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JOSEPH GYOURKO

Martin Bucksbaum Professor of Real Estate, Finance, and Business Economics & Public Policy
Nancy Nasher & David Haemisegger Director, Zell/Lurie Real Estate Center at Wharton

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EDUCATION

University of Chicago, Ph.D., Economics, 1984
Duke University, A.B. (Summa Cum Laude), Economics, 1978

POSITIONS HELD

2009-2012 : Co-Director, NBER Project on Housing Markets and the Financial Crisis

2006- : Research Associate, National Bureau of Economic Research

1999-03: Chair, Real Estate Department, The Wharton School, University of Pennsylvania
2007-2013

1998- : Director, Zell/Lurie Real Estate Center at Wharton, University of Pennsylvania

1998-05: Nonresident Senior Fellow, The Brookings Institution, Center on Urban and Metropolitan Affairs, Washington, D.C.

1998-99: Acting Chair, Real Estate Department, The Wharton School, University of Pennsylvania

1997-98: Faculty Associate, Lincoln Institute for Land Policy.

1996- : Professor of Real Estate, Finance, and Business Economics & Public Policy, The Wharton School, University of Pennsylvania

1989-96: Associate Professor of Real Estate & Finance, The Wharton School, University of Pennsylvania

1993-1995: Research Director, Wharton Real Estate Center, University of Pennsylvania

1992-1993: Associate Director, Wharton Real Estate Center, University of Pennsylvania

1990-1991: Visiting Associate Professor of Management, John E. Anderson School of Management, UCLA

1989-1990, 1996: Visiting Scholar, Federal Reserve Bank of Philadelphia, Research Division

1984-1989: Assistant Professor of Finance, The Wharton School, University of Pennsylvania

RESEARCH

Primary Interests: Urban Economics, Housing, Real Estate Finance, Local Public Finance

ARTICLES IN SCHOLARLY JOURNALS

"Effects of Local Tax Structures on the Factor Intensity Composition of Manufacturing Activity Across Cities," *Journal of Urban Economics*, Vol. 22, no. 2 (September 1987): 151-164.

"An Analysis of Public and Private Sector Wages Allowing for Endogenous Choices of Both Government and Union Status," *Journal of Labor Economics*, Vol. 6, no. 2 (April 1988): 229-253, (with Joseph Tracy).

"Owner-Occupied Homes, Income-Producing Properties, and REITs As Inflation Hedges: Empirical Findings," *Journal of Real Estate Finance and Economics*, Vol. 1, no. 4 (December 1988): 347-372, (with Peter Linneman).

"Housing Wealth, Housing Finance, and Tenure Choice in Korea," *Regional Science and Urban Economics*, Vol. 19, no. 2 (May 1989): 211-234, (with Jaehye Kim Han).

"Equity and Efficiency Aspects of Rent Control: An Empirical Study of New York City," *Journal of Urban Economics*, Vol. 26, no. 1 (July 1989): 54-74, (with Peter Linneman).

"Local Public Sector Rent-Seeking and Its Impact on Local Land Values," *Regional Science and Urban Economics*, Vol. 19, no. 3 (August 1989): 493-516, (with Joseph Tracy).

"On the Political Economy of Land Value Capitalization and Local Public Sector Rent-Seeking in a Tiebout Model," *Journal of Urban Economics*, Vol. 26, no. 2 (September 1989): 152-173, (with Joseph Tracy).

"The Importance of Local Fiscal Conditions in Analyzing Local Labor Markets," *Journal of Political Economy*, Vol. 97, no. 5 (October 1989): 1208-1231, (with Joseph Tracy).

"Rent Controls and Rental Housing Quality: A Note on the Effects of New York City's Old Controls," *Journal of Urban Economics*, Vol. 27, no. 3 (May 1990): 398-409, (with Peter Linneman).

"Measurement Problems in Quantifying the Distributional Effects of Subsidy Programs," *Journal of Urban Economics*, Vol. 28, no. 1 (July 1990): 19-33, (with Peter Linneman).

