# HANMING FANG

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Department of Economics University of Pennsylvania

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### Education

University of Pennsylvania

Ph.D. in Economics

University of Virginia

M.A. in Economics

Fudan University

• B.A. in Economics

Philadelphia, PA September 1995 - May 2000 Charlottesville, VA September 1994 - May 1995

Shanghai, China

September 1989 - July 1993

## **Employment History**

July 2020— Joseph M. Cohen Term Professor of Economics, University of Pennsylvania.

July 2010— Professor of Economics, University of Pennsylvania.

**December 2017**— Professor of Health Care Management, Wharton School, University of Pennsylvania, Secondary Appointment.

July 2015 – June 2020 Class of 1965 Term Professor of Economics, University of Pennsylvania.

July 2009-June 2010 Associate Professor of Economics, University of Pennsylvania.

July 2009–June 2010 Professor of Economics (on leave), Duke University.

July 2007-June 2009 Associate Professor of Economics, Duke University.

July 2005-June 2007 Henry Kohn Associate Professor of Economics, Yale University.

July 2000–June 2005 Assistant Professor of Economics, Yale University.

## **Professional Affiliations**

- 2018 Senior Fellow, Asian Bureau of Finance and Economic Research (ABFER), National University of Singapore.
- 2017 Research Fellow, IZA Institute of Labor Economics, Bonn, Germany.
- 2016 Senior Fellow, Leonard Davis Institute for Health Economics, University of Pennsylvania.
- 2015— Research Associate, Population Aging Research Center (PARC), University of Pennsylvania.
- 2015— Scientific Director, Australia-China Population Ageing Research Hub, CEPAR, University of New South Wales, Sydney, Australia.
- **2013** Affiliated Faculty, Wharton Public Policy Initiative.
- 2011 Research Associate, Population Studies Center, University of Pennsylvania.
- 2011 International Partner Investigator, Australian Research Council Centre of Excellence in Population Ageing Research (CEPAR), University of New South Wales, Sydney, Australia.
- 2009— Research Associate, National Bureau of Economic Research (Public Economics).

2010–2017 Academic Advisory Committee, China Data Center at Tsinghua University.

2005-2009 Faculty Research Fellow, National Bureau of Economic Research (Public Economics).

2006-2007 Research Staff, Yale University Economic Growth Center.

