

# **Positioning Pensions for the Twenty-First Century**

Edited by Michael S. Gordon,  
Olivia S. Mitchell, and Marc M. Twinney

Published by

**The Pension Research Council**

The Wharton School of the University of Pennsylvania

and

**University of Pennsylvania Press**

Philadelphia

Copyright © 1997 The Pension Research Council of the Wharton School  
of the University of Pennsylvania

All rights reserved

Printed in the United States of America on acid-free paper

10 9 8 7 6 5 4 3 2 1

Published by

University of Pennsylvania Press

Philadelphia, Pennsylvania 19104-6097

Library of Congress Cataloging-in-Publication Data

Positioning pensions for the twenty-first century / edited by Michael S. Gordon, Olivia S.  
Mitchell and Marc M. Twinney.

p. cm.

Includes bibliographical references and index.

ISBN 0-8122-3391-3 (acid-free paper)

1. Pensions—United States. I. Gordon, Michael S. II. Mitchell, Olivia S.

III. Twinney, Marc M.

HD7125.P67 1997

331.25'2'0973—dc21

96-53837

CIP

## Contributors

**Vickie Bajtelsmit** is an Assistant Professor in the Department of Finance and Real Estate at Colorado State University. Her research focuses on corporate pension planning and institutional investment, and the relationship between pension plan generosity and labor productivity. She has a BA in linguistics and Russian language from the University of Virginia, a JD from Rutgers University School of Law, and a PhD in risk management and insurance from the University of Pennsylvania's Wharton School of Business.

**Brad A. Blalock** is a senior analyst with Mercer Investment Consulting, where he applies and develops tools for investment planning, for retirement program forecasts, and for solving client financial problems. His research also focuses on innovative methods of modeling defined contribution plan outcomes. He has a BS in actuarial science from the University of Illinois and a Master's degree in finance from Northwestern University.

**Constance F. Citro** is a senior staff member of the Committee on National Statistics at the National Academy of Sciences-National Research Council. She served as the study director for the Panel to Evaluate Microsimulation Models for Social Welfare Programs and the Panel to Evaluate the Survey of Income and Program Participation, and is currently study director for the Panel on Poverty and Family Assistance and the Panel on Retirement Income Modeling. She received her PhD in political science from Yale University and is a former vice president of Mathematics Policy Research, Inc.

**Gordon P. Goodfellow** is an associate of the Research and Information Center at Watson Wyatt Worldwide, where he has specialized in the analysis of social security policy and private defined contribution plans. Previously, he was with the Office of the Assistant Secretary for Planning and Evaluation as a senior policy analyst and project manager of the Panel Study of Income Dynamics.

**Michael S. Gordon** is a Washington, DC attorney specializing in pension law and the employee benefits field. He served as Minority Pension Council to the United States Senate Labor and Public Welfare Committee under Senator Jacob K. Javits (R. NY) and participated in the drafting of ERISA. Mr. Gordon was a Department of Labor legal advisor to President Kennedy's Cabinet Committee on Corporate Pension Funds and received a United States Department of Labor Distinguished Achievement Award for his contribution to private pension improvement. Since 1975 he has been Chairman of the Advisory Board to the Bureau of National Affairs (BNA) Pension Reporter, and served on the ERISA Advisory Council representing the public. He is also on the Board of Directors of the Pension Rights Center of Washington, DC and is a member of the Board of the Pension Research Council of The Wharton School.

**Edward M. Gramlich** is Dean of the School of Public Policy Studies at the University of Michigan, where he is also professor of economics and public policy. He chaired the Advisory Council on Social Security from 1994 to 1996. Dr. Gramlich served in the Congressional Budget Office, the Office of Economic Opportunity, the Brookings Institution, and in 1992 was the staff director for the Economic Study commission of major league baseball. He has written several books on benefit-cost analysis, macroeconomics, budget policy, income redistribution, fiscal federalism, social security, and the economics of professional sports. He received his MA and PhD from Yale University.

**Eric A. Hanushek** is professor of economics and of public policy and director of the W. Allen Wallis Institute of Political Economy at the University of Rochester, and was previously deputy director of the Congressional Budget Office. His research focuses on public finance and public policy with special emphasis on education, incomes and wages, housing policy, social experimentation, statistical methodology, and the economics of discrimination. He currently is Chairman of the Panel on Retirement Income Modeling for the National Academy of Sciences/National Research Council. He received his PhD from MIT.

**Richard P. Hinz** is the director of the Office of Research and Economic Analysis in the Pension and Welfare Benefits Administration at the United States Department of Labor. Mr. Hinz directs a program of research on policy issues related to the private employee benefits system within the jurisdiction of ERISA. His office provides comprehensive statistics on ERISA plans through a variety of regular publications, funds work on employment-based health care financing and labor market issues, and conducts research on private pension benefits. Since 1991, through a program administered by the United State Department of Labor's Bureau of International Labor Affairs, he has pro-

vided technical assistance in the reform of social insurance programs and the development of private pension systems to the governments of the Czech Republic, Slovakia, Romania, Bulgaria, Poland, and Hungary. He has a MPA from Columbia University and is a CFA.

**Ping-Lung Hsin** is an associate research fellow at Chung-Hua Institution for Economic Research, Taipei, Taiwan. His research areas are public pensions, informal labor markets, and the evaluation of labor market programs and legislation. He received his PhD in labor economics from Cornell University.

