

# **“Extreme” Roll Call Analysis**

**Simon Jackman  
Stanford University  
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

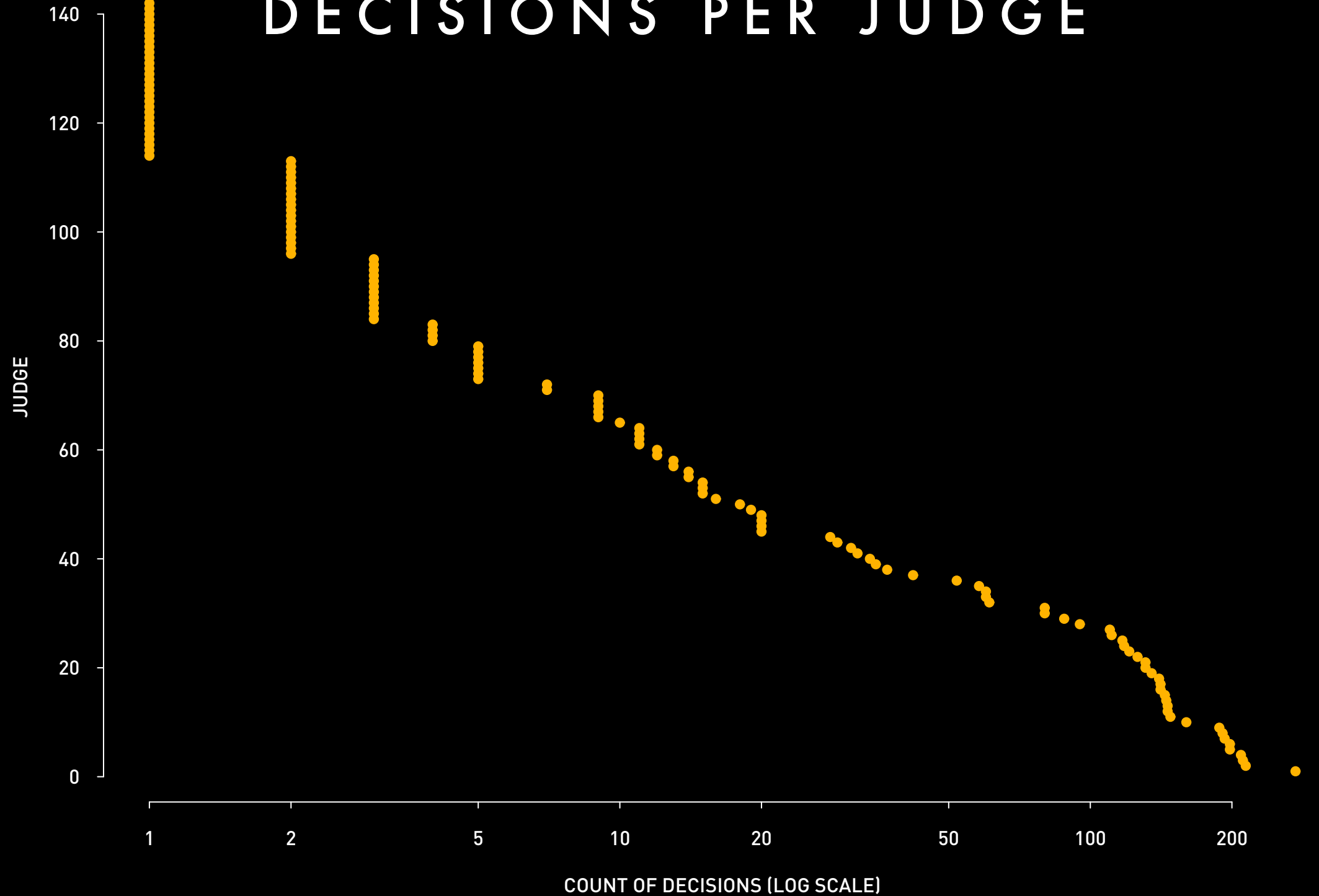
1. U.S. Federal Courts, 9th Circuit:  
panels hearing immigration cases  
(appeals for asylum)
2. Australian Senate, 1996-present.