**2003-2007** Research Staff, Cowles Foundation for Research in Economics.

#### **Publications**

- Why Do Life Insurance Policyholders Lapse? The Roles of Income, Health and Bequest Motive Shocks, (with Edward Kung), forthcoming, *Journal of Risk and Insurance*. [NBER Working Paper 17899, March 2012.]
- Human Mobility Restrictions and the Spread of the Novel Coronavirus (2019-nCoV) in China (with Long Wang and Yang Yang), 2020, forthcoming, *Journal of Public Economics*.
- Detecting Potential Overbilling in Medicare Reimbursement via Hours Worked: Reply (with Qing Gong), April 29, 2020, forthcoming, American Economic Review.
- Life Insurance and Life Settlement Market with Overconfident Policyholders, (with Zenan Wu), March 2017, NBER Working Paper No. 23286, revised, January 2019, forthcoming, Journal of Economic Theory.
- Equilibrium Labor Market Search and Health Insurance Reform, (with Naoki Aizawa), First version: January 2013, NBER Working Paper 18698; final version: February 2020, forthcoming, *Journal of Political Economy*.
- The Chinese Pension System, (with Jin Feng), September 2018, NBER Working Paper 25088, forthcoming in *Handbook of the Chinese Financial Markets*, edited by Marlene Amstad and Wei Xiong, Princeton University Press.
- Life Insurance and Life Settlements: The Case for Health-Contingent Cash Surrender Values, replacing "How Does the Life Settlement Affect the Primary Life Insurance Market?", (with Edward Kung), *Journal of Risk and Insurance*, Volume 87, Issue 1, Pages 7-39, March 2020.
- Is There a Demand for Reverse Mortgages in China? Evidence from Two Online Surveys, (with Katja Hanewald, Hazel Bateman, and Shang Wu), Journal of Economic Behavior and organization, Volume 169, Pages 19-37, January 2020.
- The Gradients of Power: Evidence from the Chinese Housing Market, (with Quanlin Gu and Li-An Zhou), current version: January 2019 (NBER Working Paper 20317, July 2014), *Journal of Public Economics*, Volume 176, Pages 32-52, August 2019.
- Exit, Voice or Loyalty? An Investigation into Mandated Portability of Front-Loaded Private Health Plans, (with Juan Pablo Atal, Nicolas R. Ziebarth and Martin Karlsson), *Journal of Risk and Insurance*, Vol 86(3), pages 697-727, September 2019.
- Multidimensional Private Information, Market Structure and Insurance Markets, (with Zenan Wu), Rand Journal of Economics, Vol 49(3), pages 751-787, 2018.
- Detecting Potential Overbilling in Medicare Reimbursement via Hours Worked (with Qing Gong), American Economic Review, 107(2): 562-591, February 2017.
- Demystifying the Chinese Housing Boom, (with Quanlin Gu, Wei Xiong and Li-An Zhou), *NBER Macro Annual, Volume 30*, 2016, 105-166, edited by Martin Eichenbaum and Jonathan A. Parker.
- An Experimental Study of Alternative Campaign Finance Systems: Donations, Elections and Policy Choices, (with Dmitry Shapiro and Arthur Zillante), Economic Inquiry, Volume 54, Issue 1, pages 485-507, January 2016.
- Insurance Markets for the Elderly, in *Handbook of the Economics of Population Ageing*, Volume 1A, Chapter 5, p. 237-309, edited by John Piggott and Alan Woodland, November 2016.
- Estimating Dynamic Discrete Choice Models with Hyperbolic Discounting, with an Application to Mammography Decisions, (with Yang Wang), *International Economic Review*, Vol. 56, No. 2, 565-596, May 2015.
- The Effect of Microinsurance on Economic Activities: Evidence from a Randomized Natural Field Experiment, (with Hongbin Cai, Yuyu Chen and Li-an Zhou), *Review of Economics and Statistics*, Vol. 97, No. 2, Pages 287-300, May 2015.

