 4 would be much improved by expanding the breadth of the space (see Appendix B). To the extent that we buy this depiction of the agenda, though, this approach might allow us to empirically the breadth of the space, Congress-by-Congress, by shifting the space until the fit of the partisan

counterfactual was maximized. Beyond that, the notion that new policies adopted at time t become status quos at time $t + 1$ is important, and dealing with it is potentially tractable using a simulation or agent-based modeling approach.

Setting aside the work to be done, though, this paper seems to have these important methodological, theoretical, and substantive implications. Methodologically, generating counterfactual data from the assumptions of competing theories and comparing them to our real world observations can help overcome some difficult inferential problems. Theoretically, this paper has (hopefully) contributed to our growing understanding of how even 'weak' legislative parties can generate significant bias in political outcomes. Substantively, pundits, journalists, and even citizens interested in notions of party government, political representation, and democratic accountability could benefit from this sort of counterfactual thinking.

Acknowledgments

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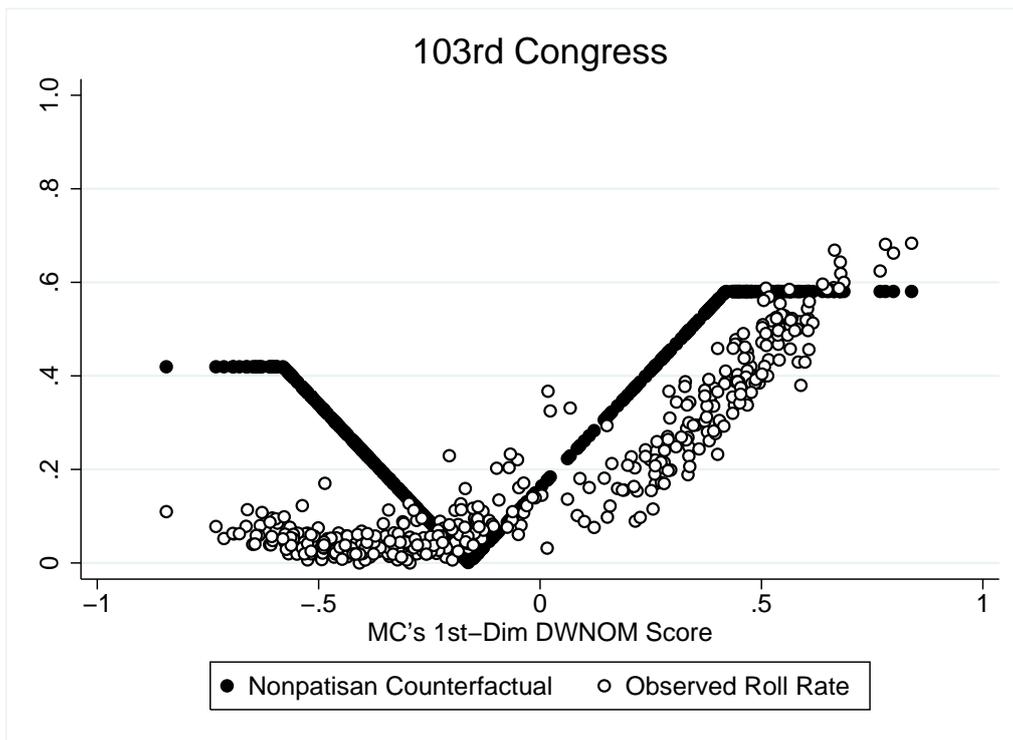
Figure 1: Counterfactual Nonpartisan Roll Rates, 103rd Congress.
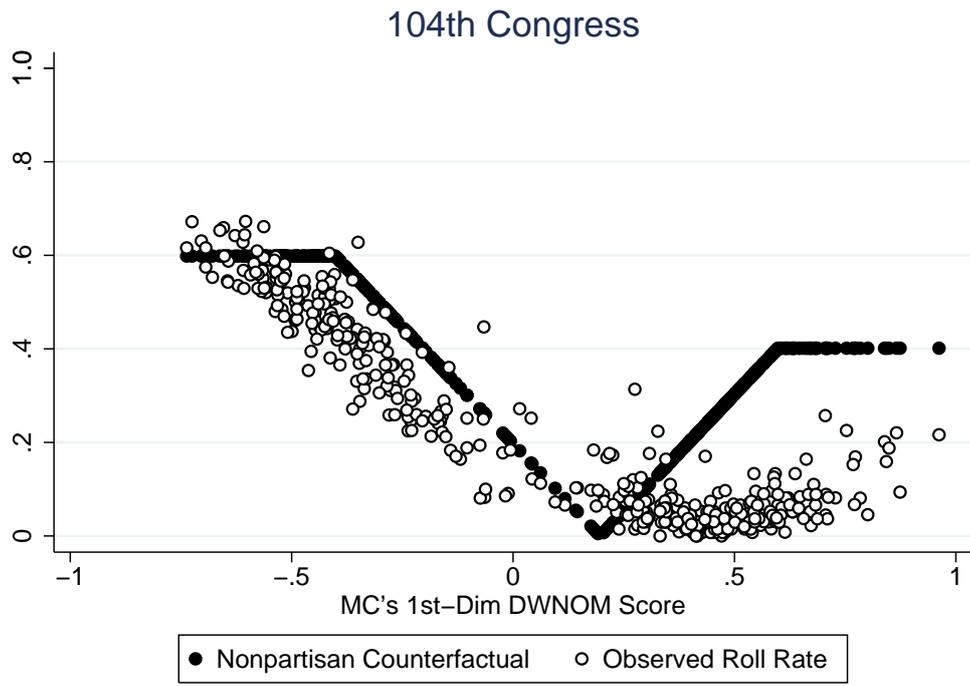
Figure 2: Counterfactual Nonpartisan Roll Rates, 104th Congress.

