

# Stephen R. Haptonstahl

Curriculum Vitae

## Address

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## Educational Background

Ph.D., Political Science, “But What’s in It For Me? Characterizing Uncertainty in Bargaining with Strategic Random Utility Models.”

Washington University in St. Louis, in progress. Completion expected: 2009.

Advisors: Gary Miller, Randall Calvert, Robert Walker.

Fields: American and methods

A.M., Political Science (American politics), Washington University in St. Louis, 2006.

M.S., Mathematics, Northern Illinois University, 2000. (GPA: 3.94/4.0)

B.S., Mathematics, Louisiana State University, 1998. (GPA: 4.0/4.0) Honors advisor: Jimmie Lawson.

## Professional Interests

My research focuses on how incentives affect the flow of information in bureaucratic institutions and on the tools used to form and test formal models of institutions. Seeking a position which will allow me to combine research with teaching graduate and undergraduate courses in Bayesian and classical methodology, American Politics, formal and computational modeling, and experimental research.

## Academic Appointments

*Aug 2008-May 2009*

**Doctoral Fellow**

Department of Political Science, Washington University in St. Louis, Missouri

*May 2007-May 2009*

**Graduate Fellow**

Weidenbaum Center on the Economy, Government, and Public Policy, Washington University in St. Louis, Missouri

*Aug 2005-May 2007*

**Graduate Teaching Assistant**

Department of Political Science, Washington University in St. Louis, Missouri

*Aug 2004-Aug 2005*

**Graduate Fellow**

Department of Political Science, Washington University in St. Louis, Missouri

*Aug 2001-May 2004*

**Mathematics Instructor**

Waubonsee Community College, Sugar Grove, Illinois

Full-time, tenure-track position. Taught full-range of math courses offered. Other duties included curriculum

development, committee participation, student mentoring, and promoting the professional development of adjunct faculty. Evaluations by students consistently rated performance as outstanding, eliciting several “best math teacher I’ve had” written comments each semester.

*Jan 1999-Dec 2001*      **Graduate Teaching Assistant**

Department of Mathematical Sciences, Northern Illinois University, DeKalb, Illinois  
Instructor for two classes and teaching assistant/substitute lecturer for four classes. Evaluations were consistently strongly positive.

*Summer 2001*      **Research Internship**

Department of Political Science, Michigan State University, East Lansing, Michigan  
Worked with Kenneth Williams, William Reed, Thomas Hammond, Chris Butler, Renee Agress. Designed/analyzed game-theoretic models for two experimental studies. One modeled Supreme Court voting using Bayesian updates of individual justice beliefs to predict strategic voting. The second was an experimental design testing a formal model of the democratic peace. Reviewed and discussed research with others throughout the summer. The Supreme Court project led to NSF funding (PI: Kenneth Williams) of the experiments.

## Research

### Under Review

Bargaining Under Uncertainty: a Strategic Random Utility Model of the Ultimatum Game  
Looking Back: an Ordered Network Model of Legal Precedent.

### Published Edited Work

Stephen R. Haptonstahl. Web-based data collection with PHP and MySQL. *The Political Methodologist*, 15(2):11–16, Winter 2008

### Software

**Elicit**: Eliciting structured information on networks for updating Bayesian models of connectivity. With Jeff Gill, John Freeman, and Aaron Rapport.

**testMCMCpack**: validation software for MCMCpack, with Jong-Hee Park, Summer 2006.

**diplot**: R package with tools to plot descriptive statistics, posterior distributions, and more.

### Current Projects

- My dissertation explores two quantal response equilibrium (QRE) models of the ultimatum game, uses a lab experiment to determine which provides a better understanding of how uncertainty enters into the bargaining, and then shows why a similar approach will not work when extending QRE to principal-agent theory.
- Court citation networks. Network analysis is flourishing, but theories explaining why networks take the form they do are still in the early stages of development. I am developing a network game to explain

how justices choose cases to cite, where utility for opinion authors takes the form of a new empirical measure of node importance.

- Elicited Priors for National Security Research. In collaboration with Jeff Gill, John Freeman, and Aaron Rapport, I am developing an online software system for eliciting structured information on networks for updating Bayesian models of connectivity.
- Dimensionality of roll call data, in the Russian Duma (with Steven Smith, Thomas Remington, and Moshe Haspel) and in the U.S. congress (with Steven Smith and Jason Roberts.)