"Analyzing the Risk of Income-Producing Real Estate," *Urban Studies*, Vol. 27, no. 4 (August 1990): 497-508, (with Peter Linneman).

"The Structure of Local Public Finance and the Quality of Life," *Journal of Political Economy*, Vol. 99, no. 4 (August 1991): 774-806, (with Joseph Tracy).

"Impact Fees, Exclusionary Zoning, and the Density of New Development," *Journal of Urban Economics*, Vol. 30, no. 2 (September 1991): 242-256.

"Local Market and National Components in House Price Appreciation," *Journal of Urban Economics*, Vol. 32, no. 1 (July 1992): 52-69, (with Richard Voith).

"What Does the Stock Market Tell Us About Real Estate Returns?", *AREUEA Journal*, Vol. 20, no. 3 (Fall 1992): 457-485 (with Donald B. Keim); also excerpted in *The CFA Digest*, Vol. 23, no. 3 (Summer 1993): 42-44.

"Leasing As a Lottery: Implications for Rational Building Surges and Increasing Vacancies," *AREUEA Journal*, Vol. 1, no. 1 (Spring 1993): 83-106 (with Richard Voith).

"The Affordability of the American Dream: An Examination of the Last 30 Years," *Journal of Housing Research*, Vol. 4, no. 1 (1994): 39-72 (with Peter Linneman).

"Analysis of the Changing Influences on Traditional Households' Ownership Patterns", *Journal of Urban Economics*, Vol. 39, no. 3 (May 1996): 318-341 (with Peter Linneman).

"Systematic Risk and Diversification in the Equity REIT Market", *Real Estate Economics*, Vol. 24, no. 4 (1996): 493-515 (with Edward Nelling).

"The Changing Influences of Education, Income, Family Structure, and Race on Home Ownership by Age Over Time", *Journal of Housing Research*, Vol. 8, no. 1 (1997): 1-26.

"Evaluating the Costs of Increased Lending in Low and Negative Growth Local Housing Markets", *Real Estate Economics*, Vol. 26, no. 2 (1998): 207-234 (with Fang-xiong Gong).

"Place- Versus People-Based Aid and the Role of an Urban Audit in a New Urban Strategy", *Cityscape*, Vol. 3, no. 3 (1998): 205-229.

"The Changing Strength of Socioeconomic Factors Affecting Home Ownership in the United States: 1960-1990", *Scottish Journal of Political Economy*, Vol. 45, no. 4 (1998): 466-490.

"The Predictability of Equity REIT Returns", *Journal of Real Estate Research*, Vol. 16, no. 3 (1998): 251-269. (with Edward Nelling).

"Analyzing the Relation Among Race, Wealth, and Home Ownership in America", *Journal of Housing Research*, Vol. 8, no. 2 (1999): 63-89 (with Peter Linneman and Susan M. Wachter).

"The REIT Vehicle: Its Value Today and in the Future", *Journal of Real Estate Research*, Vol. 18, no. 2 (1999): 349-369 (with Todd Sinai); also reprinted with permission in *Properties*, no. 2 (Winter 2000): 35-57.

"Financing New Urbanism Projects: Obstacles and Solutions", *Housing Policy Debate*, Vol. 11, no. 3 (2000): 733-750 (with Witold Rybczynski).

"Changes in the Scale and Size Distribution of Metropolitan Areas in the United States During the 20th Century", *Urban Studies*, 37 (2000): 1063-77 (with Steven Ehrlich).

"The Spatial Distribution of Affordable Home Loan Purchases in Major Metropolitan Areas: Documentation and Analysis", *Regional Science and Urban Economics*, 32, 5 (2002): 549-589 (with Dapeng Hu).

"Capitalization of Federal Taxes, the Relative Price of Housing, and Urban Form: Density and Sorting Effects", *Regional Science and Urban Economics*, 32, 6 (2002): 673-690. (with Richard Voith).

"The Spatial Distribution of Housing-Related Tax Benefits in the United States", *Real Estate Economics*, 31, 4 (2003): 527-576. (with Todd Sinai).