**Robert M. Lang** is a vice president in the Municipal Securities Group of BA Securities, Inc., BankAmerica Corporation's investment banking division, where he works with states, cities, airport authorities, and other public entities that issue municipal securities. Mr. Lang, as part of a team of public finance professionals, helped develop the tool of taxable pension obligation bonds (POBS), sold to investors by state and local governments. Mr. Lang received his undergraduate degree from the University of California at Berkeley, with majors in political economy and political science and a minor in city and regional planning. He was trained in quantitative public finance and earned a Master's Policy degree from the Kennedy School of Government at Harvard University.

**Christopher A. Levell, ASA**, is a consulting actuary and Associate at William M. Mercer, Inc. He focuses on applying and developing sophisticated tools for retirement program forecasts and for solving client financial problems. His research also focuses on innovative methods of presenting information to clients. He is an Associate of the Society of Actuaries and has a BS in actuarial science from the University of Illinois.

**David D. McCarthy** is an operations research analyst for the Office of Research and Economic Analysis, Pension and Welfare Benefits Administration at the United States Department of Labor. His research explores aspects of the private pension system, including benefit levels, rates of return, portfolio turnover, and ERISA enforcement. He also oversees research contracts, conducts regulatory analysis, and provides analytical support for litigation. Mr. McCarthy holds a MS in operations research from George Washington University and a BA in mathematics from Amherst College.

**Olivia S. Mitchell** is the International Foundation of Employee Benefit Plans Professor of Insurance and Risk Management, and Executive Director of the Pension Research Council, at The Wharton School of the University of Pennsylvania. Concurrently she is a research associate at the National Bureau of Economic Research. Dr. Mitchell is a senior fellow of the University of Pennsylvania's Leonard Davis Institute and

research associate at the Population Studies Center, and serves on the Steering Committee for the Health and Retirement Survey at the University of Michigan. She previously taught labor economics at Cornell University for fifteen years and was a visiting scholar to Harvard University's Department of Economics. Dr. Mitchell received her MA and PhD in economics from the University of Wisconsin-Madison and her BA with honors in economics from Harvard University.

**Robert A. G. Monks** is a principal of LENS, Inc., which seeks to employ shareholder rights to make changes in poorly performing companies. Mr. Monks is also the founder of Institutional Shareholder Services, Inc., a leading corporate governance consulting firm advising shareholders. Past positions include service as a partner in a Boston law firm, vice president of the investment firm Gardner Associates, president and CEO of the New England-based energy company C. H. Spague & Son, member and later chairman of the board of directors for the bank holding company, Boston Company and its subsidiary, Boston Safe Deposit and Trust Co. In addition, Mr. Monks has been director of the United States Synthetic Fuels Corporation, member of Vice President Bush's Commission on Deregulation, administrator of the Office of Pension and Welfare Benefit Programs at the United States Department of Labor, and trustee of the Federal Employees Retirement System. Mr. Monks is a graduate of Harvard College, Cambridge University, and Harvard Law School.

**John E Porter** (R. 10th) of Illinois is serving his ninth term in the United States House of Representatives. Mr. Porter is a senior member of the House Appropriations Committee and is the Chairman of the Labor, Health and Human Services and Education Subcommittee. He also serves on the Foreign Operations Subcommittee, the Military Construction Subcommittee, and the Congressional Human Rights Caucus. He is a member of the Commission on Security and Cooperation in Europe, and co-founder of the Congressional Coalition on Population and Development. He received his undergraduate degree from Northwestern University and a law degree from the University of Michigan Law School. After admission to the Bar, he served as an Honor Law Graduate Attorney with the United States Department of Justice, practiced law in Evanston, Illinois, and served three terms in the Illinois House of Representatives.

**Anna M. Rappaport**, FSA, is a managing director of William M. Mercer, Inc. She is an actuary with many years of experience in consulting, research, and insurance company management, and consults with major clients on health care strategy, strategic benefit planning, retirement program management, and retiree health care. She is a member

of the Board of the Pension Research Council, a member of the National Academy of Social Insurance, and a Board Member of the Society of Actuaries. She is fellow of the Society of Actuaries and has an MBA from the University of Chicago.

**Sylvester J. Schieber** is the director of the Research and Information Center in Washington, DC and sits on the board of directors of Watson Wyatt Worldwide. He specializes in the analysis of public and private retirement policy and health policy issues. He previously served as research director of the Employee Benefit Research Institute, was deputy director in the Office of Policy Analysis at the Social Security Administration, and was deputy research director at the Department of Health and Human Services. He is currently a member of the Social Security Advisory Council and of the Board of the Pension Research Council. He received a PhD in economics from the University of Notre Dame.

**John A. Turner** is deputy director of the Office of Research and Economic Analysis, Pension and Welfare Benefits Administration at the United States Department of Labor, and adjunct professor of economics at George Washington University. Dr. Turner formerly worked in the research office of the Social Security Administration. He received a Fulbright Senior Scholar award to do pension research at the Institut de Recherches Economiques et Sociales in Paris in 1994. He has written or edited eight books on pensions and employer-provided health benefits, one of which has been translated into Japanese, and he has published numerous articles on pension and social security policy. He has a PhD in economics from the University of Chicago.

