# Beyond Ideology: Are Individual Social Security Accounts Feasible?

**An EBRI-ERF Policy Forum**

**Edited by Dallas L. Salisbury**

EBRI
EMPLOYEE BENEFIT RESEARCH INSTITUTE ®

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Established in 1978, the Employee Benefit Research Institute (EBRI™) is the only nonprofit, nonpartisan organization in the United States totally committed to original public policy research and education on economic security and employee benefits.

EBRI's overall mission is to encourage, to contribute to, and to enhance the development of sound employee benefit programs and sound public policy through objective research and education.

EBRI does not lobby or endorse specific approaches. Rather, it provides balanced and unbiased analysis of alternatives based on the facts. Through its activities, EBRI advances knowledge and understanding among the public, the news media, and government policymakers of how employee benefits function and why they are critically important to our nation's economy.

Since its inception two decades ago, EBRI has grown to include a cross section of the public and private sectors with an interest in economic security programs. EBRI is funded by membership dues, grants, and contributions from foundations; businesses; labor unions; trade associations; health care providers and insurers; government organizations; and service firms, including actuarial firms, employee benefit consulting firms, law firms, accounting firms, and investment management firms. International members look to EBRI's work to gain understanding of the U.S. economic and employee benefit systems.

Today, EBRI is recognized as one of the nation's most authoritative, objective, and reliable resources on the rapidly changing employee benefits sector—health, savings, investment, retirement, work/family issues, demographics, and economic security.

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# About EBRI-ERF Policy Forums

The Employee Benefit Research Institute-Education and Research Fund (EBRI-ERF) holds two policy forums per year. The goal of the policy forums is to bring together a cross section of EBRI sponsors, congressional and executive branch staff, benefit experts, and representatives from academia, interest groups, and labor to examine public policy issues. It is a roundtable discussion featuring verbal and written exchange among speakers and participants. The roundtable format is designed to encourage discussion.

Past EBRI-ERF policy forums include:

5/6/98 "The Future of Medical Benefits"

12/03/97 "Do Employers/Employees Still Need Employee Benefits?"

04/30/97 "Retirement Prospects in a Defined Contribution World"

12/04/96 "Assessing Social Security Reform Alternatives"

04/30/96 "Comprehensive Tax Reform: Implications for Economic Security and Employee Benefits"

12/07/95 "The Changing World of Work and Employee Benefits"

05/11/95 "When Workers Call the Shots: Can They Achieve Retirement Security?"

10/26/94 "The Future of Employment-Based Health Benefits"

05/04/94 "Retirement in the 21st Century: Ready or Not?"

10/06/93 "The Changing Health Care Delivery System"

05/05/93 "Pension Funding and Taxation: Achieving Benefit Security"

12/01/92 "Rationing: Making Choices and Allocating Resources in the Health Care Delivery System—Implications for Access, Quality, and Costs"

04/29/92 "Paternalism vs. Empowerment: What Benefits Should/Will Employers Provide?"

09/25/91 "Retirement Security in a Post-FASB Environment"

05/02/91 "Pension Portability and Preservation: Assuring Adequate Retirement Income in the 21st Century"

10/04/90 "Winners & Losers in Reforming the U.S. Health Care System"

05/03/90 "Assessing the Implications of Proposals for Pension Fund Taxation"

# Preface

Social Security is the cornerstone of retirement security in America today. As a social insurance program that is largely pay-as-you-go, it depends upon workers to pay taxes to provide benefits. It is a collective program, with the result that some who pay taxes get nothing, due to early death as single individuals, while a member of that same family might live to 100 and get a great deal from the program. For many years, this fact—that there is a wide variation in return on taxes paid—has led some to advocate the replacement of all or part of the program with individual accounts. Under this approach, each individual accumulates funds in an account he or she owns, plus a rate of return on these contributions. The President set out such a proposal in his 1999 State of the Union message, adding to many other plans that were already "on the table."

Proposals for individual accounts have always been discussed at the "policy" level, but no one has set forth a detailed plan for implementation. The daunting logistics of implementing a system for over 148 million workers, with a median job tenure of less than four years, and with over 25 million workers who hold several jobs each year, are easier to set aside until they must be considered.

The Employee Benefit Research Institute (EBRI), and its Education and Research Fund (ERF), were founded 20 years ago with the mission of providing information that would allow sound program design and informed decision making. With that mission in mind, we held a Policy Forum in December of 1997 and published a book on evaluating Social Security reforms in early 1998; published a major assessment of the issue of individual account benefit outcomes relative to reform alternatives in March 1998; published a major assessment of individual account administration in November 1998; and held the policy forum reported on in this collection of essays in December 1998. In addition, the appendix of this book includes the January 1999 *EBRI Issue Brief* on "401(k) Plan Asset Allocation, Account Balances and Loan Activity," which reports on a new database that is by far the most current and comprehensive source of information on investment behavior by individual plan participants. This report provides extremely valuable information on the type of investment risk that millions of employees are already exposed to through their 401(k) plans. It is also a useful starting point for those who are interested in how individual Social Security account owners might allocate their investments.

It is important to note that EBRI does not have a position for or against individual accounts; rather, we urge that policy makers take care to assure that any program they enact can actually be administered. Promises made must be kept.

*Social Security: Perspectives on Preserving the System* was published by EBRI-ERF in 1982. The issues and options laid out then, including individual accounts, are still at the center of the debate today, 15 years after we first published an analysis of individual accounts. The papers in this new book suggest that technology has advanced at a pace that would allow implementation of a limited universal individual account program—but they also suggest that we are years away from a system like universal IRAs or a national 401(k) plan.

I thank the speakers and participants for making this forum possible, and the members of EBRI for joining sponsors of our Social Security Research Program for funding the session. Professor Jack VanDerhei of Temple University worked with Kelly Olson and Pam Ostuw of EBRI to design the overall program. Lynn Miller, Steve Blakely, and Deborah Holmes copy-edited the volume and Cindy O'Connor produced the book.

Any views expressed are of the authors and

should not be attributed to the officers, trustees, members, or staff of EBRI or its Education and Research Fund. In publishing this work, EBRI-ERF is making no effort to influence any specific legislation; rather, it is seeking to provide decision-makers with information that might help to evaluate proposals.

Dallas L. Salisbury
President and CEO
EBRI and EBRI-ERF
February 1999

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# Introduction: Are Individual Social Security Accounts Feasible?