## Teaching

### Academic Courses Taught

Over 100 semester hours of university teaching experience plus 30 semester hours co-teaching and assisting.

Complete list of courses taught:

- Calculus with Analytic Geometry II, Math 132, Spring 2004, Waubensee Community College, 4 semester hours
- Intermediate Algebra, Math 070, Spring 2004, Waubensee Community College, 3 sections, each 4 semester hours
- Calculus with Analytic Geometry I, Math 131, Fall 2003, Waubensee Community College, 4 semester hours
- Basic Mathematical Skills, Elementary and Intermediate Algebra, Math 050/060/070, in a computer-based self-paced course, Fall 2003, Waubensee Community College, 3 semester hours
- Elementary Geometry, Math 065, Fall 2003, Waubensee Community College, 3 semester hours
- Elementary Algebra, Math 060, Fall 2003, Waubensee Community College, 2 sections, each 4 semester hours
- Finite Mathematics (including some game theory), Math 210, Summer 2003, Waubensee Community College, 3 semester hours
- Intermediate Algebra, Math 070, Spring 2003, Waubensee Community College, 3 sections, each 4 semester hours
- Basic Mathematical Skills, Elementary and Intermediate Algebra, Math 050/060/070, in a computer-based self-paced course, Spring 2003, Waubensee Community College, 3 semester hours
- College Algebra, Math 110, Fall 2002, Waubensee Community College, 3 semester hours
- Basic Mathematical Skills, Elementary and Intermediate Algebra, Math 050/060/070, in a computer-based self-paced course, Fall 2002, Waubensee Community College, 3 semester hours
- Elementary Geometry, Math 065, Fall 2002, Waubensee Community College, 3 semester hours
- Elementary Algebra, Math 060, Fall 2002, Waubensee Community College, 2 sections, each 4 semester hours
- Mathematics for Elementary Teachers I, Math 201, Summer 2002, Waubensee Community College, 3 semester hours
- Plane Trigonometry, Math 110, Summer 2002, Waubensee Community College, 3 semester hours
- College Algebra, Math 110, Summer 2002, Waubensee Community College, 3 semester hours
- College Algebra, Math 110, Spring 2002, Waubensee Community College, 3 semester hours
- Intermediate Algebra, Math 070, Spring 2002, Waubensee Community College, 3 sections, each 4 semester hours
- College Algebra, Math 110, Fall 2001, Waubensee Community College, 3 semester hours
- Foundations of Elementary School Mathematics, Math 201, Spring 2001, Northern Illinois University, 3 semester hours
- Fundamentals of Mathematics I, Math 108P, Fall 2000, Northern Illinois University, 3 semester hours

Complete list of courses co-taught/assisted:

- Panel Data, Applied Statistics 4501, Spring 2007, Washington University, with Robert W. Walker, 3 semester hours
- Mathematical Modeling in Political Science, PS 5052, Fall 2006, Washington University, with Gary Miller, 3 semester hours
- Multilevel modeling, Applied Statistics 4301, Spring 2006, Washington University, with David Park, 3 semester hours
- Linear models, PS 581, Spring 2006, Washington University, with David Park, 3 semester hours
- Mathematical Modeling in Political Science, PS 5052, Fall 2005, Washington University, with Gary Miller, 3 semester hours
- American Politics discussion section, PS 101, Fall 2005, Washington University, for Gary Miller, 3 semester hours
- Core Competency in Mathematics, Math 101, Fall 2001, Northern Illinois University, 3 semester hours, for Qingkai Kong
- Calculus for Business and Social Science, Math 211, Spring 2000, Northern Illinois University, 3 semester hours, for Lauren Fern
- Core Competency in Mathematics, Math 101, Fall 1999, Northern Illinois University, 3 semester hours, for Linda Sons
- Calculus for Business and Social Science, Math 211, Spring 1999, Northern Illinois University, 3 semester hours, for Karen Duellman

## Syllabi Prepared

Introduction to American Politics (*freshman level*)

Introductory Statistics (*sophomore-junior level*)

Game Theory in Social Science (*sophomore-junior level*)

U.S. Bureaucracy (*junior-senior level*)

U.S. Presidency (*junior-senior level*)

U.S. Congress (*junior-senior level*)

U.S. Bureaucracy (*graduate level*)

Mathematical Modeling in Political Science (*graduate level*)

Linear Models (*graduate level*)

Maximum-Likelihood (*graduate level*)

Introduction to Bayesian Statistics (*graduate level*)

## Other Instruction

2008, Washington University, Empirical Implications of Theoretical Models (EITM).

