

# JEFF GILL

May 16, 2023

## POSITIONS

### American University

Distinguished Professor, Department of Government, and Department of Mathematics & Statistics, July 2017–Present.

Member, Center for Neuroscience and Behavior, July 2017–Present.

Founder and Director, Center for Data Science, January 2018–Present.

### Washington University in St. Louis

Professor Emeritus, July 2017–Present.

Professor, Department of Political Science, College of Arts & Sciences (primary appointment), July 2007–July 2017.

Professor, Division of Biostatistics, School of Medicine (secondary appointment), July 2011–July 2017.

Professor, Department of Surgery (Division of Public Health Sciences), School of Medicine (research appointment), July 2011–July 2017.

Professor, Department of Mathematics, College of Arts & Sciences (courtesy appointment), July 2008–July 2017.

Professor and Co-Founder, Machine Learning Group, September 2012–July 2017.

Director, Center for Applied Statistics, July 2007–July 2011.

### University of California, Davis

Professor, Department of Political Science, July 2007 (promoted).

Associate Professor, Department of Political Science, January 2004–July 2007.

Member, Graduate Group in Epidemiology, July 2005–July 2007.

### Harvard University

Visiting Professor, Department of Government, January 2021–July 2021.

Faculty Associate, Institute for Quantitative Social Science, January 2021–July 2021.

Visiting Professor, Department of Government, January 2018–July 2018.

Faculty Associate, Institute for Quantitative Social Science, January 2018–July 2018.

Visiting Associate Professor, Department of Government, July 2006–July 2007.

Faculty Associate, Institute for Quantitative Social Science, July 2006–July 2007.

### University of Florida

Associate Professor, Department of Political Science, May 2002–December 2003.

Assistant Professor, Department of Political Science, August 2000–May 2002.

Courtesy Professor, Department of Statistics, August 2000–Present (not a typo).

### California Polytechnic State University

Assistant Professor, Department of Political Science, September 1996–June 2000.

### DMC Telecom

Director of Sales, Europe, June 1988–June 1992. Based in the UK.

### IBM Corporation

Associate Engineer/Scientist, Federal Systems Division, June 1984–June 1988.

## PUBLICATIONS and FORTHCOMING WORKS

### Books and Monographs:

10. Je Gill and Le Bao. Bayesian Social Science Statistics from the Very Beginning: Getting Productive. Forthcoming 2024. Cambridge University Press, Elements Series.
9. Je Gill and Le Bao. Bayesian Social Science Statistics from the Very Beginning: Getting Started. Forthcoming 2023. Cambridge University Press, Elements Series.

8. Je Gill and Michelle Torres. Generalized Linear Models: A Unified Approach. Second Edition. 2019, Sage QASS Series.
7. Je Gill. Bayesian Methods: A Social and Behavioral Sciences Approach. Third Edition, in the Statistics in the Social and Behavioral Sciences Series. 2014, Chapman and Hall/CRC.
6. Je Gill. Bayesian Methods: A Social and Behavioral Sciences Approach. Second Edition, in the Statistics in the Social and Behavioral Sciences Series. 2007, Chapman and Hall/CRC.
5. Je Gill. Essential Mathematics for Political and Social Research. 2006, Cambridge University Press.
4. Micah Altman, Je Gill and Michael P. McDonald. Numerical Issues in Statistical Computing for the Social Scientist. 2003, John Wiley & Sons.
3. Je Gill. Bayesian Methods: A Social and Behavioral Sciences Approach. 2002, Chapman and Hall/CRC.
2. Je Gill. Generalized Linear Models: A Unified Approach. 2000, Sage QASS Series.
1. Ken Meier and Je Gill. What Works: A New Approach to Program and Policy Analysis. 2000, Westview Press.