**Marc M. Twinney** is a fellow of the Society of Actuaries and is currently serving on the Social Security Advisory Council. Until March 1995 Mr. Twinney was director of pensions at Ford Motor Company. He has been a member of many professional groups, including the Conference of Consulting Actuaries, the Washington Pension Report Group, the private-sector consultants to the United States Civil Service system, and the board of directors of American Academy of Actuaries. He is a member of the Board of the Pension Research Council. He holds a BA in mathematics from Yale University and an MBA from Harvard University.

**Jack L. VanDerhei** is an associate professor of risk management and insurance at Temple University and previously served on The Wharton School faculty. He is on the Board of the Pension Research Council, and is currently an EBRI Fellow for the Employee Benefit Research Institute and editor of *Benefits Quarterly*. He has served as a consultant to the International Foundation of Employee Benefit Plans, the Pen-

sion Benefit Guaranty Corporation, and the United States Department of Labor. He received his PhD in insurance from The Wharton School.

**Mark J. Warshawsky** is an economist at TIAA-CREF, and was formerly a senior economist and staff assistant to the assistant commissioner for Employee Plans and Exempt Organizations at the Internal Revenue Service. He also served as a senior economist at the Federal Reserve Board and was a visiting scholar at the American Enterprise Institute. He has published in the field of retiree health benefits, pensions, and life insurance.

**Michael L. Young, FSA** is a consulting actuary and Principal at William M. Mercer, Inc. He works with insurance company managers; consults with clients on retirement program issues, including plan financial management, plan design, investment of assets, and measurement of liabilities; and has developed unique tools for constructing a bond portfolio to model and document discount rates for FAS 87 and FAS 106. He is a fellow of the Society of Actuaries and has a Master's degree in business statistics from the University of Wisconsin.



# Index

- Aaron, Henry, 225  
Account balance, 30  
Accounting for pensions, 107–138  
Accrual patterns in pensions, 30, 107–138  
Activism. *See* Governance  
Actuarial: assumptions, 135, 159; imbalance of Social Security, 220; methods, 163–166; pension liabilities, 25–26, 38–39, 42, 47, 107–138. *See also* Funding  
Adler, Lynn, 166, 171  
Administrative costs and pensions, 9–10, 187–205  
Age: and investment decisions, 8–9, 67–90, 92; at retirement, 2, 8, 17–28, 191, 221–222; discrimination, 17  
Aigner, Dennis, 193  
Alameda County, 174, 177  
Allis Chalmers Corporation, 117  
American Express Company, 146, 150  
Andrews, Emily, 188, 191–192, 194, 203  
Annuities, 4, 5, 117–119, 232  
Applebaum, Joseph, 129  
Asset: allocation decisions in pensions, 7–8, 44–64, 67–90, 91–103, 159–186; and Health Dynamics of the Oldest Old Study (AHEAD), 216; management, 6–7, 139–158. *See also* Bonds; Equities; Governance; Housing; Pension investment; Portfolio; Saving  
Automotive industry, 19  
  
Baby Boom and retirement, 6, 29–30, 48, 48, 233  
Bader, Lawrence, 127  
Balanced fund, 53. *See also* Indexed fund  
Bajtelsmit, Vickie, 8, 45, 92  
Bank of America, 144  
  
Bankruptcy, 113, 123, 172. *See also* Termination of pensions  
Barsky, Robert, 92  
Bauer, Paul, 202  
Behavioral decision theorists, 54  
Beller, Daniel, 202  
Benefit: accrual in a pension plan, 30, 107–138; payments from a pension, 71, 165. *See also* Pension plans  
Benefits manager, 7  
Berger, Allen, 195  
Bernasek, Nancy, 52, 56, 92  
Berg, Olena, 153  
Bernheim, B. Douglas, 48, 96  
Bipartisan Commission on Entitlement and Tax Reform, 226  
Blalock, Brad A., 29  
Bleakney, Thomas, 196  
Board of directors, 145, 168, 196. *See also* Governance; Trustees  
Bodie, Zvi 6, 10, 27, 52, 97  
Bonds, 52; in pension funds, 37, 51–59, 67–90, 91–103, 159–186. *See also* Investment  
Borden Corporation, 150  
Bosworth, Barry, 225  
Brancato, Carol, 140, 157  
Britain. *See* United Kingdom  
Buffett, Warren, 149  
Burtless, Gary, 225  
  
California, 160–161, 173  
California Public Employees' Retirement System (CalPERS), 144, 147–150, 152, 157  
Canada, 150  
Capital market risk, 4