## by Stephen Blakely

In the current debate over Social Security reform, the concept of individual accounts playing a role gained breadth with President Clinton's Jan. 19, 1999, State of the Union proposal for USAs, or Universal Security Accounts. The same day, Sen. William Roth (R-DE), chairman of the Senate Finance Committee, introduced his own version of USA accounts.

While both proposals would fund the accounts with general revenues from the federal budget "surplus"—and not payroll taxes—they make the question of "how" to implement universal individual accounts (IAs) all the more important.

A report issued in May 1998 by the National Commission on Retirement Policy (NCRP), a group co-chaired by four members of Congress and two business executives, included a 2 percent individual account plan in a comprehensive reform package. In recognition of the complexity of such accounts, the NCRP plan explicitly would depend on the Social Security Administration and the current payroll tax process to administer the accounts.

In contrast, a proposal from Sens. Daniel Patrick Moynihan (D-NY) and Robert Kerry (D-NE) would make the individual account optional, allowing individuals to keep a 1 percent reduction in payroll taxes if they choose not to "accept" a 1 percent match from their employer. If they did not, the employer would keep the 1 percent. Then, later, Moynihan and Kerry would increase payroll taxes to fund Social Security on a pay-as-you-go basis.

Even though the administrative design of individual accounts has potentially enormous implications, some basic questions have not been fully considered in the current debate: How would individual accounts actually work? As a purely logistical matter, how would the existing Social Security system have to be changed in order to create and operate IAs? What would these changes require of employers, the government, individuals, and financial service providers? And how much would it all cost?

Nearly 300 leaders representing the private sector, the public sector, and the news media explored these questions in detail at the Employee Benefit Research Institute's (EBRI) Dec. 2, 1998, policy forum, "Beyond Ideology: Are Individual Social Security Accounts Feasible?" In keeping with EBRI's nonpartisan and nonadvocacy role, the policy forum included a wide range of speakers for, against, and neutral on IAs.

While most speakers agreed that some type of workable program of individual accounts could be established, one dominant theme emerged: implementing universal IAs, whether as part of Social Security or as a separate system, would be a huge undertaking that, by its very nature, would not be easy or quick.

## Administrative Issues

There are many intersecting reasons why universal individual accounts would be complicated, and each compounds the difficulty of the issue. For starters, there is size: With 148 million participants, Social Security is the largest entitlement program in the United States. It directly affects 96 percent of the U.S. work force and their employers every pay period, so any changes in the program would be widely felt by businesses and their workers. Any universal program would face the same numbers.

There is also structure: Social Security today is a "defined benefit" system with a credit-based benefits formula that tolerates long delays

and minor errors in the way employers report their workers' wages and taxes. IAs, by contrast, are a "defined contribution" system that has fundamental differences: it is cash-based and would require far more accurate "reporting" and "crediting" to individual accounts in order for the benefits of compound interest to begin working from the time of payroll deduction.

This has substantial administrative and regulatory implications for employers and workers (who must report and pay the taxes), as well as for the government (which must track and enforce the payments), and financial service providers (which must accurately post the contributions), in any system that is mandatory and universal. For workers, IAs offer the potential of new risks from accounting mistakes or fraud, unlike the current Social Security system. For employers, IAs potentially create new burdens if not tied closely to the present Social Security tax payment system.

For small businesses in particular, greater payroll burdens and regulatory costs are a sensitive issue. About 85 percent of employers reporting wages to the Social Security Administration (SSA) file their reports the old-fashioned way—on paper—and of those, 90 percent are small firms with fewer than 25 employees. That is, 5.5 million employers report on paper. A recent survey of small employers, conducted on behalf of EBRI, indicates that majority support from small-business decision-makers for individual accounts is present, but it dissipates when employers are asked about bearing the administrative costs or duties of operating IAs.

Demographics raise a host of difficult issues. Social Security coverage is universal, and it includes employees who differ in many crucial ways from the full-time work force that is eligible for salary-reduction plans such as 401(k)s. For instance, Social Security covers a far higher proportion of low-income, part-time, less-educated, and highly mobile workers for whom annual contributions would be small. By comparison, 401(k) participants tend to have much higher incomes, job stability, and educational levels.

That, in turn, leads to the related issue of investor education in an IA system—a complex and expensive undertaking in itself, considering that more than half of all Americans do not know the difference between a stock and a bond, and 21 percent of the adult population has only rudimentary reading and writing skills at or below the fifth-grade level. For those who are interested in the type of investment risk that millions of employees are already exposed to through their 401(k) plans, the appendix of this book includes the January 1999 *EBRI Issue Brief* on "401(k) Plan Asset Allocation, Account Balances, and Loan Activity"—based on a new database that is by far the most current and comprehensive source of information on investment behavior by individual plan participants in the United States.

How much would individual Social Security accounts cost to operate? No one can say for sure, because no IA proposal to date has been specific enough to make realistic projections and because there are so many unknown variables. But the most objective estimates, using a wide range of both low-cost and high-cost assumptions, indicate that administrative expenses could have a big impact on IA benefits. Viewed as a cost-per-account, administrative cost could range from $20 to $400 per year per account, depending on features. And the more investment options and services that an IA system provided, the more complicated and expensive it would be to administer.

As one participant at the EBRI policy forum explained, policymakers face many difficult tradeoffs with universal individual accounts: Keeping the system simple and inexpensive as possible would mean limiting the choices that make IAs attractive in the first place. But offering lots of options and services would mean higher complexity and costs, as well has greater risks. An impartial analysis of the feasibility issues suggests there are no simple answers to the tangle of questions raised by individual Social Security accounts.

"Conceptually, a universal IA system would necessarily have more employer burdens, more worker liabilities, and/or more government involvement and/or liability," noted Kelly Olsen, an EBRI research associate. "It is important to be aware of these tradeoffs as reform is debated."

## ■ Basic Administrative Tasks

One way to understand why universal individual accounts present such a challenge is to look at the core administrative tasks currently performed by SSA—and which would have to be expanded under a system of IAs.

These include enrolling workers in the system, establishing and maintaining a record for each account, receiving tax payments from employers, properly crediting the payment to each individual, correcting errors, and enforcing compliance. Under an IA system, all these functions would have to be performed as well, and supplemented by the additional work of keeping track of both investment contributions and investment allocations, sending the contributions to individuals' accounts on a timely basis, and ensuring that contributions are correctly invested.