# Asylum Appeals

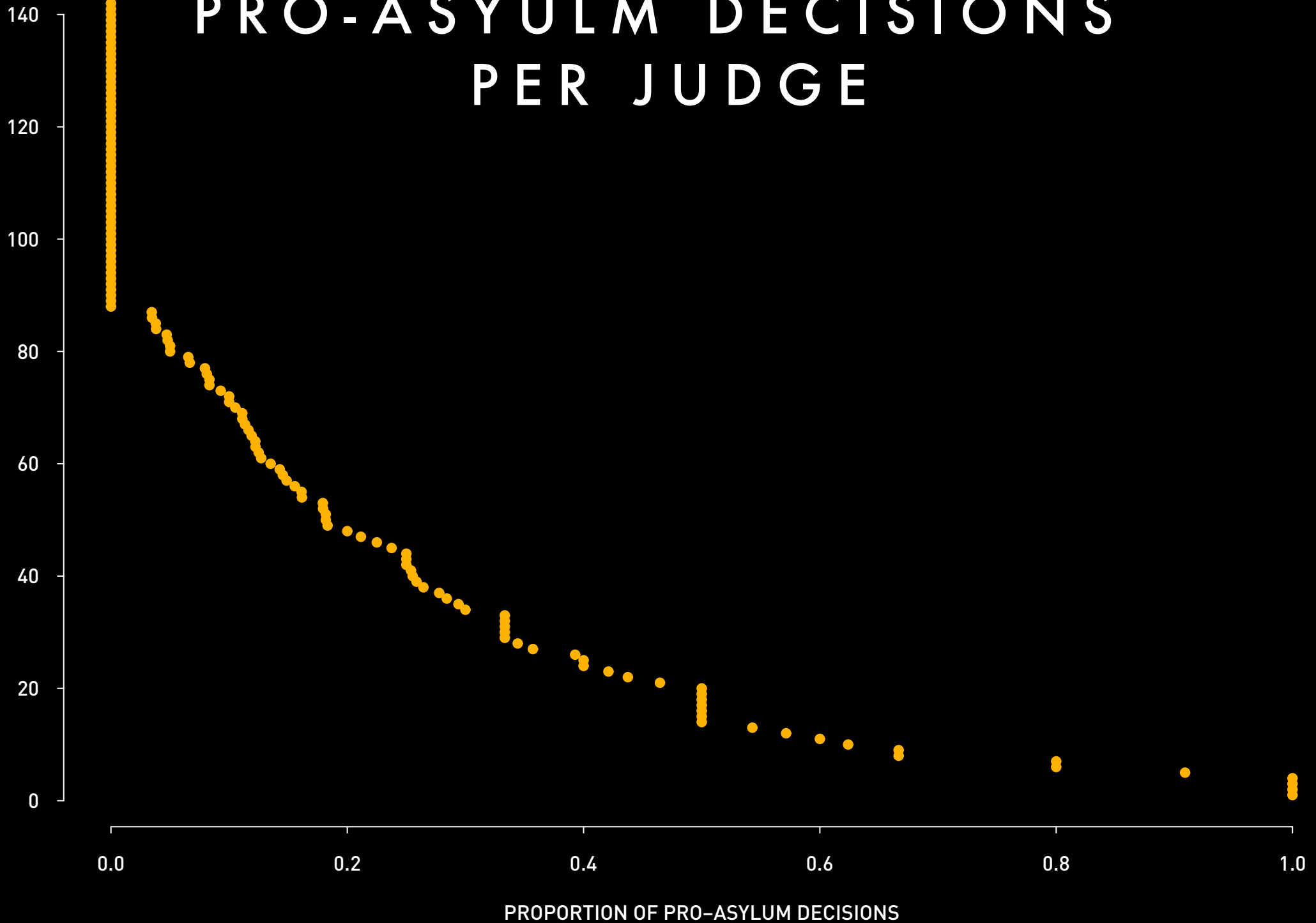
(*David Law's dissertation*)

- 📌 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



# PRO-ASYULM DECISIONS PER JUDGE



# Asylum Cases

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

# Sparseness 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

$$U_i(Y_j) = -(x_i - Y_j)^2 + \varepsilon_{ijY}$$

$$U_i(N_j) = -(x_i - N_j)^2 + \varepsilon_{ijN}$$

$$\begin{aligned} Pr(y_{ij} = 1) &= Pr[U_i(Y_j) > U_i(N_j)] \\ &= F(x_i\beta_j - \alpha_j) \end{aligned}$$

