

Benjamin J. Keys

March 2024

The Wharton School
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EMPLOYMENT

Rowan Family Foundation Professor, Departments of Real Estate and Finance (secondary),
The Wharton School, University of Pennsylvania, 2021 – present.
Rowan Family Foundation Associate Professor, Departments of Real Estate and Finance (secondary),
The Wharton School, University of Pennsylvania, 2019 – 2021.
Assistant Professor, Real Estate Department, Wharton School, University of Pennsylvania, 2016 – 2019.
Assistant Professor, Harris School of Public Policy, University of Chicago, 2011 – 2016.
Visiting Assistant Professor, Stern School of Business, New York University, Spring 2016.
Economist, Division of Research and Statistics, Federal Reserve Board, Washington, DC, 2009 – 2011.

OTHER ACADEMIC APPOINTMENTS

Research Associate, National Bureau of Economic Research, 2023 – present.
Associate Editor, *Journal of Finance*, 2022 – present.
Associate Editor, *American Economic Journal: Applied Economics*, 2022 – present.
Associate Editor, *Journal of Financial Economics*, 2021 – present.
Editorial Board, *Real Estate Economics*, 2021 – present.
Editorial Board, *Journal of Housing Economics*, 2019 – present.
Member, Consumer Financial Protection Bureau (CFPB) Academic Research Council, 2023 – present.
Member, Academic Research Council, Housing Finance Policy Center, Urban Institute, 2015 – present.
Fellow, Center for Financial Security, University of Wisconsin-Madison, 2015 – present.
Faculty Fellow, Wharton Climate Center, ESG Initiative, University of Pennsylvania, 2022 – present.
Faculty Fellow, University of Pennsylvania Institute for Urban Research, 2021 – present.
Faculty Research Fellow, National Bureau of Economic Research, 2016 – 2023.
Faculty Fellow, Wharton Risk Center, University of Pennsylvania, 2019 – 2022.
Associate Editor, *Management Science*, 2016 – 2021.
Associate Editor, *Review of Financial Studies*, 2016 – 2019.
Co-Director, Kreisman Initiative on Housing Law and Policy, University of Chicago, 2014 – 2016.
Visiting Scholar, Federal Reserve Banks of Chicago, New York, and Philadelphia.

EDUCATION

Ph.D. in Economics, University of Michigan, 2009.
M.A. in Economics, University of Michigan, 2005.
B.A. in Economics and Political Science, Swarthmore College, 2001.

FIELDS

Household Finance, Real Estate, Applied Econometrics, Labor Economics, Urban Economics.

PEER-REVIEWED PUBLICATIONS

“The Value of Student Debt Relief and the Role of Administrative Barriers: Evidence from the Teacher Loan Forgiveness Program”
(with Brian A. Jacob and Damon Jones), *Journal of Labor Economics*, forthcoming.

- “What Determines Consumer Financial Distress? Place- and Person-Based Factors”
(with Neale Mahoney and Hanbin Yang), *Review of Financial Studies*, 36(1), January 2023.
- “Moral Hazard during the Housing Boom: Evidence from Private Mortgage Insurance,”
(with Neil Bhutta), *Review of Financial Studies*, 35(2), February 2022.
- “Investment over the Business Cycle: Insights from College Major Choice”
(with Erica Blom and Brian C. Cadena), *Journal of Labor Economics*, 39(4), October 2021.
- “Refinancing, Monetary Policy, and the Credit Cycle”
(with Gene Amromin and Neil Bhutta), *Annual Review of Financial Economics*, 12, November 2020.
- “Minimum Payments and Debt Paydown in Consumer Credit Cards”
(with Jialan Wang), *Journal of Financial Economics*, 131(3), March 2019.
- “The Credit Market Consequences of Job Displacement”
Review of Economics and Statistics, 100(3), July 2018.
- “Unsecured Credit Supply over the Credit Cycle: Evidence from Credit Card Mailings”
(With Song Han and Geng Li), *Review of Financial Studies*, 31(3), March 2018.
- “Monetary Policy Pass-Through: Mortgage Rates, Household Consumption, and Voluntary De-Leveraging”
(with Marco DiMaggio, Amir Kermani, Tomasz Piskorski, Rodney Ramcharan, Amit Seru, and Vincent W. Yao), *American Economic Review*, 107(11), November 2017.
- Prior version (Keys, Piskorski, Seru, Yao) featured in *NBER Digest*, March 2015
- “Failure to Refinance”
(with Devin G. Pope and Jaren C. Pope), *Journal of Financial Economics*, 122(3), December 2016.
- CoreLogic Academic Research Council (CLARC) Excellence Award, 2014
- Featured in *NBER Digest*, January 2015
- “Regional Risk Sharing through the U.S. Mortgage Market”
(with Erik Hurst, Amit Seru, and Joseph S. Vavra), *American Economic Review*, 106(10), October 2016.
- “Interest Rates and Equity Extraction During the Housing Boom”
(with Neil Bhutta), *American Economic Review*, 106(7), July 2016.
- “Human Capital and the Lifetime Costs of Impatience”
(with Brian C. Cadena), *American Economic Journal: Economic Policy*, 7(3), August 2015.
- “Can Self-Control Explain Avoiding Free Money? Evidence from Interest-Free Student Loans”
(with Brian C. Cadena), *Review of Economics and Statistics*, 95(4), October 2013.
- “Lender Screening and the Role of Securitization: Evidence from Prime and Subprime Mortgage Markets”
(with Amit Seru and Vikrant Vig), *Review of Financial Studies*, 25(7), July 2012.
- “Did Securitization Lead to Lax Screening? Evidence from Subprime Loans”
(with Tanmoy Mukherjee, Amit Seru, and Vikrant Vig), *Quarterly Journal of Economics*, 125(1), February 2010.
- Best Paper Award at the Mitsui Conference on Credit Risk, 2008
- Citigroup Best Paper Award at the Centre for Analytical Finance Summer Research Conference, 2008
- EuroBank Best Paper Award at the European Finance Association Conference, 2008
- Recipient of BSI Gamma Foundation Grant, "The Credit Crisis: Causes, Effects, and Lessons," 2008