The biggest problem is the most basic—collecting workers' Social Security tax payments and transferring them quickly and accurately to individual investment accounts. "The biggest and most difficult issue is the time lag from the time that the money is taken out of the payroll until the time it actually gets invested," said John M. Kimple, senior vice president and deputy general counsel for Fidelity Investments.

Currently, Social Security's annual wage reporting process can last four years or longer: One year for workers' wages to be earned and taxed, another for SSA and the Internal Revenue Service (IRS) to credit the tax payments to individual workers and to reconcile their records, and two additional years to correct errors.

In the vast majority of cases, however, it doesn't take that long: Social Security has a 98.5 percent completion rate in processing records and reporting wages by the end of the first year. And because the existing system is credit-based, this 15–20 month "float period" in crediting Social Security payments to individuals does not cause any financial loss for workers. But under a cash-based IA system, where time is crucial for earnings to compound, the delay could mean lost income.

"That's a perfectly adequate time frame in the current system, but it's a serious consideration if you're trying to think about it as an investment mechanism," said Jane Ross, deputy commissioner of policy for SSA.

As a result, one of the crucial design issues in any IA system is how the record keeping is handled for 148 million Social Security participants, and whether it is centralized (within a government agency or government-chartered corporation, for instance) or handled by multiple private-sector organizations. Higher administrative expenses will result under any new system, although how much is a matter of considerable debate.

"The change will be expensive," said Lou Enoff, an international pension consultant, former acting administrator of SSA, and an advocate of individual accounts. "The only plausible way to move to some individual account system would be to use the existing Social Security/IRS wage and tax collection and reporting system. It's far from perfect, but it's the most efficient way to go, at least in the initial stage."

But as SSA's Ross points out, the Social Security Administration is not currently equipped to process cash-based individual investment accounts and would have to modify its existing wage-reporting process—perhaps significantly. "There is some advantage to what goes on now at Social Security and it's important to understand what it is," Ross says. "But our current system is extremely limited with regard to the broad range of administrative functions that need to be undertaken if you're going to have an individual account."

Besides costs, the prospect of a centralized record keeper for all American workers raises "fundamental" questions of privacy and government control, according to Girard Miller, president and CEO of the ICMA Retirement Corporation. But on the other hand, Miller notes, "If we don't have it [centralization], will errors and problems and scams occur as the result?"

## A Defined Contribution System

A key factor in the administrative feasibility of individual accounts is the kinds of investment options and structure that a defined contribution Social Security system could offer cost efficiently. Miller set out three alternative models to aid analysis, each of which would offer different options and services and, as a result, would also have different administrative costs:

- *A "Universal Fund,"* operated nationally, that would be available to all workers as a default option and would invest passively in a balanced mix of stock and bond index funds. This would likely be the least expensive type of system to operate.
- *An Efficient Markets Funds Family,* operated by

private firms under contract with SSA, that would offer a range of stock and bond index funds.

- *A Defined Contribution Model* that would be employer-based and would offer a broader range of investment options, utilizing the existing technology of the defined contribution industry used in Sec. 401(k), 403(b), and 457 retirement savings plans. This would likely be the most expensive to operate.

Miller observes that the defined contribution industry currently is capable of doing this kind of record keeping at "low" cost, but adds that the private sector faces many unresolved issues with individual accounts—such as the fiduciary responsibility that employers would likely face for managing their workers' contributions and the new regulations that probably would follow creation of an IA system.

"There's lots of opportunity here for people to make a number of mistakes," Miller warned, "and there will be lots of opportunity for sales people to sell all sorts of products at the wrong prices to the wrong people."

The potential for mistakes or fraud under an IA system is often cited because Social Security participants differ in some important ways from participants in employer-based defined contribution plans such as 401(k)s. Because Social Security coverage is almost universal, it covers a far greater share of young, part-time, highly mobile, and low-paid workers who have little education or understanding of financial investing. By comparison, employment-based retirement savings plans such as 401(k)s tend to exclude precisely those types of workers. Arthur Levitt, chairman of the U.S. Securities and Exchange Commission, has warned that creation of a mandatory IA system would require significantly greater regulatory and enforcement activity by the government to protect the surge of new and uninformed investors.

Many advocates of individual accounts point to the federal government's Thrift Savings Plan (TSP) as a model for a low-cost defined contribution IA system. The TSP, which is the largest single operating defined contribution plan with individual investment choice in the United States today, features a very low administrative cost-to-asset ratio and low administrative costs per participant. With 2.3 million federal employees, the TSP offers limited investment choices and services.

But Francis X. Cavanaugh, former executive director and CEO of the Federal Retirement Thrift Investment Board and a key player in setting up the TSP in the late 1980s, strongly opposes any comparison between the Thrift Savings Plan and individual Social Security accounts. The key difference, he says, is "the costs involved in serving small businesses," which the TSP avoids because its participants have just one employer—the federal government.

"The economy of scale comes by having a large number of employees per employer," Cavanaugh said. "So long as we are a nation of small businesses, the only way you're going to get economies of scale [with IAs] will be to get those 6.5 million small businesses to merge into a conglomerate."

## IA Costs

Since administrative costs have been one of the most hotly debated aspects of individual Social Security accounts, a wide range of projections was voiced during the EBRI policy forum. A frequent qualification, however, was that costs will depend on the services that are provided.

On the low end, F. Gregory Ahern, director of industry affairs and public relations at State Street Corporation, noted that private-sector index funds offering only basic services can be operated for as little as 10 basis points (0.1 percent) of assets. If a "very basic and simple" IA system was established that had centralized record keeping, collective investments, and limited options, he suggested, administrative costs could be kept as low as 50 to 150 basis points (0.5 percent–1.5 percent of assets).

Also on the low side, Fred T. Goldberg, Jr., a partner with Skadden, Arps, Slate, Meagher & Flom LLP, former commissioner and chief counsel with the IRS, and an ardent proponent of individual accounts, stated that a simple, basic, and centralized IA system would cost between 25 and 50 basis points (0.25 percent–0.5 percent) of assets.

John Kimple of Fidelity Investments, the nation's largest 401(k) provider, said a "more realistic" range is 25–125 basis points (0.25 percent–1.25 percent) of assets, "depending on what you want." Like others, he said simplicity and basic

services were essential for low costs, but he also suggested the possibility of offering three different types of individual accounts, so that people could pay for more services if they want them.