- Carlsen, Melody, 189
- Caribbean, 189
- Carter, Hawley, Hale, 145
- Cash balance plan, 29–44. *See also* Pension plan types
- Cashouts. *See* Lump sums from pension plans
- Cash flow, 179
- Caswell, Jerry, 188, 191, 194–195, 202
- Chang, Semoon, 195, 202
- Chemical industry, 19
- Chile, 187
- Chow, Victor, 56, 92
- Citro, Constance, 10, 209
- Civil Service Retirement System, 93, 100.  
*See also* Federal employees
- Clark, Robert, 20
- College tuition, 49, 53
- Committee for Economic Development, 225
- Commodities, 168
- Communications: about pensions, 94, 150–151, 153; industry, 19
- Compensation, 2, 164; deferral, 4. *See also* Earnings
- Company stock in pensions, 7, 91–103. *See also* Employees
- Competition and pensions, 22
- Compustat, 122–123
- Conard, Alfred, 152
- Concentration and investments, 83
- Congress, 171
- Congressional Budget Office, 225, 227, 232
- Conservatism and investments, 45–66, 67–90, 91–103
- Construction industry, 6, 44, 188
- Conte, Michael, 54, 63
- Contributions, 4. *See also* Pension
- Cooper, Robert, 189, 194, 202
- Corporate: policy toward pensions, 8, 17–28; policy toward retirement, 8; governance and pensions, 137–158. *See also* Shareholders
- Cost/benefit ratios, 16
- Cost methods for pensions, 110–138. *See also* Actuarial methods
- Council of Institutional Investors, 142, 146, 152
- Coverage of pensions, 6, 19
- Crab, Connie, 189, 194
- Credit risk and rating, 170–171, 176
- Cultural factors, 93
- Cummins, David, 195
- Current Population Survey (CPS), 19, 46, 49, 210, 213
- Cutler, David, 225
- Data issues, 213
- Davis, Michael, 195, 202
- Deberg, Curtis, 120
- Debt: in pensions, 159–186; ratings, 175.  
*See also* Investment
- Decision theory, 52, 54
- Default, 182
- Deficit, government, 230
- Defined benefit pension plan, 29–44, 107–138, 177. *See also* Pension plan types
- Defined contribution pension plan, 45–66, 67–90, 91–103. *See also* Pension plan types
- Deller, Steven, 202
- Deutsche Bank, 139
- Disability 5, 16, 22, 63
- Discrimination on the basis of age, 17
- Diversification, 54–55, 67–90, 91–103. *See also* Asset; Investment
- Downsizing, 17, 29–30
- Drucker, Peter, 139, 145, 149, 152–153
- Drug industry, 19
- DYNASIM model, 213
- Early retirement window, 33. *See also* Retirement ages
- Earnings, 8, 16, 36, 45–66, 80–90, 92–102.  
*See also* Compensation
- Eastman Kodak Corporation, 150
- Education of plan participants, 74–90
- Efficiency and pensions, 9, 18, 189–205. *See also* Administrative costs
- Eitelberg, Cathie, 159, 162–169
- Elderly status, 6
- Election patterns in participant directed pension plans, 40, 67–90, 91–103. *See also* Pension investments
- Electronic industry, 19
- Eligibility for pensions, 19
- Employee Benefit Research Institute (EBRI), 46, 63, 74, 91
- Employee Retirement Income Security Act (ERISA) 7, 9, 19, 23, 53, 68–69, 108–138, 143, 162, 164
- Employee Stock Ownership Plan (ESOP), 54, 63, 144
- Employees, 2. *See also* Unions; Workforce

- Employers, 2, 68, 109; cost of pension plans, 16, 93, 118–138, 159–186; culture regarding pensions, 41, 139–158; policy toward pensions, 15–28, 107–138, 139–158; policy toward retirement, 15–28; stock in pension plan, 7, 8, 48, 53–62, 71, 75, 91–103, 137
- Employment, 29, 44, 182, 211
- Energy industry, 19
- Equity investment, 48, 57–59, 67–90, 91–103. *See also* Pension investments
- Equity securities, 52–54, 139–140, 169; funds, 75; in pension plans, 22, 51, 67–90, 91–103. *See also* Investment.
- Even, William, 100
- Exxon Corporation, 146, 154–157
- Farrell, M., 190
- Federal: budget, 225; employees, 56, 99; retirement system, 93, 157; Thrift Savings Plan (TSP), 56, 92–102, 227
- Fertility, 223
- Fidelity Investments, 53, 63
- Fiduciary, 69, 141, 154, 187
- Final average pay plan, 43, 107–138. *See also* Defined benefit pension plan
- Financial Accounting Standards Board (FASB), 118–127
- Financial: analysts, 118; counselors, 80; literacy, 50; risk, 9; statements, 118–120. *See also* pension investment, risk
- Finlay, Gary, 183–184
- Firefighters, 190
- Firm size, 6. *See also* Employers
- Fish, Jill, 152
- Fishel, Daniel, 153
- Fixed-income investments, 37, 53, 57–59, 67–90, 91–103, 159–186. *See also* Assets; Investments
- Ford Motor Company, 19
- Form 5500 information, 48, 74, 120–138, 188
- Forsund, F., 202
- France, 151
- Fresno, City of, 160, 174, 178
- Friedland, Robert, 220, 224
- Fries, James, 63
- Frontier function, 193–95. *See also* Administrative costs; Efficiency
- 401(k) plan, 49, 67–90, 91–103. *See also* Pension plan types
- 404(c) code, 70, 72
- Funding, 5, 9–10, 16, 107–138, 159–186, 201; future trends in, 131–132. *See also* Defined benefit pension plan; Pension funding and underfunding
- Garrett, Daniel, 96
- Gender and pension investments, 8, 55, 93–102
- General Agreement on Tariff and Trade (GATT), 115
- General Motors Corporation, 125, 137, 149
- Germany, 27
- Gillan, Stuart, 148
- Goodfellow, Gordon, 8, 53, 67
- Gordon Group, 147
- Gordon, Michael 7
- Governance, 139–158, 196
- Government budget deficit, 7
- Government Finance Officers Association (GFOA), 165
- Gramlich, Edward M., 10, 23, 220
- Greene, William, 202
- Greenwich Associates, 74
- Group Annuity Mortality (GAM), 116, 132
- Guaranteed Investment Contracts (GIC), 9, 36, 53, 57, 87, 135
- Gustman, Alan, 10
- Hadley, Jack, 195
- Hanushek, Eric, 10, 209
- Hardship withdrawals, 34
- Hayes, Kathy, 195, 202
- Health, 4, 5, 209, 211; and Retirement Study, 214, 216; care industry, 41
- Hewitt Associates, 53–54, 63
- Hirsch, Werner, 203
- Honeywell Corporation, 150
- Hospital, 41
- Housing wealth, 48, 50, 53
- Hsin, Ping-Lung, 9, 187, 196, 201
- Hinz, Richard P., 9, 56–57, 91
- Human resource policy 3, 16, 42
- Ibbotson Associates, 63, 99
- Iezzoni, Lisa, 195
- Illusion of control, 54
- Index: benchmark, 32; portfolio, 53, 57, 140, 179, 225
- Individual: accounts and Social Security, 10, 230–234; annuity contracts, 43; Retirement Accounts, 16