“Financial Regulation and Securitization: Evidence from Subprime Mortgage Loans”
(with Tanmoy Mukherjee, Amit Seru, and Vikrant Vig), *Journal of Monetary Economics*, 56(5), July 2009.

“Has Exposure to Poor Neighborhoods Changed in America? Race, Risk, and Housing Locations in Two Decades”
(with Xavier de Souza Briggs), *Urban Studies*, 46(2), February 2009.

“Does Merit Pay Reward Teachers? Evidence from a Randomized Experiment”
(with Thomas S. Dee), *Journal of Policy Analysis and Management*, 23(3), Summer 2004.

WORKING PAPERS

“The Cost of Consumer Collateral: Evidence from Bunching”
(with Benjamin Collier and Cameron Ellis), NBER Working Paper 29527, November 2021.

“Neglected No More: Housing Markets, Mortgage Lending, and Sea Level Rise”
(with Philip Mulder), NBER Working Paper 27930, October 2020.
- *Featured in NBER Digest, January 2021*

“Global Capital and Local Assets: House Prices, Quantities, and Elasticities”
(with Caitlin S. Gorback), NBER Working Paper 27370, June 2020.

“Affordability, Financial Innovation, and the Start of the Housing Boom”
(with Jane K. Dokko and Lindsay E. Relihan), Federal Reserve Bank of Chicago Working Paper 2019-01, January 2019.

EDITED VOLUME

Evidence and Innovation in Housing Law and Policy
(co-edited with Lee Anne Fennell), Cambridge University Press, 2017.

OTHER PUBLICATIONS

“The Labor Market Consequences of Impatience”
(with Brian C. Cadena), *IZA World of Labor*, 233v2, October 2022.

“Bolstering the Housing Safety Net: The Promise of Automatic Stabilizers”
(with Rob Collinson and Ingrid Gould Ellen), *Hamilton Project Policy Proposal 2021-02*, The Brookings Institution, April 2021.

“Mortgage Refinancing during the Great Recession: The Role of Credit Scores”
(with Gene Amromin and Michael J. Murto), *Chicago Fed Letter*, No. 355, 2016.

“Mortgage Financing in the Housing Boom and Bust”
(with Tomasz Piskorski, Amit Seru, and Vikrant Vig), in E. Glaeser and T. Sinai, eds., *Housing and the Financial Crisis*, University of Chicago Press/NBER, 2013.

“And Banking for All?”
(with Michael S. Barr and Jane K. Dokko), in Barr, Michael, *No Slack: The Financial Lives of Low-Income Americans*, Brookings Institution Press, 2012.

“Borrowing to Make Ends Meet”
(with Michael S. Barr and Jane K. Dokko), in Barr, Michael, *No Slack: The Financial Lives of Low-Income Americans*, Brookings Institution Press, 2012.

“Exploring the Determinants of High-Cost Mortgages to Homeowners in Low- and Moderate-Income Neighborhoods”

(with Michael S. Barr and Jane K. Dokko), in S. Wachter and M. Smith, eds., *The American Mortgage System: Rethink, Recover, Rebuild*, University of Pennsylvania Press, 2011.