2005-present, Washington University in St. Louis, various  $\text{\LaTeX}$  workshops

2005, Washington University in St. Louis, "What's an Eigenvector?".

1999, Northern Illinois University, "Target Motion Analysis for the Localization of Subsurface Targets".

## Grants

### Internal

Innovation in Learning Grant. (2003). Awarded by Waubensee Community College to fund a study validating the use of the COMPASS test for placement of students in the math sequence at the college.

Web Development Grant. (2003). Awarded by Waubonsee Community College to develop a WebCT-based version of the Elementary Geometry course. The course uses Java-based demonstrations to use tap the natural kinesthetic learning that can best develop students' understanding of basic geometric ideas.

## Honors & Awards

D. R. Ostberg award. (2001). Given each year to a single student out of the ~100 graduate and undergraduate math students at Northern Illinois University based on academic achievement and promise as a researcher.

Outstanding Presentation, IIME MathFest. (1996). Awarded for presentation of my undergraduate research "Computing Integrals for the Invariant Measure of Elementary Fractals."

Battelle Memorial Scholar. (1986-1989). This full-tuition scholarship is awarded to entering freshmen based on broad academic excellence in high school and continuing strong performance while in college.

## Presentations

### Conference

9. Bargaining Under Uncertainty: a Strategic Random Utility Model of the Ultimatum Game. Presented at the annual meeting of the American Political Science Association, Boston, Massachusetts, August, 2008.
8. The Dimensionality of Congressional Voting Reconsidered. With Jason Roberts and Steven Smith. Presented at the annual meeting of the American Political Science Association, Boston, Massachusetts, August, 2008.
7. Why Does the Majority Party Bother to Have Minority Party Members in the Committee? With Hong Min Park. Presented at the annual meeting of the American Political Science Association, Boston, Massachusetts, August, 2008.
6. Mixed Quantal Response Equilibria: Uncertainty in the Ultimatum Game. Presented at the annual meeting of the Society for Political Methodology, Ann Arbor, Michigan, July, 2008.
5. Why Does the Majority Bother to Have Minority Members in Committees? With Hong Min Park. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, April 2008.
4. Deliberation as Coordination Through Cheap Talk. With Randall Calvert. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, April 2007.
3. An Experimental Study of a Bargaining Theory of War. With Kenneth Williams and William Reed. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, April 2003.
2. Strategic and Sequential Voting During the Burger Court. With Kirk Randazzo, Reginald Sheehan, and Kenneth Williams. Presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, 2002.
1. Computing integrals for the invariant measure of elementary fractals. Presented at the IIME MathFest, Seattle, Washington, 1996.

## Professional Service

### Discipline

2006: Panel chair and discussant, annual meeting of the American Political Science Association

2005-present: Webmaster for the Society for Political Methodology

Reviewer: American Journal of Political Science; Complexity; Journal of Information Technology & Politics

### University

Assessment committee, Waubensee Community College

Curriculum committee, Waubensee Community College

Selection committee, Dean of Arts and Science, Northern Illinois University

### Department

Graduate representative to Faculty hiring committees, Washington University in St. Louis

Faculty hiring committees, Waubensee Community College

Graduate Student Advisory Committee, Northern Illinois University

### Public

Consultant about “subsurface localization” for the investigation of the collision between USS Greenville and the Japanese vessel Ehime Maru near Oahu, Hawaii, on February 9, 2001.

Operations Specialist, OS2(SW) (E-5) in the United States Navy Reserve, Naval and Marine Corps Reserve Center, Baton Rouge, Louisiana. As senior Operations Specialist supervised training for junior members. Successfully fought for acquisition of needed classified training materials so tactical specialties could train effectively. Completed summer tour and qualified as CIC Training Supervisor on my former ship, USS HUÉ CITY CG-66, as she transited from the Netherlands to Mayport, Florida.

