Using the *Amici* Network to Measure the Ex Ante Ideological Loading of Supreme Court Cases

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I propose an amici-based measure of the ideological loading of the cases the Supreme Court hears. For a given Court case, I determine the extent to which the pattern of amicus-based ties in this case reflect the historical tie patterns observed with the involved organized interests. Assuming that these historical patterns of ties between organized interests reflect the ideological positions of these interests, the degree to which the pattern of ties in a particular case match the historical pattern indicates how clearly the case loads onto a typical ideological dimension. After developing and summarizing this measure in detail, I compare it with several existing measures that have been suggested as switching the justices' ideological predispositions on and off. I then demonstrate that the validity of this new measure of ideological loading by showing that it conditions the effect of the justices' policy preferences on their votes on the merits. I conclude with a discussion of the potential applications of this new measure.

The connection between the ideological leanings of the justices and their choices on the bench is *the* central theoretical claim, model-generating assumption, and empirical regularity found in the political science literature on the U.S. Supreme Court (see Epstein and Knight 1998; Segal and Spaeth 2002). Decades-worth of evidence suggests that the justices' preferences influence the decision to hear cases (e.g., Caldeira, Wright, and Zorn 1999), votes on merits of cases (e.g., Segal and Spaeth 1992), the opinion-writing process (e.g., Maltzman, Spriggs and Wahlbeck 1998), and treatment of existing precedent (e.g., Hansford and Spriggs 2006).

While acknowledging the central importance of policy preferences, recent scholarship seeks to assess the extent to which the expressions of the justices' ideological motivations might be conditioned by various considerations. Much of this work focuses on how variation in legal doctrine (e.g., Bailey and Maltzman 2008; Bartels 2009; Richards and Kritzer 2002; cf. Lax and Rader 2010) or separation-of-powers constraints (e.g., Segal, Westerland, and Lindquist 2011; cf. Owens 2010) might attenuate sincere ideological behavior. There has also been a move, however, to identify the issue areas or case-specific variables that might adjust the effect size of ideology in models of judicial decision making (Bartels 2011; Collins 2008a; Kaheny, Haire, and Benesh 2008).

Despite this attention to the varying effect of judicial preferences , these studies of Supreme Court decision-making typically assume that all the cases the Court hears present a legal question or set of case facts that consistently stimulate the justices' ideological beliefs in the same way. Put differently, it is assumed that each case loads equally onto an underlying ideological dimension. To the extent that scholars have relaxed this assumption, there has been a reliance on indicators of the ideological nature of a case that are overly general (such as general legal issue area), ex post and possibly endogenous (such as media coverage of the decision), and

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not particularly parsimonious (i.e., relying a battery of case characteristics). Thus, despite great progress in identifying the situations in which the justices might be constrained when pursuing their policy preferences, there has been insufficient attention to the nature of the Court's raw case input.

This lack of a clear, parsimonious, and portable measure of the ideological loading of the cases that the Supreme Court hears has important implications for models of behavior and decision-making on the Court. For example, if the underlying ideological nature of cases is unknown and this ideological nature correlates with any of the variables that scholars expect to constrain the decisions of the justices, then there is the real possibility of identifying spurious relationships that appear to be evidence of constraint. By establishing the ideological loading of cases, researchers will be better able to test the presence of legal or external political constraint on the Court. More generally, it will be possible to identify the cases in which the justices ought to behave ideologically and then assess the conditions under which they do not do so.

In the spirit of recent advances in the measurement of the policy content of the Supreme Court's output (e.g., Clark and Lauderdale 2010; McGuire et al. 2009), I propose an amicus-based measure of the ideological loading of the Court's input - the cases the Court hears. These amicus curiae filings by organized interests can be used to reveal the ties between these interests (Hansford 2011). These ties are considered positive when interests file briefs in support of the same position and negative when they file briefs in support of opposing positions. For a given Supreme Court case, it is possible to determine the extent to which the pattern of amicus-based ties in the case reflect the historical tie patterns observed with the involved interests. Assuming that these historical patterns of ties between organized interests reflect the ideological positions of these interests, the degree to which the pattern of ties in a particular case match the historical

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pattern indicates how clearly the case loads onto a typical ideological dimension. Put differently, if the organized interests on one side of a case have strong positive ties with each other and strong negative ties with the interests on the other side of the case then this incoming case likely has a strong ideological component to it. On the other hand, if organized interests that generally oppose one another line up on the same side of a particular case then this reveals that the case does not cleave ideologically, at least in a traditional sense.

After developing and summarizing this measure in detail, I compare it with several existing measures that have been suggested as turning on the justices' ideological predispositions. I then demonstrate that the validity of this new measure of ideological loading by showing that it conditions the effect of the justices' policy preferences on their votes on the merits. I conclude with a discussion of the potential applications of this new measure.

The Varying Effect of Judicial Ideology

Ideological models of judicial decision-making generally assume that all cases, or at least all cases within an issue area, map equally well onto an ideological dimension. For each case, there are clear, and opposing, conservative and liberal outcomes. In statistical models of Court decision making, this often means that a variable representing the policy preferences of the justices is treated as having constant effect. Though many contemporary studies test whether legal or external political constraints might condition the effect of judicial ideology, these models assume that *sincere* preferences are equally activated across cases and that if constraints were removed then a single, unconditional coefficient would capture the effect of these preferences on outcomes.

Much of the time, it is likely reasonable to assume that the cases the Court hears have a substantial ideological component to them. There will be cases, however, that do not clearly

load onto a single ideological dimension. Some cases present legal questions solely implicating a policy dimension that is orthogonal to the typical left-right continuum. Some cases involving patent law disputes, for example, might fall into this category. Alternatively, some Court cases involve multiple policy dimensions that have ideological content but are cross-cutting. To illustrate, Commerce Clause power has been pitted against the legalization of medical marijuana and the right to protest has been pitted against access to abortion clinics.[1] Sincere voting in either type of case may be less well explained by the ideological location of the justices, not due to any sort of constraint but due to inputs (i.e., cases) that do not heavily load onto a clear or single ideological dimension. It should also be noted that these cases should not be considered apolitical or failing to involve interests, a key point for the measure introduced below.

A handful of recent studies relax the assumption that all cases activate the attitudes of the justices in a similar way. Some introduce case-specific variables that might condition the effect of ideology on voting while others test whether the error variance of vote choice models varies systematically based on a similar set of variables (Collins 2008a; Kaheny, Haire, and Benesh 2008).[2] These scholars propose a number of different variables that might turn on or turn off the effect or explanatory power of judicial ideology, the most common of which is salience. There are two ways these recent studies conceptualize salience: issue-specific or case-specific. With the former, scholars posit issue areas, such as civil rights or civil liberties, that they believe are particularly salient to the justices and thus will lead to stronger ideological voting (e.g., Kaheny, Haire, and Benesh 2008). For the latter, scholars use media coverage of a Court decision to

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[1] See *Gonzalez v. Raich* (2005) and *Hill v. Colorado* (2000), respectively.

[2] Unlike the other research discussed here, Kaheny, Haire, and Benesh (2008) focus on voting on the U.S. Courts of Appeals.

measure the salience of the case (e.g., Bartels 2011; Collins 2008a; Epstein and Segal 2000; Unah and Hancock 2006).