- Inflation, 16, 22, 24, 32, 36, 47, 51, 164, 222
- Information, 93, 163
- Infrastructure investments, 162
- Institute of Management and Administration, 67
- Institutional investors, 139–158. *See also* Pension investment
- Insurance companies, 48, 89, 92, 116
- Insurance for pensions, 33, 42, 107–138, 172. *See also* PBGC
- Interest rate on pension assets, 30–31, 116, 120–122, 130–131, 159–186, 192–193
- Internal Revenue Service (IRS), 6, 9, 107–138
- International: equity fund, 75–90; investments, 150
- Investment, 109; company, 177; concentration, 77, 83; internal rates of return, 223; knowledge, 50; patterns by age, 75–90; in pension funds, 2, 4, 6, 8, 32–33, 37, 45–66, 67–90, 91–103, 139–158, 231–234; practices in the public sector, 159–186; and regulation, 226; and risk, 16, 32–44, 47, 57, 71, 91, 159–186. *See also* Asset; Pension; Portfolio; Return; Risk
- Italy, 151
- James, Estelle, 189
- Jampani, Rama, 54, 63
- Japan, 150
- Jianakoplos, Nancy, 53, 56, 92
- Job mobility, 8, 16, 47, 50
- Job tenure, 50
- Joint and Survivor annuity, 34
- Jondrew, James, 202
- Juster, Thomas, 92
- Kahneman, Daniel, 54, 63
- Karande, Kiran, 92
- Kennickell, Arthur, 96
- Kimball, Miles, 92
- Kritzman, Mark, 72–74
- Kruse, Douglas, 54
- Kusko, Andrea, 102
- Labor force, 50. *See also* Employees; Unions
- Lang, Robert M., 9, 159
- Langbein, John, 153
- Large employers and pension plans, 7–8, 45–66, 107–138
- Latin America, 189
- Lease, Ronald, 92
- LENS Inc., 150
- Levell, Christopher A., 29
- Lewellen, Wilbur, 92
- Liability, 89, 111–138
- Liabilities of pension plans, 6, 107–138, 159–186
- Life: cycle, 61–62, 210; insurance company, 89, 92, 116; stages fund, 86
- Little, Arthur D., 48
- Loans 4, 8, 34
- Longshoremen, 44. *See also* Multi-employer pensions
- Los Angeles County, 173–174, 179
- Louisiana, Office of Legislative Auditor of the State of, 167
- Lovell, Knox, 193, 202
- Low-income households and pensions, 45
- Lump sums from pension plans, 4, 22, 30, 33–44, 47, 50
- Ma, Y., 127
- Management of pension plans, 139–158. *See also* Pension plan investments
- Marital status and pensions, 60, 95–102
- Market timing, 169
- Markland, Judith, 74
- McCarthy, David, 9, 91
- McDermid, Anne, 20
- McPherson, David, 100
- Medical benefits in retirement, 4
- Microsimulation models, 215–219
- Minorities and pensions, 45, 55
- Missouri, 183
- Mitchell, Olivia, 1, 6, 9, 10, 27, 187–189, 191–192, 194, 196–197, 201, 203
- Mittelstaedt, Fred, 120
- Mobility. *See* Job mobility
- Modeling of retirement income, 209–219
- Money management, 153, 170–171. *See also* Investment
- Monks, Robert M., 9, 156
- Moody's Investor Service, 176, 178, 185
- Mortality, 4, 16, 26, 34, 45, 109, 116, 130–131, 227. *See also* Annuities
- Mossin, Jean, 63
- Motivation, 3
- Multi-Employer Amendments Act, 6
- Multi-employer pension plans, 6, 44, 128–129, 135–136, 188–189
- Municipal: finance, 173; pension plans,

