Estimating the Ideal Points of Organized Interests in Legal Policy Space

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Scholars have been limited in their theorizing and testing of theory regarding the incidence and impact of the participation of organized interests at the Supreme Court due to a critical measurement issue - the inability to properly locate these interests in the legal policy space in which the Court operates. We use the positions articulated in amicus curiae briefs filed in the 1953 through 2013 Supreme Court Terms to estimate the ideal points of the 192 most active organized interests in the Court's legal policy space. We treat these amicus brief-based "votes" on cases as analogous to the votes cast by the justices in these cases, allowing us to estimate the locations of these organized interests and the justices in the same legal policy space. We utilize a recent extension of the IRT ideal point estimation model designed to account for nonresponses or abstentions. The resulting ideal point estimates for the organized interests are quite different from those obtained with the traditional IRT approach, implying that it is a mistake to treat abstentions as missing-at-random. After considering the validity and dimensionality of these ideal point estimates, we tentatively show how these ideal point estimates could be applied to a pair of substantive questions. We find that over time the location of the median amicus brief roughly tracks the location of the median justice and that there is a substantial ideological component to Justice Stevens' use of amicus briefs in his opinions.

A spatial understanding of the law underpins a great deal of contemporary research on law, judges, and courts. There has thus been a good deal of effort to estimate the locations, often referred to as "ideal points," of Supreme Court justices (e.g., Martin and Quinn 2002) and lower federal court judges (Epstein et al. 2007) in legal policy space. Armed with these measures of judicial ideal points, scholars have been able to test spatial hypotheses regarding certiorari decisions (e.g., Owens 2010), oral argument (e.g., Black, Johnson, and Wedeking 2012), votes on the merits of cases (e.g., Segal and Spaeth 2002), bargaining and accommodation during the majority opinion-writing process (e.g., Carrubba et al. 2012; Maltzman, Spriggs, and Wahlbeck 2000), separate opinions (e.g., Corley 2010), and the legal interpretation of precedent (e.g., Hansford and Spriggs 2006).[1] In order to test models of Court-Congress interactions, estimation strategies have been developed so that members of Congress and the justices can be located in the *same* policy space (e.g., Bailey 2007). It is safe to say that the simultaneous and synergistic development of spatial models of judicial decision-making, along with innovations in the measurement of the ideal points of judicial and legislative actors, has had a major impact on the social scientific study of law and courts.

These innovations, however, have not extended to an important set of actors in the legal arena - organized interests. Despite the fact that the heavy involvement of organized interests is one of the defining features of the modern Supreme Court, scholars have been limited in their theorizing and testing of theory regarding the incidence and impact of the participation of these extra-legal actors. This is due to a critical measurement issue - the inability to properly locate these interests in the legal policy space in which the Court operates - and is particularly consequential given the importance of these actors for the study of law and courts (see Barker

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[1] This is an illustrative, and far from exhaustive, list of the types of work testing spatial hypotheses in the context of law and judging.

1967; Box-Steffensmeier, Christenson, and Hitt 2013; Collins 2008; Cortner 1968; Epstein 1991; Kobylka 1991; O'Connor 1980; Vose 1959) and questions of democratic representation, or the distortion thereof, in the branch of government generally deemed least representative.

We use the positions articulated in amicus curiae briefs filed in the 1953 through 2013 Supreme Court Terms to estimate the ideal points of the 192 most active organized interests in the Court's legal policy space. We treat these amicus brief-based "votes" on cases as analogous to the votes cast by the justices in these cases, allowing us to estimate the locations of these organized interests and the justices in the same legal policy space. Armed with data on these "votes" by interests and justices, we utilize the approaches employed to create contemporary measures of judicial ideology (Martin and Quinn 2002; Bailey 2007; Clark and Lauderdale 2010) and estimate item response theory (IRT) models that treat the ideal points of these actors as a latent, unobservable trait to be estimated via Bayesian Markov chain Monte Carlo methods.

The use of amicus votes, however, raises a potentially significant problem. Except for the occasional recusal, justices vote on all Court cases heard during their tenure. Organized interests, on the other hand, choose the cases in which to file amicus briefs and it is not safe to assume that an interest's abstentions can be simply treated as missing-at-random (MAR). Indeed, the logic of the spatial voting model underlying the typical approach to ideal point estimation implies that these abstentions should be a function of the location of the interests, which suggests that these abstentions are not at all random. We therefore employ a recent extension of the IRT ideal point estimation model designed to account for nonresponses or abstentions (Rosas, Shomer, and Haptonstahl 2015). The resulting ideal point estimates for the organized interests are quite different from those obtained with the traditional IRT approach, implying that it is a mistake to treat organized interest abstentions as MAR.

After presenting the ideal point estimates for the organized interests and justices and comparing them with those of the MAR model, we then proceed to compare our estimates with Bonica's estimates for the ideal points of interests in Congress' legislative policy space. The estimates correlate quite highly, perhaps suggesting the Court's policy space is not particularly different from that of Congress. We then estimate issue-specific ideal points in four areas: civil rights, criminal process, First Amendment, and economics. We find that these issue-specific ideal points correlate very highly with ideal points estimated when all cases are pooled together, revealing that for most organized interests the Court's policy space is reasonably unidimensional. This is not true for government associations, however, which do not map well onto the same single dimension as all the other "voters."

Finally, we tentatively show how these ideal point estimates could be applied to a pair of substantive questions. We find that over time the location of the median amicus brief roughly tracks the location of the median justice and that there is a substantial ideological component to Justice Stevens' use of amicus briefs in his opinions. We conclude with a discussion of other possible applications of these ideal point estimates to important questions involving judicial politics.

An IRT Model of Ideal Points in Legal Policy Space

Following recent scholarship, we use the item response framework to estimate the ideal points of interest (Bailey 2007; Clinton, Jackman, and Rivers 2004; Martin and Quinn 2002). Item response theory was developed in the context of educational testing (Baker 1985; Baker and Kim 2004; Lord and Novick 1968), where researchers assume that the ability of a test-taker is a latent trait that cannot be directly observed. With the two-parameter item response model, the probability of a person correctly answering a question (i.e., an item) is a function of both the

difficulty level of the question and the person's ability, as conditioned by the extent to which this question discriminates between high and low ability individuals.

This same approach has been used by political scientists to estimate the location of political actors in policy space. In this context, an actor's location in policy space (i.e., their ideal point) is the latent trait. Instead of answering questions, per se, these actors are voting yes or no on policy items. These votes are then modeled as a function of an actor's ideal point, the "difficulty" of the item being voted on, and the extent to which this item differentiates actors based on their ideal points. Using this approach, ideal points have been estimated for members of Congress (e.g., Clinton, Jackman, and Rivers 2004), Federal agencies (Clinton et al. 2012), Supreme Court justices (Martin and Quinn 2002), and combinations of these actors (Bailey 2007).

Here, we use an IRT model to estimate the location of organized interests in the Supreme Court's legal policy space. We will initially conceive of each Supreme Court case j presenting an actor i with the choice of voting to reverse ($v_{ij} = 1$) or affirm ($v_{ij} = 0$) the lower court decision. Importantly, we treat the positions advocated by organized interests in their amicus curiae briefs as equivalent to votes. Thus, if the American Civil Liberties Union files an amicus brief advocating that the Court reverse a lower court decision, then it is treated as if ACLU voted to reverse the decision. The use of the positions expressed in amicus briefs as votes in a case has the desirable feature that these briefs can be very reasonably considered as akin to the votes cast by justices. After all, both the justices and the organized interests are formally expressing positions on the outcome of the case (i.e., item) in question.

The probability of a vote to reverse can then be simply modeled as:

$$v_{ij} = \begin{cases} 1 & \text{if} \quad v_{ij}^* \geq 0 \\ 0 & \text{if} \quad v_{ij}^* < 0 \end{cases}$$

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$$v_{ij}^* = \alpha_j + \beta_j x_i + \varepsilon_{ij}$$

$$Pr(v_{ij} = 1) = \Phi(\alpha_j + \beta_j x_i),$$

where ε_{ij} represents an error term that is normally distributed with a mean of 0 and a variance of 1, $\Phi(.)$ represents the standard normal distribution function, α_j is a case-specific "difficulty" parameter, β_j is a case-specific "discrimination" parameter, and x_i is the ideal point of voter i in unidimensional legal policy space.[2] The difficulty parameters essentially allow case-to-case variation in the location of the "cut point", separating the votes to reverse and affirm. The discrimination parameters allow cases to vary in terms of how well they sort the voters along the lines of a single policy dimension. These parameters also capture the ideological directionality of votes to reverse. As is convention (e.g., Martin and Quinn 2002), our choice of priors ultimately orients these measures so that lower values of x correspond with more liberal ideal points and higher values correspond with conservative ideal points. Thus, for example, a positive β means that for the case in question a vote to reverse is a conservative vote while a vote to affirm is liberal. As β approaches zero, the case stimuli in question does not lead to voting based on the latent trait, i.e., the spatial locations of the justices and organized interests.

Note that while Martin and Quinn (2002) allow the ideal points of the justices to change over time, we assume here that the ideal points of the justices and organized interests are fixed.[3] This is primarily a practical choice driven by the fact that the indifference model we ultimately

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[2] We assume that the underlying policy space is unidimensional. We do so for reasons of theory, practicality, and convention. Spatial theories of courts and judging are typically based on the assumption that there is a single, fundamental dimension that can reasonably represent legal policy space (e.g., Hammond, Bonneau, and Sheehan 2005; Owens 2010). On the practical side, there are likely not enough "votes" by organized interests to relax this assumption and allow for a second dimension. Finally, with the exception of Lauderdale and Clark (2012), current work on ideal point estimation for justices (e.g., Clark and Lauderdale 2010; Martin and Quinn 2002), judges (e.g., Epstein et al. 2007), interest groups (e.g., Bonica 2013), legislators (Bailey 2007), and agencies (e.g., Clinton et al. 2012) typically assumes unidimensionality. This dimension is usually referred to as the typical left-right ideological dimension. Below, however, we empirically examine the plausibility of unidimensionality.

[3] This means that when using Martin and Quinn's (2002) code to estimate the MAR Model, we fix the delta parameter to zero for all justices and organized interests.

employ has not yet been extended to allow for dynamic ideal point estimation and the relative sparsity of data for most of the organized interests.[4] The estimation of static ideal points should not be viewed as too limiting, however, since Martin and Quinn (2002) show that the static model fits the justices quite well and the location of organized interests should be fairly fixed over time.