24. Minjung Kyung, Je Gill and George Casella. "Estimation in Dirichlet Random Effects Models." [Annals of Statistics](#), 38, 979-1009, 2010.
23. Minjung Kyung, Je Gill and George Casella. "Characterizing the Variance Improvement in Linear Dirichlet Random Effects Models." [Statistics and Probability Letters](#), 79, 2343-2350, 2009.
22. Je Gill and George Casella. "Nonparametric Priors For Ordinal Bayesian Social Science Models: Specification and Estimation." [Journal of the American Statistical Association](#), 104, 453-464, (June) 2009.
21. R.B. Garabed, W.O. Johnson, J. Gill, A.M. Perez, and M.C. Thurmond. "Effects of Politics and Economics on Country-Level Foot-and-Mouth-Disease Status." [Journal of the Royal Statistical Society, Series A](#), 171:3, 699-722, 2008.
20. Je Gill. "Is Partial-Dimension Convergence a Problem for Inferences From MCMC Algorithms?" [Political Analysis](#), 16:2, 153-178, 2008.
19. Micah Altman, Je Gill, and Michael P. McDonald. "Accuracy: Tools for Accurate and Reliable Statistical Computing." [Journal of Statistical Software](#), July, 21:1, 2007. (Abstract published in [Journal of Computational Graphics and Statistics](#).)
18. Chris Zorn and Je Gill. "The Etiology of Public Support for the Designated Hitter Rule." [Quarterly Journal of Political Science](#), 2:2, 189-203, 2007.
17. Christopher Barker, William K. Reisen, Bruce F. Eldridge, Wesley O. Johnson, and Je Gill. Mosquitoes In Space and Time: Meteorologic and Edaphic Factors Affecting Culex Tarsalis Abundance in California. [American Journal of Tropical Medicine and Hygiene](#), (abstract) 77:5, 168, 2007.
16. Michael Martinez and Je Gill. "Does Turnout Decline Matter? Electoral Turnout and Partisan Choice in the 1997 Canadian Federal Election." [Canadian Journal of Political Science](#), 39, 343-362, (June) 2006.
15. Michael Martinez and Je Gill. "The Effects of Turnout on Partisan Outcomes in U.S. Presidential Elections 1960-2000." [Journal of Politics](#), 67:4, 1248-1274, (November) 2005.
14. Je Gill and Lee Walker

5. Je Gill and Ken Meier. "Ralph's Superstore versus Ralph's Pretty Good Grocery: An Application of Substantively Weighted Least Squares." [Public Administration Review](#), 61:1, 4-12, (January/February) 2001.
4. Je Gill and Ken Meier. "Public Administration Research and Practice: A Methodological Manifesto." [Journal of Public Administration Research and Theory](#), 10:1, 157-200, (January) 2000.
3. Je Gill. "The Insignificance of Null Hypothesis Significance Testing." [Political Research Quarterly](#), 52:3, 647-674, (September) 1999.
2. Je Gill and James A. Thurber. "Tightwads and Spendthrifts: Measures of Fiscal Behavior In the House of Representatives." [Political Research Quarterly](#), 52:2, 387-402, (June) 1999.
1. Je Gill. "Formal Models of Legislative/Administrative Interaction: A Survey of the Subfield." [Public Administration Review](#), 55:1, 99-106, (January/February) 1995.

**Refereed Book Chapters:**

11. Le Bao, Jamie L. Carson, and Je Gill. Bayesian Spatial Methods and Public Opinion of Geographical Areas In [The Oxford Handbook for Methodological Pluralism](#), Janet Box-Stensmeier (ed.). (Editor Reviewed.) Forthcoming 2023.
10. Kumail Wasif and Je Gill [Bayesian Analyses of Political Decision Making](#). In [The Oxford Encyclopedia of Political Decision Making](#), Dave Redlawsk (ed.). (Editor Reviewed.) 2020.
9. Michelle Torres and Je Gill. Flagship Entries: Generalized Linear Models. In the [SAGE Research Methods Foundations](#). Sage Publications. (Editor Reviewed.) April, 2019. Edited by Paul Atkinson, Sara Delamont, Alexandru Cernat, Joseph W. Sakshaug, and Richard A. Williams.
8. Je Gill and Richard Traunmüller. "Bayesianische Inferenz als Alternative zur klassischen Statistik."