There are significant problems with using either measure of salience as an indicator of the degree to which a case loads onto an ideological dimension. Specifying entire, broad issue areas as being particularly ideological is both overly general and somewhat theoretically unsatisfying. Relying on media coverage of decisions to reveal the salience of these decisions is problematic because this coverage occurs after the Court's decision. The salience of the Court's output is likely a function of both the *ex ante* salience of the incoming case and what the Court does with this case. To some degree, the Court's decision causes this salience measure, which is a problem if this measure is being used to explain decision-making on the Court.[3]

On a more conceptual-level, there is a good deal of ambiguity about what issue salience actually means and how it might condition the effect of judicial ideology. On the one hand, if salience is roughly equivalent to the ideological loading of the case then it ought to amplify ideological voting. On the other, if issue salience implies the greater social or political salience of the case then it may be in this type of case that the justices would be concerned with the preferences of external political actors. Issue salience likely has both internal and external components which might be expected to have countervailing effects on the importance of judicial ideology.

Other case-level variables that scholars suggest might condition the importance of judicial ideology include case complexity (Collins 2008a), the vote split in the lower court (Bartels 2011), and whether a state or federal law has been challenged (Bartels 2011). As with

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[3] The oft-used Epstein and Segal (2000) measure can also be criticized for being coarse, as it is a binary indicator of whether the front page of the New York Times covered the Court decision (Collins and Cooper N.d.).

the salience measures, these indicators are at best rough proxies for the ideological loading of a case and are likely entangled with potential constraints on the Court. For example, whether the constitutionality of a federal law is at stake will potentially cause congressional constraint on Court decision making (Segal, Westerland, and Lindquist 2011).

Finally, patterns in the justices' votes could indicate how ideological a case is. If their votes are "disordered," then this might imply that the case does not cleanly map onto a traditional ideological dimension (Edelman, Klein, and Lindquist 2008). Bailey and Maltzman (2008) estimate a model of legal constraint that includes a vote discrimination parameter which could be viewed as indicating the ideological loading of a case. Neither approach provides a way to measure the *ex ante* loading of a case though, since they rely on the justices' votes.

Thus, despite the suspicion that not all cases will equally activate the sincere ideological predispositions of the justices, there does not exist a clear, theoretically-motivated measure of the extent to which cases map onto an ideological dimension. It should be emphasized, though, that these measures were not necessarily developed in order to measure the fundamental ideological nature of a Court input, so it is perhaps a bit unfair to expect them to meet the above criteria.

Measuring Ideological Loading

As suggested by the above discussion, a useful measure of the ideological loading of a case should be 1) theoretically connected to the concept of ideological loading, 2) based on information that temporally precedes the justices' votes in the case (or potentially any other behavior in the case, with the exception of the granting of cert.), 3) independent of any potential legal/SOP constraints, 4) finely-grained, and, preferably, 5) parsimonious. A sincere initial vote on the merits of the case by interested parties who do not face potential legal or separation of powers constraints could determine the ideological loading of a case in a manner satisfying these

criteria. Clearly ideological pre-votes would reveal that the case maps easily onto an ideological dimension. Less ideological pre-votes would suggest that the case, at least as it arrives at the Court, does not fall clearly onto an ideological dimension.

Fortunately, these sincere pre-votes effectively exist for many Supreme Court cases, as this is what organized interests essentially do when they file amicus curiae briefs on the merits of Court cases. In these briefs, organized interests advocate a position (i.e., to reverse or affirm the lower court decision) and there is no reason to expect that these positions are influenced by anything other than the interest's sincere position on the issue raised by the case. Legal or separation of power considerations might affect the type of arguments made in support of a position, but they should not influence the fundamental position taken on the merits. Patterns of amicus curiae brief filings may thus be able to reveal the degree to which the legal question at the heart of a Court case falls onto a typical ideological dimension. If the case stimulates organized interests to take ideologically-recognizable positions, then this should indicate that the case has a high degree of ideologically loading.

Exactly how can amicus curiae patterns be used to create a measure of ideological loading? The short answer is that these filing patterns can be treated as constituting a network composed of interests connected by positive and negative ties. The pattern of positive and negative ties between interests in a particular Court case can then be compared with the overall pattern of ties amongst interests in the full network to determine whether the case splits interests in a typical, meaning ideological, manner. The next two sections discuss the network of organized interests filing amicus curiae briefs at the Court and then identify a specific, network-based measure of the ideological loading of cases.

The Legal Advocacy Network

A social network is composed of nodes and the ties that link them. Here, I treat

organized interests as the nodes and the filing of amicus curiae briefs on the merits of the same

Supreme Court case as ties (see Hansford 2011).[4] Consistent with Caldeira and Wright (1990)

and Schlozman and Tierney (1986), I cast a very wide net here and consider any organized entity

to be an organized interest. I thus include, for example, public interest groups, unions,

governments, businesses, business associations, professional associations, and universities as

nodes in the network. I exclude at this point only individuals who filed or cosigned an amicus

brief as an individual.[5]

To quickly illustrate the concept of amicus-based ties between organized interests,

consider two active, well-known interests: the ACLU and the NAACP's Legal Defense and

Educational Fund (LDF). If both interests filed an amicus curiae brief in Supreme Court case *A*

then I consider this as a "tie" between the two interests. If the ACLU and the LDF take the same

position on the merits of the case (i.e., they both argue for reversal of the lower court or they

both argue that the decision should be affirmed) then this is a *positive* tie between the interests.

If, on the other hand, these two interests take opposing positions on the merits of case *B* then this

is a *negative* tie.[6] From the 1953 through 2008 Court Terms, the ACLU and LDF have a total of

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[4] An alternative approach would be to only treat the cosigning of an amicus brief as a tie (Box-Steffensmeier and Christenson 2010), though this would not allow for the creation of the measure below and it is not clear that exclusively relying on cosigning ties is the best overall approach to the amici network at the Court (see Hansford 2011).

[5] This approach is also consistent with Gibson (1997).

[6] The vast majority of the amicus briefs take a clear position on the merits of the case (e.g., support the petitioner). Approximately five percent of the briefs, however, do not take a position. It cannot be safely assumed that all "neutral" briefs in a case imply a positive tie between the interests filing these briefs. It can be assumed, however, that all cosigners of a neutral brief share a positive tie. Thus, I code a positive tie for all cosigners of a neutral brief

81 positive ties and one negative tie. The preponderance of positive ties between these organized interests is not surprising. of course, as they are typically considered ideologically proximate.

I rely on three sources to construct the full network of interests who have filed amicus curiae briefs at the Supreme Court. First, the *United States Supreme Court Judicial Database - Phase II* (Gibson, 1997) provides data on the amicus curiae briefs submitted on the merits for the 1953 through 1985 terms of the Supreme Court.[7] These data only include up to 11 cosigners per brief, so for all briefs that had at least 11 cosigners I used Lexis and *Briefs and Records of the United States Supreme Court* to identify additional cosigners. For the 1986 through 2008 terms, I relied exclusively on Lexis and *Briefs and Records of the United States Supreme Court* to identify all amici. A total of 16,601 organized interests filed amicus curiae briefs during the 1953-2008 Court terms.

As described above, the amicus curiae brief data were then used to identify positive and negative ties between organized interests for a particular case. These ties are then aggregated across the more than fifty terms, so that for any given organized interest dyad (such as the ACLU - LDF dyad) there is a count for the total number of positive ties and total number of negative ties. This yields a total of 1,159,318 unique interest dyads that have a non-zero number of either positive or negative ties. Thus, with these data I can identify the overall tie-patterns for the organized interests involved in any given Supreme Court case.

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but do not include ties between neutral briefs. I also do not view interests on a neutral brief as having negative ties with either pro-petitioner or pro-respondent interests. The positive ties resulting from neutral briefs in case *c* are not used for measuring the loading of case *c*, but do contribute the historical tie patterns between interest dyads which are then used when generating the measure.

[7] There is not much to be gained by including the pre-1953 terms as there were not many amicus briefs filed during that period of time.