To date, no IA proposal has been detailed enough to permit objective cost estimates that would cover both central administration and the costs of employers' and individuals' responsibilities. However, individual account benefits for both men and women over a broad age span would be highly sensitive to administrative costs under both low- and high-cost assumptions, according to results from the EBRI-SSASIM2 computer model presented by Professor Jack L. VanDerhei of Temple University and research director of the EBRI Fellows Program. The model used a range of age cohorts and low- and high-cost assumptions, ranging from 10 basis points (0.1 percent) to 200 basis points (2 percent) of account balances. Over time, such costs could reduce account balances by 10 percent to 25 percent.

## The Role of Employers

Among employers, there is widespread concern about extra cost and administrative burdens if Congress requires them to help administer individual Social Security accounts. Janice M. Gregory, vice president with the ERISA Industry Committee, urged that Social Security reform—including individual accounts—"not deter the creation and maintenance of retirement plans voluntarily sponsored by employers for their employees."

Gregory noted that over-regulation by Congress virtually killed off traditional defined benefit retirement plans in the small-business sector since the 1980s, and suggested that mandatory IAs that take a lot of time and money to administer will only force cutbacks in existing benefits.

"Most employers have no experience collecting and depositing employee contributions," Gregory said. "Make no mistake: Ill-conceived Social Security reform can cause a shrinkage of pension sponsorship and coverage in this nation."

Nora Daly, senior legislative analyst for the Oracle Corporation, and representing the American Payroll Association, explained that creating individual Social Security accounts would require employers to split their payroll tax reports, thereby creating a major new accounting requirement. It also would create several new areas where employers could get penalized by the government for inadvertent reporting mistakes, particularly involving IA enrollment, investment education, and reporting frequency.

Daly also noted that "payroll is the most heavily legislated field in business today," due to federal labor laws; local, state and federal tax laws; employer mandates under the Family and Medical Leave Act and the Americans With Disabilities Act; new IRS rules for child support withholding; wage garnishments; education loans; and other levies. Regarding individual Social Security accounts, she said, "There is a lot of work here for employers."

Similar concerns are voiced by payroll service bureaus, which process the payrolls for one-third of the private-sector work force, representing about 40 million workers employed by 600,000 firms. The prospect of a new payroll deduction is not a small issue for these firms, since payroll service bureaus generate 15 million paychecks each month and deposit $70 billion a year in federal taxes with the IRS. Pension actuaries also predict that employers would see significant added costs from having to correct the inevitable errors that would result in an individual account Social Security system, as well as from having to track investment changes and trades.

A big political question is whether small employers will object if Congress requires them to help administer an IA Social Security system. According to a survey of small employers conducted by Mathew Greenwald and Associates for EBRI and released in January, most small employers are unaware of how they might have to help operate individual Social Security accounts, and one-fifth of those who favor them are unwilling to pay any extra administrative costs.

The EBRI survey found that when asked a generic question about support or opposition with no mention of cost, a majority of small business leaders (57 percent) favor some type of individual accounts. The survey also found that roughly one-third of all small employers are so supportive that they would be willing to spend $500 or more—in some cases substantially more—in additional payroll processing costs each year to help administer individual Social Security accounts.

But the EBRI survey also found that

60 percent of small employers are not following the current debate over Social Security reform, and that almost two-thirds had not thought about the possibility that they might be required by law to help administer the accounts.

The small-business sector is likely to be a crucial player in the IA debate. Small businesses played a key role in blocking former President Jimmy Carter's proposal for a Minimum Universal Pension System, helped force the repeal of the Section 89 "nondiscrimination" tax reporting rules in 1989, and also were active in helping defeat the Clinton administration's national health-care plan. In all these cases, administrative burdens and costs were a motivating concern for small businesses.

## Lessons From Abroad

As the United States considers individual Social Security accounts, some experts are looking overseas to examine the experience of other countries. But the lessons to be drawn from there are mixed.

Compared with the U.S. Social Security system with 148 million people, IA systems abroad are small: about 3.5 million active accounts in the United Kingdom, 3.2 million in Chile, and 2.3 million in Switzerland. Private-sector record keepers in the United States currently operate and maintain defined contribution investment accounts for substantially larger numbers.

According to Lawrence H. Thompson, senior fellow at the Urban Institute, a survey of IA systems in Latin America and Europe reveals many similarities but some important differences. The most common form of individual accounts, he said, is some variation of the Chilean system, in which employers transmit the contributions monthly to private investment account managers selected by workers. But because there is no centralized record keeping and contribution reports are not carefully verified, he added, "the ultimate check on the process is that the employee darn well better check their regular reports."

In Britain, employers report annually and workers' contributions are held in the federal Treasury before being transmitted to individual accounts some six to 24 months later—similar to the time lag in the current U.S. Social Security system. Britain's IA system has also experienced a scandal involving about $20 billion in fraudulent sales by investment brokers, Thompson noted, adding that most countries with individual accounts "have created new specialized regulatory institutions."

Ultimately, however, the Social Security system in the United States is unique—and there are few guideposts to follow in the debate over individual accounts.

"If we're going to be serious about individual accounts, we can learn by observing the foreign practices," Thompson said, "and mostly what we'll learn is how long the agenda is for things that we have to think about."

## Conclusion

In closing the forum, EBRI President and CEO Dallas L. Salisbury stressed the importance of thinking through the issues of implementation *before* a program is enacted, not after. Social Security and the IRS both provide an existing, operational model for collecting taxes and maintaining accounts through a central system, and they illustrate the amount of regulation such approaches require, he noted.

However, no such model exists for regulation of a universal, mandatory system of individual accounts held outside of the government. Based upon what is in place to regulate and track fewer than 1 million employer-based pension plans, and fewer than 20,000 mutual funds, the required regulatory structure for a universal IA system would be substantial. And "hybrid" systems—which would have Social Security collect funds until accounts hit a certain level and then allow "rollout" to the private sector—would raise a broad set of additional regulatory and implementation issues.

"The time to think through how accounts would be tracked, and how rules would be enforced, is before enactment," Salisbury said. "This book is meant to help us all think through these issues."