**Non-Refereed Works:**

26. Je Gill "Political Science is a Data Science." [Journal of Politics](#), January, 2021.
25. Je Gill and Simon Heuberger "Bayesian Modeling and Inference: A Postmodern Perspective." In [Handbook of Research Methods in Political Science & International Relations](#). Luigi Curini and Robert





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## **EDUCATION**

**Harvard University**

Department of Government, Harvard-MIT Data Center

**"The Present and Future of Data Science." 2019-20 John Patrick Crecine Distinguished Lecture in the Arts and Sciences at Carnegie Mellon University Qatar, February 4, 2020.**

**"Data Science in the 21st Century and Things You Should Worry About." President's Address, Southern Political Science Association, San Juan, Puerto Rico, January 10, 2020.**

**"Models for Identifying Substantive Clusters and Fitted Subclusters in Social Science Data". Princeton**





**"Multilevel Model Specifications in Political Science."** Workshop. School of Economic, Political and Policy Sciences, **University of Texas at Dallas**, November 6-7, 2009.

**"Nonlinear Multilevel Models for Data Challenges."** Department of Political Science, **University of South Carolina**, November 2, 2009.

**"Multilevel Model Specifications in Political Science."** Workshop, Department of Political Science, **Seoul National University**. Seoul, Korea, May 18-20, 2009.

**"Critical Differences in Bayesian and Non-Bayesian Inference and Why the Former is Better."** Quantitative Methods and Models Working Group, **University of Minnesota**, March 3, 2009.

**"Applied Bayesian Models."** One Week Workshop: Department of Sociology, and the Department of Political Science, **University of Bern**. Bern, Switzerland, December 8-12, 2008.

**"Elicited Priors for Combining Qualitative and Quantitative Inference With An Application to Nicaraguan Politics."** Centro de Investigaciones y Docencia Economicas (CIDE) and Instituto Tecnológico Autónomo de México (ITAM), November 6-7, 2008.

**"Estimation in Dirichlet Process Random Effects Models."** Department of Statistics, **University of Michigan**, September 19, 2008.

**"Circular Data in Political Science and How to Handle It."** IQSS Research Workshop in Applied Statistics, **Harvard University**, April 23, 2008.

**"Critical Differences in Bayesian and Non-Bayesian Inference and Why the Former is Better."** Department of Political Science,

**"Dynamic Elicited Priors for Updating Covert Networks." With John Freeman. Virginia Modeling, Analysis, and Simulation Center Human Behavioral Modeling Workshop, sponsored by the Joint Forces Command ([www.fcoid.com](http://www.fcoid.com)), November 2-3, 2006.**





**"Handling Missing Data Under Difficult and Ordinary Circumstances."** Department of Social Sciences, **Goethe University Frankfurt**, July 5, 2016.

**"When Is It Okay to Impute Missing Values of the Outcome Variable."** Department of Political Science, **University of North Texas**, September 18, 2015.

**"Using Nonparametric Modeling to Fight Terrorism."** Department of Political Science, **University of California, Davis**, November 8, 2011.

**"Using Nonparametric Modeling to Fight Terrorism."** Department of Statistics, **University of Missouri**, April 5, 2011.

**"Nichtparametrische Methoden für die Sozialwissenschaften."** **Universität Mannheim**, Fakultät für Sozialwissenschaften., October 4-6, 2010.

**"Circular Data in Political Science and How to Handle It."** Department of Political Science, **University of Florida**, January 29, 2010.

**"Circular Data in Political Science and How to Handle It."** Department of Political Science, **University of Missouri**, March 6, 2009.

**"Critical Differences in Bayesian and Non-Bayesian Inference and Why the Former is Better."** Department of Political Science, **University of South Carolina**, October 31, 2008.

**"Circular Data in Political Science and How to Handle It."** Department of Political Science, **University of North Carolina**, October 23, 2008.

**"Nonparametric Priors For Ordinal Bayesian Social Science Models: Specification and Estimation."** Department of Government, **American University**, April 25, 2007.