Since I will be leveraging the tie patterns resulting from amicus curiae filings in cases other than the case under analysis to measure the ideological loading of the this case, interest dyads with fewer than two ties are dropped from the data. This leaves a total of 225,057 unique interest dyads that are informative in the sense that for any given Court case in which a dyad is tied there exists at least one other tie between these two interests (due to their joint participation in at least one other case).

A Network-Based Measure of Ideological Loading

With these network data I can determine whether a particular Supreme Court case cleaves organized interests in a typical way, as long as there was amicus curiae involvement by at least one of the 225,057 informative interest dyads. If this "pre-vote" by organized interests reveals a standard ideological pattern, then this case can be viewed as having a high degree of ideological loading. If this pre-vote is relatively atypical in the sense that the involved organized interests deviate from joining their traditional allies or opposing their traditional opponents, then the case has a low degree of ideological loading. The extent to which a dyad involves a pair of allied (i.e., ideologically similar) interests as compared to a pair of opposed (i.e., ideologically distant) interests is determined by their aggregate positive and negative ties in other Court cases.

The specific measure of the ideological loading of a given Court case c is:

$$Ideo.\,Loading_c = \frac{1}{2P}\left(\sum_{p=1}^{P} \frac{(pos\ ties_p - neg\ ties_p)}{max\ ties_p}\right) + \frac{1}{2N}\left(\sum_{n=1}^{N} \frac{(neg\ ties_n - pos\ ties_n)}{max\ ties_n}\right)$$

where,

p = a positively-tied amici dyad in c
P = the total number of unique positively-tied amici dyads in c
$pos\ ties_p$ = the number of positive ties for p, excluding those in c
$neg\ ties_p$ = the number of negative ties for p
$max\ ties_p$ = the maximum possible number of ties for p[8]
n = a negatively-tied amici dyad in c
N = the total number of unique negatively-tied amici dyads in c
$neg\ ties_n$ = the number of negative ties for n, excluding those in c
$pos\ ties_n$ = the number of positive ties for n
$max\ ties_n$ = the maximum possible number of ties for n

The first part of this expression assesses the extent to which the organized interests that

are on the same side of case c generally share positive ties, as compared to negative ties. The

second part quantifies the degree to which the organized interests opposing each other in case c

generally share negative ties with each other. The resulting measure, *Ideological Loading*, can in

theory range from -1 to 1, with the latter indicating maximum possible ideological loading. The

lowest observed value is -.5 and the highest is 1. To provide for cleaner interaction terms in

subsequent analyses the distribution of this measure is shifted upwards by .5, thus avoiding

negative values (which can be problematic when interacted with other potentially negative

values, such as the Martin-Quinn scores). Thus, the final observed range of values for

Ideological Loading is 0 to 1.5.

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[8] For a dyad composed of interests x and y that, excluding the case at hand, have filed a and b amicus briefs, the value of max ties is a if $a \leq b$ and b if $b < a$.

To provide a better understanding of this measure, Figure 1 presents an incomplete, but illustrative, graphical summary of two relatively recent Supreme Court cases: *United States v. Eurodif* (2009) and *Boumediene v. Bush* (2008). For each case, a selection of the organized interests that filed amicus curiae briefs are listed. To avoid making this figure particularly messy, full lists of the amici are not presented. The solid lines connecting interests represent positive ties between the interests from other cases in which they were involved. Dashed lines represent negative ties from other cases. Line thickness corresponds with the total number of that type of tie between the interests, though these thicknesses should not be compared across the two cases as they are scaled differently due to the much larger number of ties between the interests in the *Boumediene* case.

*** Figure 1 Here ***

In *Eurodif*, there are positive ties between organized interests supporting the petitioner and the interest supporting the respondent. There are, in fact, more positive ties than negative between the interests opposing one another in this case. There are positive ties between the interests is support of the petitioner, but there is also a negative tie between the AFL-CIO and the American Iron and Steel Institute. *Ideological Loading* for this case is low (.034, which is in approximately the 4th percentile), as these ties do not indicate a clear set of ideologically cohesive interests on either side of the legal issue presented. This makes sense, given that the case involves a legal question that does not immediately appear to provoke an ideological response - whether an "anti-dumping" (meaning the dumping of a product into a market) provision in the Tariff Act of 1930 applies to the importation of uranium. Perhaps not coincidentally, the Court was unanimous in its decision and not a single separate opinion was published.

In contrast, the alignment of the interests involved in *Boumediene* suggest a more ideologically-loaded legal question is at stake. There is a substantial number of positive ties among the organized interests supporting Boumediene's position and there is an even greater number of positive ties among the interests supporting the executive branch. For example, the Allied Educational Foundation and Washington Legal Foundation, both of which typically engage in advocacy for conservative policies, have 95 positive ties between them. There is also a preponderance of negative ties between the interests who oppose each other in this case. The ACLU, for instance, has 45 negative ties (as compared to three positive ties) with the Criminal Justice Legal Foundation and 50 negative ties (compared to 11 positive ties) with the Washington Legal Foundation. This case clearly pitted two sets of interests that typically disagree about the protections due to those who may be suspected of criminal or, in this particular case, terrorist activities. The *Ideological Loading* for this case is 1.04, which is in almost the 99th percentile of the measure. This case was decided 5-4, with the justices splitting along what would appear to be ideological lines.[9]

The overall distribution for *Ideological Loading* is presented in Figure 2. Because not all Supreme Court cases have had at least two amici curiae who have also participated in other cases (i.e., the bare minimum necessary to generate the measure), there are many Supreme Court cases for which *Ideological Loading* cannot be measured using amicus curiae network data. This is particularly true for the earlier terms in this analysis. Thus, two distributions of this measure are presented, one for the 1953 through 1979 terms and one for the 1980 through the 2008 terms. From the 1980 term onward, *Ideological Loading* is non-missing for the majority of the Court's

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[9] The majority was composed of Justices Breyer, Ginsburg, Kennedy, Souter, and Stevens. The minority included Justices Alito, Roberts, Scalia, and Thomas.

cases in each and every term. The kernel density estimates of the distribution of *Ideological*

Loading suggests that this measure is fairly close to being normally distributed, particularly for

the latter time period. The center of the distribution is somewhat higher than (i.e., to the right of)

that for the earlier time period.

*** Figure 2 Here ***

Figure 3 provides both the rate of coverage of *Ideological Loading* and its mean value

over all the Court terms considered. As this figure reveals, this measure has relatively poor

coverage during the earlier terms, meaning that for most Court cases *Ideological Loading* is

missing due to an insufficient number of informative amici. For the last few decades, though,

coverage is much better and *Ideological Loading* is not missing for most cases.

*** Figure 3 Here ***

The existence of this measure's imperfect coverage raises two questions. Are missing

values randomly distributed or are they informative? Do these missing values reduce the

usefulness of the measure? The answer to the former is almost certainly that missing values are

not randomly distributed. When testing whether *Ideological Loading* conditions the effect of

judicial ideology, though, it will be possible to estimate the effect of ideology when *Ideological*

Loading is missing. Regarding the second question, it would be preferable if this measure

offered perfect coverage over all Supreme Court cases during the whole time span. Again,

though, it is still possible to include all cases in analyses, as I do below, as long as the

"missingness" is incorporated into the models. Essentially, all cases for which *Ideological*

Loading is missing are pooled together and assumed to have the same unknown, but estimable,

effect on the dependent variable in question.

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The only problem with this approach is that it assumes that all missing cases have the same latent value of *Ideological Loading*. Of course, this is a bigger issue with the other potential measures of loading, such as whether a case was covered on the front page of the *New York Times*. With a binary measure such as this, there will be a great deal heterogeneity within each of the two potential values of the variable. Thus, while ideally there be no missing values of the new measure developed here, it still represents a substantial improvement over coarser and less theoretically appropriate alternatives.

