Title
Extreme Roll Call Analysis

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“Extreme” Roll Call Analysis

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“Extreme”
Roll Call Analysis

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February 2005
Roll Call Analysis

U.S. Congress as canonical case?
- lots of legislators
- lots of roll-calls
- reasonable heterogeneity in voting profiles (less-than-perfect party loyalty)
- two-party system helps ensure unidimensional models fit well
Other settings?

courts?

U.S. Supreme Court: \( n=9 \)

3 judge panels in Federal courts
Other settings?

- Westminster-style legislatures
- Strong party discipline
- Not as many roll calls
- Possibly multi-dimensional
Two Examples


Asylum Appeals

*(David Law’s dissertation)*

- 9th Circuit (Western states)
- 3 judge panels hearing asylum cases
- 1,892 cases; 142 judges, 1992-2001
- plus 3 *en banc* appeals, each heard by 11 judges
- 5,676 binary decisions to model
DECISIONS PER JUDGE

COUNT OF DECISIONS (LOG SCALE)

JUDGE
1 2 5 10 20 50 100 200
0
20
40
60
80
100
120
140
Asylum Cases

- just 17% of appeals are successful
- 79% of decisions are unanimous rejections of the appeal
Sparness in Data

- Of 1,895 cases, only 103 are non-unanimous.
- 57 different judges appear in these 103 non-unanimous cases.
- Of these 57 judges, 16 judges appear just once; only 25 appear 5 or more times.
- Of these 57 judges, only 19 have variation in their voting patterns.
Fitting Spatial Voting Model

- unidimensional policy space
- each judge has an ideal point
- each case has 2 parameters: the “grant asylum” location and the “deny asylum location”
CJR quadratic/normal

\[ U_i(Y_j) = -(x_i - Y_j)^2 + \varepsilon_{ijY} \]
\[ U_i(N_j) = -(x_i - N_j)^2 + \varepsilon_{ijN} \]
\[ Pr(y_{ij} = 1) = Pr[U_i(Y_j) > U_i(N_j)] \]
\[ = F(x_i \beta_j - \alpha_j) \]

where

\[ \beta_j = 2(Y_j - N_j) \]
\[ \alpha_j = Y_j^2 - N_j^2 \]
\[ \alpha_j / \beta_j = \frac{Y_j + N_j}{2} \]
CJR quadratic-normal

identification: judge ideal points have mean zero, standard deviation one

over-lapping generations structure across judges, through cases, means joint scaling feasible

lots of unanimous panels; lop-sided and/or short voting histories; data relatively uninformative for most judges
Overlapping Generations Structure (judges through cases)
Undirected Graph Representation of Overlapping Generations Structure Among Judges through Cases
Ideal Point Estimates (Posterior Means) and 95% CIs
Simplifications

- hierarchical model (shrink ideal points to partisan-specific means)
- constrain “Yes” location to be the same parameter across cases
- hierarchical model, shrink Nay locations towards value specific to each country of petitioner
Breakdown of Judges by Appointing President

<table>
<thead>
<tr>
<th>President</th>
<th>Judges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinton</td>
<td>33</td>
</tr>
<tr>
<td>Bush</td>
<td>19</td>
</tr>
<tr>
<td>Reagan</td>
<td>32</td>
</tr>
<tr>
<td>Carter</td>
<td>25</td>
</tr>
<tr>
<td>Ford</td>
<td>7</td>
</tr>
<tr>
<td>Nixon</td>
<td>10</td>
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<tr>
<td>LBJ</td>
<td>11</td>
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<tr>
<td>JFK</td>
<td>3</td>
</tr>
<tr>
<td>Eisenhower</td>
<td>2</td>
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</table>
Distribution of Ideal Point Estimates
By Appointing President
Country of Petitioner

<table>
<thead>
<tr>
<th>Country</th>
<th>n</th>
<th>%</th>
<th>success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicaragua</td>
<td>318</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Philippines</td>
<td>247</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>224</td>
<td>12%</td>
<td>17%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>184</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>India</td>
<td>114</td>
<td>6%</td>
<td>26%</td>
</tr>
<tr>
<td>Fiji</td>
<td>85</td>
<td>4%</td>
<td>18%</td>
</tr>
</tbody>
</table>
Australian Senate Data

- all recorded divisions, 1996-present
- 12 Senators per state, elected by Hare-Clark (quota-preferential); quasi-PR, hence minor parties and independents
- clear evidence of multidimensionality
- near-perfect party loyalty among major parties
Australian Senate Data

- several high-profile party switches/defections over period
- conservative government (formed in lower house) lacked majority in Senate over the entire period
- govt will gain control on July 1, 2005
Issues for Voteworld

- data standard?
- meta-data: what the rolls were about, time-stamping, etc.