

Joshua D. Rauh
Kellogg School of Management
2001 Sheridan Road, Suite 401
Evanston, IL 60208

Full-Time Academic Experience

- 2009– **KELLOGG SCHOOL OF MANAGEMENT, NORTHWESTERN UNIVERSITY, EVANSTON, IL**
Associate Professor of Finance (2009–Present)
- 2004 –2009 **UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS, CHICAGO, IL**
Associate Professor of Finance (2008–2009)
Assistant Professor of Finance (2004–2008)

Education

- 2000 – 2004 **MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA**
Ph.D., Economics. Dissertation: “Pensions, Corporate Finance and Public Policy.”
Committee: James Poterba (Chair), Stewart Myers, Jonathan Gruber, Dirk Jenter
- 1992 – 1996 **YALE UNIVERSITY, NEW HAVEN, CT**
B.A., Economics, *magna cum laude* with distinction

Honors and Awards

- 2011 Smith Breeden Prize, First Prize for “Public Pension Promises: How Big Are They and What Are They Worth” (with Robert Novy-Marx), awarded January 2012
- 2011 Crain’s Chicago 40 Under 40
- 2009 – NBER Research Associate in the Corporate Finance program
- 2009 – Zell Center for Risk Research at Kellogg, Faculty Fellow
- 2008 – 2009 Charles M. Harper Faculty Fellow, Chicago Booth
- 2008 – Netspar Research Fellow
- 2008 – 2009 Initiative on Global Markets at Chicago Booth, research support
- 2008 GARP Risk Management Research Program for “The Intergenerational Transfer of Public Pension Promises” (with Robert Novy-Marx)
- 2007 – 2009 NBER Faculty Research Fellow (FRF) in the Corporate Finance program
- 2007 – 2008 International Centre for Pension Management (ICPM) grant (with Irina Stefanescu)
- 2006 Brattle Prize, First Prize for “Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans,” awarded January 2007
- 2005 – NBER Faculty Research Fellow (FRF) in the Public Economics and Aging programs
- 2004 National Tax Association Dissertation Award (Co-Winner)
- 2004 Barclays Global Investor Best Symposium Paper, European Finance Association (for “Managerial Opportunism and Earnings Manipulation: Evidence from Defined Benefit Plans,” with Daniel Bergstresser and Mihir Desai)
- 2004 Western Finance Association Award for the Best Paper in Corporate Finance (for “Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans”)
- 2003 – 2004 NBER Pre-Doctoral Fellowship
- 2002 – 2003 Center for Retirement Research Dissertation Fellow
- 1996 Phi Beta Kappa

Journal Publications

- [1] Rauh, Joshua, 2006, “Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans,” *Journal of Finance* 61(1), 33-71.

- [2] Bergstresser, Daniel, Mihir Desai, and Joshua Rauh, 2006, "Earnings Manipulation, Pension Assumptions and Managerial Investment Decisions," *Quarterly Journal of Economics* 121(1), 157-195.
- [3] Rauh, Joshua, 2006, "Own Company Stock in Defined Contribution Pension Plans: A Takeover Defense?" *Journal of Financial Economics* 81(2), 379-410.
- [4] Rauh, Joshua, James Poterba, Steven Venti, and David Wise, 2007, "Defined Contribution Plans, Defined Benefit Plans, and the Accumulation of Retirement Wealth," *Journal of Public Economics* 91, 2062-2086.
- [5] Rauh, Joshua, 2009, "Risk Shifting versus Risk Management: Investment Policy in Corporate Pension Plans," *Review of Financial Studies* 22(7), 2687-2734.
- [6] Novy-Marx, Robert, and Joshua Rauh, 2009, "The Liabilities and Risks of State-Sponsored Pension Plans," *Journal of Economic Perspectives* 23(4).
- [7] Kaplan, Steven N., and Joshua Rauh, 2010, "Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?" *Review of Financial Studies* 23(3), 1004-1050.
- [8] Rauh, Joshua, and Amir Sufi, 2010, "Capital Structure and Debt Structure," *Review of Financial Studies* 23(12), 4242-4280.
- [9] Novy-Marx, Robert, and Joshua Rauh, 2011, "Policy Options for State Pension Systems and Their Impact on Plan Liabilities," *Journal of Pension Economics and Finance* 10(2), 173-194.
- [10] Novy-Marx, Robert, and Joshua Rauh, 2011, "Public Pension Liabilities: How Big Are They and What Are They Worth?" *Journal of Finance* 66(4), 1207-1245.
- [11] Rauh, Joshua and Amir Sufi, 2012, "Explaining Corporate Capital Structure: Product Markets, Leases, and Asset Similarity," *Review of Finance* 16(1), 115-155
- [12] Novy-Marx, Robert, and Joshua Rauh, "Fiscal Imbalances and Borrowing Costs: Evidence from State Investment Losses," *American Economic Journal: Economic Policy*, forthcoming

