

## **NORM G. MILLER**

Ernest W. Hahn Chair and Professor of Real Estate Finance  
University of San Diego  
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### **EDUCATIONAL BACKGROUND**

Ph.D. The Ohio State University, Department of Finance, 1977 Real Estate and Finance focus with a minor in City and Regional Planning.  
M.A. (Finance) The Ohio State University, 1974, also M.B.A.  
B.S. (Real Estate & Urban Analysis) Ohio State University, Business Honors, 1973.  
High School: Walnut Hills College Preparatory H.S. Cincinnati, Ohio 1969

### **EMPLOYMENT**

2011 to present: Professor, University of San Diego, School of Business Administration, Burnham-Moores Center for Real Estate.

2010 to 2011: V.P. Analytics, CoStar Group, 1331 L St. Washington DC Headquarters.

2007-2009: Professor & Academic Director, University of San Diego, Burnham-Moores Center for Real Estate.

2007: Emeritus Professor, University of Cincinnati

1988-2007: West Shell Jr. Chaired Professor, Department of Finance, University of Cincinnati.

- Visiting Professor, College of Business, DePaul University in Chicago 2003-04.
- Visiting Chair holder, Dept of Finance, Business College, University of Hawaii, 1985-86.

1980-1988: Associate Professor of Finance and Real Estate, College of Business Administration, Director, Real Estate Program, University of Cincinnati.  
Acting Chair, Department of Finance 1984-1985

1978-1980: Assistant Professor, Department of Real Estate, University of Georgia.

1976-1977: Graduate Administrative Assistant, College of Bus. Admin., Ohio State University.

1973-1975: Vice President, Contemporary Real Estate Marketing Systems, Inc., Col., OH. (Residential Real Estate Brokerage Firm)

1972-1973: Appraiser for Real Property Analysts, Inc., Columbus, Ohio.

1971-1972: Management Intern, Office of Economic Development, State of Ohio.

## TEACHING AND SPEAKING EXPERIENCE

Academic course experience includes the full spectrum of real estate courses at the undergraduate and graduate level, plus several finance courses from personal finance to derivatives and alternative investments. Primary teaching interests include real estate market analysis, investment, finance and valuation analysis, real estate development, negotiation and risk management. Dr. Miller has provided guest scholar lectures to the National University of Singapore, the University of Thammasat in Bangkok, Thailand, Saint Petersburg State University, Russia as well as several in Moscow, Russia and provided seminars to visiting Chinese, Russian, Japanese and Korean business professionals within the United States including several keynote presentations. Industry teaching includes working with trade associations NAIOP, CCIM and the USGBC. In the past several years, Dr. Miller has spoken to literally hundreds of groups on real estate trends, workplace trends and on sustainable real estate. Academic presentations and speeches are too numerous to list averaging 10 to 25 each year for nearly four decades.

## SELECTED INDUSTRY EXPERIENCE AND RECOGNITION

In 2015 Dr. Miller received the **James A. Graaskamp Award** from the American Real Estate Society as recognition of outstanding academic contributions, leadership and scholarship.

In 2013 Dr. Miller received the **Richard Ratcliff Award** from the American Real Estate Society for his pioneering work on sustainable real estate and for founding the Journal of Sustainable Real Estate. In 2012 the SBA of USD provided the Sr. Faculty Research Award, a year with 7 academic publications not including the 3<sup>rd</sup> Edition of his graduate level book

Dr. Miller has consulted for various clients such as Fidelity National Information Solutions, New City Technology, Collateral Intelligence, Collateral Analytics, the CoStar Group and worked with various community agencies on the revitalization of urban areas, served as an expert witness on valuation disputes and economic impact cases and was a member of the portfolio management board for the University of Cincinnati from 1992 through 2006. In that capacity he advised on asset selection and risk management. From 1978 through the 1980's Dr. Miller worked on various cases with the Attorney General's office examining antitrust issues. From 1981 through 2005 Dr. Miller served on committees serving the residential real estate industry and licensing authority via the Ohio Real Estate Commission Research and Advisory Committee. Dr. Miller has occasionally served as an expert witness in valuation disputes.

