

# Compendium of Validation Results for DIME scores

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## 1 Summary

Donation-based measures of political ideology have become a widely used resource for scholars of American politics. These measures—referred to as “DIME scores”<sup>1</sup>—have been extensively validated across several studies spanning a variety of institutional settings and types of actors. This document provides a compendium of these validation results.

The primary set of validation results are found in “[Mapping the Ideological Marketplace](#)” (Bonica 2014, *AJPS*) and its [supplemental appendix](#). This study introduces the model and study subjects the scores and modeling assumptions to a battery of validation tests.

A related study titled “[Are Donation-Based Measures of Ideology Valid Predictors of Individual-Level Policy Preferences?](#)” (Bonica *Forthcoming, Journal of Politics*) validates the contributor scores against a rich battery of policy items from the Congressional Campaign Election Study (CCES). Donation-based measures are shown to be powerful predictors of survey responses to CCES policy items for a wide range of issues, both across and within party.

A third article titled “[Inferring Roll Call Scores from Campaign Contributions Using Supervised Machine Learning.](#)” (Bonica *Forthcoming, AJPS*) develops a generalized supervised learning methodology for predicting measures of roll call voting behavior from campaign contributions. It demonstrates that it is possible to accurately forecast the future voting behavior of candidates based on their fundraising activity as nonincumbents. The estimates generated by this method are referred to as “DW-DIME scores.”

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<sup>1</sup>DIME is short for the Database on Ideology, Money in Politics, and Elections.

## 2 Validation Results

### 2.1 Predictive Validity

- Percentage of Votes Correctly Classified (96th-112th Congresses) ([Bonica 2014](#): see Table 1).
- Comparison of predictive accuracy for roll call votes for nine different measures of legislative ideology ([Bonica Forthcomingb](#): see Table 2 and Figure 3).
- Predicting CCES policy items a merged DIME/CCES dataset Scores Against Responses for CCES Policy Items ([Bonica Forthcominga](#)).
- Predicting liberal-conservative direction codings for Supreme Court cases using attorney ideal points ([Bonica and Sen 2017](#): Table 1).
- Predicting voting patterns of state supreme court justices ([Bonica and Woodruff 2015](#): Table 2).

### 2.2 External Validity

- Comparison of nine different measures of legislator ideology against DW-NOMINATE ([Bonica Forthcomingb](#): see Table 1 and Figure 2).
- Pairwise comparisons of observed and imputed DIME scores and Judicial Common-Space (JCS) scores for federal judges (1980-2014). ([Bonica and Sen 2017](#): Figure 2).
- Comparison of MCMC-IRT estimates for Supreme Court Justices against ideal points inferred from attorney ideology ([Bonica and Sen 2017](#): Figure 2).
- Predicting House roll call voting in the House with a two-cut-point model as a test of the party-pressure hypothesis. (see pp. 303-304 of [Bonica \(2013\)](#))
- Comparison of DIME scores, Turbo-ADA, and DW-NOMINATE scores ([Bonica 2014](#): Figure A6 of Supplemental Appendix).
- Comparison of DIME scores recovered as Incumbent as Non-incumbents ([Bonica 2014](#): Figure A7 of Supplemental Appendix).

### 2.3 Internal Validity

- Comparison on scores assigned to candidates based on (1) their fundraising activity as a candidate and (2) donations made to other candidates in their personal capacity. ([Bonica 2014](#): pp. 7 and Supplemental Appendix B).
- Recipient and contributor ideal points for lawyers who ran for elected office ([Bonica and Sen 2017](#): Figure 1).
- Ideological consistency in the contribution patterns of donors ([Bonica 2014](#): Supplemental Appendix D).
- Comparison of over time changes in partisanship in contributions and roll call voting ([Bonica and Cox 2018](#): See pp. 12-13 of the Supplemental Appendix).

- DIME scores for individual donors are insensitive to changes in geography and employer (Bonica et al. N.d.: see pp. 7-10).
- DIME scores for wealthy donors are insensitive to changes in wealth (Bonica and Rosenthal 2016: Table 8)
- Comparison of dynamic DIME scores for a candidate in an election at time  $t$  to previous dynamic score at  $t - 1$ , for U.S. House Candidates, 1980–2012. Previous ideology is an extremely strong predictor of current ideology (Hall 2017).
- Stability of estimated ideal points before and after 1994 (Bonica and Cox 2018: See pp. 13-18 of the Supplemental Appendix).

## 2.4 Robustness to Strategic Giving

- Robustness to changes in candidate characteristics and electoral contexts that have been linked with strategic behavior. (Bonica 2014: Supplemental Appendix E)
- Comparison of Fit for ideological and investor models of giving (Bonica 2014).

## References

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