- 159–186, 187–205. *See also* Public pensions
- Munnell, Alicia, 62
- Musmeci, Jim, 63
- Musmeci, Joe, 63
- National Academy of Sciences, 10
- National Longitudinal Surveys, 210
- National Research Council, 209, 217
- Netherlands, 150
- New York City, 166
- New York Life Insurance Company, 92
- Niskanen, William, 203
- Nondiscrimination and pensions, 4, 24–25
- Normal retirement. *See* Retirement age
- Not-for-profit firm, 41
- Office of Management and Budget, 215
- Oil producing industry, 19
- Oliver L. L., 19
- Omnibus Reconciliation Act (OBRA), 124–126, 133–137
- Oppenheimer Funds poll, 73–74
- Orange County pension fund, 171–172
- Ownership, corporate 30. *See also* Governance
- Palacios, Robert, 189
- Palsson, A., 63
- Panel Publishers, 89
- Panel Study on Income Dynamics (PSID), 210
- Participants in pensions, 4
- Participant-directed pension investments, 45–66, 91–103. *See also* Pension investment
- Paternalism in pensions, 41
- Patterson, M. 19
- Pay and pensions, 18. *See also* Compensation; Earnings
- Payout method, 30. *See also* Annuities; Lump sums from pension plans
- Payroll tax, 222
- PENDAT datafile, 190
- Pension account balance, 60
- Pension and Welfare Benefits Administration, 209. *See also* U.S. Department of Labor
- Pension benefit and accrual, 24, 30, 43, 71, 107–138, 165–166
- Pension Benefit Guaranty Corporation (PBGC), 5, 6, 20, 33, 42, 107–138, 142
- Pension: board, 9; contributions, 4, 60, 92–102; costs, 118–124, 187–206; coverage, 6, 19; education, 47, 50; efficiency, 187–205; eligibility, 19; funding and underfunding, 4–6, 9, 24–26, 107–138, 159–186; governance, 139–158, 187–205; participation, 49, 68–69; portability, 16; reforms, 1; regulation, 2, 107–138; termination, 16, 22, 109; trends, 3, 5, 19–20, 46–47, 68–69, 140; vesting, 19
- Pension investment: and risk, 4, 9, 45–66, 91–103; in a self-directed plan, 8, 45–66, 67–90, 91–103, 234
- Pension liabilities 6, 24–27, 107–138
- Pension Obligation Bond, 9, 159–18
- Pension plan management, 70, 186–205. *See also* Governance; Investment
- Pension plan regulation 6–7, 22–27, 107–138
- Pension plan sponsors: private sector, 20–25; public sector, 159–186, 186–205
- Pension plan types: cash balance, 8, 29–44; defined benefit, 1, 5, 7, 9, 15–28, 29, 67, 107–138, 140–158, 163–164, 186–205; defined contribution, 1, 5, 7–8, 15–28, 29, 45–66, 67–90, 91–103; 401(k) 7, 15–28, 45–66, 67–90, 91–103, 108; 457 and 403(b), 49; hybrid, 8, 15–28, 29–44; multi-employer, 6; salary reduction, 49; target benefit, 30; thrift, 100
- Pillars of retirement, 226. *See also* World Bank
- Police and firefighter pension plans, 190, 197
- Population trends, 1, 45. *See also* Workforce
- Porter, John E., 10, 230, 233
- Portfolio, 70, 98; allocation, 54, 67–90, 92–102, 159–186; diversification, 38, 45–66, 91–103; management, 139–158, 186–205; standard deviation, 36; volatility, 70; theory, 6. *See also* Asset; Investment; Risk
- Poterba, James, 102
- Poverty line, 63
- Pratt, J., 55
- Premium for pension insurance, 33, 42. *See also* PBGC
- Price indexing, 222
- PRISM model, 211
- Private sector pension plan, 6
- Privatization, 187
- Productivity, 1, 18, 22, 227
- Proxy voting, 9, 152–157

- Prudent investments, 70
- Psychology and pensions, 4
- Public Pension Coordinating Council (PPCG), 163
- Public policy on pensions, 209–219. *See also* Retirement; Social Security
- Public sector pension plan, 6–7, 9, 142, 159–186, 187–205
- Race, 54
- Ransome, Roger, 62
- Rappaport, Anna M., 10, 18, 29
- Rates of return, 223. *See also* Investment
- Real estate, 168
- Recruitment, 3
- Reid, Gary, 187, 189, 201
- Relationship investing, 149–150
- Regier, Philip, 120
- Replacement rate, 18, 22, 39, 88
- Replacement workers, 17
- Reprisals, concern over, 147
- Retail trade sector 19
- Retirement, 8, 17–28, 29, 33–34, 130–131, 193–194, 221–222; income, 17, 209–219; modeling, 10, 209–219; needs, 17, 49, 221; planning, 49; security 1, 209–219. *See also* Actuarial
- Retirement policy, 1, 209–219
- Retirement Protection Act (RPA), 9, 20, 23, 109, 115–138
- Returns, 51, 159–186, 180–181. *See also* Asset; Investment
- Riley, William, 49, 56, 92
- Risk, 29, 80, 91, 108, 168, 178–179; aversion, 45–66, 92; bearing, 16, 29, 46; and earnings, 83; management in pension plan, 29, 42; pooling, 4; premium, 74; understanding of, 50, 52; and wealth, 61
- Robinson, Jim, 146
- Rohrer, Julie, 74
- Rollover, 75
- Romano, Roberta, 158
- Rudniki, Edward, 202
- Sacco, Tracy, 166, 171
- Salary reduction plan, 49. *See also* Earnings.
- Salomon Brothers, 150
- Samuelson, Paul, 52, 123
- Saving 224–225; and pensions, 45–66, 209–219
- Scale economies and pensions 4, 9, 194. *See also* Efficiency
- Schaffer, Susan, 177
- Schieber, Sylvester, 8, 19, 53, 67, 113, 225
- Schlarbaum, Gary, 92,
- Schmidt, Peter, 193, 202
- Schmitt, Ray, 17
- Scott Paper Company, 150,
- Sears Roebuck and Company, 150
- Securities. *See* Investments
- Securities and Exchange Commission (SEC), 150, 152
- Self-control and pensions, 4
- Service counted in pensions, 18, 36, 191
- Sex and pensions, 8. *See also* Women
- Shack-Marquez, Janice, 96
- Shapiro, Matthew, 92
- Shareholders and pension governance 9, 139–158. *See also* Monks, Robert M.
- Shearson Lehman Hutton, 94
- Shoven, John, 113
- Siegal, Jeremy, 51–52
- Siemens, Georg, 139
- Silverman, Celia, 46, 63
- Single employer pension, 114, 128–129
- Small cap equities, 170
- Small employers 6
- Smith, Robert, 197
- Smith, Roger, 74
- Slovic, Paul, 54, 63
- Socially responsible equity fund, 57. *See also* Governance
- Social Security, 22–23, 53, 89, 93, 96, 189, 211–213; Administration, 215, 220; Advisory Council, 7; benefits, 6, 45, 49, 51, 63, 211; insolvency, 1, 10, 221; and pension plan interaction, 211; reform prospects, 8, 10, 230–234; retirement age, 23, 220–229; tax, 23; Trustees, 220, 227; Trust Fund, 230–231
- Socioeconomic factors and pension investments, 8. *See also* Age; Earnings; Women
- Soft dollars in pensions, 148, 157
- Sonoma County, 174, 178
- South Africa, 143. *See also* Governance
- Spouse and survival benefits, 23
- Stable value funds. *See* Guaranteed Investment Contracts
- State aid intercept mechanism, 176
- State and local pensions, 142, 150–158, 159–186

