I have specified three individual types of models. A primary specification with four indicators and 200 years of data, an alternative specification with five indicators and 42 years of data, and a regime change specification consisting of regime change observations over 200 years with four indicators.

Each model was run in R using Martyn Plummer's JAGS package and the CODA package for convergence diagnostics R Core Team (2014); Plummer et al. (2006).[1] Each model was run using 4 chains with 15,000 draws per chain. The first 10,000 draws were thrown away as burn-in.

Primary Specification

The primary model is composed of all state year observations between 1800 and 2012. There are four indicators in this model: Appointment Method, Initial Term Length, Subsequent Term Length and Retention Method. There are 8436 state-year observations.

Alternative Specification

Regime Change Specification

The final model specification consists of the four original indicators, but is limited to only unique observations of each judicial institution rather than repeated observations over long periods of time. This specification dramatically reduces the number of observations. For instance, Massachusetts, which has maintained the same selection/retention methods as well as the same term lengths for its entire history has only a single observation. There are 155 state-year observations in this model specification.

References

Plummer, Martyn. 2014. *rjags: Bayesian graphical models using MCMC*. R package version 3-14.
   URL: *http://CRAN.R-project.org/package=rjags*

Plummer, Martyn, Nicky Best, Kate Cowles and Karen Vines. 2006. "CODA: Convergence Diagnosis and Output Analysis for MCMC." *R News* 6(1):7–11.
   URL: *http://CRAN.R-project.org/doc/Rnews/*

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[1]Other software packages used are listed in the Reference section without being cited in-text.

R Core Team. 2014. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing.
URL: *http://www.R-project.org/*

R Core Team. 2015. *foreign: Read Data Stored by Minitab, S, SAS, SPSS, Stata, Systat, Weka, dBase, ...* R package version 0.8-63.
URL: *http://CRAN.R-project.org/package=foreign*

Su, Yu-Sung and Masanao Yajima. 2015. *R2jags: A Package for Running 'JAGS' from R.* R package version 0.05-03.
URL: *http://CRAN.R-project.org/package=R2jags*

Wickham, Hadley. 2009. *ggplot2: elegant graphics for data analysis*. Springer New York.
URL: *http://had.co.nz/ggplot2/book*

Wickham, Hadley and Romain Francois. 2015. *dplyr: A Grammar of Data Manipulation*. R package version 0.4.1.
URL: *http://CRAN.R-project.org/package=dplyr*