The Asset Price Incidence of Capital Gains Taxes: Evidence from the UPREIT Structure and the

Taxpayer Relief Act of 1997", *Journal of Public Economics*, 88, 7-8 (2004): 1543-1565 (with Todd Sinai).

"Reinvestment in the Housing Stock: The Role of Construction Costs and the Supply Side", *Journal of Urban Economics*, Vol. 55 (2004): 238-256 (with Albert Saiz).

"Urban Decline and Durable Housing", *Journal of Political Economy*, Vol. 113, no. 2 (2005): 345-375 (with Edward Glaeser).

"Why Have House Prices Gone Up?", *American Economic Review*, Vol. 95, no. 2 (May 2005): 329-333 (with Edward Glaeser and Raven Saks).

"Why Is Manhattan So Expensive? Regulation and the Rise in House Prices", *Journal of Law & Economics*, Vol. 48, no. 2 (October 2005): 331-370 (with Edward Glaeser and Raven Saks).

"Urban Growth and Housing Supply", *Journal of Economic Geography*, Vol. 6, no. 1 (January 2006): 71-89, (with Edward Glaeser and Raven Saks).

"Construction Costs and the Supply of Housing Structure", *Journal of Regional Science*, Vol. 46, no. 4 (November 2006): 661-680 (with Albert Saiz).

"Using Home Maintenance and Repairs to Smooth Variable Earnings", *Review of Economics and Statistics*, Vol. 88, no. 4 (November 2006): 736-747 (with Joseph Tracy).

"A New Measure of the Local Regulatory Environment for Housing Markets", *Urban Studies*, Vol. 45, no. 3 (2008): 693-729 (with Albert Saiz and Anita A. Summers).

"Housing Supply and Housing Bubbles", *Journal of Urban Economics*, Vol. 64, no. 3 (2008): 198-217 (with Edward Glaeser and Albert Saiz).

"Do Political Parties Matter? Evidence from U.S. Cities", *Quarterly Journal of Economics*, Vol. 124, no. 1, (2009): 399-422 (with Fernando Ferreira).

"Understanding Commercial Real Estate: How Different from Housing Is It?", *Journal of Portfolio Management*, Vol. 35 (2009), no. 5: 23-37.

"Housing Busts and Household Mobility", *Journal of Urban Economics*, Vol. 68, no. 1 (2010): 34-45 (with Fernando Ferreira and Joseph Tracy).

"Evaluating Conditions in Major Chinese Housing Markets", *Regional Science and Urban Economics*, Vol. 42, no. 3 (May 2012): 531-543 (with Yongheng Deng and Wu Jing).

"Heterogeneity in Neighborhood-Level Price Growth in the U.S., 1993-2009, *American*

Economic Review, Vol. 102, no. 3 (May 2012): 134-140.

“Housing Mobility and Housing Busts: An Update”, *Economic Policy Review*, Vol. 18, no. 2 (November 2012): 1-16 (with Fernando Ferreira and Joseph Tracy).

“Superstar Cities”, *American Economic Journal-Economic Policy*, Vol. 5, no. 4 (2013): 167-199 (with Chris Mayer and Todd Sinai).

“Reconciling Theory and Empirics on the Role of Unemployment in Mortgage Default”, *Journal of Urban Economics*, Vol. 80, no. 1 (2014): 87-96 (with Joseph Tracy).

“Does Gender Matter for Political Leadership? The Case of U.S. Mayors”, *Journal of Public Economics*, Vol. 112, no 2 (April 2014): 24-39 (with Fernando Ferreira).

“Housing Dynamics: An Urban Approach”, *Journal of Urban Economics*, Vol. 81, no. 3 (May 2014): 45-56 (with Edward Glaeser, Eduardo Morales and Charles Nathanson).

“Real Estate Collateral Value and Investment: The Case of China”, *Journal of Urban Economics*, Vol. 86, no. 1 (2015): 43-53 (with Yongheng Deng and Wu Jing).

“Evaluating the Risk of Chinese Housing Markets: What We Know and What We Need to Know”, *China Economic Review*, Vol. 39 (2016): 91-114 (with Yongheng Deng and Wu Jing).

