WHEN WORKERS CALL THE SHOTS: CAN THEY ACHIEVE RETIREMENT SECURITY?

EDITED BY DALLAS L. SALISBURY

EBRI
Employee
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EBRI
EMPLOYEE BENEFIT RESEARCH INSTITUTE

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Education and Research Fund
2121 K Street, NW, Suite 600
Washington, DC 20037-1896
(202) 659-0670
e-mail to: publications @ EBRIorg.

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Table of Contents

List of Tables and Charts iii

Preface viii

About the Authors x

1. When Workers Call the Shots: Report on the May 11 EBRI-ERF Policy Forum, An Introduction 3
   Chris Conte, EBRI Fellow

Part One
The State of Participant-Directed Individual Account Retirement Plans Today and Critical Issues for Tomorrow

2. Participant-Directed Retirement Plans Today and Critical Issues for Tomorrow 9
   Paul Yakoboski, EBRI
   - Introduction 9
   - Salary Reduction Plan Sponsorship and Participation 9
     - Salary Reduction Plans as Primary Plans 11
   - Participant Contributions 13
   - Asset Allocation 13
   - Lump-Sum Distributions and Benefit Preservation 17
   - The Impact of Participant Education 19
     - Provision of Material 19
     - Financial Planning Information 20
     - Use and Impact of Material 21
   - Conclusion 22
   - References 22
   - Discussion After Yakoboski Presentation 23

Part Two
Educating Workers to Save for Retirement: The Participant Decision

3. The Relationship Revolution: A Return to Individual Responsibility 27
   Don Sauvigné, IBM
   - Introduction 27
   - The Employment Relationship 28
   - Retirement Security 28
   - Approaching Workers 30
   - Conclusion 30

4. Educating Workers to Save for Retirement: The Participation Decision at AT&T 31
   Dan Vinod, AT&T
   - Introduction 31
   - Factors Influencing the Personal Savings Rate 31
     - Cultural and Societal Factors 31

Political, Economic, and International Competition Factors ... 32
Intracompany, Demographic, and Personal Factors ... 32
Can 401(k) Plans Become a Primary Source of Retirement Income for the Average Worker? ... 32
AT&T DC Plan(s) ... 33
AT&T Direction: Total Remuneration, Retirement Income/Benefits, and Employee Communications/Education ... 33
Educational Efforts ... 33
How Do AT&T Plan Participation Rates Compare with the Industry? ... 34
AT&T Savings Plan Data Base ... 34
Plan Participation Patterns by Age Groups ... 34
Plan Participation Patterns by Gender and Race Groups ... 36
Does Targeting Attention to Nonparticipants Increase Their Participation? ... 36
Do Financial Education Seminars Contribute to Increased Participation? ... 36
Conclusion ... 36
Discussion After Sauvigné and Vinod Presentations ... 36

PART THREE
APPROPRIATE ASSET ALLOCATION: WHAT IS IT?

5. Appropriate Asset Allocation: What Is It? Investment Option Issues At Retirement ... 43
Brian Ternoey, A. Foster Higgins

6. Implementing Effective Asset Allocation ... 51
Dave Veeneman and Elizabeth McWhirter, Hewitt Associates
Introduction ... 51
Stage 1: Lifestyle Portfolios ... 51
Stage 2: Unlabelled Lifestyle Portfolios ... 51
Stage 3: Investment Neutral Portfolios ... 52
Investment Neutrality ... 53
Element No. 1: Cover the Full Risk Sprectrum ... 54
Element No. 2: Distribute Portfolios Evenly ... 55
Communication of the Portfolios ... 56
But Is It Rocket Science? ... 57
Conclusions and Recommendations ... 58
Discussion After Veeneman and Ternoey Presentations ... 58

PART FOUR
INFLUENCING WORKERS' DECISIONS THROUGH EDUCATION

7. Participants May Be Smarter Than We Think... ... 71
Robert Seraphin, Fidelity Investments
Discussion After Seraphin Presentation ... 74

8. Results from EBRI Survey on Participant Education in Defined Contribution Plans ... 75
Jack VanDerhei, EBRI
Introduction ... 75
Participant Level Findings ... 75
Participant Desire To Make Investment Decisions ... 76
Employer Education Efforts ... 76
Service Provider Findings ... 77

Noneducational Services Provided ... 78
Educational Service Provision ... 78
Types of Educational Services Provided ... 79
Participant Education Topics ... 80
Opinion of Service Providers on the Impact of Participant Education ... 81
Plan Sponsor Findings ... 82
Study Design ... 82
Response Rate and Sample Characteristics ... 82
Participant Education Topics ... 83
Investment Education Topics ... 83
Methods for Communicating Investment Education to Plan Participants ... 83
Impact of Size ... 83
Frequency of Message ... 83
Participation Rates ... 86
Asset Allocation ... 87
Impact of Participant Education: Univariate Analysis ... 88
Methods for Communicating Investment Education to Plan Participants ... 89
Conclusion ... 90

Part Five
SEC/DoL Perspective

9. Role for SEC to Promote Greater Participant Education in Directing Pension Plan Investments ... 97
Commissioner Richard Roberts, Securities and Exchange Commission
Introduction ... 97
Defined Contribution Plans ... 97
Simplified Prospectus ... 98
Fidelity No-Action Letter ... 99
Conclusion ... 100

10. The Role for the DoL in Participant Education ... 101
Olena Berg, Department of Labor
Discussion After Roberts and Berg Presentations ... 103

Part Six
Structuring Plans to Achieve Desired Outcomes: Research Findings

11. Structuring Plans to Achieve Desired Outcomes: Findings from the J.P. Morgan Participant Preference Model ... 109
Steve Saner, J.P. Morgan
Why Develop a Model of Participant Preferences? ... 109
How Was the Model Built? ... 109
How Is the Model Used? ... 109
What Else Can Be Modeled? ... 110
How Does the Model Handle Variables in Investment Options? ... 111
Are Preferences of Salaried and Hourly Employees Different? ... 111
How Will the Model Be Updated? ... 112
Discussion After Saner Presentation ... 112

Appendix: Policy Forum Participants ... 113

Tables and Charts

Tables

2.1 Salary Reduction Plan Sponsorship and Participation Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993 10
2.2 Salary Reduction Plan Primary Plan Status Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993 12
2.3 Salary Reduction Plan Participants Who Also Participate in a Defined Benefit Plan Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993 14
2.4 Participant Contribution Rates to Salary Reduction Plans by Plan Status, Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993 15
2.5 Distribution of Lump-Sum Recipients, Aggregate Amount of Most Recent Distribution, Mean and Median Amounts Received, Civilians Aged 16 and Over, by Selected Demographic Characteristics, 1993 17
2.6 Proportion of Lump-Sum Recipients Reporting Various Uses for Any Portion of Their Most Recent Distribution, Civilians Aged 16 and Over, by Selected Demographic Characteristics, 1993 18
4.1 AT&T Savings Plan Highlights 33
4.2 Overall Average Participation Rates: Industry Versus AT&T 34
4.3 AT&T Participation Rates by Age: Full-Time Management and Occupational Employees 35
4.4 AT&T Participation Rates by Gender and Race: Full-Time Occupational Employees 35
4.5 Financial Seminars and Plan Participation Increases by Gender and Race 35
5.1 Expected Returns 45
5.2 Historical Rates of Return, 1965–1994 46
6.1 "Common Sense" Asset Allocation Portfolios 53
6.2 Appropriate Risk Spectrum Positions of "Common Sense" Portfolios 53
6.3 Comparison of Efficient Points and Derived Portfolios 57
8.1 Distribution of the Participant-Directed Initiation Dates 83
8.2 Percentage of Plans with Various Methods of Communicating Investment Education Information, by Plan Size, 1994 84
8.3 Post-Enrollment Ongoing Education 86
8.4 Percentage of Eligibles Participating, by Type of Plan and Existence of Employer Match 87
8.5 Mean Participation Rates by Various Investment Education Topics, 401(k) Plans with Employer Contributions, 1994 87
8.6 Average Equity Allocation by Investment Education Topics, 1994 88
8.7 Average Guaranteed Investment Contract (GIC) and Money Market Fund Allocation by Investment Education Topics, 1994 89
8.8 Average Guaranteed Investment Contract (GIC), Fixed-Income Fund, and Money Market Fund Allocation by Investment Education Topics, 1994 90
8.9 Mean Participation Rates for Methods of Communicating Investment Education to Plan Participants in 401(k) Plans with Employer Matching Contributions, 1994 91
8.10 Average Equity Allocation of Methods for Communicating Investment Education to Plan Participants, 1994 92
8.11 Average Guaranteed Investment Contract (GIC), Fixed-Income, and Money Market Fund Allocation of Methods for Communicating Investment Education to Plan Participants, 1994 93
11.1 J.P. Morgan Plan Back Test (January 1993) 110
11.2 How Valuable Is Investment Help? 110

11.3 How Important Are Brand Image, Style, Fees? 111
11.4 Hourly/Union Participants Are Remarkably Similar to Salaried Participants 111
11.5 Hourly/Union Participants Are Remarkably Similar to Salaried Participants 112

Charts

2.1 Salary Reduction Plans, 1988 Versus 1993 11
2.2 Salary Reduction Participation Rates, by Worker Age, 1993 11
2.3 Salary Reduction Plan Participants Who View the Plan as Primary, 1988 Versus 1993 13
2.4 Participant Contribution Rates to Salary Reduction Plans, 1993 16
2.5 Preservation (or Lack Thereof) of Lump-Sum Distributions 19
5.1 Account Activity Under Expected Returns 45
5.2 Asset Mix Under Expected Returns 46
5.3 Account Activity Under Actual Returns: 1974–1994 47
5.4 Asset Mix Under Actual Returns: 1974–1994 47
5.5 Account Activity Under Actual Returns: 1972–1989 48
5.6 Asset Mix Under Actual Returns: 1974–1984 49
5.7 Account Activity: Cost-of-Living Adjustments Versus Flat Payment, 1974–1994 49
5.8 Asset Mix Under Cost-of-Living Adjustments, 1974–1984 50
6.1 The Efficient Frontier 54
6.2 Efficient Points and Derived Portfolios 55
6.3 Comparison of Efficient Points and Derived Portfolios 57
7.1a Case Study: History 72
7.1b Case Study: Challenges 72
7.2 Comprehensive Communication Campaign Timeline (Months) 72
7.3 Communications That Focus on the Investor 72
7.4 Communications That Focus on the Investor 73
7.5 Investment Guide Logic 73
7.6a Case Study: Results 73
7.6b Case Study: Lessons Learned 73
8.1 Services to Participant-Directed Plans by Plan Total and by Plan Type 78
8.2 Services to Participant-Directed Plans by Participant Total and by Plan Type 79
8.3 Percentage of Plans That Were Offered Educational Services and Plans That Contracted for the Offered Services 80
8.4 Service Providers' Response to the Believed Effect of Educational Materials Supplied on Participants' Investment Behavior, by Number of Providers Responding 81

Preface

The distinction between employment-based pensions and individual saving for retirement has become blurred by the growth of salary reduction plans as both primary and supplemental vehicles. Such plans—401(k), 403(b), 457, and individual retirement accounts (IRAs)—involve explicit worker decision making in areas such as participation, contribution levels, and asset allocation. These decisions will directly impact retirement income security for future generations of retirees.

The growth of these defined contribution plans has given many workers their first opportunity ever to save through a work-based, tax-deferred, retirement savings plan. For others it is an opportunity they have had for decades. Regardless, the vast majority of Americans have always needed to engage in personal savings in order to have a great retirement income situation. The nation has not always been clear about that need. We have frequently just assumed that Social Security, plus action taken by our employers or unions, would allow us to lead the good life. Continuation of labor market restructuring, global competition, and reports from the Social Security system trustees that Social Security cannot be sustained as we know it today have increased attention to the need for the individual to take action. This realization of the need for individual action has raised concerns among employers, unions, financial professionals, the media, and public officials about whether individuals have the necessary education and tools to make informed decisions about saving and investing. Much of this attention has been focused on participant-directed retirement accounts such as IRAs and 401(k), 457, and 403(b) plans as well as other similar programs.

In order to explore the issues surrounding the process of worker decision making in salary reduction plans, efforts to educate workers for this task, and the policy implications for savings and retirement income security, the Employee Benefit Research Institute's Education and Research Fund (EBRI-ERF) sponsored a policy forum in Washington, DC, on May 11, 1995 on the topic: "When Workers Call the Shots: Can They Achieve Retirement Security?" The policy forum brought together government officials, corporate executives, financial managers, employee benefit professionals, and representatives from academia, research organizations, and media to discuss these issues.

The papers included in this volume were originally prepared for the policy forum. The session included an active discussion among the authors and the more than 110 invited participants with an interest in savings and retirement income security issues.

This book integrates the papers and proceedings of the policy forum into a single work. The introduction written by Chris Conte, a former *Wall Street Journal* reporter and editor who is now self-employed as a writer and an EBRI Fellow, sets the stage for the remaining sections of the publication. Conte highlights segments of the discussion, weaving them into an eloquent synopsis of the entire session.

The first part of the book provides background information on the current status of participant-directed retirement accounts and outlines critical issues for the future. The paper is written by Paul Yakoboski, of EBRI, and provides data and statistics on these accounts, participation and contribution levels, and what we currently know about how the assets in these accounts are allocated.

The next part of the book examines the participation decision. Don Sauvigne, of IBM, and Dan Vinod, of AT&T, discuss the factors that each of their companies has learned are critical in attracting new participants to long-term savings programs. They share their companies' experiences with various methods used to increase participation levels and provide analysis of data collected about their retirement savings programs.

The third section of the book discusses the issue of appropriate asset allocation. Brian Ternoey, of A. Foster Higgins, and Dave Veeneman, of Hewitt Associates, investigate in their respective papers the issues that are considered in the participants' asset allocation decisions and those issues that should be taken into account. The issues of appropriate time horizons and tradeoffs resulting from various risk factors are explored.

The fourth section of the book deals with how much education can influence workers' decisions in these self-directed retirement savings plans. Bob Seraphin, of Fidelity Investments, and Jack VanDerhei, of EBRI, provide support for the fact that with education workers can, and do, make wise decisions regarding their participation in self-directed retirement plans. At the forum, Jack VanDerhei presented

preliminary results of EBRI's participant education surveys of employers and service providers, part of the Institute's Defined Contribution Project. However, since that time final results and a summary report on the survey findings have been completed, and we have included that summary report in place of the preliminary results presented at the forum.

In the following section of the publication, Richard Roberts, formerly commissioner of the Securities and Exchange Commission, and Olena Berg, assistant secretary of the Pension and Welfare Benefits Administration at the Department of Labor, provide overviews of participant education from a regulatory perspective. The implications of research findings are discussed from a public policy standpoint, and implications of current practices are reviewed as well.

The final section of the book presents the most recent data from the J.P. Morgan model used for measuring worker preferences for features of self-directed retirement plans. Steve Saner, of J.P. Morgan provides examples of how a plan sponsor can design a retirement plan in order to achieve specific outcomes.

The purpose of this book is to share the knowledge gained at the EBRI-ERF policy forum with a wider audience who are interested in savings and retirement income security issues. We wish to acknowledge the generous contributions of the sponsors of EBRI's Defined Contribution Project, which played a major role in framing the issues discussed at the policy forum. The sponsors are: American Council of Life Insurance, American Express Institutional Services, AT&T, Bankers Trust Co., Diversified Investment Advisors, Fidelity Investment Retirement Services, Hewitt & Associates, Hewlett-Packard Co., Investment Company Institute, Massachusetts Mutual Life Insurance. Co., Merrill Lynch, MetLife Insurance Co., Morgan Guaranty Trust Company, N.Y. Life Insurance Co., Principal Financial Corporation, Prudential Defined Contribution Services, State Street Bank, TIAA/CREF, U.S. Department of Labor, and U.S. Securities and Exchange Commission. We also wish to thank the speakers and participants for their substantial contributions to this book. We offer special thanks to the EBRI staff who contributed to the book's publication: Laura Bos, Kathy Stokes Murray, and Edina Rheem for their role in planning the policy forum; Deborah Holmes for copyediting the papers and comments; Cheri Meyer and Ana Validzic for preparing the papers for publication; Cindy O'Connor for layout and design of the final publication; and Carolyn Pemberton for guiding the book throughout the editing and production process. The book cover was designed by Designsmith and illustrated by Chris Angrisani.

The views expressed in this book are solely those of the authors and participants. They should not be attributed to officers, trustees, members of EBRI, its staff, or its Education and Research Fund. In publishing the book, EBRI-ERF is making no effort to influence any specific legislation.

Dallas L. Salisbury
President, EBRI
December 1995

About the Authors

Olena Berg is serving her second year as assistant secretary for the U.S. Department of Labor's Pension and Welfare Benefits Administration. Prior to this position, Ms. Berg was chief deputy treasurer for California. Before that, she was involved in the investment of California's public employees' and teachers' pension plans. Ms. Berg's initial experience in California state government from 1975 through 1982 included serving in the departments of finance and benefit payments. She also worked for the business and transportation agency and as chief director for the department of housing and community development. Ms. Berg graduated from California State University at Chico in 1974 and earned her M.B.A. from Harvard in 1984.

Richard Roberts was sworn in as commissioner of the U.S. Securities and Exchange Commission on October 1, 1990. His term expired June 1995. Prior to being nominated to the commission, Mr. Roberts was in the private practice of law with the Washington office of Miller, Hamilton, Snider, Odom & Bridgeman, an Alabama law firm. Before joining the law firm in April 1990, Mr. Roberts was administrative assistant and legislative director for Sen. Richard Shelby (D-AL), a position he assumed in 1987. Prior to that, Mr. Roberts worked in the private practice of law in Alabama and also as administrative assistant and legislative director for then Congressman Shelby. Mr. Roberts is a 1976 graduate of the University of Alabama School of Law and a 1973 graduate of Auburn University. He also received a Master of Law in taxation from the George Washington University National Law Center in 1981.

Dallas Salisbury has been president of EBRI since its establishment in 1978. Prior to joining EBRI, Mr. Salisbury served on the staff of the Washington State Legislature, at the U.S. Department of Justice, as assistant executive director for policy at the Pension Benefit Guaranty Corporation, and as acting assistant administrator for policy, planning and research of the Pension and Welfare Benefits Administration, U.S. Department of Labor. Before entering the employee benefits field, Mr. Salisbury held positions in banking, retailing, and government in the State of Washington and government positions in Washington, DC. He holds a B.A. in finance from the University of Washington and an M.B.A. in public policy and administration from the Maxwell School at Syracuse University.

Steven J. Saner is vice president at J.P. Morgan Investment. Mr. Saner is responsible for J.P. Morgan Investment's defined contribution plan business and also manages several client relationships. He joined Morgan in 1972 and held a number of client banking assignments domestically and overseas. For the four years prior to moving to J.P. Morgan Investment in 1991, he was head of the Employee Benefit Finance and Investment Department. Mr. Saner received his B.S.E. from Princeton University and his M.B.A. from Columbia University.

Donald Sauvigné is program director, retirement and capital accumulation programs, for the IBM Corporation. A long service IBM employee, Mr. Sauvigné has held numerous staff and leadership positions at several locations and one international unit. Currently, he manages the design and administration of IBM's retirement and capital accumulation programs. This includes a 401(k) plan with over 190,000 accounts and assets in excess of $7 billion and a retirement plan covering 100,000 active participants with a $27 billion trust. Mr. Sauvigné's expertise lies in the areas of medical plan design, 401(k) development, pension plan design, and related administration. Mr. Sauvigné received a B.A. in business administration from Providence College and an M.B.A. from Syracuse University.

Robert M. Seraphin is vice president of communication and education at Fidelity Investments-Institutional Retirement Services Company. Mr. Seraphin is responsible for the development and delivery of FIRSCO's employee communication and investment education products and services. He has over 20 years of experience in communication management. Before joining Fidelity in 1992, Mr. Seraphin spent 11 years as a communications consultant and practice leader, mostly with Towers Perrin. He has been director of communications for Albany International Corporation and manager of investor relations for Textron Inc., a Fortune 100 conglomerate. Early in his career, Mr. Seraphin was a Navy pilot and public affairs officer. Mr. Seraphin holds a B.S. in economics from Villanova University and an M.S. in public relations from Boston University.

Brian Ternoey is national director of Foster Higgins' Investment Services Practice. Mr. Ternoey specializes in investment aspects of benefit plans and is particularly

known for innovative solutions to client problems. Mr. Ternoey has 22 years of wide-ranging benefits experience, including a decade of client consulting. He also has extensive experience in design, funding, communications and investment policy implementation for savings plans. Mr. Ternoey's paper, *Investment Options Issues at Retirement*, is based on client assignments over the last several years. This includes 14 Fortune 500 companies, several government plans with as many as 60,000 participants, and several plans with as few as 300 participants.

Jack VanDerhei is an associate professor at Temple University and also an EBRI Fellow. Prior to this, Dr. VanDerhei was a faculty member at the Wharton School of the University of Pennsylvania for eight years. He is a member of the Pension Research Council and has served as a consultant for the Pension Benefit Guaranty Corporation, U.S. Department of Labor, and the International Foundation of Employee Benefit Plans. Dr. VanDerhei holds a B.B.A. and M.B.A. from the University of Wisconsin and an M.A. and a Ph.D. in economics from the Wharton School.

David Veeneman is the national practice leader for investment education with Hewitt Associates LLC. Mr. Veeneman has been involved with pension and defined contribution investing for over a decade as both an investment manager and an investment consultant. His particular areas of expertise are stable value investments and defined contribution investing. Mr. Veeneman holds a B.A. and J.D. from Vanderbilt University. Before entering the pension investing business, he practiced law in the areas of securities and insurance law.

Dan Vinod is currently the district manager, benefits planning, at AT&T. He is responsible for the company's global strategy for defined benefit plans, defined contribution plans, broad-based deferred compensation plans, and stock purchase plans. Mr. Vinod is also responsible for AT&T's annual report on total remuneration. Prior to this, Mr. Vinod held corporate positions in compensation, data systems, and operations research at AT&T and Western Electric Company. Mr. Vinod received his B.S. in mechanical engineering from the University of Poona, in India. He has professional and master's degrees in operations research from Columbia University.

Paul Yakoboski is a research associate with EBRI, specializing in pension and retirement income security issues. His current research focuses on pension coverage and participation trends, lump-sum distributions and benefit preservation, and the future retirement income security of today's workers. He has a B.S. in economics from Virginia Polytechnic and State University and an M.A. and Ph.D. in economics from the University of Rochester. Before joining EBRI in 1991, Dr. Yakoboski was a senior economist with the Human Resources Division of the U.S. General Accounting Office.

INTRODUCTION

Chapter 1: When Workers Call the Shots: Report on the May 11 EBRI-ERF Policy Forum, An Introduction

Chris Conte, EBRI Fellow

"Retirement income policy and adequecy have been discussed for many years. They are issues that will never go away. Participant education, savings education, and investment education are subjects destined to be with us for decades to come. However, we are at the early stages of developing the best approaches to this education. Major research by the Employee Benefit Research Institute (EBRI) is documenting the activity and analyzing the results," said EBRI President Dallas Salisbury at the start of the policy forum.

The glass is half full.

While headlines bring a steady drumbeat of pessimistic projections concerning the financial prospects of future retirees, participants in an Employee Benefit Research Institute-Education and Research Fund (EBRI-ERF) policy forum May 11 painted a brighter picture. Yes, there are concerns, but Americans are approaching the next century with considerable strengths as well. Contrary to widespread belief, baby boomers actually are fairly well positioned for this stage of their life cycle; many Americans are eager to assume responsibility for their long-term financial security; and the government wants to help—not regulate—employers in educating workers about how to provide for themselves in retirement.

However, the battle is far from won. As EBRI Research Associate Paul Yakoboski noted, 63 percent of all workers still don't have the option of setting aside money in 401(k)-type plans. Moreover, 35 percent of workers whose employers have such plans don't participate in them, 30 percent don't know if their employers are willing to match their contributions, and 27 percent don't even know what they're contributing themselves. And fewer than one-half of all those who received lump-sum distributions from their retirement plans—because they changed jobs, for instance—preserved even a portion of the money.

Forum participants generally agreed there's no single, magic way to improve that record. There clearly are tools to accomplish the task. The challenge is getting people to use them. If the forum produced any single conclusion, it probably was that the answer lies in culture and attitudes—a broader and deeper awareness by employers and employees alike of the individual's growing responsibility to provide for his or her own future.

"We are in the throes of a revolution in the employment relationship," said Donald Sauvigné, program director for retirement and capital accumulation programs at IBM. "The individual must do more through his lifetime in saving for retirement security."

Robert Seraphin, vice president of communication and education at Fidelity Institutional Retirement Services Co., noted that the need for self-reliance reflects, in part, "some erosion...of the social contract in the work place." But, he suggested, the new paradigm is now deeply rooted. "Most of us are working in organizations where we are managing to the truly empowered employee, someone who comes to work and knows the rules and knows what their skills are, and makes decisions on a day to day basis without a lot of management intervention," he argued. "I submit that it's the same philosophy that should guide us in running our benefits programs—and...our 401(k) plans in particular."

The situation is more hopeful than doom-sayers suggest. Yakoboski said that if the economy continues to grow and current federal programs remain in effect—an assumption he conceded may not prove justified—baby boomers are likely to be "better off" in retirement than their parents. However, they may not be able to maintain their current standard of living unless they heed the call to start planning and saving.

A growing number of Americans are getting the message. Whether driven by diminished support from employers, uncertainty about the future of Social Security or a desire to maintain a comfortable lifestyle in retirement, the market for self-directed pension plans is booming. The number of participants in 401(k) type plans has soared from 4.1 million to 20 million in less than a decade, reported Olena Berg, assistant secretary of labor. And while almost two-thirds of all workers still don't have such plans, the

portion that do rose steadily from 27 percent in 1988 to 37 percent just five years later, according to EBRI's Yakoboski.

Among workers whose employers offer such plans, the participation rate climbed from 57 percent to 65 percent over the same period. But perhaps most significantly, according to Yakoboski, almost three-quarters of all participants consider their salary reduction plans to be their primary retirement-savings instruments. Even among people who have both defined benefit plans and defined contribution plans, 60 percent now consider the salary-reduction plan to be their primary retirement vehicle—up from about one-third just five years ago.

To Yakoboski, these figures suggest employees are eager for more information and guidance in directing their plans. "If more are viewing the plan as their primary vehicles, they are more likely to take an active interest in it," he said. "They are going to want more information about their plan. They're going to want more education about how to utilize their plan fully."

The biggest problem, of course, is how to reach employees who don't participate at all. No single strategy emerged as a clear favorite. "I don't think there is one silver bullet, if you will, in the communicator's arsenal that solves the whole problem," said Fidelity's Seraphin. He described a campaign where posters, flyers, payroll stuffers, E-mail messages, brochures, and fund performance information all were rolled out in a long-running multi-media campaign.

IBM's Sauvigné said his company sends letters directly to nonparticipants, issues its own glossy newsletter to participants and nonparticipants alike, "bombards" employees monthly on electronic bulletin boards, and makes various electronic media and software available to help workers think about their future financial needs. Whether it's that massive communications effort or the fact that IBM employees have been shaken by upheavals that have seen the company cut its work force in half since 1986, fully 92 percent of IBM's employees participate in the company's plan. Still, Sauvigné opined, "We are the fortunate few."

Employers also can help entice workers to participate by eliminating the traditional waiting period before new employees become eligible to enroll, as IBM did. And Yakoboski suggested that the participation rate rises about seven percentage points when employers offer to match employee contributions. But a number of forum participants suggested that the employers' biggest contribution may be more subtle: organizations that have the most success, they noted, appear to be those where there is trust and a broad commitment to the idea of saving for retirement.

"When participation is low, a frequently cited reason is (that employees) don't trust the employer," noted Brian Ternoey, national director of Foster Higgins' Investment Services Practice. David Veeneman, national practice leader for investment education with Hewitt Associates LLC, agreed, noting that trusting relationships at the line level are especially important in persuading younger employees to participate. Where participation rates are high, he said, "a common factor that seems to be coming out is the manager went to the individual, took them aside, put their arm around their shoulder and said, 'You really ought to think about this...we don't want to tell you what you ought to do, but give it some thought.'"

Veeneman noted that in the last year, two of Hewitt's employer clients launched education campaigns that focused on managers rather than employees. The idea: "to enroll them in the effort and to make them enthusiastic supporters of the program." But, he said, it's important that employers avoid becoming heavy handed. Individual employees shouldn't be targeted, and managers should give friendly advice rather than engaging in a hard sell. "One of the things that was emphasized," he said, "is do not sell, do not try to get employees to change what they're doing. (Instead), raise awareness."

Joel Dickson of the Federal Reserve Bank underscored the need for employers to serve as objective sources of information. There's no dearth of self-serving advice from parties with a vested interest, he noted. Brokers, bankers, insurance agents, and lawyers all are eager to "help" retirees dispose of their nest eggs. "Are we just adding to the overall level of confusion, and making it even more difficult for those investors?" he asked.

But how do you clarify the choices employees must make? There are, Veeneman noted, no definitive answers as to the best way to invest a retirement nest egg. "The management of investments is not rocket science," agreed Howard Fluhr of the Segal Company. "Rocket science is a lot easier."

As if to confirm Fluhr's observation, some forum participants questioned several tenants of the conventional wisdom concerning investing for retirement. For instance, it's common to bemoan the fact that participants in self-directed pension plans are heavily invested in guaranteed investment contracts (GICs). But the commitment to GICs appears less lopsided when it's considered that many GIC investors are older workers who have good reason to be concentrating on preserving their capital, or that tax law gives investors an incentive to concentrate their fixed income investments in tax-deferred pension plans while holding equities outside of such plans.

Similarly, Dan Vinod, district manager for benefits planning at AT&T, voiced concern that plan participants

are being oversold on the idea that stocks are the best long-term investment. Veeneman agreed, suggesting investors should be cautioned that it sometimes takes a long time for the potential returns on equities to be realized. And Toerney argued that the degree of diversification in plan participants' portfolios may be a better measure of how well they are investing than how much of their assets they put in equities.

Still, it was agreed, there are some truths that employers can impart: that it's important to save—and to start doing so early in order to take advantage of the powers of compounding; that some intuitively appealing investment strategies—Ternoey cited the example of an employee who puts his money in bonds because they are a "middle of the road" option between equities and cash—don't make economic sense; that there are investment options, as Veeneman put it, between stuffing your money in a mattress and "bungee jumping;" and that it's essential to take a long-term approach to investing—as George Cowles of Bankers Trust noted, even someone retiring in his early sixties could have an investment horizon of 20 or more years.

More generally, participants suggested, management should help employees understand the implications of their choices. It may be true, as Toerney suggested, that each individual must judge for himself or herself what is best. But employers can remind employees of the need to account for inflation in charting an investment strategy, or whether an investor pursuing a very conservative approach stands much chance of achieving financial security in retirement, and how long—based on historic patterns—it may take for a very aggressive investment strategy to bear fruit.

Forum participants discussed a variety of techniques for driving home the trade-off between risk and potential return, and they noted that there are alternatives—such as life strategy and balanced funds—by which employees who aren't interested in managing their investments day to day can realize returns comparable to those achieved by investment professionals.

But some participants observed that mechanistic educational approaches don't work. For instance, sample portfolios used to help employees make decisions about how to allocate their assets sometimes can be hard to apply to individuals' circumstances. David Jepson of the Frank Russell Co. said that one out of four plan participants finds he or she doesn't fit any of the categories covered by the illustrations; he cited specifically the "starting overs," people who for one reason or another have depleted their nest eggs at middle age and must begin saving for retirement fairly late in life.

The search for models that fit every employee's situation led one company to ask Hewitt to devise 30 different sample portfolios. Whether this covered all possible circumstances faced by the company's employees is unknown, but it raises another question: to what extent do sample portfolios themselves effectively take decision-making away from employees?

The consensus at the forum was that showing employees sample portfolios doesn't stray over the line separating investment education from advice, and that employers who use these devices therefore needn't be concerned about incurring financial liability for their employees' financial results.

In fact, Assistant Labor Secretary Berg offered soothing words on the government's approach to distinguishing between offering education and advice. "It's hard to articulate exactly a bright line test, but we recognize the importance of encouraging people to do more rather than less," she said. "In all the materials that I've seen...I have yet to see a program that, in my mind, crosses the line and becomes investment advice...rather than participant education."

The Labor Department's Pension and Welfare Benefits Administration, which Berg heads, currently is drawing up an interpretive bulletin to help clarify how far employers can go in educating plan participants without crossing the line and offering advice. But she stressed that the goal is to provide "comfort" to employers, and she pledged to consult employers before it is issued. "The interpretive bulletin is not going to be issued unless it's going to be helpful to the plan sponsor community," she said.

That left forum participants with a clear focus on education. Given the difficulty of reaching all employees and the complexity of providing meaningful assistance to those who have been reached, it's clear that will be the emphasis for some time to come. "Not only do the investor education programs that are being presented need to be improved, I think, most importantly, that the frequency needs to be increased," said Securities and Exchange Commissioner Richard Roberts.[1] "Investors don't absorb the information very quickly. I think you have to hit them over and over again."

"They have a saying in India," said AT&T's Dan Vinod. "A lake is formed one drop at a time."

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[1] Since this policy forum took place, Roberts has completed his term as Securities and Exchange Commissioner.

PART ONE

THE STATE OF PARTICIPANT-DIRECTED INDIVIDUAL ACCOUNT RETIREMENT PLANS TODAY AND CRITICAL ISSUES FOR TOMORROW

Chapter 2: *Participant-Directed Retirement Plans Today and Critical Issues for Tomorrow*

Paul Yakoboski, EBRI

Introduction

The Employee Retirement Income Security Act of 1974 (ERISA) defined pensions for the first time. That definition included both defined benefit and defined contribution plans. It included as "pensions" many plans that had traditionally been aimed at saving and capital accumulation, with retirement income as a secondary objective.

Subsequent laws and regulations expanded defined contribution plans, made lump-sum distributions more common, and expanded the ability to borrow or withdraw from plans prior to retirement. At the same time, concern over job change, training and retraining, medical care financing, and long-term care financing has entered the public consciousness. Articles asking "Why Retire?" and advocating "The End of Retirement" are increasingly common.

Against this backdrop there has been a debate of late over whether the baby boomers and later generations will have an adequate retirement income.[1] The ultimate answer will to a large degree depend on ongoing developments in the employment-based retirement plan marketplace and individual saving behavior. However, the distinction between employment-based retirement plans and individual saving continues to blur as individuals can now save a portion of their salary on a tax-preferred basis through employment-based salary reduction plans such as 401(k) plans. Such plans involve explicit decisionmaking on the part of workers that will directly impact their retirement income security. An issue with these plans is whether, in terms of knowledge, workers are in a position, or can be put in a position through education, to make wise decisions that will lead to sufficient capital accumulation.

This paper presents data on the decisions that workers are currently making with regard to such plans. It examines the fraction of workers with an employer offering a salary reduction arrangement, the percentage choosing to participate in the plan, and how these percentages have changed over time. It also explores worker contribution rates and asset allocation decisions. In addition, it examines what workers do with lump-sum distributions received when they leave a job (i.e., do they roll them over and preserve them for retirement or do they use them for some other purpose). Finally, the paper presents some survey evidence regarding the impact of participant education efforts.

[1] For a full discussion of this issue, see Dallas L. Salisbury and Nora Super Jones, eds., *Retirement in the 21st Century...Ready or Not...* (Washington, DC: Employee Benefit Research Institute, 1994).

Salary Reduction Plan Sponsorship and Participation

Salary reduction plans continue to grow as a significant element of the employment-based economic security system. The percentage of civilian nonagricultural wage and salary workers with an employer that sponsors a salary reduction plan (the sponsorship rate) increased from 26.9 percent (27.4 million workers) in 1988 to 36.8 percent (38.9 million workers) in 1993 (table 2.1, chart 2.1). Over the same time period, the fraction of participating workers among those where a salary reduction plan was sponsored (the sponsored participation rate) increased from 57.0 percent to 64.6 percent (table 2.1, chart 2.1). Therefore, more workers are being offered such a plan, and more workers are choosing to participate in a plan when offered. The combined effect means that an increasing fraction of all workers are participating in such plans; the participation rate rose from 15.3 percent (15.6 million workers) in 1988 to 23.8 percent (25.2 million workers) in 1993. The growth in salary reduction plan sponsorship and participation has occurred across almost all worker and job-related characteristics.

The likelihood of salary reduction plan sponsorship and participation increased with annual hours worked, job tenure, firm size, and annual earnings (table 2.1). Workers with the federal government were the most likely to have a plan available, 59.7 percent, compared with 42.8 percent for state and local employees and 34.9 percent for private-

Table 2.1

Salary Reduction Plan Sponsorship and Participation Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993

	Total Workers		Sponsorship Rate[a]		Participation Rate[b]		Sponsored Participation Rate[c]	
	1988	1993	1988	1993	1988	1993	1988	1993
	(thousands)				(percentage)			
Total	101,744	105,815	26.9%	36.8%	15.3%	23.8%	57.0%	64.6%
Annual Hours								
1–499	3,407	3,436	4.8	9.7	0.7	2.6	14.7	26.5
500–999	4,735	5,025	7.5	14.4	2.1	4.8	27.6	33.7
1,000–1,499	7,459	8,085	13.8	20.0	5.6	8.1	40.6	40.4
1,500–1,999	11,374	12,355	23.6	30.6	13.3	17.6	56.4	57.7
2,000 or more	66,498	68,614	33.5	45.3	19.7	30.7	58.9	67.7
Tenure								
Less than 1 year	19,478	19,643	12.8	18.9	3.3	5.3	25.4	28.4
1–4 years	33,888	34,345	24.0	32.5	12.1	18.5	50.4	57.0
5–9 years	17,140	21,167	32.5	43.7	20.2	31.2	62.1	71.4
10–14 years	10,944	11,380	36.9	48.3	24.6	36.4	66.7	75.4
15 or more years	15,884	17,552	41.1	50.7	28.1	38.0	68.4	74.9
Age								
16–20	8,373	6,634	6.4	9.6	1.1	1.2	17.0	12.5
21–30	28,895	26,359	24.6	32.7	11.9	16.9	48.1	51.6
31–40	27,710	31,047	32.1	42.0	18.0	28.0	56.0	66.7
41–50	19,453	23,459	32.6	43.0	20.8	30.5	64.0	70.9
51–60	12,393	13,164	29.0	38.6	20.3	28.7	69.8	74.4
61–64	2,631	2,781	21.3	34.0	13.8	25.4	64.9	74.9
65 and over	2,289	2,371	13.0	20.9	7.0	11.6	53.5	55.6
Firm Size								
Fewer than 10	13,561	14,032	3.0	5.1	2.2	3.8	74.3	74.3
10–24	8,164	8,466	8.0	12.1	5.7	8.4	70.9	69.5
25–49	6,781	6,716	14.2	20.1	7.8	12.7	55.2	62.9
50–99	5,563	6,185	18.0	29.9	11.0	20.9	61.2	69.8
100–249	7,497	7,775	22.8	39.0	13.3	25.0	58.4	64.2
250 or more	51,274	54,709	41.5	53.2	23.4	34.5	56.2	64.9
250–499	d	5,471	d	49.9	d	32.5	d	65.2
500–999	d	5,485	d	47.8	d	30.5	d	63.7
1,000 or more	d	43,753	d	54.3	d	35.3	d	65.0
Annual Earnings, 1993 ($)								
Less than $5,000	7,595	7,275	3.8	8.1	1.1	1.6	28.0	19.9
$5,000–$9,999	10,119	10,419	8.8	13.1	2.6	4.4	29.7	33.6
$10,000–$14,999	12,463	15,015	15.3	22.7	5.6	10.0	36.6	43.9
$15,000–$19,999	13,658	14,238	22.2	35.7	10.3	19.5	46.2	54.6
$20,000–$24,999	10,956	12,408	30.2	43.9	15.5	26.7	51.2	60.8
$25,000–$29,999	9,841	9,737	35.4	46.5	20.0	31.1	56.7	66.8
$30,000–$49,999	20,993	19,858	43.9	57.1	27.8	41.3	63.2	72.4
$50,000 or more	7,876	8,566	55.4	67.6	40.9	56.3	73.7	83.2
Sector								
Federal government	3,227	3,268	58.0	59.7	24.4	38.6	42.1	64.7
State and local government	13,824	15,228	34.2	42.8	18.2	23.6	53.1	55.1
Private	84,692	87,320	24.5	34.9	14.5	23.2	59.2	66.7

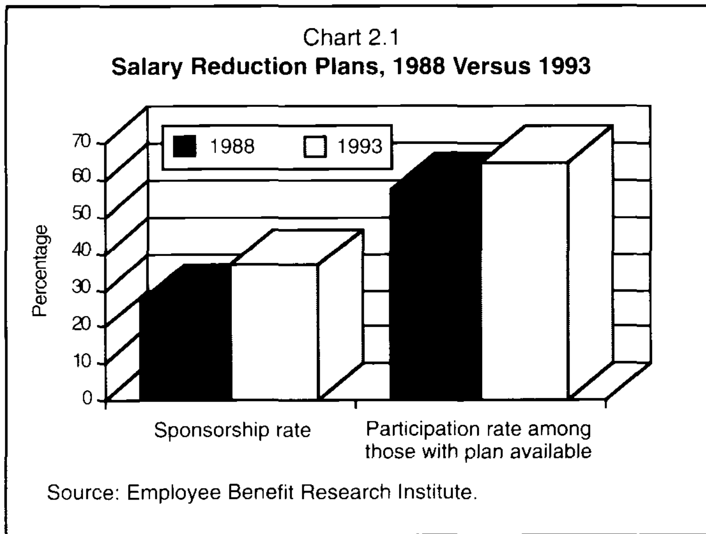
Source: Employee Benefit Research Institute tabulations of the May 1988 and April 1993 Current Population Survey employee benefit supplements.

[a]The fraction of workers whose employer sponsors a salary reduction plan for any of the employees at the worker's place of employment.

[b]The fraction of all workers participating in a salary reduction plan.

[c]The fraction of workers participating in a salary reduction plan among those whose employer sponsors a plan for any of the employees at the worker's place of employment.

[d]Data not available.



sector employees. However, private-sector employees were the most likely to participate when a plan was available, with a sponsored participation rate of 66.7 percent, compared with 64.7 percent of federal employees and 55.1 percent of state and local government employees (table 2.1).

Participation also generally rose with worker age (table 2.1, chart 2.2). More than one-half (51.6 percent) of workers in their twenties with a plan available actually participated in it. The participation rate among those with a plan available rose to two-thirds (66.7 percent) for workers in their thirties and peaked at three-quarters (74.9 percent) for workers in their early sixties.

Salary Reduction Plans as Primary Plans

Salary reduction plans have also grown as a source of primary plan coverage. In 1988, less than one-half (49.1 percent) of all salary reduction participants reported the plan as being their primary plan, while in 1993 almost three-quarters (73.3 percent) of salary reduction plan participants reported the plan as their primary plan (table 2.2, chart 2.3). This trend occurred across nearly all worker and job-related characteristics.

On one level, this is a product of the continued strong growth in salary reduction plan sponsorship and participation, particularly among small employers. On another level, it may be the result of changed perceptions of primary plan type. That is, workers with both a defined benefit and a salary reduction plan may consider their salary reduction plan to be their primary plan, whereas in the past they would have considered the defined benefit plan primary (see following discussion). This most likely would be the case among younger workers and also among older workers with an expectation of remaining with their present employer for only a few years. Such a change in perceptions may also correspond with any increases in average account balances that have occurred over time.

