

## Ben Klemens

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### *Employment*

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- Senior Statistician 2015–present  
U.S. Treasury Office of Tax Analysis
- Wrote papers on the interection of intellectual property and tax policy.
  - Rebuilt microsimulations for projecting federal tax revenues from corporations, and for use in what-if scenarios for alternative tax policies.
- Statistician, Principal Researcher 2009–2015  
U.S. Census Bureau Statistical Research Division
- Designed, implemented, and led a group in maintaining *Tea*, a package for editing incorrect data, imputing missing data, and disclosure avoidance. Used in the American Community Survey and 2010 Census for disclosure avoidance and elements of imputation for group quarters residents.
  - Finalized development of *Apophenia*, a library of statistical routines for large-scale, production-quality data analysis, initiated while at Brookings. Based on a category-theoretic interpretation of statistical modeling.
  - Wrote a system for raking (aka iterative proportional fitting) on sparse data sets with >100,000,000 observations.
  - Derived a new measure of interrater agreement based on entropy measures.
  - Oversaw four employees, advising them on their research and helping them to implement Census projects.
- Senior Statistician 2006–2009  
National Institute of Mental Health
- Provided primary statistical support for a new lab protocol involving the pooling of high-throughput genetic data among several subjects.
  - Found genetic segments statistically indicated to be implicated in bipolar disorder.
- Nonresident Fellow 2003–2009  
Brookings Institution
- Produced agent-based models, including smoking cessation, labor force migration, and civil unrest with the Center on Social and Economic Dynamics.

- Wrote a book, law review article, and several op-eds (Wall Street Journal, Washington Post, . . . ) on the state of intellectual property law.
- Made radio and TV appearances (NPR, Voice of America, . . . ) discussing tech policy.
- Organized two conferences on intellectual property issues.

Executive Director, End Software Patents project 2007–2008  
Free Software Foundation

- Wrote public information and made public appearances on the looming threats of software patents and patent trolls.
- Organized a small staff of campaigners.
- Spoke with media about the campaign and patent policy.
- Wrote an amicus brief for a Federal Circuit case, with help from legal staff. FSF reused the amicus brief as a brief to the Supreme Court in *Bilski v Kappos*.

Contractor 2004–2005  
World Bank

- Designed, implemented, and calibrated an agent-based model of labor migration through the Europe and Central Asia region.

Postdoctoral Fellow 2004–2005  
Johns Hopkins University Department of Economics

Teaching Assistant 2000–2003  
Caltech Humanities & Social Sciences Dept, incl. economics, law, psychology, anthropology

Research Assistant 2000  
to Michael Chwe of the NYU Dept of Politics

Risk Control Analyst 1998–99  
ABN AMRO, Inc

- Oversaw and reported on all of the desks of a regional brokerage firm, including OTC, Forex, pink sheet stocks, options trading, government bonds, and commodity futures
- Built a reporting system to gather information from all desks, calculate risk metrics, and report daily to management.

Research Assistant 1992–95  
to Dali Yang of the U of Chicago Political Science Dept

### *Education*

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PhD in Social Science (Microeconomics and Game Theory) 2003

Caltech

Participation in the Empirical Implications of Theoretical Models Summer Institute 2002  
Harvard University Center for Basic Research in the Social Sciences

MS in Social Science 2001  
Caltech

NASD Series 7 certification 1998

BA in Economics 1996  
University of Chicago. Included one year at London School of Economics studying mathematics and labor economics; dean's list.

*Government*

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Reviewer pool member 2014–present  
NSF Directorate for Social, Behavioral & Economic Sciences

Chair 2013–2015  
Transportation Committee, DC ANC1B

*Technical Papers*

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Intellectual Property Boxes and the Paradox of Price Discrimination May 2017

Valuing patents and trademarks in complex production chains December 2015

Estimating local poverty measures using satellite images: A pilot application to Central America June 2015  
World Bank Policy Research Paper #7329

A Useful Algebraic System of Statistical Models May 2013  
Census Bureau Research Report Series (Statistics)

A Peer-based Model of Fat-tailed Outcomes April 2013  
Arxiv

Mutual Information as a Measure of Intercoder Agreement October 2012  
Journal of Official Statistics