“The Economics of Housing Supply”, *Journal of Economic Perspectives*, Vol. 32, no. 1 (2018): 3-30 (with Edward Glaeser).

“Singapore’s Cooling Measures and Its Housing Market”, *Journal of Housing Economics*, forthcoming (with Yongheng Deng and Lin Ting).

“The Role of Price Spillovers in the American Housing Boom”, *Journal of Urban Economics*, forthcoming (with Anthony DeFusco, Wenjie Ding, and Fernando Ferreira).

BOOKS AND MONOGRAPHS

Rethinking Federal Housing Policy. How to Make Housing Plentiful and Affordable. American Enterprise Institute Press. Washington, DC, 2008 (with Edward Glaeser).

CHAPTERS IN BOOKS, ACADEMIC REVIEWS, ETC.

"New Firm Activity and Employment Changes Among the Localities in the Philadelphia Area, 1980-1983," Chapter 6 in Anita A. Summers and Thomas F. Luce (Eds.), *Economic Development*

Within the Philadelphia Metropolitan Area, Philadelphia, PA: University of Pennsylvania Press, 1986.

"Controlling and Assisting Privately Rented Housing," Chapter 1 in Duncan MacLennan and Ruth Williams (Eds.), *Housing Subsidies and the Market: An International Perspective*, York, England: Joseph Rowntree Foundation Housing Finance Series, September 1990. (also reprinted in *Urban Studies*, Vol. 27, no. 6 (December 1990): 785-794.).

"Public Sector Bargaining and the Local Budgetary Process," in Ronald Ehrenberg (Ed.), *Research in Labor Economics*, Vol. 12, Greenwich, CT: JAI Press, 1991: 117-136 (with Joseph Tracy).

"The Structure of Local Public Finance and the Quality of Life in the U.S.", Chapter IX in Anita Summers (Ed.), *Urban Change in the U.S. and Western Europe: Comparative Analysis and Policy*, Washington, D.C.: The Urban Institute Press, 1992. (with Joseph Tracy).

"Quality of Life and Environmental Comparisons", Chapter 4 in Edwin S. Mills and Paul Cheshire (Eds.) *Handbook of Regional and Urban Economics, Vol. 3, Applied Urban Economics*, North-Holland, 1999 (with Matthew Kahn and Joseph Tracy).

"Access to Home Ownership in the United States: The Impact of Changing Perspectives on Constraints to Tenure Choice", Chapter 10 in Kenneth Gibb and Tony O'Sullivan (Eds.) *Housing Economics and Public Policy Essays in Honour of Sir Duncan MacLennan*, Blackwell Press, 2002.

"Comments on "An Analysis of Local Variation in Land Use Regulations" (by William Wheaton and Bengte Evenson) in *Brookings-Wharton Papers on Urban Affairs*, Vol. 3, forthcoming 2003. "Philadelphia: Spatial Economic Disparities" *Sunbelt/Frostbelt Public Policies and Market Forces in Metropolitan Development*, (J. Pack, editor), The Brookings Institution: Washington, DC 2005. (with Anita A. Summers).

"Looking Back to Look Forward: What Can We Learn About Urban Development from Philadelphia's 350-Year History?", *Brookings-Wharton Papers on Urban Affairs*, 2005 (pp. 1-42).

"Urban Housing Markets", Chapter 5 (pp. 123-157) in *Making Cities Work: Prospects and Policies for Urban America* (R. Inman, editor), Princeton University Press, 2009.

"Arbitrage in Housing Markets" Ch. 5 (pp. 113-146) in *Housing and the Built Environment: Access, Finance, Policy* (E. Glaeser and J. Quigley, eds.), Lincoln Land Institute of Land Policy, Cambridge: MA, 2010.

"Housing Supply" in *Annual Review of Economics*, Vol. 1 (pp. 295-318). Palo Alto, CA, 2009.

“Dispersion in House Price and Income Growth across Markets: Facts and Theories”, Ch. 2 (pp. 67-104) in *Agglomeration Economics* (E. Glaeser, ed.), National Bureau of Economic Research, Cambridge: MA, 2010.

