A Common-Space Scaling of the American Judiciary and Legal Profession *

Adam Bonica† Maya Sen‡

* Replication materials are available online as a dataverse repository (http://dx.doi.org/10.7910/DVN/RPZLMO). Many thanks to Adam Chilton, Tom Clark, Andy Hall, Tom Miles, and Arthur Spirling for helpful conversations on this project. This project has also benefited from feedback garnered at workshops or conferences at Cornell Law School, Harvard Kennedy School, Harvard Law School, University of Rochester, and University of California-Berkeley.

† Assistant Professor, 307 Encina West, Stanford University, Stanford CA 94305 (bonica@stanford.edu, http://web.stanford.edu/~bonica).

‡ Assistant Professor, 79 John F. Kennedy St., Harvard University, Cambridge MA 02138 (maya_sen@hks.harvard.edu http://scholar.harvard.edu/msen).
ABSTRACT

We extend the scaling methodology previously used in [Bonica (2014)] to jointly scale the American federal judiciary and legal profession in a common-space with other political actors. The end result is the first data set of consistently measured ideological scores across all tiers of the federal judiciary and the legal profession, including 840 federal judges and 380,307 attorneys. To illustrate these measures, we present two examples involving the U.S. Supreme Court. These data open up significant areas of scholarly inquiry.

Word Count: Text Count 2,989
This paper extends donor-based scaling methods to jointly scale the legal profession and federal judiciary in a common-space with other political actors. We do so by linking together two sources of data: (1) a newly collected dataset that includes nearly all of the nation’s attorneys, gathered from online legal directory Martindale-Hubbell; and (2) the Database on Ideology, Money in Politics, and Elections (DIME) (Bonica, 2013). Combining these data allow us to identify the campaign contributions—and corresponding ideological common-space scores—for thousands of U.S. lawyers and judges.

These data are appealing for two reasons. First, these data represent the first consistently measured ideology estimates for judges across the federal judiciary that do not rely on the identities of appointing actors. Indeed, while the U.S. Supreme Court has seen substantial innovation in scaling methods (e.g., Martin and Quinn, 2002; Lauderdale and Clark, 2014; Bailey, 2013), measuring ideology has proven more difficult at the lower levels of the federal judiciary. This owes to the fact that district and appeals court judges seldom vote on cases together, and, when they do, it is often in three-judge panels too small to be scaled. Estimates of ideology of district or appeals court federal judges have therefore relied on the identity of the relevant nominating political actors (e.g., Boyd, 2011; Epstein et al., 2007; Giles, Hettinger, and Peppers, 2001). Our measures, however, do not rely on the identities of the appointing actors; neither do they rely on additional bridging assumptions beyond those used in the calculation of CFscores (Bonica, 2014). Second, our measurement strategy scales lawyers directly alongside federal judges, which opens possibilities for future research regarding the legal profession’s role in gatekeeping and advocacy.

We provide two illustrations of these data. First, we show that the ideologies of lawyers arguing cases before the Supreme Court closely track the directionality of case
outcomes. Second, and relatedly, we show that lawyers’ ideologies map onto the ideolo-
gies of justices who vote in their favor, thus recovering Martin-Quinn’s rank ordering.
This application further suggests that the ideology of prevailing attorneys could be used a
proxy for judicial ideology at lower-court levels, where using votes-based scaling is more
difficult. We conclude by noting that these data represent a useful tool both for Ameri-
can and judicial politics, thus providing a rich complement to existing measures such as

2. DATA

We construct our measures of attorney ideology by linking data from two sources: (1)
DIME and (2) the Martindale-Hubbell lawyers’ directory. A detailed discussion of the
DIME is provided in Bonica (2014). The database reports DIME scores (also known as
“common-space CFscores”) for all individuals and organizations making campaign con-
tributions to state and federal candidates from 1979–2014. The scores place donors in a
common-space with other candidates and organizations spanning local, state, and federal
politics. This allows for direct comparisons between attorneys, candidates, and judges.
Here, we rely strictly on scores derived from personal contributions to measure the ide-
ology of federal judges.