Among salary reduction participants in 1993, the likelihood of the plan being reported as primary generally decreased as worker tenure increased, as worker age increased, as firm size increased, and as annual earnings increased (table 2.2). Also, participants in the private sector were most likely to report their plan as being primary, at 75.5 percent in 1993, compared with 68.5 percent for federal workers and 62.9 percent for state and local government employees (table 2.2). Female salary reduction participants were slightly more likely than male participants to report the plan as being their primary employment-based retirement plan in 1993 (74.8 percent versus 72.3 percent).

While salary reduction plans are offered as supplements to defined benefit plans, not vice versa, 59.6 percent of those who participated in both types of plans in 1993 reported that they considered the salary reduction plan to be their primary retirement plan (table 2.3, chart 2. 3), up from 32.4 percent in 1988. Thus, while firms offer salary reduction plans as supplemental plans, many workers view them as primary, and this perspective has grown significantly in recent years.

This perception would be expected among younger workers who view themselves as less likely to be with their employer long enough to accrue meaningful benefits under the defined benefit plan, which could take as long as 20 years given differences in the way benefit values accumulate in the two types of plans. (According to the Bureau

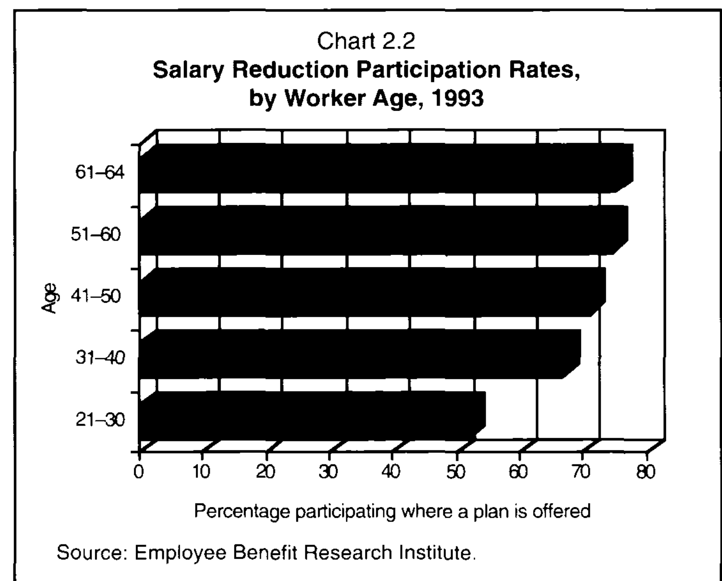


Table 2.2

Salary Reduction Plan Primary Plan Status Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993

	Participants						Percentage of Salary Reduction Participants Who Report Salary Reduction Plan as Primary					
	1988			1993			1988			1993		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(thousands)						(percentage)					
Total	15,586	9,426	6,160	25,148	14,687	10,461	49.1%	48.3%	50.4%	73.3%	72.3%	74.8%
Annual Hours												
1–499	24	24	0	88	45	43	100.0	100.0	0.0	75.7	88.5	62.3
500–999	98	24	75	243	74	170	67.9	30.8	79.7	72.9	70.5	73.9
1,000–1,499	418	144	275	653	161	493	56.6	39.6	65.5	76.5	83.6	74.1
1,500–1,999	1,513	508	1,004	2,179	633	1,545	51.4	53.4	50.4	71.4	67.1	73.1
2,000 or more	13,108	8,440	4,668	21,049	13,164	7,886	47.7	47.2	48.5	73.0	71.8	75.1
Tenure												
Less than 1 year	635	389	246	1,051	599	452	70.2	67.1	75.0	84.6	84.8	84.3
1–4 years	4,104	2,345	1,758	6,365	3,360	3,005	63.1	62.9	63.3	81.3	80.9	81.8
5–9 years	3,457	1,967	1,490	6,604	3,819	2,785	51.9	50.0	54.4	77.3	79.2	74.8
10–14 years	2,692	1,547	1,144	4,147	2,442	1,705	42.7	45.5	39.0	71.3	70.3	72.8
15 or more years	4,471	2,988	1,484	6,664	4,273	2,392	33.6	32.8	35.3	61.6	59.0	66.4
Age												
16–20	91	55	36	80	28	52	80.6	87.2	70.6	86.4	100.0	79.1
21–30	3,425	1,977	1,448	4,450	2,476	1,974	61.9	62.9	60.5	81.2	82.9	79.2
31–40	4,984	3,016	1,968	8,706	5,188	3,518	48.6	48.9	48.2	77.1	76.6	78.0
41–50	4,054	2,408	1,646	7,151	4,239	2,912	43.1	41.5	45.5	68.0	66.5	70.1
51–60	2,510	1,598	911	3,778	2,154	1,624	41.0	39.0	44.5	67.4	62.8	73.6
61–64	363	267	96	707	402	306	45.2	40.4	58.6	64.3	66.8	60.9
65 and over	160	105	55	275	200	75	63.1	56.6	75.5	65.0	60.9	76.0
Firm Size												
Fewer than 10	303	213	91	536	321	215	78.6	77.5	81.4	85.0	82.4	88.9
10–24	462	310	152	714	413	301	73.0	69.3	80.3	82.9	80.5	86.2
25–49	530	364	166	850	535	315	70.9	76.8	58.1	83.4	82.8	84.4
50–99	613	399	214	1,292	840	452	70.6	69.8	72.0	81.8	79.6	85.9
100–249	999	568	431	1,944	1,160	784	66.4	62.0	72.1	81.8	83.1	79.9
250 or more	11,973	7,160	4,813	18,889	10,945	7,944	43.5	42.6	44.9	70.7	69.4	72.5
250–499	a	a	a	1,780	894	887	a	a	a	77.3	74.6	80.0
500–999	a	a	a	1,671	924	747	a	a	a	74.8	74.3	75.5
1,000 or more	a	a	a	15,438	9,127	6,311	a	a	a	69.5	68.4	71.1
Annual Earnings 1993 ($)												
Less than $5,000	80	34	46	117	53	65	79.2	62.0	92.3	84.4	100.0	71.8
$5,000–$9,999	265	82	184	459	110	349	55.6	57.1	54.9	81.4	85.3	80.2
$10,000–$14,999	698	209	490	1,497	450	1,047	72.7	71.5	73.3	79.4	77.6	80.2
$15,000–$19,999	1,401	447	954	2,774	953	1,821	60.0	70.7	55.0	78.6	84.1	75.6
$20,000–$24,999	1,694	707	987	3,311	1,537	1,774	55.7	60.3	52.5	77.5	75.4	79.4
$25,000–$29,999	1,973	948	1,025	3,024	1,559	1,466	50.0	55.3	45.1	76.3	78.9	73.5
$30,000–$49,999	5,830	4,040	1,790	8,210	5,468	2,742	45.2	46.0	43.5	69.9	69.4	71.1
$50,000 or more	3,219	2,673	547	4,820	3,948	872	38.2	37.6	40.8	66.6	66.4	67.6
Sector												
Federal government	789	539	250	1,262	743	519	40.3	41.7	37.2	68.5	67.4	70.1
State and local government	2,513	1,187	1,326	3,593	1,802	1,791	44.5	42.6	46.3	62.9	60.9	64.9
Private	12,284	7,700	4,584	20,293	12,142	8,151	50.6	49.7	52.2	75.5	74.2	77.3

Source: Employee Benefit Research Institute tabulations of the May 1988 and April 1993 Current Population Survey employee benefit supplements.

[a]Data not available.

of Labor Statistics, 10.2 percent of workers in 1991 had 20 years or more of tenure with their current employer, an additional 6.9 percent had tenure levels of 15–19 years, and 11.9 percent had tenure levels of 10–14 years.) The data tend to support this hypothesis as the fraction of such dual participants who report the salary reduction plan as primary tends to decrease as worker age and tenure increase (table 2.3). Seventy-five percent of such dual participants with less than one year of tenure reported the salary reduction plan as primary, compared with 48.9 percent of those with 15 or more years of tenure. Seventy-two percent of dual participants in their twenties reported the salary reduction plan as primary, compared with 50.0 percent of those aged 61–64 (table 2.3).

Such a change in perceptions may also correspond with increases in the typical size of account balances over time and the fact that such plans are more visible to participants through account statements and other information than are defined benefit plans. Such perceptions may also arise where a sponsor has scaled back the defined benefit plan's benefits and enhanced the 401(k) plan. Employees can be expected to make ever more sophisticated assessments of which plan is primary as employers continue to expand education programs. Benefit statements showing the relative values of benefits as well as workbooks and software that show the relationship of values over time will allow these more sophisticated assessments.

Participant Contributions

Among salary reduction plan participants in 1993, 19.7 percent contributed less than 5 percent of pay to their plan, 13.2 percent contributed 5 percent of pay, 19.2 percent contributed 6 percent to 9 percent, 10.5 percent contributed 10 percent, 9.7 percent contributed more than 10 percent of pay, and 27.8 percent did not know how much they contributed. Among those reporting an amount for 1993, the average contribution rate was 7.1 percent. This compares with an average contribution rate of 6.6 percent in 1988 (table 2.4, chart 2.4).

Average contribution rates fell and then rose with annual earnings. In 1993, the average contribution rate for participants earning less than $5,000 was 7.9 percent. This fell to 5.8 percent for those earning $15,000–$19,999 and then rose to 7.9 percent for those earning $50,000 or more. The average contribution rate was 7.9 percent among participants in the state and local sector, 7.1 percent among those in the private sector, and 6.1 percent among federal sector participants (table 2.4).

The average contribution rate was higher among participants without an employer match than among those with a match (7.7 percent versus 6.9 percent.) This may be explained by the fact that participation rates increase with the presence of a match and because the match might cause some people to contribute less if they conclude that their overall contribution needs are reduced because of the match. The majority of participants (62.0 percent) who did not know whether their employer matched contributions also did not know how much they contributed (table 2.4).

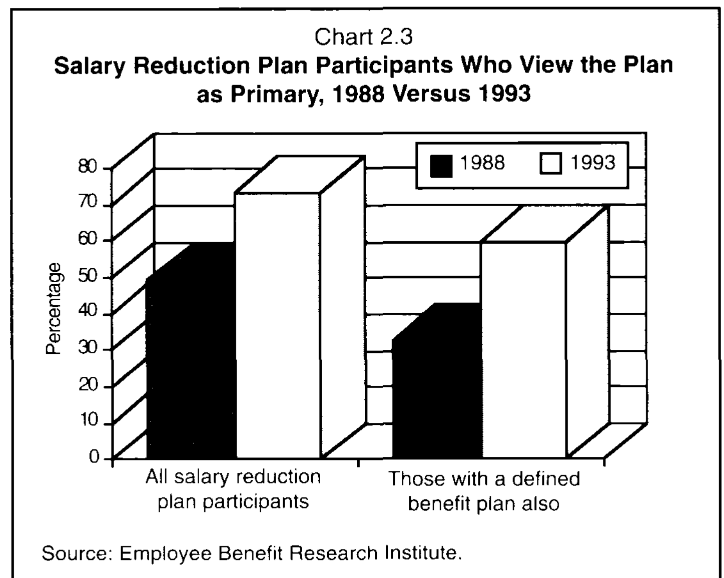
The distributions of contribution rates among those who viewed their plan as primary and those who viewed their plan as supplemental were fairly similar. More supplemental participants did not know how much they contributed (34.1 percent versus 25.5 percent). The average contribution rates were essentially identical for those who viewed their plan as primary (at 7.1 percent) and those who viewed their plan as supplemental (7.2 percent).

Asset Allocation

Although comprehensive nationwide data on salary reduction investment vehicles and options are not available, a recent survey by Hewitt Associates gives some indication of how 401(k) funds are invested (Hewitt Associates, 1993).[2]

[2] In March and April of 1993, Hewitt Associates conducted a survey of employers with 401(k) plans. A total of 487 companies participated by providing information on their 401(k) plans. The data in the survey reflect each company's plan covering the largest number of salaried employees. The survey group was comprised of mainly larger employers. The average size of responding companies was 11,198 employees; only 7 percent had fewer than 1,000 employees; 49 percent had 1,000–4,999 employees, 18 percent had 5,000–9,999 employees, and 26 percent had 10,000 or more employees.

Chart 2.3
Salary Reduction Plan Participants Who View the Plan as Primary, 1988 Versus 1993



Source: Employee Benefit Research Institute.

Table 2.3
Salary Reduction Plan Participants Who Also Participate in a Defined Benefit Plan Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993

	Salary Reduction Participants (thousands)		Percentage with Defined Benefit Plan		Percentage with Defined Benefit Plan Reporting Salary Reduction Plan as Primary	
	1988	1993	1988	1993	1988	1993
Total	15,586	25,148	56.3%	49.0%	32.4%	59.6%
Annual Hours						
1–499	24	88	80.0	33.4	100	42.7
500–999	98	243	47.5	35.8	46.6	59.1
1,000–1,499	418	653	47.3	37.7	30.9	58.3
1,500–1,999	1,513	2,179	54.9	49.5	38.0	58.1
2,000 or more	13,108	21,049	57.6	50.2	53.0	59.3
Tenure						
Less than 1 year	635	1,051	27.8	26.2	37.5	75.0
1–4 years	4,104	6,365	41.4	34.0	40.9	66.2
5–9 years	3,457	6,604	53.6	48.6	36.0	67.1
10–14 years	2,692	4,147	64.6	54.7	32.0	61.6
15 or more years	4,471	6,664	72.6	64.5	25.3	48.9
Age						
16–20	91	80	52.2	39.1	62.8	65.3
21–30	3,425	4,450	43.0	34.2	40.3	71.6
31–40	4,984	8,706	55.1	48.9	32.9	65.1
41–50	4,054	7,151	63.2	55.5	28.8	54.1
51–60	2,510	3,778	65.2	54.3	28.1	52.6
61–64	363	707	69.6	57.3	37.0	50.0
65 and over	160	275	41.4	33.1	48.7	42.0
Firm Size						
Fewer than 10	303	536	36.7	24.5	64.4	66.0
10–24	462	714	29.2	21.2	46.5	61.8
25–49	530	850	34.7	24.5	52.4	72.1
50–99	613	1,292	35.3	28.8	55.0	64.1
100–249	999	1,944	41.8	34.7	49.1	66.2
250 or more	11,973	18,889	62.5	55.0	29.2	58.6
250–499	a	1,780	a	40.6	a	63.1
500–999	a	1,671	a	46.8	a	60.4
1,000 or more	a	15,438	a	57.5	a	58.0
Annual Earnings 1993 ($)						
Less than $5,000	80	117	43.7	21.9	65.3	54.5
$5,000–$9,999	265	459	46.0	28.6	25.9	55.9
$10,000–$14,999	698	1,497	38.9	30.3	54.9	62.7
$15,000–$19,999	1,401	2,774	46.6	41.5	42.2	67.6
$20,000–$24,999	1,694	3,311	47.0	43.6	41.8	66.1
$25,000–$29,999	1,973	3,024	56.1	48.9	33.0	64.8
$30,000–$49,999	5,830	8,210	61.0	54.0	30.2	55.4
$50,000 or more	3,219	4,820	65.2	59.8	24.9	54.9
Gender						
Male	9,426	14,687	58.6	50.0	32.3	58.2
Female	6,160	10,461	53.0	47.6	32.7	61.6
Sector						
Federal government	789	1,262	66.9	66.0	32.5	57.9
State and local government	2,513	3,593	64.6	64.9	34.8	53.6
Private	12,284	20,293	54.0	45.2	31.8	61.3

Source: Employee Benefit Research Institute tabulations of the May 1988 and April 1993 Current Population Survey employee benefit supplements.

Table 2.4

Participant Contribution Rates to Salary Reduction Plans by Plan Status, Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, by Selected Demographic Characteristics, 1988 and 1993

	1993 Number (thousands)	1993 Under 5%	5%	6%–9%	10%	Over 10%	Don't know	1993 Average Contribution	1988 Average Contribution
				All Salary Reduction Plan Participants					
Total	25,148	19.7%	13.2%	19.2%	10.5%	9.7%	27.8%	7.1%	6.6%
Annual Earnings									
Less than $5,000	117	21.3	2.8	16.2	3.5	10.5	45.7	7.9	6.0
$5,000–$9,999	459	24.5	9.9	9.2	6.5	13.0	36.9	7.5	7.5
$10,000–$14,999	1,497	26.0	10.3	10.3	9.8	5.9	37.8	6.4	5.8
$15,000–$19,999	2,774	26.0	12.3	15.7	7.8	4.4	33.7	5.8	7.0
$20,000–$24,999	3,311	23.4	13.8	17.5	9.1	6.5	29.8	6.3	6.3
$25,000–$29,999	3,024	23.0	14.9	19.4	9.3	8.2	25.3	6.8	5.6
$30,000–$49,999	8,210	17.9	13.5	21.3	11.0	11.5	24.8	7.4	6.7
$50,000 or more	4,820	12.8	13.4	22.7	13.7	13.0	24.5	7.9	7.1
Sector									
Federal government	1,262	17.4	39.5	6.1	15.2	3.3	18.6	6.1	5.3
State and local government	3,593	16.5	11.0	17.0	10.6	10.4	34.5	7.9	7.4
Private	20,293	20.3	12.0	20.4	10.1	10.0	27.2	7.1	6.6
Employer Match									
Yes	15,539	22.2	13.5	23.7	11.1	9.8	19.7	6.9	6.4
No	5,176	19.3	17.8	14.0	12.3	13.9	22.8	7.7	7.4
Do not know	4,433	11.1	6.9	9.2	6.3	4.5	62.0	7.1	6.7
				Participants Who View Their Plan as Primary					
Total	18,441	20.5	13.9	19.5	11.0	9.6	25.5	7.1	6.4
Annual Earnings									
Less than $5,000	99	25.3	3.3	19.2	a	4.8	47.5	6.0	6.7
$5,000–$9,999	374	23.7	8.0	10.8	6.8	12.9	37.8	7.8	6.7
$10,000–$14,999	1,189	24.6	9.2	11.2	9.8	6.2	38.9	6.5	5.6
$15,000–$19,999	2,179	25.5	13.9	16.2	8.0	4.1	32.2	5.9	6.3
$20,000–$24,999	2,568	25.9	14.8	17.2	9.1	6.4	26.5	6.2	6.2
$25,000–$29,999	2,307	23.7	16.4	19.3	9.9	8.1	22.7	6.7	5.5
$30,000–$49,999	5,741	18.4	14.6	21.9	11.8	11.4	21.8	7.4	6.6
$50,000 or more	3,209	13.2	13.3	23.6	15.3	13.5	21.2	7.9	7.1
Sector									
Federal government	865	19.8	34.1	7.4	17.0	4.9	16.9	6.4	5.4
State and local government	2,260	15.3	11.6	19.6	9.4	9.2	35.0	7.8	7.2
Private	15,316	21.3	13.1	20.2	10.9	9.9	24.6	7.0	6.4
Employer Match									
Yes	11,831	23.0	14.5	23.9	11.9	10.0	16.7	6.9	6.2
No	3,164	20.3	17.9	14.5	12.8	13.6	20.8	7.8	7.9
Do not know	3,445	12.0	8.1	9.2	6.2	4.5	59.9	7.0	7.0
				Participants Who View Their Plan as Supplemental					
Total	6,707	17.3	11.4	18.1	8.9	10.1	34.1	7.2	6.8
Annual Earnings									
Less than $5,000	18	0.0	0.0	0.0	22.7	41.5	35.9	a	4.5
$5,000–$9,999	85	28.3	17.8	2.2	5.4	13.6	32.6	6.3	8.2
$10,000–$14,999	309	31.2	14.3	6.5	9.8	4.9	33.3	5.8	6.1
$15,000–$19,999	595	27.9	6.5	13.9	6.8	5.7	39.2	5.6	7.9
$20,000–$24,999	743	14.6	10.3	18.3	9.1	6.8	41.0	6.8	6.5
$25,000–$29,999	718	20.8	10.0	19.5	7.4	8.5	33.8	6.9	5.7
$30,000–$49,999	2,469	16.8	11.0	19.8	9.2	11.6	31.7	7.5	6.7
$50,000 or more	1,611	11.9	13.5	21.1	10.5	12.0	31.1	7.9	7.1

(continued)

Table 2.4 (continued)

	1993 Number (thousands)	1993 Under 5%	5%	6%–9%	10%	Over 10%	Don't know	1993 Average Contribution	1988 Average Contribution
Sector									
Federal government	397	12.1%	51.1%	3.2%	11.2%	0.0%	22.4%	5.3%	5.3%
State and local government	1,333	18.6	10.0	12.7	12.8	12.4	33.6	8.0	7.4
Private	4,977	17.4	8.6	20.8	7.7	10.3	35.1	7.2	6.7
Employer Match									
Yes	3,708	19.6	10.4	23.2	8.3	9.5	29.1	7.0	6.6
No	2,012	17.8	17.5	13.3	11.4	14.2	25.8	7.7	7.2
Do not know	988	7.9	2.7	9.2	6.3	4.2	69.7	7.2	6.4

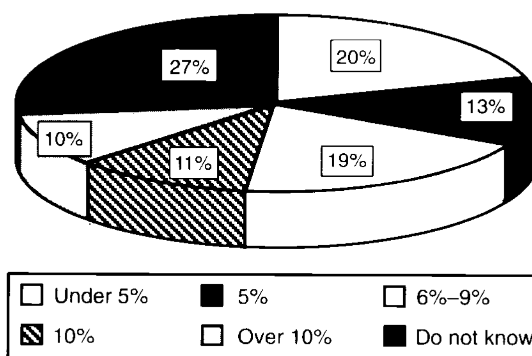
Source: Employee Benefit Research Institute tabulations of the May 1988 and April 1993 Current Population Survey employee benefit supplements.
[a]Too few observations.

According to the Hewitt survey, 4.5 investment options are offered, on average, for employee contributions. Seven percent of plans offered one or two options, 23 percent offered three options, 29 percent offered four options, 19 percent offered five options, and 22 percent offered six or more options. For employer contributions, 3.5 investment options are offered, on average. Twenty-nine percent of plans offered one option, 20 percent offered two or three options, 20 percent offered four options, 15 percent offered five options, and 16 percent offered six or more options.

Examining the options offered, the survey found that equity options (either growth and income equity, growth equity, or equity index) were the most common (offered by 89 percent of plans for employee contributions and by 66 percent of plans for employer contributions). Money market funds and guaranteed investment contracts[3] (GICs) were also common offerings. Fifty-one percent of plans offered money market funds for employee contributions and 40 percent offered them for employer contributions. Fifty-eight percent of plans offered GICs for employee contributions, and 43 percent offered GICs for employer contributions. Balanced funds (i.e., funds with preset allocations of stocks and bonds) were offered for employee contributions by 48 percent of the plans and by 37 percent for employer contributions. Employer stock was offered for employee contributions by 40 percent of the plans and by 50 percent for employer contributions, making it the single most commonly offered option for employer contributions; in fact, it is not uncommon for plans to mandate that employer contributions be invested in employer stock.

The survey also examined the percentage of balances invested in the various options where those options were available. Looking at only those plans where GICs are available, GICs accounted for 47 percent of the balance of employee contributions and 30 percent of the balance of employer contributions. Where available, employer stock accounted for 33 percent of employee contribution balances and 67 percent of employer contribution balances. Where available, equity investment options accounted for 21 percent of employee balances and 20 percent of employer balances. Where available, balanced funds accounted for 13 percent of employee balances and 33 percent of employer balances. Where available, diversified fixed income vehicles accounted for 31 percent of

Chart 2.4
Participant Contribution Rates to Salary Reduction Plans, 1993



Source: Employee Benefit Research Institute.

[3] A guaranteed investment contract is a deposit arrangement entered into with an insurance company, wherein the insurance company guarantees both the principal and interest repayments. The amount deposited can be a single sum or a stream of funds deposited over a specified and limited period of time.

employee contributions and 39 percent of employer contributions.

Data provided by Fidelity Investments paint a different picture in terms of asset allocation. In the Fidelity database,[4] the assets of plans with a company stock option are allocated as follows: 45.5 percent in equity (other than company stock), 16 percent in company stock, 28.7 percent in GICs, 6.8 percent in money markets, and 3 percent in fixed income vehicles. In plans without a company stock option, the assets are allocated as follows: 52.4 percent in equity, 34.2 percent in GICs, 8.1 percent in money markets, and 3 percent in fixed income vehicles.

If participants are overly conservative with their plan money, e.g., they prefer low-risk, low-return investments and shy away from equities, they may increase the risk of having an inadequate retirement income. Participants should be aware of the desirability of earning a rate of return in excess of the rate of inflation. When investing long term for retirement, having inflation eat away at the value of what is set aside should be a concern as well as potential nominal losses from equity investments. Participant education regarding such issues will become increasingly important as the salary reduction plan system continues to grow.

Lump-Sum Distributions and Benefit Preservation

Issues of participation, contribution rates, and asset allocation are moot points relative to retirement income preparation if money placed in salary reduction plans is not preserved on job change. Available evidence indicates that many workers do not preserve such distributions and thus may be jeopardizing to some degree their retirement income security.

In 1993, 12.4 million persons reported ever having received a lump-sum distribution from a retirement plan at a previously held job (table 2.5). Individuals were then asked about their most recent distribution received. The mean amount of the distributions received was $10,795 (1993 dollars), and the median amount was $3,507 (table 2.5).

Almost 60 percent of distribution recipients reported having received their most recent distribution since 1986 (table 2.5). Distributions tended to be larger (in real terms, 1993 dollars) the more recent the year of receipt. The

[4] This database contained more than 1,500 plans and 2 million participants as of June 30, 1994.

Table 2.5

Distribution of Lump-Sum Recipients, Aggregate Amount of Most Recent Distribution, Mean and Median Amounts Received, Civilians Aged 16 and Over, by Selected Demographic Characteristics, 1993

Demographic Characteristics	Total Recipients (thousands)	Mean Amount (1993 $)	Median Amount (1993 $)
Total	12,361	$10,795	$3,507
Amount of Most Recent Lump-Sum Distribution (1993 $)			
$1–$499	1,145	271	265
$500–$999	921	708	671
$1,000–$2,499	2,128	1,629	1,629
$2,500–$4,999	1,755	3,539	3,457
$5,000–$9,999	1,674	7,140	6,992
$10,000–$14,999	923	12,280	12,215
$15,000–$19,999	599	17,106	16,584
$20,000–$49,999	888	30,202	27,984
$50,000 or more	501	85,195	80,000
Year in Which Most Recent Lump-Sum Distribution Was Received			
1987–1993	7,340	11,237	3,496
1980–1986	3,052	11,010	3,507
1970–1979	1,435	8,902	4,433
1960–1969	399	7,934	3,122
Before 1960	52	6,689	2,194
Age of Recipient When Most Recent Lump-Sum Distribution Was Received			
16–20	239	2,599	663
21–30	4,433	4,257	2,331
31–40	4,280	10,457	4,563
41–50	2,076	18,490	7,329
51–60	742	29,206	13,500
61–64	138	37,118	21,944
65 and over	75	12,774	6,077
Age of Recipient In 1993			
16–20	9	630	630
21–30	1,526	2,523	1,149
31–40	4,455	6,881	2,985
41–50	3,742	12,171	5,088
51–60	1,861	18,987	8,737
61–64	411	23,290	10,299
65 and over	358	33,684	6,230
Annual Earnings in 1993			
Less than $5.000	346	8,430	3,054
$5,000–$9,999	655	9,097	1,986
$10,000–$14,999	1,161	7,017	1,990
$15,000–$19,999	1,326	6,398	2,211
$20,000–$24,999	1,343	6,804	3,021
$25,000–$29,999	1,144	8,369	3,090
$30,000–$49,999	2,608	9,482	4,030
$50,000 or more	1,426	18,029	8,550
Gender			
Male	6,664	14,162	5,364
Female	5,697	6,956	2,637
Race			
White	11,252	11,166	3,605
Black	879	5,974	2,942
Other	230	9,514	3,164

Source: Employee Benefit Research Institute tabulations of the April 1993 Current Population Survey employee benefit supplement.

Table 2.6
Proportion of Lump-Sum Recipients Reporting Various Uses for Any Portion of Their Most Recent Distribution, Civilians Aged 16 and Over, by Selected Demographic Characteristics, 1993

Demographic Characteristics	Total Recipients	Tax-Qualified Financial Savings[a]	Non Tax-Qualified Financial Savings[b]	Home, Business. Debt[c]	Education Expenses	Consumption[d]
	(thousands)			(percentage)		
Total	12,361	41.5%	17.0%	30.5%	2.9%	38.3%
Amount of Most Recent Lump-Sum Distribution (1993 $)						
$1–$499	1,145	27.2	9.4	25.1	2.8	59.6
$500–$999	921	30.5	10.2	25.8	2.0	56.4
$1,000–$2,499	2,128	33.6	17.2	30.8	2.9	44.4
$2,500–$4,999	1,755	37.3	16.4	34.7	3.2	38.9
$5,000–$9,999	1,674	45.6	14.4	32.1	3.0	37.5
$10,000–$14,999	923	47.2	24.7	41.6	2.1	28.1
$15,000–$19,999	599	52.9	25.9	33.2	4.9	28.5
$20,000–$49,999	888	52.8	19.5	31.7	5.2	19.8
$50,000 or more	501	76.7	21.5	10.1	0.0	12.9
Year in Which Most Recent Lump-Sum Distribution Was Received						
1987–1993	7,340	45.5	16.6	30.3	2.8	34.0
1980–1986	3,052	37.2	17.4	33.3	2.6	39.6
1970–1979	1,435	33.2	17.8	27.2	4.4	49.9
1960–1969	399	32.6	14.2	26.2	2.8	58.3
before 1960	52	17.4	14.7	21.8	0.0	78.2
Age of Recipient When Most Recent Lump-Sum Distribution Was Received						
16–20	239	25.4	4.3	29.8	3.2	63.9
21–30	4,433	34.1	14.5	34.1	4.5	43.4
31–40	4,280	43.4	17.9	32.2	2.0	35.7
41–50	2,076	46.5	18.9	25.6	2.7	35.7
51–60	742	62.4	19.3	22.1	1.4	23.4
61–64	138	58.0	46.6	5.9	0.0	26.4
65 and over	75	32.2	31.4	27.4	0.0	49.8
Age of Recipient in 1993						
16–20	9	0.0	0.0	0.0	0.0	100.0
21–30	1,526	39.3	15.6	35.1	3.8	37.5
31–40	4,455	38.3	15.2	35.1	3.1	38.4
41–50	3,742	40.7	16.9	26.4	3.2	41.7
51–60	1,861	51.4	20.0	27.7	1.5	33.2
61–64	411	46.6	24.3	16.5	3.3	33.1
65 and over	358	43.1	20.6	25.9	0.9	36.5
Annual Earnings in 1993						
Less than $5,000	346	30.8	29.6	33.8	1.5	41.9
$5,000–$10,000	655	41.6	17.9	35.8	3.3	48.0
$10,001–$14,999	1,161	33.4	15.3	30.6	2.5	50.4
$15,000–$19,999	1,326	33.7	17.9	32.8	3.0	45.6
$20,000–$24,999	1,343	40.5	13.2	32.6	2.8	44.3
$25,000–$29,999	1,144	40.1	15.2	32.9	2.9	38.4
$30,000–$49,999	2,608	46.0	17.8	27.9	3.2	36.8
$50,000 or more	1,426	56.5	19.0	21.2	3.0	22.1
Gender						
Male	6,664	42.9	17.9	32.1	2.7	34.0
Female	5,697	39.9	15.8	28.6	3.2	43.3
Race						
White	11,252	41.7	17.0	29.3	2.7	37.3
Black	879	37.2	19.7	44.3	6.0	50.7
Other	230	49.5	5.1	35.0	2.6	38.9

(continued)

Table 2.6 (continued)

Source: Employee Benefit Research Institute tabulations of the April 1993 Current Population Survey employee benefit supplement.
[a]Includes investment in individual retirement account (IRA,) rollover to an IRA, insurance annuities, and other retirement programs.
[b]Includes savings accounts, other financial instruments, and other savings.
[c]Includes purchase of a house, start or purchase of a business, payment of a mortgage, and payment of loans or debts.
[d]Includes purchase of a car, medical and dental expenses, general everyday expenses, and other uses.

mean size of distributions reported before 1960 was $6,689, whereas the mean size of distributions reported since 1986 was $11,237. Thirty-eight percent of recipients reported receiving their most recent distribution at age 30 or younger. The average distribution size for those aged 16–20 at receipt was $2,599, and for those aged 21–30 it was $4,257. Thirty-six percent of recipients reported receiving their most recent distribution between age 31 and 40, with an average distribution size of $10,457. The average distribution size continued to increase with age at receipt until age 65 (table 2.5). The salary of individuals at the time of receipt is not determinable from the survey.

Among those who reported in 1993 ever having received a distribution, 41.5 percent reported using at least some of that money for tax-qualified financial saving (includes investment in an individual retirement account (IRA), rollover to an IRA, purchase of insurance annuities, or other retirement programs), and 17.0 percent reported using a portion of the distribution for non tax-qualified saving (includes savings accounts, other financial instruments, and other savings) (table 2.6). The larger the amount of the distribution, the more likely it was used at least partially for tax-qualified saving. Twenty-seven percent of distributions under $500 were at least partially used for tax-qualified saving, compared with 76.7 percent of distributions of $50,000 or more.

Also, the more recent the year of receipt, the more likely it was used at least partially for tax-qualified saving. Distributions reported between 1987 and 1993 were used at least partially for tax-qualified saving 45.5 percent of the time, compared with 37.2 percent for those reported between 1980 and 1986 and 17.4 percent for those reported before 1960 (table 2.6, chart 2.5). The likelihood of using at least part of the distribution for tax-qualified saving, generally increased with age at time of receipt, starting at 25.4 percent for those in their teens and peaking at 62.4 percent for those in their 50s (table 2.6).

Over 30 percent of recipients reported using at least some of their distribution to pay off debt, purchase a home, or start/purchase a business. Three percent used some of their distribution for educational expenses. Thirty-eight percent of recipients used at least some of their distribution for consumption (includes purchase of a car, medical or dental expenses, general everyday expenses, and other uses) (table 2.6).

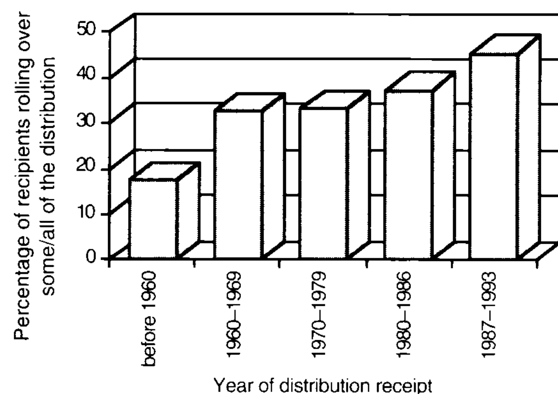
The Impact of Participant Education

While survey evidence on the provision of educational material in plans with participant-directed accounts and the impact of the provided material on participant decisions is relatively scarce, the following section highlights some of the findings that do exist.

Provision of Material

The provision of educational material is more common today than it was for previous generations of workers with a 401(k) plan. In a 1994 survey by the Employee Benefit Research Institute (EBRI) and Mathew Greenwald and Associates, 73 percent of respondents participating in a 401(k) plan reported that their employer provided some type of educational material (including seminars) regarding the plan (Employee Benefit Research Institute, 1994). By comparison, among current retirees who had a 401(k) plan while working, only 45 percent reported that their employer

Chart 2.5
Preservation (or Lack Thereof) of Lump-Sum Distributions



Source: Employee Benefit Research Institute.

provided educational material.

A recent survey of 401(k) plan sponsors found that only 19 percent of the survey respondents did not provide educational materials that explained basic investment concepts. Twenty-five percent reported providing educational materials quarterly, 11 percent provided them annually, and 20 percent provided such materials only on participant enrollment. Among those providing educational materials to participants, 31 percent reported providing a regular investment publication (Hewitt Associates, 1993).

In the same survey, the vast majority of plan sponsors felt that the most important information needs among employees were asset allocation/diversification and risk tolerance (87 percent and 83 percent, respectively). More than 40 percent of the respondents also mentioned basic investment terminology (58 percent), the effect of compounding (58 percent), and the effect of inflation (44 percent).

In another survey of plan sponsors, 62 percent reported that they provided investment education, i.e., they attempted to educate employees regarding risk and diversification to help them make appropriate choices (A. Foster Higgins & Co., Inc., 1992). Forty-three percent did this through written materials, and 19 percent used employee meetings.

Finally, in a 1994 survey of 401(k) plan sponsors, the 82 percent reporting that they try to educate participants about investment and saving principles were asked what prompted them to do so (Buck Consultants, 1994). Fifty-eight percent reported that their employees asked for more information, 50 percent cited the release of final 404(c) regulations,[5] 45 percent said that employees' investment strategies appeared too conservative, 29 percent reported that investment education was provided free of charge by their plan service provider(s), and 19 percent said they had expanded an existing preretirement/financial planning program.

The summary plan description was the most commonly used means for education (68 percent). Fifty-three percent used an employee newsletter, 53 percent used pamphlets, 47 percent conducted seminars, 42 percent provided handbooks, 41 percent provided a newsletter/magazine devoted to 401(k) plan investment and saving, 32 percent conducted individual meetings, and 28 percent conducted financial planning/preretirement planning seminars. Other methods cited were videotapes, slideshows, computer programs and projections, and investment seminars.

Financial Planning Information

A survey of the largest defined contribution plans in the country found that in the area of financial planning, 39 percent of large plan sponsors currently offer financial planning seminars, and 18 percent plan to offer such seminars (Phoenix-Hecht, 1994a). Twenty-three percent of large sponsors offer financial planning software (22 percent plan to offer it), and 18 percent offer one-on-one financial planning services (5 percent plan to offer it).

In a study of participants and sponsors of 401(k) plans at small to mid-size companies, it was reported that 28 percent of plan sponsors provided individual counseling with an investment advisor (Frank Russell Company, 1992). The smaller the company, the more likely they were to provide individual counseling. Fourteen percent of companies with more than 1,200 employees provided such counseling, 30 percent of companies with 501–1,200 employees did so, 33 percent of companies with 251–500 employees did so, and 32 percent of companies with 250 employees or fewer did so. In addition, almost all sponsors reported providing plan-specific information, and 63 percent supplied participants with general information about the fundamentals of investing. Finally, only 26 percent of participants reported believing they were well qualified to make their own investment decisions, and 8 percent of sponsors believed participants were well qualified.

Another study of individuals in participant-directed defined contribution plans found that 37 percent reported that their employers offered them the services of a financial planner who counsels them personally about the investments in the plan (Phoenix-Hecht, 1994b). Thirty-nine percent of those with such services available reported using them within the past six months. The study hypothesized that much of this counseling, at least in smaller entities, was actually informal in nature and arose because smaller companies tend to have less in terms of formal communication material.

The same study also found that 33 percent of participants want someone else to manage their retirement savings for them. These individuals tended to think their own funds were invested too conservatively, and more should be invested in stocks. They are also likely to feel that they lack the knowledge to know where to invest. While they are satisfied with their plans and the information provided, they are still likely to wish that their em-

[5] For a description of the 404(c) regulations, see Deborah Milne, Jack VanDerhei, and Paul Yakoboski, "Can We Save Enough to Retire? Participant Education in Defined Contribution Plans," *EBRI Issue Brief* no. 160 (Employee Benefit Research Institute, April 1995).

ployer would give them advice on which investment options would best meet their needs.

Use and Impact of Material

In the EBRI/Greenwald survey, 92 percent of those receiving educational material reported reading it. Those with no college education were much less likely (77 percent) than those with some college (97 percent) or college graduates (96 percent) to read the material when provided. Also, the likelihood of utilizing such material increased with household income, rising from 81 percent for those with incomes below $25,000 to 96 percent for those earning over $50,000.

Among those reading the material (or attending the seminars), 96 percent reported that the topics covered included a description of the investment options available, and 92 percent reported that the advantages of saving through tax-deferred plans were covered. By comparison, only 73 percent reported that the principles of asset allocation and diversification were among the topics covered.

Among those reading the material (or attending the seminars), 33 percent reported that the materials led them to increase the amount of contributions to the plan. This effect was slightly more likely among older workers (29 percent among those aged 26–34 versus 37 percent for those aged 55–64). The effect was less likely among college graduates, compared with those with no college (30 percent versus 41 percent). This effect was also less likely as household income rose (47 percent for those with incomes below $25,000 compared with 35 percent for those with incomes above $50,000). This may indicate that better educated and higher earning workers made more informed decisions in the first place.

Among those reading the material (or attending the seminars), 44 percent reported that the materials led them to change the allocation of their money among the options available. This effect did not vary markedly with worker age (44 percent among those aged 26–34 versus 47 percent for those aged 55–64). The effect was reported by 42 percent of college graduates, 51 percent of those with some college, and 41 percent of those with no college. This effect fell slightly as household income rose (47 percent for those with incomes below $25,000, compared with 44 percent for those with incomes above $50,000).

In the Foster Higgins study, 69 percent of sponsors reported making changes to their communication strategies (A. Foster Higgins & Co., Inc., 1992). The most frequent changes reported were holding additional employee meetings (39 percent), producing or revising a video or slide show (35 percent), and introducing or changing personalized communication (34 percent). Sixty-nine percent of those who had made changes within the previous two years reported an increase in plan participation as a result. Seventeen percent reported a significant increase, and 51 percent reported a slight increase.

In an update of this survey two years later, 23 percent of plan sponsors reported increasing their employee communication in the intervening two years, and participation rose in 64 percent of these plans (A. Foster Higgins & Co., Inc., 1994). Twenty-six percent reported a significant increase, and 43 percent reported some increase. One of the new trends noted in the survey was the use of interactive voice response technology. The survey noted that 35 percent of plans now use this technology (up from 27 percent in the previous year), and an additional 19 percent plan to implement it in the near future. Of those with the interactive voice response technology, almost all use it to answer general plan inquiries, 78 percent use it for transactions like investment transfers and contribution rate changes, and 43 percent use it to model asset growth projections.

A survey of the largest defined contribution plan sponsors in the country uncovered widespread displeasure with current education and communication materials (Phoenix-Hecht, 1994a). When asked whether there was a need to improve their own plans' education and communication materials, 90 percent of the respondents reported such a need.

The same survey also found that sponsors of large plans thought it important to target certain employee groups with education and communication materials. Eighty-nine percent thought it important to target new employees, 86 percent to target preretirement employees (those over age 55), 85 percent to target lower compensated employees, 80 percent to target young employees (those under age 30), and 79 percent to target nonparticipants. Those responding that a particular group was important to target were then asked if they currently do target that group. New employees and preretirement employees were the only groups targeted by more than one-half of the employers reporting that they should be targeted (65 percent and 52 percent, respectively). Nonparticipants were targeted by 39 percent, lower compensated employees by 30 percent, and young employees by 29 percent.

In a survey of individuals *eligible* for a 401(k) type plan, 60 percent of respondents said they were very well informed or informed of the plan offered (New York Life, 1992). Those so informed tended to be older, more educated, male, and to have higher household incomes and net worth. Those informed were asked where they acquired their

information. Eighty-five percent cited reading company-provided material, 60 percent cited company meetings, and 56 percent cited talking with company employee benefits manager.

Another recent survey asked defined contribution plan participants about their awareness and knowledge of their retirement saving plan (John Hancock, n.d.). Sixty percent reported that they were more knowledgeable investors than they were a year or two ago, but only 14 percent attributed this to additional information received from their employer. Forty-two percent credited reading about finances and investments (but some of this material may have come from employers). Those crediting information from their employer were more likely to be female, have less money in their accounts, have lower incomes, and have less formal education.