“Can Easy Credit Explain the Housing Boom?”, chapter in *Housing and the Financial Crisis* (E. Glaeser and T. Sinai, eds.), University of Chicago Press, 2012.

“Land and House Price Measurement in China”, Chapter 1 in *Property Markets and Financial Stability* (Alexandra Heath, Frank Packer and Callan Windsor, eds.): Sydney: Reserve Bank of Australia, 2012.

“Regulation and Housing Supply” in *Handbook of Regional and Urban Economics* (Gilles Duranton, J. Vernon Henderson and William Strange, eds.), Volume 5A, Elsevier, 2015, Amsterdam, The Netherlands: Chapter 19, pp. 1289-1338 (with Raven Molloy).

ARTICLES IN BUSINESS AND PUBLIC POLICY PUBLICATIONS

"How Accurate Are Quality-of-Life Rankings Across Cities?", *Business Review*, Federal Reserve Bank of Philadelphia, March/April 1991: 3-14.

"Comparing Apartment and Office Investments", *Real Estate Review*, Vol. 23, no. 2 (Summer 1993): 17-24 (with Peter Linneman).

"Risk and Returns of Investing in Real Estate: Evidence From a Real Estate Stock Index", *Financial Analysts Journal*, (September/October 1993): 39-46 (with Donald B. Keim).

"The Long-Term Prospects for the REIT Market", *Real Estate Review*, Vol. 24, no. 1 (Spring 1994): 42-46.

"Long-Term Return Characteristics of Income-Producing Real Estate", *Real Estate Finance*, Vol. 11, no. 1 (Spring 1994): 14-22 (with Jeremy Siegel).

"A New Strategy for Helping Cities Pay for the Poor", *Brookings Institution Policy Brief #18*, June 1997 (with Anita A. Summers)

"A Look at Real Housing Prices and Incomes: Some Implications for Housing Affordability and Quality", *Economic Policy Review*, Federal Reserve Bank of New York, Vol. 5, no. 3 (September 1999): 63-77.

"Investing in Real Estate in a Low Inflation World", *Development*, (Winter 1999): (with Peter Linneman).

“Financing New Urbanism”, *Wharton Real Estate Review*, Vol. V, no. 1 (Spring 2001): 18-27 (with Witold Rybczynski).

“The Spatial Distribution of Housing-Related Tax Benefits in the United States”, *The Brookings Institution Center on Urban and Metropolitan Policy Discussion Paper*, The Brookings Institution, July 2001 (with Todd Sinai).

“The Impact of Zoning on Housing Affordability”, *Economic Policy Review*, Vol. 9, no 2 (June 2003): 21-39, Federal Reserve Bank of New York. (with Edward Glaeser).

“Why Does Anybody Still Live Here?”, *Wharton Real Estate Review*, Spring 2003, Vol. VI, pp. 67-74.

“Zoning’s Steep Price”, *Regulation Magazine*, Fall 2002, Vol. 25, no. 3, pp. 24-30 (with Edward Glaeser).

“The Impacts of Building Restrictions on Housing Affordability”, *Wharton Real Estate Review*, Spring 2003, Vol. VII, pp. 5-14 (with Edward Glaeser).

“Why is Manhattan So Expensive?” Civic Report No. 39, November 2003, The Manhattan Institute (with Edward Glaeser).

“The (Un)Changing Geographical Distribution of Housing Tax Benefits: 1980-2000”, *Tax Policy and the Economy*, Vol. 18 (2004): 165-208 (with Todd Sinai).

“Residential Land Use Regulation in the Philadelphia MSA”, *Wharton Real Estate Review*, Vol. XI, no. 1, Spring 2007, pp. 19-31 (with Anita A. Summers).

“Understanding Commercial Real Estate: How Different from Housing Is It?”, *Journal of Portfolio Management*, Vol. 35, no. 5: 23-37.

“Just How Risky Are China’s Housing Markets?”, *Wharton Real Estate Review*, Vol. 15, no. 2 (Fall 2011).