Our next task is to identify individual lawyers and judges in the DIME data. As
there is no centralized national database of licensed attorneys, we rely on the Martindale-
Hubbell Law Directory released in 2012. These data draw on submitted entries, state bar
directories, law firm listings, and other publicly available data sources. We utilized auto-
mated methods to link between DIME and the Martindale-Hubbell Directory. A proba-
bilistic record-linkage algorithm conditioned on information on name, employer, address,
geography, and other features. More details are provided in Bonica and Sen (2015). We
further augmented the information on federal judges by merging our data with a Federal
3. MEASURE VALIDATION

The DIME scores are extensively validated in Bonica (2014) for donors in general. We note some of the more important validation results. First, the scores for individual donors and recipients are robust to controlling for candidate characteristics related to theories of strategic giving, such as incumbency status. Second, DIME scores for political actors strongly correlate with vote-based measures of ideology such as DW-NOMINATE scores. Lastly, estimated scores for candidates that have campaigned for judicial and non-judicial seats are robust to changes in office type. In what follows, we extend the validation results for lawyers and judges.

Comparison with candidate-based measures. We identified 2,771 individuals in our data that had run for elected office and raised funds from enough donors to be assigned an independent DIME score as a candidate. Of this group, 159 also have DW-NOMINATE scores. Figure 1 plots the relationship between contributor and candidate DIME scores. The overall correlation is $\rho = 0.95$. The within-party correlations are $\rho = 0.86$ for Democrats and $\rho = 0.87$ for Republicans. The corresponding correlations with DW-NOMINATE scores are $\rho = 0.90$ overall, $\rho = 0.62$ for Democrats, and $\rho = 0.56$ for Republicans.

[Figure 1 about here.]

Comparison with existing measures. To compare the DIME scores with existing measures judicial preferences, we calculated scores for judges appointed to federal courts between 1980 and 2014 using the methodology described in Giles, Hettinger, and Peppers (2001)—the same methodology that underlies the widely-used Judicial Common-Space...
(JCS) Scores [Epstein et al., 2007]. The scores are assigned based on the common-space DW-NOMINATE scores of those involved in the nomination process.\(^3\) Using the technique described above, we extend the JCS scores through 2014. (We use the most recent release of the common-space DW-NOMINATE scores with coverage through the 113th Congress.)

The correlation between the DIME scores and JCS scores is \(\rho = 0.70\) for federal judges overall. The relationship is stronger when JCS scores are constructed from the NOMINATE scores of Senators (\(\rho = 0.77\)) as opposed to the appointing president (\(\rho = 0.63\)). The correlation is weaker than for the candidate-based measures, but this to be expected: the JCS scores are indirect measures based on those involved in the appointment process (Presidents and Senators). Examining the appeals judges with the largest residuals is illuminating for this reason. These are the Sixth Circuit’s Helene White (DIME = \(-0.92\); JCS = 0.72), the Second Circuit’s Barrington Parker (DIME = \(-0.60\); JCS = 0.72), and the Fourth Circuit’s William Traxler (DIME = 1.17; JCS = \(-0.28\)). In each case, the nominee had first been appointed to the district court by a president of one party before being elevated to an appeals court by a president of the other party. Moreover, unlike appointee-based measures, the DIME scores are not prone to errors resulting from bipartisan negotiations, including packaged deals. A recent example was struck between the Obama Administration and Saxby Chambliss and Johnny Isakson, Republican senators from Georgia, to move forward with packaged group of seven nominees. Ultimately, one of the Republican picks, Michael Boggs, was rejected by Senate Democrats. Our measures correctly identify Boggs as conservative.

**Strategy for dealing with missingness.** A limitation of the measuring judicial ideology from campaign contributions is that not all judges have made donations and thus are missing scores. While only about 33% of judges appointed during 1980s have contributor DIME scores, the coverage rate rises to 71% of judges appointed since 2001. For some
potential applications, missingness can be problematic. We use the Amelia II package (Honaker, King, and Blackwell, 2011) to multiply impute missing values. We include in the multiple imputation model variables capturing the (1) observed DIME and JCS scores, (2) court type, (3) law school, (4) birth year, (5) gender, (6) race/ethnicity, (7) employment history, (8) American Bar Association ratings, and (9) clerkships. We also include variables reflecting the political environment at time of nomination. Rather than pool all judges into a single imputation model, we group judges by the party of appointing president and fit the model separately for each party. (See the appendix for details.)

To evaluate the accuracy of the multiple imputation, we overimpute the DIME scores, which gives us predicted values from the multiple imputation model for both the missing and non-missing data. Figure 2 displays pairwise comparisons of the (1) contributor DIME scores, (2) JCS scores, and (3) the imputed scores. The points for judges are color coded with respect to the partisanship of their appointing president. The upper-right panels report the Pearson correlation coefficients between measures overall and within party. A direct comparison between the observed DIME scores and the imputed DIME scores can be seen in the bottom-left panel. The overall correlation with the observed DIME scores is \( \rho = 0.85 \) for the imputed scores compared with \( \rho = 0.70 \) for the JCS scores. The JCS scores explain very little variation in the DIME scores for judges appointed by the same party. The imputed scores perform significantly better in this respect.