When questioned specifically about employer education efforts, 44 percent of participants reported that their employer had increased the quantity of material provided in the last year, and 49 percent reported that the quality of the material had been improved. The survey results also showed that participants relied on employer material as one of the most important sources of investment information.

Participants who relied more heavily on information provided by employers, as opposed to the advice of family and friends or reading newspapers and magazines or consulting with a financial planner, were more likely to be those with less money in their accounts, those with lower incomes, younger participants, those with less education, and those contributing a smaller percentage of pay.

Finally, 38 percent reported that in the past year they had read or heard information that made them think that they should invest more heavily in equities. Those reporting this were more likely to be female, older, and more educated. Forty-five percent of these individuals reported that they altered their investments accordingly. Those changing their investment patterns were more likely to be male, have less money in their accounts, and have higher incomes.

Conclusion

Salary reduction plans such as 401(k) plans continue to grow as an important element of the retirement income system. Such plans give workers the opportunity to save on a tax-deferred basis for retirement through an employment-based plan. Such plans involve explicit decisionmaking on the part of workers that will directly impact their retirement income security. The first decision faced by workers is whether or not to participate in a plan when it is available. Participants must then decide how much to contribute to the plan and usually how their funds are to be allocated among the investment options offered by the plan. When they change jobs, participants must also decide what to do with the money they have accumulated.

A changing work force, combined with the changing nature of retirement saving responsibilities, places a growing premium on the education of workers. Understanding the need to save, the implications of investment allocation, and what saving and income will be needed to support a comfortable retirement have become increasingly important, especially in light of the rapid growth of salary reduction plans, and will only become more important as time passes. As defined contribution plans have grown in number, many companies have responded with innovative methods to enhance the strength of their participant education efforts. These responses include target marketing of the educational efforts to demographic and economic groups, consideration of differing participant time horizons, provision of enhanced access to help for questions that arise, and focus groups to assess a program's effectiveness.

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Discussion After Yakoboski Presentation

CURTIS MIKKELSEN: Paul, do you have data that yield participation rates based on either the existance of, or a level of, employer match?

PAUL YAKOBOSKI: Yes. We find a seven percentage point difference between participation rates of respondents who knew a match was available and those who did not know a match was available. The data may understate the positive effect of the match since nearly one-third of respondents didn't know if their employer offered a match.

To the extent that most of these "don't knows" are nonparticipants, it would push the numbers farther apart. Other plan-based studies indicate a bigger difference from the match provision.

Empirical work that looks at the size of the match indicates that size is not as important as the presence of the match.

Individuals may contribute up to the match rate and then stop, because they have other things to do with their money. Our Retirement Confidence Survey results reinforce this hypothesis.

GRACE WEINSTEIN: Do the highly compensated know more?

PAUL YAKOBOSKI: Yes, workers with higher earnings know more, participate more, and contribute at a higher rate.

JAMES BELL: Paul, you mentioned that there was some increase in participation if there was a company match but not as much as many of us would like to believe. Did you distinguish between what I would call a seed money contribution, where there's no employee contribution required, and, for example, a plan in which an employer contributes 1 percent for each participant and matches above that level? Does that do anything to increase participation?

PAUL YAKOBOSKI: The Federal Thrift Savings Plan has the automatic employer contribution that you mention plus a matching contribution. I am not aware of research that has examined the impact of such an arrangement on participation.

JANICE GREGORY: You talked about people who perceive the salary reduction plan as primary. Is there any profile?

PAUL YAKOBOSKI: When we look at dual plan participants, we find that as tenure with the firm increased and age increased they were less likely to respond that the salary reduction plan was primary plan. The unlikelihood of 58 percent could still be viewed as high.

JANICE GREGORY: Your paper's opening statement that the boomers have higher real incomes and higher wealth accumulation than their parents' generation at a similar point runs a bit counter to the hue and cry that nobody is saving any money and that there has been a reduction in real income over the past decade.

PAUL YAKOBOSKI: You're right. It is very contrary to popular perception. The hard numbers are definitive that at the same point in their careers baby boomers have higher real wages and have accumulated a greater level of wealth.

People can focus on the issue of how well off the baby boomers are going to be in retirement in a number of ways. We expect the baby boomers to be better off in retirement than their parents; but a completely separate question is their ability to maintain their final preretirement standard of living when they move into retirement. Then the answer gets complicated. Are we going to count housing wealth? I think there's a consensus that boomers should be saving more to maintain their standard of living.

Part Two
Educating Workers to Save for Retirement: The Participant Decision

Chapter 3: The Relationship Revolution: A Return to Individual Responsibility

Don Sauvigné, IBM

Introduction

Much has been written, postulated, and assumed to be understood about *change*. For change is surely a natural part of life, a natural part of our social, political, and economic environment . . . of society itself. Yet change has also dramatically accelerated over the past several years. Now it is occurring at a pace otherwise unpredictable just a few years ago.

We've studied the history of change through the period of modern man—B.C. to Christ—to the Middle Ages—to the centuries of discovery—and to the current American cultural and economic structure. Society has moved from a broadly independent structure of self-sufficiency to an environment of multiple interdependent relationships. The agricultural revolution gave way to the industrial revolution, which in turn preceded the information/technology "third wave" we are experiencing today. Yet we often view many of these changes as independent of one another as we search for ways to describe the cause, the process, and the effects of change. And we call it *evolution*.

One of the many subjects with distinct evolutionary markings and characteristics is the change in the *employer-employee relationship*. Its patterns of change are chronicled throughout the feudal system, the agricultural and industrial revolution, and through various political/social/economic structures up to and including the present worldwide corporate restructuring. This essay will explore one element of that employer-employee relationship. First, as an introduction to this relationship, it is valuable to establish an "environmental context" for the many relationship conflicts that are caused by the "force fields" of change. Forces affecting change are numerous. Some are "hard" forces such as legislation, regulation, and financial restrictions; some are "soft" forces such as moral beliefs, culture, and heritage.

Intertwined with these forces is the increasing speed of change in *relationships* that is evident within groups and among individuals. This is what I call the *relationship revolution*—the changing connection of almost any defined relationship between two or more elements. It is *not* an evolution.

The family relationship is abundantly defined throughout history with ample parallels between man and the animal kingdom. We know of the traditional hierarchy of a family: father, mother, husband/wife, child, brother/sister. And we know of the family's relationship to its society—its town, its religion, its country, its heritage.

Unfortunately, the three living cohorts of an "expanded generation," broadly grouped as the elderly, the middle-aged, and the young, are all witness to an erosion in the cornerstone of social structures . . . an erosion of the family unit. We measure the results of the *relationship revolution* in 50 percent divorce rates, explosive growth in single parent households, teenage pregnancy and unwed mothers, latch-key children, and elder care through distant surrogates. Commitments to defined religion are shaken. It is justifiable to assert that we are experiencing a revolution in our family and social relationships. Perhaps it is best to leave this to the sociologists.

But there is more. In the early 1980s, the crisis in American education, "A Nation at Risk," was elaborately chronicled. It asserted that the foundation of our educational system, an underpinning of society, was being eroded by mediocrity. Surely, the revolution in the family relationship is directly related to this "risk." Many suggest it is the primary cause.

And perhaps we can make a case for a relationship revolution between and among governmental/political units; among countries evidenced by trade and immigration standards; among and between states and the federal government as evidenced by movements supporting "states rights"; and in terms of political party to party and major to independents, as evidenced by the 1992 elections and the birth of the Contract with America in November 1994. From a nonjudgmental perspective, we recognize and accept these revolutionary changes occurring at a speed that eclipses our historical benchmarks. The dramatic benchmarks of the 20th century, World War I, World War II, Korea, Vietnam, and the cold war, in perspective, generated *decades* of

change. Yet, the end of the cold war and the rather peaceful restructuring of the Soviet Union that gave birth to newly independent nation states are measured in *months*. These changes didn't evolve. They just happened. A revolution in relationships.

From a positive perspective, these worldwide events of the last 50 years ushered in many improved relationships among countries, institutions, and peoples. Many of the recently retired and those at the leading edge of the baby boomers influenced or are directly a part of this wave of change. In our own environment we can enumerate many positive results and trends evident in our culture: advances in equal opportunity, increased accessibility to health care, dramatic increase in women's participation in the work force, overall improved standards of living, opportunities for leisure pursuits, and, until recently, rather stable and available employment opportunities. And by its general intent, a reasonably well run social insurance program—Social Security. Generally, the world is more at peace and less at war.

Realistically, however, the challenges are ever present and the relationships among and between people and institutions are in many ways very stressed. Education was mentioned. We need to do little to be reminded of the challenges crime presents to the country, the ravages of drug abuse, the fear of AIDS, fears among the races, and so on. These are all relationship issues . . . all accelerating . . . some good, some not.

The Employment Relationship

Among all of these changes, one stands out with immense significance and dramatic influence on individual behavior. That change is the *revolution in the employment relationship.*

We are witnessing the most dramatic shift in the employment relationship in the past several decades—perhaps ever! It redefines the relationship for the 1990s and establishes a new baseline for the 21st century. The employment growth in the large company sector since mid-century has been enormous, with the employment relationship documenting many of the changes. It accounted for the dramatic success and strength of the labor movement and its own measurable decline to date. Paternalism and "cradle to grave" approaches flourished (and rightfully so for many in those times). Company-sponsored and funded benefit plans were reasonably affordable, creating an "entitlement" culture, with plan provisions that nurtured a dependent *and* materially stable work relationship.

In some sense, the employment relationship between employer and employee provided one of the cornerstones of social stability and growth while the other relationships started to suffer, with the resultant divorce rates, educational declines, etc. Perhaps a stable employment relationship that nurtured dependency may have indirectly filled in for the family support system.

The employment relationship needed only little attention as it prospered through periods of economic expansion and the growth of the global marketplace. It was supported by the economic strength of the United States. Of course, there were periodic counter trends. But I believe we can look to the recent past and define a very different environment than we define today. Again, a relationship revolution.

The changes we must experience today and plan on for the future are not necessarily deserving of grades nor should they need a label of "better" or "worse." They are different. Reengineering, partnering, personal responsibility, teaming, personal commitment, and skills revitalization are all part of the new relationship. Behaviors will change and the relationship will be rebalanced. Gone is the "not to worry, the company will care for you" paternalism. But individuals should not see it as "going it alone." If we do it right and "evolve" through restructuring and right-sizing, we'll have a work ethic of doing things "together" with shared responsibility for corporate and personal success. This particular topic touches a nerve that can open a much different debate, which this writing doesn't intend to address.

We can, therefore, conclude that the employment relationship is our own revolution appearing in a very short period of time. Are the causes, results, or its manifestations good, bad, or neutral? That, in many ways, depends on the individual's place on life's curve and readiness to adapt to the demands of a different economic and social structure.

As in most relationships, which we defined as a connection between two or more elements, there are many variables: education, age, income, gender, etc., and the "tone" of society.

Retirement Security

Let's inspect one "variable" in the cross-hairs of the employment relationships: long-term financial security. It has been called retirement readiness or preparing for retirement. Not a good term for the future, but I'll address that later.

The traditional financial employment relationship that has evolved over several decades, at least in the large employer market, involved the ubiquitous three partners—the individual, the employer, and the federal government.

Through the employment years, the government collects your "premium payments" (Social Security taxes) with a promise to pay on retirement. Frequently, an employ*er* would recruit and support skills retention through relatively generous retirement plans. The employ*ee* often has access to a voluntary saving plan to complete the partnership. It worked and works quite well. Confidence in and expectations of Social Security adequacy were taken for granted. Financially successful corporations often strengthened the binds of the relationship with improved and increasingly valuable benefits. Not bad! And employees were often encouraged to "supplement" their future retirement income by participating in a savings plan or 401(k). The operative word is *supplement*. So we experienced an *evolution* of security growth (or the projected availability of it) with a predominantly paternalistic employ*er* approach nurturing a culture of employ*ee* entitlement.

Then along comes the revolution. The *relationship revolution* that has permeated our entire society now shows up at the employer. The employment relationship enters its revolutionary period. Changes abound—some immediately good and some distressing and requiring time for employees to understand, assimilate, and adjust to. The design changes, costs, and delivery methods and options associated with health care benefits are one example. Health care delivery arrangements and the immediacy of addressing an individual's illness make these changes relatively visible. This visibility encourages employees to react and adjust behaviors accordingly. But a somewhat less visible and less immediately quantifiable employment relationship is dramatically unfolding. It is the revolution in the retirement security relationship.

The impact of this revolution will be quite profound, dissatisfyingly profound if behavior by the "third partner"—the individual—does not change quickly and dramatically. Business is rapidly adjusting its long-term commitment. Government deficits and "trust solvency" issues will, beyond a doubt, both delay (i.e., extend to a later age) and reduce future Social Security payments. Who should the individual blame? Business *must* renew relationships—it must remain solvent, profitable, and compete effectively. The relationships of business involve the total marketplace, the customer, the shareholder, and the employee. To be the best of breed and have some assurance of future success, all of these relationships need to be adjusted. So corporate *total compensation* strategies must also be adjusted within the employment relationship.

And what of the government, e.g., Social Security? The nation cannot continue to sap its economic strength with unchecked trade and budget deficits. The demographic and financial challenges presented by our aging population demand a reassessment of the level of governmental coverage. Increasing taxes to maintain the long-term status quo is not an acceptable response.

If this revolution results in a reduction in expected entitlements, who will be blamed? Assessing blame or avoiding responsibility is not the answer. Let's adjust behavior. If there is blame to spread around, perhaps we as individuals own a great deal of it, for we are the consumption-driven, immediate satisfaction spenders who are savings adverse. We've created a live-for-the-moment society.

As we assess the challenges of increasing global competitiveness, a national need to live within budgetary requirements, the changing demographics of our nation, and the reality of individual responsibility, we bear witness to a revolution in the retirement security relationship. And, as in life itself, the puts and takes will be disproportionate. The fear is that this change will be perceived by the individual worker as *more evolutionary,* at least in terms of the individual's response, than it is! And such a response reduces preparation time and further exacerbates the savings crisis.

Recent research and survey findings support this. It is evident in the *Merrill Lynch Retirement Planning Surveys*, in Public Agenda's *Promises to Keep*, and in Schieber and Graig's work, *The Sleeping Giant Awakens*. A small proportion of the work force is adequately planning. The largest proportion is not responding adequately at all, and 50 percent of the employed are *not* currently covered by an employment-based retirement plan. If future Social Security payments provide less replacement value and employer-funded plans are in aggregate adjusted downwards, what is the retiree of 2010 or 2020 to rely on? One response must be on personal, lifelong, committed savings dedicated to financial security in retirement years.

One very important response to the relationship revolution must be personal financial responsibility. Earlier it was stated that employers provided savings plans to encourage employees to *supplement* retirement income through voluntary participation. And the recently retired generation expected Social Security to be the primary retirement income source. The focus, at least the planning focus, must shift. Individual savings and personal financial responsibility should now be *primary*—not supplementary, not complementary, but assuming a role of primacy.

One hypothesis suggests taking a conservative view, assuming the above change in primacy. Assume less combined replacement value from Social Security and employer plans and further assume that these receipts

would be marginal or only approaching baseline sufficiency. Then the individual shift must be to a dramatic increase in personal savings, perhaps two or three times, or more, of our current personal savings rate. And not just in the preretirement years. This savings rate must be sustained throughout one's career. Beyond the personal security this builds, economists suggest such a change will fuel the national economic engine of growth. And with this *primacy* shift in the employment-work-responsibility relationship, any "excesses" not anticipated from government plans or employ*er* funded plans would be the proverbial "gravy," resulting in greater financial comfort and retirement readiness.

Approaching Workers

So now the spotlight has exposed one *variable* in the employment relationship and introduced a *relationship revolution* in the form of retirement security. The challenge remains getting to the hearts and minds of over 100 million U.S. workers. One thing we ought not to do is overuse the word *retirement*. A few reasons come to mind: 1) the definition of retirement has changed; it means different things to a 65–70 year old than to a preretiree aged 55–60; 2) *work-life-age* patterns no longer fit structurally defined forms of the past; and, 3) most people under age 30 block out any material need to focus on items related to retirement. *Long-term financial security*, *wealth accumulation*, *net worth* might be much more appropriate terms for the baby busters and generation Xers!

To get the attention of the national work force and avert another potential nation-at-risk syndrome, we need a thoughtful, sustained, and targeted national education campaign. This is not a new thought. It has become somewhat of a call-to-arms recommendation from several quarters. However, this writer harbors a suspicion that we in the pension savings plan design world are talking among ourselves and that the general issues we agree on are not penetrating the audience at risk, i.e., those with the future individual responsibility to change spending and savings patterns. The more highly educated work force, the highly compensated, the "large employer" employees are receiving some messages and behavior is changing. But are those working elsewhere, those in different life cycles, recognizing this relationship revolution in financial security? Will short-sighted congressional responses to budgetary challenges further erode pension and saving devices so necessary to encourage and stimulate appropriate personal behavior? The whole of the business community and the whole of the government—regulators, administrators, and legislators—must find a harmonious purpose to maintain effective legislation that supports business goals and individual savings needs. Not confiscatory policy or a *further* erosion in pension/savings supportive legislation.

Conclusion

This paper concludes with a *single* point among the multiple and complex issues dealing with savings rates and retirement security. The point is we need a national savings campaign. And it must start with *awareness*—not education. A national campaign needs to get worker attention, bring awareness to the issue, and drive home the need for a behavioral response from the individual. The debate by policy wonks and pension planners regarding "education vs. advice" will go on. It ought to be done for the benefit of the individual. But first, *awareness* is key. Then information, education, and perhaps advice can follow. We've had successful national campaigns before: the risks of smoking (Surgeon General), automobile safety and seat belts (the "dummies"), drug awareness (just say NO), environmental risks and pollution (car-pooling and recycling). And they started as *awareness* campaigns. Their success or failure is not the issue. Success will be measured over the longer term. If done well, education will naturally follow. Right now we need *awareness* in the work force that the "financial security relationship revolution" has arrived. The messages, the platform, the approach ought be positive and all embracing, not frightening or overwhelming. And I would hope that representatives of the government and the financial services industry supported by trade/business associations and academia can team together to bring awareness to the work force now.

Harry and Louise...are you available?

Chapter 4: Educating Workers to Save for Retirement: The Participation Decision at AT&T

Dan Vinod, AT&T

Introduction

Since the Tax-Reform Act of 1986, defined contribution (DC) plans have figured significantly in the policy discussions at the national level and among large corporations. The act fundamentally altered the role of DC plans from being a source of funds for short-term contingencies to being a long-term capital accumulation vehicle for partly self-funding a worker's postretirement income stream. At AT&T, we emphasized this by adding the phrase *long-term* in the name of our two DC plans.[1]

The February 1995 issue of *EBRI Notes* reports, "Employers of all sizes are placing increasing emphasis on using defined contribution plans to provide capital for retirement. Participation in 401(k) plans grew from 3 percent in 1983 to 14 percent in 1988 to 23 percent in 1993. . . . Among the workers who are offered the opportunity to participate in such a plan, 67 percent did so in 1993, compared with 39 percent in 1983." At AT&T, the participation increased to 79 percent in 1994 from 63 percent in 1991 for full-time occupational employees. For full-time management employees, the participation increased to 90 percent from 83 percent. Clearly, the message appears to be getting through.

This discussion begins by surveying the factors influencing the personal savings rate and individual decisions to participate in the employment-based 401(k) plan. It reviews the potential of the 401(k) plan as a vehicle of choice for long-term, tax-advantaged capital accumulation for retirement income. Highlights of the two main AT&T plans are included to indicate their size and scope. The discussion then outlines AT&T's efforts to encourage employees to think long term, to understand the need for assuming an increasing share of responsibility for adequate income during the retirement years, and, in particular, to provide its employees with basic financial and investment education. Also discussed is how AT&T's savings plans data base serves as an intelligence source for formulating long-term qualified plans strategy and how it assists in targeting limited resources for cost effectiveness. Next is an illustration of savings "patterns" among AT&T employees and finally a demonstration of how our communication and educational efforts are contributing to a dramatic increase in participation.

Factors Influencing the Personal Savings Rate

Three groups of factors affect the personal savings rate:

- Cultural and societal
- Political, economic, and international trade
- Intracompany, demographic, and personal factors

Cultural and Societal Factors

Obvious factors suggesting present sacrifice for future security include common sense, uncertainty, future expectations, and confidence level. Common sense does not have a uniform meaning across cultures and societies. The Japanese, Chinese, and Indians, in their vastly differing economic circumstances, are able to set aside 20 percent to 25 percent of their incomes, while Americans set aside less than 5 percent. These older societies do not have government-provided old age pensions or health services anywhere near the level of those in the United States. These societies have not yet granted their citizens a labyrinth of "entitlements" to dip into the national treasury. The myth of Social Security as an earned entitlement does not exist in the East. Of necessity, and perhaps not because of any greater wisdom, these societies must rely on *living below*

[1] AT&T's Long-Term Savings and Security Plan (for the occupational employees) and the Long-Term Savings Plan for Management Employees.

means and on family resources to look after their seniors. Their historically proven strategy would yield to the American model as these societies progress economically and become more optimistic. Ironic but inevitable.

American society's legendary resourcefulness, optimism, invincibility, and resilience are the envy of the world. Optimism may seem to wane at times but, historically, it has always returned. The genius of the New Deal programs pulled the nation out of the great Depression and paved the way for unprecedented prosperity for the next 60 years. That success and the victory in World War II made the nation feel invincible and omnipotent. The Cold War sapped a major proportion of the nation's wealth and the Great Society programs created a new religion, *entitlism*. Social Security, instead of being a supplemental safety net, became a birthright. I nevertheless believe that ultimately the seniors will sacrifice willingly for posterity if they are told the truth. In the meantime, the message seems to be getting through to the baby boomers and generation X that they must sacrifice for the sake of their own retirement security.

Political, Economic, and International Competition Factors

The New Deal and Great Society programs become unaffordable as the nation's productivity advantage over other nations erodes and free trade becomes freer. The standard of living stays flat or declines. The politicians do not level with the public. The federal debt climbs. The value of the dollar goes into a free fall. The baby boomers worry about their retirement security and lose faith. Congress changes hands. Welfare state orthodoxy begins to yield to libertarian ideology. Will the nation rededicate itself to the principles that made it the envy of the world? Will the Protestant ethic bury entitlism and restore self-reliance? How will U.S. workers react to a potentially monumental shift in national policy and ethic?

Intracompany, Demographic, and Personal Factors

The above factors have a fundamental but indirect effect on American workers' ability and willingness to participate in their 401(k) plans. More immediate and direct factors affecting participation in 401(k) plans include:

- Pay and bonuses
- Age, length of service, and gender
- Family status and size
- Family debt
- General educational level
- Existence and size of company matching contributions
- Effective plan communication
- Limited access to 401(k) funds
- In particular, access to financial planning and investment education.

Can 401(k) Plans Become a Primary Source of Retirement Income for the Average Worker?

Reported research has not established that 401(k) plans and other individual savings vehicles by themselves can provide adequate retirement income for the average worker. For most workers the role of 401(k) plans is likely to remain subordinate to Social Security and employment-based pension plans, when available. The 404(c) regulations are providing a stimulus to add investment options to 401(k) plans, covering a broader investment risk vs. reward spectrum. However, an employee's willingness to act in his or her best long-term self-interest seems to be affected by limited access to affordable financial education and/or financial planning assistance from disinterested, trustworthy sources.

It is unclear if the conventional wisdom of encouraging investments in stock funds would yield results that would duplicate historic total returns in the coming decades. A number of questions arise:

- Is there a danger of a giant bubble resulting from massive flows of capital into the equity markets if most 401(k) plan participants shift a larger share of their assets into the equity markets? An article in the business pages of the *New York Times* of Sunday, April 2, 1995 hinted at just such a reason for the current highs in the Dow Jones Industrial Average.
- What if the nation's capacity to absorb new equity capital becomes temporarily saturated?
- What would be the participants' reaction to a subsequent sharp downturn in the market after a bubble?
- Is it realistic to expect most workers to convert from spenders, to savers, to investors?
- Is it really a matter of financial and investment education?
- Can shallow pockets withstand sustained negative total returns in a bear market?
- What about the historically heavy weighting on employer stock among 401(k) plan assets?

These questions suggest that assets accumulated under 401(k) plans may not become comparatively significant contributors to postretirement income for the average American worker. At AT&T, the assets are becoming significant for full-career employees. But what if tenure with a single employer shortens?

Table 4.1
AT&T Savings Plan Highlights

Long-Term Savings Plan for Management Employees (12/94)	Long-Term Savings and Security Plan for Occupational Employees (12/94)
• Date of Inception: July 1969	• Date of Inception: July 1979
• $9.7 Billion in Assets	• $3.4 Billion in Assets
• 121,000 Participants (Including Retirees and Terminated Employees with Plan Balances)	• 116,700 Participants (Including Retirees and Terminated Employees with Plan Balances)
• 90 Percent Participation Rate among Full-Time Employees	• 79 Percent Participation Rate among Full-Time Employees
• Average Balance: $77,200	• Average Balance: $27,400
• Average Annual Company Match: $2,400	• Average Company Match: $1,000
• Recordkeeper: Fidelity Investments	• Recordkeeper: American Transtech

Source: AT&T

AT&T DC Plan(s)

AT&T has separate defined contribution plans for its management and occupational employees (table 4.1). It also has a savings and profit-sharing plan for its nontelecommunications businesses such as equipment financing. This discussion focuses on the former.

AT&T Direction: Total Remuneration, Retirement Income / Benefits, and Employee Communications / Education

Since the Bell System divestiture, AT&T has moved away from paternalism to partnership in all aspects of its benefits structure. Personal responsibility is becoming a material factor during an employee's active career as well as after retirement. Global competition has led us to adopt a *total remuneration*—pay, benefits, and prerequisites strategy—as a fundamental tool to assess our labor competitiveness in geographical as well as product/service markets across the globe. We are assisting employees in gaining a good understanding of the value of employment at AT&T, both economic and intangible. We believe that such an understanding is a prerequisite to effective actions on the part of employees. *Long-term* has become a key phrase in AT&T's employee communications on its 401(k) plans. These communications are beginning to place greater and continual emphasis on the fact that availability of adequate postretirement income and benefits is a joint employer-employee enterprise. We believe that providing employees with the necessary tools to make informed decisions is in the best interest of both the employees and the company.

We are seeking to focus employee attention on dynamic financial planning as a career-long, adaptive, and on-going responsibility.

For our savings plans we have adopted the following principles:

- Educate employees about their part of the responsibilities to provide for their own financial security through participation in the savings plans.
- Provide employees with the tools necessary to make informed decisions.
- Expect employees to make informed decisions regarding their personal finances and accept responsibility for these decisions.

Educational Efforts

Internal Educational Publications—AT&T regularly publishes the following communications for employees:

- A monthly newsletter, *Compensation and Benefits Update,* for active employees;
- A quarterly magazine, *Encore*, for retirees;
- Quarterly/semiannual statement inserts with savings plans account statements;
- An annual total remuneration report entitled, *Value of Your Employment at AT&T*; and
- A savings plans reference book, entitled *Your Investment Guide,* for all employees eligible to participate in the savings plans.

Seminars—Three-hour seminars on AT&T savings plans provide basic financial education and plan specific information. These seminars were particularly successful in 1994, when we implemented major changes in our management savings plan. They are scheduled and funded by our business units. A number of for-fee type of vendors (i. e., offering no commission-based products and services) have been selected as approved vendors in consideration of their national coverage and financial planning competence.

AT&T also conducts one-day preretirement seminars that are available to employees and their spouses and operate similarly to the savings plan seminars as to funding. All retirement benefits and other information pertinent to employees considering retiring is reviewed. Executives are provided with one-on-one financial counseling and planning assistance.

Financial Planning Assistance—AT&T is in the development stage of providing employees with access to personalized, software-based financial planning assistance that is expected to be made available later in 1995. The software identifies income replacement needs and takes into account pension benefits, savings plan balances, and Social Security. Represented occupational employees have enjoyed access to financial education under the auspices of the Alliance for Employee Growth and Development, Inc., as part of the Alliance's employee skill enhancements mission. (Alliance is discussed later in this paper).

How Do AT&T Plan Participation Rates Compare with the Industry?

Table 4.2 below shows that the AT&T overall participation rates for its two 401(k) savings plans have grown substantially over the past three years. The cumulative growth has exceeded that in the industry over the same period. For the full-time occupational employees, the cumulative gain is dramatic; the overall participation rate has gone up by 16 percentage points in the three years since December 1991. We think that our plan communications and educational efforts contributed to this improvement.

Table 4.2
Overall Average Participation Rates: Industry Versus AT&T

	1991	1992	1993	1994	Increase 1991–1994
Overalll Survey Average[a]	74%	74%	78%	78%	4%
AT&T Full-Time Management Employees	83.3	84.9	87.3	89.9	6.6
AT&T Full-Time Occupational Employees	63.3	71.3	74.4	79.3	16.0

Source: AT&T
[a]Buck Consultants, 1994 Internal Revenue Code Sec. 401(k) Plan Survey.

AT&T Savings Plan Data Base

Historically, AT&T had comprehensive summary data on plan financials and transaction processing activities. However, we did not have a comprehensive data base that combined financial, operational, and demographic data at the participant level. Such a data source was considered a valuable tool for formulating and monitoring the effectiveness of AT&T's long-term 401(k) plan strategy and was necessary to obtain intelligence on employees' behavior with respect to participation, contribution, and asset allocation. In 1991, we established a data base that combined selected data elements from the recordkeeper's transaction data base and from AT&T's human resources data base. We chose compensation, age, service, employee classification(s), gender, and race as the basic demographic variables. We defined a standard group of statistics (a total of 15) to produce quarterly reports using various combinations of the demographic variables. For a given combination of demographic variables, we produce averages such as participation rate, account balances (total, and by individual funds), employee contributions (dollars, and percentage of compensation) by funds, company contributions, loan balances, etc.

Tables 4.2–4.5 provide our experience with respect to employee participation trends over the 1991–1994 period.

The following sections discuss how the savings plan data base provides insight into the nature of participation patterns among AT&T employees with respect to selected demographic variables such as age, gender, race, and plan years.

Plan Participation Patterns by Age Groups

Table 4.3 shows the relationships between age and plan participation rates, based on the savings plans data base. The table shows that participation steadily improves with experience, i. e., age. It shows dramatic increases in participation for employees under age 25. The full-time management employees' participation increased by 31.1 percentage points, and that of like occupational employees increased by 19.3 percentage points between December 1991 and December 1994. The cumulative gain steadily declines for higher age groups through the age 50–54 group and begins to climb back with the age 55–59 group. These data show that AT&T's employees are beginning to save early and in increasing proportions. This is clearly encouraging. It appears to contradict the conventional perception that young adults are spendthrifts and do not have a long-term perspective!

Table 4.3
AT&T Participation Rates by Age: Full-Time Management and Occupational Employees

Employee Group	Year	Under 25	25–29	30–34	35–39	40–44	45–49	50–54	55–59	Over 59.5
		Age								
Management	1991	47.7%	71.1%	80.5%	82.7%	85.3%	87.9%	91.3%	92.9%	93.8%
	1992	57.6	75.8	82.0	83.8	85.2	87.2	90.5	92.6	93.7
	1993	62.1	80.1	84.9	86.4	87.0	88.8	91.6	93.8	94.7
	1994	78.8	84.9	88.1	89.2	88.8	90.1	92.7	95.1	94.9
Increase	1991–1994	31.1	13.8	7.6	6.5	3.3	2.2	1.4	2.2	1.1
Occupational	1991	28.7	51.1	63.0	65.9	70.6	76.6	77.9	78.7	76.9
	1992	38.1	56.5	67.6	68.3	72.0	77.1	79.3	79.6	77.6
	1993	44.3	61.4	71.2	71.8	74.2	78.3	80.9	81.1	79.7
	1994	48.0	65.8	75.5	76.5	78.2	81.5	81.5	86.6	85.6
Increase	1991–1994	19.3	14.7	12.5	10.6	7.6	4.9	3.6	7.9	8.7

Source: AT&T

Table 4.4
AT&T Participation Rates by Gender and Race: Full-Time Occupational Employees

Gender	Year	White	Black	Hispanic	Other	All Races
Female	1992	69.0%	69.6%	66.5%	79.0%	69.2%
	1993	72.0	73.6	70.3	80.2	72.5
	1994	78.8	77.9	79.9	86.2	78.6
Increase	1992–1994	9.8	8.3	9.4	7.2	9.4
Male	1992	76.0	63.4	65.3	73.5	73.8
	1993	78.5	68.3	68.6	75.5	76.7
	1994	81.7	71.3	72.5	82.3	80.0
Increase	1992–1994	5.7	7.9	7.2	8.8	6.2

Source: AT&T

Table 4.5
Financial Seminars and Plan Participation Increases, by Gender and Race

		White		Black		Hispanic		Other		All Races	
Gender	Year	Percentage attending seminars	Increase in partici-pation	Percentage attending seminars	Increase in partici-pation	Percentage attending seminars	Increase in partici-pation	Percentage attending seminars	Increase in partici-pation	Percentage attending seminars	Increase in Partici-pation
Female	1993	2.9%	3.0%	2.2%	4.0%	4.0%	3.8%	2.9%	1.2%	2.8%	3.3%
	1994	4.0	6.8	3.0	4.3	4.9	5.6	3.8	6.0	3.8	6.1
	Total	6.9	9.8	5.2	8.3	8.9	9.4	6.6	7.2	6.6	9.4
Male	1993	2.0	2.5	1.6	4.9	2.9	3.3	1.2	2.0	2.0	2.9
	1994	5.5	3.2	2.2	3.0	3.5	3.9	2.9	6.7	4.9	3.3
	Total	7.5	5.7	3.8	7.9	6.4	7.2	4.1	8.7	6.9	6.2

Source: AT&T

Plan Participation Patterns by Gender and Race Groups

Table 4.4 shows that there are no major differences in plan participation rates among white, black, and Hispanic females. These three groups increased their plan participation rate between December 1992 and December 1994 by about the same percentage points. The group Female-Other consists mainly of Asia/Pacific Islanders and American Indians. Their participation rates, namely, 79 percent in December 1992 and 86.2 percent in December 1994, are substantially higher than those of the other three groups, seeming to confirm the Asians' tendency to be savers. However, this cannot be said of the Male-Other group. It would be valuable to learn how this experience compares with the general industry trend when the Employee Benefit Research Institute (EBRI) completes its DC project and establishes a comprehensive DC plans data base source on a national scale.

Does Targeting Attention to Nonparticipants Increase Their Participation?

One AT&T effort was directed specifically toward eligible nonparticipants in the Southern region. In spring 1992, we conducted special savings plans seminars in this region. Over 3,200 management and occupational employees attended the seminars, and 661 enrolled in the savings plans. In the second quarter of 1992, 14,319 nonhighly compensated, nonparticipants were solicited through mail and telephone calls, and 1,836 enrolled. This 1992 effort, conducted by AT&T's savings plans administration organization, clearly contributed to the major increase in participation that year in the under age 25 group, i. e., 9.9 percent for management and 9.4 percent for the occupational full-time employees.

Do Financial Education Seminars Contribute to Increased Participation?

Several years ago, AT&T, Communications Workers of America (CWA), and the International Brotherhood of Electrical Workers (IBEW) established a cooperative venture, the Alliance for Employee Growth and Development, Inc. The Alliance is dedicated to encouraging union-represented employees of AT&T (both active and surplus) to develop their skills, abilities, and talents through educational opportunities. Included in the offerings are seminars on financial education, e.g., Building Your Financial Future, Investment: Strategies and Tactics, Preretirement Financial Planning, etc.

Table 4.5 relates the 1993 and 1994 attendance at the Alliance's financial education seminars[2] with the percentage increase in employee participation in the savings plan. The data are grouped by gender and race. These data show that in practically all gender/race groups, the increase in the savings plan participation exceeded the seminar attendance percentages. This would suggest that attendance at these courses as well as other factors described earlier in the paper are contributing to the increased participation. Further data and analysis would be necessary to determine the statistical significance of various factors.

Conclusion

Several empirical conclusions can be drawn from AT&T's experience:

- The 1986 tax reform appears to have succeeded in drawing attention to the long-term horizon.
- It is possible for plan sponsors to gather systematic intelligence on their 401(k) savings plans.
- Contrary to conventional perception, younger employees are beginning to think long term in increasing numbers.
- Focused attention and financial education contribute to increased participation.

While this paper focused on the participation decision, our data base is also providing insights into the other two fundamental variables of 401(k) plans: contribution and asset allocation. These insights are helping us to act knowledgeably with respect to plan design and operation. However, the scope of our data base is necessarily limited. We think EBRI's DC project will be a great leap forward in facilitating greater understanding of DC plans' effectiveness through objective analysis, and in turn, contribute to the national policy debates on how DC plans affect retirement income security.

Discussion After Sauvigné and Vinod Presentations

LAURA BOS: You mentioned your eight or nine page glossy and the newsletter. What other tools does IBM use in order to try to create awareness and which do you think is the most effective?

[2] Buck Consultants. 1994 IRC. Sec 401(k) Plan Survey (New York: Buck Consultants, 1994).

DON SAUVIGNÉ: One of the most effective influences to get new hires into the plan is peer workers. It probably has more success than any other single item.

Once you provide the material to the individual, you have an ongoing indirect "bombarding" through newsletters, electronic bulletin boards, etc.

You get monthly bombarding in the electronic bulletin board with the results of the 401(k) plan. So if you're not in it, you know it exists! You see it over and over again.

We also use electronic media and software packages for employees to model their own situation. You can do that right at your work station, too. One of the tools we call Estimator. You just type in Estimator on your system, fill in a couple of variables, and within minutes you'll get a multi-page report back that answers your questions. What if I were planning to retire 5 years from now, 10 years from now, next week if I'm eligible? What if I change my 401(k) contribution from 6 percent to 8 percent? What if I change that return on investment projection from 8 percent to 10 percent? It will generate a number of scenarios. That's very helpful in maintaining a constant awareness of the value of the plans.

DAN LEACH: First, do you have data indicating why employees don't participate in the plan?

Second, how much of a factor do you think the change in the employment relationship and a belief that the employment relationship may not continue is a contributing factor in why people may not be participating in defined contribution plans?

DON SAUVIGNÉ: To your first point, I don't have any empirical data. Intuitively, I would suggest two reasons.

One is the low wage earner who has too little cash flow and an inability to save. Second, is where the worker is a "second wage earner" and the family hopefully is using another vehicle for savings.

Regarding your second point, if the employment relationship is perceived by the participant as less stable—with the prospect of turnover—there may be more reason to save. Hopefully, the aspect of individual responsibility will become much more evident.

DAN VINOD: I reported a snapshot. There is actually seasonality. The participation rate goes up and down.

Our communications group routinely collects information on the results of practically every instrument of communication. The younger people don't want to see any paper. They ask why they have to call a recordkeeper and listen. Why can't I simply pick it up and stick it in my personal computer, they ask.

DON SAUVIGNÉ: We automatically upload the defined benefit plan materials in the system monthly, with the data from the 401(k). We get them directly from Bankers Trust, which manages our accounts, and report on a monthly basis. You don't have to call the 1-800 number. You don't have to wait for your quarterly statement. That helps on the total "estimator" modeling.

PATRICIA PAGANO: Frank Russell does communications for IBM. Does IBM have any involvement or is it hands-off?

DAVID JEPSON: IBM has extensive involvement. We work closely together. The material is not off-the-shelf. It's customized specifically for IBM and written to their specifications.

PATRICIA PAGANO: Do you get a lot of feedback, and is it meaningful?

DON SAUVIGNÉ: The question relates to the newsletter. On the back of the newsletter there are different ways a plan participant can give us feedback. Typically, three times a year we conduct a voice response survey through the 800 number. We had a measurable increase in satisfaction with the plan and the communications materials.

PATRICIA PAGANO: Do you know why they responded favorably to both plan improvement and communications?

DON SAUVIGNE: One feedback message was to make the newsletter more user friendly.

PATRICIA PAGANO: Does this go out alone or with the statement?

DON SAUVIGNÉ: It goes with the quarterly statement. It goes to inactives, actives, nonparticipants, and participants. A nonparticipant gets the newsletter without an account statement.

MS. PAGANO: Who runs your 401(k)?

DON SAUVIGNÉ: Bankers Trust is our recordkeeper and service center provider. They batch the newsletters with the statements.

JEFF PASTER: Given the changing relationship between the employer and the employee, do you think the change that you've talked about will have any meaningful effect on people's asset allocation? Do you think the perception of a little less certainty and a shorter time horizon will cause a change?

DON SAUVIGNÉ: Not at a point of departure if you have a reasonable accumulation in the 401(k). We don't change your ability to interface with that account, except you can't make additional contributions. So I don't think that the occurrence there would generate a change in behavior about your allocation at that point in time.

However, I think the employment relationship change is a positive change. Is the overall national trend for worker turnover increasing or decreasing? Is it a myth that we're all in a more mobile society? I personally believe in the EBRI data that indicate it's not growing out of control. As a company where we traditionally have had 1.5 percent turnover for decades, it will be dramatically higher. I still think we'll be below our industry standard and well below normal national work force patterns in turnover. We'll also do a lot more midcareer hiring. Increased awareness in the U.S. work force should generate improved allocation spreads.

MICHELLE EHM: Are you using different media to target your nonparticipants in the communications program versus your participants?

Second, does your Estimator program allow employees to model how their take-home paycheck will change based on their contribution rate?

DON SAUVIGNÉ: Targeting the nonparticipants is a personal letter, sent to the home with the newsletter. They are also exposed to all of the other media at work.

Good question on the take-home pay. No, it does not. It's just modeling against the savings rate.

We have another software device we called Planner that is a highly sophisticated, interactive tool with all of the IBM plans on it. It's currently out of date and under review. I think it's too sophisticated, to be honest with you, for the amount of expense you put into it relative to the utilization you get out of the total population. It might be a great tool for a financial planner to use with an individual. So we're looking at putting something out that I've tabbed as Planner, Jr. Maybe it will have 40 screens or 10 screens so that more of the population won't be scared to use it. I've not thought of the take-home pay equation there. That's a good point.

MICHELLE EHM: So in your secondary letters that you send out, if they don't respond to your first set, do you personalize those with their salary information?

DON SAUVIGNÉ: No. We have been thinking of providing a hypothetical statement with their numbers: Had you done this, this is what you would have today. We haven't crossed that bridge yet.

CHIP ROSENTHAL: Is there an asset allocation package in there that would allow projections under different allocations?

DON SAUVIGNÉ: Yes. You build your own allocation.

CHIP ROSENTHAL: Does that model then take the expected return and project that only or do you incorporate risk?

DON SAUVIGNÉ: It does not allow risk modeling. You put in your own expected percentage return.

PAUL YAKOBOSKI: When you look at nonparticipants, do you identify who they are and, potentially, why they're not participating?

DAN VINOD: We look at what kind of jobs you are in and try to understand job variation. But our rates are very high.

PAUL YAKOBOSKI: Is your general impression that the same people remain nonparticipants or is there turnover because of the life cycle and seasonality?

DON SAUVIGNÉ: I think there's a segment that does represent a hard core nonparticipant. I think there is also seasonality and the turnover population. I think those are some of the primary threads in the evidence, predominantly for the low paid and second wage earner.

DAN VINOD: There is one other factor. Some people dislike the fact that they cannot put their hands on the money when they need it, and they don't participate.