- Testing for Racial Prejudice in the Parole Board Release Process: Theory and Evidence, (with Shamena Anwar), Journal of Legal Studies, Vol. 44, No. 1, 1-37, January 2015.
- Separate When Equal? Racial Inequality and Residential Segregation, (with Patrick Bayer and Robert McMillan), Journal of Urban Economics, Vol. 82, July 2014, 32-48.
- Inference of Bidders' Risk Attitudes in Ascending Auctions with Endogenous Entry, (with Xun Tang), *Journal of Econometrics*, Vol. 180, No. 2, June 2014, 198-216.
- Toward an Efficiency Rationale for the Public Provision of Private Goods, (with Peter Norman), Economic Theory, Volume 56, Issue 2, June 2014, 375-408.
- Testing for the Role of Prejudice in Emergency Departments Using Bounceback Rates, (with Shamena Anwar), BE Journal of Economic Analysis & Policy (Advances), Vol. 13: Issue 3 (Advances), Article 4, 2012.
- Dynamic Inefficiencies in an Employment-Based Health Insurance System: Theory and Evidence, (with Alessandro Gavazza), American Economic Review, Vol 101, No. 7, December 2011, 3047-3077.
- Does Affirmative Action Lead to Mismatch? A New Test and Evidence, (with Peter Arcidiacono, Esteban M. Aucejo and Kenneth I. Spenner), *Quantitative Economics*, No. 2, November 2011, 303-333.
- Eat, Drink, Firms and Government: An Investigation of Corruption from Entertainment and Travel Costs of Chinese Firms, (with Hongbin Cai and Colin Xu), *Journal of Law and Economics*, Vol. 54, No. 1, February 2011, 55-78.
- Optimal Provision of Multiple Excludable Public Goods, (with Peter Norman), American Economic Journal: Microeconomics, November 2010: 1-37.
- Theories of Statistical Discrimination and Affirmative Action: A Survey, (with Andrea Moro), Handbook of Social Economics, Vol I, edited by Jess Benhabib, Alberto Bisin, and Matthew Jackson, North-Holland, November 2010, 76 pages.
- Time Inconsistency and Welfare Program Participation: Evidence from the NLSY, (with Dan Silverman), International Economic Review, Vol. 50, No. 4, November 2009, 1043-1077.
- Observational Learning: Evidence from a Randomized Natural Field Experiment, (with Hongbin Cai and Yuyu Chen), *American Economic Review*, Vol. 99, No. 3, June 2009, 864-882.
- Understanding Overbidding in Second Price Auctions: An Experimental Study (with David J. Cooper), *Economic Journal*, Vol. 118, October, 2008, 1572 1595.
- Sources of Advantageous Selection: Evidence from the Medigap Insurance Market, (with Michael Keane and Dan Silverman), *Journal of Political Economy*, Vol. 116, No. 2, April 2008, 303-350.
- To Bundle or Not To Bundle (with Peter Norman), Rand Journal of Economics, Winter 2006, Vol. 37, No. 4, 946-963.
- Disentangling the College Wage Premium: Estimating a Model with Endogenous Education Choices, *International Economic Review*, Vol. 47, No. 4, 1151-1185, November 2006.
- Government-Mandated Discriminatory Policies: Theory and Evidence, (with Peter Norman), International Economic Review, Vol. 47, No. 2, May 2006: 361-389.
- An Alternative Test of Racial Prejudice in Motor Vehicle Searches: Theory and Evidence, (with Shamena Anwar),
  American Economic Review, March 2006, Vol. 96, No. 1, 127-151.
- Distinguishing Between Cognitive Biases: Belief vs. Time Discounting in Welfare Program Participation, (with Dan Silverman), in *Behavioral Public Finance: Toward a New Agenda*, edited by Joel Slemrod and Edward McCaffery, Russell Sage Foundation, 2006, pp. 47-81.
- Multidimensional Private Value Auctions, (with Stephen Morris), *Journal of Economic Theory*, January 2006, Vol. 126, 1-30.
- Toward an Economic Theory of Dysfunctional Identity, (with Glenn Loury), in *The Social Economics of Poverty: On Identities, Groups, Communities and Networks*, Edited by Christopher B. Barrett, London: Routledge, 2005, pp. 12-55.

- Morale Hazard, (with Giuseppe Moscarini), Journal of Monetary Economics, May 2005, Vol. 52, 749-777.
- On the Compassion of the Time-Limited Welfare Programs, (with Dan Silverman), *Journal of Public Economics*, Volume 88, Issues 7-8, July 2004, 1445-1470.
- Assessing the Impact of Welfare Reform on Single Mothers, (with Michael Keane), *Brookings Papers on Economic Activity*, 2004, Volume 1, 1-116.
- On the Failure of the Linkage Principle with Financially Constrained Bidders, (with Sergio O. Parreiras), Journal of Economic Theory, June 2003, 374-392.
- Lottery versus All-Pay Auction Models of Lobbying, Public Choice, September 2002, 351–371.
- Equilibrium of Affiliated Value Second Price Auctions with Financially Constrained Bidders: The Two-Bidder Case, (with Sergio O. Parreiras), Games and Economic Behavior, May 2002, 215-236.
- Social Culture and Economic Performance, American Economic Review, September 2001, Vol. 91, No. 4, 934-947.

### Other Publications

- "Post-COVID-19 Reconfiguration of the Global Value Chains and China", VoxChina, June 10, 2020.
- "The Economic Realities of Replacing the Affordable Care Act." Issue Brief, Wharton Public Policy Initiatives, Volume 5, No. 3, March 2017.
- Book Review for "Insurance and Behavioral Economics: Improving Decisions in the Most Misunderstood Industry" by Howard C. Kunreuther, Mark V. Pauly and Stacey McMorrow. Cambridge University Press. *Journal of Pension Economics and Finance*, 13 (01), 117-119, 2013.
- "Insurance Markets in China." Entry in *The Oxford Companion to the Economics of China* (Oxford University Press), edited by Shenggen Fan, Ravi Kanbur, Shang-Jin Wei and Xiaobo Zhang, 2013.
- "Field Research on Learning." Entry in *Encyclopedia of the Sciences of Learning*, edited by Norbert M. Seel, Springer, 2010.
- Testing the Mechanisms of Structural Models: The Case of the Mickey Mantle Effect, (with Michael Keane, Ahmed Khwaja, Martin Salm and Dan Silverman), American Economic Review (Papers and Proceedings), May 2007, 53-59.
- "Dysfunctional Identities" Can Be Rational (with Glenn C. Loury), American Economic Review (Papers and Proceedings), May 2005: 104-111.