where

$$\beta_j = 2(Y_j - N_j)$$

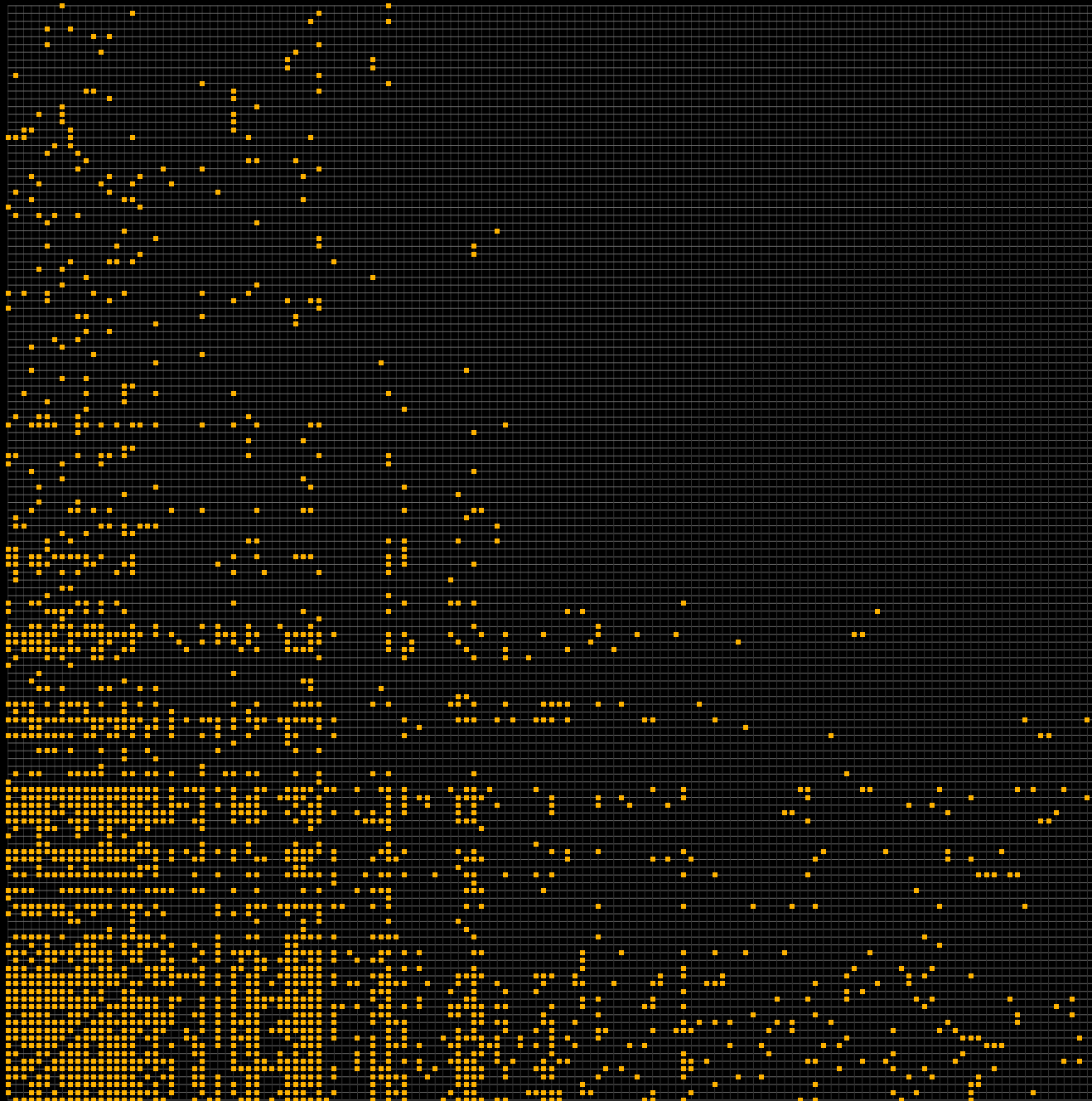
$$\alpha_j = Y_j^2 - N_j^2$$

