Keisuke Hirano (平野敬祐)

Department of Economics
The Pennsylvania State University
602 Kern Building
University Park, PA 16802

Current Position

Liberal Arts Professor, Department of Economics, The Pennsylvania State University
August 2023–present

Previous Positions

Professor, Department of Economics, The Pennsylvania State University
August 2016–2023.

Cross-appointed Professor, Institute for Social and Economic Research, Osaka University
May–June 2016, April 2017–June 2018.

Professor, Department of Economics, University of Arizona
July 2010–June 2016.

Visiting Professor, Department of Economics, Harvard University
January 2015–May 2015.

Economics Department Head, University of Arizona
July 2012–December 2014.

Associate Professor, Department of Economics, University of Arizona
July 2004–June 2010.

Visiting Associate Professor, Department of Economics, Harvard University
January 2009–May 2009.

Associate Professor, Department of Economics, University of Miami
July 2001–July 2004 (with tenure, June 2003).

Assistant Professor, Department of Economics, UCLA
July 1998–July 2001.

Education

Harvard University, Ph.D. in Economics, November 1998.

Harvard University, A.M. in Economics, November 1996.

Yale University, B.A. in Economics, *summa cum laude*, June 1992.

Publications

Keisuke Hirano, 2023, "A Comment on: 'Invidious Comparisons: Ranking and Selection as Compound Decisions,' by Jiaying Gu and Roger Koenker," *Econometrica* 91(1), 43-46.

Bryan Graham, Keisuke Hirano, and Guido W. Imbens, 2023, "The ET Interview: Professor Gary Chamberlain," *Econometric Theory* 39(1), 1-26.

Bryan Graham and Keisuke Hirano, 2022, "Introduction to the Annals Issue in Honor of Gary Chamberlain," *Journal of Econometrics* 226(1), 1-3.

Keisuke Hirano and Jonathan H. Wright, 2022, "Analyzing Cross-Validation for Forecasting with Structural Instability," *Journal of Econometrics* 226(1), 139-154.

Keisuke Hirano and Jack R. Porter, 2020, "Asymptotic Analysis of Statistical Decision Rules in Econometrics," *Handbook of Econometrics* vol. 7A, eds. S. Durlauf, L. P. Hansen, J. J. Heckman, R. Matzkin, Elsevier, 283–354.

Daniel Ackerberg, Keisuke Hirano, and Quazi Shahriar, 2017, "Identification of Time and Risk Preferences in Buy Price Auctions," *Quantitative Economics* 8: 809–849.

Keisuke Hirano and Jonathan H. Wright, 2017, "Forecasting With Model Uncertainty: Representations and Risk Reduction," *Econometrica* 85(2): 617–643.

Keisuke Hirano and Jack R. Porter, 2016, "Panel Asymptotics and Statistical Decision Theory," *Japanese Economic Review* 67(1): 33–49.

Keisuke Hirano and Jack R. Porter, 2015, "Location Properties of Point Estimators in Linear Instrumental Variables and Related Models," *Econometric Reviews* 34(6–10): 720–733.

Keisuke Hirano and Jack R. Porter, 2012, "Impossibility Results for Nondifferentiable Functionals," *Econometrica* 80(4): 1769–1790.

Bryan Graham and Keisuke Hirano, 2011, "Robustness to Parametric Assumptions in Missing Data Models," *American Economic Review: Papers & Proceedings* 101(3): 538–543.

Jinyong Hahn, Keisuke Hirano, and Dean Karlan, 2011, "Adaptive Experimental Design Using the Propensity Score," *Journal of Business and Economic Statistics* 29(1): 96–108.

Keisuke Hirano and Jinyong Hahn, 2010, "Design of Randomized Experiments to Measure Social Interaction Effects," *Economics Letters* 106(1): 51–53.

Keisuke Hirano and Jack R. Porter, 2009, "Asymptotics for Statistical Treatment Rules," *Econometrica* 77(5): 1683–1701.

