Society for Political Methodology
24th Annual Summer Meeting
The Pennsylvania State University
July 18-21, 2007
WEDNESDAY, JULY 18

Interdisciplinary Approaches to Social Science Methodology
Sponsored by the Penn State Quantitative Social Science Initiative
All sessions held in Deike, Room 22

1:00-1:50 p.m. Exponential-Family Random Graph Models for Social Networks. David Hunter (Penn State, Department of Statistics & Center for Infectious Disease Dynamics)
Discussant: Anton Westveld (Washington University, St. Louis)

2:00-2:50 p.m. Mixture Models in the Social Sciences. Eric Loken (Penn State, Department of Human Development and Family Studies)
Discussant: Arthur Spirling (University of Rochester)

3:00-3:50 p.m. Data Visualization with Improvise. Chris Weaver (Penn State, Department of Geography & The GEOVista Center)
Discussant: Iris Hui (University of California at Berkeley)

4:00-4:50 p.m. Missing Data and Causal Inference. Joseph Schafer (Penn State, Department of Statistics & The Methodology Center)
Discussant: Ryan Moore (Harvard University)

6:00-9:00 p.m. Women’s Dinner. Café Laura, Mateer Building.

THANK YOU FOR YOUR SUPPORT

The hosts would like to thank the following for their support of this year’s conference:

- College of the Liberal Arts, Penn State
- Department of Political Science, Penn State
- Quantitative Social Science Initiative, Penn State
- The Society for Political Methodology
- The National Science Foundation

We would also like to thank Heather Ondercin, Kyle Joyce, Amy Homan, Abby Smith, Brandy Wood, and Cheryl Monroe for planning and logistical support.

SOCIETY FOR POLITICAL METHODOLOGY
WOMEN’S DINNER

The Women’s Dinner will be held at Café Laura in the Mateer Building.

Greeters will meet all registered participants in the lobbies of the Day’s Inn and Atherton hotels at 5:45 p.m. for escort to Café Laura.
**ATTENDEES**

Sinclair, Betsy  
Smidt, Corwin  
Sokhey, Anand  
Spiring, Arthur  
Stanig, Piero  
Stewart, Marianne  
Stoll, Heather  
Stonecash, Jeff  
Strauss, Aaron  
Titiunik, Rocio  
Tolbert, Caroline  
Treier, Shawn  
Walker, Robert  
Walker, Lee  
Wand, Jonathan  
Westveld, Anton  
White, Ismail  
Whitford, Andrew  
Whitten, Guy  
Wilson, Carole  
Wood, B. Dan  
Zorn, Christopher

University of Chicago  
Ohio State University  
Ohio State University  
University of Rochester  
Columbia University  
University of Texas at Dallas  
Syracuse University  
Princeton University  
University of California, Berkeley  
University of Iowa  
University of Minnesota  
Washington University in Saint Louis  
University of South Carolina  
Stanford University  
Washington University  
University of Texas at Austin  
University of Georgia  
Texas A&M University  
Texas A&M University  
University of South Carolina

**SCHEDULE**

**THURSDAY, JULY 19**

*All sessions held in Hetzel Union Building-Robeson Center (HUB) Auditorium unless otherwise noted*

8:00-9:00 a.m.  
**Breakfast:** HUB 129A

9:00-9:15 a.m.  
**Welcome**

9:15-10:45 a.m.  
**Causal Inference in Matched-Pair, Cluster-Randomized Field Experiments, with Application to the Mexican Universal Health Insurance Evaluation.** Kosuke Imai (Princeton University), Gary King (Harvard University), and Clayton Nall (Harvard University)  
**Discussant:** Jake Bowers (University of Illinois at Urbana-Champaign)

10:45-11:00 a.m.  
**Morning Snack:** HUB 129A

11:00 a.m.-12:30 p.m.  
**Quantitative Tests of Qualitative Hypotheses.** Jonathan Wand (Stanford University)  
**Discussant:** Chris Zorn (University of South Carolina)

12:30-2:00 p.m.  
**Lunch:** HUB Alumni Hall

2:00-3:30 p.m.  
**Estimating the Effect of Voter Identification Laws on Turnout.** Jonathan Katz and Delia Bailey (Caltech)  
**Discussant:** Shigeo Hirano (Columbia University)