Missingness and an Indifference-Based Model of Abstention

There is an important potential issue with using amicus positions to estimate the ideal points of organized interests, however. A sitting justice will cast a vote in all Court cases heard (recusals aside), while even a relatively active organized interest will only cast amicus-based votes in a small fraction of these cases. For the ACLU, for instance, the value of v_j will be missing for most j (i.e., cases).[5] If these votes are missing-at-random (MAR), then this missingness is not an issue and the above model can be used. Indeed, we will refer to the above model as the MAR model from this point forward, as it is implicitly based on the MAR assumption.[6]

On the other hand, if these organized interest votes are not MAR, then the above model could lead to biased estimates of the locations of organized interests in the Court's legal policy space. Recent work on the use of legislative votes to estimate ideal points reveals the adverse

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[4] There are dynamic ordered choice IRT models designed for situations in which the same items exist at each time point (e.g., Treier and Jackman 2008), but this type of model has yet to be extended to situations in which each new time point brings with it a new set of items (e.g., Court cases).

[5] Setting aside the occasional recusal, there are also a large number of missing votes for all the justices in the data in the sense that Justice Scalia, for example, did not vote in any of the cases prior to his appointment in 1986. This form is missingness is ignored in all IRT models of justice ideal points and we likewise ignore it here. Importantly, this form of missingness is not determined by any sort of indifference-generated abstention process.

[6] Dunworth, Fischman, and Ho (2009) use this approach in their unpublished paper on the estimation of organized interest ideal points.

consequences of missingness when the MAR assumption does not hold (Rosas, Shomer, and Haptonstahl 2015).

Theoretically, if an organized interest chooses not to file an amicus brief and express a position in a case, can this missing vote be considered as MAR? The same spatial logic that underlies the IRT ideal point estimation model would seem to imply that these missing votes are not MAR. Justices choose to vote to reverse a lower court decision if the utility of reversal is even slightly larger than the utility of affirming, since they are expected to vote in all cases. These utilities are determined by the distance between the ideal point of the voter and the location of the two potential outcomes. Organized interests are not expected to "vote" in all cases and will likely opt not to vote if the utility of one outcome (e.g., reversal) is only slightly greater than that of the other (e.g., affirmance). Instead, an organized interest is likely to abstain from voting unless the difference in the utilities associated with the two possible outcomes is sufficiently large. In other words, an organized interest will not vote in a case if, due to its ideal point, the interest is indifferent or sufficiently close to indifferent to the two possible outcomes in the case. If this is so, then the missing votes for an organized interest are not random and are instead a function of the quantity of interest; the interest's ideal point in the Court's legal policy space. The MAR model would then produce biased estimates of the location of the ideal points of the interests.

To address this problem, Rosas, Shomer, and Haptonstahl (2015) develop an IRT model in which a voter abstains if the difference in utility between the two outcomes is within a range defined by $-\gamma_i$ and γ_i.[7] This gamma parameter varies from voter to voter, meaning that some voters are quick to abstain while others will vote even if there is a vanishingly small difference between the two outcomes. We will refer to this IRT model as the Indifference Model, as it

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[7] This specific model is developed in the Supplemental Information for Rosas, Shomer, and Haptonstahl (2015).

allows for indifference-based abstentions. Unlike the MAR Model, the Indifference Model

provides for three types of vote:

$$v_{ij} = \begin{cases} 2 & \text{if} & v_{ij}^* \geq \gamma_i \\ 1 & \text{if} & \gamma_i > v_{ij}^* \geq -\gamma_i \\ 0 & \text{if} & -\gamma_i > v_{ij}^* \end{cases}$$

$$v_{ij}^* = \alpha_j + \beta_j x_i + \varepsilon_{ij}$$

Where ε_{ij} is normally distributed with a mean of 0 and variance of σ_j^2.[8]

In our context, these three outcomes are: vote to reverse (2), abstain (1), and vote to

affirm (0). As with the MAR Model, α_j is a case-specific "difficulty" parameter, β_j is a case-

specific "discrimination" parameter, and x_i is the ideal point of voter i. The probability for each

of the three outcomes is then:

$$Pr(v_{ij} = 2) = \Phi\left(\alpha_j + \beta_j x_i - \frac{\gamma_i}{\sigma_j}\right)$$

$$Pr(v_{ij} = 1) = \Phi\left(\frac{\gamma_i}{\sigma_j} - (\alpha_j + \beta_j x_i)\right) - \Phi\left(-\frac{\gamma_i}{\sigma_j} - (\alpha_j + \beta_j x_i)\right)$$

$$Pr(v_{ij} = 0) = 1 - \Phi\left(\alpha_j + \beta_j x_i + \frac{\gamma_i}{\sigma_j}\right)$$

Note that if a voter has a gamma of zero, then they will never abstain (i.e., the probability of v_{ij}

equaling one is zero).[9]

This Indifference Model is well-suited for estimating the location of organized interests

and justices in the Court's legal policy space. Abstentions are no longer viewed as missing data

and are instead treated as informative. Justices can have gammas that approach zero, meaning

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[8] For identification purposes, σ_1 is set to one.

[9] These probabilities are taken from Rosas, Shomer, and Haptonstahl's (2015) Supplemental Information. Note, however, that to keep the notation consistent with the MAR model we switch the sign for α_j, which simply means that the difficulty parameters have the opposite sign in our notation than they do for Rosas, Shomer, and Haptonstahl.

that they effectively must cast votes in all cases. Organized interests can have larger though

varying gammas, allowing them to abstain at differing rates independent of their ideal point.[10]

This means that, holding the ideal point constant, the Indifference Model allows two different

organized interests to abstain at very different rates due to non-spatial reasons. Substantively,

the gamma parameter can be interpreted as capturing the reality that organized interests vary

greatly, for non-spatial reasons, in the rate at which they participate at the Court. This variation

is due to several factors, including the availability of resources (Scheppele and Walker 1991),

absence of sufficient issue attention in the other branches of government (Cortner 1968), and the

composition of the Court's agenda (Hansford 2004).

We employ a standard Bayesian Markov chain Monte Carlo (MCMC) approach to

estimate the parameters in the Indifference IRT model presented above (as well as for the MAR

Model, for purposes of comparison). Within the Bayesian framework, priors are specified,

which reflect levels of (un)certainty about parameter values. These priors act as weights for the

data (or likelihood) in the estimation process. The end goal within the Bayesian paradigm is to

estimate (i.e., converge upon) the probability distribution for a given parameter called the

posterior distribution, which is a product of the data and prior beliefs or knowledge about the

parameter being estimated. The process for computing the posterior distribution for a model

parameter is an iterative process that involves implementing MCMC techniques where a Markov

chain is constructed for each model parameter using Monte Carlo (simulation) techniques. This

chain represents an approximation of the posterior distribution, which is then summarized and

used to produce model estimates. Unlike conventional estimation algorithms (e.g., expectation

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[10] An alternative approach to the missingness issue is to focus on one organized interest at a time and only include cases in which the interest filed a brief. This approach is used by Fischman (2015) in his examination of the National Association of Criminal Defense Lawyers and U.S. Chamber of Commerce.

maximization), MCMC relies on sampling techniques (e.g., Gibbs sampling) to form the Markov chain where estimates for model parameters can be derived.

The specific aim of MCMC is to reproduce the posterior density. Solving for the posterior requires high-dimension integration and this makes it difficult (or even impossible) to compute directly. As a result, solving for the posterior is often carried out through sampling repeatedly from the posterior distribution. Specifically, a sampling process is implemented that samples observations from the posterior distribution in order to create a sampled approximation of the posterior distribution.[11]   As samples are being drawn from the posterior distribution via the MCMC estimation process, convergence of the chain is monitored. When convergence is detected, then it can be concluded that an adequate number of samples were drawn from the posterior distribution.[12] Once convergence has been established, then it is possible to determine the characteristics of the posterior distribution such as the mean and the variance. These characteristics of the posterior distributions are then used to summarize features of the population parameters, which in our model are the case-specific parameters (α_j, β_j), voter-specific indifference parameters (γ_i), and ideal points (x_i).[13]

For both the MAR and Indifference Models, we use the same priors for the justices that Martin and Quinn (2002, 147) use.[14] Since we are interested here in estimating the ideal points

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[11] We sample 50,000 times, after an initial burn-in of 20,000.

[12] We used the Geweke (1992) convergence diagnostic and the Heidelberger and Welch (1983) diagnostic to assess chain convergence for all model parameters. These diagnostics revealed that the 20,000 iterations used for burn-in were sufficient, and the 50,000 posterior samples showed stability (i.e., convergence).

[13] For the Indifference Model, we use Rosas, Shomer, and Haptonstahl's (2015) JAGS code from their Supplemental Information. We utilize Martin and Quinn's (2002) unidimensional dynamic IRT model in MCMCpack, as implemented in R, to perform the MCMC estimations for the MAR Model. See http://mcmcpack.berkeley.edu/index.html

[14] Harlan, Douglas, Marshall, Brennan, Frankfurter, Fortas, Rehnquist, Scalia, and Thomas have prior means of 1.0, -3.0, -2.0, -2.0, 1.0, -1.0, 2.0, 2.5, and 2.5, respectively. Their prior variances are set to 0.1. All other justices have diffuse priors with the prior mean set at 0 and the prior variance set at 1.0. Note, however, that JAGS specifies priors

of organized interests we use diffuse priors (i.e., N(0,1.0)) for all of these voters. Thus, other than by orienting and scaling the policy dimension, the informative priors are in no way driving the posterior estimates for the organized interests.

Data

To construct the necessary dataset, we begin by identifying in the Supreme Court Database all of the orally argued Supreme Court cases from the 1953 through 2013 Court Terms.[15] Using this same data source, we identify the justices who voted in each of these cases. For the MAR model, we code votes to affirm a lower court decision as zero and votes to reverse as one.[16] As discussed below, we make a relatively minor modification to this coding when estimating the Indifference Model. Note that for neither version of the vote coding do we rely on the Supreme Court Database's decision direction (i.e., liberal or conservative), thus avoiding the issue of confirmation bias identified by Harvey and Woodruff (2013). Instead, the directionality of a decision and its associated weight is a quantity to be estimated (β_j) in the IRT model.

The votes of the organized interests are derived from their amicus curiae filings in this same set of cases. We gather data on amicus curiae briefs through an exhaustive search of multiple sources; Lexis, *Briefs and Records of the United States Supreme Court*, and Gale's *The Making of Modern Law: U.S. Supreme Court Records and Briefs, 1832-1978*.[17] For each amicus brief, we identify the names of all the amici who signed the brief and the position taken by the

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in terms of a mean and a precision (i.e., inverse of the variance), while MCMCpack specifies priors in terms of a mean and a variance. Therefore, a normal prior for Harlan based on Martin and Quinn (2002) would be specified as N(1.0,10) in JAGS and N(1.0,0.1) in MCMCpack.

[15] See http://scdb.wustl.edu/

[16] We exclude cases that do not have a clear outcome (e.g., reverse in part and affirm in part).