Keisuke Hirano, 2008, "Decision Theory in Econometrics," in *The New Palgrave Dictionary of Economics*, Second Edition, ed. Steven N. Durlauf and Lawrence E. Blume, Palgrave Macmillan.

Keisuke Hirano and Guido W. Imbens, 2004, "The Propensity Score with Continuous Treatments," in *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives*, ed. A. Gelman and X.-L. Meng, Wiley.

Keisuke Hirano and Jack R. Porter, 2003, "Asymptotic Efficiency in Parametric Structural Models

with Parameter-Dependent Support," *Econometrica* 71: 1307–1338.

Keisuke Hirano, Guido W. Imbens, and Geert Ridder, 2003, "Efficient Estimation of Average Treatment Effects using the Estimated Propensity Score," *Econometrica* 71: 1161–1189. Earlier version appeared as NBER Technical Working Paper 251.

Keisuke Hirano, 2002, "Semiparametric Bayesian Inference in Autoregressive Panel Data Models," *Econometrica* 70: 781–799.

Keisuke Hirano, Guido W. Imbens, Geert Ridder, and Donald B. Rubin, 2001, "Combining Panel Data Sets with Attrition and Refreshment Samples," *Econometrica* 69: 1645–1659. Earlier version appeared as NBER Technical Working Paper 230.

Keisuke Hirano and Guido W. Imbens, 2001, "Estimation of Causal Effects using Propensity Score Weighting: An Application to Data on Right Heart Catheterization," *Health Services and Outcomes Research Methodology* 2: 259–278.

Keisuke Hirano, Guido W. Imbens, Donald B. Rubin, and Xiao-hua Zhou, 2000, "Assessing the Effect of an Influenza Vaccine in an Encouragement Design with Covariates," *Biostatistics* 1: 69–88.

Gary Chamberlain and Keisuke Hirano, 1999, "Predictive Distributions based on Longitudinal Earnings Data," *Annales d'Économie et de Statistique* 55–56: 211–242.

Keisuke Hirano, 1998, "A Semiparametric Model for Labor Earnings Dynamics," in *Practical Nonparametric and Semiparametric Bayesian Statistics*, ed. D. Dey, P. Mueller, D. Sinha, Springer-Verlag.

Working Papers

Keisuke Hirano, 2025, "Wald's Statistical Decision Theory for Policy Analysis and Adaptive Experiments."

Keisuke Hirano and Jack R. Porter, 2025, "Asymptotic Representations for Sequential Decisions, Adaptive Experiments, and Batched Bandits," https://arxiv.org/abs/2302.03117.

Michael Gechter, Keisuke Hirano, Jean Lee, Mahreen Mahmud, Orville Mondal, Jonathan Morduch, Saravana Ravindran, and Abu Shonchoy, 2024, "Selecting Experimental Sites for External Validity."

Keisuke Hirano and Jonathan H. Wright, 2017, "Supplement to 'Forecasting With Model Uncertainty: Representations and Risk Reduction.' "

Keisuke Hirano and Jack R. Porter, 2009, "Supplement to 'Asymptotics for Statistical Treatment Rules.'"

Daniel Ackerberg, Keisuke Hirano, and Quazi Shahriar, 2006, "The Buy-it-now Option, Risk Aversion, and Impatience in an Empirical Model of EBay Bidding."

Keisuke Hirano and Jack R. Porter, 2003, "Efficiency in Asymptotic Shift Experiments."

Awards and Fellowships

Fellow, International Association for Applied Econometrics, 2020–.

Fellow, Econometric Society, 2013–.

Outstanding Undergraduate Instructor Award, Department of Economics, Penn State, 2017.

Nakahara Prize, Japanese Economic Association, 2015.

Fellow, Academic Leadership Institute, University of Arizona, 2013–2014.