**Sensitivity to giving to judicial candidates.** Lastly, we consider whether lawyers and judges differ from other types of donors. For example, lawyers may face pressure to contribute to the campaigns of sitting judges. When we re-estimate the DIME scores for lawyers with contributions to judicial candidates excluded, the resulting scores correlate with the original scores at \( \rho = 0.99 \). Moreover, re-estimating the scores with all contributions to state elections excluded (i.e., federal contributions only) produces scores for
lawyers that correlate with the original score at $\rho = 0.97$. It seems unlikely that these measures are sensitive to these concerns.

4. ILLUSTRATIONS OF THE DATA

We provide two illustrations of these data by examining (1) how Supreme Court lawyers ideologically align with case directionality and (2) how lawyers’ ideologies map onto the ideology of the justices who vote in their favor.

4.1. Do Lawyers’ Ideologies Align with Case Directionality?

Compelling arguments have been made that lawyers are primarily “guns for hire” whose ideologies are orthogonal to either their clients’ ideology or of the directionality of the eventual case; an equally strong argument is that lawyers and law firms have strong ideological leanings (Bonica, Chilton, and Sen, 2015). We investigate this using our measures. We first obtain the directionality of Supreme Court decisions from the U.S. Supreme Court Database for the 846 cases decided by the Roberts Court between 2005 and 2013 (Spaeth et al., 2015). This serves as a proxy (albeit an imperfect one) for the true directionality of the case. The case directions are coded according to the direction assigned to votes for the petitioner (1 if conservative, 0 if otherwise). We then match these cases with the CFscore of the lead attorney on the case, and regress case outcome on attorney ideology using a logit specification. The results are presented in Table 1.

Model 1 includes the ideal point of the attorney arguing for the petitioner party. It reveals a robust relationship between the conservatism of this attorney and conservative decisions: the more conservative the petitioner attorney, the more likely a decision for the
petitioner will be in a conservative direction. Model 2 adds the ideal point of the lawyer representing the respondent party. The coefficient on the DIME score for the respondent attorney is of similar magnitude but, as expected, negatively signed. This suggests a tendency for attorneys on opposing sides of a case to align on opposite sides of the ideological spectrum. In Model 3, the ideological variable calculated as the distance between the petitioner and respondent attorneys. Higher values indicate the petitioner attorney is to the right of the respondent attorney. In Model 4, we additional control for issue area. Again, we find a robust relationship between attorney ideology and the liberal-conservative coding of case directionality. In the appendix, we show that (1) the results hold for cases that were decided unanimously and hence would be uninformative in the context of MCMC-IRT estimation and (2) how the patterns amplify across certain issue areas (for example, First Amendment).

4.2. Inferring Justice Ideology from Attorney Ideal Points

Second, we explore the possibility that the ideology of justices will align with the ideology of the lawyers for whom they vote. This would not only provide support for our findings concerning attorney ideology (above), but also provide evidence of a broader congruence between lawyer ideology, case disposition, and judge ideology. That is, such findings would suggest that lawyer ideology could be useful for estimating the ideology of judges—including lower-court judges for whom votes-based measures are less widespread.

We do so by constructing scores for justices as a simple average of the ideal points of petitioner attorneys with whom they sided. As shown in Table[[]], the CFscores for petitioner attorneys appears to provide an informative signal about the directionality of case outcomes. The decision to focus more narrowly on petitioner attorneys—rather than both petitioner and respondent attorneys—reflects that respondent attorneys are dispropor-
tionately drawn from a relatively small set of governmental actors (e.g., the U.S. Solicitor General) that are assigned to cases by default. On the other hand, petitioner attorneys have greater discretion in bringing cases.

For our comparison set, we recover vote-based ideal points for Supreme Court justices with a one-dimensional MCMC-IRT model using the \textit{MCMCpack} R package (Martin, Quinn, and Park, 2011). We acquired vote data for Supreme Court decisions from the U.S. Supreme Court Database (Spaeth et al., 2015). We restrict the sample of cases to those decided by the Roberts Court between 2005 and 2013. We further limit the set of cases to those for which ideal points are available for both the petitioner and respondent attorneys. This leaves us with 289 of the original 434 nonunanimous cases decided since 2005. The estimates reported below are based on a 100,000 iteration sample, with a discarded 20,000 iteration burn-in period.