Tea for Survey Processing September 2012  
United Nations Economic Commission for Europe Conference of European Statisticians

Finding Optimal Agent-based Models September 2007  
Center on Social and Economic Dynamics Working Paper #49

A genome-wide association study implicates diacylglycerol kinase eta (DGKH) and several

other genes in the etiology of bipolar disorder 2008  
*Molecular Psychiatry*(13:2), pp 197-207, by AE Baum, N Akula, M Cabanero, I Cardona,  
W Corona, B Klemens, TG Schulze, S Cichon, M Rietschel, MM Nathen, A Georgi, J  
Schumacher, M Schwarz, R Abou Jamra, S Hofels, P Propping, J Satagopan, NIMH Genetics  
Initiative Bipolar Disorder Consortium, SD Detera-Wadleigh, J Hardy, and FJ McMahon.

An Efficient Network Generation Method: Interpersonal Networks and the Distribution of  
Links December 2005

Social Influences and Smoking Behavior February 2006  
Brookings Report to the American Legacy Foundation

Dissertation: Information Aggregation May 2003  
California Institute of Technology

### *Books*

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21st Century C September 2012  
O'Reilly Media

Modeling with Data October 2008  
Princeton University Press

Math You Can't Use: patents, copyright, and software November 2005  
Brookings Institution Press

### *Policy papers*

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5 Qs for Census Statistics Expert Ben Klemens October 2014  
Interview with The Center for Data Innovation

Copyright Law and the Progress of Science and the Useful Arts by Alina Ng May 2012  
Science and Public Policy

U.S. expanding the law - domestic and foreign - to benefit corporations February 2008  
San Francisco Chronicle, 17 February 2008 p E

The Rise of the Information Processing patent January 2008  
Boston University Journal of Science and Technology Law, 14:1, pp 1-37

U.S. Patent Imperialism Hurts American Interests August 2006  
Washington Post, 25 August 2006

Net neutrality fosters competition between technologies August 2006

Op-ed distributed by Scripps-Howard News Service, 17 August 2006

The Supreme Court's Patent Trilogy: An Analysis May 2006

The Gravity of the U.S. Patent Swindle March 2006  
Wall Street Journal, 25 March 2006, p A9

New Legal Code August 2005  
IEEE Spectrum, pp 60-62

Software Patents Don't Compute July 2005  
IEEE Spectrum, pp 56-59

The Computer-shaped Hole in the Patent Reform Act July 2005

Shadowing Bush November 2004

Social Norms and Voter Turnout January 2004

#### *Major software programs*

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1040.js, a personal tax flowchart

Tea for survey processing, with Rolando Rodríguez

Apophenia: a library of statistics functions, focusing on modular, cross-paradigm modeling

Writing appendices in LaTeX: a short macro package for writing theorems in a manner that facilitates moving proofs to an appendix, Comprehensive TeX Archive Network (CTAN).

An agent-based model of migration and demography: project for ECA region of World Bank.

#### *Live events*

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A Simulation of Nonresponse and Imputation August 2013  
2013–14 Program on Computational Methods in Social Sciences (CMSS)

Designing a cross-paradigm modeling framework May 2013  
Neyman Seminar at the University of California, Berkeley, Department of Statistics, 8 May 2013; invited talk at Stanford University Department of Statistics 14 May 2013.

Co-producer and speaker for Brookings Conference, "The Limits of Abstract Patents in an

Intangible Economy”	January 2009
Keynote speaker, NISS exploration workshop on agent-based modeling	November 2008
Interview by David Levine on Stanford Radio’s Hearsay Culture	10 August 2007
Panelist: Tech Policy Week	5 May 2007
DNA Pooling for GWAS with Illumina Infinium Assays	October 2006
Poster by Amber E. Baum, Nirmala Akula, <i>Ben Klemens</i> , Imer Cardona, Winston Corona, Andrew Singleton, John Hardy, Sevilla Detera-Wadleigh, Francis J. McMahon	
The Kojo Nnamdi Show: “The Legal Battle over Software” (National Public Radio discussion)	January 2006
Producer and moderator for “Software and Law: Is Regulation Fostering or Inhibiting Innovation?”	December 2005
Taught graduate class on networks and information Johns Hopkins Econ dept	Feb-May 2005