RICHARD JOSS: I worked with one plan sponsor in the public domain that has elected a Social Security opt-out and only has a defined contribution retirement plan. If participants didn't participate, they were really left holding the bag. The sponsor sent nonparticipant statements and information updates. We finally identified people who had been employed more than five years, were over age 35, and

were not saving at a reasonable level. We then wrote them a nasty letter. It wasn't quite the picture of the homeless person that said this is going to be you, but it was close.

Having done that, one-half of the people actually responded by materially changing their behavior. This exercise indicates that if you do something different from the routine, you can affect people's behavior.

One-quarter of them wrote a nasty letter back and said, "Get the heck out of my life and leave me alone." We didn't hear from one-quarter of them at all.

How strong is your message when you contact these nonparticipants, especially if they have been with the organization for a while? Do you get materially more heavy handed as time passes?

DON SAUVIGNÉ: No. We haven't gone to the homeless message, and we haven't gone to the personalized letter yet. It's 10 percent, not 50 percent, of the work force.

We will continue chipping away.

BRIAN TERNOEY: It's clear to us that the days of the massive employer campaigns to increase participation are over. It is not cost effective.

I think there is a hard core group that says: "I just don't make enough money. I'm not going to participate, and I don't care."

A lot of individual factors are significant. It varies from organization to organization. Clearly, the spouse's influence is an important factor. We see that time and time again. A lot of people say, I joined the plan because my spouse told me to; I did not join the plan because my spouse told me not to. Another factor is trust in the employer. When participation is low, a frequently cited reason is, "I don't trust the employer." We've worked with hotels and department stores. We see a wide variation in participation rates at different locations, with lower participation where you don't have a professional employee benefit staff.

GEORGE COWLES: A 90 percent participation rate is about all anybody is going to get. One of my favorite stories in this business goes back some years where a plan had a match of $0.50 for each dollar the participant put in plus $0.05 for each $0.05 per share the stock earned in excess of $2.00 a share. The match got to $4.25 per dollar contributed, and they had about 96 percent or 97 percent participation. I think the primary issue is trust in the employer. You're going to give me $4.25, but I've got to give you my dollar first? Why? I think 98 percent or 99 percent is Nirvana, and I don't think we'll get there.

DAVE VEENEMAN: I'd like to echo the comments on the issue of trust. We have been struck by the number of participants who don't understand where the money is invested.

We've had two situations this year where participants thought the company was building a new plant with the 401(k) contributions. In one case, there was a generous match but trust was low. Employees said in focus groups, "The company must want my money awfully badly. Why?"

In situations where we've seen higher participation rates, particularly among the younger employees, we have been struck by sort of a "Dutch uncle" relationship between the sales people and their supervisors. We find it in divisions within organizations that have greater participation than other divisions. A common factor seems to be that managers take individuals aside, put an arm around their shoulder and said, "You really ought to think about this. We don't want to tell you what you ought to do, but give it some thought."

That seems to be something that gets through the noise when a relationship of trust exists at the line level. It seems to have a positive impact, particularly with younger employees.

We've had two employers in the last year who have done campaigns that targeted the managers in an effort to enroll the ultimate plan participant and to make the managers enthusiastic supporters of the program.

DON SAUVIGNÉ: Any concern on an employee reaction?

DAVE VEENEMAN: Well, it's worked. We had one retailer that targeted the supervisors. One of the things emphasized was not to sell, do not try to get employees to change what they're doing, just raise awareness.

DON SAUVIGNÉ: But was a supervisor advised that Charlie and Suzie are not participants; go talk to them.

DAVE VEENEMAN: No, no. Individual employees were not targeted, absolutely not. The process is to go around to all your people and mention that this plan is available, and share your experiences with them.

BILL LINK: As a nation, we're trying to increase the savings rate. There are many individuals who we are targeting to educate that are in the 45-, 48-, 50-, and 52-year-old age range, and those are the parents of kids who are aged 20, 21, and 25. We could work to educate the parents to influence the kids, to participate in 401(k) or

other types of programs early in their career, even though the parents and kids aren't at the same employer, if as a nation we're trying to increase savings.

I wonder what might result if employers tried to tell their associates, their employees, at age 45, 50, and over, to try to educate their kids, from a national savings standpoint, not from an employer's?

QUESTION FROM THE AUDIENCE: 1994 wasn't a great year for stocks and bonds. Did you see any decline in either the rate of participation or the rate of contribution, when people started getting statements showing negative results.

DON SAUVIGNÉ: Participation didn't decline. We did see some movement in asset allocation during the year. We also did get some feedback on the prompt line before the statement came out on why our international fund hadn't performed as well as others outside Europe, Australia, Far East index funds.

I don't think there was anything material. I think the educational process has worked, because we've been really hot on asset allocation for three years; it's time for a rise in diversification.

I think people understand diversification and movement a lot more today. We're going to daily valuation. We've been on a weekly valuation. I'm an optimist. I am hopeful that daily will bring no material change in the behavior. The lead article in our newsletter says, don't be a market timer; the daily valuation is not there for you to try to time the market.

Part Three
Appropriate Asset Allocation: What Is It?

Chapter 5: Appropriate Asset Allocation: What Is It? Investment Option Issues at Retirement

Brian Ternoey, A. Foster Higgins

I want to focus on something that is digestible. Hopefully, one message that comes across from the following discussion is that investment education is a complicated subject with many facets.

For the most part, good examples of investment education are available to retirement plan sponsors—I wouldn't call them experiments anymore. We're past the experimental stage with a lot of this material. There are some good examples of how you can communicate asset allocation issues to participants, and the evidence is clear that they do respond, but it will be slowly.

It is slow, and it's evolutionary. Participants need a lot of comfort with an idea before they use it. They procrastinate. There is a lot of inertia involved in how employees invest their money. That's okay. One of the 6,000-year-old rules of investment is: If you don't understand the investment, don't make it and, if it takes you a long time to understand it, don't worry about having missed a hot pick.

If a plan sponsor tries to incorporate investment education into benefit plans, as opposed to personal investment planning, I think what works for a 401(k) plan is much different from information that we're now trying to distribute to participants. These are benefit plans. It's not financial planning. It's a different venue.

There are two points in time, enrollment and retirement, when the participant has to face the asset allocation mix directly.

At retirement, it's usually in light of the distribution. It's not that the employee says, "Oh, I ought to think about my changing circumstances." It's still not natural for the employees to associate retirement with asset allocation, but they do have to fill out a form and talk about the distribution with the sponsor.

I think it is good to try to increase awareness at that particular time. It's just as important at enrollment, but to focus on one issue that's maybe become underrepresented, this discussion looks at retirement issues.

A participant currently deals with allocating account balances along the following lines:

One, buy an annuity. That's one of the standard pieces of advice that the employer gives. That way you won't outlive your income, because the level of income you get from the annuity usually isn't sufficient to live on. That's one of the standard approaches, though. It's just buy an annuity, and then you're certain that the payments will be there as long as you are.

The second most common approach we've seen from sponsors is: Put your money in the safest place. You want to preserve the principal. You want to be careful with this money. This is your nest egg, and that's sacrosanct. So preserve it.

The third approach is: Take a lump sum on a rollover and just go away. Take the money and leave us alone. Don't come back, and good luck to you.

All of these approaches are a bit wanting. I think that a lot of employers are responding to this. There has traditionally been more preretirement counseling about investments than there has been about other asset allocation issues. I don't think it's entirely inappropriate to go back and look at some of these issues anew. It's time to improve on that.

It's not so much that there is no facility in place to talk to people before they retire. More and more, we see plan sponsors opening counseling to younger and younger employees. They used to do retirement counseling when an employee was around 55 years old. Most sponsors now are down to age 50 or even younger. They see people have to start planning further ahead.

I want to talk about the fact that the basic allocation parameters to consider are a little different at retirement. The safety of the payout is more important than the safety of the principal. The problem from an investment standpoint, and focusing on it from the participant's viewpoint, is that the investment portfolio should maximize the account life. "How many payments can I get out of my account," is a more natural question for the participant than "how much should I invest in equities?"

Then we still have to deal with the problem of the effects of inflation. This really is as big as, if not a bigger,

problem than investment returns.

To try and narrow things down, the proposition that we looked at was this: The surety of the payment is more important than the preservation of the principal. However, the required amount of each payment is often more than the amount life annuities will provide.

The emphasis for the employee has to be to set a budget, realistically look at retirement resources before retiring, and then use asset allocation to try to maximize the amount of payment that he or she can get.

The example I use is a woman with a $1 million account balance who decides that a realistic payment—need—is $100,000 a year. I don't think these are unrealistic parameters. The average account balances at most sponsors are probably much less than $1 million, but we're seeing plenty of people in their 30s, 40s, and 50s with projected account balances hitting $1 million.

One hundred thousand dollars a year may seem like a very high payout, but again it will not be an unrealistic target for an employee who has been in a plan a long time and accumulated $1 million, and especially an employee working for a sponsor who is deemphasizing the defined benefit plan and offering a defined contribution plan as the main plan.

These numbers may not be typical of what people near retirement are generating now, but I would suggest that the $1 million and the $100,000 parameters be considered as realistic in the next millennium, 2000 and later.

Given these parameters, what are the options for the person who wants to retire at 62? The commercial annuity would provide about $84,000 a year. That misses by about 16 percent the goal $100,000 a year.

Somehow the employee would have to reconcile that difference. If she decided she needed $100,000 a year, with $1 million in principal, an annuity provided on a group basis (not one that she would buy from her local insurance agent) would only provide about 85 percent of the goal. Maybe the employee should reevaluate her needs, take the peace of mind, and learn how to live on $84,000 a year instead of $100,000 a year. Maybe she has to face a serious reevaluation at this point.

The other main approach is to put the money in the safest option. What we're using here is stocks, bonds, and cash as the investment options available to the participant. In this instance, our hypothetical participant would be able to draw out $100,000 a year for about 15 years, which is less than the life expectancy for a woman at age 62.

Following the safe option advice, we'll preserve the annual payout at $100,000, but the money runs out. Here we illustrate one alternative. What we tried is to balance these two problems, namely, investing conservatively but without the money running out so soon. How can we do that and still have some reasonableness in our asset allocation methodology?

The following is only one approach. I do not recommend this for all employers. There are a couple of other approaches that I personally like better, but this is one approach to illustrate that there are other ways to deal with the problem than annuities and the safest option.

What we say here is, "Your concern is the surety of payment. So let's put some of the money away into a money market fund so we can secure, let's say, the next three years worth of payments, and we won't have to worry about them.

Every year we're going to update this asset allocation so that every year we don't have to worry about the next three years of payments. Then put a little more money aside into fixed income, something into some bonds because those tie in a lot better with the surety of payments than the stock market does.

We want to earn a little higher return to make the account last longer and make payments last longer, but we don't want to be too risky with that money. So let's put another couple hundred thousand dollars, a couple of years worth of payments, into bonds.

Then the rest we can put in the stock market, because we'll have three years worth of sure payments, two years worth of pretty sure payments. The rest can typically ride through the stock market ups and downs if we have that sitting in front of the equity investment.

Chart 5.1 compares these different approaches. If we use expected returns for stock, bonds, and cash as shown in table 5.1, the account balance lasts longer under this approach than under safest option. (Historical rates of return are shown in table 5.2.) The account balance makes payments for 18 years, and over the long haul the payout to the participant following this conceptually simple strategy is $243,000 more than just investing the money in the safest option.

Chart 5.2 shows how the asset allocation changes over that period of time. It's not a fixed allocation approach. You can't go to the type of menu that Dave [Veeneman] was talking about and say, take A, B, C, D, or E.

The allocation has to be updated each year, and you see how stocks decline over the years as the account balances pay out until, in the eleventh year, you can't put any more money in stocks, and you ride out the last few years with some money in the bond fund and then finish up with only money market fund.

That's using expected returns. Chart 5.3 shows what happens if we use actual historical return data. I've

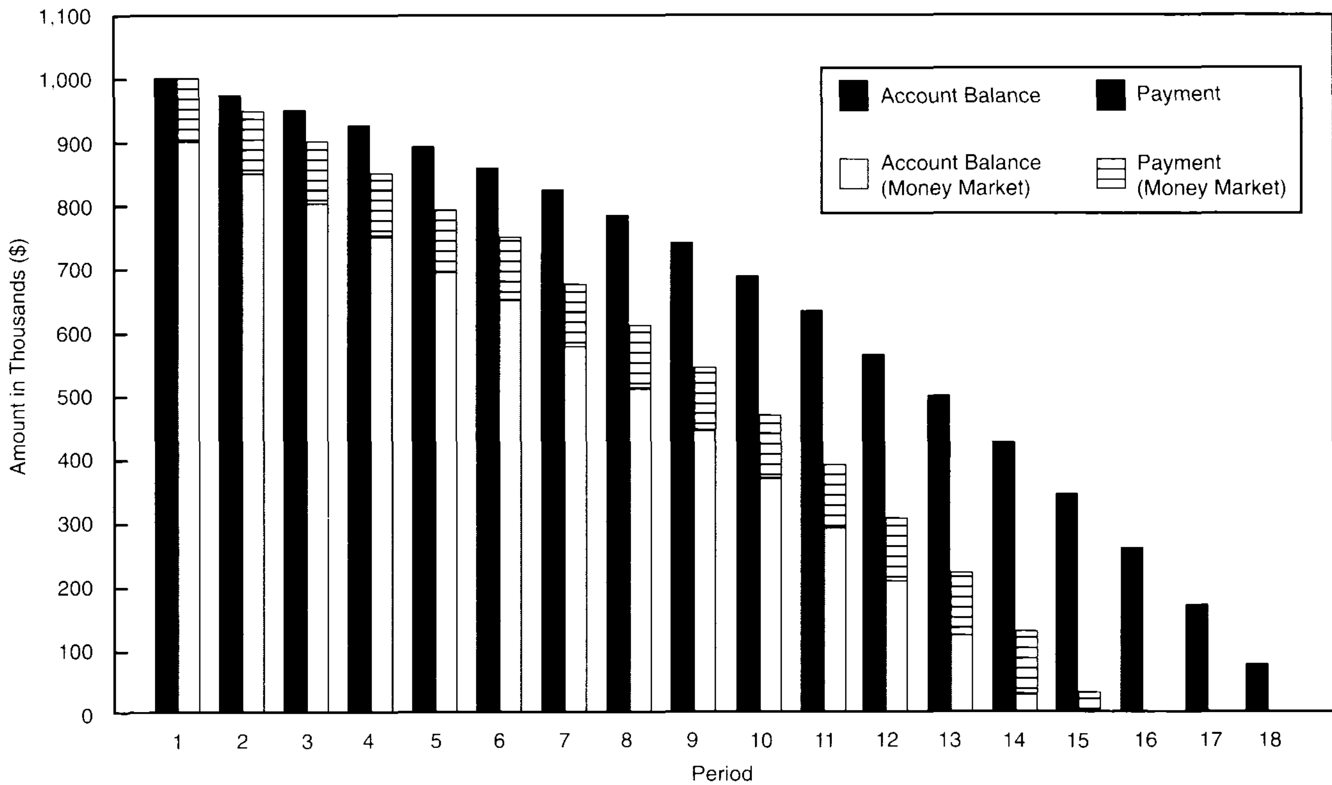


Table 5.1
Expected Returns

Item	Annual Return
Stocks	11.0%
Bonds	8.0
Cash	6.0
Consumer Price Index	7.0
Annuity	7.0 (plus expenses)

Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

put in a couple of examples, good news and bad news. We used historical data and moved forward from 1974.

Not only is the participant able to pay out the $100,000 a year, but the account balance actually grows. The account balance over this period of time is up at $1.6 million. So it made the $100,000 a year payments and improved the account balance as opposed to just putting all the money in the safe option and running out in 15 years.

Chart 5.4 shows where the asset allocation to equities actually increases during that period of time. This won't always pan out. If you retired at the end of 1973, this strategy worked out great for you, but, as chart 5.5 shows, if you retired just two years earlier than that, you hit a much worse period in the stock market than most people remember.

Not many people remember how bad equities were in 1973 and 1974. They remember October 1987, for some reason, although you see no real impact in our examples from October 1987. That was a big shock in the market, but it really didn't upset any long-range planning.

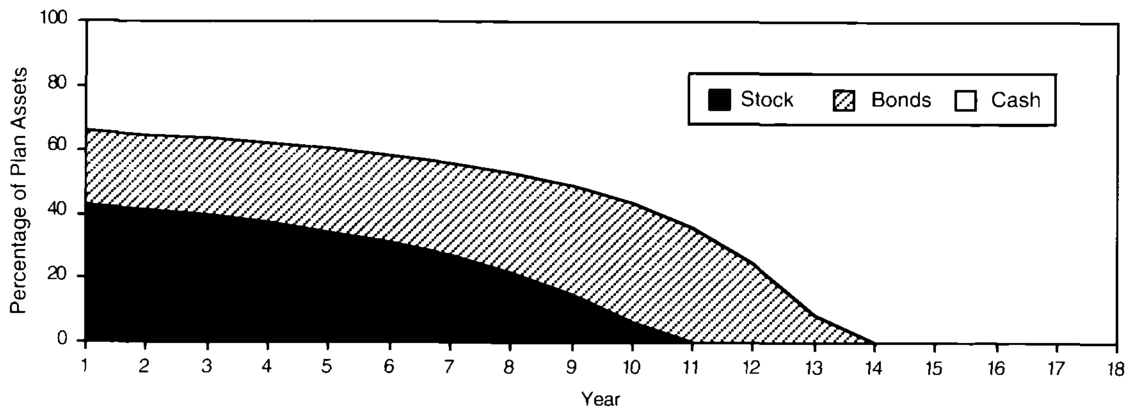
A lot of people remember 1990, the Saddam

Table 5.2
Historical Rates of Return, 1965–1994

Year	S&P 500 Stock Index	LB Int. G/C[a] Bond Index	U.S. 90-Day Treasury Bills	CPI[b]
1965	12.45%	1.02%	3.91%	1.92%
1966	–10.06	4.69	4.74	3.35
1967	23.98	1.01	4.19	3.04
1968	11.06	4.54	5.23	4.72
1969	–8.50	–0.74	6.47	6.11
1970	4.01	16.86	6.52	5.49
1971	14.31	8.72	4.38	3.36
1972	18.98	5.16	3.81	3.41
1973	–14.66	3.34	6.40	8.80
1974	–26.47	5.88	7.47	12.20
1975	37.20	9.50	5.77	7.01
1976	23.84	12.34	4.9	4.81
1977	–7.18	3.31	5.40	6.77
1978	6.56	2.13	7.31	9.03
1979	18.44	6.00	10.37	13.31
1980	32.42	6.41	12.09	12.40
1981	–4.91	10.50	15.72	8.94
1982	21.41	26.10	11.85	3.87
1983	22.51	8.61	9.09	3.80
1984	6.27	14.38	10.30	3.95
1985	32.16	18.05	8.11	3.77
1986	18.47	13.12	6.51	1.13
1987	5.23	3.67	6.01	4.41
1988	16.81	6.78	6.68	4.42
1989	31.49	12.76	8.73	4.65
1990	–3.17	9.17	8.06	6.10
1991	30.55	14.63	6.01	3.10
1992	7.67	7.17	3.74	2.90
1993	9.99	8.73	3.09	2.80
1994	1.31	–1.95	4.06	2.70

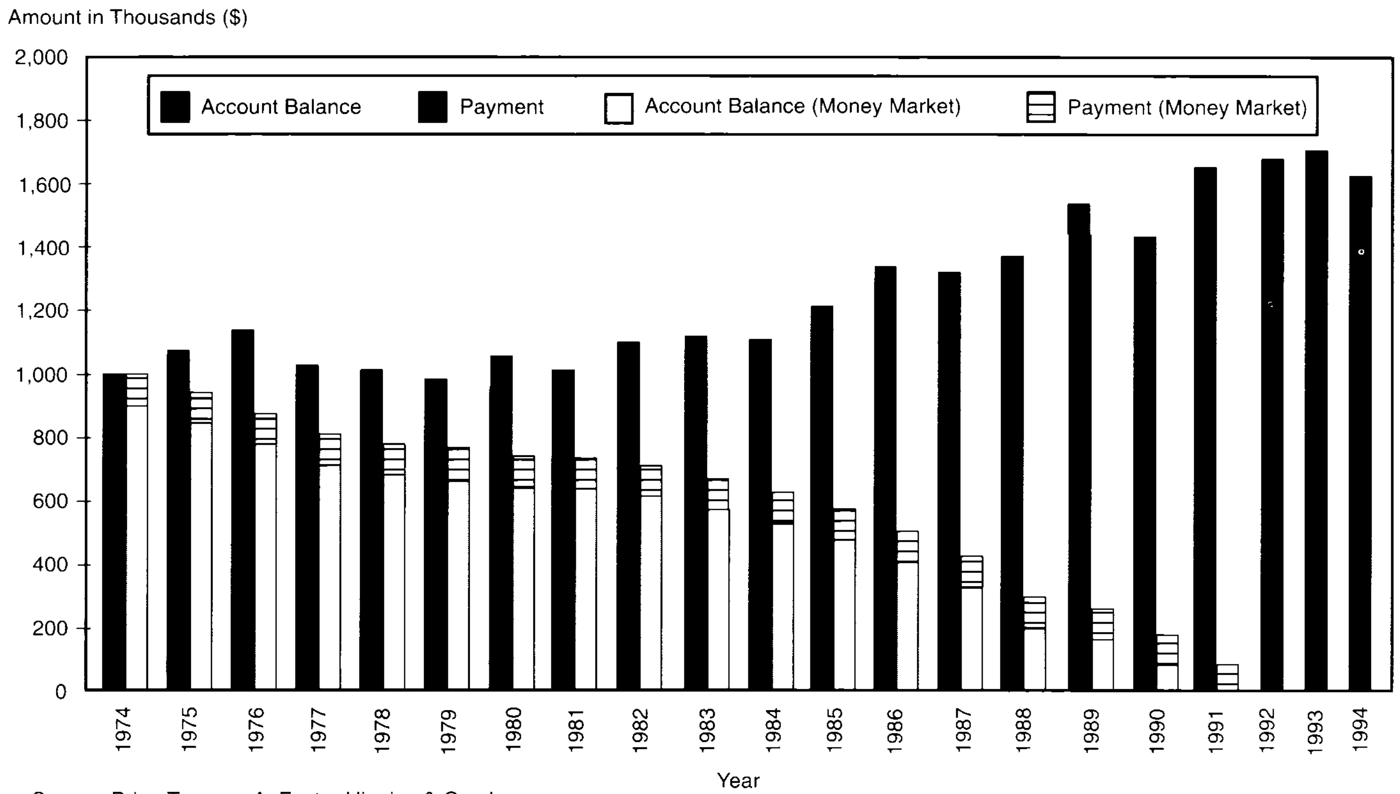
Source: Brian Ternoey, A. Foster Higgins & Co., Inc.
[a]*Lehman Brothers International Government/Corporate*
[b]Consumer Price Index

Chart 5.2
Asset Mix Under Expected Returns



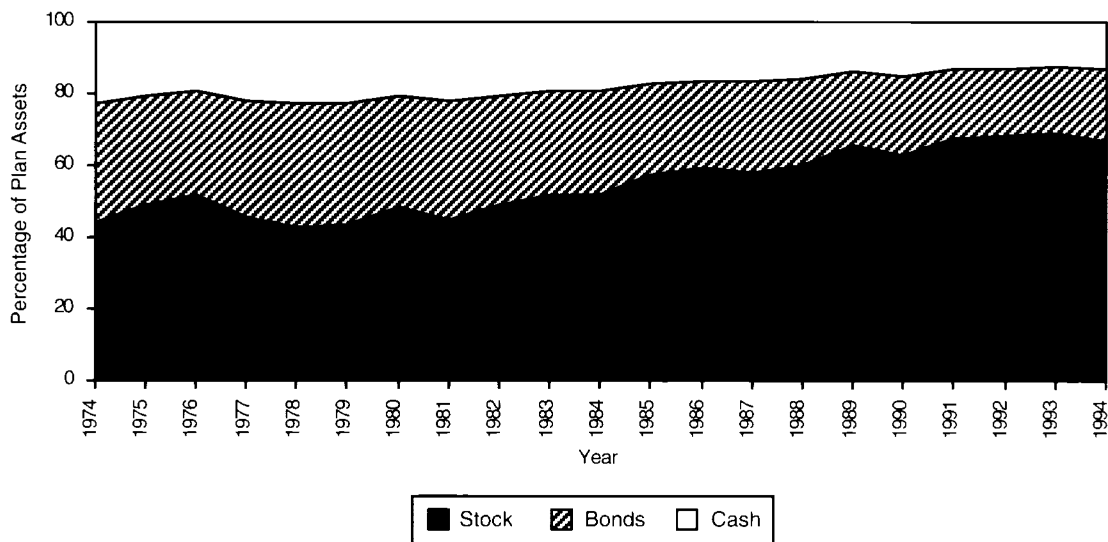
Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

Chart 5.3
Account Activity Under Actual Returns: 1974–1994



Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

Chart 5.4
Asset Mix Under Actual Returns: 1974–1994



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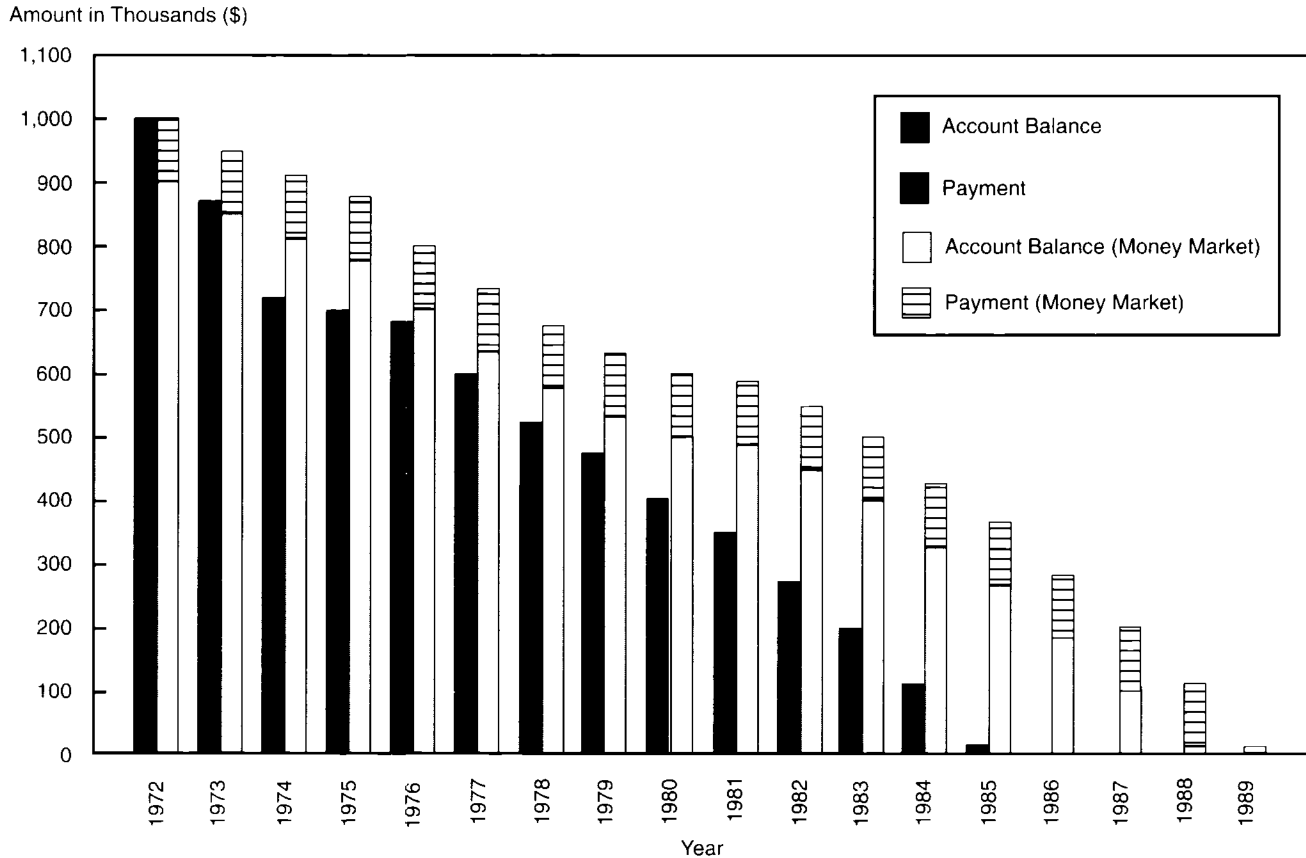


Hussein market crash. Not too many people remember 1973 and 1974, but if you retired just two years earlier in our hypothetical example, the money runs out sooner than it would have if it had been invested only in the money market (chart 5.6).

So there still is some risk to this strategy and all the other types of strategies that are involved. The participant still is taking on a risk. The probability of the participant making less money this way or having fewer payments than by just putting the money into the savings option is quite remote. It depends a lot on the statistics you choose. It is debatable, but we calculate about a 20 percent chance of being worse off with this strategy. That's an 80 percent chance of being better off.

The participants are better off looking at some of these other strategies, although they are not sure things, and they are complicated to discuss.

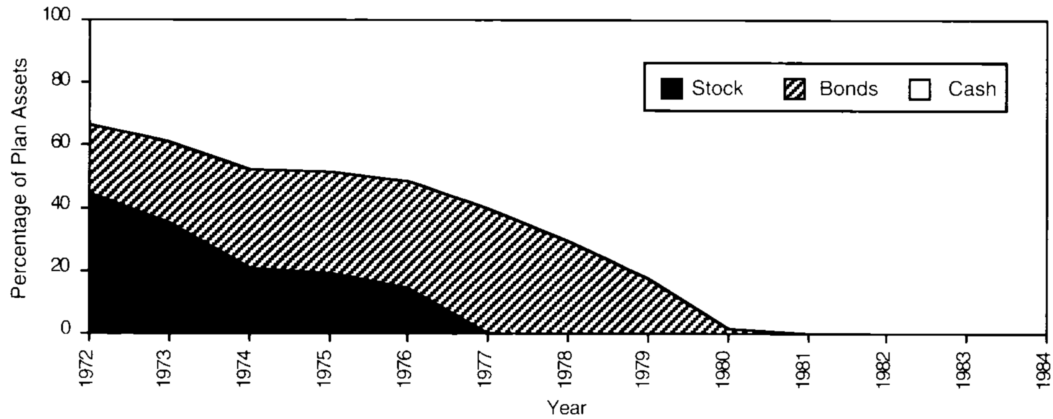
Let's look at one last element—inflation—because I think it is one issue that is usually ignored. It's scary to talk to participants about inflation. Chart 5.7 illustrates this point.

This scenario, from 1974 onward is the scenario that looks so good when all the hypothetical investor wanted was $100,000 a year out of a $1 million account, and the account grew because of good equity performance and good bond performance during most of that period of time. You would say, "Under that scenario shouldn't we also be able to deal with the inflation issue?"

The projections in chart 5.8 show what would happen if we took out more money each year. What if we increased the payout each year from $100,000 in the first year to whatever it cost to cover inflation?

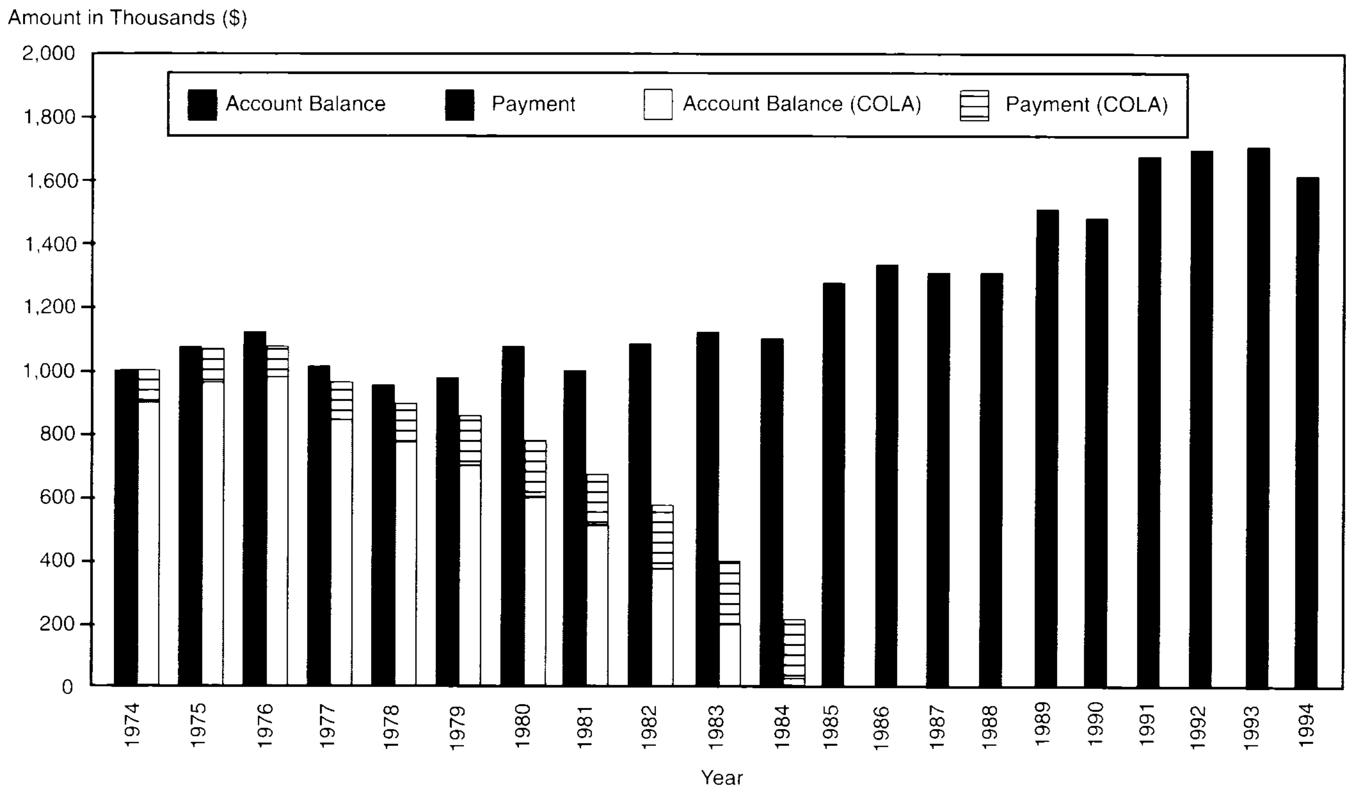
We used the consumer price index (CPI) here, and it's debatable whether that's a good measure for the retiree to use. At the level of communication and understanding that we have at the participant level, I think the CPI is realistic as a model. I don't think employees would understand other factors at this point. Some credibility would be

Chart 5.6
Asset Mix Under Actual Returns: 1974–1984



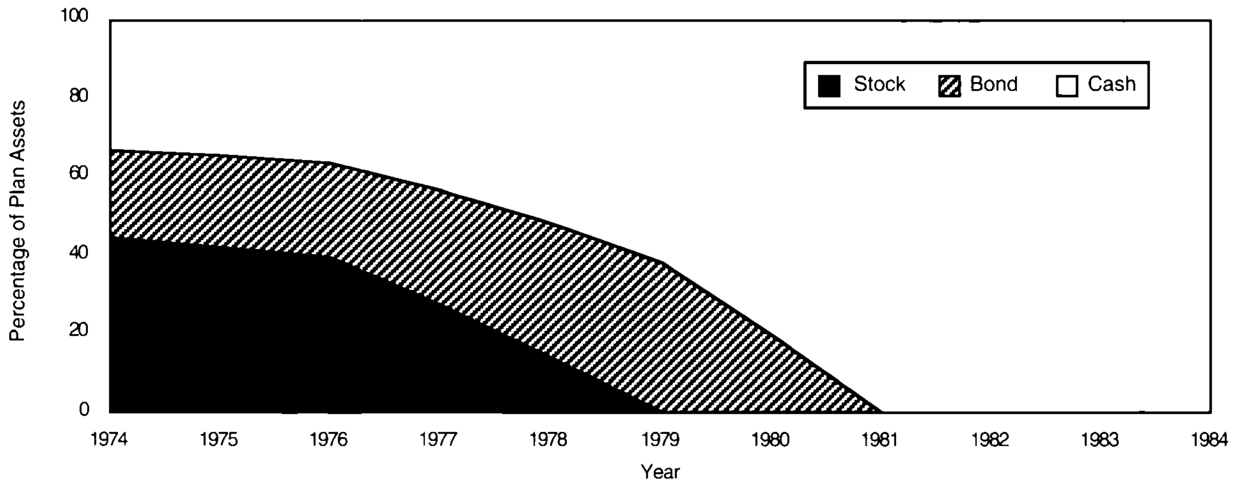
Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

Chart 5.7
Account Activity: Cost-of-Living Adjustments Versus Flat Payment, 1974–1994



Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

Chart 5.8
Asset Mix Under Cost-of-Living Adjustments, 1974–1984



Source: Brian Ternoey, A. Foster Higgins & Co., Inc.

lost in trying to communicate using other, more accurate, indexes of retiree cost-of-living changes.

Nevertheless, the money runs out very quickly if you try to increase the payment each year to accomodate the inflation effect. It's almost scary to try and talk to participants about it. They'd become depressed, and participation rates would go down if we mentioned what a monumental problem inflation is to deal with. Yet we're going to have to start dealing with this issue because inflation has as bad an effect on a good scenario as on a poor one. The scenario looked so good when the account balance increases even when you take out $100,000 a year. However, when you try to account for inflation, the picture turns dismal very quickly.

Anyway, I primarily want to raise awareness at this point. There are lots of other ways to look at these same issues, other models to use, many which don't fit very well into current savings plan communication and approaches. I hope this stimulates some discussion and progress.

Chapter 6: Implementing Effective Asset Allocation

Dave Veeneman and
Elizabeth McWhirter, Hewitt Associates

Introduction

"When employees call the shots, they invariably shoot themselves in the foot." If we've heard it once, we've heard it a thousand times. Employees don't know how to invest. They invariably buy in at the top of the market and sell at the bottom. You could probably make money watching what they do and doing just the opposite.

It doesn't have to be that way. Some employers have experienced something different. Employees who don't invest hyper-conservatively, and who don't jump from fund to fund. Employees who seem to do a pretty good job of allocating their 401(k) savings among different investment funds according to their risk preferences and time horizons.

We don't want to suggest that anyone has discovered a panacea or a "magic bullet." We do want to outline an approach that seems to do a pretty good job of enabling and encouraging employees to invest in the same manner as sophisticated institutional investors, without directing them to any particular asset allocation. We're going to refer to this approach as "portfolio investing," and we're going to distinguish it from the "lifestyle" or "life cycle" portfolios that have been very popular in the last couple of years. We will explain an approach to the development and implementation of portfolio investing that we believe is investment neutral and nonadvisory. We will also present the reasoning behind our claims for this approach.

Stage 1: Lifestyle Portfolios

In the beginning, there were lifestyle portfolios, and they were attractive. In the late 1980s, as guaranteed investment contract (GIC) rates began their retreat from their record highs earlier in the decade, employers struggled with the question of how to facilitate their employees' use of the stock and bond funds they provided. At the time, the notion of teaching capital market and portfolio theory to employees appeared problematical, at best.

From this puzzle, an idea arose. The manager of a 401(k) plan might pre-mix portfolios made up of the investments offered by the fund. The number of portfolios could (and did) range anywhere from three to a dozen or more. To make the selection of a portfolio easier for employees, each would be accompanied by a label of a description indicating the type of individual for whom, or the stage of life for which, the portfolio might be appropriate. For example, a set of portfolios might be labeled as follows:

- The Young Professional Portfolio
- The Growing Family Portfolio
- The College Bound Portfolio
- The Ready To Retire Portfolio

These portfolio names, while exaggerated, give a flavor for the attractiveness of the portfolios. During the heyday of this approach, the conventional wisdom held that investment education was unnecessary. Employees need only understand their own life situation in order to make an intelligent investment decision. For many, the most compelling feature of the approach was its simplicity.

It was this same simplicity that gave rise to concerns over the approach. Some companies that looked at it came away with the feeling that it made the decision so easy that it amounted to investment advice. "We'd be deciding on the suitability of different investments for different types of employees" was a fairly typical comment from plan sponsors.

Other employers expressed concerns that generic lifestyle descriptions, no matter how artfully drawn, could fully encompass the diversity of employee life situations. We heard observations such as, "We're concerned that an employee with small children might invest in the "Growing Family" fund even though they have a parent with an imminent need for long-term care. That could spell disaster."

Stage 2: Unlabelled Lifestyle Portfolios

Many of these initial concerns centered around the labeling of the portfolios, and the earliest lifestyle portfolios failed to find broad acceptance. The second wave involved portfolios

with more neutral labeling. In some cases, they were labeled by letter (A, B, C, and so on), and in others by objective (Capital Preservation, Growth, and so on). This modification addressed the most common concern. But another concern followed almost immediately.

In many cases, lifestyle portfolios were developed based on someone's judgment about what sorts of investment mixes were best for employees. The process of developing the portfolios often introduced a bias that was not apparent at first glance.

For example, let's take a 401(k) plan with five investment options:

- Stable value[1]
- Bonds
- Large U.S. company stocks
- Large foreign company stocks
- Small U.S. company stocks

A fairly typical configuration of portfolios involving these funds might look something like that in table 6.1. The asset allocation shown in this example has intuitive appeal as a set of common-sense mixes designed to appeal to a wide range of people with different needs and objectives. But is it advisory?

Using efficient frontier modeling software,[2] we can determine the position of each portfolio on the risk spectrum. If we define the conservative end of the spectrum as a 100 percent allocation to the stable value fund (the plan's most conservative option) and the aggressive end as a 100 percent allocation to the small U.S. company fund (the plan's most aggressive option), we can calculate the position of each portfolio on the risk spectrum as shown in table 6.2.

We have assigned the conservative end of the spectrum a score of 0 in terms of relative risk and the aggressive end of the spectrum a score of 100. We have assigned each portfolio a score between 0 and 100, based on its volatility.[3]

As table 6.2 shows, the five "common sense" portfolios are stacked at the more conservative end of the risk spectrum. The most conservative portfolio, Portfolio A, occupies Position 2 on the risk spectrum, while the most aggressive portfolio, Portfolio E, occupies Position 54. Moreover, the portfolios are not evenly spaced within their range. There is an interval of 10 positions between Portfolios A and B, 22 between B and C, 12 between C and D, and 8 between D and E.

We suggest that these "common sense" portfolios may be advisory in nature. They show less than the full range of investment possibilities available to employees under the plan. They contain an implicit assumption that certain investment strategies (moderate, diversified portfolios) are more desirable than others (more aggressive and quite possibly less diversified portfolios). In effect, they steer employees toward a particular segment of the risk spectrum, the segment deemed most desirable by the developer of the portfolios.

We contend the result would be similar if Portfolios A–D were left as they are, but Portfolio E was modified to place it at the aggressive end of the risk spectrum. In that case, the range of the portfolios would cover the full risk spectrum, but the distribution of the portfolios would be so biased toward the conservative end of the spectrum as to have the same effect as the portfolios shown in table 6.2. We refer to this bias in the range and distribution of the portfolios as a lack of investment neutrality.

Stage 3: Investment Neutral Portfolios

These concerns about the investment neutrality of Stage 2 portfolios led to the adaptation of pension investment technology to the needs of defined contribution plans. Efficient frontier modeling (EFM),[4] in particular, has gained wide acceptance as a tool for the creation of investment-neutral portfolio structures.