\textbf{[Figure 3 about here.]}  

Attorney ideology as revealed by contribution records provides a highly informative signal about the ideological content of case outcomes and, in turn, the ideology of justices. Figure 3 plots attorney-based estimates for justices against the corresponding ideal points recovered from the IRT model. The attorney-based estimates successfully reproduce both the rank-ordering and relative placement of justices recovered from IRT model. The two measures are almost perfectly correlated ($\rho = .99$).

While our approach succeeds in recovering the relative positions of justices, we caution that it does not place the justices on the same scale as the common-space DIME scores and thus cannot be directly compared without some adjustment. Attorney ideal points are a noisy signal of the location of the \textit{reverse} and \textit{not reverse} outcomes for individual cases. By averaging judicial voting patterns over a sufficiently large number of cases, it is possible to recover reliable estimates of where justices locate relative to each other. But measurement error introduces attenuation bias. Note also that Justice Thomas sides with
attorneys with an average ideal point that is slightly left of center. This is due to an overall left-skew in the Supreme Court Bar. It is quite common for both the petitioner and respondent attorneys on a case to be left of center.

5. CONCLUSIONS AND FUTURE RESEARCH

Scaling lower-court ideology from case decisions has proven challenging, owing to the fact that lower-court judges more infrequently sit together. In addition, approaches that use the ideology of nominating actors introduces mismeasurement into ideological estimates, leaving room for improvement. We take a different approach in this paper by presenting the largest dataset to date of consistently measured ideal points of state and federal judges and other kinds of legal actors. The estimation strategy here relies directly on revealed preferences, avoiding the problems associated with inferring ideology from nominating actors. The data also represent ideal points that are consistently measured for state and federal judges and for trial and appeals court judges. In addition, the data include ideal point estimates for attorneys, which broaden the range of possible research inquiries. Taken together, these measures enable many inquiries into the political influence of the bar and of the integration of lawyers and judges in the broader fabric of American politics.
Bibliography


Notes

1 Although not our focus here, state high courts sometimes hear cases in groups large enough to be scaled based on votes (Windett, Harden, and Hall, 2015). Even so, assumptions are required in order to compare votes-based estimates across states or jurisdictions. As we note below, the methodology we use here can be extended to state-court judges (e.g., Bonica and Woodruff, 2015).

2 Although this is suggestive of non-strategic donations, we note that this is a non-random subset and, because these are individuals running for office, may represent a group that is particularly ideologically coherent.

3 If one (or both) home-state Senators are of the President’s party, the nominee is assigned the NOMINATE score of the home-state Senator (or the average). If neither Senator is from the President’s party, the nominee is assigned the President’s NOMINATE score.
## List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Recipient and contributor ideal points for lawyers who ran for elected office</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Pairwise comparisons of observed and imputed DIME scores and JCS scores for federal judges (1980-2014)</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Comparison of MCMC IRT estimates and ideal points inferred from attorney ideology</td>
<td>16</td>
</tr>
</tbody>
</table>
Figure 1: Recipient and contributor ideal points for lawyers who ran for elected office
Figure 2: Pairwise comparisons of observed and imputed DIME scores and JCS scores for federal judges (1980-2014)

Note: Upper panels report overall and within party correlation coefficients.
Figure 3: Comparison of MCMC IRT estimates and ideal points inferred from attorney ideology
Table 1: Predicting liberal-conservative case codings from attorney ideal points: Logit

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.24</td>
<td>0.10</td>
<td>0.02</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.10)</td>
<td>(0.08)</td>
<td>(0.69)</td>
</tr>
<tr>
<td>DIME score of Petitioning Atty.</td>
<td>0.44</td>
<td>0.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIME score of Respondent Atty.</td>
<td>-0.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(DIME score of Petitioning Atty. − DIME score of Respondent Atty.)</td>
<td></td>
<td>0.36</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.06)</td>
<td>(0.07)</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>1021.30</td>
<td>786.21</td>
<td>786.14</td>
<td>756.76</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-508.65</td>
<td>-390.11</td>
<td>-391.07</td>
<td>-365.38</td>
</tr>
<tr>
<td>Deviance</td>
<td>1017.30</td>
<td>780.21</td>
<td>782.14</td>
<td>730.76</td>
</tr>
<tr>
<td>Num. obs.</td>
<td>757</td>
<td>590</td>
<td>590</td>
<td>590</td>
</tr>
</tbody>
</table>

Outcome Variable: Direction of case outcome associated with petitioner is conservative.