Dr. Miller served on the Cincinnati Port Authority 1998-2007. He has worked extensively with various trade associations including NAIOP, CCIM, the Urban Land Institute, and has been a frequent speaker to groups such as the USGBC, ICSC, BOMA, AI, CORENET, CREW, MBA, SIOR, and NAHB and a member of the national research committees for ICSC (retail), PREA (Pension Real Estate Assoc.), and the ULI (Urban Land Institute). As a Board and faculty member of the **Homer Hoyt Land Use Institute** Faculty, based in North Palm Beach Florida he is involved with some premier thought leaders among academics and industry professionals. The

Hoyt Institute meets twice per year for think tank discussions with scholars from around the world.

Miller received the **Distinguished Real Estate Professional Service Award** in 1999 for Professional and Community Service, an annual award provided to one outstanding professional each year from the Cincinnati area. In 2001 Dr. Miller became a **Distinguished Fellow** of the NAIOP where he served until the end of 2013. He was on the sustainable development and education committees and industry trends task force. In 2004 he received the **NAIOP “Impact” Award**. In 2003 Dr. Miller became the Educational Consultant for CCIM where helped to rewrite curriculum working with the Body of Knowledge committee and national staff. Currently Dr. Miller serves on four advisory boards, Pathfinders, a commercial property opportunity fund, Collateral Analytics, Surefield, Masurabl, and Verndani, the last two being engaged in sustainable business strategies. He is also a member of the Institute of Green Real Estate Professionals and founding **Editor** of the *Journal of Sustainable Real Estate*, see [www.JOSRE.org](http://www.JOSRE.org)

## BOOKS

*Routledge Handbook of Sustainable Real Estate* (with Sara Wilkenson, Tim Dixon, and Sarah Sayce) Routledge Pub, 2018

*Commercial Real Estate Analysis and Investment* published by OnCourse Learning, 2014 (third edition) with David Geltner, Piet Eicholtz, Jim Clayton. Currently this book is used at over 60% of the English speaking graduate schools around the globe with a real estate focus. It has been translated into English, Japanese, Chinese and Russian. (Cited by over 400 scholarly academic papers)

*Real Estate Principles for the New Economy* 2005, Thompson Southwestern Publishers with David Geltner.

*Commercial Real Estate Career Education and Research Guide*, second edition published in 2009 by the Hoyt Institute for Real Estate. Free guide self-funded in order to provide career advice to high school and college students about commercial real estate career opportunities.

Other books now out of print:

*Mortgage Mathematics and Financial Tables*, Prentice Hall, 1982.

The *Complete Guide to Mortgage Mathematics*, Prentice Hall, 1980.

## RECENT WORKING PAPERS

“The Story of Entry Level Housing Affordability in the USA Considering Price Tiers and Property Taxes” with Michael Sklarz, See <http://collateralanalytics.com/news-research/>

“Buy-Sell Signals and Homeowner Returns” with Michael Sklarz

“Saving Commissions at Any Price” with Michael Sklarz.

“Neighborhood Attributes and Analysis: Valuation Certainty and Price Risk” with Michael Sklarz

“Adjusting Loan to Value Ratios to Reflect Value Uncertainty” With Michael Sklarz.

“AVMs versus Appraisals Accuracy When Price is Not Disclosed” with Michael Sklarz

## SELECTED PUBLISHED PAPERS

“Leveling the playing field: Out-of-town Buyer Premiums in US Housing Markets over time” International Journal of Housing Markets and Analysis, with Katrin Kandlbinder, and Michael Sklarz, forthcoming 2018.

“Market Equilibrium Analysis” with Richard Parli, Appraisal Journal, 85:4, Fall, 2017.

How Much Does Property Condition Affect Residential Property Value? with Vivek Sah, and Michael A. Sklarz, Journal of Real Estate Research, forthcoming 2018

Commercial Buildings: Energy Efficiency and Reliability with Electric, Smart and Microgrids. With Sewalk, S., Liston, S., Gao, W. (2016). Journal of Sustainable Real Estate, 8(1).