EFM derives from the work of Harry Markowitz in the 1950s.[5] The approach does not seek to identify "good" or

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[1] We use the term *stable value* to refer to any investment option whose value is not expected to fluctuate with changes in market conditions. Examples of stable value include guaranteed investment contracts, bank CDs and savings accounts, money market funds, and certain short-term bond accounts.

[2] Efficient frontier software can be used to generate optimally diversified investment mixes. The approach is discussed later in this paper. Most efficient frontier packages also include the capability to calculate the expected return and volatility of arbitrary portfolio mixes. The calculations and projections in this paper were prepared using Ibbotson Associates CORR Optimizer software, ver. 3.31, and the CORR Optimizer Inputs as of December 31, 1994.

[3] The risk scores were taken from the CORR Optimizer software and represent the closest estimated position on the efficient frontier. The risk scores do not directly represent standard deviations or other measures of volatility. The CORR optimizer calculates 100 portfolios between the conservative and aggressive extremes and assigns each a number.

[4] For a more complete explanation of the theory and methodology of efficient frontier modeling, see Cohen, Zinbarg, and Zeikel, *Investment Analysis and Portfolio Management*, Fifth edition (Richard D. Irwin, Inc., 1987).

[5] See Harry Markowitz, "Portfolio Selection," *Journal of Finance* (March 1952).

"appropriate" investment mixes. Instead, EFM seeks to identify those portfolios where return is optimized for risk.[6] For any plan in which there are several investment choices, such as those shown in table 6.1, there is a nearly infinite number of possible combinations. Each of these mixes is associated with some particular expected return and some level of expected volatility (in common parlance, market risk). As table 6.2 shows, the volatility of the mixes can potentially range from very conservative to very aggressive (in other words, from 0 to 100).

Table 6.1
"Common Sense" Asset Allocation Portfolios

Fund	Portfolio A	B	C	D	E
Stable Value	80%	40%	10%	5%	0%
Bonds	10	30	30	20	15
Large U.S. Company Stocks	10	20	30	30	25
Large Foreign Company Stocks	0	10	20	25	35
Small U.S. Company Stocks	0	0	10	20	25

Source: Dave Veeneman, Hewitt Associates

If we examine these mixes, we will discover that multiple mixes may have the same expected return. However, if one of these mixes is more highly diversified than the others, it can be expected to deliver its return with less volatility. That mix is said to be more "efficient" than the first mix, since it delivers the same return with less volatility. More bang for the buck, if you will.

Now, let's rank all of the possible mixes by their expected returns. For each level of expected return, we'll select the one portfolio that produces that return with the least volatility, and we'll place this portfolio on an X–Y graph according to its risk and return. When we complete the process, the result will look something like chart 6.1.

The investment choices that make up the mixes are shown by the small rectangles. The line that appears above the choices is the "efficient frontier" of mixes made up from these mixes. Notice that the mixes all fall inside the frontier. That's because the mixes are diversified. As a result, a mix can produce the same return as one of the undiversified funds and do it with a lower level of risk. This phenomenon doesn't occur at just one point on the risk spectrum. It happens all across the risk spectrum, from the conservative end of the spectrum to the aggressive end.

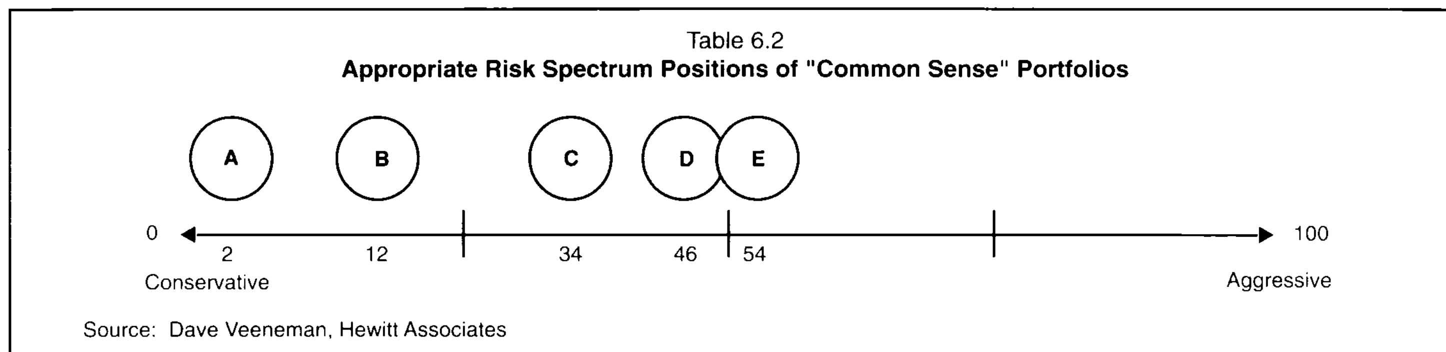
These two ends of the spectrum are "anchored" by the plan's most conservative and aggressive investment options. In the case at hand, the two anchors are, respectively, the plan's stable value fund,[7] and its small U.S. company stock fund. There are any number of mixes that lie along the line; we can calculate five portfolios that lie along the line, or we can calculate 100.

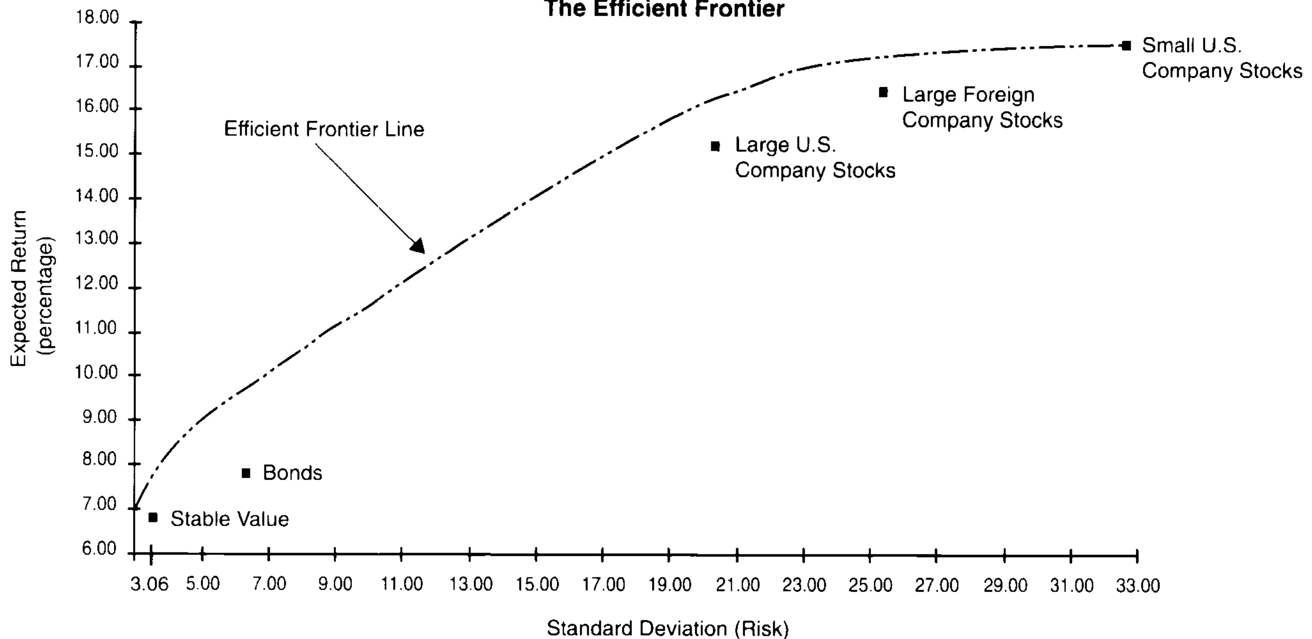
Investment Neutrality

EFM opens up new possibilities for the construction of investment portfolios. We said earlier that two of the concerns that we found with Stage 2 portfolios were that

[6] The portfolios are not based on the particular investment funds offered by the plan in question. Instead, the portfolios are based on the "asset classes" (fund categories) to which the funds belong. These asset classes are typically represented by market indices. For example, a large U.S. company stock fund would often be represented by the Standard & Poor's 500 index.

[7] Depending on the assumptions used to build the model, the most conservative portfolio on the efficient frontier may be a mix of the stable value fund and a small amount of an equity fund. The equity component introduces an element of diversification into the portfolio, which makes the portfolio more "efficient" than a pure stable value portfolio.





Source: Dave Veeneman, Hewitt Associates

they tended to direct the investor to one end of the risk spectrum, or that a bias in the positioning of the portfolios toward one end or a portion of the risk spectrum might tend to similarly direct the investor. Note that we aren't referring to any sort of explicit direction through instructions or suggestions that accompany the portfolios. Instead, we suggest that the direction is based on the structure of Stage 2 portfolios, on how they fall within the risk spectrum.

We believe that, in order to avoid direction in the construction of lifestyle portfolios, they must be built with a close adherence to the principle of "investment neutrality." We suggest there are two elements of investment-neutral lifestyle portfolios:

- They represent the full *range* of investment choices available to the investor. In other words, they cover the full risk spectrum from very conservative to very aggressive.
- They are evenly distributed across the risk spectrum. In other words, the "spacing" between each of the portfolios is roughly equal.

The principle of investment neutrality is an ideal that may or may not be realized in actual practice. In practical application, certain types of investments tend to "dominate" the model of the efficient frontier. This phenomenon can lead to uncomfortably large allocations to certain asset classes. Let's look at an example.

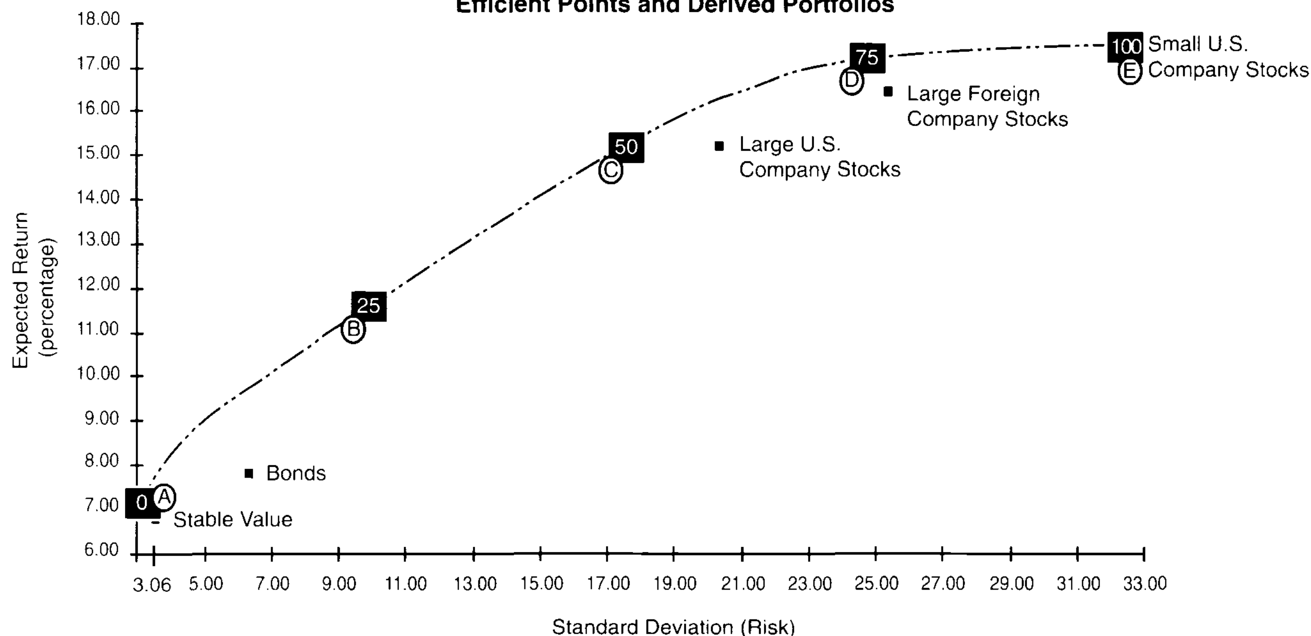
Chart 6.2 shows the same efficient portfolios as the previous chart 6.1. This time, we have plotted five efficient points on the frontier. On a scale of 1 to 100, these points fall at positions 0, 25, 50, 75, and 100 (as shown by the dotted lines). We have also developed five portfolios (the ovals labeled A–E). These portfolios are derived from the mixes indicated by the efficient points, but in some cases the portfolio mixes are somewhat different from the efficient point mixes. We will discuss this distinction below.

Element No. 1: Cover The Full Risk Spectrum

Each of these points is an investment mix. If we examine each of these points, we will quickly discover two things. First, the mixes may be more aggressive than we had expected. For example, one might intuitively expect Portfolio C, being "in the middle," to be a moderate portfolio—perhaps a mix centered around the classic formula of 60 percent large company stocks and 40 percent bonds.

It doesn't work out that way. Portfolio C is in fact comprised of 90 percent large company stocks and 10 percent bonds. The classic 60/40 mix is more closely represented by Portfolio B, which is split 50/50 between large company stocks and bonds.

In other words, in a five-portfolio lifestyle structure, the classic "moderate" mix will likely be the B portfolio, rather then the C portfolio that one would expect. Some



plan sponsors have questioned whether the portfolios are biased toward the aggressive end of the spectrum.

One solution would be to constrain the aggressive end of the spectrum. For example, a plan sponsor might decide not to show any portfolio more aggressive that an 80 percent stock, 20 percent bond mix. In fact, some employers have taken this approach, based on the belief that any mix more aggressive than that would be more aggressive than prudence would dictate.

We were initially concerned that a constrained approach presents to employees less than the full *range* of possibilities available to employees given the investment choices provided under the plan. That approach might suffer from the same defect as the "common sense" portfolios described above.

Some companies have constrained the aggressive end of the spectrum on a different basis. Very aggressive portfolios are so volatile that they would be expected to take a very long time to realize their full expected return. For the most aggressive portfolios, it could take as long as a century. While these portfolios might in theory be considered efficient, it is questionable whether they would be reasonable choices over any realistic time horizon.

In light of that, some companies have limited the portfolios presented to employees to those that are efficient over a specific time horizon, such as 20 years. In most cases, that type of constraint will eliminate roughly the upper one-third of the risk spectrum. Under that approach, the portfolios presented to employees can be evenly spaced between the zero position on the risk spectrum and the last unconstrained position. This approach seems less arbitrary than an ungrounded assessment of what employees should and should not do, and we see more companies taking this approach.

Element No. 2: Distribute Portfolios Evenly

The second concern we've heard from plan sponsors relates to a phenomenon known as "domination" of the EFM by one asset class or another. For example, efficient point 25 embodies the following mix:

Stable values	29 percent
Bonds	19 percent
Large U.S. company stocks	32 percent
Large foreign company stocks	20 percent
Small U.S. company stocks	0 percent

The unusually large allocation to foreign stocks is attributable to the fact that they offer an unusually high degree of diversification relative to the other investments in the mix. The model will "prefer" foreign stocks over U.S.

stocks, all other things being equal.[8] As a result, there is a high proportion allocated to foreign stocks at risk position 25. This effect continues (and in fact increases) at risk positions 50 and 75.

But many employers express reservations about the mix for the relatively conservative B portfolio. That sort of asset allocation is often deemed appropriate only for more aggressive portfolios. By the same logic we employed in the first element, we might draw a conclusion that it's best to take the mixes as the model generates them. But we may have a bit more flexibility than that.

If we modify the mix of any of the efficient point portfolios, we will "pull them away" from the efficient points. The traditional approach has been to constrain certain asset classes. For example, some structures have limited less familiar asset classes, such as foreign stocks, to a certain percentage of any portfolio. These constraints have the effect of distorting the shape of the frontier. While the portfolios may then appear to fall on their efficient points, the frontier curve will not represent the true range of choice available to participants.

We suggest an alternative that we believe accomplishes the same objectives but which at the same time presents a more accurate view of the portfolios shown and the full range of choice available to the participants. This approach involves the following steps:

- construct an unconstrained efficient frontier;
- identify the efficient points that correspond to the desired portfolios (for example, in a five portfolio structure with no constraints, points 0, 25, 50, 75, and 100); and
- perform a sensitivity analysis to develop portfolios for communication to employees.

The sensitivity analysis is essentially a trial-and-error balancing process. We simply modify the portfolio mix as desired and observe the effect the changes have on the portfolio. Some changes will result in portfolios that fall far from the efficient points from which they are derived. For example,[9] reducing a stock allocation in favor of bonds will "pull" a portfolio well to the left of its efficient point. These changes can generate unequal distributions of portfolios across the risk spectrum, which potentially runs afoul of the second element of investment neutrality described above.

Not all changes have the dramatic effects just described. For example, a modest reduction of the allocation to foreign stocks in favor of U.S. stocks will pull the portfolio only a relatively short distance from its efficient point. In other words, some changes cause more distortion in the portfolio distribution than others. The sensitivity analysis amounts to balancing the changes desired against the distortions they cause. The objective of the analysis is to find the combinations of changes that distort portfolio distribution the least, while still bringing an element of common sense back to the portfolios.

Chart 6.2 shows portfolios developed using this methodology. The five portfolios (A through E) fall quite close to their efficient points. The sensitivity analysis introduced only relatively small changes from the efficient point portfolios. The changes were by and large limited to moderating the foreign stock domination of the portfolios in Portfolios B and C. The efficient points, and the corresponding portfolios, are as shown in table 6.3. As this table shows, the changes to the portfolios are, on the whole, rather modest. And the distortions introduced in the distribution of the portfolios along the risk spectrum is minimal. This assessment can be confirmed visually by examining chart 6.2.

Communication of the Portfolios

As we noted at the beginning of this paper, one of the reasons lifestyle portfolios achieved an initial popularity was their ease of communication. A key transition from Stage 1 to Stage 2 lifestyle portfolios was the elimination of "lifestyle profiles" to accompany the portfolios. In Stage 2 portfolios, "risk quizzes" became very popular. These exercises typically consist of a series of questions designed to assess an investor's fundamental attitude toward risk. They range from a few questions to extensive questionnaires. But by and large, many of the quizzes boil down to different ways of asking "What would you do if the market suddenly crashed?"

The weight that communications materials suggest employees should give to the results of these quizzes also varies. Some materials have described the results of these quizzes as "risk profiles" or "your tolerance for risk." Other materials suggest the quizzes are less weighty. "This quiz might give you some idea of how you feel about risk," and

[8] The model seeks out mixes with the highest diversification. Since foreign stocks increase diversification in a portfolio, portfolios with foreign stocks will tend to fall closer to the frontier than those without them. The effect reaches its maximum at a certain point, with the result that foreign stocks will not "crowd out" U.S. stocks entirely.

[9] Our objective in this paper is to present the conceptual underpinnings of our approach to portfolio investing for defined contribution plan participants. For this reason, we have not presented the analysis used to evaluate the results of each trial in the sensitivity analysis.

Table 6.3
Comparison of Efficient Points and Derived Portfolios

	Position 0	Position 25	Position 50	Position 75	Position 100
			Percentage		
Stable Values	83.10%	28.97%	0.00%	0.00%	0.00%
Bonds	15.38	19.25	8.33	0.00	0.00
Large U.S. Company Stocks	0.08	31.94	57.18	0.00	0.00
Large Foreign Company Stocks	1.44	19.83	34.49	43.34	0.00
Small U.S. Company Stocks	0.00	0.00	0.00	56.66	100.00
Expected Return	6.97	11.49	14.92	16.99	17.50
Risk (Standard Deviation)	3.06	10.46	17.85	25.25	32.64
	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Stable Values	85.00%	30.00%	0.00%	0.00%	0.00%
Bonds	15.00	20.00	10.00	0.00	0.00
Large U.S. Company Stocks	0.00	40.00	60.00	0.00	0.00
Large Foreign Company Stocks	0.00	10.00	30.00	45.00	0.00
Small U.S. Company Stocks	0.00	0.00	0.00	55.00	100.00
Expected Return	6.82	11.23	14.74	16.97	17.50
Risk (Standard Deviation)	3.09	10.15	17.49	25.07	32.64

Source: Dave Veeneman, Hewitt Associates

". . . might start you thinking about your tolerance for investment risk" are common formulations.

We have seen concerns about the stronger characterizations of the meaning of risk quiz results. Absent a solid grounding in psychological test design, we do not believe that the results of simple quizzes support characterizations such as "risk profile."

We are also hearing concerns about the common practice of linking risk quiz results directly to model portfolios of the sort described above. For example, it isn't unusual for risk quizzes to be self-scored by the employee and for the communications to suggest specific portfolios based on the results of these scores. "If you scored 27, then you are a moderate investor, and you should begin with Portfolio C" is a common formulation.

To us, this formula has begun to have the feel of "Answer these six questions and we'll tell you how to invest." Granted, the employee isn't being steered to a single portfolio, and the one that is chosen will depend entirely on how the employee answers the questions posed. Nonetheless, we have come to question risk quizzes and particularly the linking of these quizzes to specific portfolios.

Some of our clients have begun moving away from risk quizzes, and we expect this trend to continue over the next year or so. In several cases, companies have dispensed with risk quizzes entirely. In their place, they have shown employees ranges of expected returns over different time horizons. We have seen very favorable results from the use of this approach, in terms of both asset allocation shifts and employee assessments of plan value and their own understanding of their plan and its investments.

But Is It Rocket Science?

We recognize a temptation to oversell the portfolios. Asset mixes that are set by computer have a certain magic to them, as if some great investment guru had found the long-sought system to predict the future movements of the stock and bond markets. It's important to communicate very clearly to plan participants that nothing could be further from the truth. The expected return estimates are simply that—estimates and no more. They are based on a number of assumptions, including the very important assumption that investments will continue to perform in the future as they have in the past. We have seen time and time again how that assumption doesn't always hold true.

Plan participants need to understand that portfolios of the type we have described are useful to help understand how investments have performed in the past, and they can provide some guidance as to general expectations for the future. But they can't predict the future, and they shouldn't be relied on to that extent. After all, there is a place for common sense among all the computer models and financial theory.

Conclusions and Recommendations

We have outlined a methodology for developing and communicating portfolio mixes without providing investment advice. We believe two elements are critical in avoiding investment advice: nondirectiveness and investment neutrality. If these principles are adhered to in the development of employee portfolios, we believe they can help employees understand the full range of choice available to them and the implications of the choices they might make. We believe that it can be done, and is regularly being done, in such a way that the plan sponsor does not interject its judgment as to what may be appropriate choices for employees. And that is what we believe separates investment education from investment advice.

Discussion After Veeneman and Ternoey Presentations

CURTIS MIKKELSEN: In recent years many plan sponsors have been trying to transform what might be termed recklessly conservative savers into equity oriented investors. In this context, I have a question of both gentlemen.

Where they're motivated by benign paternalism or for other reasons, do any of your clients actually mechanically limit asset allocations for a particular fund? I'm thinking in terms of more aggressive equity funds that have been offered, such as the small cap U.S. equity and emerging markets equity.

BRIAN TERNOEY: We had one large client that did that. They wouldn't allow more than 50 percent in the aggressive investment options. They have since eliminated that.

CURTIS MIKKELSEN: Why did they eliminate it?

BRIAN TERNOEY: Concerns about their own responsibilities. Originally, it was a paternalistic response. They thought they owed it to the participants to protect them from making risky investments. They then felt that they could have legal problems by restricting participants. The change came at a time when they began deemphasizing their defined benefit plan. They felt it was time to stop being so paternalistic.

DAVE VEENEMAN: That's been fairly typical of our experience, as well. A few years ago, it wasn't unusual to see caps on, for example, international or aggressive equity. In the last couple of years, we've seen a lot of those caps come off. Companies that now offer emerging markets funds frequently have caps. I would expect that in a few years, if emerging markets remain a permanent part of the options, we may see some of those caps come off, as well.

GEORGE COWLES: Bankers Trust has had a cap on our small cap fund for the 27 years it's been an option. No more than 30 percent of contributions can go in, nor can you transfer to take your balance over 30 percent.

CURTIS MIKKELSEN: How much flak have you received?

GEORGE COWLES: A lot recently. Historically, not a great deal. The problem is how do you get out of it and, if you get out of it and it costs and happens to be the wrong time, you've done your employees a disservice. So maybe you take it off over a period of time. It's being actively discussed at the moment.

CHIP ROSENTHAL: I am concerned about the conflict between restricting participants where investments are perceived as being very risky, while not doing anything that direct when participants invest too conservatively.

An efficient frontier approach is still a one-year model. It approaches risk or variability of return over a one-year period. Has Hewitt looked at doing communications efforts or projections of risk relationships for different mixes over a 20-year time horizon?

DAVE VEENEMAN: Yes. For those who may not be familiar with how efficient frontier modeling works, it's based on a year-to-year average return. One of the outputs from the model is an expected return over various time horizons.

Most of the companies that we've worked with have used this long time horizon approach. Instead of simply calculating a one-year picture, which doesn't reflect the volatility, we have shown time horizons of 1, 5, 10, 20 years. We look at both the expected range of returns and the historical range of returns.

For example, Portfolio C might have a range of minus 6 percent to plus 31 percent over one year. This gives employees an idea how very volatile it could be in one year, whereas, over a five-year period, the range narrows to perhaps plus 3 percent to minus 14 percent.

Companies seem to be getting a little bit more comfortable with the idea of showing expected returns. Two years ago, there were a lot of furrowed brows over expected

returns. Employers were concerned they might be making a representation to employees that the employer could read the future or might know what's going to happen. We saw a lot more use of strictly historical returns.

We're seeing more companies now who say, "As long as we communicate to employees the limitations of this stuff, it's not advisory. We tell employees that if you're using what's happened in the past to try to predict what's going to happen in the future, it's kind of like driving a bus by looking in the rear view mirror. We communicate to employees that the modeling can help understanding, but it is not magic."

GEORGE COWLES: I am concerned that we all think of a person's time horizon as being age 65 or age 61 1/2, as if the employee was going to take a lump sum and spend all the money that day. I'm 61 years old. My investment time horizon is 20 years.

When we talk time horizons, we've got to extend them well beyond retirement. I think the government ultimately is going to find a way to totally eliminate lump-sum distributions.

QUESTION FROM THE AUDIENCE: How would you communicate the concept of efficient frontier effectively to a participant?

DAVE VEENEMAN: When we work with companies on efficient frontier modeling, it's not unusual to sit down with the committee and have the eyes go wide when we start talking about mean variance optimization. The question comes up: "You're not talking about taking this out to our people, are you?"

One of our own consultants got very excited about the efficient frontier and wanted to teach the efficient frontier to rank-and-file employees. The first focus group put an end to that idea.

While we don't teach the efficient frontier, we do use model portfolios developed using that technology. They're a key element of our program. We have worked with employers who have communicated portfolios in both traditional print and video media and those who have used them in group sessions.

In the communication, the portfolios are positioned as a tool. The key message is not what efficient frontier modeling is all about or the theoretical positions versus the sensitivity analysis.

What's typically been communicated is, here are five or six model asset allocations. They're not the only five choices that are available to employees, but five possible mixes that span the spectrum from conservative to aggressive.

Employers may want to use these portfolios simply as examples. They may want employees to use them as a starting point or just to get an idea of where various combinations of the funds fall between conservative and aggressive ends of the risk spectrum.

Typically, employers show where the portfolios fall along the risk spectrum relative to each other, without trying to label individual portfolios as conservative or aggressive, and then provide very simple information such as the ranges of return over various periods of time.

BRIAN TERNOEY: The primary point is: you have to give small doses of education on this over an extended period of time. Especially on something like the inflation issue. To hit people cold with this is tough. It's not realistic and doesn't adjust to their perspective. Most people are not MBAs. They don't want to be.

We find this education problem with blue collar people and people with master's degrees. They are intelligent people. The key is that the doses have to be small enough that they don't feel like they are going back to take a course. And, it has to be over an extended enough period of time. Provide a message and reinforce the message.

That's why I'm emphasizing that you've got to start preretirement planning very early. At least get the basic concepts out to people. Employee sessions are very important on asset allocation. But it's a tough educational issue. We have actually communicated the preretirement asset allocation material to groups as "sophisticated" as a stock exchange and as "unsophisticated" as hotel employees. The questions you get are not much different.

DON SAUVIGNÉ: I agree with small dose and repetitive. It's like taking medicine. It's a little bit over a long period of time.

DAN VINOD: Do your clients do anything like offer half a dozen index funds and leave it to the employees to do their own balancing?

DAVE VEENEMAN: There are a few companies out there that feel strongly about indexation, and they've gone toward passive investing. Probably more of what we've seen is companies that have a mix of index funds for employees who prefer a passive approach and then actively managed funds for employees who would prefer a little bit more active approach.

We have only seen a few companies that have

literally replaced their existing investment funds with premixed portfolios. More have built pre-mixes from their existing funds. That lets employees choose funds or portfolios.

The message to employees isn't, "This is the way that you should invest" but rather, "Here are some expectations based on various combinations of the different funds that we offer. We encourage you, the employee, to decide what mix works best for you."

DAN VINOD: One thing worries me a little bit. Suppose this conceptual framework becomes common, everyone believes stocks win, and everybody gets into saving and stocks. We know from Keynes what happens when everybody saves: we all lose jobs.

DAVE VEENEMAN: We share your concern. The models using the historical data show that stocks have traditionally outperformed everything else. We have a real concern about misperceptions in this area.

Brian mentioned that what we remember is the "crash" of 1987. We remember 1990, when the corrections lasted 60–90 days and then the markets came back. There's a myth developing out there that corrections don't last long.

Part of what we're seeing now is a bit more cautionary communication along the lines of: "If you had invested $10,000 in stocks in February 1986, and $10,000 in stables or money markets on the same date, it would have taken until 1992 for them to be equal." It's very cautionary language, particularly in using these models.

Some clients have been concerned about even showing very aggressive portfolios to employees. The most aggressive one-third of the risk spectrum is so volatile that over a 20-year period portfolios in this range actually underperform less aggressive portfolios. It can take the most aggressive portfolios up to 100 years to realize their full return potential.

DAN VINOD: One doesn't live that long.

DAVE VEENEMAN: I plan to. We have seen situations where younger people see the data on how aggressive stocks outperform more conservative investments and say, "Wouldn't I be foolish to put my money anywhere other than 100 percent in the most aggressive fund that's available?"

We're seeing a lot of companies that want to say to these employees, "You have to decide what's appropriate for you. We can't tell you, but we'd really like you to think about how long it can take for those very aggressive investments to produce the kinds of returns that you're seeing in the chart."

If an individual can ride it out for that period of time, then it may very well be appropriate for him or her. One of the things that we try to bring to this work is the fact that nobody knows what's best for the individual better than that individual.

What we're trying to do is give employees sufficient information to make an informed decision without telling them what would be appropriate for their particular situation.

BRIAN TERNOEY: I think the measure of success for asset allocation campaigns is not that more money is invested in equities. I don't think that you should ever, as a sponsor, say it's better to invest in equities for the long run. That, in and of itself, is too controversial a statement, especially inside an employee benefit plan. A more relevant assessment statistic, if you need something, is how many people are diversified. It may indicate a thought process. I think it is as dangerous for participants to be 100 percent in the most aggressive option just because they're young as it is to be 100 percent in the safest option just because they're conservative. Those are not indications of thought. You have to be very careful that you don't mislead people.

DAN VINOD: I guess I was clearly thinking about the guaranteed investment contract (GIC) relative to equities. The preponderance tends to be in GIC, because of their assured safety of principal and assured rate of return.

Just a few years ago, the compounded 10-year return in our case showed only one-half a percentage point difference between a diversified equity portfolio and this GIC. Then people asked, what are you trying to tell me?

DAVE VEENEMAN: Yes. One of the things that we saw in some early investment education campaigns was employers trying to sell employees on equities instead of the stable value fund or GIC. I think some employers felt that the participants had too high a concentration in GICs to meet target income replacement ratios. We've seen a bit of a movement away from that.

There were several fairly well publicized cases where, after extensive investment education campaigns, there wasn't much of a shift in asset allocation. What came back in the post-testing was an employee feeling that the employer was trying to sell them something. Employees felt that employers were trying to push them in a different direction.

Today, we see an effort to put some balance into the

messages. Over the long term, yes, equities have outperformed. However, there was a significant period in the 1980s when GICs outperformed. A lot of it depends on your time frame and your particular sleep factor.

The other thing that we're seeing a lot more of is frankness with employees, particularly employees who are invested in the stable fund. Some employees in the GIC are there because they absolutely need the stability, and they really do not want to see negative returns on their statements. It's of such concern to them that they say their sleep factor is such that they can't take a negative return. Employees tell us they invest in the GIC because they're concerned that if they put their money in stocks, they will be doing something very stupid. They are afraid that they are going to wake up one morning, and the money will have disappeared. They say they're afraid they could lose it all.

Giving employees some information that stresses volatility in a one-year period of time helps, stressing that you might expect to see your account go down by, say, 6 percent. Many employees thought they could lose the whole thing. Understanding relative numbers leads many employees to a willingness to test the waters and look at an asset allocation that includes some stocks and bonds.

We suggest giving a complete and balanced picture rather than trying to sell employees on stocks or repeating the old fallacy that, if you're younger, you ought to have very heavy concentration of investments in stocks.

DAN VINOD: Why do deeper pockets (bigger accounts and higher income) seem to be in GICs? One would think that if you make more, you have greater ability to take the risk. But they seem to be less disposed. Maybe they are taking risks outside.

GEORGE COWLES: They are very long in their employer security. They are grossly underdiversified with their assets outside the plan, and this is their anchor to win with this allocation, in my observation.

DAVE VEENEMAN: Highly compensated employees often say that they don't have a GIC option available outside the plan. Therefore, they tend to have a more aggressive asset allocation outside the plan. The plan GIC is their conservative "anchor," and it is the only place that they can get that.

SYLVESTER SCHIEBER: I presented a paper last week at a conference at the University of Pennsylvania. In the plans I was looking at there was a correlation between age and investment in GICs.

Younger people tend to have a very small portion of their portfolio in GICs. At each successive higher age it went up. By 50–60, it was about 60 percent. Over age 60 it was about 80 percent.

BILL LINK: I think that people with deep pockets have a tax rate that is quite high. There's a fairly big differential between an ordinary income tax rate (39.6 percent) and capital gains tax rate (28 percent). If individuals have enough assets to have an overall allocation of stocks, bonds, whatever, with their entire equity allocation outside of the qualified plan, then that's what the deep pocket people do, because then they can have capital gains taxed at the capital gains tax rate.

If you have your equity inside your qualified plan, when you pull it out, it comes out at the ordinary income tax rate. So for deep pockets, I think the difference between the ordinary income tax rate and the capital gains tax rate is a big reason why inside the qualified plan they keep fixed income, and outside the qualified plan they put their equity.

BRIAN TERNOEY: I think that's an important point. Tax effectiveness really emphasizes that you should have more income producing assets inside the plan.

Then there's one last effect that's really only starting to raise its head now, which will affect the youngest people who are now investing aggressively: eventually bumping into maximum distribution tax problems.

So we'll have another element of planning here in a few years: there's no point in taking extra risk inside the 401(k) plan if your success is going to make you pay the federal excise tax on top of regular income tax.

So I think you'll have to start factoring that in and try to use total assets more effectively.

DON SAUVIGNÉ: If you have this scientific efficient frontier laid out, and your model didn't work and you missed it, aren't you more at risk?

DAVE VEENEMAN: That's been a concern. It's not for everybody. If it's presented as a science and taken to employees as "we have the answer" and "we can tell you what's going to happen" and there's 1, 5, 10, 20 years, there is great hazard in doing that, I personally think.

We haven't seen any companies do that.

Rather than saying that efficient frontier modeling is a science, employers have said the portfolios are based on historical data, and past performance doesn't guarantee the future. In fact, the future may not look anything like the past.

Employers have said, "Based on that past perfor-

mance, here are some statistics on what could happen, but won't necessarily happen, in the future." We've seen a real emphasis on basic information based on what's happened in the past. I think it's the reason that most of the companies that we've worked with haven't dispensed with the existing funds and gone to pre-mixes. They think, if they do that, they are sort of representing that they have the answer.

BRIAN TERNOEY: I think it's important to recognize that you have already opened yourself up for this by offering investment choice. A participant tries to make a risk/return choice, because you've offered risk/return choices. They say, I have stocks, bonds, or cash to choose from; I guess I'll go with the bond fund, because I'm a middle of the road type of person.

Yet you could easily use the efficient frontier methodologies to increase your return substantially by putting 50 percent in equities and 50 percent in money markets and not using bonds at all.

So we've opened Pandora's box by giving them the choice. Intuitively, they are led to what we could call inefficient conclusions. We have to deal somehow now with the next layer of education that says it's not obvious how you should split this money up and manage the risk and return issues.

So I think we have to take the next step.

JOEL DICKSON: Could it be that the increase that we may be generating in employer-provided education may simply lead to an increase in the amount of conflicting education that these investors are receiving?

Let me give you a couple of examples. The broker is going to say that you want to roll over your employment-based plan distribution into my brokerage IRA, where we can do appropriate asset allocation. The insurance agent is going to come to you and say, you know, you've had an insurance policy on your home for a long time with us; have you thought about your retirement money? You probably want to annuitize it. You'll have a safe amount of money that you're receiving every year, and you can be sure of that until you die.

The banker at your local bank is going to come and argue you should put it in certificates of deposit (CDs), where it will be safe because it is federally insured.

Your lawyer is probably going to come to you and say, have you thought about your estate? If you put it into an annuity, you're not going to have any money left for your heirs.

So now on top of this, we're adding the employer who is coming with another viewpoint. How do we clarify this conflicting information for people who are not educated in financial markets or financial planning? They might just throw up their hands.

Are we just adding to the overall level of confusion and making it even more difficult for those savers/investors?

BRIAN TERNOEY: You're right. There are a lot of people going after this money. There is conflicting information. I think the employer must start by asking, what is my responsibility under this employee benefit? You don't have this problem with defined benefit plans.

So you take on the responsibility of education. Whether or not you can. This stuff is very evolutionary and heuristic. Maybe in a few years we will be talking about how you do correct education.

I think the basic thing for each plan is to just let it evolve. Keep interpreting the responsibility relative to the employee benefit plan.

I don't think employers should look at it from the point of view that they have to save the participant from all the salespeople that are out there. I don't think you can do that. Keep focusing on your responsibility as an employee benefit plan sponsor.

DAVE VEENEMAN: We've seen it handled on two levels, preretirement and then for the younger employees. For younger employees, the counter-message is what comes through the popular media. We're seeing a lot of that addressed in the educational programs themselves. When one is teaching employees about asset allocation, and particularly more strategic asset allocation, a lot of the programs that we've helped companies develop have talked about the "pick-and-switch" approaches that you may be hearing in the popular media as opposed to a more long-term "pick-and-stick."

We have seen a few cases in preretirement programs where employers have tried "shark proofing," given the fact that a lot of people out there are after retirees' money. Those have typically been longer term programs that have gone through the various offers that retirees may be seeing from vendors in the marketplace. What does it mean when someone comes and offers you annuity products? What are some things that you might want to consider when the banker is saying the CD is the place to go, when the mutual fund representative is saying that the mutual funds are the place to go. Helping people make sense of the barrage of information that comes at them.

Probably what we've seen more than anything else is the notion of providing a rollover individual retirement

account (IRA) for the retirees and for terminated employees, so that they can continue the same investments that they had while they were active employees. The employer can help make this a little bit easier by letting individuals roll funds over into a mirror IRA that's going to allow them to maintain the same asset allocation and, as they get older, move toward the more conservative investments.

MICHELLE EHM: We've seen a lot of research recently come out about the disinterested employee. Frank Russell's study said 79 percent were not interested in managing their investments.

What are the employees actually doing? Have you done any followup on the employees who aren't interested and don't want to manage their own money? Are they following the recommendations? Are they picking the lifestyle funds that are pre-mixed and offered in their plans?

DAVE VEENEMAN: We have distinguished between three groups of employees. That 80 percent who are typically described as disinterested, we've described as savers; these are the people who in almost any population would say, "I don't want to be an investor, and I don't particularly want you to teach me to be an investor; I just want to get through this decision."

A lot of the focus has been on helping the savers come to whatever decision they feel is most appropriate for them, however they define that, without trying to steer them in a particular direction. What we're seeing so far in looking at our recordkeeping data base where this kind of work has been done is that of that 80 percent, slightly under one-half would typically stick with the GIC because they don't want the volatility of stocks and bonds. About one-half would move over to a lifestyle fund somewhere around that classic 60/40 mix.

Among the other 20 percent, we see 5 percent as very active traders, and the other 15 percent or so would tend to be a little bit more active investors. They would tend to monitor it pretty closely, and would tend to move around. Again, that's just what you might call a "typical" employee population.

A technical work force would be very different because disinterested employees might be as low as 40 percent. You could have a full 40 percent of your population made up of active investors.

MICHELLE EHM: You say you're not trying to steer them into any one decision, but those people who are disinterested and choose to just remain in GICs can clearly have a very different retirement outcome than those people who choose to take the recommendations and diversify.

DAVE VEENEMAN: Absolutely.

MICHELLE EHM: What is the emphasis in the communications materials on the benefits of diversification and lowering risk and producing better outcomes?

DAVE VEENEMAN: We're seeing more of an emphasis in the communications materials these days on the tradeoffs involved in various types of investment strategies.

One of the concerns that some companies have had in the past is that communications materials have been biased toward equities. So we're seeing more that says, "If you feel that the GIC is an okay place for you to invest, that's okay." The material seeks to help the individual understand the tradeoffs in terms of inflation exposure that they may be making in order to get the stability that they tell us they like. The message is, "If you're particularly young and you say that inflation is your issue in the future and you don't think Social Security is going to be there, so you think about investing very, very aggressively, we want you to understand the volatility tradeoffs that you may be taking on, and we want you particularly to understand the kind of time horizons that you may be talking about to realize the full return potential of what you're doing.

The material tries to play it down the middle and help employees understand the tradeoffs on both ends of the spectrum, then use their time frame and their sleep factors to decide where they might want to position themselves along the way.

DIANE KAGEL: Regarding the lifestyle portfolios, are you saying that plans are recognizing that there's a certain portion of the population that is not going to be affected by that paralysis at the decision point—the portion that's comfortable making an asset allocation decision and may tend to be of a nature to invest more aggressively anyway—therefore, the pre-mixed portfolios tending toward the more conservative are intuitively a better fit?

Second, are you seeing recognition of this among plans that you're dealing with and are they therefore willing to walk down the path toward a more conservative approach, or are they against implied endorsment of any one approach and opting for a neutral point equidistant on the efficient frontier?

DAVE VEENEMAN: We've seen a split. A number of companies want to give employees a couple of balanced

funds diversified around the center of the spectrum.

A lot of companies have expressed a concern about using pre-mixes because this approach has the feel of directing employees toward particular mixes. I think in every case where we've worked with companies that have done pre-mixes, they have always preserved a mix-your-own option.

I guess the short answer to your question is that we have seen very few companies that have tried to force everybody into the pre-mixes. Most of the companies that have done it have preserved other options for the more sophisticated employees.

CURTIS MIKKELSEN: As an observation: Many of us are simply living too long! My question is related to the presumed widespread fear that many older employees and retirees have of outliving their money. Do any of your clients actively communicate to plan participants gender-specific life expectancy tables at various attained ages?

DAVE VEENEMAN: We've had several clients who have done gender-specific life expectancies through interactive software and have had those assumptions built into the software modeling that employees might use to calculate how long their retirement income might last. One of the inputs is gender. The output will show an age at which the retirement account is expected to be depleted, assuming a level amortization.

