

Ben Klemens

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I have fifteen years doing math for the greater good, alternating between technical analysis of data and policy analysis based on my technical expertise.

Employment

- ※ **Senior Statistician, Economist — U.S. Treasury Office of Tax Analysis** 2015–present
 - Designed and built detailed systems for projecting federal tax revenues from corporations, and for use in what-if scenarios for alternative tax policies.
 - Worked in teams redesigning the process of audit selection via ML methods.
 - Provided analyses of the network of corporate ownerships.
 - Provided analysis of income and tax changes due to migration, based on a data set of 1.7 billion observations.
 - Wrote theoretical papers on the intersection of intellectual property and tax policy.
- ※ **Principal Researcher — U.S. Census Bureau Statistical Research Division** 2009–2015
 - Led a group in design and implementation of *Tea*, an R package used for certain aspects of American Community Survey and 2010 Census processing.
 - Finalized development of *Apophenia*, a C library of statistical routines for large-scale, production-quality data analysis, based on a category-theoretic interpretation of statistical modeling. Now available on Debian-derived Linux systems.
 - Oversaw four employees, advising them on their research and helping them to implement Census projects.
- ※ **Senior Statistician — National Institute of Mental Health** 2006–2008
 - Built data analysis infrastructure and did statistical work for a lab doing genome-wide association studies.
 - Found genetic segments statistically indicated to be implicated in bipolar disorder.
- ※ **Nonresident Fellow — Brookings Institution** 2003–2009
 - Wrote a book, law review article, and several op-eds (Wall Street Journal, Washington Post, ...) on the state of intellectual property law.
 - Was a technical advisor on development of the Brookings Weak State Index.
 - 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 — Free Software Foundation** 2007–2008
 - Made public appearances and wrote on the threats of the expanded scope of patent law and patent trolls.
 - Organized a 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. Most recommendations eventually appeared in the Supreme Court's ruling in *Alice v CLS Bank*.
- ※ **Contractor — World Bank** 2004–5, 2014–15
 - Developed a method to use satellite data for Guatemala to improve estimates of local poverty rates.
 - Designed, implemented, and calibrated an agent-based model of labor migration through the Europe and Central Asia region.

※ Postdoctoral Fellow — Johns Hopkins University Department of Economics	2004–2005
※ Teaching Assistant — Caltech Humanities & Social Sciences Dept, incl. economics, law, psychology, anthropology	2000–2003
※ Research Assistant — to Michael Chwe of the NYU Dept of Politics	2000
※ Risk Control Analyst — ABN AMRO, Inc	1998–99
<ul style="list-style-type: none"> ○ 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 — to Dali Yang of the U of Chicago Political Science Dept	1992–95

Education

※ PhD in Social Science (Microeconomics and Game Theory) — Caltech	2003
※ Participation in the Empirical Implications of Theoretical Models Summer Institute — Harvard University Center for Basic Research in the Social Sciences	2002
※ MS in Social Science — Caltech	2001
※ NASD Series 7 certification —	1998
※ BA in Economics — University of Chicago. Included one year at London School of Economics studying mathematics and labor economics; dean's list.	1996

Government

※ Policy Committee member — Biden presidential campaign	2020
※ Chair — Transportation Committee, DC ANC1B (member 2015–present)	2013–2015

Technical papers

※ An Analysis of U.S. Domestic Migration via Subset-stable Measures of Administrative Data — Journal of Computational Social Science	June 2021
※ Valuing patents and trademarks in complex production chains — Journal of the Knowledge Economy	March 2020
※ Intellectual Property Boxes and the Paradox of Price Discrimination — Center for Economic Priorities Working Paper	May 2017
※ Unemployment Insurance and worker mobility, by Ryan Nunn, Laura Kawano and Ben Klemens — Urban/Brookings Tax Policy Center report	February 2018
※ Estimating local poverty measures using satellite images: A pilot application to Central America, by Ben Klemens, Andrea Coppola, and Max Shron — World Bank Policy Research Paper #7329	June 2015
※ A Useful Algebraic System of Statistical Models — Census Bureau Research Report Series (Statistics)	May 2013
※ A Peer-based Model of Fat-tailed Outcomes — Arxiv	April 2013
※ Mutual Information as a Measure of Intercoder Agreement — Journal of Official Statistics	October 2012
※ Tea for Survey Processing — United Nations Economic Commission for Europe Conference of European Statisticians	September 2012