The Impact of Proposition 13 on Effective Tax Rates, Turnover and Prices with Michael Sklarz, forthcoming in the Journal of Housing Research, 2016.

Why Housing Price Indices Are Super Tools waiting to be More Fully Utilized: and How to Produce Them? With Michael Sklarz for Real Estate Issues, 45:2, 2016.

Fat Tails and Risk Mitigation: Evidence from the Real Estate Market with Lingxiao Li, Journal of Real Estate Portfolio Management, Vol. 22, Issue 1, 2016.

Commercial Buildings: Energy Efficiency and Reliability with Electric, Smart and Microgrids with Stephan Sewalk, Sunny Liston and Wezhong Gao. Forthcoming 2016 in the Journal of Sustainable Real Estate, Vol. 8.

“Revisiting the Derivation of an Equilibrium Vacancy Rate” with Richard L. Parli, Journal of Real Estate Portfolio Management, Vol. 20, Issue 3, 2014.

“Workplace Trends in Office Space: Implications for Future Office Demand” Journal of Corporate Real Estate, Vol. 16, No. 3, 2014.

“Chapter 16: Investing in Green Real Estate” Chapter in the book: *The Advisor’s Guide to Commercial Real Estate Investment*, published jointly by Summit Media, National Real Estate Investor/Penton Media and the ULI, Urban Land Institute, 2014.

“Downsizing and Workplace Trends in the Office Market” Real Estate Issues, CRE, Vol. 38, No. 3, 2013.

“Are Green REITs Valued?” with Vivek Sah and Biplab Ghosh, Journal of Real Estate Portfolio Management, Vol 19, (2), 2013. Selected as Best paper of 2013.

“The Economics of Green Retrofits” with Nils Kok and Peter Morris, presented at USGBC Greenbuild 2011 published in the Journal of Sustainable Real Estate, Vol. 4, (1) 2012

“Is there Seasonality in Home Prices – Evidence from CBSAs” with Vivek Sah, Michael Sklarz and Stefan Pampulov, Journal of Housing Research, Vol. 22, No. 1, pp 1-17, 2012.

“Integrating Real Estate Market Based Indicators into Fundamental Home Price Forecasting Systems” with Michael Sklarz, Journal of Housing Research, Vol. 21, No. 2, pp.183-215, 2012.

“Correcting for the Effects of Seasonality on Home Prices” with Vivek Sah and Michael Sklarz, The Appraisal Journal, Winter, 2012.

“Residential Land Values and Walkability” with Stephanie Yates Rauterkus, Journal of Sustainable Real Estate Vol. 3 (1) 2011 see [www.josre.org](http://www.josre.org)

“Explaining LEED Concentration: Effects of Public Policy and Political Party” with Eugne Choi, forthcoming, Journal of Sustainable Real Estate, Vol. 3, 2011.

"Foreclosure Contagion and REO versus Non-REO Sales" with Stephanie Rauterkus, Michael Sklarz and Grant Thrall, International Real Estate Review, Vol. 15 (3) pp. 307-324, 2012.

"House Prices and Economic Growth" with Liang Peng and Michael Sklarz, the Journal of Real Estate Finance and Economics, Vol. 42, No. 4, 2011, pp 522-541..

“The Economic Impact of Anticipated House Price Changes - Evidence from Home Sales” with Liang Peng and Michael A. Sklarz., Real Estate Economics, Vol. 39, No. 2, 2011

“The Operations and Management of Green Buildings in the United States” with Dave Pogue, Jeryldine Saville and Charles Tu, Journal of Sustainable Real Estate, Vol. 2, No. 1, 2010, pp. 51-66.

“Slicing, Dicing and Scoping the Size of the U.S. Commercial Real Estate Market” with Andrew Florance, Ruijue Peng, and Jay Spivey, Journal of Real Estate Portfolio Management, Vol. 16, No. 2, 2010, pp. 101-118 as lead paper. Won the **Best paper award** for 2011 from the American Real Estate Society.