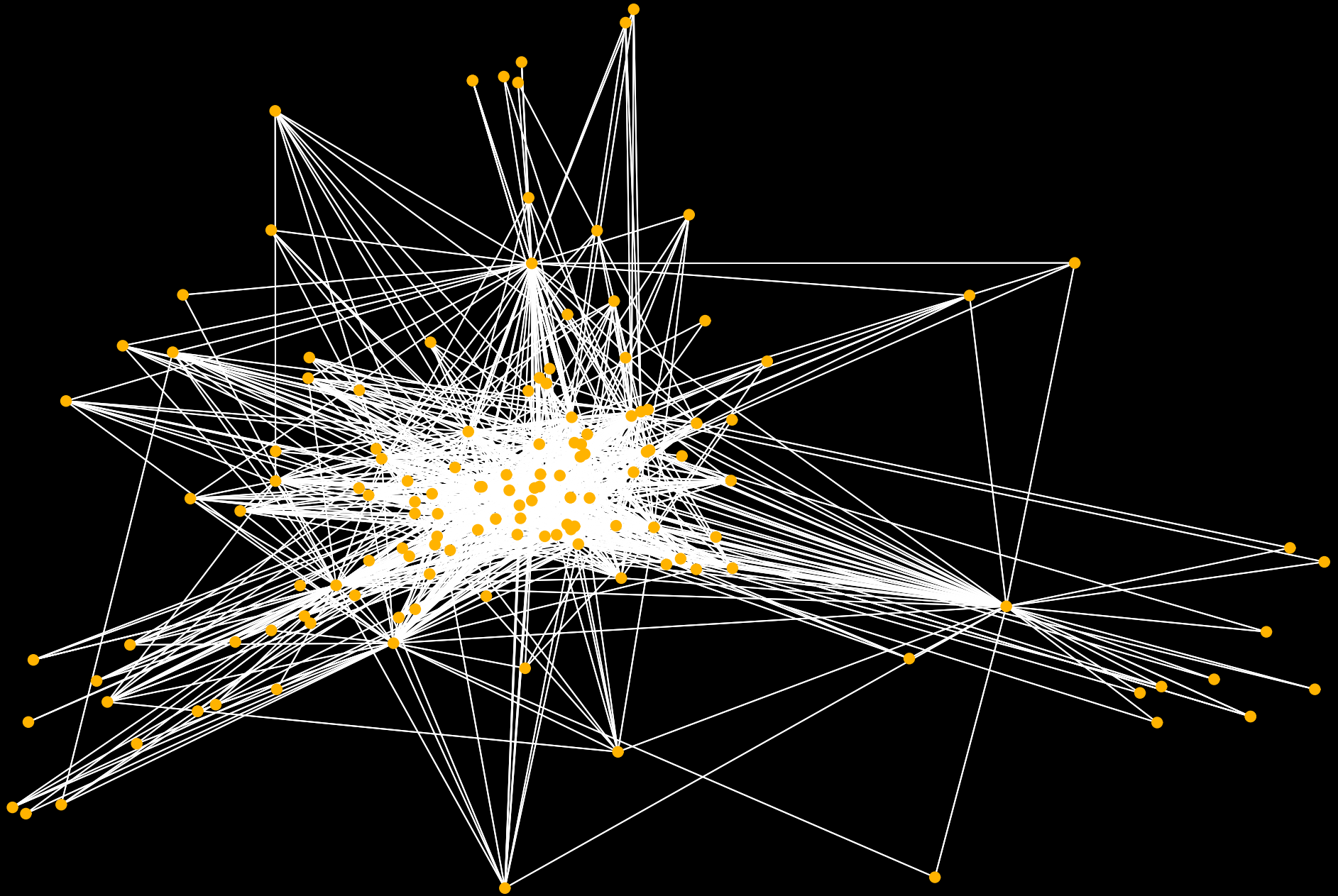
$$\alpha_j / \beta_j = \frac{Y_j + N_j}{2}$$