[17] We exclude amicus briefs filed on cert, as they cannot be considered as truly equivalent to a vote on the merits of the case.

brief.[18] Each signer of a brief is considered as voting on the case. Since we are interested here in estimating the ideal points of organized interests, we remove any amicus votes cast by individuals and governments.

The next step involves accounting for any over-time changes to the names of amicus-filing organized interests. For example, Legal Momentum used to be called NOW Legal Defense and Education Fund. When such a name change has occurred, we code the votes as having been cast by the same organized interest and use the contemporary name. Legal Momentum and NOW LDEF are thus treated as a single organized interest. When an organization (or corporation) is formed by the merger of two or more entities, we err on the side of caution and treat the new organization as distinct from the previous entities. Thus, we consider the American Federation of Labor, Congress of Industrial Organizations, and AFL-CIO as three distinct organized interests in our data. A brief filed by the American Federation of Labor before the 1955 merger is not considered as a vote cast by the AFL-CIO.[19]

Once we have defined the identities of the organized interests in the manner described above, we discard all the organized interests that cast fewer than 25 votes during the 1953-2013 Court terms.[20] This leaves us with 192 organized interests for which we will estimate ideal points in the Court's legal policy space. These interests include a variety of public interest groups, (e.g., Public Citizen), legally-focused advocacy organizations (e.g., Washington Legal

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[18] To identify the position expressed by a brief, we consult the cover page, summary of argument, and concluding statement. We are thus able to identify the position taken in 97.4% of the briefs in our data. The remaining 2.6% of the briefs either explicitly support neither party/position or are unclear as to the position adopted. We necessarily exclude these votes when estimating the MAR model but include them as "abstentions" when estimating the Indifference Model.

[19] We are still in the process of checking all of the identities of the organized interests to determine whether two different organizational names actually refer to the same organization. This means that our list of organized interests that have filed at least 25 amicus briefs may be somewhat underinclusive at this point, as there could still be organizations in our data that, for example, filed 10 briefs before a name change and 15 briefs after.

[20] This may be a somewhat conservative threshold. Clark and Lauderdale (2010), for example, report an average of 15 citation-based votes in their use of an IRT model to scale both justices and opinions.

Foundation), professional associations (e.g., American Psychological Association), business associations (e.g., American Chemistry Council), corporations (e.g., Hearst Corporation), labor unions (e.g., AFSCME), and government associations (e.g., National League of Cities).

For the MAR model, the votes for these organized interests are coded identically to those of the justices. If an interest expresses that the lower court decision should be reversed (affirmed), then this vote is coded as one (zero). Importantly, if the interest either does not sign onto an amicus brief in a Court case or signs onto a brief that does not express a clear position in terms of the case disposition, then this vote is treated as missing at random. For the Indifference Model, it is not assumed that these missing votes are random in nature. Instead, this model assumes that organized interests choose to abstain from voting when the utility associated with reversal is insufficiently different from that associated with affirmance, based upon the location of the organized interest's ideal point (x_i) and the magnitude of its indifference parameter (γ_i). As noted above, this model allows for three different vote outcomes for a given Court case: reverse (coded as two), abstain (coded as one), and affirm (coded as zero). The votes of the organized interests are coded accordingly, with the rule that an organized interest is coded as abstaining if they were in existence when the case was heard but failed to file an amicus curiae brief. If the organized interest did not exist when the case was decided, then this vote is treated as missing at random. This is effectively identical to how justices are handled when they fail to vote in a case due to the fact that they were not on the Court in the term in question.

How should the votes of the justices be coded for the Indifference Model? One option is to code all of their votes as either zero (affirm) or two (reverse), thus effectively assuming that for the justices the indifference parameters are zero. Alternatively, while justices cannot abstain from voting in a case due to spatial reasons, they can choose to not fully vote with either side for

such reasons. The authoring or joining of a special concurring opinion may be indicative of a

justice adopting a position that is neither wholly with the majority nor with the dissent. We

adopt this latter approach and for the Indifference Model code a justice's vote as one if they

joined or signed a special concurring opinion in the case. As it turns out, this is a non-

consequential choice as the results obtained are very similar regardless of whether we treat

special concurring opinions this way.[21]

We drop from our data any Court cases in which there is a unanimous vote, defined by

the votes of the justices and any participating members of our 192 organized interests. We are

left with 5,134 Supreme Court cases, which represents a gain of more than 1,000 cases as

compared to a justice-only model (e.g., Martin and Quinn 2002). In other words, there are many

more non-unanimous decisions in our analysis due to the inclusion of the organized interest

votes.

Results

Though we have theoretical misgivings about the use of the MAR Model, we begin by

examining the estimates it produces. Again, the assumption underlying this model is that

organized interest abstentions occur randomly and thus are ignorable, missing-at-random data.

Figure 1 presents the distribution of estimated ideal points for the 192 included organized

interests and the distribution of estimated justice ideal points.

*** Figure 1 Here ***

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[21] A comparison of the ideal point estimates for the justices obtained with the MAR Model (where special concurring opinions are treated as votes with the majority) and those obtained with the Indifference Model (where special concurring opinions are treated as abstentions) reveals that these ideal points correlate at an extremely high level ($r = .987$).

The distribution for the justices is unimodal and centered just to the right of zero.[22] The distribution of organized interest ideal points is markedly different. These ideal points are bimodally distributed with modes near -2 and 2. Few interests are located in the same region of legal policy space in which most justices reside. Furthermore, it appears that there are many more extremely liberal interests than there are ones that are extremely conservative. Based on these estimates, a researcher would conclude that organized interests are generally quite a bit more extreme than the justices and that there are not many interests who stake out moderate positions at the Court. Alternatively, these results could be seen as revealing that justices are less ideological in their voting behavior than organized interests (see Dunworth, Fischman, and Ho 2009).

The potential issue with these estimates, though, is that by treating abstentions as random the estimates for the organized interests are artificially pushed out towards the extremes. Imagine, for example, if any given justice had the option of only voting in the cases in which s/he held a strong, spatially-motivated position. Ignoring this feature of the data would likely lead to more extreme estimates for the justices, even holding their "true" ideal points constant.

The Indifference Model allows organized interests to abstain due to a mix of spatial and non-spatial reasons and thus should provide superior estimates of their ideal points. Figure 2 presents the distributions of these estimates for both the interests and the justices. The distribution for the latter is very similar to that obtained with the MAR Model, which is not surprising given the infrequency of abstentions for these actors (even when treating special concurring opinions as abstentions). The distribution of interest ideal points, however, is very different than with the MAR Model. Notably, these ideal points are now unimodally distributed and the center of the distribution is not too distant from the center of the distribution for the

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[22] Justice Douglas is largely responsible for the left tail of this distribution.

justices. Once abstention is accounted for, the organized interests who are most active at the Court are not that different, in terms of ideological location, from the justices themselves.

Though somewhat more liberal on average, these organized interests are not extremists when compared with the justices. This is an interesting descriptive result, in and of itself, and it dovetails with Bonica's (2013) recent finding that political action committees (PACs) are more moderate than previously thought. The organized interests that participate at the Court through the filing of amicus briefs are not as polarized as one might expect. The flip side of this result is that the ideal points of the justices essentially span the same range as those of organized interests, which might be interpreted as an indication of the political, policy, or spatially-motivated nature of their expressed positions on the Court.

To both further illustrate the Indifference Model estimates as well as tentatively consider the face validity of these estimates, the ideal point estimates of a select set of interests and a few justices are depicted in Figure 3. Two immediate features of these estimates are apparent. First, most of these ideal point estimates match informal expectations, with feminist organizations and other civil rights groups on the far left and socially conservative groups such as Family Research Council towards the far right.   Second, even for the organized interests the ideal point estimates are quite precise and have relatively narrow 95% credible intervals.

There are a few possible surprises, however. The National Association of Social Workers' estimate is perhaps more liberal than one might initially expect. While business associations are right of center, they are relatively moderate; a result that is similar to Bonica's (2013) finding with regard to business PACs. Perhaps the least intuitive result is the particularly

conservative location of the government associations (e.g., Council of State Governments), though this is not actually all that surprising when one considers that local and state governments fill a structurally conservative role in many legal disputes (e.g., pro-law and order). This is a result to which we later return. It is further instructive to consider the organized interests that are close to the justices included in this figure. Justice Marshall, for example, is proximate to the ACLU and League of Women Voters, Justice Stevens is close to the AFL-CIO and Sierra Club, and Justice Scalia is near to the Criminal Justice Legal Foundation and Family Research Council.

To provide a more formal assessment of the validity of these ideal point estimates, we compare our Indifference Model estimates with those obtained by Bonica (2013) when using PAC contributions to estimate the location of interests in Congress' legislative policy space (CFscores). Of the 192 organized interests in our data, 33 also appear in Bonica's data. Figure 4 presents a scatter plot of the locations of these 33 interests in Bonica's legislative policy space and our legal policy space. We also plot the OLS regression line that best fits these data.

*** Figure 4 Here ***

This scatter plot reveals that there is a fairly robust, positive, linear relationship between the CFscores and Indifference Model estimates ($r = .743$). We view this as a surprisingly strong relationship between the two sets of ideal point estimates, since they exist in different policy spaces (legal vs. legislative) and were obtained with very different data (amicus briefs vs. PAC contributions). As such, we believe this association between the Indifference Model estimates and the CFscores is substantial evidence of the validity of our ideal point estimates for organized interests. The one outlier here is the Feminist Majority Foundation, which is the most liberal organization in legal policy space according to our amicus-based estimate but only the fifth most liberal interest in legislative policy space based on CFscores. It could very well be the case that

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our estimate better captures this interest's sincere location in policy space, as its PAC

contributions may be influenced by both spatial and gender considerations. That is, it is possible

that the Feminist Majority Foundation's contributions go primarily towards female candidates,

somewhat irrespective of their ideological orientation, which could artificially moderate its ideal

point estimate somewhat. It is worth noting that the second largest residual here belongs to the

other feminist organization in this subsample – the National Organization for Women.

Issue-Specific Models

We have thus far proceeded under the assumption that the Supreme Court's legal policy

space is largely unidimensional. This assumption is common in both theoretical (e.g.,

Hammond, Bonneau, and Sheehan 2005) and empirical (Martin and Quinn 2002) treatments of

spatial decision making on the Court. For this reason, we have applied the Indifference Model to

all non-unanimous votes in Supreme Court cases and have estimated the ideal points of

organized interests and justices on a single dimension. We now turn to an assessment of this

unidimensionality assumption and examine whether there is meaningful variation in the ideal

points of organized interests when the vote data are limited to specific issue areas.