- State legislatures and pensions, 160, 183
- Standard & Poors (S&P): Corporation,  
176, 178; index, 72, 94, 122, 172; rating,  
178, 181
- Starks, Laura, 148
- Steinmeier, Thomas, 10
- Stocks, 52; in pension funds, 51–59. *See also*  
Assets; Equities; Pension investment
- Stone & Webster, 150
- Studebaker Corporation, 110
- Subsidized early retirement, 34. *See also* Re-  
tirement; Age at retirement
- Such, Richard, 62
- Surplus in pension, 33, 107–138, 165. *See*  
*also* Pension funding
- Survey of Consumer Finances (SCF), 53, 92
- Takeovers, 151. *See also* Governance
- Tax-exempt bonds, 171
- Tax Reform Act (TRA), 174
- Taxes, 1, 4, 143, 162, 169, 181, 222; and So-  
cial Security, 23, 49, 222–224
- Teachers, 190, 197
- Tenure and pensions, 8. *See also* Service
- Teachers Insurance Annuities Association/  
College Retirement Equities Fund  
(TIAA-CREF), 43–44, 48, 54, 144
- Termination of pensions, 16, 42, 70,  
107–138
- Thrift plan. *See* Pension plan types
- Thrift Savings Plan (TSP), 92–102. *See also*  
Federal employees
- Tire industry, 19
- Tobit, 57, 97–101
- Transition to cash balance, 34
- Treasury securities, 32, 51, 94–102, 113,  
169, 183, 231. *See also* Assets; Pension  
investment
- Trowbridge, Charles, 100
- Trucking industry, 6
- Trust, 69
- Trustees of pension funds, 9, 140, 168–169,  
196
- Turner, John, 6, 9, 27, 91, 202,
- Turnover. *See* Job mobility
- Tversky, Amos, 54, 63
- Twinney, Marc, 1, 7, 15–28
- Uncertainty, 4, 212
- Underfunding. *See* Pension funding
- Unisex pension tables, 132
- Unions and pensions, 6–7, 20, 191, 198
- United Kingdom, 27, 150–151
- United States, 151; Department of Labor,  
48, 68–70, 91–92, 100, 143, 152, 188,  
215; Government Accounting Office, 93,  
234
- VanDerhei, Jack, 8, 45, 92
- Vesting, 16, 23, 69
- Voting pension proxies, 140–158
- Wages. *See* Earnings
- Wahal, Sunil, 147
- Wall Street, 141
- Warshawsky, Mark, 9, 107
- Washington, D.C., 27; and District pension  
plan, 7
- Wealth, 61, 92
- Weaver, Carolyn, 226
- Weiss, Mary, 195
- Westinghouse Corporation, 150
- Widowhood, 34
- Wilcox, David, 102
- Wilshire Associates, 147
- Williamson, Gordon, 51
- Williamson, Samuel, 63
- Women and pensions, 9, 34, 45–66, 92–  
102. *See also* Gender and pension invest-  
ments; Sex and pensions
- Workforce, 1, 4, 19, 29
- World War II, 25
- World Bank, 203, 226
- Wyatt Company, 74
- Yakoboski, Paul, 46, 49, 63
- Young, Michael, 29
- Zero-coupon bonds, 160
- Zinkhan, George, 92
- Zorn, Peter, 159, 162–169, 190–191, 203
- Zuckerman, Stephen, 195

# **The Pension Research Council**

The Pension Research Council of the Wharton School at the University of Pennsylvania is an organization committed to generating debate on key policy issues affecting pensions and other employee benefits. The Council sponsors interdisciplinary research on the entire range of private and social retirement security and related benefit plans in the United States and around the world and seek to broaden understanding of the complex arrangements through basic research into their economic, social, legal, actuarial, and financial foundations. Members of the Advisory Board of Council, appointed by the Dean of the Wharton School, are leaders in the employee benefits field. While they recognize the essential role of Social Security and other public sector income maintenance programs, they share a strong desire to strengthen private sector approaches to economic security.