BRIAN TERNOEY: I can't think of any instance where we've really talked about life expectancy. I think that's a very misleading statistic. One-half of the people live longer than the life expectancy. There are quite a few instances of communications tying it back to annuitization and specification of the level of annuity that's the equivalent of this investment strategy.

I still think that for the bread and butter employee the best thing to do with their money is to annuitize it. What's the best advice? Don't outlive your income! The only way you can do that with certainty is to annuitize, hopefully with a high quality company that will live as long as you do.

SYLVESTER SCHIEBER: We have found a lot of diversification across the different kinds of funds. We've found a reluctance to invest very heavily in the balanced fund. The lazy investor's diversified portfolio is out there, but people do not seem to take advantage of it in a big way. It's one more element of their portfolio.

Maybe if a good communications tilt is put on the life cycle funds, they will draw some people, but they don't seem to be doing it naturally.

DAVE VEENEMAN: Our experience is similar to that.

BRIAN TERNOEY: One Baby Bell introduced a balanced fund and focused a campaign on explaining it. The communications did not lean toward the balanced fund. The communications focused on this being a conservative, don't put all your eggs in one basket approach. There was a 20 percent movement into that new investment option.

DAVID JEPSON: David, I appreciated your presentation on spreading the five pies out evenly across the frontier. We take a similar approach, but in our focus groups a participant will say we limited choice to five, but those are five very broad choices and they still don't help me very much; what else can you do for me? So we believe they need guidance in narrowing those five choices down. I notice that in your full report you suggest that clients are getting away from the questionnaire or the quiz. That's true, but I believe, or at least we have seen, that that is still a valuable tool as long as it's used in the context of some other determinant, whether it's lifestyle or age or a combination of factors, because the biggest problem that we have found is that one out of four participants doesn't fit into any category.

We've tapped another group as the "starting overs." There's a bunch of us in this room. We're 40-something, and we have been divorced, downsized, bankrupt, or had some event in our life that has required us to deplete our savings much earlier than we anticipated. We are having to reaccumulate.

Such people don't fit into a neat category. They require some special attention, and that's been the focus of what we've been working on.

DAVE VEENEMAN: There was one company on the west coast that did 30 portfolios. When they had fewer, they saw too much of a gap between each of the choices.

We're also seeing a bit of a movement away from the categorization. If you think back four or five years, you were seeing five portfolios. The "young professional" portfolio, the "married with children" portfolio, the "off to college portfolio" or, as one person put it, the "Beamer" portfolio, the "Volvo" portfolio, and the "Chevrolet" portfolio. We saw new concerns arise a couple of years ago. Are we taking the investment judgment out of the employees' hands? There is a concern that if you say to them in any

way, tell us which slot you fit into and we'll tell you which portfolio is right for you, problems may arise. There are hazards involved in that approach.

HOWARD FLUHR: The generation that's currently retired had the great real estate boom that provided them with an asset that is unlikely to be available to baby boomers.

I also hear reference to the fact that the management of investments is not rocket science. I agree. I think rocket science is a lot easier, because with rocket science one actually has a chance of predicting the future based on past events, because it is science.

To the extent that we use these scientific formulas, we rely on the likelihood that the past is predictive of the future. The notion that the average employee is going to be able to figure this out and make a sound decision, because he's been given the information to use on his own, is too optimistic. I'm not sanguine about that. I think that we are increasing the risk for everybody by saying to the average person, "Figure it out." They might ask why investment managers are paid so handsomely to "figure it out," if they're making $20,000 a year and we're saying take care of yourself, do the same thing.

I have a lot of questions but few answers for you.

DAVE VEENEMAN: I would certainly echo that concern. We suggest not communicating to employees that these portfolios were calculated with a computer model, because that has the ring of science to it. We advise being very careful about the language that's used to describe what the analysis says in order to avoid any implication that you can predict the future. We are seeing an increased sensitivity.

JANICE GREGORY: Does anybody extend education beyond the plan?

DAN VINOD: I think somebody made a point earlier about parents talking to their children and encouraging them to participate. That was a very good recommendation.

DAVE VEENEMAN: We are seeing, particularly among more sophisticated groups and among the highly compensated and highly technical employee groups, more interest in that. We see a lot of use of interactive software to include outside assets like a house, mutual fund investments, IRA investments, and some thrift vehicles. This can help people come up with a more complete model of their total financial picture.

We're also seeing more financial planning seminars to introduce the basic concepts and help them to get ready to go to a financial planner.

We don't see much with the broader rank and file groups.

STEVE HARRISON: We have a little experience at DuPont. We have financial planning for executives, and in our flexible benefits program we have two levels of financial planning available to all employees.

Our broad program has not been terribly successful. We recognize people don't like to read, and so we've even put in a hotline where they can call and talk about specific things with a financial planner. We only have a 5 percent participation rate in the flex program. We are still trying to study why people don't want to spend the time to plan. The cost is pretty insignificant, even at our lower pay levels. We're interested in making it more successful.

DAVE VEENEMAN: We've seen companies that have had financial planning as a part of the flex. We've seen about a 5 percent utilization. So that's pretty consistent with our experience.

GEORGE COWLES: Even if it's a third party vendor, I think employees are a little reluctant to bare their financial soul essentially to their employer.

JEFF PASTER: Relative to the asset allocation process, how are you seeing the defined benefit plan used? Are defined benefit investments being used as either a global balanced option or pieces of it to create a series of lifestyle or other funds? One company has effectively said to their employees they could transfer their defined contribution balances to the defined benefit plan at retirement and it would be invested as part of the general assets, and then annuitize it just like a variable annuity as a way to have continued professional diversification in their ongoing postretirement years.

BRIAN TERNOEY: We have a couple of clients who have allowed, and in one case subsidized, retirees moving their distributions into the defined benefit plan and then paid a fixed annuity. Obviously, with the subsidy it's been a very attractive benefit for the retiree.

I've seen some interest in the variable annuity idea, but not a whole lot.

DAVE VEENEMAN: We're seeing the defined benefit plan come in on the education side rather than the investment side. Rather than education being limited to how to invest your 401(k) plan, it's really more centered around how

much might you expect from your defined benefit plan, how much might you expect from Social Security, assuming Social Security continues in its present form, and then once you've selected an investment strategy—and that's where the lifestyle portfolios come in—how much do you need to save out of your paycheck in order to reach a retirement income goal that you set. So it's been integrated more on an educational level than on an investment level.

DAVID CANTOR: William Mercer is seeing a lot of interest in how to view the defined benefit plan in the context of investment education. To an extent, the promise to pay a given pension benefit years away is a bond investment. So when you figure out your asset allocation, should you be taking into account that your traditional pension plan is a bond investment? Then you have other types of defined benefit pension plans like cash balance pension plans that give an allocation to an employee and then credit interest based upon Treasury bills. Well, then does your pension plan become an investment in Treasury bills, because that's how the account is going to grow? This can lead to very interesting discussions about how the pension plan should enter into the asset allocation equation.

I believe that the companies that have allowed transfers from the 401(k)s over to a pension plan, like Albany International, have treated it as an annuity purchase in the defined benefit plan. I don't think you're allowed to actually reflect the investment performance in the defined benefit plan, but I think the annuity rates were fixed to anticipate the higher level of investment growth that is expected to be there.

QUESTION FROM THE AUDIENCE: A lot of discussion has been given to fairly sophisticated software programs that allow you to do the efficient frontier. I think there are a lot of larger companies out there, including my own, where education consists of distributing lists of fund choices. We do very little as far as educating people about asset allocation providing most of the return, not picking one or two winning funds.

What is the most effective way to educate employees on the concept of asset allocation? Is it face to face meetings, interactive software? Is it glossy brochures and pie charts that are sent to the home? What works the best?

BRIAN TERNOEY: I don't think any one thing works best. We try to do modest amounts of each, and you're really reinforcing a concept, sending messages in different ways in many cases in order to provide what will work for different individuals.

I think one of the balanced allocations does what professional managers do. You find out that the passive nature of a 401(k) investment, payroll deduction dollar averaging, lets most participants keep pace with professional money managers with similar allocations.

Whether or not you provide that comparison, you can deliver that message with video or individual meetings or whatever. I think you just have to keep varying the device.

Meetings are impractical if you're widely dispersed, but I don't think the media are the problem. I think it's the length of a message and how much you expect people to absorb and impatience with the fact that it's going to take sustained, low keyed communication for several years. I think that works.

QUESTION FROM THE AUDIENCE: Is there any off-the-shelf software available for a company trying to introduce its benefits program?

BRIAN TERNOEY: They're all over the place. Most of the ones I've seen are okay. If you're really talking about broad-based communication, using it in a broad-based sense, making it widely available to a wide variety of employees, I think there's plenty of it out there that's okay.

We've looked at a lot of different versions, and most of them say pretty much the same thing: diversification is a good idea. You're just going for those broad-based issues anyway.

DAVE VEENEMAN: Just some general anecdotal observations: Technical groups really don't like seminars and might not go to meetings. They are a population that software can work very well with. For rank-and-file populations, meetings tend to be fairly popular. Forty to 50 percent participation isn't unusual. Video works extraordinarily well with some populations. It doesn't work well with others. So probably what we're seeing more of is a little bit more effort at the beginning of the project to assess what the populations are and the segments that the employer particularly wants to hit. For rank-and-file populations, simplicity, common sense really are the watchwords. For very active traders in the accounts, employers' attempts to discourage market timing are extraordinarily unsuccessful and resented by the population.

HOWARD FLUHR: At the risk of either reinforcing the appearance of cynicism or elitism, I'm concerned that we are talking ourselves into the belief that, if we provide "sufficient information" to anyone, they can figure anything

out. The idea of giving the average employee the opportunity to work with software for asset allocation concerns me even more. I think there is some self-delusion that average people have the time, the ability, and the inclination, to manage their investments.

DAVE VEENEMAN: Howard, we absolutely share your concern. When we were putting together the second generation of our retirement modeling software, we spent a lot of time considering the technological possibility of building in an efficient frontier module so that employees could actually sit down and do their own efficient frontier modeling. The conclusion that we came to is exactly the same as yours. It's one thing to use this technology to create some information and to give employees simple information that, as you said, is within what they want and what they'll deal with. It is quite another to say, here, we're going to teach you how to do efficient frontier modeling.

To go back to what you said earlier, not only is this not rocket science. Rocket science is a lot more reliable, because I think if you asked employees to do that, it would blow up a lot more than the Vanguards did in 1958.

BRIAN TERNOEY: I really agree with you. The software only helps a few people. Each plan ought to move at its own pace and not be too worried about whether everyone out there is buying software or hiring financial planners. Keep your own pace. Keep looking at where the holes are and address them. That's the most important thing.

Part Four
Influencing Workers' Decisions Through Education

Chapter 7: Participants May Be Smarter Than We Think. . . Robert Seraphin, Fidelity Investments

...or, at least, smarter than we give them credit for. There is considerable "hand wringing" going on in the popular media, and in benefits industry and social policy forums, over whether "average" workers will make appropriate decisions regarding retirement saving and investing, especially with self-directed retirement plans. In fact, there is substantial evidence in participant research and case studies that people will take appropriate action when they are adequately informed of the issues and alternatives, and provided with reasonable education and a "call to action."

The average plan participant in the work force since the early 1980s, when 401(k) plans began, has been seasoned in a financial sense by many events. Consider the following, in timeline order:

- High inflation
- High interest rates
- Major tax reform
- A stock market crash
- Low inflation
- Low interest rates
- Guaranteed investment contract crisis
- Stock market expansion

Each carried with it an educational component and opportunity to make decisions. For example, during this period, the chances are high that most workers bought a house and refinanced it once, maybe twice. They secured an equity line of credit, or seriously considered it. They bought a car, or two, and probably examined whether to buy or lease. They've seen property values fluctuate, and many have faced or are facing substantial education costs. Someone who has lived and worked through this period has learned a great deal about financial issues and can reasonably be expected to make appropriate decisions with adequate information. For most people, saving and investing is not "rocket science."

Over the same period, downsizing, reengineering, and the general erosion of the social contract between employers and employees has left few who believe that their companies will "take care of them." And companies, in turn, are managing their operations around "empowered" employees who are expected to understand their role, apply their skills, and make day-to-day decisions. Isn't it realistic to expect benefit programs to be managed by similar assumptions about employee behavior?

Increasing complexity in self-directed plans will require the provider industry and plan sponsors to understand employee behavior even more thoroughly and quantitatively. Slightly over one-half of the 401(k) plans that Fidelity now administers have five or six investment options, but the trend is clearly toward more choice. About 25 percent have eight or more options, and some—including the one used in the case study of this paper—have over 50. The addition of "lifestyle" options and international and emerging markets funds have been fueling the growth. A few 401(k) plans have ventured into self-directed brokerage accounts, with a broad spectrum of mutual funds and individual securities available.

The complexity of investment options, as well as plan services, will require not only more communication and education activity but better and more effective activity.

The case study that follows is one of many that have achieved positive results both in terms of participation and asset diversification by employing the following communication fundamentals:

- Research and thorough planning are critical.
- An extended, multi-media campaign, with a "call to action" incorporated, works best.
- Focus communications on the investor, not the investments.
- Let professionals drive the process.

Chart 7.1a
Case Study: History

- Internally managed
- GIC failures
- No match, dwindling participation
- Minimal (compliance - oriented) communication

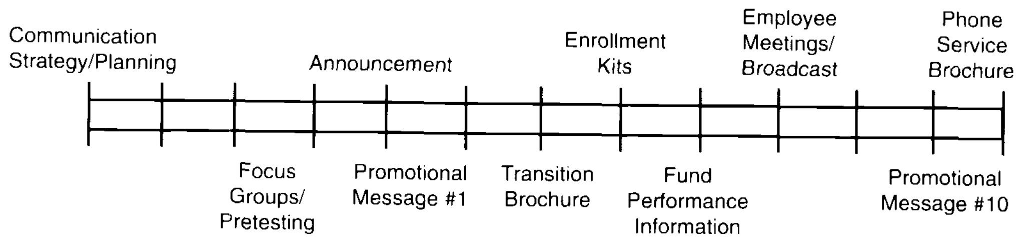
Source: Robert Seraphin, Fidelity Investments

Chart 7.1b
Case Study: Challenges

- Transition to outsourcing, daily valuation
- More participant responsibility
  - — Retirement Planning
  - — Asset Allocation
- Skeptical, varied workplace

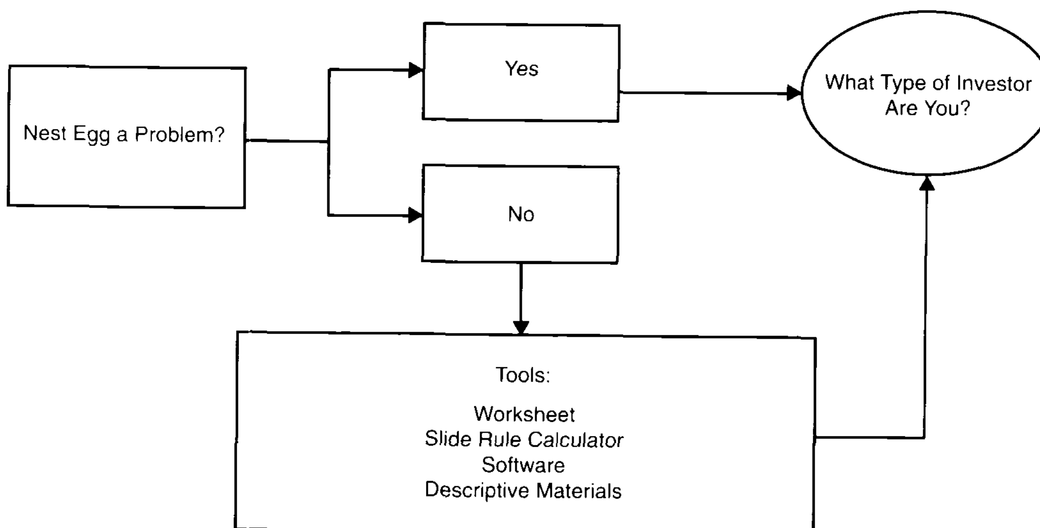
Source: Robert Seraphin, Fidelity Investments

Chart 7.2
Comprehensive Communication Campaign Timeline (Months)

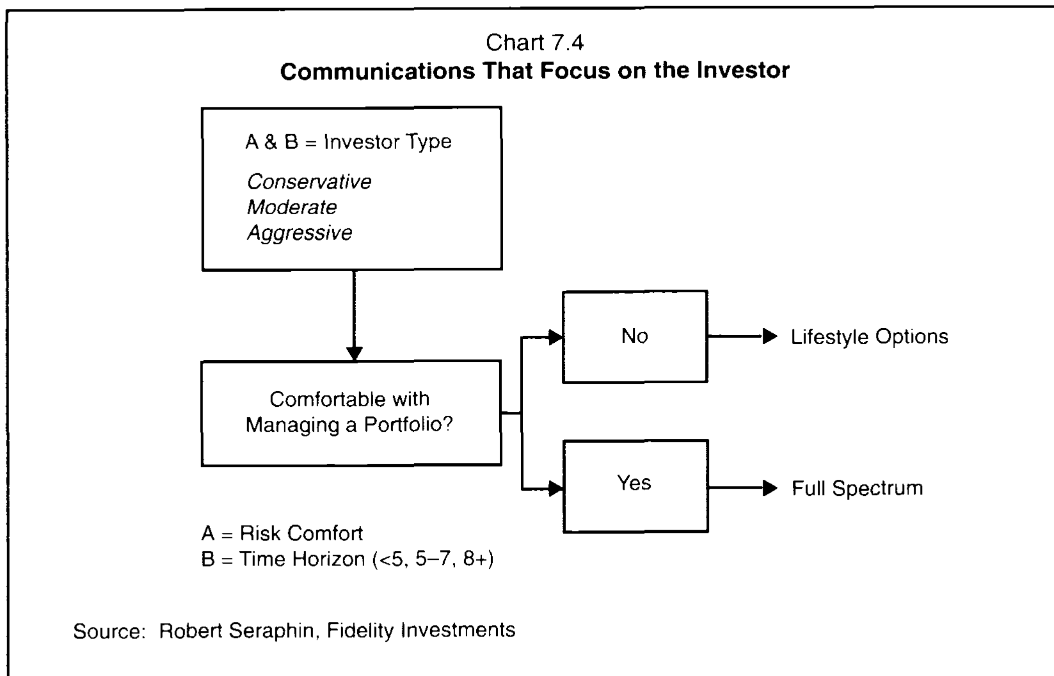


Source: Robert Seraphin, Fidelity Investments

Chart 7.3
Communications That Focus on the Investor



Source: Robert Seraphin, Fidelity Investments



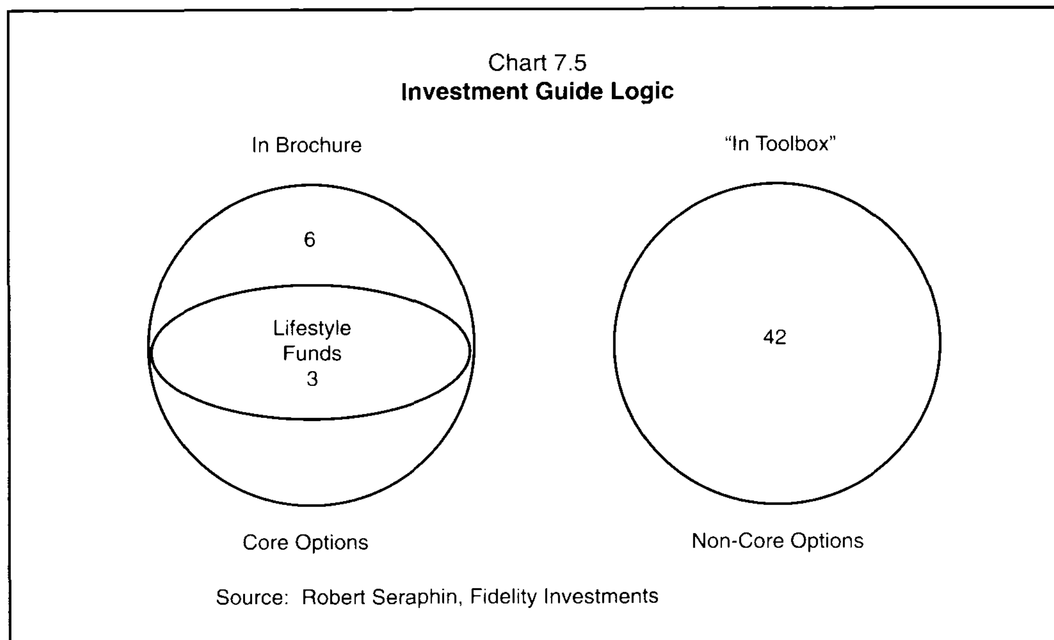


Chart 7.6a
Case Study: Results

- Uneventful transition period
- 61% re-enrolled/re-allocated
- 11% increase in participation

Source: Robert Seraphin, Fidelity Investments

Chart 7.6b
Case Study: Lessons Learned

- The number of funds doesn't matter if you focus on the investor
- Research and planning are critical
- An extended, multi-media campaign is necessary
- Let professionals drive communication process

Source: Robert Seraphin, Fidelity Investments

Discussion After Seraphin Presentation

STEVE SANER: How were the participants given a choice in terms of the new set of options? Were they mapped automatically from their existing options into the new options so they didn't have to make a choice or were they forced to make a choice, which may be forcing them to reallocate?

ROBERT SERAPHIN: Those who did not reallocate mapped over to like options.

STEVE SANER: So they really weren't forced to make an active decision. Interesting. The other question is on the toolbox percentage asset base overall. How much did that garner versus the core options, the 42 funds versus the 9?

ROBERT SERAPHIN: Every one of the 42 options was employed.

DIANE KAGEL: We have 10,000 employees. When we started rolling out an educational campaign and installed new options, the participation rate started to creep up immediately. As soon as the first piece of paper with the new logo and a new focus brought to the plan started to hit employees' desks, that started to raise participation by itself, and it went up by four points before the actual enrollment process began for the new plan.

Chapter 8: Results from EBRI Survey on Participant Education in Defined Contribution Plans

Jack VanDerhei, EBRI

Introduction

The 1990s are seeing a dramatic increase in the universe of participant-directed 401(k) plans and in the number of participants. A number of public policy issues are arising for employers and policymakers as a result. Will retirement income for workers with these plans be adequate to allow exit from the work force? Will workers begin to participate as soon as they have the opportunity? Will they choose a diverse asset allocation and adjust it over time to take best advantage of their personal time horizons? Will they maintain contribution rates at a level that will provide an adequate retirement income? If they change jobs, will they leave the assets in a retirement fund rather than taking early withdrawals? The debate over these questions has often been intense, yet few detailed data on actual behavior have been available.

Although employers want their employees to participate in 401(k) and other defined contribution plans, many have found it difficult to get workers to enroll. A combination of concerns has prompted 401(k) plan sponsors to begin educating their employees about investment strategies and the importance of participation in the plan, including the amount of salary contributed. Employers and policymakers want to know how well these teaching tools work, whether the efforts have actually changed investment and participation patterns, and to what extent a company can educate employees without stepping over the line into offering actual investment advice. Employers sponsor plans in order to allow individuals to accumulate the maximum amount of money possible for retirement and know that education is necessary to realize the full potential of the plans.

This report analyzes and quantifies the provision of educational material to workers within the participant-directed retirement plan universe. It focuses on the types of educational services provided to workers, the subject matter covered, and the impact of the material on the decisions made by workers with regard to their plan. The report is divided into three sections. The first section analyzes participant attitudes, preferences, and knowledge regarding participant-directed retirement plans. The second section examines what plan service providers are offering to plan sponsors, with particular emphasis on participant education. The final section presents a quantitative analysis of what plan sponsors are providing to their employees, in terms of topics covered, the medium of communication used, and an explanatory analysis of impact, broken out by plan size and other plan characteristics.

Some of the findings that will be elucidated in this report include the following:

- Plan participants prefer to make their own decisions regarding their retirement accounts.
- Many plan participants aren't aware of what they need for retirement income adequacy despite a large percentage of this information reported as provided by both plan sponsors and service providers.
- Plan participants report that they read and use the materials that they are given.
- Educational services are most often provided by service providers to plans with more than 1,000 participants.
- Plan service providers offer information on the impact of preretirement withdrawals on retirement income adequacy less frequently than any other topic.
- Plan sponsors use many diverse methods of delivering the participant education information to participants, with varying results.
- Plan sponsors provide information on the impact of preretirement withdrawals on retirement income adequacy the least often of any topic.

The conclusion evaluates these findings, recommends further areas of investigation and concern, and highlights key points of information that have been revealed in the Employee Benefit Research Institute's (EBRI) research on participant education in participant-directed defined contribution plans.

Participant Level Findings

EBRI has undertaken a multi-year program of surveys and

analyses that explore employees' level of awareness and behavior concerning issues of retirement planning. Following are some results and excerpts from these recent studies of plan participants that are appropriate to the focus of this report. The purpose of this section is to give a point of reference from which to evaluate the data collected and analyzed in the recent EBRI plan sponsor and service provider surveys.

Participant Desire To Make Investment Decisions

Individuals have a strong preference for making their own investment choices in a retirement plan and assuming all the risks, according to multiple EBRI/Gallup surveys.[1] Respondents were asked: "Assuming you had a pension plan from an employer, which of the following would you prefer? Would you rather make your own investment decisions, assuming all of the related risks, or would you rather leave investment decisions to your employer and have him or her pay a fixed amount when you leave your job or retire?" Fifty-five percent responded that they would prefer to make their own decisions, and 39 percent reported preferring to let their employer make the decisions. Among those who were making personal contributions to a tax-deferred investment plan, 62 percent preferred to make their own investment decisions, while only 34 percent preferred to entrust investment decisions to their employers.

While most participants want to make their own retirement saving and investment decisions, it appears that many do not act with a specific goal in mind. An EBRI/Public Agenda survey in 1994[2] asked all survey respondents (not just 401(k) respondents) how much money they thought that they personally had to save in order to finance their retirement. Seventy percent responded that they did not know. Workers earning over $60,000 were the least likely to say "don't know," at 54 percent. Every other demographic group was at 60 percent or greater with "don't know" responses. Workers making $15,000–25,000 were the most likely to respond "don't know," at 77 percent. Respondents were also asked what percentage of their current income would be needed in retirement in order to support themselves. Fifteen percent responded less than 50 percent, 38 percent responded 51 percent to 70 percent, 21 percent responded 71 percent to 90 percent, 22 responded over 90 percent, and 5 percent said they did not know.

Given the strong preference expressed by individuals to make their own investment decisions with their retirement plans and bear the risks, it is logical to inquire about their investment knowledge and investment preferences. Respondents in the EBRI/Gallup survey were asked to rate several investment vehicles based on what they believed to be their historical rate of return, using a 1 to 5 scale where 1 means little or no rate of return and 5 means an extremely high rate of return. The vehicles were bank saving accounts, certificates of deposit (CDs), stocks, U.S. government bonds, and private corporate bonds.

Although stocks were correctly perceived as having the highest historical rate of return, they were perceived as having only a slightly higher than average rate of return. On average, stocks were rated at 3.18, U.S. government bonds at 3.09, private corporate bonds at 2.94, CDs at 2.89, and bank saving accounts at 2.17. There was very little spread in the relative rankings reported by respondents. Outside of bank saving accounts, the most common rating for the other four investment vehicles was 3. Only 11 percent of respondents rated stocks very highly in terms of historical rates of return, compared with 14 percent who rated U.S. government bonds highly and 10 percent who rated CDs highly. In general, respondents do not appear to be very knowledgeable regarding the relative rates of return that historically have been earned on some basic investment vehicles.

Employer Education Efforts

In a 1994 survey by EBRI and Mathew Greenwald and Associates (1994),[3] 73 percent of respondents participating in a 401(k) plan reported that their employer provided some type of educational material (including seminars) regarding the plan. In the same survey, 92 percent of those receiving educational material reported reading it.

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[1] The most recent of these surveys was Employee Benefit Research Institute/The Gallup Organization Inc., "Public Attitudes on Investment Preferences, 1994," *EBRI Report* no. G-61 (Employee Benefit Research Institute, November 1994).

[2] This was part of a collaborative effort between EBRI and the Public Agenda that included a survey of 450 American leaders in government, business, and academia; a random poll of 1,100 Americans; 16 focus groups, and a series of interviews with experts on retirement savings. Results were published in "Promises To Keep: How Leaders and the Public Respond to Saving and Retirement," EBRI and Public Agenda, 1994.

[3] See Employee Benefit Research Institute, "Retirement Confidence in America: Getting Ready for Tomorrow," *EBRI Special Report* SR-27/*Issue Brief* no. 156 (Employee Benefit Research Institute, December 1994).

In the EBRI/Greenwald survey, 96 percent of those reading the material (or attending the seminars) reported that the topics covered included a description of the investment options available, and 92 percent reported that the advantages of saving through tax-deferred plans were covered. By comparison, only 73 percent reported that the principles of asset allocation and diversification were among the topics covered.

According to the EBRI/Greenwald survey, among those reading the material (or attending the seminars), 33 percent reported that the materials led them to increase the amount of their contributions to the plan. This effect was least likely among the youngest workers (29 percent among those aged 26–34, 36 percent among those aged 35–44, 33 percent among those aged 45–54, and 37 percent for those aged 55–64). The effect was less likely among college graduates, compared with those with no college (30 percent versus 41 percent). This effect was also less likely as household income rose (47 percent for those with incomes below $25,000, compared with 28 percent for those with incomes between $25,000 and $50,000 and 35 percent for those with incomes above $50,000). Therefore, the lower paid, less educated plan participants were the most responsive to educational material in terms of contribution rates. Females were more likely than males to report increased contributions as a result of exposure to educational materials (36 percent versus 30 percent).

The educational material generated changes in asset allocations in nearly one-half of survey respondents. Among those reading the material (or attending the seminars), 44 percent reported that the materials led them to change the allocation of their money among the options available. This effect did not vary markedly with worker age (44 percent among those aged 26–34, 42 percent among those aged 35–44, and 47 percent for those aged 45–64) or gender (46 percent for males versus 43 percent for females). This effect also did not vary noticeably with household income (47 percent for those with incomes below $25,000, 45 percent for those with incomes between $25,000 and $50,000, and 44 percent for those with incomes above $50,000). However, there was variation by level of education. The effect was reported by 42 percent of college graduates, 51 percent of those with some college, and 41 percent of those with no college.

In the EBRI/Public Agenda survey, respondents were asked about the potential impact of the government encouraging employers to give advice to their employees regarding how much they should be saving and where to invest for their retirement. Nineteen percent said it would lead them to save a lot more for retirement, 34 percent said a bit more, and 46 percent said it would make no difference in the amount they saved. It appears that many workers may be wary of information that could be perceived as being forced on them as opposed to being offered for their consumption.

In addition, it appears that response is greater the more specific the information and the more tangible the resulting potential payoff. Respondents were also asked about the impact of learning that by saving an additional 5 percent of income they would have financial security in their retirement years. Two-thirds of respondents said that such information would lead them to increase their level of saving for retirement.

Over three-quarters of all respondents said that they would be confident in the information provided through a seminar on retirement planning sponsored by their employer. At least 70 percent of respondents in every demographic group reported that they would have confidence in an employer-sponsored seminar.

It may therefore be concluded that the majority of employees:

- prefer to make their own decisions concerning their retirement account.
- are not aware of what they need for retirement.
- read and use materials offered.
- respond positively to information delivered that is relevant to their retirement security.

Service Provider Findings

From late 1994 to early 1995, EBRI surveyed the services provided by participant-directed defined contribution plan service providers to plan sponsors. While the survey covered all types of services that were being offered to plan sponsors, particular attention was focused on educational services. Service providers reported the range of services they provided to different types of plans and to different size plans.

The survey was mailed to all 320 service providers published in the 1994 annual survey of service providers in *Pension and Investment News*. Forty-three usable surveys were returned, for a 13 percent response rate. Survey respondents represented those service providers who serviced a sizable portion of all participant-directed defined contribution plans currently in existence. As of December 31, 1994, survey respondents serviced 85,829 plans with under 100 participants, 15,774 plans with 100–499 participants, 2,487 plans with 500–999 participants, 1,438 plans with 1,000–4,999 participants, 332 plans with 5,000–9,999 participants, and 262 plans with over 10,000 participants,

for a total of 106,122 participant-directed defined contribution plans. This survey asked providers about their services for 401(k), 403(b), 457, simplified employee pension plan, money purchase pension plan, 401(a) profit-sharing plan, and other plans.

In comparing the total number of defined contribution plans EBRI surveyed to the actual number of 401(k) plans as reported in the Form 5500 returns, it is clear that the vast majority of 401(k) plans currently in existence were captured by the survey. The latest data available for 401(k) plans show that in 1991, there were 111,394 401(k) plans, compared with the 106,122 plans EBRI surveyed. Please note that the 1991 figure for 401(k) plans includes not only participant-directed 401(k) plans but also those that do not allow participant direction of asset allocation. It is therefore safe to say that the respondents to this survey serviced the vast majority of plans in the participant-directed defined contribution plan universe.

Noneducational Services Provided

The three categories of noneducational services offered most often to all plan types are *investment management, record keeping, and disclosure materials*. The least offered service to all plans and all participants is consulting services. Please note that all categories were interpreted and defined by the respondent when answering (chart 8.1 and chart 8.2).

Educational Service Provision

Of all the participant-directed plan service providers who responded, as a percentage of the total plans serviced, they offered educational services to 46.1 percent of plans with fewer than 100 participants, 62 percent of plans with 100–500 participants, 35.3 percent to plans with 500–999 participants, 73.6 percent to plans with 1,000–4,999 participants, 64.7 percent to plans with 5,000-9,999 participants, and 70.2 percent of plans with over 10,000 participants (chart 8.3). It should be noted here that the question asked as stated above is somewhat ambiguous because it does not specify whether the educational services offered were only to plans that providers already serviced or whether they include educational services that are offered

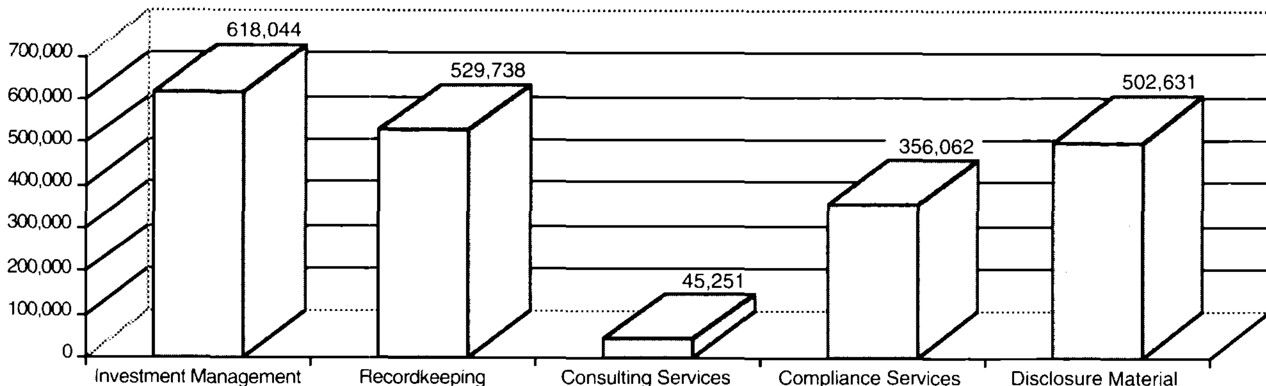
Chart 8.1

Services to Participant-Directed Plans by Plan Total and by Plan Type

Question: Indicate the number of participant-directed plans to which you currently offer the following services:

	Plan Type						
	401(k)	403(b)	457	SEP[1]	MPP[2]	401(a)	Other
Investment Management	58,340	38,542	297	278,476	85,877	156,171	341
Recordkeeping	50,296	40,178	1,081	276,807	80,528	80,528	320
Consulting Services	35,339	3,190	117	862	2,804	2,804	135
Compliance Services	40,134	23,168	113	206,536	42,976	42,976	159
Disclosure Material	45,077	36,087	213	261,854	79,559	79,559	282

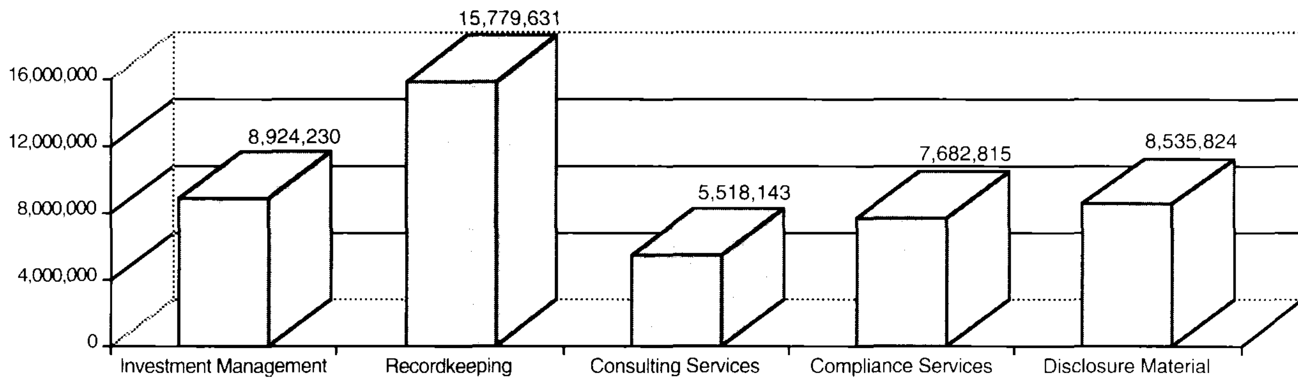
Total of all plans, aggregating plan types that receive these services



Source: Employee Benefit Research Institute.
[1]Simplified employee pension plan.
[2]Money purchase pension plan.

Chart 8.2
Services to Participant-Directed Plans by Participant Total and by Plan Type
Question: Indicate the number of participants in participant-directed plans you offer the following services to:

	Plan Type						
	401(k)	403(b)	457	SEP[1]	MPP[2]	401(a)	Other
Investment Management	5,101,576	2,595,080	77,095	402,445	337,320	399,805	10,909
Recordkeeping	11,966,336	717,321	313,918	424,625	540,287	1,255,930	561,214
Consulting Services	4,558,963	97,496	4,158	322,115	169,417	177,361	188,633
Compliance Services	6,408,786	105,396	1,677	311,315	261,709	343,736	250,196
Disclosure Material	6,082,555	599,715	57,688	385,400	311,277	838,554	260,635



Source: Employee Benefit Research Institute.
[1]Simplified employee pension plan.
[2]Money purchase pension plan.

any time plans are serviced. Therefore, the percentages would be greater as a portion of the total plans serviced as of December 31, 1994 if providers interpreted the question to include clients with whom they had not yet contracted. However, the data indicate that the providers answered for plans currently serviced, and they are interpreted in this context.

Types of Educational Services Provided

Service providers were asked to state, for all plans to which they provided educational services, whether or not they offered these services in the following categories:

- Generic written material focusing on retirement planning to be distributed by the plan sponsor,
- Generic written materials and computer software to be used for retirement planning,
- Plan-specific communications package personalized to the individual company's plan, and
- Plan-specific personalized communications package that includes the provision by the provider of educational meetings with participants.

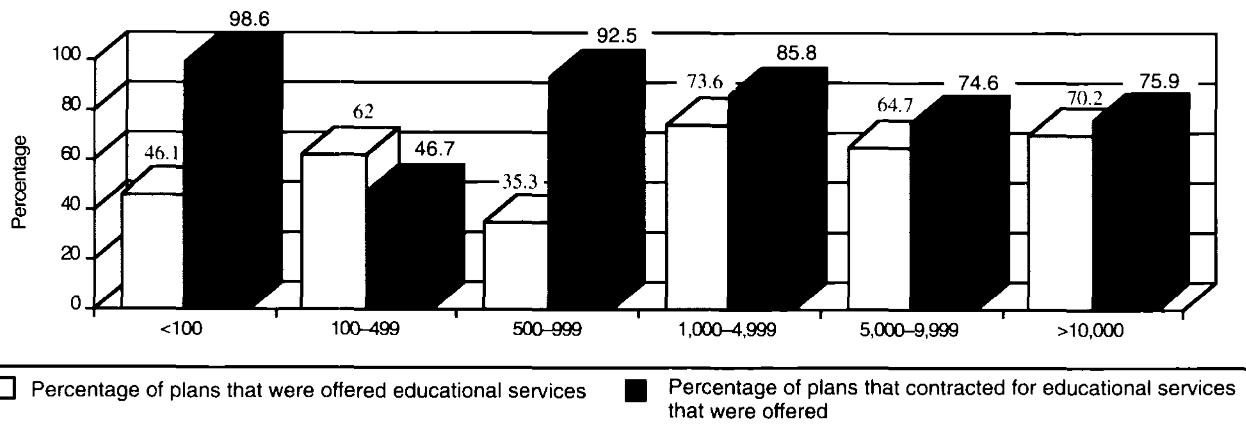
The data were combined with the total number of plans serviced, and each category was analyzed by plan size. It was assumed that if the category was offered, the service providers who responded offered the category to all plan sizes.

Generic Written Materials To Be Distributed by the Plan Sponsor—The range in the percentage of plans receiving service in this category by plan size ran from 1.1 percent of plans in the over 10,000 participant plan size to 47.7 percent of plans in the 500–999 participant plan size. The greatest concentration of plans receiving this category of service centered in the 100–1,000 participant plan size groups.

Generic Written Materials and Computer Software for Retirement Planning—The percentage of plans receiving this service ranged from 23.8 percent in the 5,000–9,999 participant plan size to 52.7 percent in the 500–999 participant plan size category.

Plan-Specific Communications Packages Personalized to the

Chart 8.3
Percentage of Plans That Were Offered Educational Services and Plans That Contracted for the Offered Services



Source: Employee Benefit Research Institute.

Company's Plan—This educational service is offered in very low percentages to most size categories. The only plan size category that receives this service significantly is the 500–999 participant plan size category, with 43.3 percent of plans receiving this service.

Plan-Specific Communications Package That Included Educational Meetings Conducted by the Service Provider—This category is offered to under 10 percent of plans in all size categories except the 100–999 and 500–999 participant plan sizes, with 20.6 percent and 48.6 percent, respectively, of these plans receiving this service.

These results would indicate that of the four categories analyzed, the one including generic written material and computer software for retirement planning is the most prevalent educational service type offered by all providers to all size plans. In contrast, the plan-specific communications package personalized to the client's plan is the least offered educational service. This result may be due to the cost of such a personalized service, or it could indicate that plan sponsors prefer to conduct their own educational meetings.

Participant Education Topics

Service providers were asked whether they provided educational materials to participants on each of the topics categorized below:

Asset Allocation—The percentage of plans that received educational materials on asset allocation for participants ranged from 96.2 percent to 99.6 percent over all categories, showing little variance.

Basic Investment Terminology—The percentage of plans receiving information for this topic ranged from 84 percent in the under 100 participant plan category to 99.6 percent in the over 10,000 participant category.

Effect of Inflation—The overall percentage of plans that received information for participants on the effect of inflation ranged from 84 percent in the under 100 participant category to 99.2 percent in the 10,000 or over participant category.

Benefits of Dollar Cost Averaging—This educational topic had the greatest range of percentage of plans in the overall percentage by all plan sizes—from 28.9 percent of plans with under 100 participants to 96.9 percent of plans with over 10,000 participants offered this information for participants.

Understanding of Risk and Risk Tolerance—This educational topic ranged from 84 percent of plans in the under 100 participant category to 99.6 percent of plans in the over 10,000 participant category.