Table 1: Difference of Means—Observed and Nonpartisan Counterfactual Majority and Minority Party Roll Rates, 83rd-105th Congress

Group	Mean	Standard Error	N
Majority Member	0.110	0.0012	5927
Minority Member	0.297	0.0025	4128

$$t = 73.44$$
Degrees of freedom $= 10053$
p-value < 0.001

Group	Mean	Standard Error	N
Majority Member	0.250	0.0019	5927
Minority Member	0.367	0.0027	4128

$$t = 35.65$$
Degrees of freedom $= 10053$
p-value < 0.001

Table 2: Seemingly Unrelated Regression - Observed vs. Nonpartisan Counterfactual Roll Rates, 83rd-105th Congress

Equation	N	Parms.	RMSE	R^2	χ^2	p
Counterfactual	10055	24†	0.044	0.93	131807.70	<0.0001
Observed	10055	25†	0.105	0.55	12082.12	<0.0001

Coef. (Std. Err.)

Nonpartisan Counterfactual Roll Rate

Majority Party ($\hat{\beta}_1$)	-.013 (.001)*
Distance from Floor Median ($\hat{\beta}_2$)	.796 (.002)*
Constant ($\hat{\alpha}$)	.064 (.002)*

Observed Roll Rate

Majority Party($\hat{\beta}_1$)	-.147 (.002)*
Distance from Floor Median ($\hat{\beta}_2$)	.325 (.006)*
Constant ($\hat{\alpha}$)	.145 (.006)*

*denotes significance at < 0.05

Diagnostics:

$$\text{Correlation of Residuals} = -.235$$
$$\text{Breusch-Pagan Test of Independence:}$$
$$\chi^2_1 = 168.04$$
$$p\text{-value} < 0.0001$$

Test of Cross-equation Restrictions:

$$H_\varnothing: \hat{\beta}_{1_{Counterfactual}} = \hat{\beta}_{1_{Observed}}$$
$$\chi^2_1 = 2544.55$$
$$p\text{-value} < 0.0001$$