3:30-3:45 p.m.  
**Afternoon Snack,** featuring ice cream from Penn State’s world-famous Berkey Creamery: HUB 129A

3:45-5:15 p.m.  
**The Nature of Trust and Information Externalities in Reputation Building.** Gary Bolton (Penn State, Business School)  
**Discussion, Experimentation in Political Science:** Dean Lacy (Dartmouth), David Nickerson (Notre Dame), Curt Signorino (University of Rochester), Ismail White (University of Texas at Austin), and Corrine McConnaughy (University of Texas at Austin)

5:15-5:45 p.m.  
**Society for Political Methodology Business Meeting**
**SCHEDULE**

**FRIDAY, JULY 20**

8:00-8:55 a.m.  **Breakfast:** HUB 129A

8:55-9:40 a.m.  **Session A: Auditorium**

Extracting Systematic Social Science Meaning from Text.  Daniel Hopkins and Gary King (Harvard University)

*Discussant:* Andrew Martin (Washington University, St. Louis)

**Session B: Alumni Hall**

A Model of Path Dependence with an Empirical Illustration.  John Jackson and Kenneth Kollman (University of Michigan)

*Discussant:* Neal Beck (New York University)

9:45-10:30 a.m.  **Session A: Auditorium**

Event Data Scaling Using Item Response Theory.  Philip Schrodt (University of Kansas)

*Discussant:* James Honaker (UCLA)

**Session B: Alumni Hall**

On the Empirical Implications of Path Dependence: Observation-Driven Markov Models for Multiple States.  Robert Walker (Washington University, St. Louis)

*Discussant:* John Freeman (University of Minnesota)

10:30-10:45 a.m.  **Morning Snack:** HUB 129A

10:45 a.m.-12:15 p.m.  **Session A: Auditorium**

Measuring Spatial Aspects of Legislative Delay with Evidence from the Chilean Congress.  John Londregan (Princeton University)

*Discussant:* Michael Bailey (Georgetown University)

**Session B: Alumni Hall**

The Relevance of Seemingly Irrelevant Covariates.  Adam Glynn and Kevin Quinn (Harvard University)

*Discussant:* Ben Hansen (University of Michigan, Statistics)

