

# DW-NOMINATE Scores With Bootstrapped Standard Errors

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This updated release of the DW-NOMINATE scores for the 1<sup>st</sup> to the 113<sup>th</sup> Congresses (1789 - 2014) contains *parametric bootstrapped standard errors*. For an explanation of the basic theory of the parametric bootstrap see:

"Measuring Bias and Uncertainty in Ideal Point Estimates via the Parametric Bootstrap." *Political Analysis*, 12:105-127, 2004, [Jeffrey B. Lewis](#) and [Keith T. Poole](#).

"Measuring Bias and Uncertainty in DW-NOMINATE Ideal Point Estimates via the Parametric Bootstrap." *Political Analysis* 17:261-27, 2009, Royce Carroll, Jeffrey B. Lewis, James Lo, Keith T. Poole, and Howard Rosenthal.

This research was made possible by NSF Grant 0611880 to [Jeffrey B. Lewis](#), [Keith T. Poole](#), and [Howard Rosenthal](#). This work was also supported in part by the Rice Terascale Cluster funded by NSF under Grant EIA-0216467, and a partnership between Rice University, Intel, and HP. We thank the National Science Foundation, Rice University, and the San Diego Supercomputer Center for their support. The files below contain DW-NOMINATE scores for the 1<sup>st</sup> to the 113<sup>th</sup> Congresses (1789 - 2014). For an explanation of how the data is organized and formatted [read this text file](#).

As Poole and Rosenthal explain in [Ideology & Congress](#) (the 2<sup>nd</sup> edition of [Congress: A Political-Economic History of Roll Call Voting](#)), the first dimension can be interpreted in most periods as government intervention in the economy or liberal-conservative in the modern era. The 2<sup>nd</sup> dimension picks up the conflict between North and South on Slavery before the Civil War and from the late 1930s through the mid-1970s, civil rights for African-Americans. After 1980 there is considerable evidence that the South realigns and the 2<sup>nd</sup> dimension is no longer important. See our discussion of this period in our monograph: [Income Redistribution and the Realignment of American Politics](#) (joint with Nolan McCarty, 1997, AEI Press). Further discussion can also be found in [Spatial Models of Parliamentary Voting](#) by Keith Poole and in [Polarized America](#) (joint with Nolan McCarty).

In the House scaling, the second dimension weight is 0.3988 and the Beta parameter (proportional to  $1/s$  where  $s$  is the standard deviation of the error) is 7.833. The correct classification was 87.78 percent with an APRE of 0.638 and a geometric mean probability of 0.761. The corresponding values for the Senate scaling are .5638 and 10.1105, for the second dimension weight and Beta, respectively. The correct classification was 86.1 percent with an APRE of 0.591 and a geometric mean probability of 0.744.

In order to calculate distances from the DW-NOMINATE scores you must multiply the second dimension by the weight parameter. To calculate the choice probabilities you must apply both the second dimension weight and the Beta parameter. *Use the Yea and Nay outcome coordinates with considerable caution because, as we explain in Congress: A Political Economic History of Roll Call Voting, they are poorly identified. However, the cutting line is identified and can be used safely.*

If you have used previous releases of the DW-NOMINATE scores please go to the [Current vs. Past Releases of DW-NOMINATE Scores](#) page. The scores computed for the 1<sup>st</sup> to the 113<sup>th</sup> (through 2012) are essentially identical to the previous release (i.e., the corresponding scores for Congresses 1 to 112). However, when a new Congress is added to the dataset this will slightly change the scores for more recent members because their scores are estimated using their *entire voting history*. This will also slightly change the overall means of the dimensions. Finally, the past few Congresses are nearly unidimensional with correct classifications of 90 percent or better. Consequently, the overall fit of the DW-NOMINATE estimation has increased as recent Congresses have been added to the dataset. Also note that the 2<sup>nd</sup> dimension weight can vary somewhat from scaling to scaling because the 2<sup>nd</sup> dimension coordinates can be contracted/expanded slightly. The weight will compensate for this. The [Current vs. Past Releases of DW-NOMINATE Scores](#) page shows the corrections necessary to map the past scalings into the current scalings along with STATA files containing the current and past releases.