“A New Direction for American Housing Policy”, *National Affairs*, March 2015.

“Some Thoughts on a Trump Administration’s Possible Impacts on the Real Estate Sector”, *PREA Quarterly*, Winter 2017.

WORKING PAPERS

"The Affordability of the American Dream: An Examination of the Last Thirty Years", Wharton Real Estate Center Working Paper #146 (including data appendix to published article of same title), March 1993 (with Peter Linneman).

"The Price Elasticity of Demand for Residential Land", Wharton Real Estate Center Working Paper #329, February 2000 (with Richard Voith).

"Real Estate Returns by Non-Real Estate Firms: An Estimate of the Impact on Firm Returns", Wharton Real Estate Center Working Paper #321, December 1999; revised March 2002 (with Yongheng Deng).

"The Impact of New Information Technologies on the Commercial Brokerage Industry: What Is at Stake?", Wharton Real Estate Center working paper, February 2001 (with Asuka Nakahara).

"Housing Dynamics", NBER Working Paper 12787, December 2006 (with Edward Glaeser).

"Residential Land Use Regulation in the Philadelphia MSA", Zell/Lurie Real Estate Center Working Paper, December 2006 (with Anita A. Summers).

"Do Political Parties Matter? Evidence from U.S. Cities", Zell/Lurie Real Estate Center Working Paper, NBER Working Paper 13535, October 2007 (with Fernando Ferreira).

"Arbitrage in Housing Markets", NBER Working Paper 13704, December 2007 (with Edward Glaeser).

"Financial Frictions and Household Mobility", Zell/Lurie Center at Wharton working paper, April 2008 (with Fernando Ferreira and Joseph Tracy).

"Evaluating Conditions in Major Chinese Housing Markets", NBER Working Paper no. 16189, July 2010 (with Jing Wu and Yongheng Deng).

"Can Easy Credit Explain the Housing Boom?", NBER Working Paper No. 16230, July 2010 (with Edward Glaeser and Joshua Gottlieb).

"Anatomy of the Beginning of the Housing Boom: U.S. Neighborhoods and Metropolitan Areas, 1993-2009", NBER Working Paper No. 17374, August 2011 (with Fernando Ferreira)

"Housing Busts and Household Mobility: An Update", NBER Working Paper No. 17405, September 2011 (with Fernando Ferreira and Joseph Tracy).

"Does Gender Matter for Political Leadership? The Case of U.S. Mayors", NBER Working

Paper No. 17671, December 2011.

“Land and House Price Measurement in China”, NBER Working Paper No. 18403, September 2012 (with Yongheng Deng and Wu Jing).

“Is There Evidence of a Real Estate Collateral Channel Effect on Listed Firm Investment in China?”, NBER Working Paper No. 18762, January 2013 (with Yongheng Deng and Wu Jing).

“Regulation and Housing Supply”, NBER Working Paper w20536, October 2014 (with Raven Saks Molloy)

“A New Look at the Foreclosure Crisis: Panel Data Evidence of Prime and Subprime Borrowers from 1997 to 2012”, NBER Working Paper 21261, June 2015.

REPORTS

"Report to the Fairmount Park Commission: The Influence of City Parks in Local Firm and Neighborhood Development," Wharton Real Estate Center Paper #22, May 1987, (with Peter Linneman).

“Leveraged Property Index Report”, report to the Research Committee of the National Council of Investment Fiduciaries (NCREIF) on behalf of the Wharton Real Estate Center, May 1991.

“Working Towards a New Urban Strategy for America’s Large Cities: The Role of an Urban Audit”, Wharton Real Estate Center Research Impact Paper #7, February 1995 (with Anita A. Summers).

“Public and Private Assets in Cities: A Look at What Is at Risk from Continued Urban Decline”, Wharton Real Estate Center Working Paper #262, June 1997; report to the Pew Charitable Trusts.

“Regionalism: The Feasible Options--National Implications”, Wharton Real Estate Center Working Paper #297, December 1997; report to the Pew Charitable Trusts.