## **CONFERENCE AND SYMPOSIUM.**

Natalie Jackson, Skyler Cranmer, and Je Gill. "Non-Parametric Multiple Hot Deck Imputation for Surveys: Correcting for Imprecise Polling Estimates." American Association for Public Opinion Research (AAPOR) Annual Meeting, May 18, 2017.

Je Gill. "A Review of Missing Data in Political Science and Some New Tools." Keynote Address at the Annual Asian Political Methodology Meeting, January 8, 2016. Tsinghua University in Beijing, China, January 8, 2016.

Andrew Womack, Je Gill, and George Casella. "Revealing Latent Clusters from Dirichlet Process Mixtures Models Using Product Partitions." St. Louis Area Methods Meeting (SLAMM!), University of Iowa, April 19, 2013.

Je Gill. "The Application of Statistical Regression Methods to Animal Models: Relevance to Transdisciplinary Research." TREC Scientific Meeting, Fred Hutchinson Cancer Research Center, March 28,

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Micah Altman, Je Gill, and Michael P. McDonald

Je Gill and Ken Meier. "Ralph's Superstore versus Ralph's Pretty Good Grocery: An Application of Substantively Weighted Least Squares." Midwestern Political Science Association Annual Meeting, Chicago, April 23, 1998.

Ken Meier, Je Gill and George Waller. "Optimal Performance vs. Risk Aversion: An Application of Substantively Weighted Least Squares." Public Management Research Conference, Athens GA, October 1997.

Je Gill. "The Political Entropy of Vote Choice: An Empirical Test of Uncertainty Reduction." American Political Science Association Annual Meeting, Washington, DC, August 31, 1997.

Je Gill and James A. Thurber. "A Process Control Model of Legislative Productivity in the House of Representatives: Testing the Effects of Congressional Reform." American Political Science Association Annual Meeting, Washington, DC, September 1997.

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organizer); "Visualizing Concepts." Joint Statistical Meetings, Anaheim, August 1997; "Agenda Setting: What We Know, What We Must Learn." Southwestern Political Science Association Annual Meeting, New Orleans, March 1997.

**Discussant:** Panel: "Applied Bayesian Methods." Shorey, Rachel, Hanna Wallach, Frances Zlotnick, and Justin Grimmer (authors), "A Class of Bayesian Nonparametric Topic Models for Measuring Expressed Priorities in Political Texts" Annual Meeting of the Society for Political Methodology, Princeton University,

**Conference Program Chair, Southern Political Science Association Annual Meeting, September 1, 2015 to January 13, 2017.**

**Vice President Elect, Southern Political Science Association, January 16, 2015 to January 8, 2016.**

**Vice President, Southern Political Science Association, January, 2016 to January, 2017.**

**Officer, Southern Political Science Association, January, 2017 to January, 2018.**

**President Elect, Southern Political Science Association, January, 2018 to January, 2019.**

**President, Southern Political Science Association, January, 2019 to January, 2020.**

**Immediate Past President, Southern Political Science Association, January, 2020 to January, 2021.**

**Visiting Professor (sabbatical), University of Minnesota, Department of Biostatistics and Department of Political Science, January 2014–May 2014. Taught: Graduate, Bayesian Methods for the Social and**





**Software Written for Public Distribution:** CRAN Package, `Krige`: implements Bayesian kriging with spatial data (with Jason Byers and James Carson); CRAN Package, `GLMpac` : models and routines from the book *Generalized Linear Models*; CRAN Package, `hot dec` : Performs multiple hot-deck imputation of categorical and continuous variables in a data frame (with Skyler Cranmer, Natalie Jackson, Andreas Murr, Dave Armstrong). CRAN Package, `gtd`







**Epidemiology:** mental health outcomes for children exposed to war, foot-and-mouth disease, containment policy, accurate modeling with accelerometer data, and measurement/data issues.

**Medicine:** pediatric traumatic brain injury, linkages between obesity and cancer (including human energetics and mouse models), the effect of chronodisruption on preterm birth, blood conservation in children, circulation, homeostasis, bio-synthetic blood substitute.

**Political Science:** voting, terrorism, Scottish politics, expert elicitation, bureaucracy.