Current Working Papers

Hochberg, Yael, and Joshua Rauh, "Local Overweighting and Underperformance: Evidence from Limited Partner Private Equity Investments"

Novy-Marx, Robert, and Joshua Rauh, "Revenue Demands of Public Employee Pension Promises"

Other Publications

Rauh, Joshua, James Poterba, Steven Venti, and David Wise, 2005, "Utility Evaluation of Risk in Retirement Savings Accounts," in *Analyses in the Economics of Aging*, David A. Wise (ed), University of Chicago Press, 2005.

Gruber, Jonathan, and Joshua Rauh "How Elastic is the Corporate Income Tax Base," in *Taxing Corporate Income in the 21st Century*, Cambridge University Press, Alan Auerbach, James R. Hines, and Joel Slemrod (eds.), 2007.

Rauh, Joshua, James Poterba, Steven Venti, and David Wise, 2009, "Lifecycle Asset Allocation Strategies and the Distribution of 401(k) Retirement Wealth," in *Developments in the Economics of Aging*, David A. Wise (ed), University of Chicago Press.

Rauh, Joshua and Irina Stefanescu, 2009, "Why are Firms in the United States Abandoning Defined Benefit Pension Plans?" *Rotman Journal of Pension Management* 2(2), 18-25.

Rauh, Joshua, 2010, "Are State Public Pensions Sustainable? Why the Federal Government Should Worry About State Pension Liabilities" *National Tax Journal (Forum)* 63(10).

Rauh, Joshua, 2011, "The Pension Bomb," *Milken Institute Review* 13(1), 26-37.

Novy-Marx, Robert, and Joshua Rauh, 2011, "The Crisis in Local Government Pensions in the United States," forthcoming in *Growing Old: Paying for Retirement and Institutional Money Management after the Financial Crisis*, Robert Litan and Richard Herring, eds., Brookings Institution, Washington DC.

Older Working Papers

Novy-Marx, Robert, and Joshua Rauh, "The Intergenerational Transfer of Public Pension Promises," NBER Working Paper #14343

The Effects of Financial Condition on Capital Investment and Financing: Evidence from Variation in Pension Fund Asset Performance

Opinions and Other Short Pieces – Externally Published

"Start Paying or Stop Promising"
New York Times Room for Debate Blog, Posted 27 February 2011

"New York City, Living in Fantasy Land"
New York Times Room for Debate Blog, Posted 7 February 2011

"Can the Illinois Pension Catastrophe Be Stopped?" with Robert Novy-Marx, *Chicago Tribune*

"Pension Security Bonds: A New Plan to Address the Pension Crisis," with Robert Novy-Marx, *The Economists' Voice* 7(3), 2010

"A Bankruptcy to Save GM" with Luigi Zingales
Short version published in the *Chicago Tribune*, 23 November 2008
Full version posted on *Vox* and as
"Bankruptcy is Best to Save GM," *The Economists' Voice* 6(4), 2009.

Opinions and Other Short Pieces – Published on Internal Blogs

"Government Unions and Public Sector Compensation," *Everything Finance*, 16 October 2011
"Shortfall for State and Local Pension Systems: Over \$4 Trillion," *Everything Finance*, 6 October 2011
"Are State Pension Problems a 'Big Deal?'" *Everything Finance*, 2 September 2011
"Revenue Demands of Public Employee Pension Promises" *Everything Finance*, 21 June 2011
"Each Chicago Household In Fact Owes Over \$80,000" *Everything Finance*, 21 June 2011
"Return Assumptions: It's All Just Borrowing In Disguise," *Everything Finance*, 20 September 2010
"Unfunded Pension Liabilities and GDP," *Everything Finance*, 25 February 2011
"Wipe Away Your Debts with State Government Accounting," *Everything Finance*, 1 November 2010
"Return Assumptions: It's All Just Borrowing In Disguise," *Everything Finance*, 20 September 2010
"Illinois' Irrelevant Pension Reform," *Everything Finance*, 15 April 2010
"The Day of Reckoning for State Pension Plans," *Everything Finance*, 22 March 2010

Editorial Roles

Associate Editor, *Journal of Finance*, 2011-Present

Editor, *Review of Corporate Finance Studies*, 2011-Present
Editor, *Journal of Pension Economics and Finance*, 2010-Present