“Price Volume Correlation in the Housing Market: Causality and Co-movements” with Jim Clayton, and Liang Peng, University of Colorado, Journal of Real Estate Finance and Economics, 40, No. 1, pp. 14-40, 2010.

“Green Buildings and Productivity” with Dave Pogue. The Journal of Sustainable Real Estate, Vol. 1, No. 1, Fall 2009.

“Distressed Home Prices: The True Story” *Mortgage Banking* with Michael Sklarz, March, 2009.

“Does Green Pay Off” with Jay Spivey and Andy Florance, The Journal of Real Estate Portfolio Management. (Also revised in short format for Research in Real Estate for ICSC) Vol. 14, No. 2, 2008. Won the **Best paper award** for 2008 from the American Real Estate Society. Posted on over 900 web sites.

“Idiosyncratic Volatility and the Housing Market” with Gurupdes Pandher, UBC, the Journal of Housing Research, Vol. 17, No. 1, 2008.

“A Cross-Sectional Analysis of Cap Rates by MSA”, with Doina Chichernea, Jeff Fisher, Michael Sklarz and Bob White, Journal of Real Estate Research, Vol. 30, No. 3, 2008. Voted **Best paper award** for JRER in 2009 by the members of the American Real Estate Society.

“A Cross-Sectional Asset-Pricing Analysis of the U.S. Metropolitan Real-Estate Market at the Zip Code Level” with Susanne Cannon and G. S. Pandher, Real Estate Economics, Winter, Vol. 34 No. 4 2006, pp. 519-552.

“Exploring Metropolitan Housing Price Volatility” with Liang Peng, Journal of Real Estate and Financial Economics, Vol. 33: 5-18, 2006.

“The Impact of Interest Rates and Employment on Housing Prices” with Michael Sklarz and Tom Thibodeau International Real Estate Review, Vol.8, No. 1: pp 26-42. 2005

"Estimating User Costs and Rates of Return for Single-Family Residential Real Estate" with Walter Derieux and John Benjamin, Journal of Real Estate Practice and Education, Vol. 8, No. 1, 2005, pp. 1-24.

“The Land Residual Theory and the Absence of Business Value for Real Estate as an Operating Business” Journal of Property Tax Assessment, Vol. 1, 4, 2004, pp 29-36.

“The Effects of 9/11 on Tall and Trophy Office Buildings” with Sergey Markosyan, Andy Florance, Brad Stevenson, Hans Opt Veld, Journal of Real Estate Portfolio Management, Vol. 9, No. 2, 2003. pp. 107-126

“The Academic Roots and Evolution of Real Estate Appraisal” with Sergey Markosyan, The Appraisal Journal, Vol. LXXI, No. 2, April, 2003, pp. 172-184.

“International Residential Real Estate Brokerage Fees and Implications for the US Brokerage Industry” with Natalya Delcours, International Real Estate Review, Vol. 5, No. 1, Winter 2002.

“How do US Residential Brokerage Trends and Fees Compare to the rest of the World?” with Natalya Delcour, Real Estate Issues, Fall, 2001, Vol. 26, No. 3.

"Retail Leasing in a Web Enabled World" Journal of Real Estate Portfolio Management, American Real Estate Society, Spring, 2000. A shorter less academic version of this paper called “E-Commerce Strategies for Shopping Centers” was developed and published in The Journal Of Property Management May, 2000.

“Ethics as Culturally and Economically Derived” Journal of Real Estate Research, special issue titled Ethics in Real Estate published as Research Issues in Real Estate, Edited by Stephen E. Roulac, Volume 5, Kluwer Academic Publishers, 1999, p 153-162.

“Ethical Codes of Conduct for Business Simplified” Journal of Real Estate Research, special issue titled Ethics in Real Estate published as Research Issues in Real Estate, Edited by Stephen E. Roulac, Volume 5, Kluwer Academic Publishers, 1999, p. 247-256.