†While included in the model, Congress fixed effects are suppressed for the sake of presentation.
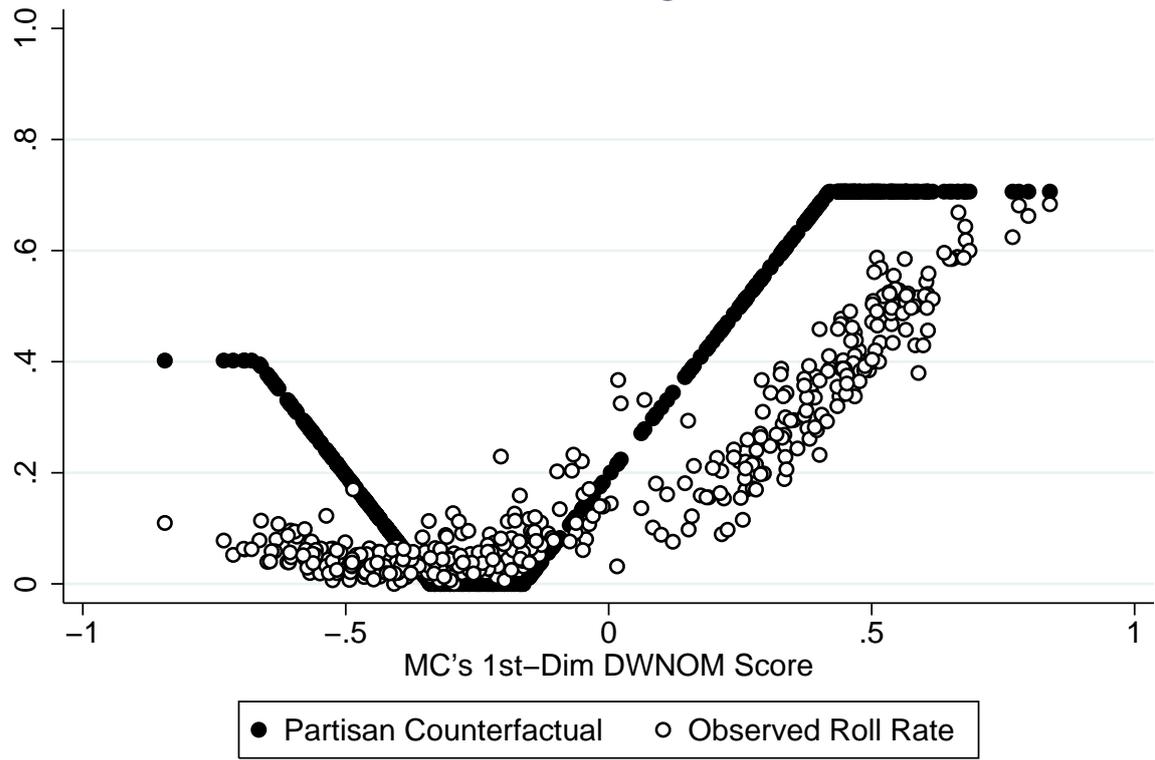
Figure 3: Counterfactual Partisan Roll Rates, 103rd Congress

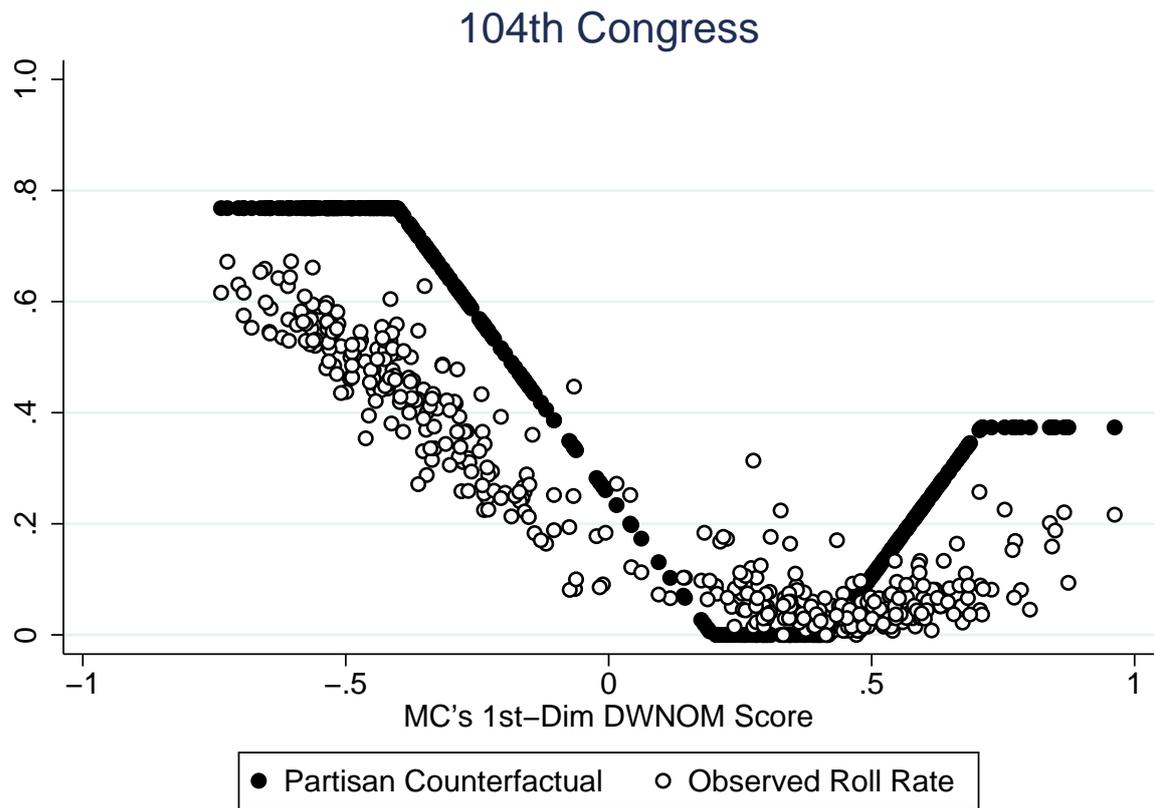Figure 4: Counterfactual Partisan Roll Rates, 104th Congress