Estimating the Income Needed for Retirement—There is little variance in the range of percentages for plans that received information on this topic for their participants. The percentage ranged from 94.2 percent of plans with 1,000–4,999 participants to 99.6 percent of plans in the over 10,000 participant range.

Attributes of Plan Investment Options—The percentage of plans offered this topic ranged from 85.8 percent in the under 100 participant plan category to 99.6 percent in the over 10,000 participant plan category for the overall analysis by all plan sizes.

Impact of Preretirement Withdrawals on Retirement Income—This educational topic has a significant variance in the range of percentages of plans offered information on this topic, particularly considering the importance of the topic to retirement income adequacy. The percentage of plans ranged from 41 percent in the 500–999 participant plan category to 96.9 percent of providers in the over 10,000 participant plan category, with other small plan categories below 62 percent.

Explanation of Company's Pension Plan—The variance in the range of percentages of plans in the overall analysis by plan size in this topic is very small—from 91.5 percent in the under 100 participant plan category to 97.3 percent of plans in the 5,000–9,999 participant plan category.

These data indicate that the three most frequent topics that are provided to participants via educational materials by all of the respondent service providers are asset allocation, estimating the income needed for retirement, and attributes of plan investment options. In contrast, the two topics that stand out as the least often provided to participants via educational materials by the service providers responding are the benefits of dollar cost averaging and the impact of preretirement withdrawals on retirement income.

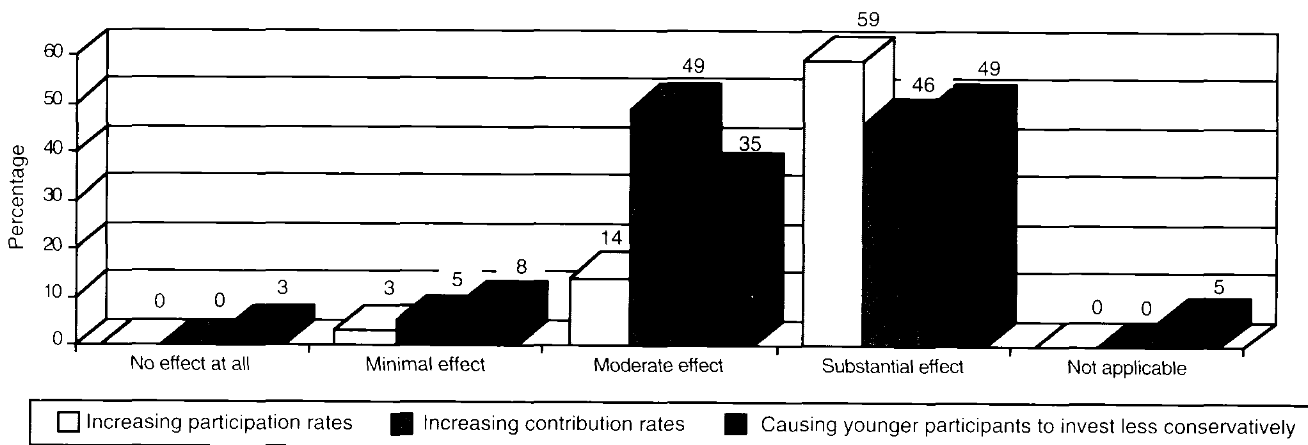
Given that the impact of preretirement withdrawals on retirement income is critical to retirement income adequacy, this finding calls for further investigation concerning why this educational topic is not often provided to participants by service providers.

Opinion of Service Providers on the Impact of Participant Education

Overall, plan service providers were optimistic about the effects of participant education materials on the investment behavior of participants (chart 8.4). A Likert[4] scale was used to measure the qualitative response of service providers to three questions. When asked whether they felt that educational materials had an effect on increasing participation rates, 3 percent responded that there was a minimal effect, 14 percent responded that there was a moderate effect, and 59 percent responded that educational materials had a substantial effect on increasing participation rates. The second question was whether educational materials had an effect on increasing contribution rates. Five percent responded that they felt that educational materials had a minimal effect, 49 percent reported a belief in a moderate effect, and 46 percent believed that educational materials

[4] A Likert scale is a qualitative method used to measure a particular attitude. The scale's replies are converted to a numerical value such as a 1–5 scale to measure agreement or disagreement with a statement(s).

Chart 8.4
Service Providers' Response to the Believed Effect of Educational Materials Supplied on Participants' Investment Behavior, by Number of Providers Responding



Source: Employee Benefit Research Institute.

have a substantial effect on participants' contribution rate behavior. Finally, service providers were asked whether they felt that educational materials caused younger participants to invest less conservatively. Three percent said that they felt that educational materials had no effect at all, 8 percent felt that there was a minimal effect, 35 percent indicated a moderate effect, 49 percent felt that there was a substantial effect, and 5 percent felt that the cause/effect relationship between educational materials provided and younger participants investing less conservatively was not applicable.

Plan Sponsor Findings

This section analyzes the behavior of employees of plan sponsors who offer participant-directed defined contribution plans, the possible effects of the use of educational materials on the initial decision to participate in the plan, and the effects of such materials on asset allocation choices.

Study Design

A stratified sample of approximately 4,000 sponsors of participant-directed defined contribution plans was chosen from the 1991 Form 5500 tape (the most recent information available). The data base was specifically designed to include "C" filers (plans with fewer than 100 participants). At the end of 1994, a multipage survey was sent to each of the selected sponsors requesting information on the plan-specific characteristics that would likely influence the behavioral aspects studied.[5]

In addition to the information required to construct control variables, the sponsors were requested to fill out a series of tables to provide information on the educational media used, the frequency and timing of the provision of information, and the types of educational topics provided. Finally, each sponsor was asked to fill out tables that provide detailed asset allocation information for the end of calendar year 1994.[6]

Response Rate and Sample Characteristics

A total of 180 responses were received. The response rate varied from less than 1 percent for the plans with fewer than 100 participants to more than 30 percent for plans with more than 10,000 participants. Sponsors were asked if they sponsored a defined benefit plan and whether the participant-directed defined contribution plan was offered to plan participants as a primary plan or supplemental plan. Defined benefit plans were also offered by 68.6 percent of the respondents. The participant-directed defined contribution plan was considered as the primary plan by 57.7 percent of the respondents.

The length of time that the participant-directed aspect of the defined contribution plan had been in place was also collected. Table 8.1 provides the distribution of the participant-directed initiation dates. The last column of this table suggests that participant-directed accounts are a relatively recent phenomenon, with nearly two-thirds of the plans in this sample initiating this aspect of their plans after the 401(k) proposed regulations were first issued in 1981.

Sponsors were asked a number of questions on plan-specific factors other than participant education they thought to be important determinants of employees' behavior with respect to participation, contribution rates, and asset allocation. The percentage of respondents with each of these features is highlighted below:

Employee contributions matched by the employer 70.5%
Participants can decide how employer matching contributions are invested 63.3
If participants cannot decide how employer matching contributions are invested, they are automatically invested in employer stock 69.2
Employer nonmatching contributions are provided 33.5
If employer nonmatching contributions are provided, at least some of these contributions are in accordance with a definite and predetermined formula 63.3
If employer nonmatching contributions are provided, they are required to be invested in employer stock 12.3
Limits exist on the percentage or amount employees can contribute, other than those imposed for legal reasons 65.1
Plan loans are currently available to participants 64.6
Hardship withdrawals are permitted 86.4

[5] Specific information on the contribution formula and any employer matching provisions was collected as well as any constraints imposed on these cash flows. Moreover, plan design information (such as availability of plan loans) was also collected to the extent it is expected to impact the behavioral variables.

[6] The sponsors are specifically requested to provide this information on the current years contributions if possible. However, preliminary results from the pilot test indicated that less than 100 percent of the sponsors would be able to provide that type of breakout. Therefore, sponsors unable to provide information on new contributions were allowed to provide similar information on the entire balance.

Table 8.1
Distribution of the Participant-Directed Initiation Dates

Year	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage
1944	1	0.6%	1	0.6%
1945	1	0.6	2	1.2
1950	1	0.6	3	1.8
1951	1	0.6	4	2.4
1953	1	0.6	5	3.0
1955	1	0.6	6	3.6
1956	1	0.6	7	4.2
1958	1	0.6	8	4.8
1959	3	1.8	11	6.6
1965	1	0.6	12	7.2
1966	3	1.8	15	9.0
1967	2	1.2	17	10.2
1968	1	0.6	18	10.8
1969	3	1.8	21	12.6
1970	1	0.6	22	13.2
1972	5	3.0	27	16.2
1973	1	0.6	28	16.8
1974	6	3.6	34	20.4
1975	5	3.0	39	23.4
1976	6	3.6	45	26.9
1978	3	1.8	48	28.7
1979	5	3.0	53	31.7
1980	6	3.6	59	35.3
1981	1	0.6	60	35.9
1982	6	3.6	66	39.5
1983	5	3.0	71	42.5
1984	9	5.4	80	47.9
1985	18	10.8	98	58.7
1986	6	3.6	104	62.3
1987	9	5.4	113	67.7
1988	11	6.6	124	74.3
1989	8	4.8	132	79.0
1990	8	4.8	140	83.8
1991	11	6.6	151	90.4
1992	5	3.0	156	93.4
1993	3	1.8	159	95.2
1994	6	3.6	165	98.8
1995	2	1.2	167	100.0

Source: Employee Benefit Research Institute

Participant Education Topics

With the assistance of the EBRI defined contribution project advisory board, researchers at EBRI compiled a list of important investment education topics as well as the various methods for communicating this information to plan participants. This information was used to construct three distinct tables as part of the survey instrument. The results of each of these tables are presented below.

Investment Education Topics

Plan sponsors were asked to indicate the year their company started offering information to plan participants on each of nine topics—asset allocation, basic investment terminology, effect of inflation, benefits of dollar cost averaging, understanding of risk and risk tolerance, estimating the income needed for retirement, attributes of plan investment options, impact of preretirement withdrawals on retirement income, and explanation of company pension plan. In addition, they were asked to indicate the year their company stopped offering that information (if applicable) and whether the company is currently developing the presentation of that topic or if it has no plan to offer participant education on that topic.

Methods for Communicating Investment Education to Plan Participants

Plan sponsors were asked to indicate the year their company started using each of 19 methods of communicating investment education. These methods were meetings conducted by investment manager, other ways, video/movie, toll-free 800 number, interactive voice response system, computer program, personal tax savings example, surveys, personal illustrations or projections, payroll stuffers, newsletter, sales literature, prospectus for investment option, summary plan description, brochure, individual counseling, focus groups, meetings conducted by plan sponsor, and meetings conducted by outside consultant. In addition, they were asked to indicate the year their company stopped using that information (if applicable) and whether the company is currently developing that method or if it has no plan to use that method of communicating investment education to plan participants.

Impact of Size

Although there does not appear to be a convenient metric that will completely quantify the impact of size on the sponsor's choice of methods for communicating investment education to plan participants, we initially classify the various methods based on the difference in acceptance rates between the smallest and largest size categories. For example, the first set of numbers in table 8.2 shows that 46.2 percent of the smallest plans had chosen meetings conducted by investment managers as one of their methods of communicating investment education information to participants, while only 24.2 percent of the largest plans made this choice.

Frequency of Message

Plan sponsors were also asked to indicate when, and how often, the communication methods enumerated above were

Table 8.2
Percentage of Plans with Various Methods of Communicating Investment Education Information, by Plan Size, 1994

Size	Meetings Conducted by Investment Manager				Other Ways		
	Start	Stop	Under development	No plans	Start	Under development	No plans
Under 100 participants	46.2	a	a	53.8	11.1	11.1	77.8
100–499 participants	42.1	10.5	5.3	42.1	6.7	6.7	86.7
500–999 participants	46.7	a	13.3	40.0	36.4	9.1	54.5
1,000–4,999 participants	40.0	5.7	8.6	45.7	11.1	16.7	72.2
5,000–9,999 participants	35.7	10.7	7.1	46.4	22.2	11.1	66.7
Over 10,000 participants	24.2	3.0	a	72.7	21.4	21.4	57.1

Size	Video/Movie				Toll-free 800 Number		
	Start	Stop	Under development	No plans	Start	Under development	No plans
Under 100 participants	38.5	a	a	61.5	53.8	a	46.2
100–499 participants	20.0	5.0	10.0	65.0	33.3	9.5	57.1
500–999 participants	50.0	a	6.3	43.8	71.4	7.1	21.4
1,000–4,999 participants	40.0	2.9	11.4	45.7	66.7	2.8	30.6
5,000–9,999 participants	50.0	a	14.3	35.7	71.4	3.6	25.0
Over 10,000 participants	51.4	5.4	13.5	29.7	81.1	5.4	13.5

Size	Interactive Voice Response System			Computer Program			
	Start	Under development	No plans	Start	Stop	Under development	No plan
Under 100 participants	25.0	a	75.0	46.2	a	a	53.8
100–499 participants	28.6	4.8	66.7	10.5	a	5.3	84.2
500–999 participants	41.7	16.7	41.7	25.0	a	16.7	58.3
1,000–4,999 participants	44.1	14.7	41.2	22.9	2.9	28.6	45.7
5,000–9,999 participants	63.0	3.7	33.3	46.4	a	7.1	46.4
Over 10,000 participants	68.4	15.8	15.8	38.2	2.9	26.5	32.4

Size	Personal Tax Saving Example			Surveys			
	Start	Under development	No plans	Start	Stop	Under development	No plan
Under 100 participants	53.8	a	46.2	9.1	a	a	90.9
100–499 participants	38.9	a	61.1	15.8	a	a	84.2
500–999 participants	53.8	15.4	30.8	41.7	8.3	a	50.0
1,000–4,999 participants	66.7	6.1	27.3	18.8	a	12.5	68.8
5,000–9,999 participants	59.3	a	40.7	37.0	3.7	11.1	48.1
Over 10,000 participants	58.3	2.8	38.9	60.0	a	8.6	31.4

Size	Personal Illustrations or Projections				Payroll Stuffers		
	Start	Stop	Under development	No plans	Start	Under development	No plans
Under 100 participants	58.3	a	8.3	33.3	25.0	a	75.0
100–499 participants	47.4	a	a	52.6	15.8	5.3	78.9
500–999 participants	61.5	a	7.7	30.8	46.2	7.7	46.2
1,000–4,999 participants	45.5	6.1	15.2	33.3	40.6	6.3	53.1
5,000–9,999 participants	60.7	a	3.6	35.7	32.0	4.0	64.0
Over 10,000 participants	62.9	a	17.1	20.0	36.4	a	63.6

(continued)

Table 8.2 (continued)

Size	Newsletter: Start	Newsletter: Stop	Newsletter: Under development	Newsletter: No plans	Sales Literature: Start	Sales Literature: Under development	Sales Literature: No plans
Under 100 participants	54.5	a	a	45.5	45.5	a	54.5
100–499 participants	45.0	a	a	55.0	25.0	a	75.0
500–999 participants	68.8	6.3	6.3	18.8	53.3	a	46.7
1,000–4,999 participants	73.5	a	2.9	23.5	34.4	a	65.6
5,000–9,999 participants	65.4	3.8	11.5	19.2	25.9	3.7	70.4
Over 10,000 participants	80.6	a	8.3	11.1	30.3	a	69.7

Size	Prospectus for Investment Option: Start	Prospectus for Investment Option: Under development	Prospectus for Investment Option: No plans	Summary Plan Description: Start	Summary Plan Description: Under development	Summary Plan Description: No plans
Under 100 participants	92.3	a	7.7	100.0	a	a
100–499 participants	77.3	a	22.7	100.0	a	a
500–999 participants	100.0	a	a	93.3	a	6.7
1,000–4,999 participants	89.2	a	10.8	88.9	11.1	a
5,000–9,999 participants	82.8	6.9	10.3	93.1	3.4	3.4
Over 10,000 participants	97.3	a	2.7	97.3	a	2.7

Size	Brochure: Start	Brochure: Under development	Brochure: No plans	Individual Counseling: Start	Individual Counseling: Under development	Individual Counseling: No plans
Under 100 participants	93.3	a	6.7	66.7	8.3	25.0
100–499 participants	72.7	4.5	22.7	35.0	a	65.0
500–999 participants	86.7	6.7	6.7	68.8	12.5	18.8
1,000–4,999 participants	94.4	2.8	2.8	50.0	8.3	41.7
5,000–9,999 participants	89.3	7.1	3.6	37.0	3.7	59.3
Over 10,000 participants	86.5	5.4	8.1	35.3	8.8	55.9

Size	Focus Groups: Start	Focus Groups: Stop	Focus Groups: Under development	Focus Groups: No plans	Meetings Conducted by Plan Sponsor: Start	Meetings Conducted by Plan Sponsor: Stop	Meetings Conducted by Plan Sponsor: Under development	Meetings Conducted by Plan Sponsor: No plans
Under 100 participants	27.3	a	a	72.7	66.7	a	a	33.3
100–499 participants	a	a	5.3	94.7	61.9	4.8	a	33.3
500–999 participants	15.4	15.4	7.7	61.5	73.3	6.7	13.3	6.7
1,000–4,999 participants	14.7	a	11.8	73.5	71.1	2.6	13.2	13.2
5,000–9,999 participants	19.2	3.8	3.8	73.1	50.0	10.7	14.3	25.0
Over 10,000 participants	35.3	2.9	8.8	52.9	64.7	a	5.9	29.4

Size	Meeting Conducted by Outside Consultant: Start	Stop	Under development	No plans
Under 100 participants	50.0	16.7	a	33.3
100–499 participants	30.0	a	10.0	60.0
500–999 participants	41.2	a	5.9	52.9
1,000–4,999 participants	25.0	a	27.8	47.2
5,000–9,999 participants	32.1	a	10.7	57.1
Over 10,000 participants	47.2	a	13.9	38.9

Source: Employee Benefit Research Institute
[a]Insufficient data.

used. The sponsor was asked to indicate for each applicable method of communicating investment education whether it was used at plan enrollment, at retirement or termination of employment, and/or on request. Also, for each applicable communication method, the sponsor was asked to indicate the frequency used during post-enrollment ongoing education. Sponsors were asked to assign one of the following frequencies to characterize the ongoing education for each of the communication methods: weekly, monthly, quarterly, semi-annually, annually, or some other time period.

Table 8.3 shows the conditional distribution of communication methods by frequency. For example, the first row indicates that of those plans currently using meetings conducted by investment managers, 45 percent provided the information at plan enrollment, 6 percent at retirement or termination of employment, and 51 percent on request. In addition, another 72 percent indicated some type of postenrollment ongoing education (9 percent monthly, 9 percent quarterly, 13 percent semi-annually, 19 percent annually, and 22 percent some other time period).

Participation Rates

Sponsors were also asked to provide information on the total number of participants eligible and the total number participating at the end of 1993 and 1994. It was apparent that the participation rate would vary with plan type and the existence of an employer match. Table 8.4 shows the percentage of eligibles participating at the end of 1994 by plan type and existence of an employer match. In the two types of plans for which both matched and nonmatched plans exist in the sample (401(k) and 403(b) plans), the average participation percentage is 10 points higher with an employer match. This table also shows the extreme variation in average participation percentages by plan type. Given this finding and the small number of non-401(k) plans in the sample, further univariate analysis on this variable was limited to 401(k) plans only. Moreover, only a small number of 401(k) plans did not provide an employer matching contribution. As a result, they were also excluded from the univariate analysis of participation rates.

Table 8.3
Post-Enrollment Ongoing Education

Method for Communicating Information to Plan Participants	At Plan Enrollment	Weekly	Monthly	Semi-Quarterly	Annually	Annually	Other	At Retirement/ Employment Termination	On Request
Meeting Conducted by Investment Manager	45%	0%	9%	9%	13%	19%	22%	6%	51%
Meeting Conducted by Outside Consultant or Personal Financial Planner	27	0	5	8	12	29	22	36	51
Meeting Conducted by Plan Sponsor	65	4	4	10	8	21	16	28	52
Focus Groups	21	0	3	9	0	15	27	6	42
Individual Counseling	65	5	6	5	5	4	6	56	95
Brochure	89	2	1	16	6	8	10	9	48
Summary Plan Description	86	1	1	3	1	23	21	4	42
Prospectus for Investment Options	81	0	1	10	3	19	7	3	54
Sales Literature	90	0	4	14	6	4	14	6	57
Newsletter	30	2	10	68	1	5	10	0	19
Payroll Stuffers	22	0	2	35	4	8	43	2	24
Personal Illustrations or Projections	28	1	1	6	6	26	7	28	66
Surveys	15	0	0	4	2	11	53	2	34
Personal Tax Savings Examples	57	0	1	6	6	25	10	11	55
Computer Program	33	2	2	4	6	2	13	10	58
Interactive Voice Response System	58	9	3	5	3	3	21	16	49
Toll Free 800 Number	59	13	2	5	2	2	14	17	45
Video Movie	59	1	4	7	0	7	23	1	34
Other	57	7	7	21	0	14	43	21	71

Source: Employee Benefit Research Institute

Table 8.4
Percentage of Eligibles Participating, by Type of Plan and Existence of Employer Match

Plan Type	Plans with Employer Match	Plans with No Employer Match
401(k)	78%	68%
403(b)	65	55
457	0	39
Profit Sharing	0	90
Money Purchase	0	100

Source: Employee Benefit Research Institute

Asset Allocation

In an attempt to collect information regarding the participant's investment portfolio decisions, sponsors were asked to provide asset allocation information for the end of 1993 and 1994 for each of 10 asset categories: indexed common stock fund, actively managed common stock fund, bond fund, fixed-income fund, balanced fund (including asset allocation and life style funds), money market fund, GICs/BICs, foreign stock fund, employer stock, and other.

Respondents were asked to provide the information on the basis of annual contributions, as opposed to total assets, if possible; however, the vast majority were only able to provide the necessary detail on the total assets. The following analysis is based on total assets unless otherwise noted.

Three portfolios were constructed to attempt to determine the relative aggressiveness of each plan's aggregate investment portfolio. The first two were used to measure the percentage of money devoted to stable value investments. The first combined the GICs/BICs, money market, and fixed-income funds, and the second consisted of

Table 8.5
Mean Participation Rates by Various Investment Education Topics, 401(k) Plans with Employer Contributions, 1994

Asset Allocation

Participation	Start	Stop	Under development	No plans
Number	41	1	8	11
Mean	0.80	0.58	0.77	0.76

Basic Investment Terminology

Participation	Start	Stop	Under development	No plans
Number	46	a	8	9
Mean	0.80	a	0.77	0.73

Effect of Inflation

Participation	Start	Under development	No plans
Number	41	6	15
Mean	0.81	0.73	0.72

Benefits of Dollar Cost Averaging

Participation	Start	Under development	No plans
Number	33	7	20
Mean	0.80	0.77	0.77

Understanding of Risk and Risk Tolerance

Participation	Start	Under development	No plans
Number	49	7	7
Mean	0.79	0.75	0.74

Estimating the Income Needed for Retirement

Participation	Start	Stop	Under development	No plans
Number	38	a	12	11
Mean	0.81	a	0.76	0.70

Attributes of Plan Investment Options

Participation	Start	Stop	Under development	No plans
Number	56	0	1	6
Mean	0.79	0.40	0.58	0.79

Impact of Preretirement Withdrawals

Participation	Start	Under development	No plans
Number	23	12	25
Mean	0.78	0.84	0.77

Explanation of Company Pension Plan

Participation	Start	Under development	No plans
Number	43	5	7
Mean	0.79	0.69	0.88

Source: Employee Benefit Research Institute
[a]Insufficient data.

only the GICs/BICs and money market funds. The third portfolio was designed to measure the percentage of equity exposure and consisted of the indexed common stock fund, the actively managed common stock fund, the balanced fund (including asset allocation and life style funds), and the foreign stock fund.

Impact of Participant Education: Univariate Analysis

Investment Education Topics— Table 8.5 provides the mean participation rates associated with the various investment education topics for 401(k) plans with employer contributions. Under each investment education topic, the "start" row designates those plans that have provided education on this topic for their participants. Although the number of plans in this subsample that have provided information on a particular topic varies from a low of 23 for the impact of preretirement withdrawals to a high of 56 for attributes of plan investment options, there was remarkably little variance in average 1994 participation rates for the entire set of investment education topics. The averages ranged from a low of 78 percent to a high of 81 percent.

Tables 8.6, 8.7, and 8.8 explore the impact of various investment education topics on 1994 asset allocation. The results in table 8.6 suggest that the type of investment education topic included in the education program may have an impact on the equity allocation. The highest average equity allocation is 42 percent for the 70 plans including information on estimating the income needed for retirement. Presumably, many participants will be shocked by the amount of income needed for retirement when they are exposed to this topic. This may result in either increased contributions or an attempt to increase

Table 8.6
Average Equity Allocation by Investment Education Topics, 1994

Asset Allocation				
Average Equity Allocation	Start	Stop	Under development	No plans
Number	81	2	12	11
Mean	38.39	18.80	41.54	47.03

Basic Investment Terminology			
Average Equity Allocation	Start	Under development	No plans
Number	86	10	13
Mean	40.13	31.74	42.05

Effect of Inflation			
Average Equity Allocation	Start	Under development	No plans
Number	72	11	26
Mean	40.37	30.95	40.24

Benefits of Dollar Cost Averaging			
Average Equity Allocation	Start	Under development	No plans
Number	57	13	35
Mean	41.00	32.01	41.77

Understanding of Risk and Risk Tolerance			
Average Equity Allocation	Start	Under development	No plans
Number	90	12	9
Mean	41.11	33.12	44.70

Estimating the Income Needed for Retirement				
Average Equity Allocation	Start	Stop	Under development	No plans
Number	70	1	20	17
Mean	41.98	21.00	35.94	36.15

Attributes of Plan Investment Options				
Average Equity Allocation	Start	Stop	Under development	No plans
Number	98	1	5	6
Mean	39.84	14.00	41.76	47.77

Impact of Preretirement Withdrawals			
Average Equity Allocation	Start	Under development	No plans
Number	41	18	41
Mean	37.76	33.53	43.59

Explanation of Company Pension Plan			
Average Equity Allocation	Start	Under development	No plans
Number	79	8	7
Mean	39.99	33.45	42.56

Source: Employee Benefit Research Institute
[a]Insufficient data.

Table 8.7
Average Guaranteed Investment Contract (GIC) and Money Market Fund Allocation by Investment Education Topics, 1994

	Asset Allocation			
GIC/Money Market	Start	Stop	Under development	No plans
Number	81	2	12	11
Mean	23.86	71.90	26.17	18.23

	Basic Investment Terminology		
GIC/Money Market	Start	Under development	No plans
Number	86	10	13
Mean	23.57	23.64	28.69

	Effect of Inflation		
GIC/Money Market	Start	Under development	No plans
Number	72	11	26
Mean	22.58	21.87	28.47

	Benefits of Dollar Cost Averaging		
GIC/Money Market	Start	Under development	No plans
Number	57	13	35
Mean	22.13	25.80	24.27

	Understanding of Risk and Risk Tolerance		
GIC/Money Market	Start	Under development	No plans
Number	90	12	9
Mean	22.96	27.87	28.61

	Estimating the Income Needed for Retirement			
GIC/Money Market	Start	Stop	Under development	No plans
Number	70	1	20	17
Mean	23.27	23.00	23.43	25.81

	Attributes of Plan Investment Options			
GIC/Money Market	Start	Stop	Under development	No plans
Number	98	1	5	6
Mean	23.07	86.00	23.72	20.75

	Impact of Preretirement Withdrawals		
GIC/Money Market	Start	Under development	No plans
Number	41	18	41
Mean	24.72	16.27	26.46

	Explanation of Company Pension Plan		
GIC/Money Market	Start	Under development	No plans
Number	79	8	7
Mean	24.20	19.08	19.47

Source: Employee Benefit Research Institute
[a]Insufficient data.

long-run rates of return through more aggressive portfolio holdings. The lowest average equity allocation is 38 percent for the 41 plans including information on the impact of preretirement withdrawals on retirement income. Although this topic is presumably intended to increase conservation of retirement funds, providing information on the existence of preretirement access to these funds may cause participants to treat this more as a short-run investment and decrease the aggressiveness of their holdings.

Methods for Communicating Investment Education to Plan Participants

Table 8.9 provides the mean participation rates associated with the various investment education topics for 401(k) plans with employer contributions. The results in table 8.9 suggest that the method of communicating investment education topics may have an impact on the participation rates. The highest average participation rate is 83 percent for the 18 plans using sales literature, and the lowest average participation rate is 75 percent for the 22 plans using payroll stuffers.

Table 8.10 provides the average equity allocations associated with the various investment education topics. The range of results suggests that the method of communicating investment education topics may have an impact on the participant's asset allocations. The highest relevant equity concentration was 44 percent for the 34 plans using computer programs,[7] and the lowest concentration was 37 percent for the 64 plans using interactive voice

[7] Technically, the largest recorded equity concentration was 45 percent for the 10 plans using "other ways."

Table 8.8
Average Guaranteed Investment Contract (GIC), Fixed-Income Fund, and Money Market Fund Allocation by Investment Education Topics, 1994

GIC/Fixed-Income and Money Market Fund	Asset Allocation			
	Start	Stop	Under development	No plans
Number	81	2	12	11
Mean	42.41	71.90	33.47	32.75

GIC/Fixed-Income and Money Market Fund	Basic Investment Terminology		
	Start	Under development	No plans
Number	86	10	13
Mean	40.88	29.05	43.60

GIC/Fixed-Income and Money Market Fund	Effect of Inflation		
	Start	Under development	No plans
Number	72	11	26
Mean	41.69	26.70	43.13

GIC/Fixed-Income and Money Market Fund	Benefits of Dollar Cost Averaging		
	Start	Under development	No plans
Number	57	13	35
Mean	44.53	30.15	37.25

GIC/Fixed-Income and Money Market Fund	Understanding of Risk and Risk Tolerance		
	Start	Under development	No plans
Number	90	12	9
Mean	40.93	33.21	41.47

GIC/Fixed-Income and Money Market Fund	Estimating the Income Needed for Retirement			
	Start	Stop	Under development	No plans
Number	70	1	20	17
Mean	42.38	23.00	34.33	40.75

GIC/Fixed-Income and Money Market Fund	Attributes of Plan Investment Options			
	Start	Stop	Under development	No plans
Number	98	1	5	6
Mean	40.35	86.00	25.54	37.07

GIC/Fixed-Income and Money Market Fund	Impact of Preretirement Withdrawals		
	Start	Under development	No plans
Number	41	18	41
Mean	45.66	32.84	38.75

GIC/Fixed-Income and Money Market Fund	Explanation of Company Pension Plan		
	Start	Under development	No plans
Number	79	8	7
Mean	40.44	38.08	46.04

Source: Employee Benefit Research Institute
[a]Insufficient data.

response system.

Table 8.11 provides the average stable value allocations (including fixed-income fund investments) associated with the various investment education topics. The range of results suggests that the method of communicating investment education topics may have an impact on the participant's asset allocations. The least conservative allocation was 39 percent for the 100 plans using the prospectus for investment options, and the most conservative was 48 percent for the 37 plans using payroll stuffers.

Conclusion

The purpose of this report is to provide a summary report of the EBRI investigation (undertaken as part of its ongoing research program) of the current universe of participant-directed defined contribution plans, with specific emphasis on the provision of participant education by plan sponsors and service providers and the effect of these educational efforts on plan participants' behavior.

The initial section on participant level findings revealed that participants are being educated to some degree, with resulting behavioral changes that should have a positive effect on their retirement security. Present analyses indicate that a high percentage of participants read educational materials when they are provided. Furthermore, contribution rates and asset allocation decisions are responsive to information provided on asset allocation across all demographic groups. Present research indicates that a high percentage of participants have confidence in information provided through seminars offered by their

Table 8.9

Mean Participation Rates for Methods of Communicating Investment Education to Plan Participants in 401(k) Plans with Employer Matching Contributions, 1994

Meetings Conducted by Investment Manager

Participation	Start	Stop	Under development	No plans
Number	27	2	1	41
Mean	0.82	0.67	0.66	0.79

Meetings Conducted by Outside Consultant

Participation	Start	Under development	No plans
Number	25	10	39
Mean	0.79	0.76	0.79

Meetings Conducted by Plan Sponsor

Participation	Start	Stop	Under development	No plans
Number	53	2	4	17
Mean	0.78	0.91	0.73	0.80

Focus Groups

Participation	Start	Stop	Under development	No plans
Number	13	1	4	49
Mean	0.78	0.88	0.87	0.79

Individual Counseling

Participation	Start	Under development	No plans
Number	20	7	44
Mean	0.77	0.88	0.76

Brochure

Participation	Start	Under development	No plans
Number	69	2	8
Mean	0.77	0.74	0.86

Summary Plan Description

Participation	Start	Under development	No plans
Number	77	1	1
Mean	0.78	0.52	0.92

Prospectus for Investment Option

Participation	Start	Under development	No plans
Number	69	2	8
Mean	0.77	0.60	0.84

Sales Literature

Participation	Start	Under development	No plans
Number	18	2	48
Mean	0.83	0.60	0.77

Newsletter

Participation	Start	Under development	No plans
Number	49	3	19
Mean	0.77	0.86	0.82

Payroll Stuffers

Participation	Start	Under development	No plans
Number	22	1	45
Mean	0.75	0.66	0.81

Personal Illustrations or Projections

Participation	Start	Stop	Under development	No plans
Number	34	2	10	25
Mean	0.79	0.55	0.84	0.74

Surveys

Participation	Start	Stop	Under development	No plans
Number	25	1	4	39
Mean	0.79	0.79	0.84	0.78

Personal Tax Savings Example

Participation	Start	Under development	No plans
Number	38	2	31
Mean	0.78	0.98	0.75

Computer Program

Participation	Start	Stop	Under development	No plans
Number	24	0	10	39
Mean	0.82	a	0.78	0.77

Interactive Voice Response System

Participation	Start	Under development	No plans
Number	37	9	28
Mean	0.77	0.72	0.80

Toll-free 800 Number

Participation	Start	Under development	No plans
Number	43	8	24
Mean	0.79	0.68	0.80

Video/Movie

Participation	Start	Stop	Under development	No plans
Number	40	3	6	26
Mean	0.76	0.66	0.82	0.80

Other Ways

Participation	Start	Under development	No plans
Number	5	4	28
Mean	0.78	0.77	0.77

Source: Employee Benefit Research Institute

[a] Insufficient data.

Table 8.10

Average Equity Allocation of Methods for Communicating Investment Education to Plan Participants, 1994

Meetings Conducted by Investment Manager

Average Equity Allocation	Start	Stop	Under development	No plans
Number	37	5	5	54
Mean	41.99	36.48	39.26	42.07

Meetings Conducted by Outside Consultant

Average Equity Allocation	Start	Stop	Under development	No plans
Number	39	1	12	54
Mean	40.40	57.00	33.44	42.77

Meetings Conducted by Plan Sponsor

Average Equity Allocation	Start	Stop	Under development	No plans
Number	71	6	6	22
Mean	40.16	53.65	32.30	42.71

Focus Groups

Average Equity Allocation	Start	Stop	Under development	No plans
Number	21	3	8	63
Mean	38.02	50.50	28.04	43.54

Individual Counseling

Average Equity Allocation	Start	Under development	No plans
Number	43	6	52
Mean	43.02	37.35	40.88

Brochure

Average Equity Allocation	Start	Under development	No plans
Number	95	4	10
Mean	41.25	43.25	34.50

Summary Plan Description

Average Equity Allocation	Start	Under development	No plans
Number	104	3	2
Mean	40.41	28.60	66.15

Prospectus for Investment Option

Average Equity Allocation	Start	Under development	No plans
Number	100	2	9
Mean	42.61	12.40	27.43

Sales Literature

Average Equity Allocation	Start	Under development	No plans
Number	31	1	63
Mean	43.03	8.00	39.99

Newsletter

Average Equity Allocation	Start	Stop	Under development	No plans
Number	76	1	3	23
Mean	41.73	23.00	35.00	38.52

Payroll Stuffers

Average Equity Allocation	Start	Under development	No plans
Number	37	3	56
Mean	41.13	51.40	39.15

Personal Illustrations or Projections

Average Equity Allocation	Start	Stop	Under development	No plans
Number	55	2	11	32
Mean	41.31	49.50	45.11	38.04

Surveys

Average Equity Allocation	Start	Under development	No plans
Number	37	8	51
Mean	38.13	33.27	42.26

Personal Tax Savings Program

Average Equity Allocation	Start	Under development	No plans
Number	58	4	36
Mean	40.40	50.33	40.96

Computer Program

Average Equity Allocation	Start	Stop	Under development	No plans
Number	34	2	14	50
Mean	43.73	25.00	36.59	40.08

Interactive Voice Response System

Average Equity Allocation	Start	Under development	No plans
Number	64	8	32
Mean	36.97	41.77	45.80

Toll-free 800 Number

Average Equity Allocation	Start	Under development	No plans
Number	74	5	27
Mean	40.92	39.12	40.34

Video/Movie

Average Equity Allocation	Start	Stop	Under development	No plans
Number	49	4	10	44
Mean	39.38	31.90	41.54	42.44

Other Ways

Average Equity Allocation	Start	Under development	No plans
Number	10	6	36
Mean	45.95	41.17	43.57

Source: Employee Benefit Research Institute
[a]Insufficient data.

Table 8.11
Average Guaranteed Investment Contract (GIC), Fixed-Income, and Money Market Fund Allocation of Methods for Communicating Investment Education to Plan Participants, 1994

Meetings Conducted by Investment Manager

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	37	5	5	54
Mean	39.71	40.96	30.32	40.04

Meetings Conducted by Outside Consultant

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	39	1	12	54
Mean	37.47	35.00	43.32	41.39

Meetings Conducted by Plan Sponsor

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	71	6	6	22
Mean	39.68	42.22	40.93	35.22

Focus Groups

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	21	3	8	63
Mean	39.60	28.20	39.76	40.63

Individual Counseling

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	43	6	52
Mean	41.44	40.75	37.42

Brochure

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	95	4	10
Mean	42.00	31.55	32.25

Summary Plan Description

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	104	3	2
Mean	40.67	59.53	18.15

Prospectus for Investment Option

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	100	2	9
Mean	38.83	76.80	46.29

Sales Literature

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	31	1	63
Mean	41.01	92.00	39.82

Newsletter

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	76	1	3	23
Mean	41.68	53.00	41.33	38.45

Payroll Stuffers

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	37	3	56
Mean	47.69	27.87	37.40

Personal Illustrations or Projections

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	55	2	11	32
Mean	42.27	45.50	35.45	39.71

Surveys

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	37	8	51
Mean	43.94	40.34	39.15

Personal Tax Savings Program

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	58	4	36
Mean	44.05	8.88	38.54

Computer Program

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	34	2	14	50
Mean	42.98	15.50	39.51	38.63

Interactive Voice Response System

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	64	8	32
Mean	42.08	40.67	38.69

Toll-free 800 Number

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	74	5	27
Mean	39.85	53.16	40.46

Video/Movie

GIC/Fixed-Income and Money Market Fund	Start	Stop	Under development	No plans
Number	49	4	10	44
Mean	39.93	59.88	44.45	38.69

Other Ways

GIC/Fixed-Income and Money Market Fund	Start	Under development	No plans
Number	10	6	36
Mean	47.24	31.50	41.61

Source: Employee Benefit Research Institute
[a]Insufficient data.

employer, again with little variance across all demographic groups. Finally, participants show a strong preference for making their own investment choices and are willing to assume the risks associated with their decisions. However, participants do not appear to act with a specific goal in mind, and many are unaware of the amount of money they will need for retirement.

Therefore, it is safe to conclude that participant education is occurring, with positive results for the participant. However, there appears to be a gap between the scope of the information offered and the extent of the participant's understanding. This leads to the analysis in the next two sections, which explores information provided by plan service providers and plan sponsors regarding the educational services they provide to participants. The plan sponsor section further analyzes the possible effect of the information offered on participation, asset allocation, and contribution levels.

Plan service providers offer educational services to differing percentages of plan sponsors according to plan size. The highest concentration of plans that receive educational services seems to be among large plans, that is, those with over 1,000 participants. More pertinent to this analysis are the findings regarding the participant education topics covered in the services offered to plan sponsors of all size plans. Information on asset allocation is the most frequent topic covered. This correlates with the information found in the participant level research regarding the response to information on that topic. It is also clear that service providers' second most frequently provided topic is information on estimating the income needed for retirement. However, the participant level findings reveal that many participants don't understand this concept. It must therefore be concluded that this information is any one of, or a combination of the following: not being understood, not being utilized by the participant, or not being delivered by the plan sponsor in a way that is accessible to the participant. Whatever the explanation, it is clear that this critical information must be emphasized by plan sponsors and service providers. The last participant education topic of concern is the impact of preretirement withdrawals on retirement income. This is one of the least often provided educational topics. This correlates with findings of the plan sponsor analysis as well. The impact of preretirement withdrawals could have serious consequences for the adequacy of employees' retirement income, raising a public policy concern in this area.

An examination of the plan sponsor analysis provides insight into the types of investment education topics covered in the participant education process as well as the method by which they are communicated and the frequency of these communications. The majority of respondents to our survey provided information on all except one of the investment education topics chosen as important by the practitioners assisting us in the development of the questionnaire. Moreover, it does not appear that participants in small plans were less likely to receive this information than those in medium or large plans. However, among those plan sponsors not currently offering this information, more development work is under way for the large plans than for the small plans, and the percentage of plan sponsors with no plans to offer information on a topic is typically highest for small plans. Even though there is no appreciable size difference in the types of investment topics offered, apparently plan size does matter in the choice of communication methods. Large plans appear more likely to adopt methods that entail sizable development costs, while the small plans are more likely to rely on sales literature and individual counseling or meetings conducted by an investment manager.

The plan sponsor analysis also examines the relationship between the investment education topics and the communication methods and frequency chosen by the sponsor and the plan participant's behavior with respect to participation and asset allocation decisions. When viewed in isolation, it does not appear that the inclusion of any investment education topic has a marked effect on the employee's decision to participate; however, some topics appear to be associated with higher equity allocations. The choice of communication methods appears to have an impact on both participation rates and asset allocations.

Finally, it is encouraging to note that the research did not find evidence of the following behavior. It was not found that plan sponsors were disregarding aspects of educating plan participants. It was not found that plan sponsors are narrowing the range of topics covered on asset allocation (perhaps in fear of giving investment advice). It was not found that plan service providers are shying away from offering information on asset allocation to sponsors in an attempt to assist them in informing participants. And, it was not found that educational information for participants is falling on deaf ears. According to research findings, participants are able to learn concepts and make informed decisions, and they want to have the autonomy to make decisions regarding their participant-directed defined contribution plan investments for retirement.

Part Five
SEC/DoL Perspective

Chapter 9: Role for SEC to Promote Greater Participant Education in Directing Pension Plan Investments

Richard Roberts, Securities and Exchange Commission[1]

Introduction

My remarks will focus on what role federal policy should play in promoting greater participant education in directing pension plan investments. While this is a broad topic, my remarks generally will be limited to the role that I believe the Securities and Exchange Commission (SEC) should play in this area.

This is not the first time that I have had the opportunity to address this topic. At several other conferences and forums, I have expressed my views regarding the need for employees in participant-directed defined contribution plans to receive adequate information about their investment choices and have also noted the desire of plan sponsors to provide that information while avoiding liability and excessive costs. I offered then what I believed was a partial solution to both employee and plan sponsor concerns: namely, the provision to employees in participant-directed defined contribution plans of a simplified prospectus regarding each underlying mutual fund or other securities-related investment.