“Research on Leases” Real Estate Finance Vol. 14, No. 1, Spring, 1997 with C.F. Sirmans.

“Web Resources and Implications for Real Estate Finance” Real Estate Finance, Vol. 13, No. 3, Fall, 1996.

"Telecommunications Technology and Real Estate: Some Additional Perspectives" Real Estate Finance, Vol. 13, No. 2, Summer, 1996.

"In Defense of the Land Residual Theory and the Absence of a Business Value Component for Retail Properties" with Steve Jones and Stephen Roulac, Journal of Real Estate Research, Vol. 10, No. 2, 1995. Reprinted in a “Business Enterprise Value Anthology” Edited by David C. Lennhoff, published by the Appraisal Institute, Sept. 1, 2001.

"We Need a Fourth Asset Class: HEITs" with David Geltner and Jean Snavely, Real Estate Finance, Vol. 12, No. 2, Summer, 1995

"Residential Mortgage Choice: Does the Supply Side Matter?" with Tim Riddiough and Steve Jones, Journal of Housing Economics, Vol. 4, pp 71-90, 1995.

"A Note on the Integration of the Global Capital Markets" with Maura Skill, Real Estate Finance, Vol. 11, No. 4, Winter, 1995.

"The Parking Lot as a Unique Investment Class: An Option That Pays Dividends" with David Geltner and Bob Brown for Real Estate Finance, Vol. 11, No. 3, Fall, 1994.

"Incentive Commissions in Residential Real Estate Brokerage" with D. Geltner and B. Kluger, The Journal of Housing Economics, Vol. 2, No. 2. June, 1992.

"Optimal Price and Selling Effort from the Perspectives of the Broker and Seller," with B. Kluger and D. Geltner, The AREUEA Journal (now Real Estate Economics), Vol. 19, No. 1, Spring, 1991.

"On Improving the Measurement of Residential Real Estate Liquidity," The AREUEA Journal (now Real Estate Economics), Vol. 18, No. 2 (Summer 1990), with Brian D. Kluger.

"Leading Indicators of Real Estate Price Trends," with M. Sklarz, Spring, 1989 Special Proceedings Series on "Forecasting Market Determinants Affecting Cash Flows and Reversions," Report No. 4, American Institute of Real Estate Appraisers.

"Tax Rates and Implicit Rates of Return on Owner Occupied Single Family Housing: Comment," The Journal of Real Estate Research, Vol. 4, No. 1, Spring 1989.

"Exchange Rates and Speculation in Real Estate Markets" with M. Sklarz and N. Ordway, Journal of Real Estate Research, Vol. 3, No. 3, Fall 1988.

"The Value of a Real Estate Brokerage Firm," monograph for with John Keaton and Glenn Crellin, Economics and Research Division, 1989, NAR, Wash. D.C.

"It's Time for Some Options in Real Estate," Real Estate Securities Journal, Vol. 9, November 1, Fall, 1988 with Michael Sklarz.

"Housing Market Forecasting Using Autoregressive Modeling," Vol. 15, No. 4, Winter, 1987, The AREUEA Journal (now Real Estate Economics), with W. Gersch and M. Sklarz.

"Pricing Strategies and Residential Property Selling Prices," with Michael A. Sklarz, Vol. 2, No. 1, Fall, 1987, The Journal of Real Estate Research. Voted **Best Paper of 1987** by members of ARES.

"A New Market Based Condominium Valuation Model," The Appraisal Journal, (April 1987) with Michael A. Sklarz.

"Automated Homebuilding in Japan: Are Japanese Methods Exportable to the United States?" Urban Land, June, 1987, with Judy Kautz.



"Leading Indicators of Housing Market Price Trends," The Journal of Real Estate Research, Fall, 1986, with Michael A. Sklarz.

"Condominium Valuation Models with a Touch of Behavioral Theory," January 1987, The Appraisal Journal, with Michael Sklarz.

"Long Range Cash Flow Planning: A Total Systems Approach," Vol. 1, No. 4, Spring, 1986, The Journal of Real Estate Development.