Teaching Experience

Summer 2012 Professor, Management for Scientists and Engineers, Finance Unit, Kellogg (Scheduled)
Spring 2012 Co-Professor, Topics in Finance, FINC 520, Ph.D., Kellogg (Scheduled)
Spring 2012 Professor, Private Equity and Venture Capital (FINC 445-61/31), MBA, Kellogg (Scheduled)
Winter 2012 Private Equity and Venture Capital (FINCX-445-0), Executive MBA, Kellogg
Summer 2011 Executive Education Presentation, National Association of State Treasurers Program
Summer 2011 Professor, Management for Scientists and Engineers, Finance Unit, Kellogg
Winter 2011 Professor, Private Equity and Venture Capital (FINC 445-61/71), MBA, Kellogg
Summer 2010 Professor, Management for Scientists and Engineers, Finance Unit, Kellogg
Spring 2009 Professor, Corporation Finance (Business 35200-03/81/85), MBA, Chicago Booth
Winter 2009 Co-Professor, Theory of Financial Decisions II (Business 35902), Ph.D., Chicago Booth
Spring 2008 Professor, Corporation Finance (Business 35200-03/81/85), MBA, Chicago GSB
Winter 2008 Co-Professor, Theory of Financial Decisions II (Business 35902), Ph.D., Chicago GSB
Winter 2007 Professor, Corporation Finance (Business 35200-01/82/85), MBA, Chicago GSB
Spring 2006 Co-Professor, Theory of Financial Decisions III (Business 35903), Ph.D., Chicago GSB
Winter 2006 Professor, Corporation Finance (Business 35200-01/02/82), MBA, Chicago GSB
Winter 2005 Professor, Corporation Finance (Business 35200-02/82/85), MBA, Chicago GSB
Summer 2003 Instructor, Harvard Summer School (Econ S-1452, Money, Financial Institutions and Markets)
Summer 2002 Instructor, Harvard Summer School (Econ S-1452, Money, Financial Institutions and Markets)
Spring 2002 Teaching Assistant, MIT Sloan School of Management (Corporate Finance II), Professor Kevin Rock
Summer 2001 Teaching Assistant, Harvard Summer School (Econ S-1452, Money, Financial Institutions and Markets), Professor John Jordan

Other Research Experience

2002 – 2004 Research Assistant, Professor James Poterba
2001 – 2002 Research Assistant, Professor Jonathan Gruber

Non-Academic Experience

1998 – 2000 Goldman Sachs International, London, UK
Associate Economist (1999–2000), Research Assistant (1998–1999)
Summer 1997 Deutsche Bank, Frankfurt, Germany
Research Intern (Corporate and Institutional Banking)
Summer 1996 Émigré Memorial German Internship Program, Bonn, Germany
Internship at the German *Bundestag*

Academic Seminars and Conference Presentations

2004 University of Chicago Graduate School of Business, University of Pennsylvania (Wharton), Princeton, Kennedy School of Government, Harvard Business School, Stanford Graduate School of Business, Harvard (economics department), Columbia Business School, NYU (Stern), Dartmouth (Tuck), Michigan (Ross), Boston College (Carroll), Northwestern (Kellogg), Duke (Fuqua), Stockholm School of Economics, Ohio State University (Fisher), London Business School, Population Association of America meetings (Boston), Securities and Exchange Commission, Western Finance Association meetings (Vancouver)

