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Politics Department
Princeton University
Princeton, NJ 08544

Jonathan P. Olmsted

Employment

Senior Statistical Research and Computing Specialist, Princeton University January 2013 – Present
Summer Lecturer, Princeton University Summers 2013, 2014

Education

Ph.D., Political Science, University of Rochester;
Fields: Methodology, American Politics, Formal Theory Expected 2014

M.A., Political Science, University of Rochester 2010

B.A., Political Science, University of Delaware;
Minor: Economics 2007

Research, Papers, and Presentations

Dissertation

In my dissertation, I introduce several new approaches for the estimation of policy preferences, or ideal points. First, I derive and present variational approximation as a tool ideal point estimation with ‘big data’. This method produces inferences equivalent to those from Bayesian MCMC, but unlike the computationally intensive MCMC approach, scales to ‘big data’. Second, I present two new approaches to facilitate the estimation of the US President’s ideal point. As a consequence of these new approaches, the uncertainty in subsequent inferences is reduced by incorporating new kinds of observations, novel inferences about behavioral hypotheses of the president are now possible, and a concern in the literature about “artificial” ideological extremeness is partially resolved. Given the primary role of the president’s ideal point in empirical operationalizations of multi-institution models of law-making, this is an important estimation problem. To facilitate similar exploration by other researchers, I present an estimation strategy that greatly simplifies the computational demands of the estimation process.

Committee: Professor Curtis Signorino (chair), Professor Lawrence Rothenberg, Professor Kosuke Imai

Working Papers

“Scaling at Scale: Ideal Point Estimation with ‘Big-Data’”. APSA (2014). Dartmouth (2014).

“Averaging Away the Effects: Aggregation Bias in Indices of Democracy” with Curtis Signorino and Jun Xiang.

“A Systematic Approach to a Nebulous Concept: A Measurement Model for Corporate Sustainability” with Lawrence Rothenberg. MPSA (2012).

“Missing the Point: The President, Abstention, and Ideal Point Estimation.” American Politics Working Group Paper (University of Rochester, 2011). MPSA (2012). POLMETH (2012). APSA (2012).

“The President’s ‘Votes’ on Roll Calls.” POLMETH (2010). MPSA (2011). American Politics Working Group Paper (University of Rochester, 2011).

“Estimating Mis-Modeled Preferences: Monte Carlo Evidence for Model-Induced Errors in Presidential Ideal Point Estimates.” MPSA (2010).

“A Monte Carlo Analysis of the Effect of Bridging Techniques on Ideal Point Estimates.” Second Year Paper (University of Rochester, 2009).

Teaching and Research Experience

Instructor: Princeton University
POL 245 Visualizing Data (U) Summers 2013, 2014

Teaching Assistant: University of Rochester
PSC 505 Maximum Likelihood Estimation (G), Professor Curtis Signorino Fall 2011
PSC 288 Game Theory (U), Professor Tasos Kalandrakis Spring 2011
PSC 505 Maximum Likelihood Estimation (G), Professor Curtis Signorino Fall 2010
PSC 201 Political Inquiry (U), Professor Kevin Clarke Fall 2009
PSC 201 Political Inquiry (U), Professor Kevin Clarke Spring 2009

Research Assistant: University of Rochester
Professor Lawrence Rothenberg Spring 2012
Professor Lawrence Rothenberg Fall 2011
Professor Lawrence Rothenberg Summer 2011
Professor Gerald Gamm Summer 2010
Professor Curtis Signorino Spring 2010
Professor Gerald Gamm Summer 2009

Awards

250th Anniversary Fund for Innovation in Undergraduate Education, Princeton University 2014 – 2016
The Star Lab Fellowship, University of Rochester 2010–2011, 2012–2013
Robert L. and Mary L. Sproull Fellowship, University of Rochester 2007–2012
Charles E. Lanni Summer Research Fellowship, University of Rochester 2009, 2010
Arts and Sciences Graduate Student Fellowship, University of Rochester 2007–2012
The Star Lab POLMETH Travel Award, University of Rochester 2010, 2011, 2012
NSF POLMETH Funding, NSF/Society for Political Methodolgy 2011, 2012
Political Science Department Award for Excellence in Teaching Assistantship, University of Rochester 2011
Program in Empirical Policy Research Grant, Wallis Institute of Political Economy, University of Rochester 2011
The Star Lab Poster Award, University of Rochester 2012

University Service

Research Computing Advisory Group, Princeton University
Personally Identifiable Research Data Initiative, Princeton University – Infrastructure Cmte.
Graduate Organizing Group, University of Rochester – Department Representative
Graduate Organizing Group, University of Rochester – Student Advocacy Officer
Graduate Organizing Group, University of Rochester – Travel Grant Reviewer

Technical Skills

Languages	R, C++, Python, Bash
OS Environments	Unix-like, Mac OS, Windows OS
Data Management	SQL, NoSQL
Document Preparation	L ^A T _E X, Pandoc, knitr
Project Management	git, svn, make, Trac
Specialized Technical Software	JAGS, stan, Matlab, Stata
HPC APIs	OpenMP, BLAS, MPI
Misc.	PBS, SLURM, Linux server/cluster admin.

Invited Talks

Dartmouth College

June 2014

(Long) Technical Workshops

Visualizing Data, Dartmouth College

Summer 2014

Advanced Statistical Programming Camp, Princeton University

Springs 2013, 2014

An Introduction to R, University of Rochester

Spring 2011

An Introduction to L^AT_EX, University of Rochester

Fall 2010

(Short) Technical Workshops

An Introduction to High-Performance Computing, Princeton University

Spring 2013

An Introduction to git, Princeton University

Winter 2013

R at the U. of R., University of Rochester

Spring 2011