I intend to revisit and expand on those remarks and then touch on a few other issues that I believe will be of interest.

Defined Contribution Plans

Defined contribution plans have grown steadily, in terms of numbers, participation rates, and assets, for some time now. Figures reported in several recent studies—by the Employee Benefit Research Institute, the Investment Company Institute, and others—demonstrate such plans' explosive growth. For example, the total number of private-sector defined contribution plans nearly tripled between 1975 and 1990, from 208,000 to 599,000. Among those employees able to participate in a 401(k) plan, the most popular type of defined contribution plan, 67 percent did so in 1993, compared with 39 percent in 1983. Assets of private-sector defined contribution plans reached $1 trillion in 1993, up from $575 billion in 1988. If present trends continue, and I expect that they will, defined contribution plans will be the most common type of pension plan in the not-too-distant future.

Unlike a defined benefit plan, where the employer makes the investment decisions and bears the risk of loss, a defined contribution plan typically places on the employee the responsibility of investing in the plan, deciding how much to invest, and assuming the risk of investment choice. Furthermore, the retirement income of even those participants who fully invest in a defined contribution plan may fall short of the inflation rate if the vehicles invested in are too conservative.

I have always adhered to the view that an employee who decides how to invest his or her assets in a defined contribution plan is as entitled to adequate information about investment options as any other investor. However, I understand that the Employee Retirement Income Security Act of 1974 (ERISA) disclosure rules, in the past, only required disclosure about the plan itself. Thus, plan participants were not necessarily receiving the information they needed to make an informed choice about their retirement assets, which is possibly the most important decision about their finances they will ever make.

In 1992, the SEC's division of investment management's "Protecting Investors" study (which I will refer to as the "Staff Study") recommended legislation to remove the current exemption in the Securities Act and in the Investment Company Act for interests in collective trust funds and separate accounts in which participant-directed defined contribution plans invest. The Staff Study also recommended legislation amending the federal securities laws to require the delivery of prospectuses for the underlying investment vehicles to plan participants who direct

[1] In June 1995 Richard Roberts completed his term as commissioner with the Securities and Exchange Commission.

their investments.

I recognize that the Staff Study's recommendations in this area do not appear to be going anywhere, in part because they represent only a partial solution, since their implementation still would not result in federal securities disclosure requirements being applicable to all participant-directed defined contribution plans. Furthermore, I acknowledge that the Department of Labor's (DoL) sec. 404(c) regulations serve as a partial solution to the lack of investment information for some plan participants.

DoL's 404(c) regulations reduce the exposure of a plan's sponsor to liability for losses in participant accounts and, at the same time, provide employees more information about, and more control over, their investment choices. While the new rules are voluntary, a plan that does not conform to the rules cannot claim immunity from lawsuits by employees who are disappointed with their investment return. Among other things, the 404(c) regulations require that a plan offer at least three diversified investment vehicles, each of which has different risk and return characteristics. The regulations also require the sponsor to assure that plan participants are given, or can obtain, the information necessary to make an informed investment decision. At a minimum, sponsors must give employees information about each investment option, including its objectives, risk and return characteristics, and type of portfolio assets, as well as information about transfer procedures, the expenses and performance of each investment option, and a prospectus for any vehicle registered under the Securities Act.

Despite DoL's initiative, I understand that many sponsors avoid telling participants where they should allocate their funds for fear that participants could later sue if their investments sour. That is an unfortunate circumstance, since this is the area where plan participants probably need the most help. I know that some sponsors are going beyond the relatively modest requirements of the 404(c) rules and are attempting to comply more closely with the spirit of the regulations by providing basic retirement planning information in the form of seminars, individual consultations, and regular publications.

I commend those plan sponsors who have taken an aggressive approach to investor education and urge others to follow suit. I also note that investment education may be an effective marketing device for many plan sponsors. Sponsors should remember that DoL's rules require them to "assist" their employees in making an "informed decision."

While trends in 401(k) investor participation are moving in the right direction, as I noted above, approximately one-third of employees who qualify for 401(k) plans still do not contribute, and another study found that 60 percent of those who do contribute select low-risk, low-yield vehicles such as money market funds or guaranteed investment contracts. Thus, for many participants, an informed decision may need to start with the basics of retirement planning and an understanding of risk versus reward, even though the 404(c) rules do not explicitly require this.

I am encouraged by DoL's 404(c) rules; they appear to represent a significant step in closing the information gap that currently exists in the defined contribution area. However, the rules are only voluntary, and ERISA does not apply to every pension plan, such as governmental plans. Because this information gap has yet to be completely filled in, the SEC, DoL, and industry must consider additional initiatives to ensure that every defined contribution plan participant receives sufficient disclosure about his or her investment options.

Simplified Prospectus

Even if you believe, as I do, that the disclosure requirements found in the federal securities laws are of high quality, this by itself does not end the analysis as to what information would best serve defined contribution plan participants or what form that information should take or who should be required to deliver the information.

In fact, the disclosure rules mandated by the federal securities laws and that protect pension plan participants are by no means perfect. There is some argument, for example, as to whether current federal securities law disclosure rules require the delivery of a mutual fund prospectus only to the sponsor or administrator or also to the plan participant. This situation has resulted in inconsistent information delivery practices in the field. Although I have not analyzed the issue thoroughly, I am preliminarily of the view that the SEC does have the authority to require by rule or interpretation the delivery of mutual fund prospectuses to plan participants. Of course, even if the SEC determined that it has such authority, there may be policy reasons mitigating against adopting such a rule or interpretation. Furthermore, the views of DoL should be carefully considered during this process, and it would be my preference that any SEC effort in this area be coordinated with DoL.

Whether or not the SEC pursues such a rule or interpretation, I am not convinced that the best mechanism for delivering information to plan participants is the provision of complete funding-vehicle prospectuses regarding each available plan investment. It is my impression

that few plan participants would read these prospectuses or understand them; a small minority may even be more confused about their options than they are at present. Furthermore, while it is possible for the SEC to work through Form N-1A item-by-item and make modest revisions for investment vehicles underlying defined contribution plans—to make the disclosure more understandable and relevant to defined contribution plan participants—I am not sure that this would be enough to ease my concerns.

The 1992 Staff Study recognized such problems to some extent in the context of direct-marketed mutual funds. The Staff Study recommended that the Commission adopt a new rule that would permit investors to buy mutual fund shares directly from advertisements ("off-the-page"), albeit for reasons predominately *un*related to investor confusion. These off-the-page ads would have been required to contain standardized and essential information about the fund and, for all practical purposes, would have been a substitute for a complete prospectus. But while the SEC proposed an off-the-page rule in March 1993, the proposal encountered substantial opposition, especially from state securities regulators, and no longer appears to be a SEC priority.

Many investors, however, continue to view mutual fund prospectuses as too long and complicated and do not wish to read them. In concept at least, investors may be more inclined to read the essential information if it's presented in some simplified format before making an investment decision. I am sure that this would be the case with respect to defined contribution plan participants, who otherwise would receive complete prospectuses regarding investments with which they had little or no interest. Since the off-the-page proposal appears to be on the SEC's back burner, other means of encouraging simpler, better disclosure must be pursued. Therefore, I have become an advocate for using a simplified mutual fund prospectus in appropriate circumstances. More specifically, the use of a simplified prospectus as a mechanism for informing plan participants about possible underlying investment vehicles in a defined contribution plan makes a great deal of sense to me.

In fact, I am of the view that simplified prospectuses, if designed properly, may be more responsive to the needs of defined contribution participant investors than requiring the preparation and delivery of complete prospectuses. A simplified prospectus would outline the underlying investment vehicle's investment objectives, types of portfolio securities purchased, key performance data and performance comparisons if appropriate, risk levels, and other important information in a short, concise, easy to read fashion. Of course, another possibility that is worth considering is mandating the provision of a simplified prospectus to all participants while also requiring that participants be provided a "complete" prospectus on request.

I know that what I have just described is not terribly novel. Press reports indicate that some service providers to defined contribution plans already make available shortened versions of prospectuses to participants. Moreover, at the time the 1992 Staff Study was published, several banking executives, critical of the legislative recommendations contained therein, submitted as their own alternative the development of simplified disclosures for pension beneficiaries that would be distributed to such beneficiaries on a semi-annual or more frequent basis.

As I stated earlier, the SEC may be able to act by rule or interpretation to effectuate the delivery of information to plan participants with respect to underlying mutual fund investments. In other cases, there would need to be voluntary industry initiative or other regulatory or legislative action. In any event, I urge the SEC, industry, DoL, and other regulators to reconsider what information should be provided to defined contribution plan participants, what form that information should take, and who should be required to deliver such information.

Fidelity No-Action Letter

Early in April 1995, the staff of the SEC's division of investment management issued a no-action letter to the Fidelity Institutional Retirement Services Company (FIRSCO) that should be of great interest to the defined benefit plan community. This no-action letter deals with the circumstance that, while fund companies generally are prohibited by Securities Act Rule 482 from including applications in their advertisements, plan sponsors may desire to include enrollment and other forms related to the plan *along with* material from fund companies when providing information to the sponsors' defined contribution plan participants.

By way of background, FIRSCO is a substantial servicer of participant-directed 401(k) plans and apparently prepares and provides communication materials to assist plan sponsors in satisfying their obligations to supply plan participants informational material related to their choice of investment option. Further, FIRSCO also apparently provides statutory prospectuses to the employer/plan sponsor for each Fidelity fund available under a retirement plan, and the employer typically makes the prospectuses available to the employees.

FIRSCO proposed to the staff of the SEC to supplement the information currently available to employees of plans serviced by FIRSCO with summaries of the prospectuses (SPRs) of the Fidelity funds that are investment options under the plan. In substance, each SPR would provide summary information regarding the available Fidelity funds' investment objectives, policies and risks, expenses, historical performance, and distribution practices. An SPR would also contain directions for any employee who wishes to obtain a statutory prospectus for an available Fidelity fund before making his or her investment choice. In addition, an SPR would include instructions regarding how plan participants can enroll in their employer's plan and allocate contributions to one or more of the investment options described in the SPR.

Of course, the problem was that the employers wanted to accompany the SPR with the enrollment form and other forms related to the plan, which raised Rule 482 concerns. Counsel for FIRSCO pointed out that the enrollment and other forms would be sent to the plan participant by the employer and not the fund and, if completed by the plan participant, would be sent to the employer and not directly to the fund. More importantly, the SPR would provide plan participants with significant information regarding each Fidelity investment product available in their employer's plan prior to making their investment decision, in a format that they may even read and understand.

As a technical matter, the staff determined that it would not recommend enforcement action to the SEC if FIRSCO and sponsors of certain participant-directed defined contribution plans serviced by FIRSCO treat certain informational materials to be developed by FIRSCO (such as the SPR), even if accompanied by the enrollment forms, as a communication satisfying Securities Act Rule 482's requirements. As I understand the implications of the staff's position, because a participant's response would be directed to the plan sponsor and not to the seller of fund shares, FIRSCO may send summary prospectuses of investment vehicles to potential 401(k) plan participants even if the employers include enrollment forms with such materials. This staff position strikes me as an eminently reasonable and practical one, and it will be interesting to see if it has the effect of providing greater opportunities for employees' education regarding their plans and plan investments.

Conclusion

With the increasing popularity of defined contribution plans, the industry is poised to become the predominant type of pension plan. To ensure continued success, however, eligible employees must be convinced that it is in their best interest to invest in these plans, and, then, how to make wise investment decisions. Clearly, the way to encourage intelligent investment decisions, at a minimum, includes providing investor education programs and providing investment-specific information directly into employees' hands. In this area, I would favor utilizing, if mutual funds are involved, a simplified prospectus approach—a rare instance where less disclosure could mean better disclosure.

Chapter 10: The Role for the DoL in Participant Education

Olena Berg, Department of Labor

Thank you very much. First of all, I'd like to applaud Commissioner Roberts for his interest in this area and the work that he has done with the Securities and Exchange Commission (SEC) and just to say at the outset that both of our agencies have an interest in the area, of course.

Our interests are not always going to be coincident but we are talking to each other, and we will work out our differences where they occur to try and come to a conclusion that makes the best sense for the participants in pension plans.

I think you will see from both of our remarks today that there are some differences in our perspectives, and we'll have to work our way through these things; because I'll be very honest and say that, while I applaud the work of the SEC, particularly in the area of simplified prospectuses, that the issue of prospectuses and to whom they might go is much lower down on what I guess you could call my food chain of worry with respect to participant education.

I think that we really need to focus on the big issue of the need for broader understanding by employees of retirement income issues in general. The growth of 401(k) plans and participant-directed plans is phenomenal: 401(k) plans are up from 4.1 million participants to 20 million in less than a decade.

One-half of all employees who receive pensions now are saying that they expect their defined contribution plan to be the primary source of their retirement income, and perhaps most importantly, a Bureau of Labor Statistics survey that showed that in companies of 100 or more employees, 86 percent of defined contribution plans provide for participant direction of the employee contribution, and 58 percent provide for direction of the employer contribution.

I think our focus has to be on enabling and encouraging those sponsors who are offering plans that are participant directed to have programs that equip their workers with the skills and tools that they are going to need to make good decisions.

Again, I want to keep the focus here. These are good, broad decisions. We put that into our overall mission at the Department of Labor. If you have heard Secretary Reich speak, you know that he is emphasizing the need for an upgrading of skills and knowledge in the global economy, all the things that we need to do to equip American workers to compete well in an increasingly complex world.

We would certainly add to that the skills and abilities and the tools that they will need to make appropriate retirement decisions for themselves. So again, my focus here is on the broader issues, and I'll start off by saying the first one that ought to be one of our great concerns should be the 30-plus percent of people who have the opportunity to participate in defined contribution plans and don't now do it.

So we certainly need in our education efforts to focus on the need for those people to understand that they must save for their retirement early and often, as they used to say about voting in Chicago.

We need to focus, too, on lump-sum distributions and what's happening with those, because far too frequently they are not rolled over into individual retirement accounts or other qualified vehicles, and that money is lost from the system.

Participants need to be educated about what that means. Too often they're looking at their 401(k)s as savings vehicles, not retirement vehicles.

You know the old Woody Allen line about 90 percent of life is showing up. The first thing that we need to get people doing is to participate to the extent that they can.

If we start to go down the food chain, if you will, and start to talk about investment management issues, I would say my first concern there is asset allocation and how asset allocation decisions are made. Again, as we all know, all the experts will tell us that the primary determinant of your return on investment is going to be how you allocate among broad categories of assets, not selection of individual vehicles or stocks or whatever within those categories.

Some even say that 90 percent of your returns are attributable to the asset allocation decisions. So we again

need to educate workers in the area of the risk and return tradeoffs that they are going to make, the ways in which these major asset categories interact with each other, and all those important asset allocation issues.

To summarize our views, we think it's important for plan sponsors to be involved in education, to give the maximum opportunities that they can for participants to learn about participating as soon as they are eligible, participating to the maximum extent that they are able to, to know how to make the risk/reward analysis before they choose their investment alternatives, and if they switch employment to roll that money into a qualified retirement vehicle.

My opinion is that, if we can't get by these major problems, we're never really going to affect the overall level of retirement savings, and we're going to have a lot of unhappy people as they get nearer to retirement and suddenly realize the effect that this basic lack of knowledge has had on them.

In that whole area, one of our focuses has been on trying to give plan sponsors comfort in providing this education, because one of the big questions after the 404(c) regulations came out was at what point would the plan sponsor, in attempting to provide education to participants, slip over the line to providing investment advice, and thus assuming fiduciary liability for the participant's investment choices.

It's hard to articulate exactly a bright line test, but we recognize the importance of encouraging people to do more rather than less: while at some point the line between participant education and rendering investment advice will be crossed, I must be honest with you. In all the materials that I've seen, things that companies have provided to us that they are providing their employees, I have yet to see a program that, in my mind, crosses the line and becomes investment advice to them rather than participant education; but because we know the concern is there, we want to do everything that we can to help give sponsors comfort.

We're working right now on an interpretive bulletin that would do that. It's not an easy task. It's taking us longer than we had hoped, but the major thing I want to assure you of is that this is intended to be something that is useful and provides that kind of comfort.

We aren't going to be able to satisfy every concern that everyone may have or answer every question. That is just simply not going to be possible, but what we intend to do when we get a draft done is to share it with the affected parties. Anyone who has any desire to see it will be able to see it. We'll vet it thoroughly with everyone that we can think of, because again we wanted to help, and we will take into account the comments that we get and make changes that are necessary.

If we ultimately come down to a point where we say this isn't going to help—it's either creating more questions than we're able to answer or it's somehow giving people more cause for concern—we'll drop it, and we won't do it. The interpretive bulletin is not going to be issued unless it's going to be helpful to the plan sponsor community.

Back to investment decisions, and maybe even prospectuses finally. One of the things that is frequently forgotten in the discussion about the 404(c) regulations is that, to the extent a plan sponsor makes the selection for participants of the investment vehicles that are going to be offered to them, that is the fiduciary decision and 404(c) does not relieve the plan sponsor of the obligation from that selection.

While the participant in a participant-directed account 404(c) plan may take on the fiduciary responsibility for the allocation of his or her money among those investment vehicles, the sponsor has made a fiduciary decision in selecting which funds are offered to the participants, and that fiduciary liability remains, even under 404(c).

Presumably, by the time a participant is offered this range of investment alternatives, a decision has been made by the plan sponsor that they are within the range of prudent vehicles that can be offered to participants.

So in our view at least, that initial fiduciary choice of funds offered to participants lessens the need for full prospectuses for participants, which is not to say that we wouldn't like to see participants get the information that would be helpful to them when they have to choose among a variety of presumably prudent investment vehicles that are being offered to them, and to make a choice among them.

That's why we're so interested in the work that the SEC is doing on simplified prospectuses for mutual funds and some applicability that that may have in this area.

Because this is an area where, in my own opinion, the interests of the plan sponsor community seem to be so great in providing the kind of information that's needed as well, I would have to be convinced that there really is a gap or a need for further regulation.

Part of the reason for the joint study that we're doing with the SEC is to look at the participant education practices that are going on now, to see what kind of baseline that we have, recognizing that, I hope, with our interpretative bulletin when we're able to get it out, we may even be encouraging more participant education than is currently being done.

Finally the Department of Labor will launch a pension retirement education campaign by the middle of

this summer. We're working with EBRI, with people from the plan sponsor community, the investment community, and are getting partners in an education campaign that will be designed to get people, whether they are plan participants or not, to make that first decision of thinking about the retirement savings issues and helping them to know where to pick up the phone and call to get various kinds of questions answered. Also, to get people at least to focus on that broader issue of savings so that this creates a climate where maybe some of these other questions can be answered because people start to think about retirement issues sooner rather than later.

So with that, again I'd like to leave some time for comments and questions, too.

Discussion After Roberts and Berg Presentations

JEFF PASTER: Is it your feeling at this point that, based on the caveats that are involved in the majority of those approaches, that they would not cross the line?

OLENA BERG: Because we're not completely there, I want to qualify this, but the direction that we're going is just to say that there are caveats that you can put in. There are things that you can say to make it general and categorical enough that you can give people rules that help them walk through that, that don't end up with you leading them to the decision.

CHIP ROSENTHAL: I've read recently that there was to be a meeting of the ERISA Advisory Council to address issues the last couple of days. Perhaps you could provide some insight as to what came out of that, and then if you could be a little bit more specific about the message for the campaign that's intended for this summer.

OLENA BERG: The Advisory Council has been looking at the broad issue of adequacy of defined contribution plans for a couple of years now. They have been focusing on whether or not defined contribution plans will be able to provide an adequate amount for retirement.

They met for the last couple of days. I'm not sure that they totally finalized on what they're going to focus in on, but they are still at the broader issues of things such as the meaning of adequacy and are looking at the surveys and information that's out there and seeing how they might be helpful in adding to that discussion that already exists in the literature.

With respect to the pension education campaign, the message is going to be pretty broad, at least initially. Then we hope this will be truly a campaign, in the sense that we'll kick it off this summer, and every month or every two months there will be some kind of major event that might involve us or one of our partners that will try to focus perhaps press and people's attention on retirement savings.

We are in the process of updating our booklet on what you need to know about your pension, which we will introduce at the kickoff. We use that product to say that this is part of a broader issue, and we hope to have some of our private-sector sponsors who will talk about what they're going to be doing in the future as well, and we envision other products like an easy booklet that says, if you have a question in various areas, here's a list of people and governmental and private-sector agencies to call, that people can call to learn more about saving for retirement.

Again, the whole focus of the campaign will be primarily on just getting people to say: gee, I need to think about my retirement and to know, if they want to get information, who to go to.

QUESTION FROM THE AUDIENCE: On the issue of when you're providing advice or not providing advice, it seemed very problematic. You raised the issue that 90 percent of returns come from asset allocation. One could argue that that's providing advice.

You could say the real problem is inflation. So people should be in equities. That sounds like advice. In your guidelines are you going to sort this out and if all you're saying is that equities will tend to provide more protection against inflation, then that is not advice.

OLENA BERG: That, clearly, will be construed to be education and not advice; but, yes, that's exactly what we're intending to do. We also hope to get much further along than broad statements like that.

The problem, the classical problem for plans that actually are doing participant education is that employees listen to all of the broad principles. As they begin to understand the principles, some always say, "well, yes, but what should I do?"

What we're attempting to do is give guidance as to how close you can get to the "what should I do" question without actually saying "40 percent here, 40 percent there," without becoming a fiduciary to the plan. That's what we're trying to do.

QUESTION FROM THE AUDIENCE: Are you in essence saying that companies could provide a lot and still not run afoul.

OLENA BERG: I think that's where we're going to end up. I want to be fair here. There are many companies that are providing very good programs right now, that have looked at this and, even if they have been concerned about the potential liabilities, have said this is so important we're going to do it. What we're trying to do is say to companies that are concerned, yes, there's a lot more that you can do without crossing the line to becoming a fiduciary by virtue of giving investment advice. That's the purpose of this effort.

DAN LEACH: Beyond the point of better educating people relative to issues of retirement security, is there a Department of Labor position, at this time, relative to the changing employment market and the increasing frequency of multiple employers where people are taking distributions from each employer plan, which will address your concern about the current discouraging practices and results of people not rolling over their distributions.

Do you see any action from a regulatory point of view to address that issue beyond education?

OLENA BERG: We have no specifics right now, but in general we are very committed to looking at the issue of simplification, and it could even be to encourage portability, recognizing—let's be realistic—that we're in an environment that any proposal to encourage portability or other things that we would all agree on is competing for resources in a very resource constrained environment; but we're going to continue to look at whatever we might be able to do in any of those areas.

I want to mention, too, that we do want to do this because the focus here today was on defined contribution plans. But part of the education, too, I think, should be to educate employees about defined benefit plans. People are also woefully uninformed about the benefits of the defined benefit plan in terms of how the plan works. As they choose employers to work for or move from one company to another, people need to better understand the benefits of the defined benefit plan as well as those of defined contribution plans, so that they can make informed choices based on their own circumstances.

Too many people, simply because they find a defined contribution plan easier to understand and see that annual statement with an amount in their account, may not fully appreciate the tradeoffs there, vis a vis a defined benefit plan, if they are put in a position where they have a choice to make. So I think there's a lot we could do there.

DAVID JEPSON: The problem that we see a lot in the field, especially with large employers, publicly traded ones, is a disproportion of savings in a single stock and company stock. As much as maybe 70 percent or 80 percent of the employee savings are in the company stock and, by and large, the employer seems not bothered by that.

Has there been any focus on that issue? Have you thought about it or does that bother you at all

OLENA BERG: In the ESOP circumstance, you mean?

DAVID JEPSON: Well, no, generally in the 401(k) plan or defined contribution plan where it's the match generally. Because the match is made in company stock, it builds up very quickly, and a disproportionate amount of those assets are in one equity.

OLENA BERG: Well, again, the area to address goes back to the need for basic education as to the principles of asset allocation. My own belief is that as people are beginning to understand the implications of that kind of concentration, informed employees, presumably, will be starting to express their preferences to their employers about how they would like to have the plans changed.

I would hope to see that as the starting point, rather than regulation.

MICHELLE EHM: I'm curious as to whether or not you're going to include public service announcements, TV, or radio as part of this education campaign or is this just going to come out of news and press information?

OLENA BERG: The desire would be to have public service announcements and a variety of creative kinds of things, maybe even do some less traditional kinds of media, but the qualifying thing here is we at the Department of Labor do not have that much money to be mounting an enormous campaign. So, in part, that depends on the sign-on that we get from other groups and what other people are going to do as well. We'll design the campaign around the level of participation and interest that we get.

DON SAUVIGNÉ: My question to Olena was basically what you just said. Do you have the budget, and do you have the support from the provider community to really sustain an effective campaign so it's not a flash in the pan. In essence, something that could be sustained as well as last year's health care debates with the American public?

Do you have an outlook that it will be that effective?

OLENA BERG: I would like to think that it can be, because there are so many groups with this common interest. One thing I want to be very clear about is we're keeping this entirely away from policy prescription, because when you start to get into these discussions immediately people want to talk about the policy prescriptions rather than the urgent need to save.

The only thing we're going to do in this campaign is educate. That's it, and in that way we hope to bring in a broad coalition of groups. There's been a large expression of initial interest, but I'll be very honest. We have this funny little practical problem which is that federal agencies have different requirements as to what they can do in partnership with the private sector.

We can do partnerships, but I can't ask anybody to do anything. So we've been having these sort of funny conversations where I'm going around and saying, we'd like to partner with you, and people very naturally say, oh, yes, we're very interested in doing that, what would you like us to do?

COMMISSIONER RICHARD ROBERTS: First of all, I agree with everything Olena said about investor education and the importance of it. I think that really should be the number one priority, and I hope I didn't lead anyone to believe otherwise.

The SEC is still learning in the area. We have learned a great deal in the last couple of years. We hope to learn even more from the joint study with EBRI. Of course, Jack has announced the preliminary results, and we discussed those results a little earlier today.

Given the fragmented regulatory jurisdiction that exists in the area, it is of particular importance, and should be one of our primary objectives, to make sure that we work very closely with Labor. I believe, as Olena indicated, that the SEC and Labor have established a very close working relationship, and I hope that continues.

I believe it will in the short term. In the longer term, it can be a little more problematic, but I know, given the personalities that exist at both Labor and the SEC currently, cooperation will not be a problem. Down the road, unfortunately, as Olena indicated, there are differences between agencies and differences in requirements, and you see the different turf things crop up again.

In particular, the SEC needs to hear from you, what is on your mind, what we are doing that you think is working, what we are doing that is not.

The SEC is not satisfied with the quality of information that investors are receiving. One partial solution to this dilemma is to develop a simplified prospectus to see if that is helpful. If you think something else would be more helpful, pick up the phone and call me. Call Barry Barbash. Call Chairman Levitt. Call someone else. Let us know what is going on, because we are trying to learn.

Part Six
Structuring Plans to Achieve Desired Outcomes: Research Findings

Chapter 11: Structuring Plans to Achieve Desired Outcomes: Findings from the J.P. Morgan Participant Preference Model

Steve Saner, J.P. Morgan

This is chapter two of a research-based approach to understanding participant preferences. Chapter one was given by a colleague of mine last year, and indeed some of the participant preference model research findings are incorporated in the recent Employee Benefit Research Institute (EBRI) issue brief on participant education.

Why Develop a Model of Participant Preferences?

Since defined contribution plans are voluntary, it makes sense to take participant preferences into account when designing an effective plan. Focus groups are a way to get insight and directional input, but for quantitative data about participant preferences you need another kind of tool. Certainly, there's no shortage of ideas on the part of plan sponsors and vendors in terms of what people should do. And, everybody would like to avoid implementing changes that are hard or expensive to reverse. So we realized a predictive tool would be very valuable.

The participant preference model was designed to help plan sponsors answer two key questions: First, what combination of features and options are most valued by employees, and thereby enhance retention and satisfaction with the plan? Second, how will changes to, or additions of, funds affect the asset allocations among funds? Once the benefits picture is clear, you can do a classical cost/benefit analysis to see where you get the most bang for your benefit dollar.

The basis for the model predictions is a national sample of interviews. The sample base was started about two years ago. In addition, we sampled the employees of four large companies that were co-founders or sponsors of the model.

All interviews were done on computer using a technique called conjoint or tradeoff analysis that asks participants to rank the importance of various features in a plan. Then participants have to choose between things they want very much, that is, things that are high up on their overall list. This mimics real world decision making in that you can't have everything you want at the same time. Analysis of these interviews allowed us to build a realistic decision model from which we can predict future behavior.

An important advantage of the model is that you don't have to test your own employees. You can actually use the model of the national data base model to get a reasonably good prediction of what your own employees will do when presented with changes.

How Was the Model Built?

Here is an example of the type of tradeoff sequence presented in the interviews. This sample question might appear on a computer interview: Which investment option is the most important to you? You might indicate a balanced fund with U.S. stocks and bonds. Suppose you also indicated that loans without a service charge were very important to you. These choices are two top preferences for you. The first tradeoff question might ask you to choose between a plan with a balanced fund where you have to pay a service charge on a loan and a plan where you have no balanced fund but you get your loans without a service charge. After you make one tradeoff choice, the next question presents another preference of yours, asking you to make another difficult tradeoff. If you do that enough times, you get a pretty good model of how an individual makes a decision. If you expand it across a population, you wind up with a predictive model of what the overall population will do.

How Is the Model Used?

One part, the *fund* model, will predict the allocation percentages of the current contributions participants make. While it doesn't say anything about old money, it will predict the active decisions. You can also test the fund line-

up. You can include such variables as the type of investment, the level of fees, active or passive management style, performance, and the name of the manager.

In one back test, we used the J.P. Morgan profit-sharing plan to see how closely the model would predict how employees actually had behaved. In January 1993, two new options were introduced, small cap and international equities, making a total of eight options. In table 11.1, the first column is the model allocations predictions, and the second one shows the actual allocations that employees made.

The table depicts both the strength and the weakness of the model, inasmuch as some numbers that are remarkably close and others are off. We have discovered that the model is generally accurate as a predictor, and sometimes startlingly so, but not unfailingly.

You will note remarkably close predictions for the diversified fund, the capital preservation fund, the international equity fund, and the J.P. Morgan stock fund. Remember, there are no Morgan employees in the data base for the model. The national sample was used as the basis for the prediction.

The model also missed some allocations; in two specific areas, money market fund and small cap stocks, it missed dramatically. Why did that happen? The reason is that the model cannot deal with externalities, such as the fact that the money market fund is a default option in the Morgan plan. If participants don't make an active decision, which is what the model measures, then the model can't predict.

The higher allocation to the money market fund reflects primarily the fact that it's a default option. You can speculate that some of the money market allocation might have come out of a lower than predicted allocation to the fixed income fund, but that's just speculation.

Turning to small cap, you may recall that in the fourth quarter of 1992 there was a lot of news on small cap stocks. They had been performing very well. Small cap stocks were a hot area. The higher than predicted allocation to small cap was attributable to the sudden and dramatic shift in performance and the attendant publicity. Participants were reacting to external events.

Table 11.1
J.P. Morgan Plan Back Test (January 1993)

Investment Options	Model	Actual
Money Market	1%	9%
Capital Preservation	17	19
Fixed Income	11	5
Diversified Fund	18	15
Equity Fund	19	12
Small Capitalization	4	13
International Equity	7	6
J.P. Morgan Stock	22	21

Source: Steve Saner, J.P. Morgan

Table 11.2
How Valuable Is Investment Help?

Design	Base Case	Scenario
Education	None	Free brochures
Investment Information	Brochures	1-800 rep
Preference Index	66	77
Confidence Interval=4		+17%

Source: Steve Saner, J.P. Morgan

On the other hand, if you add the model's prediction for U.S. company stocks and small cap the total is 23 percent, and if you add the two actual components, the total is 25 percent. So the model got the overall domestic stock allocation right.

What Else Can Be Modeled?

Participant preferences for other aspects of a plan can be modeled as well. I will touch on education, although I won't go into this in great depth, because it's treated very well in the EBRI brief. I also will talk about brand image and how important is it within the plan context, active versus passive, which is a hot issue for professional investors, and fees, obviously an issue that people always worry about.

This part of the model we call the *plan* model. This is the model that allows you to measure the impact of design changes. For example, if you change the mix of options, if you add loans, it tells you whether the preference or satisfaction with the plan goes up or down using an index.

Table 11.2 shows the situation for a company that was considering adding educational help for participants. The base case, where the company started, shows there was really no education. Participants received investment through written brochures. Participant overall satisfaction with the plan gave the company a starting score of 66 expressed as a preference index. It's neither pass nor fail, but basically just a starting point to measure the impact of changes. The preference index has a confidence interval of four. So a change of plus or minus four is required to be statistically significant.

The scenario we modeled for the plan called for free

brochures for education and live representatives on the phone providing investment information. Those changes raised the preference index about 17 percent to 77 percent. This was a pretty substantial change especially compared with adding investment options. While adding investment options may produce similar changes, they don't always do so. Also, the cost of these changes was a fraction of the cost of other changes. This was a much better buy in terms of the benefit value the company was getting.

How Does the Model Handle Variables in Investment Options?

Table 11.3 presents several aspects of investment options to show how important they were to participants, based on allocations to each option that were predicted by the *fund* model. In this example, the plan has three funds: a guaranteed investment contract (GIC) fund, large cap stocks, and company stock. A fourth fund will be added.

Among the three managers under consideration, one has a high brand image, and one has a low brand image. Both are active managers with identical performance. The high brand image manager has average fees, while the low brand image manager has slightly below average fees. Participant allocations to these active managers suggest that lower fees rate more highly than brand image in the context of the plan environment.

The third manager, moderately well-known, provides an index fund at very low cost with the same performance history as the active managers. Participant allocation to this manager is the lowest of the three. Fees do not dominate in this case, and participants clearly show a preference for active management.

Let's return to brand image. Table 11.3 is not suggesting it is unimportant. It's certainly very important in the consumer's world, especially in retailing. However, inside the plan context it is the employer that has the most impact. Where the company is perceived to be managing or selecting the managers, their brand image is twice as powerful as the largest outside provider, even providers that spend heavily to develop brand image.

Table 11.3
How Important Are Brand Image, Style, Fees?

Manager	Low	Medium	High
Style	Active	Index	Active
Fees	Below Average	Well Below Average	Average
Balanced Fund Allocation	10.5%	5.8%	9.5%

Source: Steve Saner, J.P. Morgan
Note: Performance is the same for all three funds. Other funds: guaranteed investment contract, large capitalization U.S. stock fund, company stock.

Table 11.4
Hourly/Union Participants Are Remarkably Similar to Salaried Participants

Plan Model Case	Current Plan	Add: Investment Phone, Seminars ($200 fee), and Bond Fund
Salaried	66	75
Hourly/Union	66	73
Confidence Interval=4		

Source: Steve Saner, J.P. Morgan

Are Preferences of Salaried and Hourly Employees Different?

As we considered different employee groupings, we decided to take a national sample of union and hourly employees. Many plan sponsors have dual plans for the hourly employees and the salaried employees. We wondered if the two groups would be substantially different in their preferences.

Table 11.4 presents a company with dual plans that was thinking of making some changes. Like the previous example, the participants' satisfaction with the plan starts at 66 using the national salary data. When we looked at the hourly data, it was also a 66—same plan features, same preferences basically.

Indeed, we found in looking at all the preferences more deeply, most of the differences are correlated with income levels. It is a fact that hourly employees make less than salary employees, so they are more motivated toward less expensive things and may be a bit more conservative. But basically hourly and salaried employees are very similar in their preferences overall.

Modeling the changes this company was talking about—putting in an investment phone, holding seminars for a $200 charge to the participants, and adding another bond fund—caused both preference indices to rise by similar amounts. With a confidence interval of 4, the difference is not statistically significant.

This company also was looking at adding funds to enable participants to better diversify from their stable value and company stock fund. As table 11.5 shows, the preferences of hourly and salaried employees again were

Table 11.5
Hourly/Union Participants Are Remarkably Similar to Salaried Participants

Fund	Current Allocation	Scenario	
		Salaried	Hourly/Union
Stable fund	28%	17%	18%
Bond	0	6	7
Balanced	8	8	6
Global Balanced	0	15	13
U.S. Stock	31	17	14
Small Stock	0	5	9
International Stock	0	4	7
Company Stock	33	28	26

Source: Steve Saner, J.P. Morgan

remarkably similar. It is also encouraging that both groups added significant diversification.

How Will the Model Be Updated?

We are continuing our work on the model, with new sampling addressing new questions. In a sense, we are creating the Participant Preference Model Two. As we formulate all the questions, we are working with sponsors again to make sure the questions are asked without a bias and that we ask the right questions. The sampling, on a national basis, will include both salaried and hourly populations.

Some of the topics we will have research findings on include life cycle funds. When we looked at these in a pre-test of the model two years ago, they weren't on participants' radar screens. They didn't really have any interest in them. We think they do now. Another topic will be international, global, and emerging markets funds. Finally, interest in a fully directed brokerage window will be tested.

Two additional questions we will research are how should investment education be delivered and how should investments be managed during retirement? We are also curious about how strong the desire is for financial planning, because that is a current trend.

I have completed my status report about our model. We've worked with plan sponsors on many issues and scenarios, and the model has proven its usefulness many times over. We expect it will continue to contribute to understanding plan participant preferences better.

Discussion After Saner Presentation

DAVID JEPSON: A question for Bob. I salute your encouragement of research with these plan rollouts. We try to do the same, but we run into resistance. The plan sponsor is hesitant to ask a lot of questions of employees for fear of creating some unrealistic expectations, and they really shy away from research. Have you encountered that and, if so, how do you address that issue?

ROBERT SERAPHIN: We sometimes encounter some resistance at the plan sponsor level, not the least of which is taking people off line and out of the work place for a while to do it. It's usually a couple of hours worth of commitment and can involve quite a number of people at various locations. We try to persuade them by showing them some very concrete reasons and case studies as to why we had done it in the past and how it had worked.

PAUL YAKOBOSKI: Bob, you said you had other case studies with similar success stories and also case studies that were not success stories. Have you begun to explore what was different between the case studies and why a similar approach works in one instance and not another?

ROBERT SERAPHIN: Yes. We've commissioned some very specific research to flesh out our qualitative research over the years.

We're looking at the employment of actual media in a campaign, trying to quantify what works and what doesn't. We're also trying to quantify level of employer involvement in the process to see what effect that has. So we're trying to get hard data around it.

DALLAS SALISBURY: I want to thank everyone for joining us today. The session is part of ongoing research to assess how, in the midst changes, can we begin to help individuals make that transition from a world where they really didn't have to do much individually to one where they do. Rather than bombarding them with messages, we need to give them more vehicles that avoid confusion in the midst of so much information.

Appendix: Policy Forum Participants

Moderators

Dallas Salisbury
Employee Benefit Research Institute

Laura Bos
Employee Benefit Research Institute

Jack VanDerhei
Employee Benefit Research Institute

Authors and Speakers

Olena Berg
Department of Labor

Richard Roberts
Securities and Exchange Commission

Steve Saner
J.P. Morgan

Don Sauvigné
IBM

Robert Seraphin
Fidelity Investments

Brian Ternoey
A. Foster Higgins & Company, Inc.

Jack VanDerhei
Employee Benefit Research Institute

Dave Veeneman
Hewitt Associates LLC

Dan Vinod
AT&T

Paul Yakoboski
Employee Benefit Research Institute

Participants

Mary Allen
SBC Communications

Angela Arnett
American Council of Life Insurance

James Bell
Mead Corporation

Vicki Caldeira
Association of Private Pension & Welfare Plans

Joe Canary
Investment Company Institute

David Canter
William M. Mercer

Christine Cassidy
American Academy of Actuaries

Chris Conte
EBRI Fellow

George Cowles
Bankers Trust

Christopher Cumming
Diversified Investment Advisors

Joel Dickson
Federal Reserve Board

Michelle Ehm
Wells Fargo Nikko

Peter Feige
Mass Mutual Life Insurance Company

John Feldtmose
A. Foster Higgins & Company, Inc.

Howard Fluhr
The Segal Company

Ann Foster
Bureau of Labor Statistics

Nancy Gadberry
BellSouth Corporation

Janice Gregory
ERISA Industry Committee

Joe Grimes
ERISA Industry Committee

Neil Grossman
WF Corroon

Brett Hammond
TIAA/CREF

Robert Hahnen
Mobil Corporation

Steven Harrison
E.I. Du Pont de Nemours & Co.

Bob Heitzman
American Academy of Actuaries

Richard Hinz
Department of Labor

Richard Hubbard
Arnold & Porter

Dawn Hyne
MetLife Insurance Company

David Jepson
Frank Russell Company

Richard Joss
The Wyatt Company

Diane Kagel
New York Life Insurance Company

Melissa Kahn
American Council of Life Insurance

Michael Kahn
National Education Association

Lana Keelty
National Rural Electric Cooperative Association

David Kemps
U.S. Chamber of Commerce

Martha Kerwin
U.S. Trust Company

Denise Kleis
Merrill Lynch & Co., Inc.

Dan Leach
Lutheran Medical Center

Robert Lee
Prudential Defined Contribution Services

Robert Leonard
NyNex Corporation

William Link
The Prudential Insurance Company

Deborah Malins
Fidelity Investments

Linda Matza
Kemper Financial Services

John McCormack
TIAA/CREF

Curtis Mikkelsen
Morgan Guaranty Trust Co. of NY

Fred Morris
State Street Bank & Trust

Jim Mulanaphy
TIAA/CREF

Sam Murray
Profit Sharing Council of America

Gary Naylor
J.P. Morgan

John Oakes
T. Rowe Price Associates

Patricia Pagano
Mobil Corporation

Jeff Paster
Capital Guardian Trust

Barbara Quilty
U.S. West, Inc.

John Raffaeli
Salomon Brothers

Kenneth Reifert
Merrill Lynch & Co., Inc.

Robert Reynolds
Fidelity Investments

David Rivera
American Academy of Actuaries

Chip Rosenthal
A. Foster Higgins & Company, Inc.

Sylvester Schieber
Watson Wyatt Worldwide

David Skovron
Kwasha Lipton

Randolph Smith
Philadelphia Daily News

Thomas Tandy
E.I. Du Pont de Nemours & Co.

Darice Taverna
Citibank, N.A.

Joni Tibbetts
Principal Financial Group

Takako Tsujisaka
EBRI Fellow

Mary Lou Vitale
U.S. Trust Company

Grace Weinstein
Investor's Business Daily

Bonnie Whyte
Employers Council on Flexible Compensation

Melynda Wilcox
Kiplinger's Personal Finance Magazine

Percy Williams
Society for Human Resource Management

Pamela Wolfe
Cincinnati Bell Telephone

Employee Benefit Research Institute Staff

Sharyn Campbell

Jamie Chisley

Patsy D'Amelio

Paul Fronstin

Deborah Holmes

Nora Super Jones

Kenneth McDonnell

Cheri Meyer

Deborah Milne

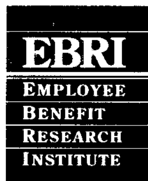
Kathy Stokes Murray

Carolyn Pemberton

Annmarie Reilly

Edina Rheem

Sarah Snider



Suite 600, 2121 K Street, NW
Washington, DC 20037-1896

202-659-0670
Fax 202-775-6312

The growth of defined contribution pension plans such as 401(k), 403(b), 457, and individual retirement accounts has given many workers their first opportunity to save through a work-based, tax-deferred, retirement savings plan. For others, it is an opportunity they have had for decades. Regardless, participation in these plans requires workers to make explicit decisions concerning participation, contribution levels, and asset allocation that will directly affect their income security when they are no longer working.

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