“Is FHA the Next Housing Bailout?”, American Enterprise Institute Report #2011-06, November 2011.

“Rethinking the FHA”, American Enterprise Institute National Research Initiative Report, June 2013.

OTHER RESEARCH IN PROGRESS

The Role of Contagion in the U.S. Housing Boom.

Understanding Housing Market Risk in China

Thin Credit Files and Risk Analysis in Government-Insured Mortgages

Local Government Financing Vehicle Credit Risk and Real Estate in China

TEACHING

Primary Fields: Real Estate Finance, Urban Economics, Public Finance

Experience:

Graduate and Undergraduate Real Estate Finance

Graduate and Undergraduate Federal Fiscal Policy

Undergraduate Macroeconomics

ACADEMIC HONORS, GRANTS, SCHOLARSHIPS

Phi Beta Kappa, Duke University, 1978.

Milton Friedman Fund, University of Chicago, 1978-79.

Hillman Fund, University of Chicago, 1979-1981.

Pew Fellowship, University of Chicago, 1981-82, 1982-83, 1983-84.

United Parcel Services Grant, 1985.

Mellon Seminar on the Future of Declining Cities grant, 1985.

The Institute for Quantitative Research in Finance (The Q Group) research grant, "Real Estate As An Inflation Hedge: An Empirical Analysis," May 1986.

National Science Foundation, grant #SES-8711391, Principal Investigator, "Local Public Sector Wages, the Local Fiscal Environment, and Their Effects on Land Values," July 1987.

Homer Hoyt Institute Post-Doctoral Award Winner, 1988-89.

Rodney White Financial Research Center/Geewax-Terker Research Grants, 1985-1989, 1993.

United Parcel Services Grant, 1992-93, funding for university-wide Seminar on Urban Affairs and State and Local Governments; refunded for 1993-94 academic year.

Real Estate Research Institute, 1993, grant to study "Pricing, Systematic Risk, and Liquidity by Property Type in the Equity REIT Market".

Berger Scholar, University of Pennsylvania, 1994-95.

Pew Charitable Trusts, Principal Investigator (with Anita A. Summers), "Regionalism: The Feasible Options", 1995-1997.

Best Paper of the Year Award, American Real Estate and Urban Economics Association, 1996-7 (for "Systematic Risk and Diversification in the Equity REIT Market")
Lincoln Institute of Land Policy, Principal Investigator (with Richard Voith), "The Impact of Housing-Related Tax Expenditures on Residential Land Use Within the Metropolitan Area", 1997
U.S. Department of Housing and Urban Development, Principal Investigator, "The Intra-Metropolitan Area Distribution of GSE Mortgage Purchases Made in Support of Low Income Goals"; 1998
The Brookings Institution, Principal Investigator (with Anita A. Summers), "The Effects of Federal and State Policy on Residential and Commercial Development Patterns", 1998-99.
Ford Foundation, Principal Investigator (with Todd Sinai), "The Spatial Distribution of Housing-Related Tax Expenditures Across the United States", 1999-2000.
Named a Fellow, Weimer School of Advanced Studies in Real Estate and Land Economics, Homer Hoyt Advanced Studies Institute, January 2000.
SIOR Education Foundation Research Grant, Principal Investigator (with Asuka Nakahara), "The Impact of New Information Technology Developments on the Commercial Brokerage Industry", September 2000.
Edwin S. Mills Best Paper Award, *Real Estate Economics*, American Real Estate and Urban Economics Association, 2003.

REFEREEING

American Economic Review, Journal of Political Economy, Journal of Finance, Regional Science & Urban Economics, Journal of Urban Economics, Journal of Regional Science, Journal of Real Estate Finance and Economics, Urban Studies, Real Estate Economics, Journal of Real Estate Research, National Science Foundation, Review of Economics and Statistics, Journal of Public Economics

EDITORIAL BOARDS

Journal of Urban Economics, 2008-present
Journal of Real Estate Finance and Economics, 1991-present
Journal of Property Research, 1992-1995
Journal of Regional Science, 1993-present
Real Estate Finance, 1994-present
Journal of Real Estate Portfolio Management, 1998-present
Journal of the Asian Real Estate Society, 1998-present