To do this, we use the Supreme Court Database's "Issue Area" variable to create four

distinct subsets of Court cases: civil rights cases, criminal procedure cases, First Amendment

cases, and economic cases. For each of these issue areas, we then identify the organized interests

who filed a minimum of 25 amicus briefs. Given that we are dealing here with subsets of Court

decisions, there are far fewer interests that reach this threshold in these issue areas than when we

include all Court cases. Specifically, we are able to include 44, 12, 27, and 19 organized

interests in the civil rights, criminal procedure, First Amendment, and economic data,

respectively. We include the votes of the justices in these cases too, and use the Indifference

Model to estimate the ideal points for both types of actor in each of these issue areas. Figures 5, 6, 7, and 8 display the estimates for select sets of organized interests and justices.

*** Figures 5, 6, 7, and 8 Here ***

As with the pooled model, the estimates for the issue-specific models appear to comport with informal expectations. In a sense, the estimates for the economic cases are most interesting. Not surprisingly, business associations (e.g., National Association of Manufacturers) and explicitly conservative legal foundations (e.g., Washington Legal Foundation) occupy positions on the right. The far left, though, is staked down by government associations such as the U.S. Conference of Mayors. This makes sense, of course, as these cases are about governmental intervention in the economy and governmental associations will be strongly in favor of this sort of authority. However, the location of the ideal points for governmental associations in economic cases is very different than the location of their ideal points in other types of cases, as indicated by the pooled results and the results for the other issue-specific models.

To more generally assess whether the issue-specific estimates differ from the ideal point estimates obtained when all cases are pooled together, Figure 9 presents scatter plots of the four issue-specific estimates and the pooled estimates. The ideal points in the civil rights, criminal procedure, and First Amendment domains match very closely with the ideal points estimated with all case types ($r = .913$, $.948$, and $.919$, respectively). In the economic domain, most of the issue-specific ideal points align closely with the pooled estimates. There are a set of notable exceptions, however. The government associations are very far off of the 45 degree fit line. These interests have ideal points that are very liberal in economic cases and very conservative when all cases are considered. It could thus be said that the positions of government associations are not fairly captured by the same single dimension on which the justices and other organized

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interests can be placed. At the same time, though, it should be noted that it appears that all the other organized interests and the justices can be reasonably placed on the same single dimension on which we locate the justices.

*** Figure 9 Here ***

Interest Representation at the Court over Time

With ideal point estimates for both organized interests and justices in the same legal policy space, researchers will be able to examine various questions of interest representation at the Court. To illustrate this point, we tentatively consider how the spatial location of amici has changed over time and how these changes track with the location of the justices. Figure 10 displays the locations of the median justice and the median amicus-filing organized interest from the 1954 through 2013 Court terms. To be clear, when determining the median organized interest for a given Court term the unit of analysis is the individual amicus participation, meaning that for each term we create the list of all the instances in which one of our 192 most active interests was a signatory of an amicus brief and we then identify the median ideal point for all of these signatories. The ACLU, for instance, is usually included multiple times for a given term as it typically files more than one brief during a term. The median organized interest measure we use here is thus an indicator of the location of the median signatory.

*** Figure 10 Here ***

The median ideal point estimates for the justices are highly consistent with conventional wisdom. The median is most liberal during the 1960s and then moves rapidly towards a more conservative location at the end of that decade. There are three noteworthy features of the location of the median amicus-filing interest. First, with the exception of the 1960s the median organized interest is substantially to the left of the median justice, ideologically speaking. On

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average, the median interest is 0.40 units to the left of the median justice, which, to put it in perspective, is approximately the distance between Justices Breyer and Kennedy. Second, the median interest did track in a more conservative direction during the 1970s and 1980s, which comports with the rise of conservative, Court-active interests discussed by O'Connor and Epstein (e.g., O'Connor and Epstein 1983).

Third, it appears that, while there is typically a substantial gap between the two medians, these medians might move together to some degree ($r = .59$). This would imply that while there is typically a liberal bias to the amicus-provided information environment in which the justices operate, there may be some mechanism that links together the positions of the justices and the positions of the organized interests active in a given Court term. We cannot at this point make any claims about the nature of such a mechanism, though other work suggests that organized interest advocacy activities are responsive to changes at the Court (Hansford 2004; Hansford and Johnson 2014). The relative lack of variation in the Court median, however, makes any comparison of trends potentially problematic.

Ideological Bias in References to Amicus Briefs

The information and arguments provided by organized interests in their amicus curiae briefs sometimes works its way into the legal opinions written by the justices (Spriggs and Wahlbeck 1997). Is an opinion-writing justice equally likely to reference any given amicus or is there an ideological component to these references? Our ideal point estimates can help shed light on this question. To tentatively illustrate this, we collect data on references to amicus curiae briefs in majority, concurring, and dissenting opinions published in the 1953 through 2006 Court terms.[23] During this time frame, Justice Stevens has the most references (64) to our 192

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[23] To do so, we conducted a word search in Lexis for the words "amicus" and "amici" in Court opinions. Sometimes these references are ambiguous and only make mention of an "amicus brief" without identifying the filer of the

most active organized interests and we thus use his references as a case study in the ideological nature of the usage of amicus briefs. We then code whether each of Stevens' references to an amicus brief is positive/neutral or negative in substance.[24] The distributions of the organized interest ideal points for positively/neutrally treated references to amicus briefs and negative treatments of briefs are presented in Figure 11.

*** Figure 11 Here ***

The picture revealed here is quite clear. The amicus briefs that are either positively or neutrally referenced by Justice Stevens are predominantly filed by organized interests that are left of center in the Court's legal policy space. The briefs that are negatively treated are mostly filed by interests that are on the more conservative end of the spectrum. Stevens himself is somewhat left of center, implying that his usage of amicus briefs in his opinions is at least partly a function of the ideological proximity of the filer of the brief. This pattern could tentatively imply that there is not much room for the possibility of Justice Stevens being persuaded by the arguments provided by ideologically distant amici.

Conclusion

Despite the long-standing scholarly interest in the incidence and implications of organized interest involvement at the Supreme Court, researchers have been limited by the inability to measure the locations of these actors in the Court's legal policy space. We combine amicus-based "votes" by organized interests and the votes of the justices with a cutting-edge IRT model to provide what we believe are valid, useful estimates of the ideal points of active

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brief, meaning that we cannot match the brief to one of our organized interests. It is thus likely that our data here are somewhat under-inclusive.

[24] Negative references are coded when the opinion contains language that explicitly disagrees with or refutes the position, argument, or information provided by the amicus. All other references to amicus briefs are placed in the positive/neutral category.

organized interests in the Court's legal policy space. Our hope is that these ideal points will ultimately be of great use to those seeking to test spatial theories of interest involvement at the Court.

The main methodological contribution we make involves our approach to dealing with the inevitable missing data problem associated with the use of amicus briefs as votes. Instead of simply treating organized interest abstentions as data that is missing-at-random, we assume that these abstentions are driven by both policy indifference and organized interest-specific sensitivity to this indifference (i.e., general propensity to file amicus briefs). This is a non-trivial innovation, as it leads to ideal point estimates that are much more similar to those of the justices and less polarized. It thus appears that, as has been shown in legislative policy space (Bonica 2013), organized interests may generally hold less extreme positions in legal policy space than previously thought (see Dunworth, Fischman, and Ho 2009).

While we provide two brief examples of substantive applications of these ideal point estimates, there are many other research questions for which the locations of organized interests and justices in the same policy space could be of great use. Why do interests opt to expend resources lobbying the Supreme Court as opposed to another venue such as Congress (Cortner 1968; Hansford 2004; Holyoke 2003)? Theories attempting to explain the choice to engage in advocacy at the Court implicitly rely on spatial logic. For example, it has been hypothesized that any given organized interest is more likely to lobby the Court when the interest and the Court are close to each other in legal policy space (e.g., Hansford 2004). Efforts to test this hypothesis have been hampered, however, by the inability to properly measure the policy distance between interests and the Court.

A related line of inquiry examines whether legal mobilization begets counter-mobilization (Epstein 1985; Hansford 2011; Solowiej and Collins 2009). This question has important implications for the representation of interests before the Court. Counter-mobilization means that information and arguments will be provided to the Court from opposing sources. Presumably, this balancing of interest representation ought to result in a better-informed, and perhaps more representative, policy making. It also implies that organized interests cannot expect to easily "capture" the Court. Again, however, scholars have had to test for the presence of counter-mobilization in a crude fashion, owing to the lack of a measure of the ideal points of the involved organized interests. Extant tests have to assume that all opposing positions on cases equally indicate the presence of interests on different ends of legal policy continuum. This vein of research can be advanced now that scholars can actually assess the responsiveness of interests on one end of the legal policy dimension to the advocacy activities of interests on the other end.

Another important, implicated question is whether the advocacy efforts of organized interests have any effect on the Court's decisions and the hypotheses forwarded often have a spatial component to them (e.g., Collins 2008). Spriggs and Wahlbeck (1997), for example, seek to test whether the Court's majority opinions are more likely to incorporate the arguments made by ideologically proximate amici. Due to a lack of ideal points for organized interests, however, they have to assume that all briefs on one side of a case are either all equally liberal or equally conservative. This obviously glosses over a good deal of variation in the types of interest and brief that may be taking the same overall position in a particular case. With much more precise locations for the organized interests filing the briefs, tests of the conditional influence of amicus briefs can now utilize a finer-grained measure of the ideological proximity or distance between a justice and a brief. This will also allow researchers to test whether opinion language is

particularly influenced by briefs that adopt positions that are apparently counter to the filing interest's spatial location (see Calvert 1985). Finally, these ideal points will also allow researchers to test whether amicus briefs filed by ideologically heterogeneous coalitions of organized interests are more effective than those filed by a homogenous set of interests (Goelzhauser and Vouvalis N.d.).