Kalt Prize for Doctoral Placement, Eller College of Management, University of Arizona, 2011.

APS Professorship, Eller College of Management, University of Arizona, 2008–2016.

McCoy/Rogers Fellowship, Eller College of Management, University of Arizona, 2005–2008.

Eller Fellowship, Eller College of Management, University of Arizona, 2004–2005.

Excellence in Research Award, University of Miami School of Business, August 2002.

Mitchell Prize, American Statistical Association Section on Bayesian Statistical Science, and the International Society for Bayesian Analysis, 2001, for article with Imbens, Rubin, and Zhou.

Dean's Marshal Award for the Division of Social Sciences, UCLA, 2000.

Warren C. Scoville Distinguished Teaching Award, Department of Economics, UCLA, Fall 1999.

Zellner Thesis Award (co-winner), Business and Economics Statistics Section of the American Statistical Association, 1999.

National Science Foundation Graduate Research Fellowship, September 1993–August 1996.

Harvard University Committee on Undergraduate Education (CUE) Certificate for Distinction in Teaching, spring 1996, spring 1997, spring 1998.

Phi Beta Kappa, Yale University, 1991.

Grants

NSF SES-2117260, "Collaborative Research: Asymptotic Approximations for Sequential Decision Problems in Econometrics," PI, 2021–2026.

NSF SES-0962488, "Collaborative Research: Applications of Asymptotic Statistical Decision Theory in Econometrics," PI, 2010–2014.

NSF SES-0617972, "Government, Housing, and the Changing Income Distribution During the Great Depression: A Disaggregated and Microeconomic Approach, Statistical Consultant, PIs Price Fishback and Shawn Kantor, 2007–2008.

NIMH R01, "Heterogeneity among unobserved (underlying) subpopulations in mental health research," Statistical Consultant, PI Booil Jo, Stanford School of Medicine, 2005–2007.

NSF CAREER Grant SES-0226164, "Bayesian Econometric Modeling and Nonparametric Identifica-

tion," PI, 2000–2004. Formerly listed as Grant SES-9985257.

UCLA Academic Senate Grant, 1998–1999, 1999–2000, 2000–2001.

Harvard Graduate Student Council Conference Grant, summer 1997.

Harvard Economics Department Grant, September 1996–May 1997.

Academic Presentations (since 2015, invited seminar or conference talk unless noted otherwise)

2025: International Seminar on Selective Inference (online), University of Michigan, University of Chicago, Econometric Society World Congress (invited semi-plenary lecture), Chamberlain Online Seminar (invited panelist).

2024: University of Southern California, Econometrics in Rio Conference, ESIF Economics and AI+ML Meeting (contributed).

2023: Princeton University, Yale University, Bravo/JEA/SNSF Workshop on Using Data to Make Decisions (Brown University), Penn State/Cornell IO/Metrics Conference, University of Tennessee.

2022: University of Illinois Urbana-Champaign, Interactions Conference (Madison, invited discussant), Indiana University, National University of Singapore, Singapore Management University.

2021: ASSA Panel "Information, Modeling and Inference" (online, invited panelist), Chamberlain Online Seminar (invited discussant), Cowles Foundation Econometrics Conference, University of Wisconsin, University of Pennsylvania, Northwestern University, University College London.

2020: McMaster University, Chamberlain Online Seminar (invited discussant), University of Chicago, Yale University.

2019: University of Virginia, Emory University, University of Toronto.

2018: ASSA Conference (Philadelphia, invited discussant), University of Kansas 2018 Workshop on Advanced Econometrics, Yale University.

2017: ASSA Conference (Chicago, invited discussant), First Econometrics Workshop at Notre Dame, Handbook of Econometrics Conference (Becker-Friedman Institute, University of Chicago), Binghamton University, Georgetown University, Johns Hopkins University.

2016: Princeton University, Kyoto University, University of Tokyo, Keio University, Hitotsubashi University, Northwestern University Interactions Conference (invited discussant), Simon Fraser University, University of British Columbia, University of Chicago.