“Hurt the Worst: The Risk of Unemployment Among Disadvantaged and Advantaged Male Workers, 1968-2003”

(with Sheldon Danziger), in K. Newman, ed., *Laid Off, Laid Low: Political and Economic Consequences of Employment Insecurity*, p. 56-73, SSRN/Columbia U. Press, 2008.

“Trends in Income and Consumption Volatility, 1970-2000,”

in D. Joliffe and J. Ziliak, eds., *Income Volatility and Food Assistance in the United States*, p. 11-34, Upjohn Institute Press, 2008.

“Dollars and Sense: What a Tennessee Experiment tells us about Merit Pay”

(with Thomas S. Dee), *Education Next*, 5(1), p. 60-67, Winter 2005.

“Increased Life Expectancy: A Global Perspective”

(with Barry P. Bosworth), in H. Aaron and W. B. Schwartz, eds., *Coping with Methuselah: Molecular Medicine and the Problems of an Aging Society*, p. 247-276, Brookings Press, 2004.

“Implications of the Bush Commission Pension Reforms for Married Couples”

(with Barry P. Bosworth and Gary Burtless), Center for Retirement Research Working Paper 2003-03, February 2003.

RESEARCH IN PROGRESS

Dobbie, Will, Benjamin J. Keys, and Andrew Paciorek, “Racial Bias in the Mortgage Market: New Evidence from a Discontinuity Test.”

Collier, Benjamin L., Daniel A. Hartley, Benjamin J. Keys and Jing Xian Ng, “Credit When You Need It: Evidence from the SBA Federal Disaster Loan Program.”

Keys, Benjamin J. and Vincent Reina, “The Changing Housing Market Capitalization of Disamenities: Evidence from Los Angeles Highways.”

Keys, Benjamin J., Jeremy Tobacman, and Jialan Wang, “Rainy Day Credit? Unsecured Credit and Local Unemployment Shocks.”

Keys, Benjamin J., and Jialan Wang, “The Evolution of Credit Card Contracts: Risk-Based or Bias-Based?”

Dobbie, Will, Benjamin J. Keys, and Neale Mahoney, “Credit Market Consequences of Credit Flag Removals.”

Collinson, Rob, Anthony DeFusco, John Eric Humphries, Benjamin J. Keys, David Phillips, Vincent Reina, Patrick Turner, and Winnie van Dijk, “Emergency Assistance Grants and Household Stability During the Pandemic: Evidence Based on Lotteries in Five Cities.”

SELECTED PRESENTATIONS

2024: Wharton ESG Conference, Rutgers Finance and Economics, NBER Race and Stratification Conference.

2023: Wharton ESG Conference, FRB-Dallas, University of Texas-Dallas, FRB-New York, U.S. Senate Budget Committee, University of Miami, University of Michigan Labor Celebration, FDIC, American University Climate Risk and Insurance Conference, Emory Goizueta, Federal Reserve Board, Wisconsin-Madison Business School, Columbia Business School, NBER Data Innovations in Household Finance.

2022: AEA Annual Meeting, Berkeley-Haas, FRB-Philadelphia, UCLA-Ziman Center, Northeastern, National University of Singapore, Wisconsin, MIT Climate and Real Estate Conference (keynote), NBER Public Economics meeting, CFPB Research Conference.

2021: Fannie Mae, University of New South Wales, Northeast Energy and Environment Conference, NBER Corporate Finance Summer Institute, Villanova Finance, U.S. Department of Treasury.

2020: Chicago Household Finance Conference, NBER Real Estate Summer Institute, UN Climate Change Secretariat, National University of Singapore.

2019: Penn State, Federal Reserve Board, Dartmouth, Northwestern-Kellogg, Urban Institute, Imperial College London, Bank of England, Urban Economics Association, USC, Wharton Marketing.

2018: AEA Annual Meeting, Georgia State, University of Maryland, J.P. Morgan Chase Institute, FRB-Chicago, Chicago-Booth Finance, University of Copenhagen, Haverford, Texas A&M, University of Pittsburgh.

2017: NYU Household Finance Conference, Columbia Finance, HEC Montreal, FRB-New York, Wisconsin Real Estate, CFPB, NBER Real Estate Summer Institute, Wharton, FRB-Chicago Housing Macro Conference, MIT Golub Center on Finance and Policy Conference, UT-Dallas, Yale Finance.

2016: CUNY-Baruch, NYU-Stern Finance, Wharton Real Estate, Inter-American Development Bank, Cornell, University of Toronto.