"Using A Real Discount Rate Model is Better Than Predicting Inflation," The Appraisal Journal, April, 1986 with Michael E. Solt.

"Managerial Incentives and the Financial Performance of Real Estate Investment Trusts," (Real Estate Economics) AREUEA Journal, Winter 1985, with Michael Solt.

"The Determination of Compensatory Damages: A Valuation Framework," The American Business Law Journal, Spring, 1984, as lead article, co-authored with John Bagby and Michael Solt.

"Optimizing Limited Partnership Returns Through Tax Minimization Modeling: ACRS Effects and Theoretical Reconciliations," Real Estate Research Annual, Vol. 3, 1983.

"Residential Property Hedonic Pricing Models: Limits and Extensions," Real Estate Research Annual, Vol. 2, 1982. (Cited by 45 academic papers)

"A Note on the Differentiation of Market Participants by Search Costs," Journal of Economic Letters, Fall 1981, co-author Peter Rice.

"Real Estate Multiple Listing Services and the Sherman Act: A Response to Malin," American Business Law Journal, Fall, 1980.

"Do Antitrust Laws Apply to the Real Estate Brokerage Industry?" with Peter J. Shedd, The American Business Law Journal, Fall, 1979.

"Optimizing Limited Partnership Returns," The AREUEA Journal now Real Estate Economics, Fall, 1979.

"Time on the Market and Selling Price," The AREUEA Journal, now Real Estate Economics, Summer, 1978. (Cited by 72 other academic papers)

TRADE JOURNALS: Many other publications in minor referred journals such as Real Estate Issues, Valuation, Development Magazine, Mortgage Bankers, The Assessors Journal, The Journal of Property Management, Real Estate Review, Institutional Real Estate Newsletter and more.

#### ACTIVE PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

Emeritus Editor, The Journal of Sustainable Real Estate. Funded, founded and launched this new journal starting in 2009. International submissions have been vigorous and the first issue was published November of 2009. See [www.josre.org](http://www.josre.org).

Homer Hoyt Land Use Institute Faculty and Board Member (A School for Academic Post Doc Research and Industry Leader Discussions, based in North Palm Beach, Florida) See [www.hoyt.org](http://www.hoyt.org)

Advisory Board member of the Energy Efficient Buildings Hub, Wharton, U. Penn. 2013.

President- HIRE, Hoyt Institute for Real Estate (since 2005) with a mission to enhance real estate educational resources and assist with career advice and mentoring.

Member of the NAIOP Sustainable Research Forum (2008-2013)

Member of the NAIOP Property Trends Task Force (2003-2008 and 2013)

Member of the Research Affinity Group for PREA (Pension Real Estate Association) (2010-2012)

Member of the Research Council for ICSC (2009-2013)

Member of the Research Committee for ULI (2009-2012)

American Real Estate Society Board member and executive Committee, Technology Committee, and member of the Awards Recognition Committee (2000-2012)

Approved Candidate Fulbright Sr. Specialists (for 3 to 6 weeks visiting scholar activities) on the topic of Sustainability. Approved March 26, 2009.

Editorial Board, The Journal of Real Estate Research (since 1992)

Editorial Board, Journal of Property Finance, Henry Stewart Publications, London (since 1993)

Editorial Board, The Journal of Real Estate Literature (since 1994)

Editorial Board, Real Estate Information Technology JREL since 1997.

Editorial Board, The Journal of Real Estate Education and Practice, JREEP (since 1998)

Ad hoc reviewer and prior Editorial Board member of several other journals.

#### Current Active COMMUNITY SERVICE

Frequent speaker to numerous groups at regional and national meetings including the Appraisal Institute, Real Estate Investors Association, American Property Tax Counselors, Building Owners Managers Association, International Council of Shopping Centers, NAIOP (Commercial Real Estate Developers), CCIM, CREW, USGBC, CoreNet, and others.

Ad hoc committees for the San Diego Unified School District on real estate utilization issues. 2017 to present.