**ATTENDEES**

Meserve, Stephen  
University of Illinois Urbana-Champaign  

Monogan, Jamie  
University of North Carolina - Chapel Hill  

Monroe, Burt  
Pennsylvania State University  

Montgomery, Jacob  
Duke University  

Moore, Ryan  
Harvard University  

Morales, Antonio J.  
University of Malaga  

Morton, Rebecca  
New York University  

Nagler, Jonathan  
New York University  

Nall, Clayton  
Harvard University  

Nickerson, David  
University of Notre Dame  

Noel, Hans  
Georgetown University  

Nyhan, Brendan  
Duke University  

Paolino, Phil  
National Science Foundation / UNT  

Park, Jong Hee  
University of Chicago  

Park, David  
George Washington University  

Pemstein, Daniel  
University of Illinois at Urbana-Champaign  

Peress, Michael  
University of Rochester  

Peterson, David  
Texas A&M University  

Quinn, Kevin  
Harvard University  

Quiroz Flores, Alejandro  
New York University  

Rabinovich, Julia  
Northwestern University  

Ragan, Robi  
University of Georgia  

Ramirez, Mark  
Texas A&M University  

Rivers, Douglas  
Stanford University  

Rouleau, Mark  
George Mason University  

Russell, Jesse  
Seton Hall University  

Schneider, Daniel  
Stanford University  

Schneider, Saundra  
Michigan State University  

Schrodt, Philip  
University of Kansas  

Sekhon, Jasjeet  
University of California, Berkeley  

Sigelman, Lee  
George Washington University  

Signorino, Curtis  
University of Rochester  

Sin, Gisela  
University of Illinois at Urbana-Champaign
### ATTENDEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jones, Brad</td>
<td>University of California, Davis</td>
</tr>
<tr>
<td>Joyce, Kyle</td>
<td>Pennsylvania State University</td>
</tr>
<tr>
<td>Jusko, Karen</td>
<td>Stanford University</td>
</tr>
<tr>
<td>Kachi, Aya</td>
<td>University of Illinois at Urbana-Champaign</td>
</tr>
<tr>
<td>Katz, Jonathan</td>
<td>California Institute of Technology</td>
</tr>
<tr>
<td>Keele, Luke</td>
<td>Ohio State</td>
</tr>
<tr>
<td>Kellermann, Michael</td>
<td>Harvard University</td>
</tr>
<tr>
<td>Kellstedt, Paul</td>
<td>Texas A&amp;M University</td>
</tr>
<tr>
<td>Kelly, Nathan</td>
<td>University of Tennessee</td>
</tr>
<tr>
<td>Kelly, Andrew</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Kennedy, Ryan</td>
<td>Ohio State University</td>
</tr>
<tr>
<td>Kern, Holger</td>
<td>Cornell University</td>
</tr>
<tr>
<td>Kim, Hunjoo</td>
<td>University of Minnesota</td>
</tr>
<tr>
<td>King, Gary</td>
<td>Harvard University</td>
</tr>
<tr>
<td>Kittilson, Miki Caul</td>
<td>Arizona State University</td>
</tr>
<tr>
<td>Kollman, Ken</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Krause, George</td>
<td>University of Pittsburgh</td>
</tr>
<tr>
<td>Lacy, Dean</td>
<td>Dartmouth College</td>
</tr>
<tr>
<td>Lau, Olivia</td>
<td>Harvard University</td>
</tr>
<tr>
<td>Lauderdale, Benjamin</td>
<td>Princeton University</td>
</tr>
<tr>
<td>Lawrence, Christopher</td>
<td>Saint Louis University</td>
</tr>
<tr>
<td>Lebo, Matthew</td>
<td>Stony Brook University</td>
</tr>
<tr>
<td>Lee, Byung-Jae</td>
<td>University of Texas at Austin</td>
</tr>
<tr>
<td>Lee, Han Soo</td>
<td>Texas A&amp;M University</td>
</tr>
<tr>
<td>Lerman, Amy</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Linzer, Drew</td>
<td>Emory University</td>
</tr>
<tr>
<td>Londregan, John</td>
<td>Princeton University</td>
</tr>
<tr>
<td>Lu, Ying</td>
<td>University of Colorado at Boulder</td>
</tr>
<tr>
<td>Lukasik, Jenna</td>
<td>Vanderbilt University</td>
</tr>
<tr>
<td>Martin, Andrew</td>
<td>Washington University</td>
</tr>
<tr>
<td>McConnaughy, Corrine</td>
<td>University of Texas at Austin</td>
</tr>
<tr>
<td>McDonald, Michael</td>
<td>George Mason University</td>
</tr>
<tr>
<td>McFarland, Thomson</td>
<td>University of Colorado at Boulder</td>
</tr>
<tr>
<td>Melton, James</td>
<td>University of Illinois, Urbana-Champaign</td>
</tr>
</tbody>
</table>

### SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:15-1:55 p.m.</td>
<td><strong>Lunch</strong>: Alumni Hall</td>
</tr>
<tr>
<td>12:45-1:45 p.m.</td>
<td><strong>How to Write a Journal Article.</strong> Lee Sigelman (George Washington University)</td>
</tr>
<tr>
<td>1:55-2:40 p.m.</td>
<td><strong>Session A: Auditorium</strong></td>
</tr>
<tr>
<td></td>
<td>Data Experiments: Model Specifications as Treatments. Kevin Clarke (University of Rochester)</td>
</tr>
<tr>
<td></td>
<td><em>Discussant</em>: Henry Brady (University of California at Berkeley)</td>
</tr>
<tr>
<td>1:55-2:40 p.m.</td>
<td><strong>Session B: Alumni Hall</strong></td>
</tr>
<tr>
<td></td>
<td>Modeling the Competition for Foreign Direct Investment as a Longitudinal Social Network. Nathan Jensen, Andrew Martin, and Anton Westveld (Washington University, St. Louis)</td>
</tr>
<tr>
<td></td>
<td><em>Discussant</em>: Robert Franzese (University of Michigan)</td>
</tr>
<tr>
<td>2:45-3:30 p.m.</td>
<td><strong>Session A: Auditorium</strong></td>
</tr>
<tr>
<td></td>
<td>Bias in Dyadic Models of Policy Diffusion with Binary Dependent Variables. Frederick Boehmke (University of Iowa)</td>
</tr>
<tr>
<td></td>
<td><em>Discussant</em>: Chris Achen (Princeton University)</td>
</tr>
<tr>
<td>2:45-3:30 p.m.</td>
<td><strong>Session B: Alumni Hall</strong></td>
</tr>
<tr>
<td></td>
<td>Bayesian Analysis of Structural Changes. Jong Hee Park (University of Chicago)</td>
</tr>
<tr>
<td></td>
<td><em>Discussant</em>: Michael Colaresi (Michigan State University)</td>
</tr>
<tr>
<td>3:30-3:45 p.m.</td>
<td><strong>Afternoon Snack</strong>: HUB 129A</td>
</tr>
<tr>
<td>3:45-5:15 p.m.</td>
<td><strong>Session A: Auditorium</strong></td>
</tr>
<tr>
<td></td>
<td>Nonparametric Priors for Ordinal Bayesian Social Science Models: Specification and Estimation. Jeff Gill (Washington University, St. Louis) and George Casella (University of Florida)</td>
</tr>
<tr>
<td></td>
<td><em>Discussant</em>: Sandy Gordon (New York University)</td>
</tr>
</tbody>
</table>
FRIDAY, JULY 20 (CONTINUED)

3:45-5:15 p.m.  
Session B: Alumni Hall

Statistics for Digits. Walter Mebane (Cornell University)
Discussant: Wendy Tam Cho (University of Illinois at Urbana-Champaign)

5:15 p.m.  
Escort to Smeal College of Business. Assemble in Alumni Hall to be escorted to the atrium of the Smeal College of Business for the Graduate Poster Session.

5:30-7:00 p.m.  
Graduate Poster Session, refreshments.

- Modeling Voter Turnout with Multilevel Structural Equations. Delia Bailey (Caltech)
- Federal Circuit Courts of Appeals Decision Making During Unified Government. Jennifer Barnes (University of South Carolina)
- Identifying Manipulation in Electoral Results: A Novel Series of Tests and New Data from Nigeria. Bernd Berber (Columbia University)
- Back to the Future: Modeling Temporal Dependence in Binary Data. David Carter (University of Rochester)
- Ethnic Politics and Surveys: How Do We Measure What We Want to Measure? Daniel Corstange (University of Michigan)
- Disillusionment with Democracy and Political Participation in Mexico: Models for Binary Panel Data. David Crow (University of Texas at Austin)
- A Genetic Study of Political Participation. Chris Dawes (University of California at San Diego)

ATTENDEES

Esarey, Justin  Florida State University
Fang, Songying  University of Minnesota
Franzese, Robert  University of Michigan
Freeman, John  University of Minnesota
Garretson, Jeremiah  Vanderbilt University
Gasper, John  Carnegie Mellon University
Gill, Jeff  University of California, Davis
Glasgow, Garrett  University of California, Santa Barbara
Glynn, Adam  Harvard University
Goble, Hannah  University of Wisconsin - Madison
Goodrich, Melanie  New York University
Goodrich, Ben  Harvard University
Gordon, Sanford  New York University
Grant, J. Tobin  Southern Illinois University
Grimmer, Justin  Harvard University
Gross, Justin  Carnegie Mellon University
Grosser, Jens  Princeton University
Hainmueller, Jens  Harvard University
Hammer, Michael  University of Maryland
Hansen, Ben  University of Michigan
Hays, Jude  University of Illinois at Urbana-Champaign
Hirano, Shigeo  Columbia University
Ho, Daniel  Stanford University Law School
Hofmann, Tobias  Princeton University
Honaker, James  University of California, Los Angeles
Hopkins, Daniel  Harvard University
Hui, Iris  University of California, Berkeley
Huxtable, Phil  Joint Warfare Analysis Center
Imai, Kosuke  Princeton University
Iqbal, Zaryab  University of South Carolina
Jackson, John  University of Michigan
Jacoby, William  Michigan State University
Jensen, Nathan  Washington University in St. Louis
Jeong, Gyung-Ho  Washington University in St. Louis
Jessee, Stephen  University of Texas at Austin
Achen, Christopher
Altmann, Micah
Alvarez, Michael
Ariga, Kenichi
Bailey, Michael
Bailey, Delia
Barnes, Jennifer
Bartels, Brandon
Bass, Anna
Beber, Bernd
Beck, Nathaniel
Berry, William
Boehmke, Frederick
Bohlken, Anjali Thomas
Bowers, Jake
Box-Steffensmeier, Janet
Brady, Henry
Brandt, Patrick
Buckley, Jack
Carsey, Thomas
Carter, David
Cho, Wendy K. Tam
Claiibourn, Michele
Clarke, Kevin
Clarke, Harold
Clough, Emily
Colaresi, Michael
Corstange, Daniel
Cranmer, Skyler
Darmofal, David
David, Crow
Dawes, Chris
De Boef, Suzanna
Dion, Michelle
Erikson, Robert