2015: AEA Annual Meeting (x2), Midwest Finance Association meeting, University of Illinois at Chicago, Cornell University, Swarthmore College, University of Delaware, Cornell Household Finance Symposium, University of California at Berkeley Law School, CFPB Consumer Finance Research Conference, FRB-New York Mortgage Contract Design Conference, Federal Reserve Board, GWU Financial Literacy Seminar, University of Colorado-Boulder Conference on Consumer Financial Decision Making, FRB-New York, Haas School of Business.

2014: NBER Behavioral Finance meeting, Society of Economic Dynamics, American Law and Economics Association Meetings, NBER Conference on Financial Housing Capital, University of Chicago Harris School, University of Illinois, FRB-Chicago Bank Structure Conference, Kreisman Initiative / Crain's Chicago Business Housing Series, Upjohn Institute, FDIC Consumer Research Symposium, Kellogg School of Management, Northwestern University Law School.

2013: Wharton Real Estate, FRB-Chicago, Penn State Risk Symposium, WEAI/IBEF meetings.

2012: AEA Annual Meeting, AREUEA mid-year meetings, UC-Davis GSM Household Finance Conference, Bank of Canada.

2011: AEA Annual Meeting, NBER Conference on Housing and the Financial Crisis, Federal Reserve Day-Ahead Conference; University of Chicago Harris School, Kellogg School of Management, NBER Economics of Household Saving, U.S. Department of Treasury, University of Illinois at Chicago.

2010: APPAM, George Washington University.

2009: Federal Reserve Board; Haas School of Business; Harvard Kennedy School; Harvard Business School; FRB-Cleveland; LSE Management; SUNY-Albany Rockefeller College; University of Illinois at Chicago, Federal Reserve Board; Wharton Real Estate; Brown University; FRB-San Francisco; University of Toronto; FRB-New York; USC SPPD, FRB-Cleveland Conference on the Community Reinvestment Act.

2008 and earlier: Homer Hoyt Institute, World Bank/IMF Conference on Risk Analysis and Management, FRB-Cleveland Community Development Policy Summit, FRB-Chicago Insurance and Asset Building for the Underbanked Conference. NBER Higher Education Working Group Meeting, Income Volatility and Implications for Food Assistance Programs-Conference II.

SERVICE

Internal Professional Service:

Future of Business Education Committee, Chair, Wharton School, 2023-2024.
Personnel Committee (Promotion & Tenure), Wharton School, 2021-2023.
Wharton Faculty Fellow, Wharton School, 2021-2022.
Teaching Excellence Committee, Wharton School, 2019-2021.
MBA Major Advisor, Real Estate Department, Wharton School, 2019-2021.
Ph.D. Admissions Committee, Applied Economics, Wharton School, 2016-2020.
Junior Faculty Recruiting Committee, Real Estate Department, Wharton School, 2016-2023.
Dean's Advisory Council, Wharton School, 2018-2019, 2020-2021.
Undergraduate Concentration Advisor, Real Estate Department, Wharton School, 2017-2019.
Co-Chair, Behavioral Public Policy Recruiting Committee, Harris School, University of Chicago, 2015-2016.
Junior Faculty Recruiting Committee, Harris School, University of Chicago, 2011-2016.
Discipline Committee, Harris School, University of Chicago, 2014-2015.

Dissertation Committee Service (with year and first placement in parentheses):

Jaeyoon Lee, Department of Economics, University of Chicago (Chair)
(2018: Fanhai School of Finance, Fudan University).
Lindsay Relihan, Applied Economics, The Wharton School, University of Pennsylvania
(2018: London School of Economics).
Benjamin Hyman, Applied Economics, The Wharton School, University of Pennsylvania
(2018: Federal Reserve Bank of New York).
Deeksha Gupta, Department of Finance, The Wharton School, University of Pennsylvania
(2018: Tepper School of Business, Carnegie Mellon University).
Matthew Davis, Applied Economics, The Wharton School, University of Pennsylvania
(2019: Cornerstone).
Caitlin Gorback, Applied Economics, The Wharton School, University of Pennsylvania
(2020: NBER Post-Doc; UT-Austin McCombs School of Business).
Sumedh Ambokar, Department of Economics, University of Pennsylvania
(2020: Capital One).
Kian Samaee, Department of Economics, University of Pennsylvania
(2020).
Jacob Krimmel, Applied Economics, The Wharton School, University of Pennsylvania
(2021: Federal Reserve Board).
Ellen Fu, Applied Economics, The Wharton School, University of Pennsylvania
(2022: Cornerstone).
Philip Mulder, Applied Economics, The Wharton School, University of Pennsylvania (Chair)
(2022: U.S. Treasury Post-Doc; University of Wisconsin - Madison).
Samuel Hughes, Applied Economics, The Wharton School, University of Pennsylvania (Chair)
(2023: U.S. Treasury).
Tom Cui, Applied Economics, The Wharton School, University of Pennsylvania
(2023: NYU Post-Doc).
Rebecca Jorgensen, Applied Economics, The Wharton School, University of Pennsylvania
(2024: TBD)
Jeanna Kenney, Applied Economics, The Wharton School, University of Pennsylvania
(2024: TBD)