- ※ **Finding Optimal Agent-based Models** — Center on Social and Economic Dynamics Working Paper #49 September 2007
- ※ **A genome-wide association study implicates diacylglycerol kinase eta (DGKH) and several other genes in the etiology of bipolar disorder** — *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. May 2007
- ※ **Social Influences and Smoking Behavior** — Brookings Report to the American Legacy Foundation February 2006
- ※ **An Efficient Network Generation Method: Interpersonal Networks and the Distribution of Links** — December 2005
- ※ **Dissertation: Information Aggregation** — California Institute of Technology May 2003

Books

- ※ **21st Century C** — O'Reilly Media September 2012
- ※ **Modeling with Data** — Princeton University Press October 2008
- ※ **Math You Can't Use: Patents, Copyright, and Software** — Brookings Institution Press November 2005

Popular press articles

- ※ **Overlooked No More: James Sakoda, Whose Wartime Internment Inspired a Social Science Tool** — New York Times, with Liz Landau 8 May 2023
- ※ **Mastodon—and the pros and cons of moving beyond Big Tech gatekeepers** — Ars Technica January 2023
- ※ **Keeping science reproducible in a world of custom code and data** — Ars Technica November 2021
- ※ **An Inclusive, Cyberpunk Future Is In the Cards** — Wired, with Liz Landau February 2021
- ※ **The Heisenberg Uncertainty Principle of Social Science Modeling** — Scientific American 7 July 2020
- ※ **Software patents poised to make a comeback under new patent office rules** — Ars Technica 10 January 2019
- ※ **The Beauty Contest: How Cities are Shaped by What We Think Others Think, with Erica C Barnett** — Strong Towns November 2018
- ※ **5 Q's for Census Statistics Expert Ben Klemens** — Interview with The Center for Data Innovation October 2014
- ※ **Copyright Law and the Progress of Science and the Useful Arts by Alina Ng** — Science and Public Policy May 2012
- ※ **U.S. expanding the law - domestic and foreign - to benefit corporations** — San Francisco Chronicle, 17 February 2008 p E February 2008
- ※ **Proposal to Add Emoji Symbol for FALAFEL to Unicode** — Unicode Consortium April 2018
- ※ **The Rise of the Information Processing patent** — Boston University Journal of Science and Technology Law 14:1, pp 1–37
- ※ **U.S. Patent Imperialism Hurts American Interests** — Washington Post, 25 August 2006 August 2006

- ※ **Net neutrality fosters competition between technologies** — Op-ed distributed by Scripps-Howard News Service, 17 August 2006 August 2006
- ※ **The Supreme Court’s Patent Trilogy: An Analysis** — Brookings Institution May 2006
- ※ **The Gravity of the U.S. Patent Swindle** — Wall Street Journal, 25 March 2006, p A9 March 2006
- ※ **New Legal Code** — IEEE Spectrum, pp 60-62 August 2005
- ※ **Software Patents Don’t Compute** — IEEE Spectrum, pp 56-59 July 2005
- ※ **The Computer-shaped Hole in the Patent Reform Act** — Brookings Institution July 2005
- ※ **Shadowing Bush** — Brookings Institution November 2004
- ※ **Social Norms and Voter Turnout** — Brookings Institution January 2004

Live events

- ※ **Workshop Co-organizer** — Agent-Based Models for Exploring Public Policy Planning, Lorentz Center at University of Leiden July 2019
- ※ **A Simulation of Nonresponse and Imputation** — 2013–14 Program on Computational Methods in Social Sciences (CMSS) August 2013
- ※ **Designing a cross-paradigm modeling framework** — 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. May 2013
- ※ **Appearance in *Patent Absurdity*, a documentary** 2010
- ※ **Co-producer and speaker for Brookings Conference, “The Limits of Abstract Patents in an Intangible Economy”** — January 2009
- ※ **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** — Poster by Amber E. Baum, Nirmala Akula, Ben Klemens, Imer Cardona, Winston Corona, Andrew Singleton, John Hardy, Sevilla Detera-Wadleigh, Francis J. McMahon October 2006
- ※ **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