Table 3: Difference of Means—Partisan Counterfactual Majority and Minority Party Roll Rates, 83rd-105th Congress

Group	Mean	Standard Error	N
Majority Member	0.138	0.0019	5927
Minority Member	0.465	0.0032	4128

$$t = 91.8$$
$$\text{Degrees of freedom} = 10053$$
$$p\text{-value} < 0.001$$

Table 4: Seemingly Unrelated Regression - Observed vs. Partisan Counterfactual Roll Rates, 83rd-105th Congress

Equation	N	Parms.	RMSE	R^2	χ^2	p
Counterfactual	10055	24†	0.084	0.87	69858.7	<0.0001
Observed	10055	24†	0.105	0.55	12082.12	<0.0001

	Coef. (Std. Err.)
Partisan Counterfactual Roll Rate	
Majority Party ($\hat{\beta}_1$)	-.218 (.002)*
Distance from Floor Median ($\hat{\beta}_2$)	.827 (.004)*
Constant ($\hat{\alpha}$)	.142 (.004)*
Observed Roll Rate	
Majority Party($\hat{\beta}_1$)	-.147 (.002)*
Distance from Floor Median ($\hat{\beta}_2$)	.325 (.006)*
Constant ($\hat{\alpha}$)	.145 (.006)*

*denotes significance at < 0.05

Diagnostics:

Correlation of Residuals = .413
Breusch-Pagan Test of Independence:
$$\chi^2_1 = 1713.6$$
p-value < 0.0001

Test of Cross-equation Restrictions:

$$H_\varnothing: \hat{\beta}_{1_{Counterfactual}} = \hat{\beta}_{1_{Observed}}$$
$$\chi^2_1 = 1002.82$$
p-value < 0.0001

†While included in the model, Congress fixed effects are suppressed for the sake of presentation.

Table 5: OLS Regression - Modeling Observed Roll Rates as a Function of Two Counterfactuals, 83rd-105th Congress

DV: Observed Roll Rate	Expectiation	Model 1 Coef. (S.E.)	Model 2 Coef. (S.E.)	Model 3 Coef. (S.E.)
Nonpartisan Roll Rate	+	.007 (.014)	-.394* (.178)	-.398* (.018)
Partisan Roll Rate	+	.593* (.013)	.723* (012)	.720* (.012)
Constant	n/a	-	-	.108* (.004)
$N =$		10055	10055	10055
$R^2 =$		.797	.857	.6077

* denotes significance at $p < 0.05$. All S.E. adjusted for clustering on the Member. Congress fixed effects in Model 2 not shown.

Table 6: Difference of Means—Counterfactual vs. Observed Majority Party Roll Rates

<table>
<tr><td colspan="4" align="center">45th-50th & 52nd Congresses
(Post-Reconstruction, 'Pre-Reed' Congresses)</td></tr>
<tr><td>Group</td><td>Mean</td><td>Standard Error</td><td>N</td></tr>
<tr><td>Counterfactual</td><td>0.170</td><td>0.020</td><td>7</td></tr>
<tr><td>Observed</td><td>0.149</td><td>0.040</td><td>7</td></tr>
</table>

$$t = 0.71$$
$$\text{Degrees of freedom} = 6$$
$$p\text{-value} = 0.252$$

<table>
<tr><td colspan="4" align="center">51st & 53rd-58th Congresses
(First Seven Congresses of the 'Reed's Rules Era')</td></tr>
<tr><td>Group</td><td>Mean</td><td>Standard Error</td><td>N</td></tr>
<tr><td>Counterfactual</td><td>0.136</td><td>0.016</td><td>7</td></tr>
<tr><td>Observed</td><td>0.052</td><td>0.031</td><td>7</td></tr>
</table>

$$t = 2.26$$
$$\text{Degrees of freedom} = 6$$
$$p\text{-value} = 0.032$$