- 2005 American Finance Association meetings (Philadelphia), Taxing Corporate Income in the 21st Century (Conference at the Ross School of Business at the University of Michigan, Co-sponsored by the Office of Tax Policy Research and the Burch Center), NBER Conference on the Economics of Aging (Boulders, Arizona), European Central Bank (Joint Lunchtime Seminar Series of the ECB, CFS and Deutsche Bundesbank), NBER Summer Institute Public Finance Meetings, Michigan State University (Broad), University of Illinois (College of Business), National Tax Association meetings (Miami)
- 2006 Washington University Corporate Finance Conference, MIT Sloan Batterymarch Finance Seminar, Trans-Atlantic Public Economics Seminar / TAPES (Stockholm), Retirement Research Consortium / RRC Conference (Washington, DC), NBER Summer Institute Corporate Finance Meetings, Harvard University Financial Economics Seminar, London School of Economics Finance Lunch Workshop, LSE / UBS Pensions Research Programme Conference (London)
- 2007 University of Southern California (Marshall), Arizona State University, Swedish Institute for Financial Research, Stockholm School of Economics, NBER Summer Institute Corporate Finance Meetings, Chicago GSB Finance Workshop, European Central Bank Conference on Monetary Policy Transmission, Tilburg University, Maastricht University
- 2008 Columbia GSB, NYU/Penn Conference on Law and Finance, University of Maryland (Smith), European Finance Association (Athens), Purdue (Krannert), Wharton Risk and Insurance, NTA Meeting on State and Local Fiscal Sustainability, Norwegian School of Economics and Business Administration, University of Illinois, Georgetown (McDonough), University of Minnesota (Carlson)
- 2009 Netspar Pension Conference (Amsterdam), MIT Bradley Public Economics Workshop, Society of Actuaries Public Pension Plan Finance Symposium, ICPM Discussion Forum, Kellogg School of Management, University of Texas at Austin (McCombs), Stanford Graduate School of Business, University of California - Berkeley (Haas), HEC Lausanne, Toronto (Rotman)
- 2010 Netspar Pension Conference (Amsterdam), New York University (Stern), Netspar (Zurich), Trans-Atlantic Public Economics Seminar / TAPES (Varenna), NBER Corporate Finance Summer Institute, NBER Conference on State and Local Pensions (Jackson Hole, WY), Yale Law School, Brookings-Nomura-Wharton Conference (Washington DC), London School of Economics, London Business School, University of Georgia
- 2011 American Finance Association meetings (Denver), University of Florida (Warrington - Finance), University of British Columbia (Sauder – Finance), Harvard University (Public Finance Seminar), HEC Paris, Oxford (Saïd Finance), University of Lugano, Yale University (Finance), London Business School Private Equity Symposium, European Finance Association (Stockholm), Chicago Fed, MIT Sloan (Finance), Wharton Business and Public Policy

Major Conference Presentations by Co-Authors of Co-Authored Papers

- 2012 American Finance Association Meetings [Hochberg], Econometric Society Meetings [Hochberg]
- 2011 NBER Summer Corporate Finance Meetings [Hochberg]
- 2009 American Finance Association Meetings [Sufi], NBER Spring Corporate Finance Meetings [Sufi], Western Finance Association Meetings [Novy-Marx]
- 2004 European Finance Association [Bergstresser], NBER Spring Corporate Finance Meetings [Desai]
- 2008 American Finance Association Meetings [Kaplan]

Invited Discussions

- 2012 American Economics Association Meetings, American Finance Association Meetings
- 2011 American Economics Association Meetings, American Finance Association Meetings
- 2010 NBER Entrepreneurship Meeting

2009 American Finance Association Meetings
 2008 American Economics Association Meetings, American Finance Association Meetings
 2007 NBER Behavioral Economics Working Group, Spring Meeting (Chicago)
 Western Finance Association Meetings (Big Sky)
 2006 Western Finance Association Meetings (Keystone)
 Trans-Atlantic Public Economics Seminar / TAPES (Stockholm)
 2005 American Finance Association Meetings (Philadelphia)
 NBER Summer Institute Corporate Finance Meeting
 Swedish Institute for Financial Research Conference on Corporate Governance
 NBER Summer Institute Corporate Finance Meeting

Invited Presentations and Roundtables

Federal Reserve Board of Atlanta, October 2011, Public Affairs Forum Speaker

Manhattan Institute, September 2011, Panelist for “A New Social Contract: Reforming the Terms of Public Employment in America”

Stanford University, June 2011, Participant, “State and Municipal Fiscal Default Workshop”

Yale Law School, June 2011, Corporate Law Alumni Breakfast

Congressional Testimony, February 2011, House Subcommittee on Courts, Commercial, and Administrative Law, hearing on “The Role of Public Employee Pensions in Contributing to State Insolvency and the Possibility of a State Bankruptcy Chapter”

The Public Employee Pension Crisis in California, 2010, presentation at a roundtable hosted by Governor Arnold Schwarzenegger.

The Public Employee Pension Crisis in South Carolina, 2010, presentation at a roundtable hosted by Governor Mark Sanford.

Chaired Sessions

2007 Western Finance Association Meetings (Big Sky), “Financing Constraints”
 2008 American Economics Association Meetings (New Orleans), “Lifecycle Investing”
 2008 American Finance Association Meetings (New Orleans), “Financial Structure”

Media Coverage

A complete list of my quotes or citations in the *Economist*, *Wall Street Journal*, *New York Times*, and *Financial Times* may be found at <http://www.kellogg.northwestern.edu/faculty/rauh/media.htm>. My research has been covered extensively by global media outlets.