A second issue that needs to be discussed is my assumption that the typicality of the amici tie patterns in a Court case reveals to the researcher an otherwise difficult to measure characteristic of the case - the ideological loading of the case. Is it possible, however, that these tie patterns themselves, regardless of the latent ideological loading of the case, directly cause the justices to behave more ideologically? In other words, do these tie patterns just allow for a measure of a latent variable, ideological loading, or do these tie patterns exert a causal effect on judicial behavior? To be clear, the measure I develop assumes that these patterns in the ties of involved organized interests reveal the nature of the cases. I do not contend that the justices observe these tie patterns and then adjust their behavior. While some scholars contend that the relative number of amicus briefs filed on each side of a case might influence the Court's decision in the case (e.g., Collins 2008b), no one argues that tie patterns has any direct effect on judicial behavior. It is much more likely that the positions taken by organized interests are determined by the fundamental nature of the case than the opposite.

Comparison with Other Measures

How does *Ideological Loading* map onto the salience measures that could possibly be considered as alternative measures of the ideological relevance of a case? One way to answer

this question is to regress *Ideological Loading* onto the set of alternative measures, with Supreme Court case as the unit of analysis. Four of the independent variables in this model are issue-based, meaning that they are dummy variables indicating whether a certain general legal issue area is involved in the case. These four dummy variables are *Civil Liberties Issue*, *Civil Rights Issue*, *Federalism Issue*, and *Economics Issue*.[10] I also include *Judicial Review - Federal* and *Judicial Review - State*, which indicate whether the case considers the constitutionality of a federal or state action, respectively (see Spaeth 2011). *Lower Court Dissent* equals one if the Court notes that there was a dissent in the lower court decision (se Spaeth 2011). *Number of Amicus Curiae Briefs* is a count of all the amicus briefs filed on the merits of the case.

Epstein and Segal's (2000) measure of case salience, whether the front page of the New York Times covered the Court's decision in the case (*New York Times Coverage*), exists through the 1999 Term. I thus estimate two models, one without this variable that utilizes all cases with non-missing values of Ideological Distance from the 1953-2008 Terms and one with this variable that ends with the 1999 Term. Both models include fixed effects for the decade in which the case was heard. The results for these two models are presented in Table 1.

*** Table 1 Here ***

Interestingly, there is little evidence that many of these other indicators that scholars have used to measure some sort of case salience correlate with the amici network-based measure of the ideological loading of a case. The issue area variables are the exception. Cases involving civil liberties, civil rights, or federalism issues score higher on *Ideological Loading*. This makes a good deal of sense, since these are issue areas that are generally viewed as being particularly

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[10] These are derived from Spaeth's (2011) Issue Area variable. The excluded category includes a number of general issue areas that are likely to be relatively non-ideological, such as "Attorneys."

ideological. The commonly used *New York Times Coverage* variable, however, does not correlate with the loading measure and this is likely due to media coverage focusing on cases in which the Court *decision*, not the incoming *case*, is particularly important (e.g., a governmental action has been declared unconstitutional).

Validity Test: Does *Ideological Loading* Condition the Effect of Judicial Ideology?

Overall, the results in Table 1 make it clear that *Ideological Loading* is not redundant with conventional indicators of case salience. That said, does this new measure actually tap the degree to which a Court case projects onto a traditional ideological dimension? If *Ideological Loading*, as I have measured it, reveals the ideological nature of a case as it arrives at the Court, then it should condition the extent to which the ideology of the justices affects their votes on the merits of these cases. Specifically, as *Ideological Loading* increases, so should the magnitude of the effect of judicial ideology.

To test this expectation, I estimate four individual-level models of the justices' votes on the merits. Models 2.1 and 2.3 use Martin and Quinn's (2002) measure of the ideology of the justices (*Justice Ideology*) while Models 2.2 and 2.4 use Segal and Cover's (1989) measure of judicial ideology. The comparative advantage of the Martin and Quinn scores is that can vary over time for a given justice while the comparative advantage of Segal and Cover's measure is that it is exogenous to the votes of the justices. Models 2.1 and 2.2 use only the votes in cases for which there is a non-missing value for *Ideological Loading* while Models 2.3 and 2.4 use all the votes in all the cases from the 1980 through 2008 Terms, regardless of whether *Ideological Loading* is missing. I do not use the earlier terms for this model due to the predominance of missing values of the loading variable.

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The dependent variable in these models equals one if the justice voted liberally in the case in question, per Spaeth (2011). To make them consistent with the Segal-Cover scores, the Martin-Quinn scores are reversed so that positive values are liberal while negative are conservative. Thus, for all models Justice Ideology should have a positive coefficient and, more importantly, *Justice Ideology × Ideological Loading* should also have a positive coefficient. For estimation purposes, *Ideological Loading* will also be included as a constituent term, though I have no expectation regarding its coefficient.

The purpose here is not to develop a fully specified model of Supreme Court decision making, but these models do include an additional consistent predictor of votes, the ideological direction of the lower court decision (*Liberal Lower Court Decision*, from Spaeth 2011). Decade fixed effects are also included and robust standard errors allow for the correlation of residuals for a given justice.

For Models 2.3 and 2.4, missing values of *Ideological Loading* are set to zero. A dummy variable then indicates whether this value was missing (*Missing*) and this dummy variable is also then interacted with *Justice Ideology*. This will allow the conditioning effect of ideological loading to be estimated for these cases for which *Ideological Loading* could not be measured. I will then be able to back out the effective value of *Ideological Loading* for these cases. The results for all four models are displayed in Table 2.

*** Table 2 Here ***

As expected, the estimate for *Justice Ideology* is positive and statistically significant in all of the models. This estimate reveals that when *Ideological Loading* (and *Missing* in Models 2.3 and 2.4) equals zero, ideology still influences the votes of the justices. The more liberal the justice, the more likely they are to cast a liberal vote in a given case. More importantly, the

estimates for *Justice Ideology* × *Ideological Loading* are positive and significant in all models. As the measure of loading increases, the positive effect of *Justice Ideology* grows in magnitude. In other words, the ideology of the justices has a greater effect on their votes when *Ideological Loading* takes on a larger value. This result supports the validity of this measure of loading and it is reassuring to see that the result is robust across these two different measures of ideology.

Figures 4a and 4b further illustrate this result by plotting the predicted probability of a liberal vote by *Justice Ideology*. For each figure, two curves are plotted: one for a relatively high value of *Ideological Loading* (two standard deviations above the mean) and one for a relatively low value (two standard deviations below the mean). *Liberal Lower Court Decision* is held at its mean value and the decade is set at the 2000s. Both figures show how the slope (i.e., effect) of *Justice Ideology* increases with *Ideological Loading*.

*** Figure 4 Here ***

The estimates for *Justice Ideology* × *Missing* reveal whether a missing value for *Ideological Loading* is equivalent to having an *Ideological Loading* of zero. The positive and significant estimates for the interaction terms suggest that this is not the case. A missing value for *Ideological Loading* has the same conditioning effect on the Martin-Quinn scores and Segal-Cover scores as an *Ideological Loading* of .552 and .599, respectively. [11] During this time frame, the mean value for *Ideological Loading* is .700. It thus appears that the cases for which this variable cannot be measured are slightly less ideological, on average, than the cases with sufficient informative amici participation to generate the loading measure.

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[11] I calculate the equivalent value of *Ideological Loading* for cases with missing values by simply setting the effect of *Justice Ideology* × *Ideological Loading* equal to the effect of *Justice Ideology* × *Missing* and solving for the value of *Ideological Loading*.