Please note that the House files now contain scores for most Presidents. For Presidents prior to Eisenhower these are based on roll calls corresponding to Presidential requests. These roll calls were compiled by an NSF project headed by Elaine Swift ([Study No. 3371, Database of Congressional Historical Statistics, 1789-1989](#)). Many of these scores are based upon a small number of roll calls *so use them with caution!*

If you have questions or need help with these files please send us e-mail at [jblewis@ucla.edu](mailto:jblewis@ucla.edu) (Jeff Lewis) or [ktpoole@uga.edu](mailto:ktpoole@uga.edu) (Keith Poole).

To see a QuickTime Movie of the DW-NOMINATE scalings download this movie file:

[Two Dimensional Movie of the 1<sup>st</sup> to 111<sup>th</sup> Houses and Senates](#) (through 2009, high resolution, 458 Megabytes!!)

The format of the legislator files is:

1. Congress Number
2. ICPSR ID Number: 5 digit code assigned by the ICPSR as corrected by Howard Rosenthal and myself.
3. [State Code: 2 digit ICPSR State Code.](#)
4. Congressional District Number (0 if Senate)
5. State Name
6. Party Code: 100 = Dem., 200 = Repub. (See [PARTY3.DAT](#) for a full set of codes of minor and historical parties)
7. Name
8. 1st Dimension Coordinate
9. 2nd Dimension Coordinate
10. 1st Dimension Bootstrapped Standard Error
11. 2nd Dimension Bootstrapped Standard Error
12. Correlation Between 1st and 2nd Dimension Bootstrapped Estimates over the 1000 trials (for computing the correlation)
13. Log-Likelihood
14. Number of Votes
15. Number of Classification Errors
16. Geometric Mean Probability

The format of the roll call files is:

1. Congress Number
2. Roll Call Number
3. "H" if House, "S" if Senate
4. Number of Yeas
5. Number of Nays
6. Month of Roll Call
7. Day of Roll Call
8. Year of Roll Call
9. Number Correctly Classified
10. Predicted Yea/Actual Yea
11. Predicted Yea/Actual Nay
12. Predicted Nay/Actual Yea
13. Predicted Nay/Actual Nay
14. Proportion Correctly Classified (#9 divided by #4 + #5)
15. Proportional Reduction in Error (PRE) -- (Min. on RC - Error)/Min. on RC
16. Geometric Mean Probability
17. Spread on 1st Dimension -- if the roll call was not scaled, there
18. Midpoint on 1st Dimension -- are 0.000's in all four fields
19. Spread on 2nd Dimension --
20. Midpoint on 2nd Dimension --

[Legislator Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Text File, 37,521 lines\)](#)

[Legislator Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Stata 13 File, 37,521 lines\)](#)

[Legislator Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Stata 12 File, 37,521 lines\)](#)

[Legislator Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Eviews File, 37,521 lines\)](#)

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[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Text File, 53,530 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Stata 13 File, 53,530 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Stata 12 File, 53,530 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Eviews File, 53,530 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Houses \(Excel File, 53,530 lines\)](#)

[Roll Call Estimates 83<sup>rd</sup> to 113<sup>th</sup> Houses merged with Rohde/PIPC House Roll Database \(STATA 14 file, 28,123 lines\)](#) -- the format of the [PIPC data](#) is outlined in the [PIPC Codebook](#). The DW-NOMINATE roll call coordinates are tacked onto the beginning of the PIPC data in the same format as listed above.

[Roll Call Estimates 83<sup>rd</sup> to 113<sup>th</sup> Houses merged with Rohde/PIPC House Roll Database \(STATA 13 file, 28,123 lines\)](#) -- Same as above.

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Text File, 9,063 lines\)](#)

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Stata 14 File, 9,063 lines\)](#)

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Stata 12 File, 9,063 lines\)](#)

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Stata 9 File, 9,063 lines\)](#)

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Eviews File, 9,063 lines\)](#)

[Senator Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Excel File, 9,063 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Text File, 49,276 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Stata 13 File, 49,276 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Stata 12 File, 49,276 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Eviews File, 49,276 lines\)](#)

[Roll Call Estimates 1<sup>st</sup> to 113<sup>th</sup> Senates \(Excel File, 49,276 lines\)](#)

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