## Working Papers

- Joint Labor Search, Spousal Insurance, and Health Care Reform (with Andrew Shephard), manuscript, September 2019, revise and resubmit, *Econometrica*.
- The Long-Term Consequences of Having Fewer Children in Old Age: Evidence from China's "Later, Longer, Fewer" Campaign, (with Yi Chen), August 2018, NBER Working Paper 25041, revise and resubmit, *Journal of Development Economics*
- Pandemics, Global Supply Chains, and Local Labor Demand: Evidence from 100 Million Posted Jobs in China (with Chunmian Ge, Hanwei Huang and Hongbin Li), October 2020.
- Window Dressing in the Public Sector: A Case Study of China's Compulsory Education Promotion Program (with Chang Liu and Li-An Zhou), NBER Working Paper, July 2020.
- First Case Date and the Spread of Covid-19 (with Ming Li and Wei Xiong), June 2020.
- Competition and Quality: Evidence from High-Speed Rails and Airlines (with Long Wang and Yang Yang), NBER Working Paper, June 26, 2020.
- Confidence Management in Tournaments (with Shanglyu Deng, Qiang Fu and Zenan Wu), May 10, 2020.

- Long-Term Health Insurance: Theory Meets Evidence, (with Juan Pablo Atal, Martin Karlsson and Nicolas R. Ziebarth), manuscript, March 2020.
- The Collateral Channel of Monetary Policy: Evidence from China, (with Yongqin Wang and Xian Wu), manuscript, February 2020.
- The State of Mental Health Among the Elderly Chinese, (with Yi Chen), manuscript, January 2020.
- Equilibrium Consequences of Corruption on Firms: Evidence from China's Anti-Corruption Campaign (with Haoyuan Ding, Shu Lin and Kang Shi), manuscript, January 2020.
- Factions, Local Accountability, and Long-Term Economic Development: Theory and Evidence (with Linke Hou, Mingxing Liu, Colin L. Xu, and Pengfei Zhang), manuscript, May 2019.
- In the Shadows of the Government: Relationship Building During Political Turnovers, (with Zhe Li, Nianhang Xu and Hongjun Yan), November 2018, submitted.
- Partial Rating Area Offering in the ACA Marketplaces: Facts, Theory and Evidence, (with Ami Ko), manuscript, October 2018.
- Inferring the Ideological Affiliations of Political Committees via Financial Contributions Networks, (with Yiran Chen), manuscript, December 2017.
- The Dynamics of Adjustable-Rate Subprime Mortgage Default: A Structural Estimation (with You S. Kim and Wenli Li), NBER Working Paper No. 21810, December 2015.
- Rosca Meets Financial Markets, (with Rongzhu Ke and Li-An Zhou), NBER Working Paper No. 21683, October 2015.
- Mothers' Employment and Children's Educational Gender Gap (with Xiaodong Fan and Simen Markussen), NBER Working Paper No. 21183, May 2015.
- The Effect of Remarriage Fertility Policies: Evidence from China (with Wuanchuan Lin), March 2013.
- Cognitive Ability and Retiree Health Care Expenditures, (with Lauren Nicholas and Dan Silverman), September 2010, Michigan Retirement Research Center Working Paper 230.
- Overcoming Participation Constraints (with Peter Norman), Cowles Foundation Discussion Paper 1511, revised, February 2006, 38 pages.

#### **Professional Services**

Guest Editor, Journal of Economic Theory special issue on Epidemics and Economics.

Editorial Committee, Annual Review of Economics, 2020-2024.

Senior Editor, Journal of Risk and Insurance, 2019 -.

Co-Founder & Executive Committee, VoxChina.org.

International Advisory Board, School of Economics, Fudan University, Shanghai, China, 2016 – 2021.

Board Member, CUHK (Shenzhen) Shenzhen Advanced Institute of Finance, January 2017-December 2022.