2015: Institute for Social and Economic Research (Osaka University), University of Illinois Urbana-Champaign, Boston College, NBER Field Experiments conference (Cambridge, MA, invited discussant), Harvard-MIT Econometrics Seminar, Brown University, Japanese Economic Association (Nakahara Prize Lecture, Niigata, Japan), Frontiers of Theoretical Econometrics Conference (Konstanz, Germany), Syracuse University, Binghamton University, New York University, University of Michigan, University of Texas-Austin, Pennsylvania State University.

Invited Research Visits

Cowles Foundation, Yale University, 20 February–3 March, 2023.

Cowles Foundation, Yale University, 24–28 September, 2018.

Yahoo! Labs, 18–22 July 2011.

Cowles Foundation, Yale University, 4–19 April 2011.

Cowles Foundation, Yale University, 29 March–2 April 2010.

Economics Department, Northwestern University, 19–23 October 2009.

Teaching

Graduate/Postgraduate Courses:

- Penn State: Microeconometrics and Causal Inference; Econometrics I

- American Economic Association: Modern Sampling Methods – Design and Inference (Continuing Education Online Course)

- University of Arizona: Quantitative Methods for Economics; Econometrics; Econometrics II; Causal Inference and Program Evaluation; Topics in Econometrics; Empirical Workshop; Macroeconomics and Forecasting (MBA)

- Osaka University: Frontiers in Econometrics

- Harvard: Econometric Methods

- University of Miami: Topics in Econometrics; Advanced Econometrics; Applied Econometrics

- UCLA: Topics in Econometrics, Introduction to Econometrics

Undergraduate Courses:

- Penn State: Economic Forecasting

- Harvard: Introduction to Econometrics

- University of Miami: Intermediate Microeconomics; Economic Data Analysis

- UCLA: Applied Regression Analysis; Introduction to Econometrics

Teaching Fellow (Harvard University): graduate econometrics (fall 1996, fall 1997); undergraduate econometrics (spring 1996, spring 1997, spring 1998); computer consulting (1995, 1996).

Teaching Assistant (Harvard Summer School): undergraduate econometrics (summer 1994).