Validity Test: Does *Ideological Loading* Affect the Fit of Ideological Vote Models?

As Collins (2008) and Kaheny, Haire, and Benesh (2008) note, variation in the predictability of judicial votes is an interesting and understudied phenomenon. A second way of testing the validity of the *Ideological Loading* measure is to see whether it affects the predictability of the justices' votes in an ideological model of vote choice. If *Ideological Loading* successfully taps the degree to which a case falls on an ideological dimension, then it ought to explain the error variance in a model of vote choice that includes judicial ideology as the primary explanatory variable. In other words, when *Justice Ideology* is the independent variable in a model of vote choice votes should be particularly predictable when the case is particularly ideological in nature.

To pursue this second validity test, I estimate four heteroskedastic probit models. In each model, *Justice Ideology* is included as the sole predictor of the votes of the justices. The error variance is then parameterized and allowed to vary according to *Ideological Loading*. Models 3.1 and 3.3 use the Martin-Quinn scores while Models 3.2 and 3.4 use the Segal-Cover scores. Models 3.1 and 3.2 exclude all the cases for which *Ideological Loading* is missing while Models 3.3 and 3.4 incorporate these cases in the same manner as before (with *Missing* included as an independent variable).[12] The results of these model estimations are presented in Table 3.

*** Table 3 Here ***

The estimates for *Ideological Loading* are negative and statistically significant in the error variance components of all four models. The greater the ideological loading of the case, as I have measured it, the smaller the error variance of the ideologically-determined vote choice

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[12] The standard errors for Models 3.1 and 3.3 are clustered by justice. This type of clustering leads to convergence issues with Models 3.2 and 3.4, so non-clustered robust standard errors are estimated.

models. Votes are better predicted by ideology when *Ideological Loading* is high. This result further reinforces the validity of the *Ideological Loading* measure. This result is further illustrated in Figure 5, which plots the predicted error variances for the range of *Ideological Loading*.

<div align="center">*** Figure 5 Here ***</div>

Again, the average effective value of *Ideological Loading* for the observations for which this variable is unmeasured can be backed out from the estimates in Models 3.3 and 3.4. A missing value for *Ideological Loading* has the same effect on the error variance of Models 3.3 and 3.4 as an *Ideological Loading* of .473 and .543, respectively.[13] These are quite close to the equivalents calculated above, providing additional confidence that cases with missing values are on average somewhat less ideological than those with measurable *Ideological Loading*.

<div align="center">**Conclusion and Future Applications**</div>

To recap, I have argued for the need for an *ex ante*, fine-grained, and theoretically appropriate measure of the extent to which a Supreme Court case contains a traditional ideological component. I develop a measure of the ideological loading of a case that essentially compares the pattern of amici ties within a case with the general pattern of ties between these same amici outside of the case. Evidence suggests that this measure conditions the effect of the ideology of the justices on their votes, which validates the measure.

The development of this measure and accompanying validation yields four primary contributions or types of future application. First, recent scholarship seeks to identify case characteristics that might condition the influence of judicial ideology (e.g., Bartels 2011; Collins

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[13] I calculate the equivalent value of *Ideological Loading* for cases with missing values by simply setting the effect of *Ideological Loading* equal to the effect of *Missing* and solving for the value of *Ideological Loading*.

2008; Unah and Hancock 2006). In a sense, what these scholars want to identify is the degree to which a given case will activate the ideological leanings of the justices. The amici network-based measure I introduce does just this.

Second, this measure could be used by scholars to improve tests of legal or political constraints on decision making at the Court. After all, when testing for evidence of constraint researchers start with the often implicit assumption that the justices are consistently motivated by their policy preferences and that these motivations, absent constraint, would be equally expressed in all cases. If cases vary in how much they load onto an ideological dimension, then this assumption proves problematic and could lead to faulty inferences if ideological loading correlates with any of the tested constraints. By either controlling for ideological loading, or perhaps limiting analyses to high-loading cases, research may be better able to test whether/when legal or separation-of-powers constraints actually lead to decisions that would not be predicted by ideological models of behavior.

Third, estimation of the ideal points of the justices might benefit from this measure of ideological loading. Bayesian approaches to ideal point estimation can include a discrimination parameter that, varying in value from case to case, indicates how much a case allows for the "discrimination" between the ideological positions of the justices. This discrimination parameter is essentially the same thing as the ideological loading of a case, though researchers have not been able to incorporate any prior beliefs about the values of these discrimination parameters. By using this amicus-based, *ex ante* measure of ideological loading as informative discrimination priors in Bayesian ideal point estimation, scholars may be able to sharpen their estimates of the location of the justices (see Jackman 2001).

Fourth and finally, this new measure of ideological loading can assist studies of public responses to Supreme Court decisions. For example, scholars are interested in the conditions under which Court decisions are accepted by the public due the positive effect of the Supreme Court as an institutional source cue (e.g., Nicholson and Hansford 2012). One hypothesis forwarded in the literature on the importance of source cues is that these cues is that source cues are particularly important for "hard," meaning less clearly ideological, issue areas while they fade in importance in "easy," ideological issue areas. The loading measure developed here could be used to help determine the cases in which the Court's source cue effect ought be at its strongest.

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Table 1. Predicting Ideological Loading with Potential Measures of Salience

Independent Variable	1.1	1.2
Civil Liberties Issue	.062*	.055*
	(.009)	(.010)
Civil Rights Issue	.023*	.022*
	(.009)	(.010)
Federalism Issue	.029*	.023
	(.012)	(.014)
Economics Issue	.010	.016
	(.009)	(.010)
Judicial Review - Federal	-.007	-.008
	(.009)	(.010)
Judicial Review - State	.003	.008
	(.007)	(.008)
Lower Court Dissent	-.011	-.008
	(.006)	(.007)
Number of Amicus Briefs	.000	.000
	(.001)	(.001)
New York Times Coverage	---	-.007
		(.008)
N	2,814	2,262
F	14.1*	9.1*
R^2	.061	.050

* $p \le .05$ (two-tailed). Cell entries are OLS estimates (with standard errors). Dummy variables for decade are also included in these models.

Table 2. Testing Whether the Ideological Loading of a Case Conditions the Effect of Judicial Ideology on Votes

Independent Variable	2.1	2.2	2.3	2.4
Justice Ideology	.085*	.455*	.081*	.375*
	(.025)	(.115)	(.027)	(.116)
Justice Ideology × Ideological Loading	.159*	.805*	.163*	.867*
	(.030)	(.245)	(.032)	(.239)
Ideological Loading	-.446*	-.777*	-.445*	-.802*
	(.061)	(.167)	(.064)	(.164)
Missing	---	---	-.398*	-.612*
			(.040)	(.069)
Justice Ideology × Missing	---	---	.090*	.519*
			(.015)	(.121)
Liberal Lower Court Decision	-.487*	-.466*	-.445*	-.427*
	(.032)	(.033)	(.030)	(.030)
Ideology Measure:	Martin-Quinn	Segal-Cover	Martin-Quinn	Segal-Cover
Terms Included	1953-2008	1953-2008	1980-2008	1980-2008
Missing Values Included?	No	No	Yes	Yes
N	24,496	24,496	54,895	54,895
Wald Test	1,453*	402*	1,375*	341*

* $p \leq .05$ (two-tailed). Cell entries are probit coefficient estimates (and robust standard errors clustered on justice). The dependent variable is whether the justice case a liberal vote in the given case. Martin-Quinn scores have been reverse coded so that positive values correspond with a liberal ideal point. Dummy variables for decade are also included in these models.