EDITORSHIPS

Real Estate Economics (co-editor, 1/1/97-12/31/99)
Journal of Urban Economics (co-editor, starting 1/1/14)

PROFESSIONAL ASSOCIATIONS

American Economics Association, American Real Estate and Urban Economics Association, Urban Land Institute (ULI), Full Member; National Council of Real Estate Investment Fiduciaries (NCREIF), Academic Member; Pension Real Estate Association, Member and Trustee

RECENT BOARD AND CONSULTING ACTIVITY (past five years)

EII Securities Real Estate Fund, Trustee, 1999-2013.
AMC Delancey Group, Inc, Senior Advisor and Board Member, 2004-2008.
Capmark Investments, 2008-2010.
Arden Real Estate Partners, Advisory Board Member, 2012-present.
CenterSquare Investment Management, Economic Advisor, 2013-present.
H/2 Capital Partners, Advisory Board Member, 2011-present

UNIVERSITY SERVICE AND OTHER PROFESSIONALLY-RELATED ACTIVITIES

Urban Land Institute Advisory Panel Member, Hawaii Kai Development Project, 1989.
Faculty Liaison to the Wharton Real Estate Center's Advisory Board Curriculum Committee, 1988-1992.
Conference Organizer, Wharton Real Estate Center's Annual Symposia on Institutional Investment in Real Estate, 1988-1990, 1992.
Chairman, Real Estate Unit Curriculum Committee, 1991-92.
Chairman, Real Estate Unit Personnel Committee, 1992-93.
Chairman, Real Estate Unit Student Awards Committee, 1991-1993.
MBA Advisor, Finance Department & Real Estate Unit, 1991-1993.
Faculty Liaison to the Wharton Real Estate Center's Advisory Board Research Committee, 1992-1994.
Co-coordinator, Seminar on Urban Affairs and State and Local Governments, University of Pennsylvania, 1992-93, 1993-94.
Chairman, Undergraduate Executive Committee of the Wharton School, 1992-93, 1993-94.
Member of Steering Committee for NCREIF Research Committee, January 1993-present.
Research Director for the Wharton Real Estate Center, 1993-1995.
Wharton representative to the Academic Council for Community Partnerships, 1993-94.
Member of Provost's Task force on Urban and Regional Studies, 1993-95.
Wharton MBA Curriculum Committee, 1994-5, 1995-6.

Chairman, Real Estate Department Curriculum Committee, 1994-7.
Real Estate Department Promotion Guidelines Committee, 1994-5.
Real Estate Department Student Awards Committee, 1994-5.
Faculty Liaison to the Wharton Real Estate Center's Advisory Board Placement Committee, 1995-6, 1996-7.
Real Estate Department MBA Advisor, 1995-8.
Member of University Committee to Review City & Regional Planning Procedures, 1995-6.
Urban Land Institute, Vice Chair of Inner City Committee, Metropolitan Economic Development Council, 1996-1997.
Member, Faculty Senate Committee on the Economic Status of the Faculty, 1996-1998.
Urban Land Institute, Member of ULI Trustee Forum on Regionalism, 1997-1999.
Research Advisory Group, Pennsylvania Economy League's Greater Philadelphia Regional Review, 1997- .
Member, Urban Agenda Committee, University of Pennsylvania, 1997-8 .
Member, *ex officio*, Real Estate Roundtable Research Committee, 1999- .
Member, Brookings-Wharton Papers on Urban Affairs Advisory Board, 1999- .
Chairperson, Real Estate Department, The Wharton School, University of Pennsylvania, 1998-03, 2007-present.
Director, Zell/Lurie Real Estate Center at Wharton, 1998-present.
Ph.D. Program Director, Real Estate Department, The Wharton School, University of Pennsylvania, 2003-2005.
Member, Wharton MBA Executive Committee, 2006.
Member, Executive Committee, Penn Institute for Urban Research, 2005-present.
Speaker at various industry and professional associations (detailed list available upon request).