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Figure 1. Distributions of ideal point estimates, MAR Model
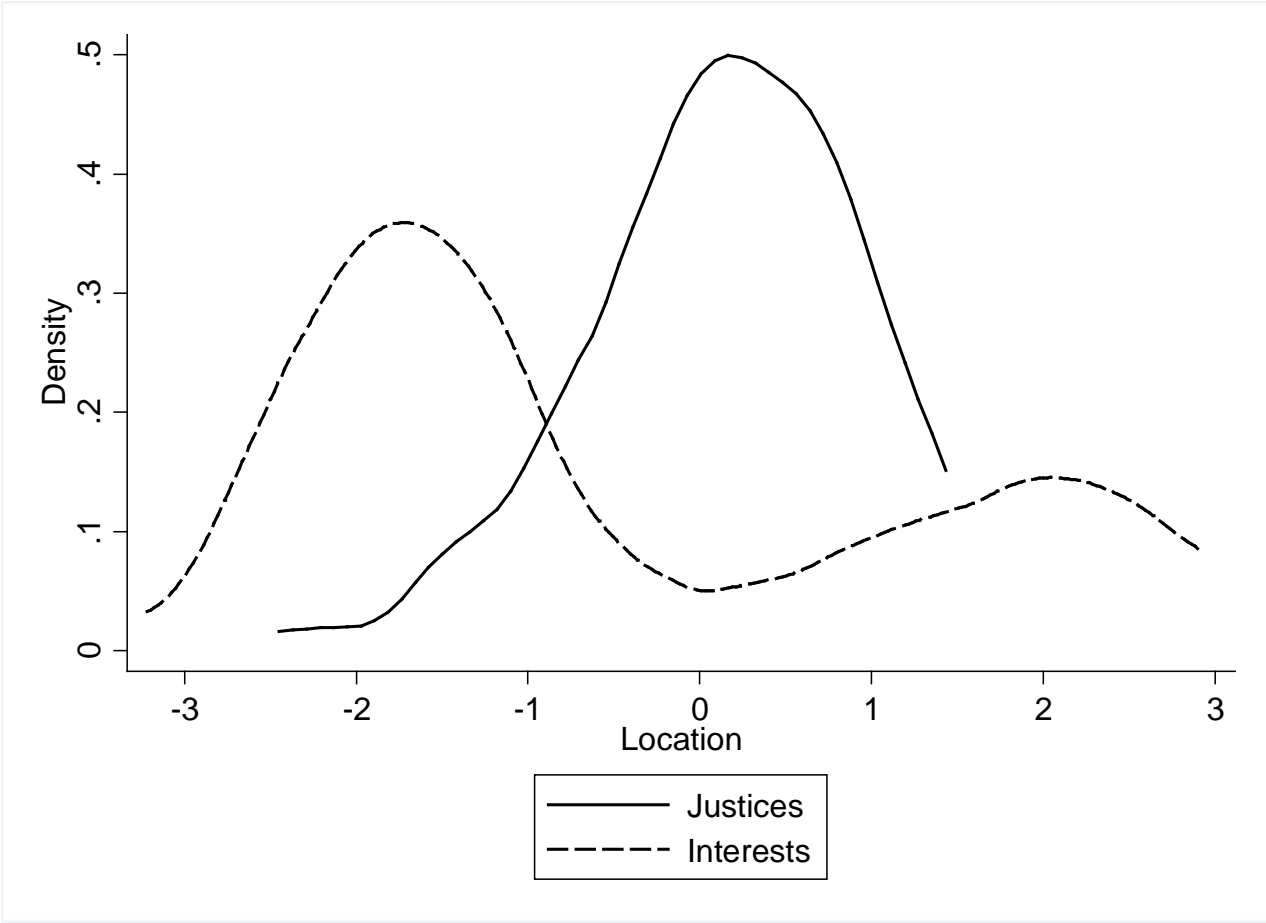
Note: Kernel density plots of the MAR Model estimates of the ideal points for justices and organized interests.

Figure 2. Distributions of ideal point estimates, Indifference Model
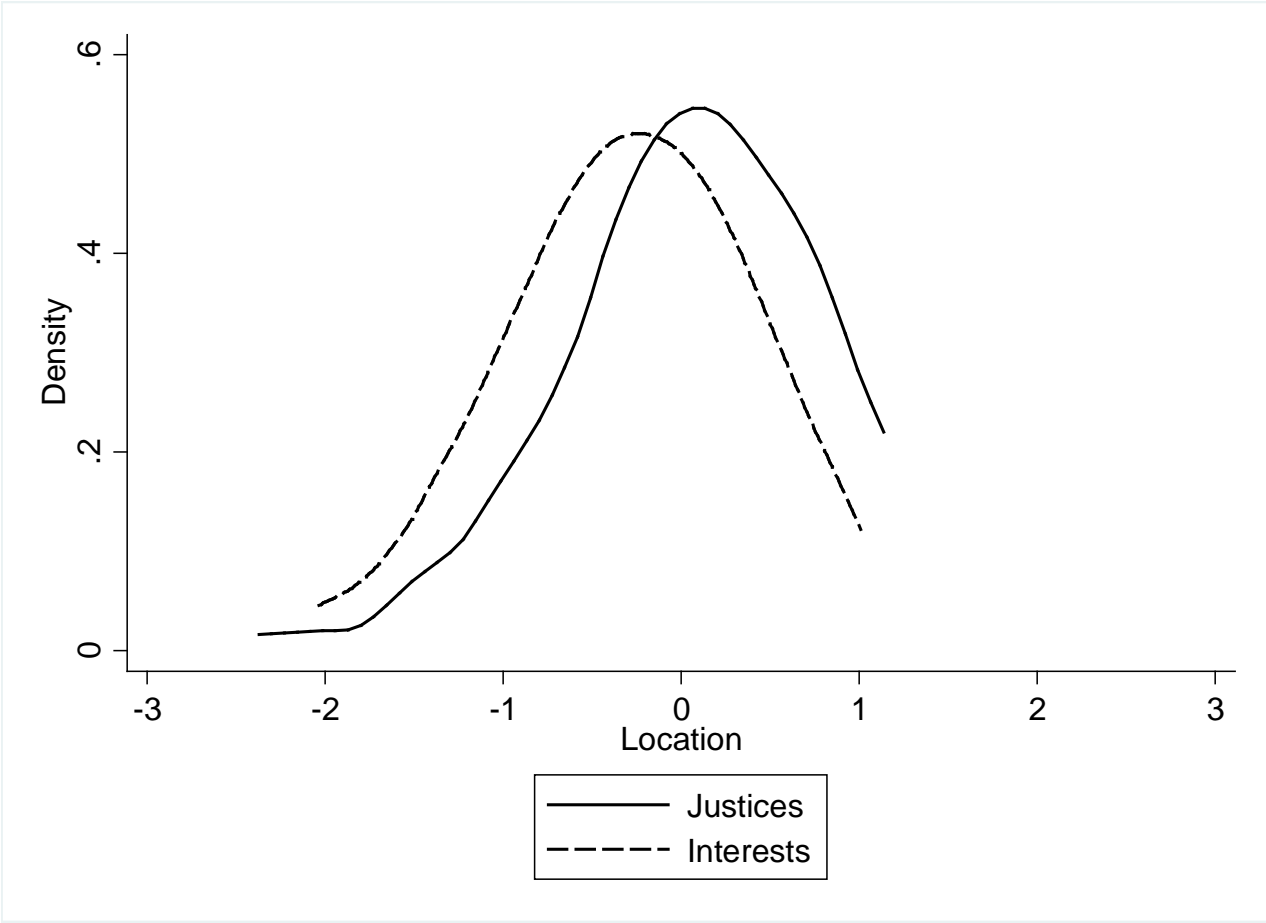
Note: Kernel density plots of the Indifference Model estimates of the ideal points for justices and organized interests.

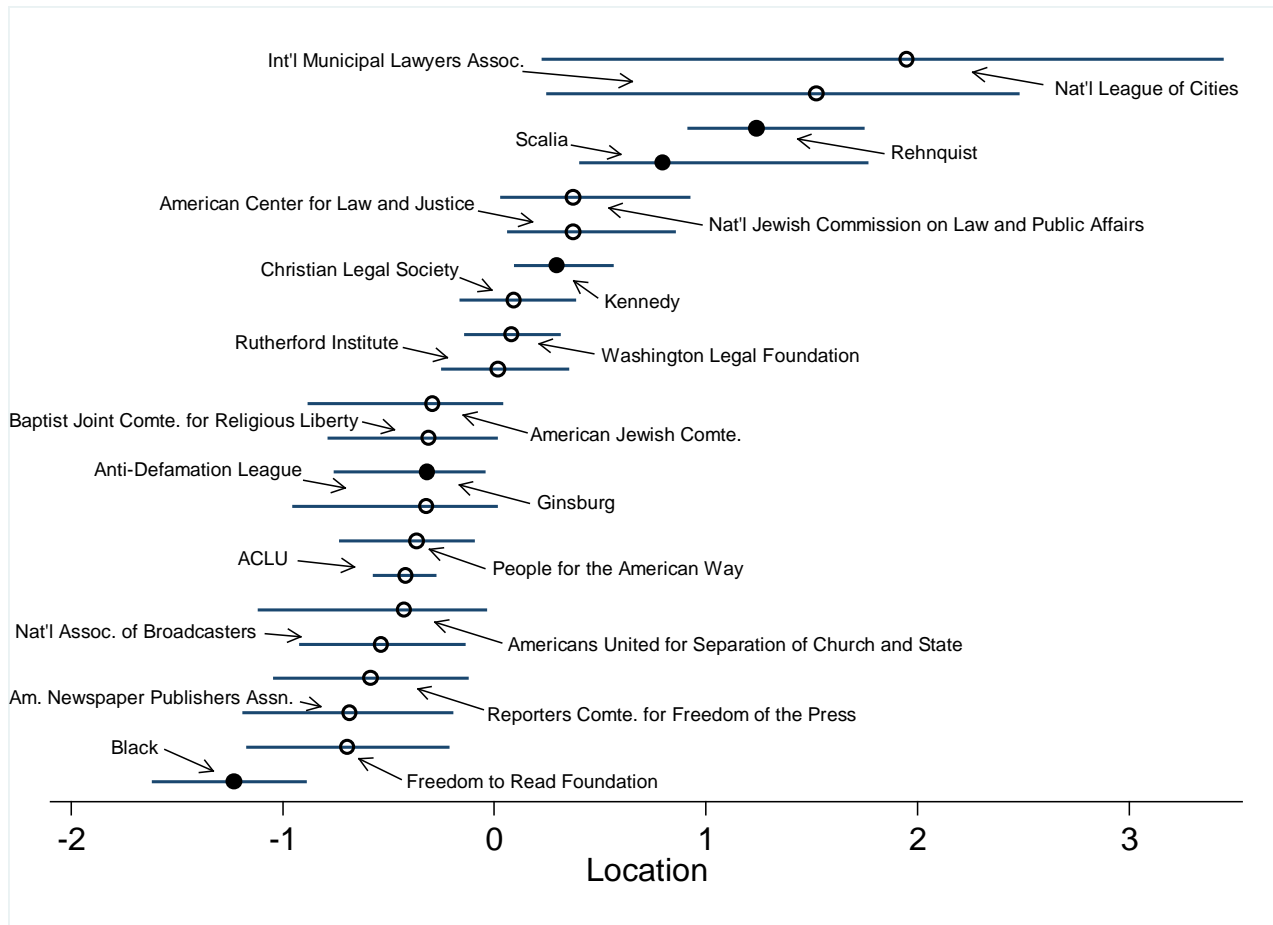**Figure 3. Positions of select interests and justices in all cases**
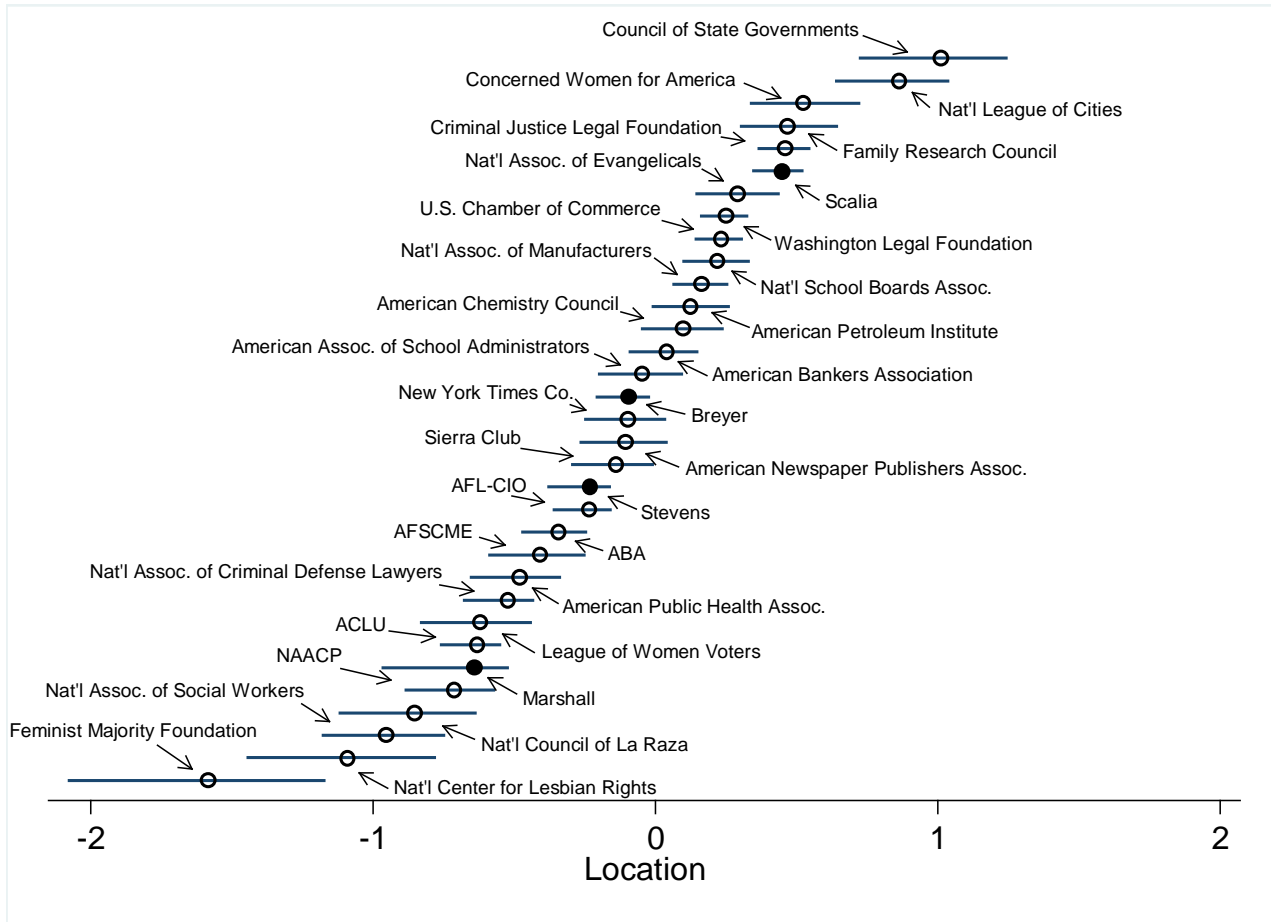
Note: Indifference Model ideal point estimates (and 95% credible intervals) for select organized interests (indicated with hollow circles) and justices (indicated with solid circles).