Table 3. Testing Whether Ideological Loading Effects the Predictability of Votes

Independent Variable	3.1	3.2	3.3	3.4
Choice Model				
Justice Ideology	.159*	.654*	.107*	.773*
	(.043)	(.233)	(.030)	(.141)
Error Variance Model				
Ideological Loading	-.788*	-.611*	-.844*	-.807*
	(.264)	(.179)	(.349)	(.229)
Missing	---	---	-.399	-.438*
			(.289)	(.182)
Ideology Measure:	Martin-Quinn	Segal-Cover	Martin-Quinn	Segal-Cover
Terms Included	1953-2008	1953-2008	1980-2008	1980-2008
Missing Values Included?	No	No	Yes	Yes
N	24,496	24,496	26,570	26,570
Wald Test (Choice)	21.9*	18.1*	14.0*	32.1*
Wald Test (Error Var.)	38.7*	42.5*	31.4*	63.7*

* $p \leq .05$ (two-tailed). Cell entries are heteroskedastic probit coefficient estimates (and robust standard errors clustered on justice for 3.1 and 3.3, robust but not clustered for 3.2 and 3.4). The dependent variable in the choice model is whether the justice case a liberal vote in the given case. Martin-Quinn scores have been reverse coded so that positive values correspond with a liberal ideal point. Dummy variables for decade are also included in both the choice and error variance models.

Figure 1. Examples of Amicus Curiae Patterns and Ideological Loading in Two Cases

A) *United States v. Eurodif* (2009); Ideological Loading = .034
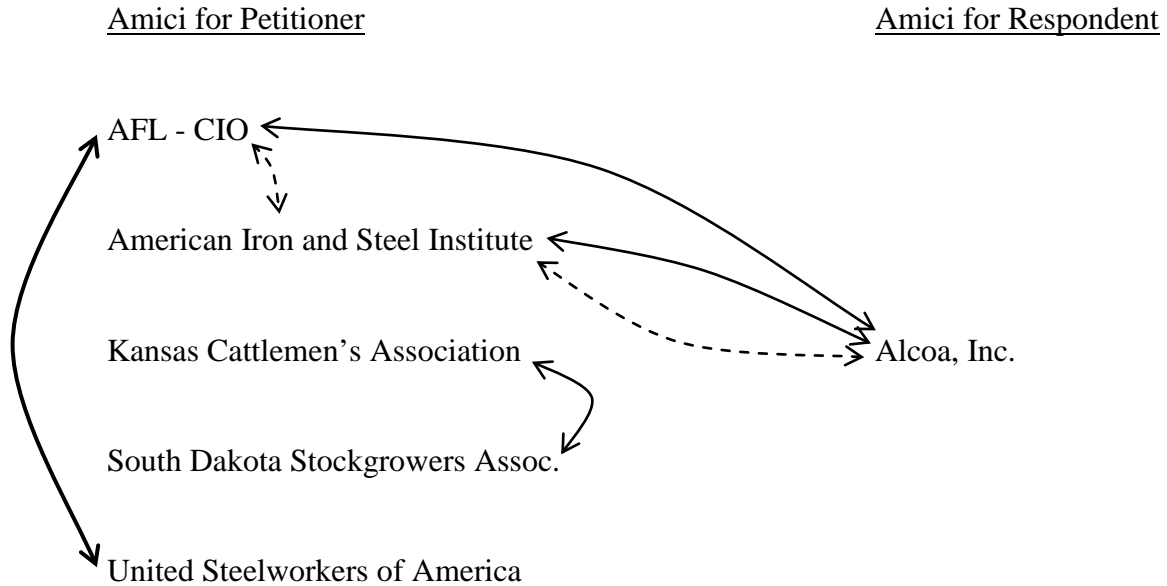

B) *Boumediene v. Bush* (2008); Ideological Loading = 1.04
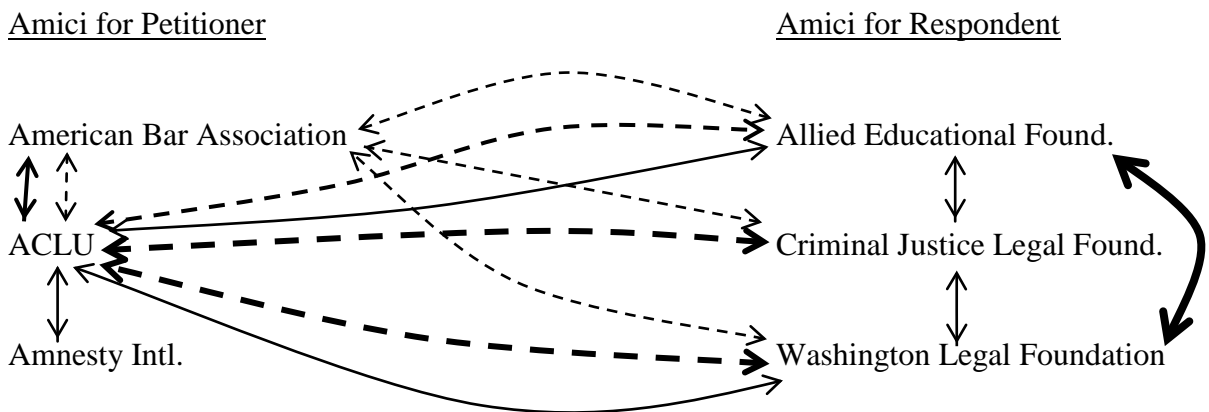
Note: The amici listed for both cases are a selection of those who filed briefs. Solid arrows represent positive ties resulting from participation in other cases and dashed arrows represent negative ties from other cases. Line thickness corresponds with the relative number of ties between the interests.

Figure 2. The Distribution of Ideological Loading (Kernel Density Plots)