Advising: Advisor or Member of Committee for

Hongjai Rhee, Ph.D. in Economics, UCLA, 1999.
Catarina Sismeiro, Ph.D. in Marketing, UCLA, 2002.
Paul Gift, Ph.D. in Economics, UCLA, 2002.
Yue Xu, Ph.D. in Economics, University of Miami, 2005 (primary advisor).
Alexandre Moltchanov, Ph.D. in Economics, University of Miami, 2006.
Sarah Hoffman, M.A. in Mathematics, University of Arizona, 2006.
Carmen Carrión-Flores, Ph.D. in Agricultural Economics, University of Arizona, 2007.
Quazi Shahriar, Ph.D. in Economics, University of Arizona, 2007.
Tim Davies, Ph.D. in Economics, University of Arizona, 2007.
Jed Brewer, Ph.D. in Economics, University of Arizona, 2007.
Todd Sorensen, Ph.D. in Economics, University of Arizona, 2007.
Chung Choe, Ph.D. in Economics, University of Arizona, 2008.
Ivan Maryanchyk, Ph.D. in Economics, University of Arizona, 2009.
Dong-Hyuk Kim, Ph.D. in Economics, University of Arizona, 2010 (primary advisor).
Natalia Lazzati, Ph.D. in Economics, University of Arizona, 2011 (co-advisor).
Jenny Hawkins, Ph.D. in Economics, University of Arizona, 2011.
Mario Samano, Ph.D. in Economics, University of Arizona, 2012.
Kathleen Nosal, Ph.D. in Economics, University of Arizona, 2012.
Shane Thompson, Ph.D. in Economics, University of Arizona, 2013.
Huacheng Zhang, Ph.D. in Finance, University of Arizona, 2013.
Leila Asgari, Ph.D. in Economics, University of Arizona, 2014.
Filippo Curti, Ph.D. in Finance, University of Arizona, 2014.
Hayden Kane, Ph.D. in Finance, University of Arizona, 2014.
Ping McLemore, Ph.D. in Finance, University of Arizona, 2015.
Zaiyan Wei, Ph.D. in Economics, University of Arizona, 2015 (co-advisor).
Dongwoo Kang, Ph.D. in Geography, University of Arizona, 2015.
Jiaying Gu, Ph.D. in Economics, University of Illinois, 2015.
John Bear, Ph.D. in Statistics, University of Arizona, 2016.
Charles Favreau, Ph.D. in Finance, University of Arizona, 2017.
Ryo Makioka, Ph.D. in Economics, Pennsylvania State University, 2018.
Shengbo Zhu, Ph.D. in Economics, Pennsylvania State University, 2020.
Jinwen Wang, Ph.D. in Economics, Pennsylvania State University, 2020.
Seongjin Jin, Ph.D. in Economics, Pennsylvania State University, 2021 (primary advisor).
Rui Wang, Ph.D. in Economics, Pennsylvania State University, 2022.
Nino Doghonadze, Ph.D. in Economics, Pennsylvania State University, 2022.
Garima Singhal, Ph.D. in Economics, Pennsylvania State University, 2022.
Orville Mondal, Ph.D. in Economics, Pennsylvania State University, 2023 (primary advisor).
Nihal Mehta, Ph.D. in Economics, Pennsylvania State University, 2025 (co-advisor).
Han Xu, Ph.D. in Economics, Pennsylvania State University, 2025 (primary advisor).

Editorial Service

Co-Editor, *Econometrica*, 2025–.

Guest Co-Editor, *Econometrica*, 2017–2018, 2024–2025.

Associate Editor, *The Econometrics Journal*, 2015–2024.

Associate Editor, *Japanese Economic Review*, 2015–2024.

Associate Editor, *Journal of Econometrics*, 2012–2024.

Associate Editor, *Econometrica*, 2016–2022.

Guest Co-Editor, *Journal of Econometrics*, Annals Issue in Honor of Gary Chamberlain, 2021.

Co-Editor, *Journal of Business and Economic Statistics*, 2009–2012.

Editorial Board, *Journal of Economic Literature*, 2010–2012.

Associate Editor, *Journal of Business and Economic Statistics*, 2006–2009.

Journal Refereeing:
American Economic Review, American Political Science Review, The American Statistician, Annals of Applied Statistics, Annals of the Institute of Statistical Mathematics, Annals of Statistics, Australian & New Zealand Journal of Statistics, Berkeley Electronic Journals in Economic Analysis and Policy, Biometrics, Biometrika, Communications in Statistics—Simulation and Computation, Communications in Statistics—Theory and Methods, Computational Statistics and Data Analysis, Econometrica, The Econometrics Journal, Econometric Reviews, Econometric Society Monograph Series, Econometric Theory, Economics & Human Biology, The Economic Journal, Economics Letters, Empirical Economics, Handbook of Labor, Human Resources, and Population, International Economic Review, Japanese Economic Review, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Causal Inference, Journal of Development Economics, Journal of Econometrics, Journal of Economic Literature, Journal of Economic Psychology, Journal of Human Resources, Journal of Political Economy, Journal of Statistical Computation and Simulation, Journal of Statistical Planning and Inference, Journal of the American Statistical Association, Journal of the European Economic Association, Observational Studies, Oxford Bulletin of Economics and Statistics, Proceedings of the National Academy of Sciences, Psychological Methods, Quantitative Economics, Quarterly Journal of Economics, Review of Economics and Statistics, Review of Economic Studies, Sociological Methodology, Southern Economic Journal, Statistical Science, Value in Health.