# 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

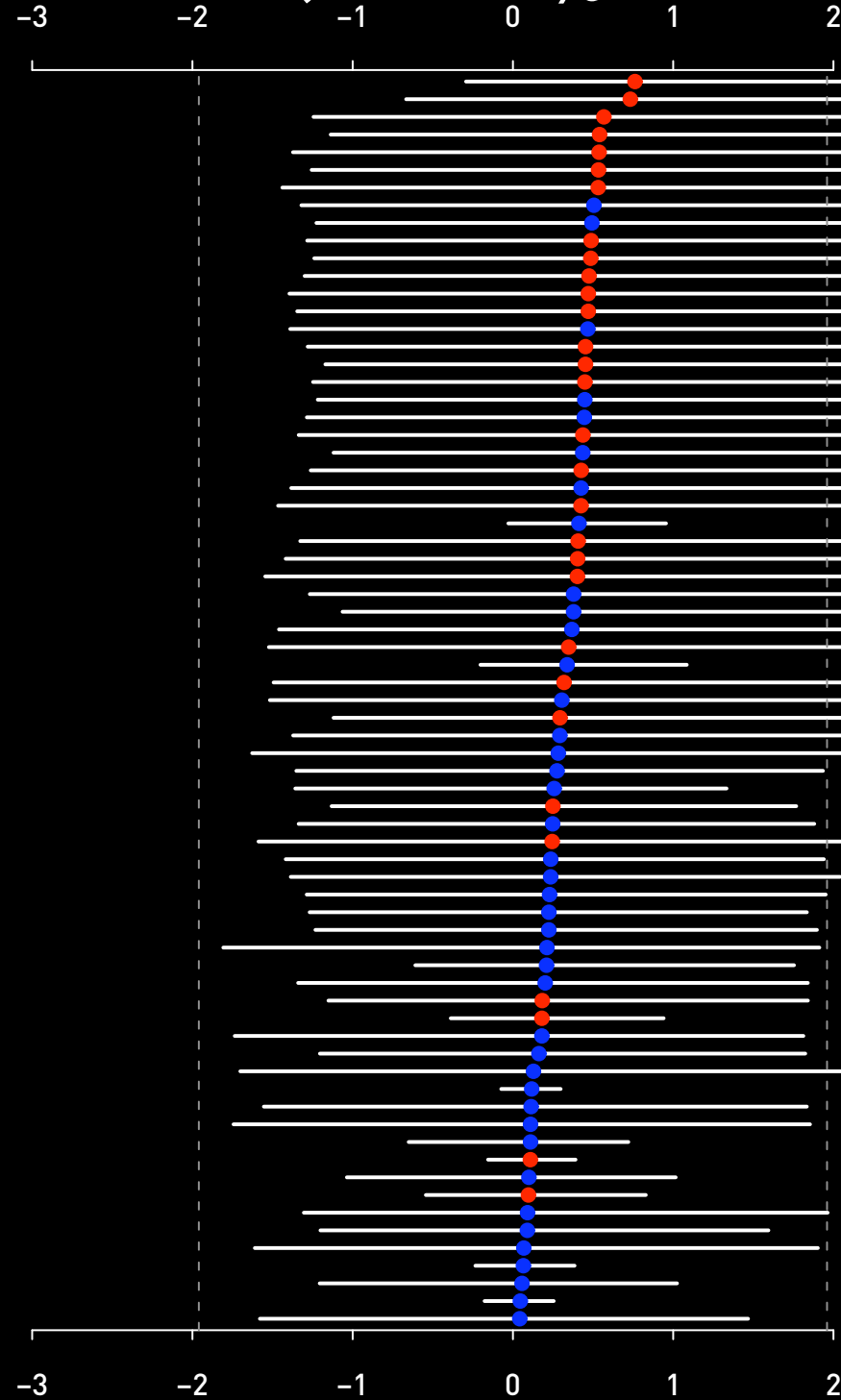
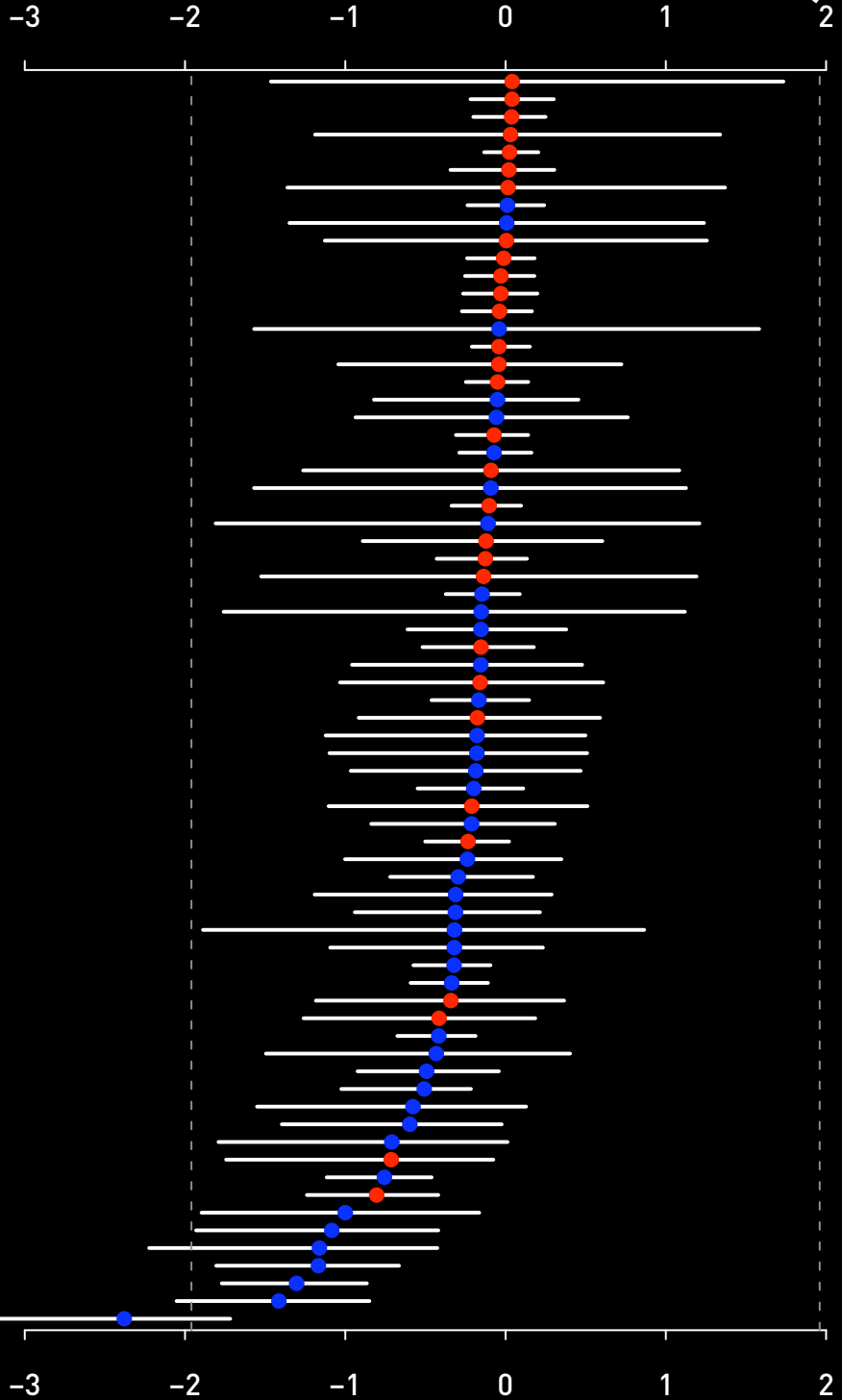
# Overlapping Generations Structure (judges through cases)

