

Political Methodology and Statistics

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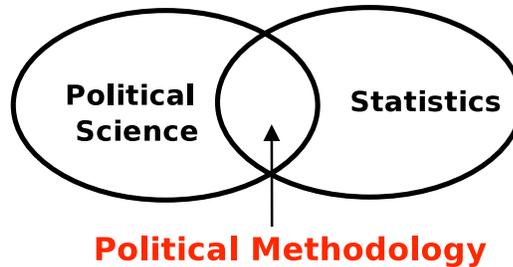
July 25, 2009

Political Methodology: Past and Future

- **The Past:** Established as a major subfield of *political science*
 - One of the largest sections in APSA
 - Annual summer conference of ≈ 200 attendees
 - PA as most cited political science journal
- **A Future:** Demonstrate contributions to wider *statistics* community
 - Engage with methodologists in other disciplines
 - Export new methods as well as import existing methods
 - Train methodologists as well as substantive researchers

Political Methodology as an Interdisciplinary Field

- **Political methodology**: Study of statistical methods (broadly defined) as applied to political science research
- Political methodology as an interdisciplinary field



- Rise of interdisciplinary (substantive) research implies a greater need for methodologists from various disciplines to work together
- Examples: network analysis, spacial statistics, natural language processing, causal inference

Causal Inference

- **Causality**: fundamental to scientific inquiry
- **Statistics**: required for experimental and observational studies
- Numerous common challenges and opportunities
 - ignorability (statistics), unconfoundedness (epidemiology), no omitted variable (econometrics)
 - mediation effects (psychology), indirect effects (epidemiology)
 - regression discontinuity designs (education, econometrics)
 - structural equation modeling (econometrics, computer science)
 - necessary and sufficient causes (social sciences, epidemiology)
- Statisticians, Biostatisticians, Epidemiologists, Econometricians, Psychometricians, Sociologists, Computer scientists, Philosophers, Engineers, etc. and Political methodologists!
- Mid-Atlantic causal modeling conferences

The Contributions of Political Methodology

- Three important contributions:
 - 1 **Pedagogical**: explaining how to use existing methods
 - 2 **Empirical**: applying existing methods to substantive research
 - 3 **Theoretical**: developing new methods that are widely applicable
- Importing, Consuming, and Exporting
- Political methodology as a late comer: PA started in 1989
 - Journal of Royal Statistical Society in 1838
 - Biometrika in 1901
 - Econometrica in 1933
 - Psychometrika in 1936
- “Late development” strategy: make significant improvements rather than invent from scratch

Training Future Political Methodologists

- **The Past**: Methodologists receive most training in other disciplines
- **A Future**: We train next generation of methodologists
- Interdisciplinary training is good but we should not just send prospective methodologists elsewhere
- Essential for recruiting talented students
- Graduate education:
 - 1 Cover the advanced topics as well as the basics
 - 2 Train methodologists as well as empirical researchers
 - 3 Recruiting talents from outside of the US
- Undergraduate education:
 - 1 Methods sequence
 - 2 Continuity with the graduate curriculum

Towards the Future of Political Methodology

- Many past successes and many future challenges
- Going beyond political science by influencing other disciplines
- Recruit and train next generation of methodologists
- Foster internationalization