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# *Individual Social Security Accounts: Issues in Assessing Administrative Feasibility and Costs*

by Kelly A. Olsen and Dallas L. Salisbury —
*EBRI Issue Brief*, November 1998

## ■ Executive Summary

Whether to add individual accounts (IAs) to the Social Security system is a highly political issue. But almost lost in the debate so far have been any practical considerations about how to administer such accounts. Any discussion of *whether* to create individual accounts must also address the basic but critical questions of *how* they would work: Who would run them? What would they cost? Logistically, are they even possible? This *EBRI Issue Brief* provides an overview of the most salient administrative issues facing the current Social Security reform debate—issues that challenge proponents to carefully think through how their proposals could be implemented so as to achieve their policy goals.

The options and difficulties in administering IAs raise concerns that cut across ideology. The object of this report is neither to dissuade the advocates nor support the critics of individual accounts. Rather, it is to bring practical considerations to a political debate that has largely ignored the pragmatic challenges of whether IAs would be too complex for participants to understand or too difficult for record keepers to administer.

The major findings in this analysis include:

- ***Adding individual accounts to Social Security could be the largest undertaking in the history of the U.S. financial market, and no system to date has the capacity to administer such a system***. The number of workers currently covered by Social Security—the largest single entitlement program in the nation—is at least four times higher than the combined number of all tax-favored employment-based retirement accounts in the United States, which are administered by hundreds of entities.

- ***Direct comparisons between employment-based retirement savings plans and Social Security reform are tenuous at best***. Social Security covers workers and businesses that are disproportionately excluded from employment-based plans. Because of these differences, a system of individual Social Security accounts would be more difficult to administer than employment-based plans, and total administrative expenses would be larger relative to benefits.

- ***Credit-based systems such as the current Social Security program are less difficult to administer than cash-based systems, which must account for every dollar.*** Inherent in the "privatization" debate is generally the presumption that IA benefits would be based on cash contributions and investment returns. The current credit-based system tolerates small errors in wage reporting, because they rarely affect benefits. But every dollar counts in a cash-based IA system. To ensure that benefits are properly provided, an IA system would require more regulation, oversight, and error reconciliation than the current Social Security program.

- ***Social Security individual accounts cannot be administered like 401(k) plans without adding significant employer burdens—especially on small businesses.*** Under the current wage reporting and tax collection process, it would take at least 7–19 months for every dollar contributed to an individual's account to be sorted out from aggregate payments and credited to his or her IA. This 7–19 month "float period" could result in substantial benefit losses over time. Options for preventing such losses involve difficult trade-offs, such as increased government responsibility, increased complexity, greater employer burdens, and/or investment restrictions for beneficiaries.

- ***If legally considered personal property, the IAs of married participants could pose significant administrative challenges.*** Social Security today must obtain proof of marriage only at the time spousal benefits are claimed. But some IA proposals would require contributions to be split between spouses' individual accounts, requiring records on participants' marital status to be continuously updated to ensure that contributions are correctly directed. Also, dealing with claims on individual account contributions in divorce cases could place IA record keepers in the middle of spousal property disputes.

- ***The current body of knowledge is too uncertain, and the proposals to date are too vague, to make an objective estimate of how much an IA system would cost to administer or whether it would succeed in accomplishing its policy goals***. Uncertainty exists over how IA proposals would address key policy areas affecting administrative cost and complexity, how administrative costs operate in the current employer-sponsored retirement arena, and how lessons from the employment-based system apply to Social Security reform.

- ***Individual account benefits would be highly sensitive to administrative costs, according to results using the EBRI-SSASIM2 Policy Simulation model.*** Workers born in 1976 and 2026 would receive 40 percent to 42 percent lower IA benefits under high administrative cost assumptions than under low-cost assumptions, indicating that additional research on administrative costs is essential to assessing how—or whether—IAs could produce meaningful retirement benefits.

Kelly A. Olsen and Dallas L. Salisbury of EBRI wrote this *Issue Brief* with assistance from the Institute's research and editorial staffs. Any views expressed in this article are those of the authors and should not be ascribed to the officers, trustees, members, or other sponsors of EBRI, EBRI-ERF, or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

## Administrative Forethought

Examining policy administration is an integral part of basic public policy analysis,[1] as history is replete with examples of inconsistencies between ideological intentions and administrative practices. Consideration of administrative feasibility, burdens, and costs prior to policy reform is especially imperative for today's Social Security reform debate, which involves various proposals to "privatize" part of the system. The debate centers largely over whether to add individual investment accounts to Social Security, similar to savings vehicles currently found in the form of employment-based defined contribution retirement plans.

Unlike today's defined benefit Social Security system, in which a formula specifies a *final benefit*, an individual account (IA) plan would utilize a formula that specifies *how funds are to contributed* to individual accounts. For IA participants, final benefits would depend on contributions plus or minus investment returns.

Although adding individual accounts to Social Security is a highly political issue, an objective examination of how to administer such accounts raises concerns that cut across ideology. In short, adding individual accounts to Social Security would be a formidable administrative undertaking that would have uncertain consequences. Consider the following:

- ***Social Security policy directly affects 96 percent of the U.S. work force and their employers every pay period*** (U.S. Congress, 1998). Social Security is the largest single entitlement program in the United States.

- ***Over twice as many workers are covered by Social Security as the number of individuals in the U.S. who own shares in mutual funds*** (Investment Company Institute, 1998). Administering individual accounts for almost 148 million workers covered by Social Security would be possibly the largest undertaking in the history of the U.S. financial services industry (Lussier, 1998).

- ***No unified system currently has the capacity to administer 148 million individual accounts.***
  - The number of workers covered by Social Security is at least four times higher than the number of all defined contribution accounts in the U.S. combined, which are administered by hundreds of entities.
  - A system of IAs with full participation would include at least seven times the number of currently active 401(k) accounts.[2]
  - If all workers participated in individual accounts through Social Security, the program would cover almost 15 times the number of accounts currently managed by the largest private defined contribution plan administrator.
  - Moreover, Social Security covers more than 83 times as many people as the largest public defined contribution plan, the Federal Thrift Savings Plan (TSP).