A. 1953-1979 Court Terms
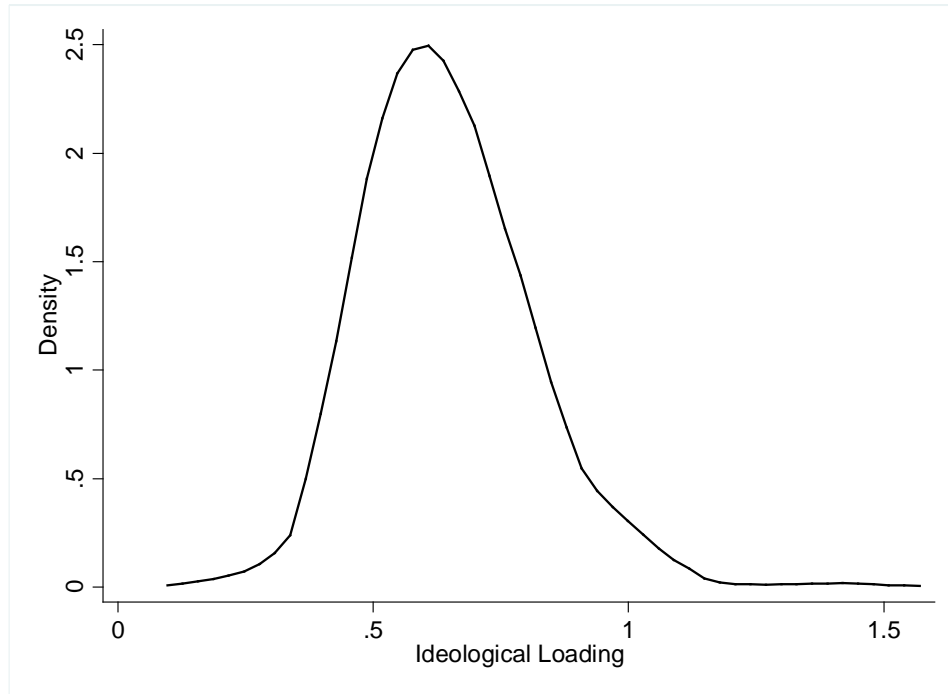
B. 1980-2008 Court Terms
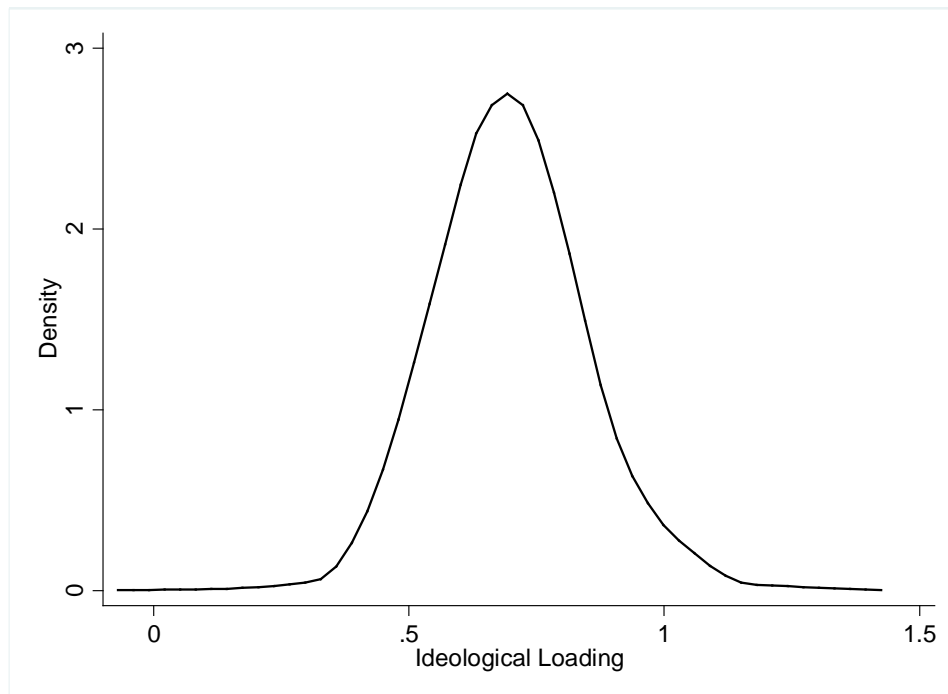
Note: Bandwidth = .07. From the 1980 Term onward most cases have a non-missing value of Ideological Loading.