Operations Specialist, OS2(SW) (E-5) in the United States Navy aboard USS HUÉ CITY CG-66, 1990-1995. Primary duties were to supervise the watch team in the Combat Information Center of an AEGIS cruiser to receive, process, analyze, display, and disseminate tactical information in real and potential combat situations. Decorated with Navy Achievement Medal for sustained superior performance, and received other decorations and commendations. Held SECRET security clearance.

- Combat Systems Training Team: Taught individuals combat skills such as tracking contacts with radar or using calculus-based time-frequency analysis to find hiding submarines; used lecture and simulation to train teams how to work together by integrating their individual skills.

- Damage Control Training Team: Led and trained a 35-man firefighting team, bringing qualification levels from 20% to above 95% through an aggressive training program. Received top marks in all inspections and prevented a major shipboard oil spill from becoming a blaze.

- Taught computer literacy courses in rare spare time while deployed. Each consisted to 10 one hour classes. Forty students in three sections completed the courses.

## Professional Memberships

- American Mathematical Association
- American Political Science Association
- American Statistical Association
- Mathematical Association of America
- Midwest Political Science Association
- Society for Industrial and Applied Mathematics
- Southern Political Science Association

## Computer Skills and Experience

- Programming: 25 years programming experience. Languages: PHP, C++, R, Java, Javascript, Visual Basic, MS Access, dBase, MySQL, and many other languages.
- Expert with the L<sup>A</sup>T<sub>E</sub>X typesetting system. Maintain a “Crash Course in L<sup>A</sup>T<sub>E</sub>X” Web site and teach numerous 1-4 hour introductory courses.
- Statistical software: R (developer), WinBUGS (intermediate), Stata (intermediate)
- Other software: Mathematica (intermediate), Matlab (intermediate), MS Office (advanced), Linux (administrator and daily user), UNIX (intermediate), Subversion (administrator and daily user.)
- Network administration: Linux (Apache, MySQL, Subversion), Windows XP/NT (intermediate), Novell CNA certified
- Agent-based modeling: Currently using R to explore emergence of signaling strategies, with Randall Calvert; developing a model of court citation networks using Google “page rank”-like measure of case importance

## Leadership Experience

- Led developmental math instructors at Waubensee Community College in refining existing curricula and creating new courses. This involved motivating part-time faculty to work, usually without added pay, to improve the experience of students attending this top-ranked community college.
- Navy watchstander: Most junior crewman to earn qualification as Officer of the Deck. Watch supervisor for Combat Information Center of a deployed AEGIS cruiser.
- Led 35-man Navy firefighting team. Drastically improved training. Team received top marks and prevented a major oil spill from becoming a blaze.

## Languages and Travel

- French: Two years as an undergraduate after two years in high school. Comfortable getting around France without a dictionary and without using English.
- Spanish: Two years in high school. Can read for basic content with a dictionary, and can converse at a very basic level.
- Navy travel: Italy (6 weeks), Greece (1 week), France (1 month), and visits to the Netherlands, Columbia, Panama, Mexico, Cuba (Guantanamo Bay,) around the Caribbean, and other ports around the Atlantic and Mediterranean.
- Civilian trips: London (a week of sightseeing, 1989), Canada (various short trips). I have visited each of the 48 Continental United States, and I've lived in 10 of them.

## Security Clearance

Held SECRET clearance while serving in U.S. Navy (1990-1995) and U.S. Naval Reserve (1995-1996).

## References

- Gary J Miller, Professor  
Department of Political Science, Campus Box 1063, Washington University, St. Louis, MO 63130  
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- Randall L. Calvert, Thomas F. Eagleton University Professor of Public Affairs and Political Science  
Department of Political Science, Campus Box 1063, Washington University, St. Louis, MO 63130  
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- Guillermo Rosas, Assistant Professor  
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- John R. Freeman, McKnight University Professor  
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- Steven S. Smith, Director of the Weidenbaum Center on the Economy, Government, and Public Policy,  
and the Kate M. Gregg Professor of Social Sciences  
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- Andrew D. Martin, Professor of Political Science and Law  
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