Because Social Security is such a large program, dissatisfaction (e.g., from over- or under-regulation) with administering an individual account system could reverberate through major economic markets and virtually every U.S. household. Hence, far from being unrelated to the social, political, and economic dissatisfactions with the current system that are precipitating interest in individual accounts,[3, 4] administrative issues are an

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*[1] Patton and Sawicki (1993), for example, categorize administrative analysis into two categories: technical feasibility and administrative operability.*

*[2] These figures do not include the number of defined contribution accounts whose assets have been transferred outside the employer plan to be held and managed by banks or annuity companies.*

*[3] Despite substantial dissatisfaction among certain groups with projected low money's-worth returns on Social Security contributions, general opinion surveys suggest that the public's dissatisfaction with the current Social Security system is based on lack of confidence in the system's ability to provide future benefits, rather than a lack of support for the system in general (Upston, 1998). Dissatisfaction with the administration of an IA system could undermine support and/or confidence in Social Security, depending on the extent to which over- or under-regulation inconvenienced or cost households, employers, or financial service providers.*

*[4] For an overview of issues under the current Social Security system that are giving rise to interest in individual Social Security account reform, see Olsen and VanDerhei (1996).*

indispensable part of assessing reform options. Administrative issues will determine whether such accounts could actually be implemented, at what cost, and over what time period.

## ■ Uncertainties Abound

Providing Social Security IAs to all covered workers would impose uncertain administrative costs. For instance, uncertainty exists over the very definition of an "administrative" cost. *For purposes of this paper, administrative costs are operational expenses (e.g., time, staff, and other costs) that are incurred in order to provide financial benefits from individual accounts. Costs can be assessed to any party (i.e., government, employer, individual, or private firm) and include all expenses for individual accounts that are not a direct result of market losses or nonexcise taxes (e.g., income taxes).* This means that investment fees, annuitization fees, management fees, and even paperwork burdens fall under the general rubric of administrative costs.

As will be emphasized later, policy design is perhaps the largest and most uncertain determinant of administrative costs for an IA system; yet most reform proposals fail to discuss administrative details. Unfortunately, uncertainty extends beyond the current lack of detail regarding policy design, as cost confusion abounds even among today's defined contribution[5] plans. While many have cited the administrative costs of employment-based plans as a model for costs under an IA system, such comparisons are tenuous for several reasons.

First, costs vary significantly across employment-based plans. While the General Accounting Office (1996) reports that administrative fees per defined contribution plan participant averaged $103 in 1993,[6] Hustead's data (1998) suggest that there is enormous variance in expenses across employers.[7]

Administrative costs vary for many reasons, some of which are predictable, such as differences in plan design and employer size. However, they also vary for less understood reasons. Service providers have hundreds of administrative fees, and each vendor charges differently (DOL 1998; (k)la 1997). In fact, investment fees, which are the primary administrative costs for 401(k) plans ((k)la 1997), vary up to threefold across vendors ((k)la 1997) and are seldom understood by either plan sponsors or participants (Department of Labor, 1998). A second source of uncertainty that pertains to IA cost predictions is that actual plan operation costs for employment-based defined contribution plans are difficult to disentangle from expenses resulting

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[5] *Defined contribution plans provide a tax-favored vehicle through which savings can accumulate for retirement and/or other purposes. In the majority of defined contribution plans, account contributions are placed in individual accounts according to a predetermined formula. Individual benefits are equal to account contributions and investment returns thereon (Allen et al., 1997). 401(k) plans are a type of defined contribution plan in which employees defer a portion of their cash compensation into the savings account on a voluntary basis.*

[6] *Average administrative fees (fees for accounting, contract administration, investment advice and management, legal services, valuations/appraisals, and trustee services) per participant for single employers sponsoring defined contribution plans only and who reported those fees to the Internal Revenue Service (IRS) on Form 5500 (U.S. General Accounting Office, October 1996, p. 34).*

[7] *It is a testament to the complicated nature of administrative costs for defined contribution plans that dollar cost data from these two sources are not directly comparable. For example, Hustead found that annual costs per participant averaged $49 (excluding investment fees) for firms with 10,000 workers but $287 per plan participant for firms with 15 workers. These numbers are larger than they would otherwise be if they were computed instead from data provided by a firm that performed both administrative and investment services. The data that Hustead uses were from the Hay Group, exclusively an administrative services firm. Because the Hay Group does not also manage defined contribution investments, it cannot cross-subsidize its administrative expenses with investment expenses. On the other hand, the data the GAO reports are tabulated from Form 5500 reports. Many of the corporations reporting on the Form 5500 use firms that provide both administrative and investment services for defined contribution plans. Therefore, they use firms that can explicitly charge lower administrative expenses, because they receive investment fees that cross-subsidize administrative costs.*

Table 1.1
**Key Sources of Uncertainty for Assessing Feasibility And Costs for Social Security Individual Accounts**

- Reform plans are vague about key administrative features.
- Existing defined contribution plan administrative fees are not well understood.
- How administrative data from existing defined contribution plans applies to individual Social Security accounts is uncertain, because their covered populations differ significantly.

Source: Employee Benefit Research Institute.

Table 1.2
**Thrift Savings Plan Start-Up Costs**

| Start-Up Cost Item | Appropriation |
|---|---|
| Printing | $1,792,000 |
| Design of Software | 1,700,000 |
| Salaries | 1,102,000 |
| Other | 355,178 |
| Consultants | 178,000 |
| Rent | 123,000 |
| Total | $5,250,000 |

Source: Financial Statement of the Thrift Savings Fund (Washington, DC: Arthur Andersen & Co., June 17, 1988).

from government compliance mandates.[8] Finally, even if operational costs could be separated from compliance costs, defined contribution plan data may not be useful for estimating administrative costs for IAs, as the employer and employee populations covered under the voluntary employment-based system differ meaningfully from those covered by Social Security (see table 1.1).

The importance of administrative uncertainties in assessing the viability of IA policy objectives is becoming increasingly recognized. For instance, the House Ways and Means Subcommittee on Social Security held a public hearing in June 1998 on administrative implementation issues. In addition, reform plans are finally beginning to mention administrative operations. The plan recommended by the National Commission on Retirement Policy (NCRP) in May 1998 specifies that funds should be credited to personal accounts without imposing additional administrative burdens on employers. Other proposals, like those proposed by Rep. John Porter (R-IL), Rep. Pete Sessions (R-TX), and Sen. Daniel Patrick Moynihan (D-NY), explicitly mandate employers' role in administration.[9] Unfortunately, reform proposals are still generally limited in their attention to administrative specifics.