Associate Editor, Quantitative Economics, July 2013 - June 2019.

**Acting Director,** National Bureau of Economic Research (NBER) Chinese Economy Working Group, September 2014 - September 2016.

Co-Editor, International Economic Review, July 2010 - June 2016.

National Science Foundation, Economics Program Advisory Panel, Fall 2012, Spring 2014, Fall 2014, Spring 2015.

Board of Editors, American Economic Review, January 2008 - December 2013.

Co-Editor, Journal of Public Economics, October 2009 - April 2012.

Associate Editor, Theoretical Economics, July 2009 - June 2012.

Associate Editor, Journal of Business & Economic Statistics, July 2009 - June 2012.

Associate Editor, International Economic Review, July 2005 - June 2010.

Associate Editor, European Economic Review, July 2006 - December 2009.

Associate Editor, Journal of Public Economics, January 2007 - September 2009.

Board of Editors, American Economic Journal: Microeconomics, July 2007 - June 2008.

Hong Kong University Grant Council, Business Economics Panel Member, 2014-2015.

Hong Kong Research Grant Council, Panel Member, 2008-2013.

Hong Kong Research Grant Council, Research Impact Fund Committee, May 2020-February 2021.

## Visiting and Part-Time Positions

Dean (Overseas) and Special Term Professor, School of Entrepreneurship and Management, ShanghaiTech University, January 2018-December 2020.

Visiting Professor, Department of Economics; and Visiting Research Scholar, Center for Health and Wellbeing, Princeton University, September 1, 2018-July 1, 2019.

Visiting Professor, ARC Centre of Excellence in Population Ageing Research (CEPAR), University of New South Wales Business School, Sydney, Australia, 2015-2017.

Special-Term Visiting Professor, Guanghua School of Management, Peking University, July 2009-June 2018.

Occasional Visiting Scholar, Research Department, Federal Reserve Bank of Philadelphia, 2011-2017.

Special-Term Visiting Professor, School of Economics, Fudan University, September 2011 - March 2015, April 2017-March 2020.

Departmental Research Visitor, Department of Economics, University of Western Ontario, March 17-18, 2014.

Visiting Scholar, Federal Reserve Bank of New York, October 19, October 23, 2012; December 13-14, 2016.

Consultant, Federal Reserve Bank of Chicago, August 15-21, 2012.

Partner Investigator, ARC Centre of Excellence in Population Ageing Research, University of New South Wales, Australia.

Distinguished Research Visitor, Department of Economics, Boston University, April 21-24, 2009.

Special-Term Professor, Shanghai University of Finance and Economics, June 2006-May 2009.

Visiting Scholar, Federal Reserve Bank of New York, August 2006 – July 2007.

Visiting Scholar, Federal Reserve Bank of Minneapolis, June 2005.

### Grants & Honors

Fellow, the Econometric Society, Elected in 2018.

Keynote Speaker, China International Risk Forum and China Finance Review International Joint Conference, August 2020.

Keynote Speaker, Chinese Economists Society North America Conference, August 14, 2020.

Invited Speaker, Korean Economic Review International Conference, August 13, 2020.

Keynote Speaker, GSE Forum on Structural Microeconomics Summer Conference, Barcelona, Spain, June 2019.

Keynote Speaker, Essen Health Economics Conference, Essen, Germany, May 2019.

- Keynote Speaker, Graduation Ceremony, School of Economics, Fudan University, June 17, 2018.
- Invited Speaker, Econometric Society China Meeting, June 15-17, 2018, Shanghai, China.
- Irving B. Kravis Award for Excellence in Undergraduate Teaching, Department of Economics, University of Pennsylvania, April 2018.
- The Eighth Annual N.T. Wang Distinguished Lecture, Columbia University, February 20, 2018.
- Mack Institute Research Fellowship, "Changing Demand of Skills in the US Labor market: Evidence Based on the Text Analysis of Online Job Postings", with Pinar Yildirim (Wharton Marketing), \$5,000, August 2017.
- Quartet Pilot Award (by Boettner Center, Population Aging Research Center, Penn Population Studies Center, and CHIBE), University of Pennsylvania, "Long-Term Care Financing Using Home Equity Release" (with Katja Hanewald, UNSW), \$37,500, April 2017.
- China Research Engagement Fund (CREF) Award, University of Pennsylvania, 2016-2018: "Political Factions and Economic Performance: Evidence from Chinese Provinces." \$98,000, August 2016.