Princeton University
Harvard University
California Institute of Technology
University of Michigan
Georgetown University
California Institute of Technology
University of South Carolina
Stony Brook University
New York University
Columbia University
New York University
Florida State University
University of Michigan
University of Illinois at Urbana-Champaign
Ohio State University
University of California, Berkeley
The University of Texas, Dallas
National Center for Education Statistics
University of North Carolina, Chapel Hill
University of Rochester
University of Illinois at Urbana-Champaign
University of Virginia
University of Rochester
University of Texas at Dallas
University of North Texas
Michigan State University
University of Michigan
Harvard University
University of South Carolina
University of Texas at Austin
University of California, San Diego
Pennsylvania State University
Georgia Institute of Technology
Columbia University

- Reexamining Media Bias. John Gasper (Carnegie Mellon)
- A Maximum Likelihoodistic Approach to Multidimensional Bayesian Models with Latent Explanatory Variables. Ben Goodrich (Harvard University)
- Priorities and Partisanship. Melanie Goodrich (New York University)
- Flooded Communities: Using the Post-Katrina Migration as a Quasi-Experiment. Daniel Hopkins (Harvard University)
- Reconstructing Red and Blue State from Bottom Up: Using Spatial Statistics to Reexamine Income, Vote Choice and Political Polarization. Iris Hui (University of California at Berkeley)
- Inter-party Heterogeneity of Interest Group Influences on Legislative Voting: An Application of Multilevel Item-Response Theory Modeling. Gyung-Ho Jeong (Washington University, St. Louis)
- An Agent-Based Model and Empirical Test of War Expansion. Kyle Joyce (Penn State University)
- The Empirical Implications of a Theoretical Model on Coalition Bargaining and Government Survival. Aya Kachi (University of Illinois at Urbana-Champaign)
- Political Institutions and Executive Survival: Empirical Weaknesses and Theoretical Revisions of Selectorate Theory in the Non-Democratic Context. Ryan Kennedy (Ohio State University)
Graduate Poster Session, refreshments (continued)

- The Causal Effects of (No), Punishment on Democratic Consolidation: Lessons from Matching. Byung-Jae Lee (University of Texas at Austin)
- Heterogeneity and Economic Voting. Han Soo Lee (Texas A&M University)
- The Politics Prisons Make: Effects of Incarceration on Social and Political Attitudes. Amy Lerman (University of California at Berkeley)
- Measuring Judicial Ideology Through Revealed Preferences in State Supreme Courts. Jenna Lukasik (Vanderbilt University)
- Robustness of Quantal Response Models with Omitted Variables. Jamie Monogan (University of North Carolina at Chapel Hill)
- Bayesian Model Averaging: Theoretical Developments and Practical Applications. Jacob Montgomery and Brendan Nyhan (Duke University)
- Democratic Compromise: A Latent Variable Analysis of Eight Measures of Regime Type. Daniel Perinstein (University of Illinois at Urbana-Champaign)
- Copula Functions and Bivariate Distributions: Applications to Issues of Political Interdependence. Alejandro Quiroz Flores (New York University)

The Penn State Quantitative Social Science Initiative (QuaSSI) seeks to promote the development of an interdisciplinary community of Penn State faculty, students, and other researchers interested in the improvement and application of quantitative techniques and tools in social science research and training.