Figure 4. Comparing ideal points in legal policy space with Bonica's CFscores
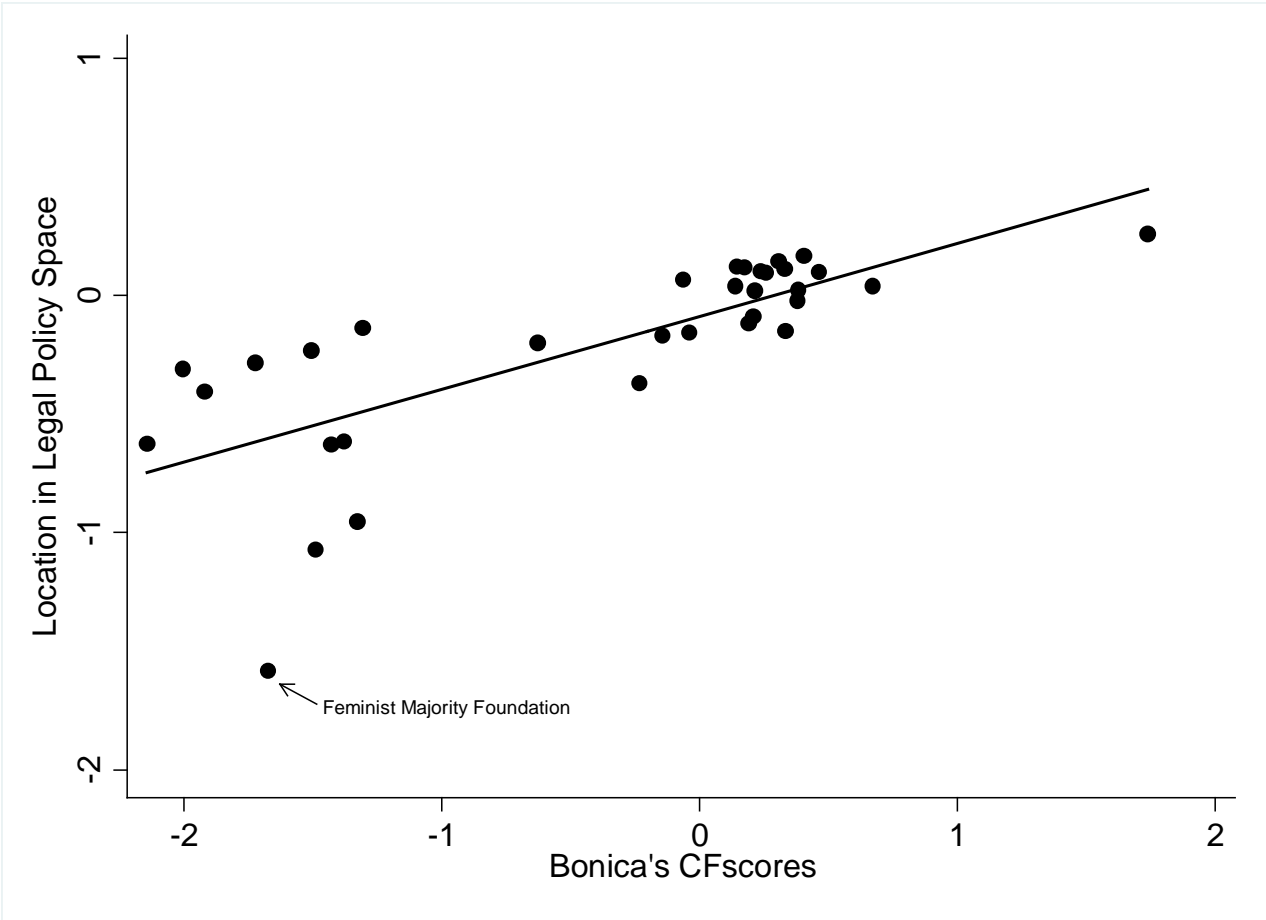
Note: Bonica's PAC-based CFscores are plotted on the x-axis while our Indifference Model estimates are plotted on the y-axis. We also plot the OLS regression line for these two variables.