## ■ Start-Up Costs & Time Frame

Two important points of administrative uncertainty are the cost of establishing an IA system and the required time frame, both of which depend largely on the type of system designed. For example, start-up time for the TSP, a relatively simple account system with limited participant services, took about three years from the passage of the law to plan implementation. (See Appendix 2 for an overview of the TSP.) In addition, the TSP's start-up costs were relatively low, totaling about $5 per participant during the first year of plan operation. These charges were not assessed to participants, because they were funded with an initial congressional appropriation of $5,250,000. Table 1.2 shows how start-up costs were allocated.

If one simply assumes that per participant expenses for IAs would equal those of the TSP plan, then the $5,250,000 start-up cost for TSP in 1987 would amount to $1.08 billion for IAs in 1998. This amount seems relatively modest when compared with the on-line budget surpluses projected by the Congressional Budget Office (chart 1.1).

Unfortunately, for reasons that will be discussed in this report, it is highly questionable whether a system of IAs would resemble the TSP in terms of cost or design. For one, start-up costs could be different because the work force and employers covered by Social Security are substantially different from those covered by the TSP.[10] In addition,

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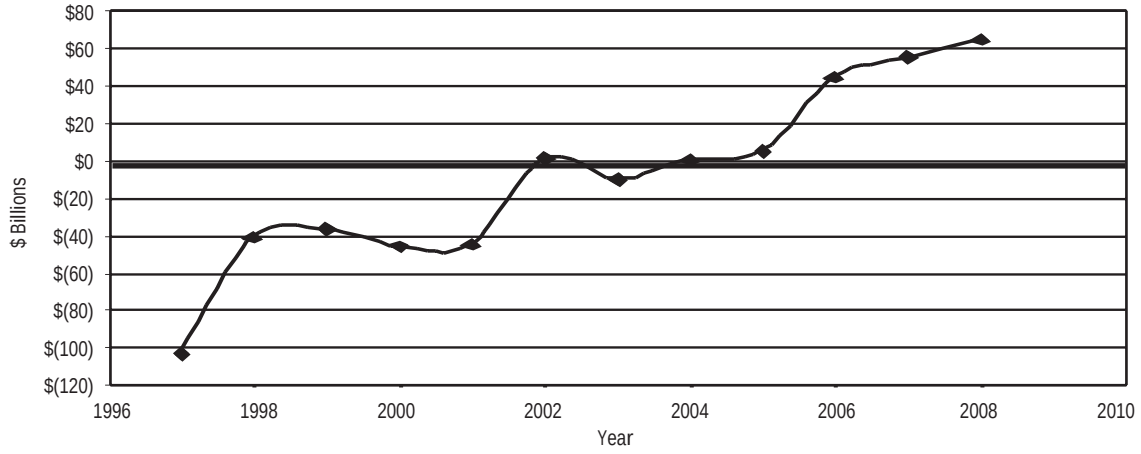
[8] *Employers must perform tests and paper work, generally on an annual basis, demonstrating compliance with laws and regulations, most of which involve proving that the employer's plan does not illegally discriminate in favor of highly compensated employees (Allen et al., 1997). For information about regulation possibilities under an IA system, refer to section "How Would Accounts Be Regulated?"*

[9] *See footnotes 30, 31, and 32 for more detail.*

[10] *For a discussion, see the section on "Which Workers Are Covered Affects Cost and Complexity."*

Chart 1.1
**Projected On-Line[a] Budget Deficit or Surplus, 1997–2008**




Source: Congressional Budget Office, *The Economic and Budget Outlook, An Update, August 1998* (Washington, DC: Government Printing Office, 1998).
[a]"On-line" budget items include all federal budget activities except Social Security and the U.S. Postal Service.

Social Security's start-up environment would differ from that of the TSP. Development of extensive information systems for IA administration might be difficult if "Y2K" (Year 2000) computer programming problems presented delays, or if the aftermath of Y2K caused a shortfall in technology professionals.[11]

Second, start-up costs for Social Security accounts could have different effects on beneficiaries. Rather than being like the TSP's start-up costs, and funded through an up-front congressional appropriation, start-up costs for IAs could be amortized over time. And, instead of being absorbed by the federal budget, they could be charged to participants. Amortization of IA start-up charges to participants would disproportionately affect those with the fewest years to accumulate account assets. Hence, as a whole, start-up costs are a very significant issue in term of fairness, feasibility, and realistic time and service expectations for the beginning of an IA system.

## ■ Initial Costs

Like start-up costs, the issue of how initial administrative costs would affect IA balances deserves considerable study. If initial administrative costs were very high, it would be important to design a policy that insulates small IA balances from erosion during the early years of system operation. But over time, administrative fees might be expected to fall: Flat administrative fees as a percentage of account balances would decline as account balances grow. In addition, both flat and percentage-based fees might fall below their initial levels as an IA system becomes more efficient. Efficiency could evolve as the system matures, by developing optimal administrative practices and achieving economies of scale.

## ■ Ongoing Costs

Though start-up and initial costs raise important issues that need additional study, this *Issue Brief* focuses on providing an overview of long-range, ongoing administrative issues. First, key administrative questions and limitations are discussed, revealing a recurrent theme of uncertainty in predicting ongoing administrative feasibility and costs. To assess the implications of such uncertainty for individual account benefits, the EBRI-SSASIM2 Policy Simulation Model is used to calculate benefits over a range of administrative cost

[11] *"Government Management, Information and Technology estimates that some of the largest U.S. agencies, including the Department of Transportation, State, Energy, and Health and Human Services, won't fix the year 2000 problem until 2004" (Qualified Plan Alert, 1998).*

Table 1.3
**Standard Administrative Costs Usually Associated With Defined Contribution Plans**

1. Enrolling new beneficiaries.
2. Calculating required contributions.
3. Sending contributions to accounts.
4. Providing investment education.
5. Overseeing participant investment selection and fund transfers.
6. Managing funds.
7. Sending periodic account statements to participants.
8. Identifying mistakes.
9. Calculating losses incurred as a result of mistakes and compensating participants for financial losses due to those errors.
10. Documenting compliance with laws and regulations.
11. Processing benefit claims.
12. Purchasing annuities.

Source: Employee Benefit Research Institute.

assumptions. Our estimates are calculated by assuming that a high-cost plan would cost 2 percent of account assets per year, while a low-cost plan would cost one-tenth of a percent (0.1 percent) per year. While this is a very wide range, the myriad of uncertainties involved with administrative costs means that actual costs could prove higher or lower than these ratios. The EBRI data indicate that individual account benefits would be highly sensitive to administrative costs (see section on "Estimating the Boundaries of Uncertainty").