QuaSSI sponsors seminars, workshops, and conferences in social science methodology and brings together select PhD students from across the university for a year-long interdisciplinary fellowship. QuaSSI alumni include Heather Ondercin (Political Science, Louisiana State), Hock-Peng Sin (Psychology, Michigan State), and Corey Sparks (Anthropology, Texas). Current and upcoming QuaSSI fellows are Satvika Chalasani (Sociology), Kyle Joyce (Political Science), Greg Luna (Anthropology), Melissa Robinson (Neuroscience), Tatiana Vashchilko (Political Science), and Aidan Wright (Psychology).

QuaSSI was founded by Suzanna DeBoef in 2004 and is currently directed by Burt Monroe. QuaSSI is funded by the College of Liberal Arts and the Department of Political Science.

http://qssi.psu.edu/
SATURDAY, JULY 21 (CONTINUED)

3:15-3:30 p.m.  Afternoon Snack: HUB 129A

3:30-5:00 p.m.  Sampling for Web Surveys. Douglas Rivers (Stanford University)
                Discussant: Michael Alvarez (Caltech)

5:00 p.m.  Escort to Reception. Assemble in Alumni Hall to be escorted to the Hintz Family Alumni Center in Robb Hall.

5:30-7:30 p.m. Closing reception at the Hintz Family Alumni Center in Robb Hall.

PENN STATE DEPARTMENT OF POLITICAL SCIENCE

On the web at
http://polisci.la.psu.edu/

SCHEDULE

- Dynamic Representations: Dynamic Multiple Indicators with Multiple Causes. Mark Ramirez (Texas A&M University)
- Political Cognition and Connectionism: Modeling Political Reasoning. Daniel Schneider (Stanford University)
- Reexamining the Effects of Political Disagreement. Anand Sokhey (Ohio State University)
- The Analysis of Power in Political Science: A New Method with Application to the Senate. Arthur Spirling (University of Rochester)
- In-cycle Election Forecasting: Wiener Processes with Informative Priors. Aaron Strauss (Princeton University)

7:00-9:00 p.m. Dinner on the lawn of the Smeal College of Business.

THE SOCIETY FOR POLITICAL METHODOLOGY ON THE WEB

The Society for Political Methodology web site can be found at
http://polmeth.wustl.edu/

The web site serves as a gateway to the Working Paper archive and the Society’s publications. It also provides information about the Society and its activities, including past and upcoming conferences.
SCHEDULE

SATURDAY, JULY 21

All sessions held in HUB Auditorium unless otherwise noted

8:00 a.m.  Breakfast: HUB 129A

9:00-10:30 a.m.  Exploiting Tom Delay by Using a New Matching Estimator: How Voters Respond to Candidate Race, Ideology and Incumbency Status. Jasjeet Sekhon and Rocio Titiunik (University of California at Berkeley)

Discussant: Rebecca Morton (New York University)

10:45 a.m.-12:15 p.m.  Faculty Poster Session: HUB 129B&C

- The Value of Nonparametric Regression for Political Scientists. William Berry (Florida State University)
- INGOs in International Affairs: An Agent-Based Model. Emily Clough (University of North Texas)
- Modeling Nonresponse in Survey Research. Skyler Cranmer (Harvard University) and Lee Walker (University of South Carolina)
- Models of Spatial Interdependence in Qualitative Dependent Variables. Robert Franzese (University of Michigan) and Jude Hayes (University of Illinois at Urbana-Champaign)
- Candidates, Voters, and Endogenous Group Formation: An Experimental Study. Jens Großer (Princeton University)
- Ecological Inference under Extreme Conditions: Straight and Split-Ticket Voting in Diverse Settings and in Small Samples. Michael Hamner (University of Maryland) and Won-Ho Park (University of Florida)
- Inference Strategies for Multidimensional Scaling Models: The Bootstrap Approach. William Jacoby (Michigan State University) and Dave Armstrong (University of Oxford)

12:15-1:45 p.m.  Lunch: Alumni Hall

1:45-3:15 p.m.  Econometric Estimation of Auction Models. Isabelle Perrigne and Quang Vuong (Penn State, Economics)

Discussion, Econometric Estimation of Game Theoretic Models in Political Science: Robert Erikson (Columbia University), Robert Franzese (University of Michigan), John Londregan (Princeton University), and John Jackson (University of Michigan)