Figure 5. Positions of select interests and justices in civil rights cases
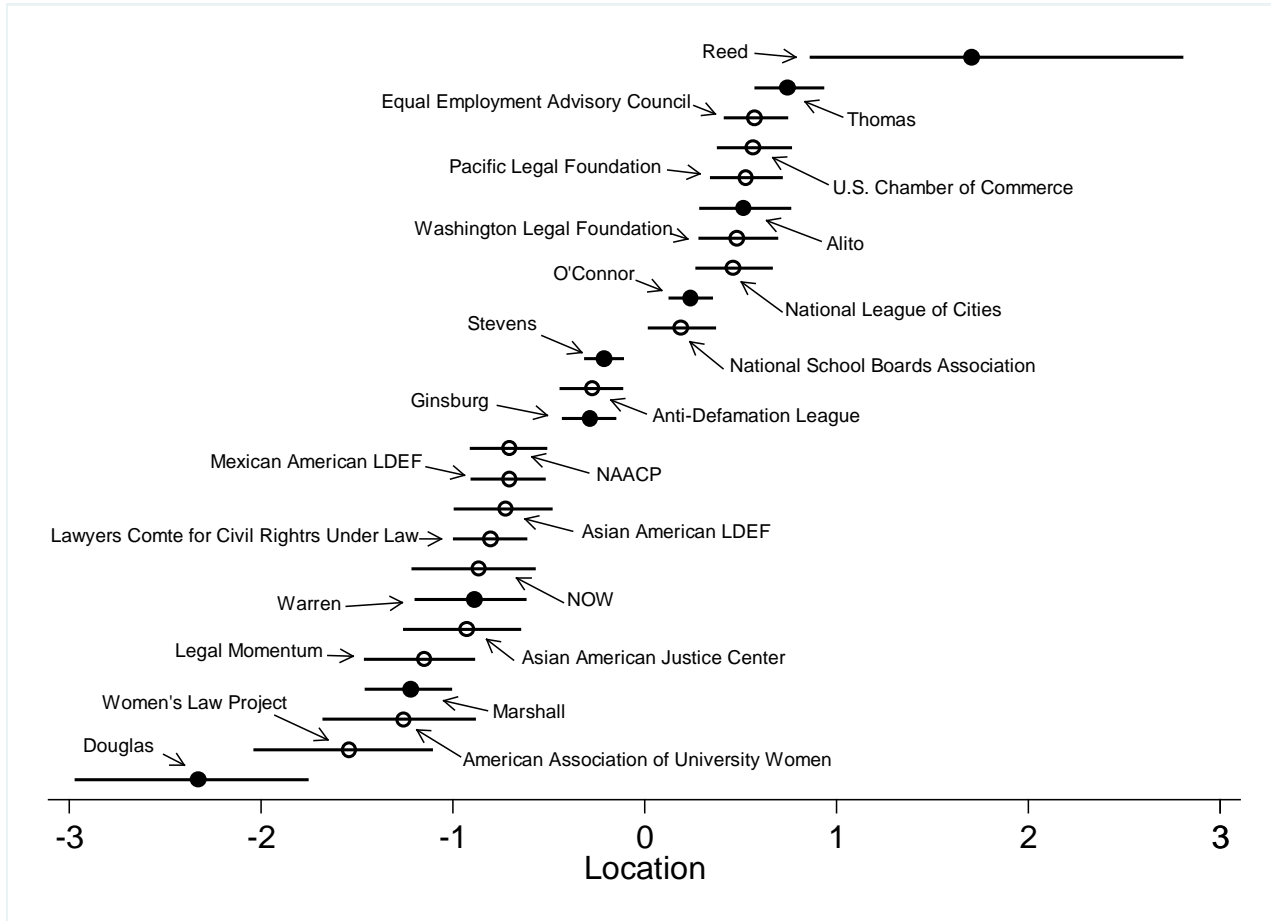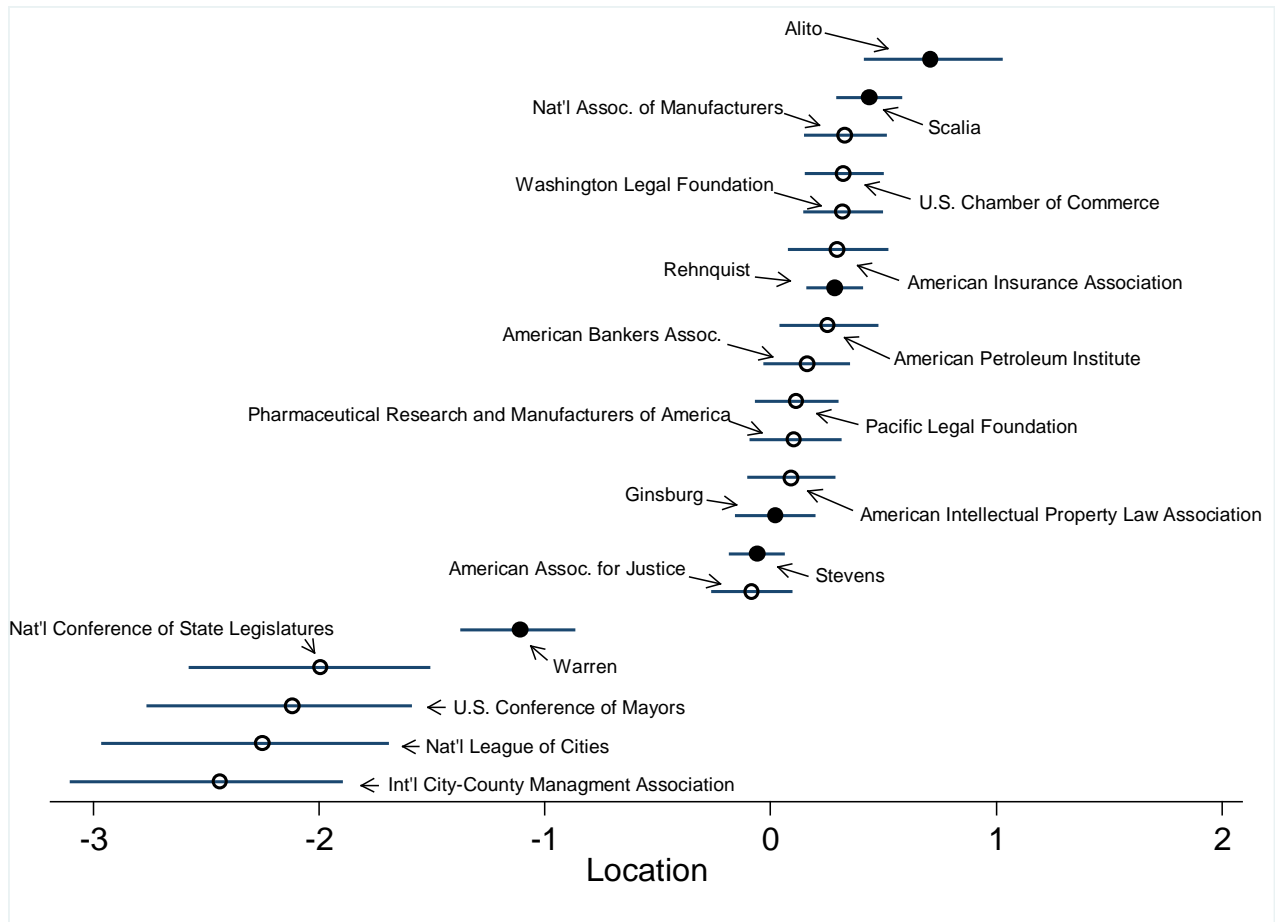

Note: Indifference Model ideal point estimates (and 95% credible intervals) for select organized interests (indicated with hollow circles) and justices (indicated with solid circles). These estimates are obtained with data on votes in civil rights cases.

Figure 6. Positions of select interests and justices in criminal procedure cases
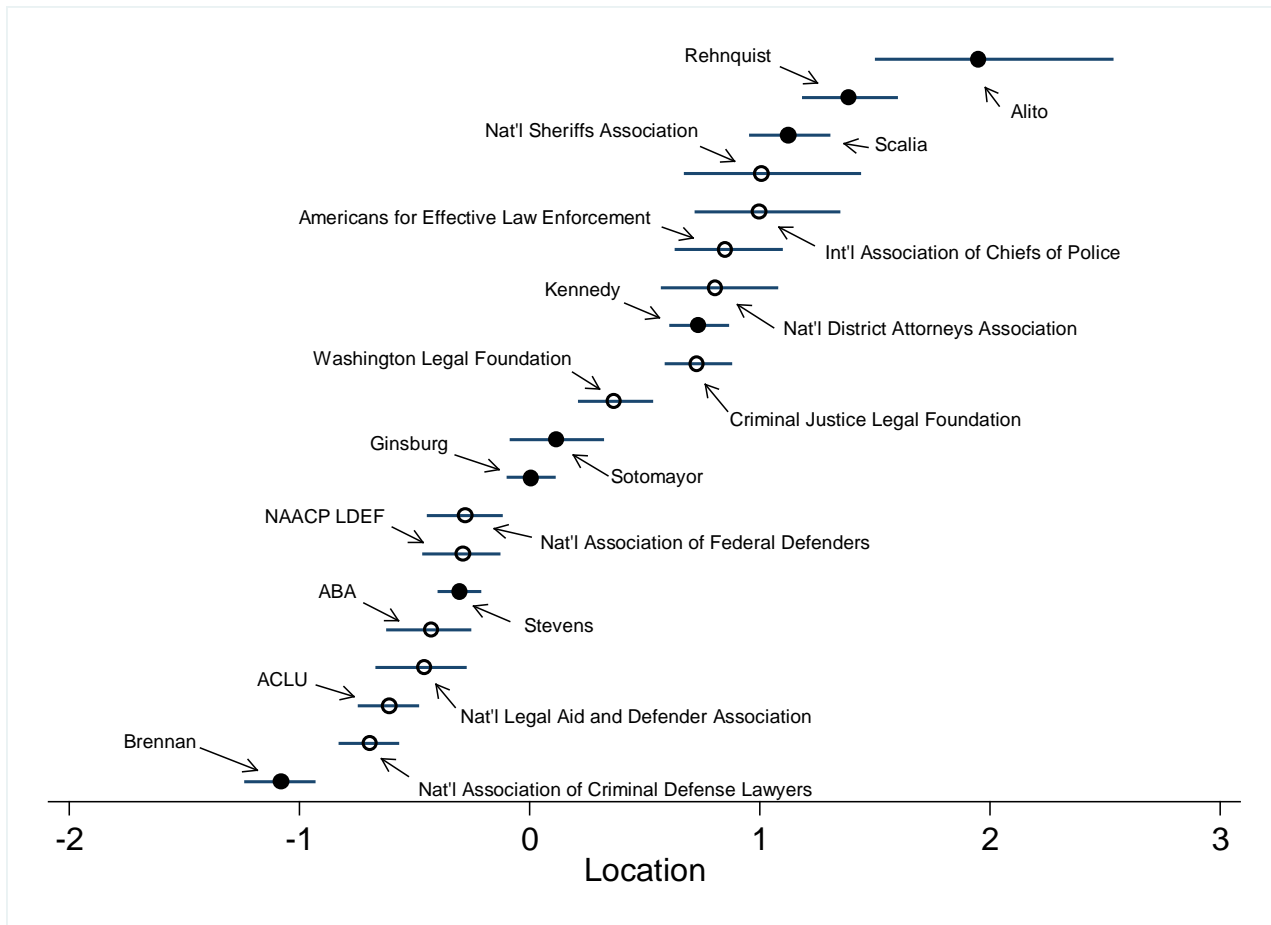

Note: Indifference Model ideal point estimates (and 95% credible intervals) for select organized interests (indicated with hollow circles) and justices (indicated with solid circles). These estimates are obtained with data on votes in criminal procedure cases.

Figure 7. Positions of select interests and justices in First Amendment cases


Note: Indifference Model ideal point estimates (and 95% credible intervals) for select organized interests (indicated with hollow circles) and justices (indicated with solid circles). These estimates are obtained with data on votes in First Amendment cases.

Figure 8. Positions of select interests and justices in economic cases

Note: Indifference Model ideal point estimates (and 95% credible intervals) for select organized interests (indicated with hollow circles) and justices (indicated with solid circles). These estimates are obtained with data on votes in economic cases.