Penn Fellow, 2016-2017.

- Keynote Speaker, Chinese Economist Society of Australia Annual Conference, 2015, 2016.
- Invited Semi-plenary Speaker, Australasian Meeting of the Econometric Society, Sydney, July 6-8, 2016.
- NSF Grant (PI), "Affordable Care Act and the Labor Market," (co-PI: Andrew Shephard), SES-1459353, 2015-2018, \$426.020.
- Invited Semi-plenary Speaker, Australasian Meeting of the Econometric Society, Sydney, July 9-13, 2013.
- Irving B. Kravis Award for Excellence in Undergraduate Teaching, Department of Economics, University of Pennsylvania, April 2012.
- Keynote Speaker, Second Annual CUHK-Fudan-Tsinghua Conference on Chinese Economy, Tsinghua University, Beijing, December 19-20, 2011.
- NSF Grant (PI), "Research on the Economics of Discrimination: New Empirical Methods, Theory and Applications," SES-1122902, 2011-2014, \$270,531.
- Trio Pilot Award (by Boettner Center, Population Aging Research Center and Population Studies Center), University of Pennsylvania, "The Effect of Child-Bearing Policies in Remarriages: Evidence from China." \$20,000.
- Keynote Speaker, Hong Kong Economic Association Biennial Meetings, Tianjin, China, December 18-19, 2010.
- MRRC (Michigan Retirement Research Center) Grant, "Numeracy, Cognitive Abilities and Retiree Health Care Expenditure" (with Lauren Nicholas and Dan Silverman), October 2009 September 2010, \$100,000.
- Kenneth Arrow Award (for the Best Paper in Health Economics Published in 2008), International Health Economist Association (iHEA), for paper "Sources of Advantageous Selection: Evidence from the Medigap Insurance Market" published in *Journal of Political Economy*, (joint with Michael P. Keane and Dan Silverman).
- NSF Grant (PI), "The Effect of Life Settlement on the Primary Life Insurance Market: Theory and Evidence." SES 0844845, 2009-2012, \$299,500 (no-cost extension to 2014).
- Smith Richardson Foundation Domestic Public Policy Fellowship, "Assessing the Impact of Welfare Reform on Single Mothers and Their Children." 2005-2006, \$60,000.
- Robert Wood Johnson Foundation Grant (with Dan Silverman), "The Effects of Cognitive Biases in Health Investment and Health Insurance Decisions." 2003-2004, \$46,000.
- Yale University Junior Faculty Fellowship, 2003-2004.
- Yale University Social Science Research Fund, 2001.
- William P. Carey Prize for Best Doctoral Dissertation in Economics, University of Pennsylvania, 2001 (shared with Johannes Horner).

Review of Economic Studies European Tour (UCL, Toulouse, Tel Aviv, Tilburg), May 2000.

Alfred P. Sloan Doctoral Dissertation Fellowship, 1999-2000.

# Internal and External Services

Executive Committee, Center for the Study of Contemporary China, University of Pennsylvania, 2018-.

External Reviewer, Department of Economics, Virginia Polytechnic and State University (Virginia Tech), March 2017.

Planning and Priorities Committee, School of Arts and Sciences, University of Pennsylvania, 2016-2017

China Advisory Committee, School of Arts and Sciences, University of Pennsylvania, 2016-2017

Diversity, Inequality and Well-Being of Human Beings Working Group, School of Arts and Sciences, University of Pennsylvania, 2015-2017.

Graduate Admissions Committee, Department of Economics, University of Pennsylvania, 2010-2013, 2014 (Chair), 2015, 2016, 2020 (Chair).

Personnel Committee, Department of Economics, University of Pennsylvania, 2012, 2015, 2017, 2018 (Chair).

## Teaching Experience

Health Economics I (co-teach with David Silver), PhD Course, Department of Economics, Princeton University.