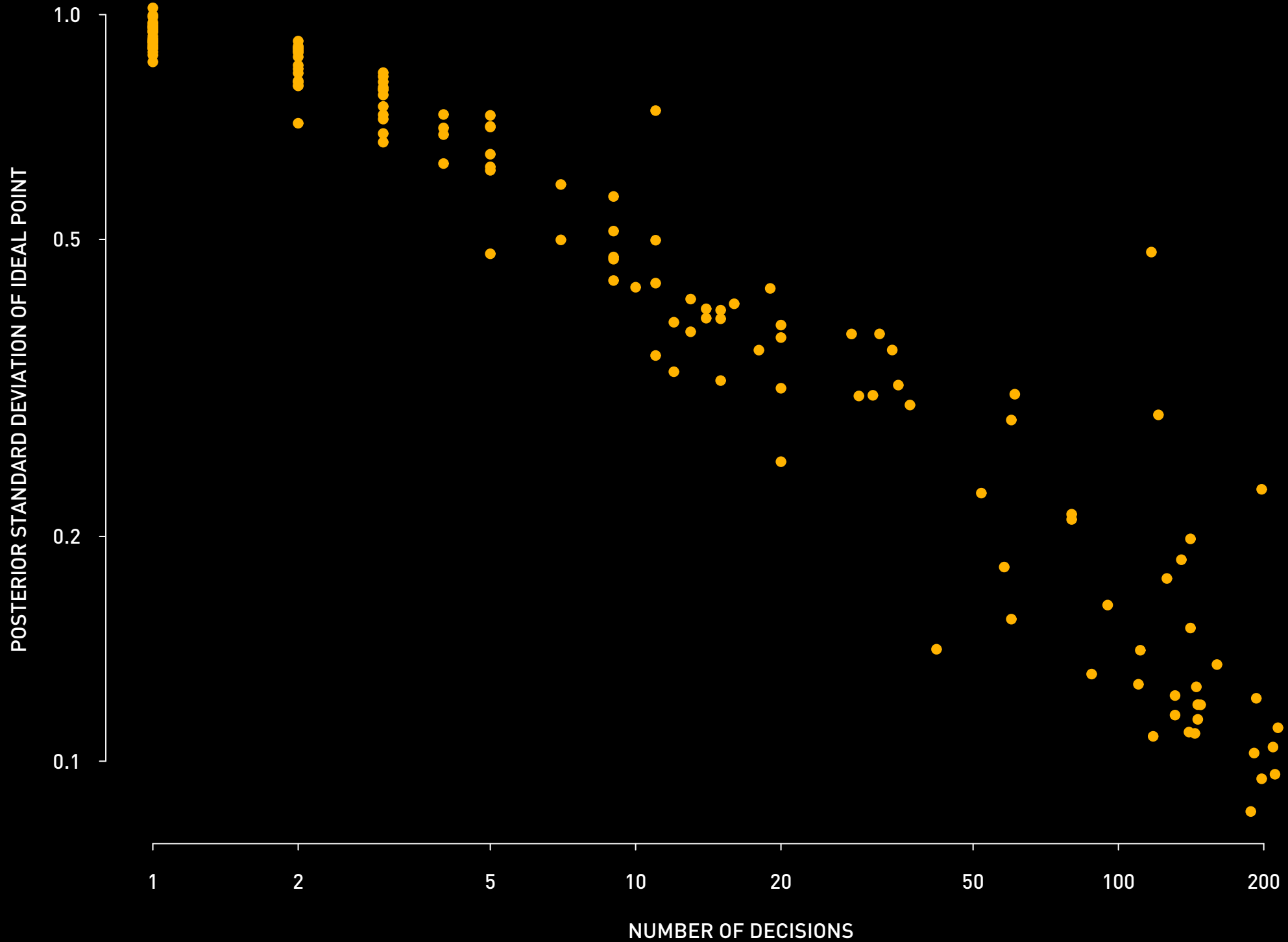




# Undirected Graph Representation of Overlapping Generations Structure Among Judges through Cases

# Ideal Point Estimates (Posterior Means) and 95% CIs





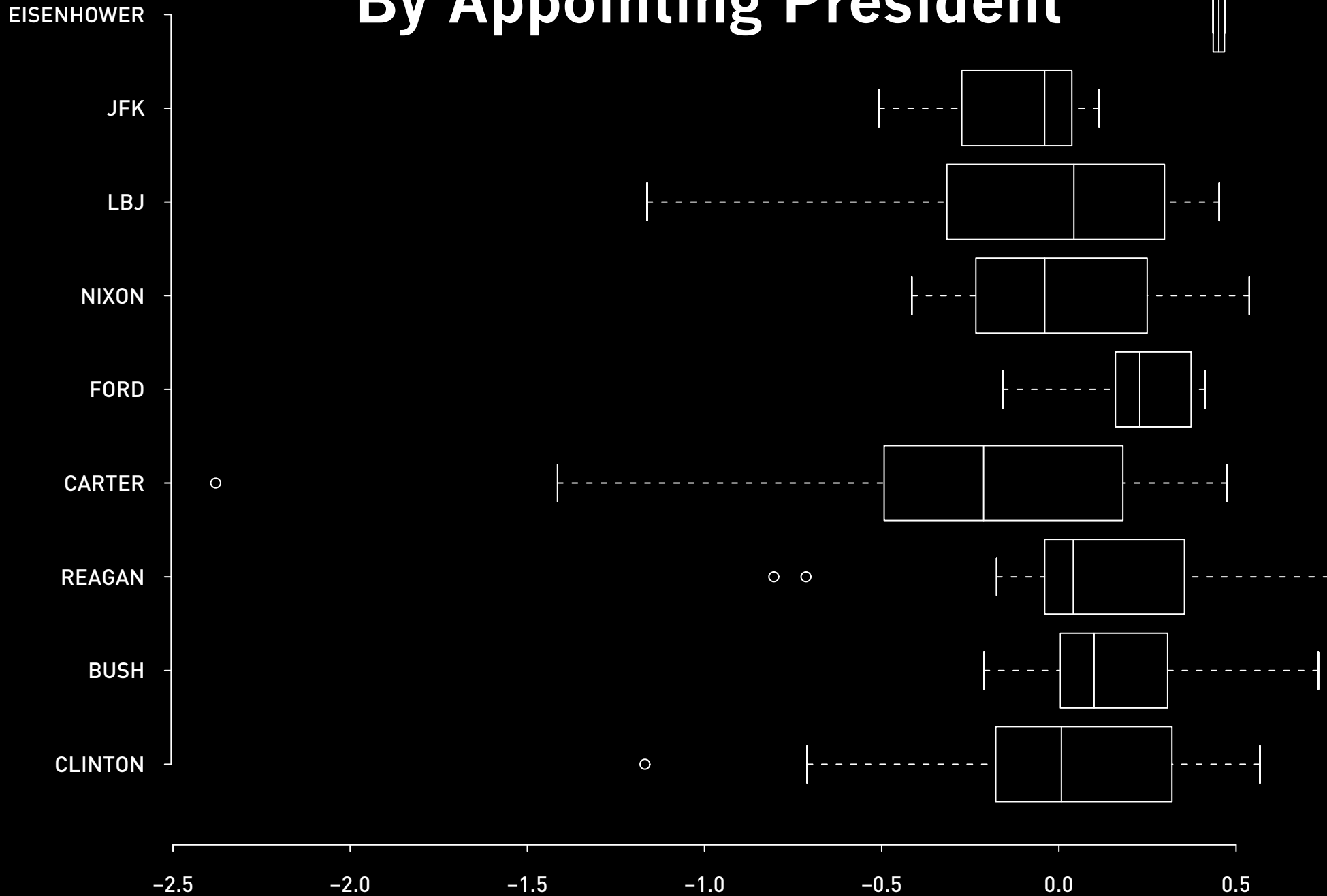
# Simplifications

- 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

Clinton	33
Bush	19
Reagan	32
Carter	25
Ford	7
Nixon	10
LBJ	11
JFK	3
Eisenhower	2

# Distribution of Ideal Point Estimates By Appointing President



# Country of Petitioner

Country	n	%	success rate
Nicaragua	318	17%	22%
Philippines	247	13%	15%
Guatemala	224	12%	17%
El Salvador	184	10%	12%
India	114	6%	26%
Fiji	85	4%	18%