Grant Proposal Reviews: Academica Sinica, European Research Council, National Science Foundation, Research Grants Council of Hong Kong, Social Sciences and Humanities Research Council of Canada, Swiss National Science Foundation, University of Arizona Advance Grant.

Textbook and Textbook Proposal Reviews: Cambridge University Press, W. W. Norton, Oxford University Press.

Other Academic Service

<u>Department:</u>

Personnel Committee (including Promotion and Tenure Committees), 2018–2020, 2021–2022 (chair 2019–2020, 2021–2022).

Department Strategic Plan Committee, 2020.

Recruiting Committees, 2004–2012, 2013–2014, 2015–2016 (chair in some years), 2016–2019, 2023–2026.

Peer Teaching Reviews, 2016–2020, 2023, 2025.

Department Promotion and Tenure Committee (chair), 2015–2016.

Junior Faculty Mentoring Committees, 2004–2010, 2015–2016.

Director, Office of Economic Education, 2012–2014.

Faculty Evaluation Committee, 2012.

Recruiting Committee (University of Miami), 2001–2002.

Recruiting Committee (UCLA), 2000–2001.

Computer Committee (UCLA), 1999–2000.

IEI (Instruction Enhancement Initiative) coordinator (UCLA), 1998–1999.

<u>College/University:</u>

College of the Liberal Arts Promotion and Tenure Committee, Penn State, 2023–2026 (chair 2024–2025).

Academic Program Review Committee, School of Government and Public Policy, University of Arizona, 2016.

Executive Committee, Graduate Interdisciplinary Program in Statistics, University of Arizona, 2007–2010, 2015–2016. (Vice-chair, 2015–2016.)

Faculty Member, Graduate Interdisciplinary Program in Statistics, University of Arizona, 2006-2016.

Unit Head 5-Year Review Committee, Center for the Philosophy of Freedom, University of Arizona, 2014.

Department Head 5-Year Review Committee, MIS Department, University of Arizona, 2013.

Department Promotion and Tenure Committee, Department of Finance, University of Arizona, 2013.

Search Committee, Director of Development, Eller College of Management, 2013.

Provost's Task Force on the School of Economics, University of Arizona, 2010–2011.

Chair, Statistics GIDP Colloquium Series, University of Arizona, 2009–2010.

Department Head 5-Year Review Committee, Economics Department, University of Arizona, 2007.

Undergraduate Quantitative Skills Task Force, Eller College of Management, University of Arizona, 2006–2007.

Council on Research/Faculty Grants Program, UCLA, 1999–2000, 2000–2001.

National/International:

Econometric Society World Congress Program Committee, 2005, 2010, 2025.

Co-Organizer, Conference in Honor of Professor Mark Walker, Tucson AZ, May 2018.

Co-Organizer, Conference in Honor of Professor Gary Chamberlain, Cambridge MA, May 2018.

External Departmental Review Committee, Department of Economics, Iowa State University, 2018.

Co-Organizer, Conference in Honor of Ronald Oaxaca, 2015.

Co-Chair, Editorial Search Committee for the *Journal of Business and Economic Statistics*, 2014–2015.

Committee on Publications, American Statistical Association, 2010–2012.

Zellner Thesis Award Committee, American Statistical Association, 2008, co-chair 2010–2012.

Roundtable leader, NIMH All Centers Meeting at UCLA, April 2000.

National Science Foundation, Economics Program Advisory Panel (2 year term).

60+ external reviews for promotion, tenure, renewal, etc.

Other Employment

Consultant, Health Care for Communities, June–August 1999.

Research Assistant, Harvard University, Spring 1994–Spring 1998.

Freshman Counselor, Jonathan Edwards College, Yale University. Fall 1991–Spring 1992.

Summer Analyst, Shearson Lehman Brothers, Tokyo, Japan. Summer 1991.

Summer Intern, American Express, Tokyo, Japan. Summer 1990.

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