China: Institutions and Economy (co-teach with Yue Hou, Penn Political Science, New Course for Spring 2018)

Topics in Applied Microeconomics (Second Year Ph.D. Topics Course, Penn, Fall 2012, Fall 2013, Fall 2014, Spring 2016, Fall 2017, Fall 2019, Fall 2020)

Honors Thesis Seminar (undergraduate course, Penn, Fall 2012)

Public Economics (Second Year Ph.D. Course, Penn, Fall 2010, Fall 2011, co-teach with Andrew Postlewaite)

Social Insurance: Theory, Method and Evidence (Second Year Ph.D. Topics Course, Penn, Fall 2009)

Public Finance (Undergraduate Course, Penn, Spring 2010, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2016, Fall 2017, Fall 2019, Fall 2020)

Economics of Poverty and Discrimination (Undergraduate Seminar Course, Duke, Spring 2008, Spring 2009)

Social Insurance (Second Year Ph.D. Topics Course, Duke, Spring 2008, Spring 2009)

Public Economics (Second Year Ph.D. Course, Yale, 2000-2006).

Public Economics (Undergraduate Lecture Course, Yale, 2002).

Introduction to Probability and Statistics (Undergraduate Lecture Course, Yale, 2000-2003).

Behavioral Economics (Undergraduate Senior Seminar, Yale, 2003).

#### Ph.D. Advisees

At Penn (2009—): Molly Frean (Wharton HCM, in progress), Yueyuan Ma (in progress), Tomas Larroucau (\*, in progress), Michal Hodor (\*, in progress), Mingli Zhong (Wharton BEPP 2020, NBER Postodoc), Ming Li (\*, 2020, CUHK Shenzhen), Yiran Chen (\*, 2019, Cornerstone), Ambar La Forgia (Wharton HCP 2019, Columbia School of Public Health), Hanna Wang (2019, Universitat Autonoma de Barcelona), Benjamin Rosa (\*, 2018, Virginia Tech), Qing Gong (\*, 2018, University of North Carolina - Chapel Hill), Amelia Bond (2018, Wharton Health Care Management, Cornell Medical School), Ami Ko (\*, 2017, Georgetown University), Jan Tilly (\*, 2017, Quant.Co), YinYin Yu (\*, 2016, Vanguard), Caroline Liu (\*, 2016, BlackRock), Yu Wang (2016, Ryerson University), Sophie Shin (2015, Research Associate, Wharton Public Policy Institute), Zenan Wu (\*, Peking University School of Economics, 2015), Naijia Guo (Chinese University of Hong Kong, 2014), Naoki Aizawa (\*, University of Minnesota, 2014), You S. Kim (\*, Federal Reserve Board, 2014), Eun-young Shim (UCSD, post-doc, 2014), Chencan Ouyang (\*, 2013, Kaneka Holdings), Fei Li (2013, UNC-Chapel Hill), Danni Catamby (2013, Hitotsubashi University), Soojin Kim (Purdue, 2013), Rong Hai (Chicago, post-doc, 2013), Karam Kang (2012, Carnegie Mellon University), Stan Rabinovich (\*, 2012, Amherst College), Xiangting Hu (2012, Renmin University), Nirav Mehta (2011, Western Ontario Economics), Xi Weng (2011, Peking University), Dionissi Aliprantis (2010, Cleveland Fed).

- At Duke (2007-2009): Edward Kung (\*, 2012, UCLA Economics), Angelo Fasolo (2010, Central Bank of Brazil), Yang Wang (2009, Lafayette College), Tongyai Iyavarakul (2009; Thailand Ministry of Finance).
- At Yale (2000-2007): Ying Fan (2009, Michigan Economics), Shing-Yi Wang (2008, NYU Economics), Xianwen Shi (2007, Toronto Economics), Shamena Anwar (\*, 2006, Carnegie Mellon Heinz School), Panle Jia (2006, MIT Economics), Xia Li (2006, Shanghai University of Finance and Economics), Mainak Sarkar (2005, private sector), Caterina Calsamiglia (2005, Universitat Autonoma de Barcelona), Elena Krasnokutskaya (2003, UPenn Economics).

<sup>\*:</sup> advisor or co-advisor; otherwise, committee member; initial job placement in parenthesis