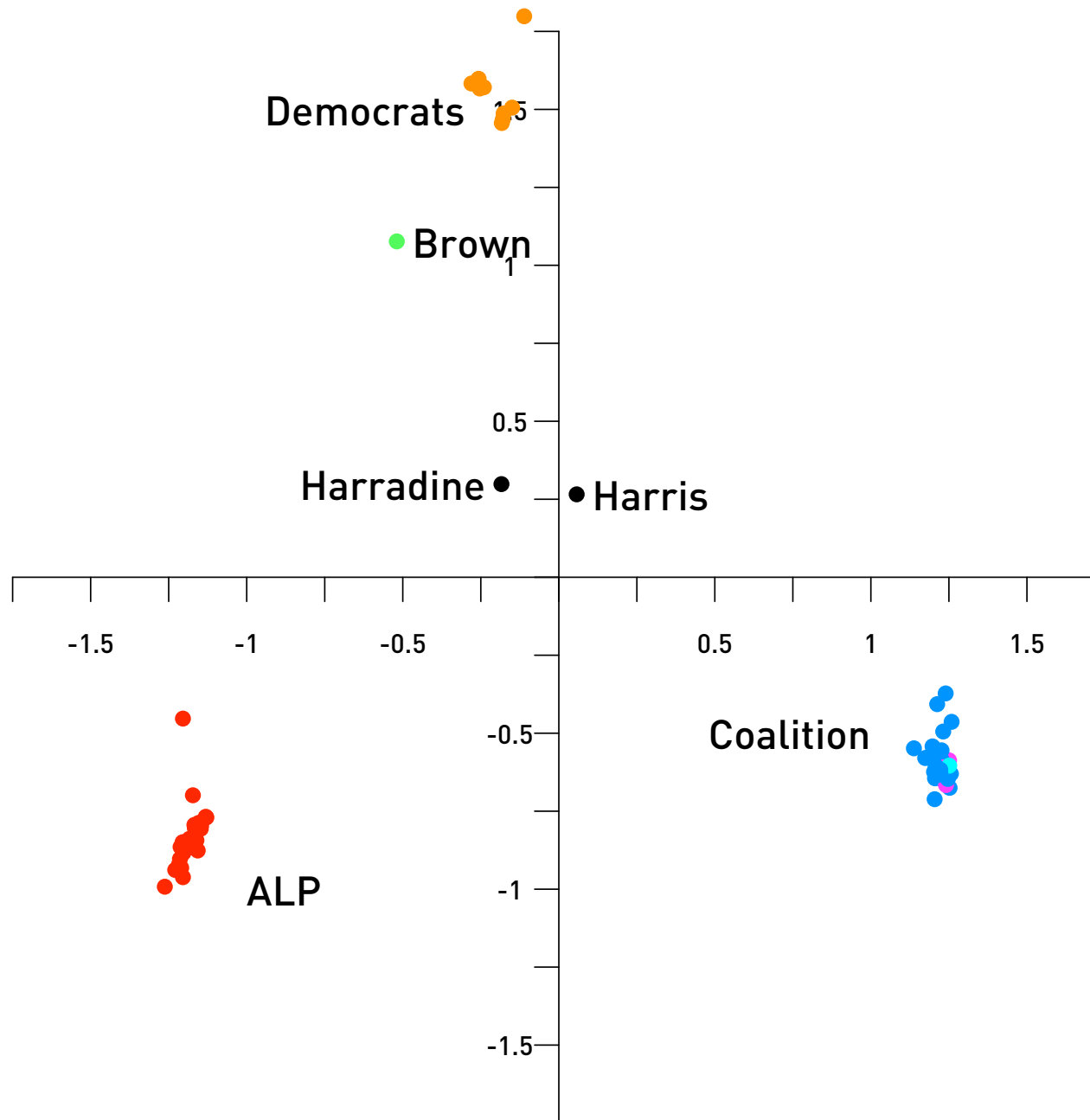
# Australian Senate Data

- 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

# Australian Senate, 2001



# Issues for Voteworld

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