## **Executive Director**

Olivia S. Mitchell, *International Foundation of Employee Benefit Plans Professor*, Department of Insurance and Risk Management, The Wharton School, University of Pennsylvania, Philadelphia

## **Institutional Members**

Bankers Trust Company  
Buck Consultants, Inc.  
Ford Motor Company  
General Electric Company  
John Hancock Mutual Life Insurance Company  
Hay/Huggins Company, Inc.  
Instituto Cultural de Seguridade Social  
Investment Company Institute  
J.P. Morgan Investment Management Inc.



Loomis, Sayles & Company, Inc.  
Management Compensation Group Southeast, Inc.  
William M. Mercer Companies, Inc.  
Merck & Company, Inc.  
Metropolitan Life Insurance Company, Inc.  
Morgan Stanley & Company  
Mutual of America Life Insurance Company  
KPMG Peat Marwick  
Price Waterhouse LLP  
The Principal Financial Group  
The Prudential Foundation  
The Segal Company  
TIAA-CREF  
The Variable Annuity Life Insurance Company  
Watson Wyatt Worldwide

## **Board**

Vincent Amoroso, FSA, *Principal*, KPMG Peat Marwick, Washington, DC  
Marshall E. Blume, *Howard Butcher Professor of Finance, Director, Rodney L. White Center for Financial Research*, The Wharton School, University of Pennsylvania, Philadelphia, PA  
Zvi Bodie, *Thomas Henry Carroll Ford Foundation Visiting Professor*, Graduate School of Business Administration, Harvard University, MA  
Michael S. Gordon, Esq., *Law Offices of Michael S. Gordon*, Washington, DC  
William B. Madden, *Senior Vice President*, SEI Corporation, Malvern, PA  
Judith F. Mazo, *Senior Vice President and Director of Research*, The Segal Company, New York, NY  
Alicia H. Munnell, *Assistant Secretary*, Office of Economic Policy, U.S. Department of the Treasury, Washington, DC  
Robert J. Myers, FSA, *International Consultant on Social Security*, Silver Spring, MD  
Richard Prosten, *Director*, Coordinated Bargaining and Research, Industrial Union Department, AFL-CIO, Washington, DC  
Anna M. Rappaport, FSA, *Managing Director*, William M. Mercer Inc., Chicago, IL  
Jerry S. Rosenbloom, *Frederick H. Ecker Professor of Insurance and Risk Management*, The Wharton School, University of Pennsylvania, Philadelphia, PA  
Sylvester J. Schieber, *Vice President and Director*, Research and Information Center, The Wyatt Company, Washington, DC  
Ray Schmitt, *Specialist in Social Legislation*, Congressional Research Service, Washington, DC

Richard B. Stanger, *National Director*, Employee Benefits Services, Price Waterhouse, Washington, DC

Marc M. Twinney, FSA, *Director*, Pension Department, Ford Motor Company, Dearborn, MI

Jack L. VanDerhei, *Associate Professor of Risk and Insurance*, Temple University, Philadelphia, PA

Paul H. Wenz, FSA, *Second Vice President and Actuary*, The Principal Financial Group, Des Moines, IA

Howard Young, FSA, *Adjunct Professor of Mathematics*, University of Michigan, Ann Arbor, MI

# Pension Research Council Publications

- Corporate Book Reserving for Postretirement Healthcare Benefits.* Dwight K. Bartlett, III, ed. 1990.
- An Economic Appraisal of Pension Tax Policy in the United States.* Richard A. Ippolito. 1990.
- Economics of Pension Insurance.* Richard A. Ippolito. 1989.
- Fundamentals of Private Pensions.* Dan M. McGill and Donald S. Grubbs, Jr. Sixth edition. 1988.
- Future of Pensions in the United States.* Raymond Schmitt, ed. 1993.
- Inflation and Pensions.* Susan M. Wachter. 1987.
- It's My Retirement Money, Take Good Care of It: The TIAA-CREF Story.* William C. Greenough. 1990.
- Joint Trust Pension Plans: Understanding and Administering Collectively Bargained Multiemployer Plans Under ERISA.* Daniel F. McGinn. 1977.
- Pension Mathematics with Numerical Illustrations.* Howard E. Winklevoss. Second edition. 1993.
- Pensions and the Economy: Sources, Uses, and Limitations of Data.* Zvi Bodie and Alicia H. Munnell, eds. 1992.
- Pensions, Economics and Public Policy.* Richard A. Ippolito. 1985.
- Positioning Pensions for the Twenty-First Century.* Michael S. Gordon, Olivia S. Mitchell, and Marc M. Twinney, eds. 1997.
- Providing Health Care Benefits in Retirement.* Judith F. Mazo, Anna M. Rappaport, and Sylvester J. Schieber, eds. 1994.
- Proxy Voting of Pension Plan Equity Securities.* Dan M. McGill, ed. 1989.
- Retirement Systems for Public Employees.* Thomas P. Bleakney. 1972.
- Retirement Systems in Japan.* Robert L. Clark. 1990.
- Search for a National Retirement Income Policy.* Jack L. VanDerhei, ed. 1987.
- Securing Employer-Based Pensions: An International Perspective.* Zvi Bodie, Olivia S. Mitchell, and John A. Turner, eds. 1996.
- Social Investing.* Dan M. McGill, ed. 1984.
- Social Security.* Robert J. Myers. Fourth edition. 1993.