**Figure 9. Comparing issue-specific estimates with pooled estimates**
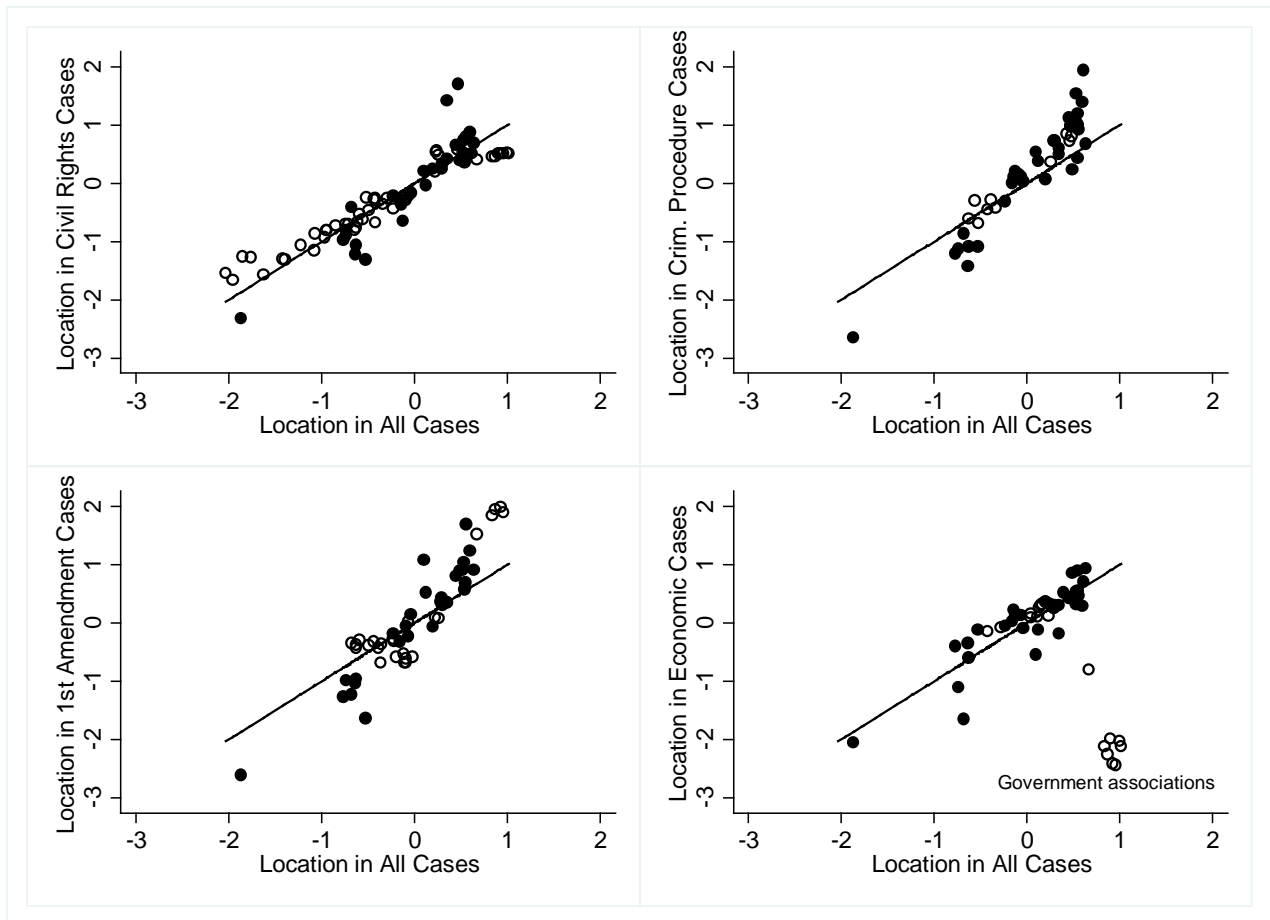
Note: For all four plots, the Indifference Model estimates obtained when all cases are used are plotted on the x-axis while the Indifference Model estimates obtained when limiting the data to the specific issue area are plotted on the y-axis. Justices are solid circles and organized interests are hollow circles. Each plot also includes the 45 degree line representing perfect correspondence between the sets of estimates.

Figure 10. Location of the median justice and median amicus, 1954-2013
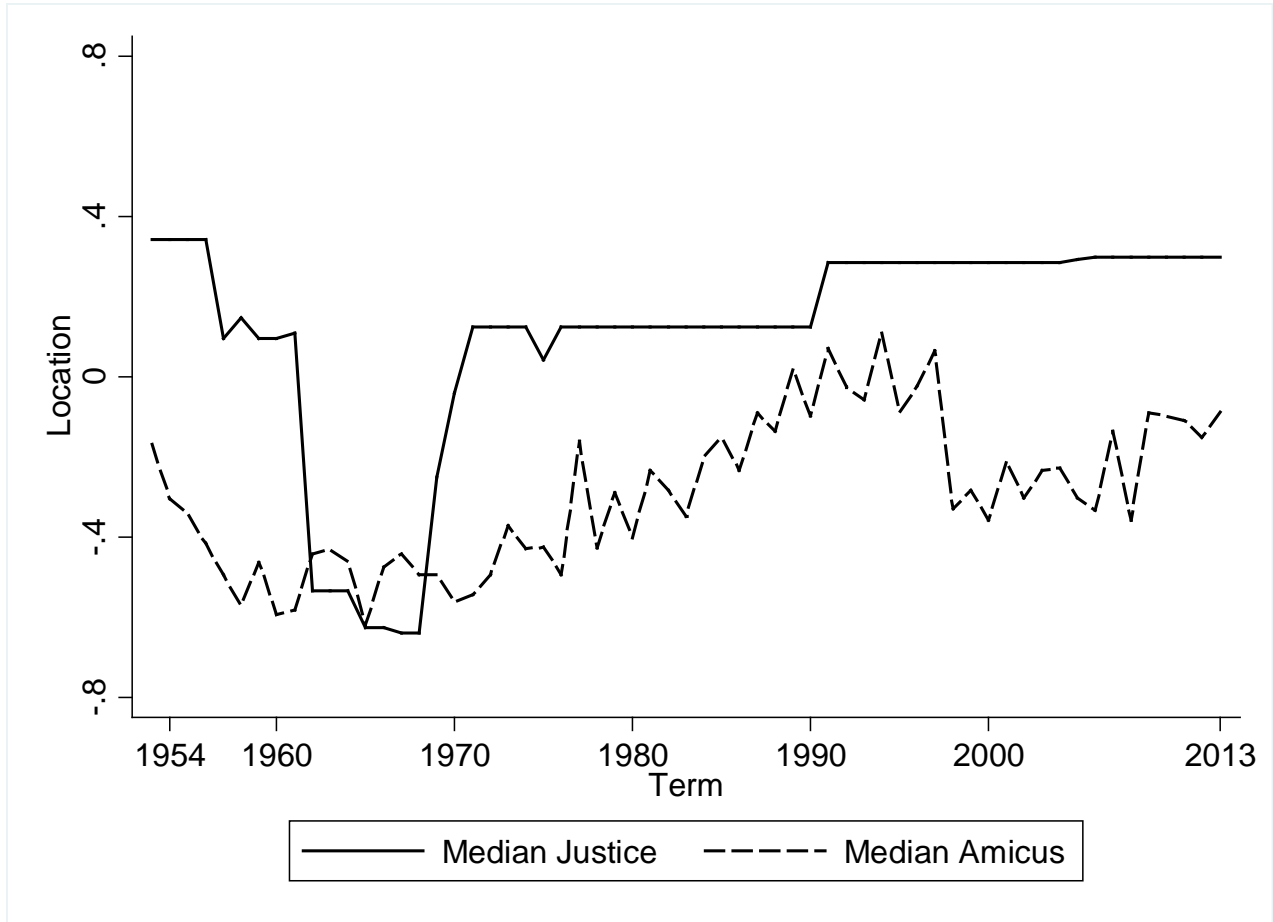
Note: The median amicus plotted here is the median signatory for the Court term, including only the 192 most active organized interests.

Figure 11. Distribution of ideal points of interests cited in Justice Stevens' opinions
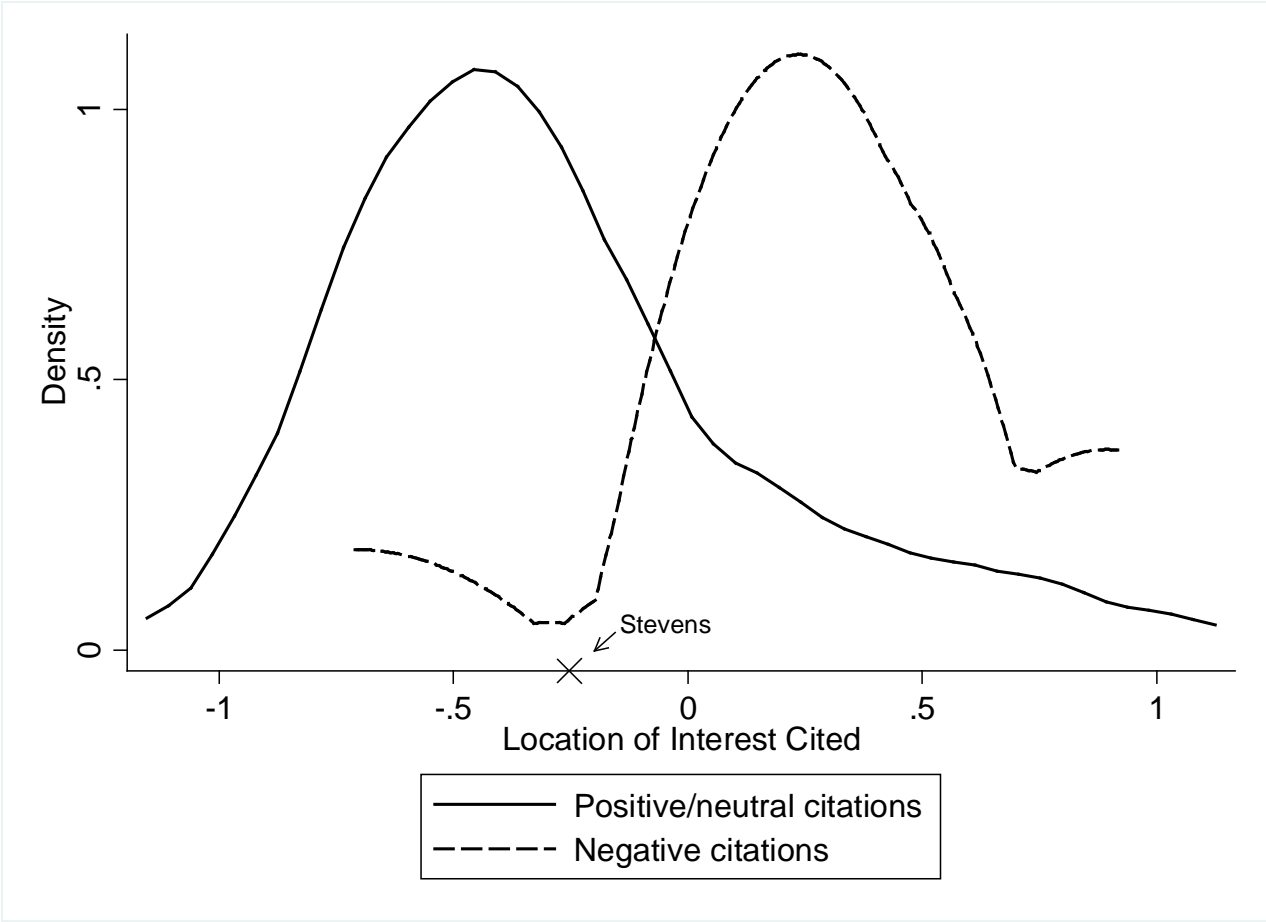
Note: The solid (dashed) line displays the kernel density plot of the ideal points of the organized interests positively or neutrally (negatively) referenced. The X marks the location of Justice Stevens ideal point.