AWARDS AND HONORS

Wharton Teaching Excellence Award (2018, 2019, 2020, 2021, 2022, 2023)

First Place, AREUEA Dissertation Award (2009)
Honorable Mention, Upjohn Institute Dissertation Award (2009)
Rackham Pre-Doctoral Fellowship, University of Michigan (2008 – 2009)
Jacob K. Javits Fellowship, U.S. Department of Education (2004 – 2008)
NIA Pre-Doctoral Trainee, Population Studies Center, University of Michigan (2004 – 2009)
Moore Dissertation Research Prize for Applied Microeconometrics, University of Michigan (2008)
Parker Memorial Prize for Outstanding Written Contribution to Labor Economics,
Department of Economics, University of Michigan (2006, 2009)
Letter of Commendation for Teaching Excellence, Dept. of Economics, University of Michigan (2006)
Summer Research Fellowship, Department of Economics, University of Michigan (2004, 2005)
Graduate Research Fellowship Honorable Mention, National Science Foundation (2004)
Regents' Fellowship, University of Michigan (2003 – 2004)
Adams Prize for Best Empirical Research Paper, Department of Economics, Swarthmore College (2001)

PREVIOUS EXPERIENCE

Graduate Student Instructor for John DiNardo – Undergraduate Econometrics, Department of Economics, University of Michigan (Fall 2006)
Research Assistant to Michael S. Barr (DAHFS) – University of Michigan (2006 – 2008)
Research Assistant to Sheldon Danziger – National Poverty Center, University of Michigan (2005 – 2006)
Research Assistant to Xavier de Souza Briggs – Harvard Kennedy School (2004 – 2006)
Senior Research Assistant to Gary Burtless and Barry P. Bosworth – Brookings Institution (2001 – 2003)
Research Assistant to Thomas S. Dee – Department of Economics, Swarthmore College (2000 – 2001)

REFEREE

AEJ: Applied Economics, AEJ: Economic Policy, AEJ: Macroeconomics, American Economic Review, American Economic Review: Insights, American Law and Economics Review, American Sociological Review, B.E. Journals in Economic Analysis & Policy, Cityscape, Congressional Budget Office, Consumer Financial Protection Bureau, Demography, Econometrica, Economic Journal, Economics of Education Review, Economic Inquiry, Housing Policy Debate, Industrial and Labor Relations Review, International Economic Review, Journal of Consumer Affairs, Journal of Economic Literature, Journal of Economic Theory, Journal of Finance, Journal of Financial Economics, Journal of Financial Intermediation, Journal of Financial Stability, Journal of Housing Economics, Journal of Human Resources, Journal of Monetary Economics, Journal of Money, Credit, and Banking, Journal of Labor Economics, Journal of Law and Economics, Journal of Policy Analysis and Management, Journal of Political Economy, Journal of Public Economics, Journal of Risk and Insurance, Journal of Urban Economics, Management Science, National Science Foundation, Quarterly Journal of Economics, Review of Economics and Statistics, Review of Economic Studies, Review of Financial Economics, Review of Finance, Review of Financial Studies, Routledge, Russell Sage Foundation, Southern Economic Journal.

CONFERENCE ORGANIZING

NBER Summer Institute Real Estate Conference, Co-Organizer, 2022.
Western Finance Association, Associate Program Chair, 2020, 2021, 2022.
SFS Cavalcade North America, Program Committee, 2021, 2022.
Mortgage Market Research Conference, Federal Reserve Bank of Philadelphia, Program Committee, 2022.
American Real Estate and Urban Economics Association ASSA Meeting, Program Committee, 2020, 2022.
Household and Behavioral Finance Symposium, Cornell University, Program Committee, 2019.
The Financial Crisis Ten Years Afterwards, Yale Program in Financial Stability, Program Committee, 2018.
Evidence and Innovation in Housing Law and Policy Conference, University of Chicago's Kreisman Initiative, Co-Organizer, 2015.

PROFESSIONAL AFFILIATIONS

American Economic Association, American Real Estate and Urban Economics Association.