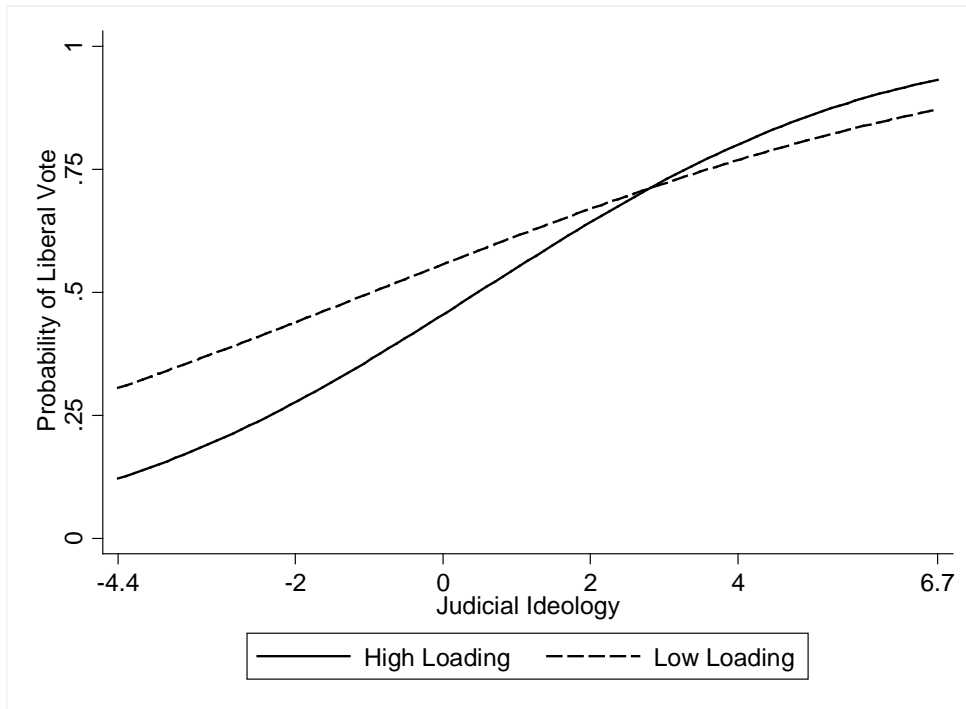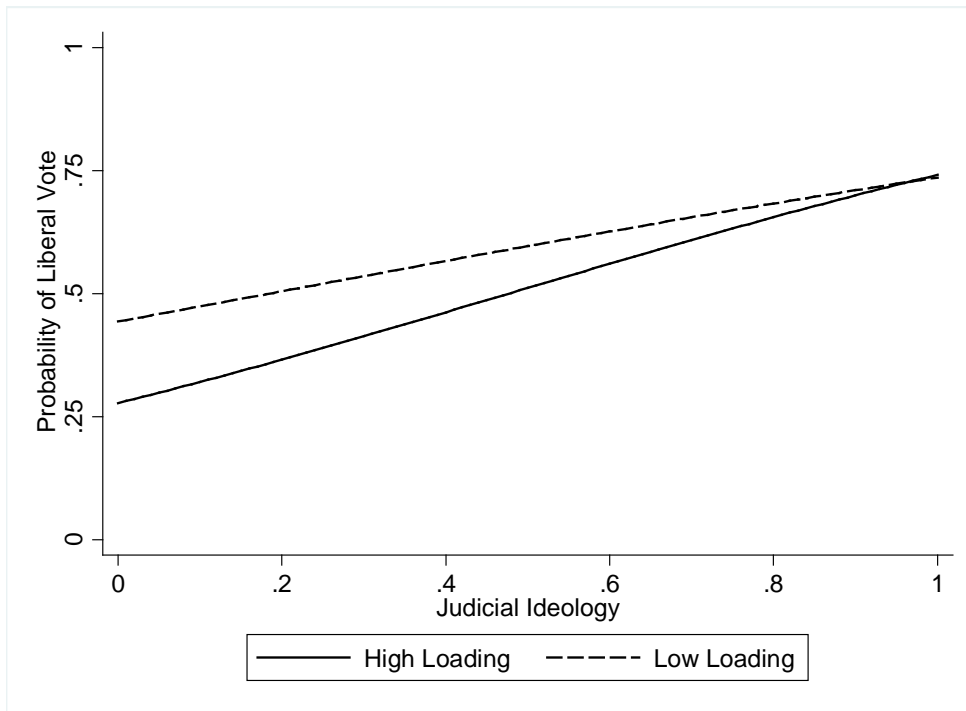**Figure 3. Coverage and Mean of *Ideological Loading* by Term**
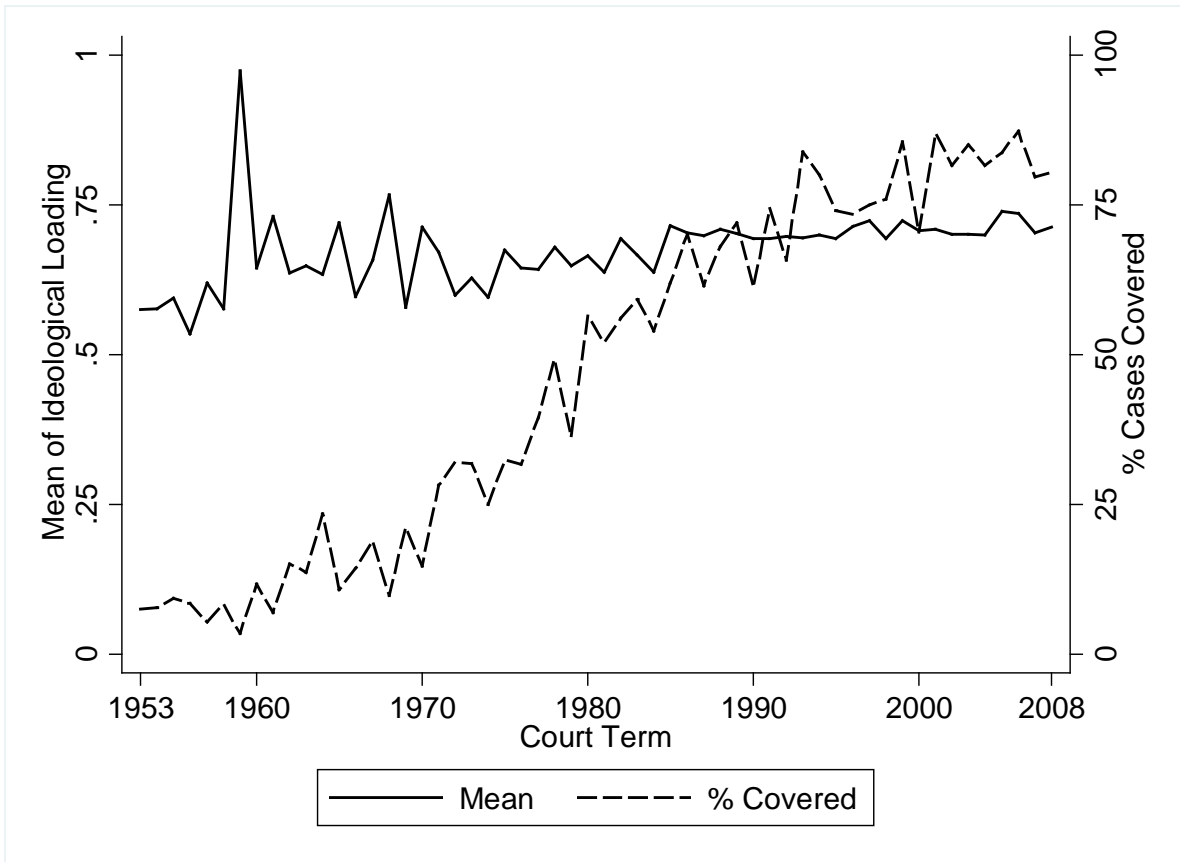
Figure 4. Ideological Loading Conditions the Effect of Judicial Ideology on Probability of a Liberal Vote
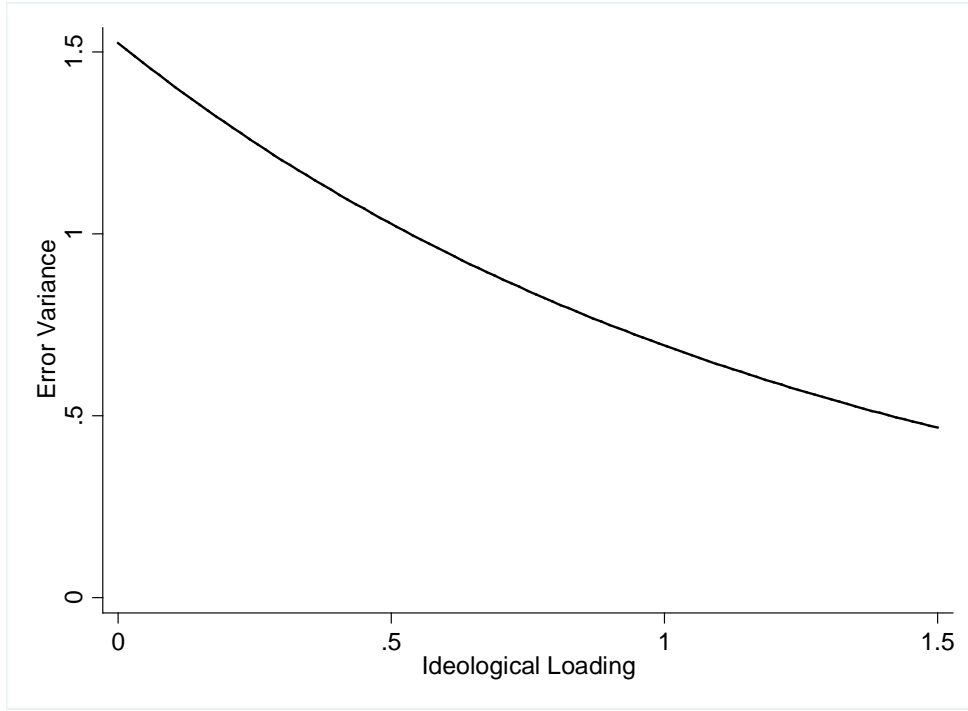
a. Using Martin-Quinn Scores (Model 2.1)
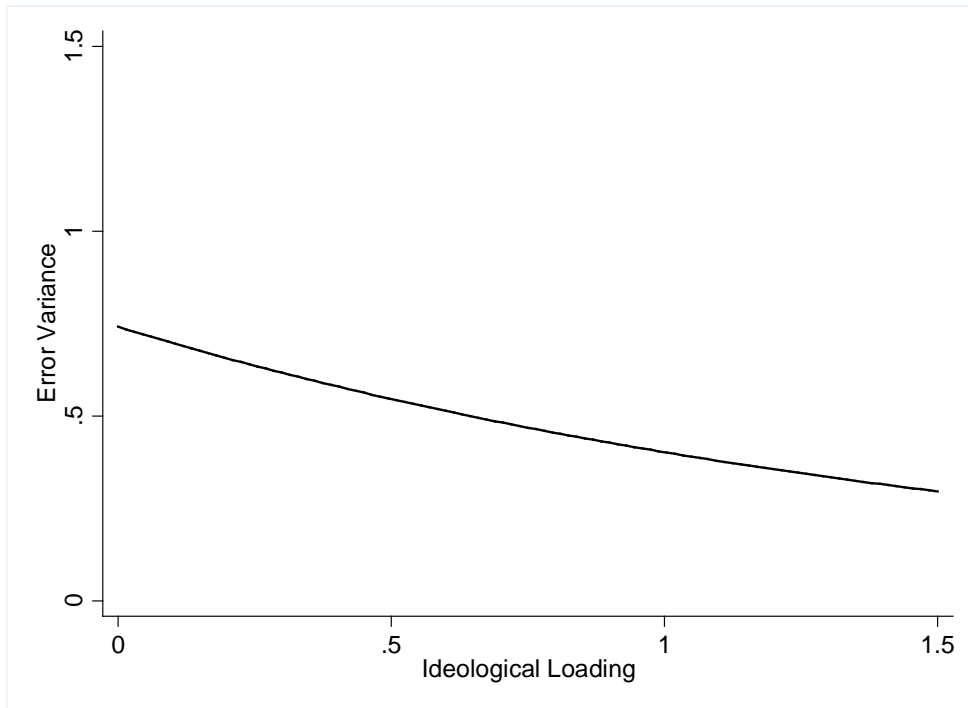

b. Using Segal-Cover Scores (Model 2.2)

Note: Probabilities predicted by models indicated above. High (low) loading is two s.d. above (below) the mean for *Ideological Loading*.

Figure 5. Effect of Ideological Loading on the Error Variance of Ideological Models of Vote Choice

a. Using Martin-Quinn Scores (Model 3.1)

b. Using Segal-Cover Scores (Model 2.2)

Note: Error variances predicted by models indicated above.