## Standard Ongoing Administrative Costs

Ongoing administrative costs usually associated with any kind of individual accounts include the following functions: enrolling new participants, calculating required contributions, sending contributions to accounts, providing investment education, overseeing participant investment selection and fund transfers, managing funds, and sending periodic account statements to participants. In addition, administration involves identifying mistakes, calculating losses incurred as a result of mistakes, and compensating participants for financial losses due to errors. Another layer of cost involves documenting activities as proof of compliance with applicable laws and regulations. Administrative costs surrounding benefit distribution involve processing benefit claims, such as for account access upon retirement, job termination, death, or divorce. Participants using their account balances to purchase life annuities upon retirement incur further administrative expenses[12] (table 1.3).

## Individual Accounts Mean Additional Ongoing Administrative Expense

Adding a system of IAs to the current Social Security program would require a largely separate administrative set-up, because most of the tasks listed above are not part of administering today's payroll tax collection or wage crediting system. Therefore, adding IAs to Social Security would increase absolute administrative expenses.

As an option to circumvent additional costs, reducing benefit levels under the current defined benefit[13] system is unlikely to be effective. The administrative cost of today's program is primarily a function of the number of participants and employers involved, rather than of the generosity of Social Security benefits. For instance, whether the average defined benefit is $750 or $400 a month will not affect the administrative cost of sending just as many benefit checks or of reconciling

[12] *Life annuities provide a payment on a periodic basis for the life of the participant and possibly his or her spouse.*

[13] *A defined benefit plan is a retirement plan in which benefits are calculated according to a formula or rule. Benefit levels, as determined by the formula used, are guaranteed as a stated retirement income commencing at a specified age. Retirement benefits are usually expressed as a life annuity (Allen et al., 1997).*

Table 1.4

**Administrative Task Matrix Options: Responsibilities for Contributions, Crediting, Reporting, and Education Tasks Under Individual Social Security Accounts**

| Task | Government | Employers | Individuals |
|---|---|---|---|
| Enrollment | Through Social Security number issuance. | Through employers upon beginning work. | By individual communication to government or employer. |
| Calculating and Sending Required Contributions | Government refunds or tax credits.<br>• How often?<br>• If "earnings sharing"[a] between spouses, how does government keep records accurate? | Employer payroll deductions.<br>• How often?<br>• Cash, check, electronic?<br>• Float period?<br>• If "earnings sharing" [a] between spouses, how are records kept accurate? | Individual contributions.<br>• How often?<br>• Cash, check?<br>• Float period?<br>• If "earnings sharing" [a] between spouses, how are records kept accurate? |
| Contributions Sent to | Private-sector providers, employer DC plan, or government-held accounts. | Government clearinghouse, employer DC plan, or private-sector providers. | Government clearinghouse or private-sector providers. |
| Holding Individual Accounts | Government-held accounts or private-sector institution. | Government-held accounts, employer's DC plan, or other private-sector institution. | Government-held accounts or private-sector institution. |
| Managing Funds | Whether held by government or by private institutions, investment presumably would be in the private sector, through contract or individual choice. | Wherever held, investment presumably would be in the private sector through the employer's DC plan, contract with government, or individual choice. | Wherever held, investment presumably would be in the private sector through contract with government or individual choice. |
| Reporting That Contributions Were Sent to the Government | If government surplus or tax refund, internal government reporting. | Employer reports to government.<br>• How often?<br>• In what form and to which agencies? | Individuals report to government and/or private service provider reports to government.<br>• How often?<br>• In what form and to which agencies? |
| Reporting Calculations and That Contributions Were Sent to Individuals | Government reports to individuals.<br>• How often? | Employer reports to individuals.<br>• How often? | Private service provider reports to individuals.<br>• How often? |
| Participant Investment Selection and Fund Transfers, If Permitted | Individuals report their choices directly or through employers to government-held accounts; copies possibly sent to government.<br>• How often permitted?<br>• Through what means? (telephone; 1040; W-2; on-line, etc.) | Individuals report their choices directly or through employers to government-held accounts, employer's DC plan, or other private-sector institution; copies possibly sent to government.<br>• How often permitted?<br>• Through what means? (telephone; 1040; W-2; on-line, etc.) | Individuals report their choices directly or through employers to government-held accounts, employer's DC plan, or other private-sector institution; copies possibly sent to government.<br>• How often permitted?<br>• Through what means? (telephone; 1040; W-2; on-line, etc.) |
| Sending Periodic Account Statements to Participants | Government.<br>• How are nonactive individuals kept track of? | Employer through DC plan.<br>• How are nonactive individuals kept track of? | Private-sector provider.<br>• How are nonactive individuals kept track of? |
| Identifying Mistakes | Individuals and Government. | Individuals and employer with government oversight via verification of contributions. | Individuals and private-sector provider with government oversight via verification of contributions. |
| Calculating Losses Incurred as a Result of Mistakes and Compensating Participants | Government assumes all responsibility; possibly through a PBGC[b]-type insurance entity supported through contributions or payroll taxes. | Employer with government oversight; possibly employers or individuals would contribute to a PBGC[b]-type insurance entity. | Private-sector provider with government oversight; possibly private providers or individuals would contribute to a PBGC[b]-type insurance entity. |

(continued)

Table 1.4 (continued)

| Task | Government | Employers | Individuals |
|---|---|---|---|
| Providing Ongoing Investment Education | Government responsibility; differentiate ongoing education from initial start-up?<br>• How would government communicate investment prospectuses or other information on an elementary level?<br>• What kind of fiduciary liabilities would be created? | Employer responsibility; differentiate ongoing education from initial start-up?<br>• Would government educate employers about avoiding liability? How?<br>• What kind of fiduciary liabilities would be created? | To what extent would individuals be responsible for educating themselves, and private service providers be responsible for providing educational services and material? |
| Processing Distributions | Government processing.<br>Would preretirement distribution be permitted (e.g., rollovers into other qualified plans)? | Employer processing.<br>Would preretirement distribution be permitted (e.g., rollovers into other qualified plans)? | Private entity processing.<br>Would preretirement distribution be permitted (e.g., rollovers into other qualified plans)? |

Source: Employee Benefit Research Institute.
[a] Earnings sharing under a defined contribution system, as defined here, is when the monies due for individual account contribution from each working member of a married couple are summed and deposited in equal shares between the husband's and wife's individual Social Security accounts at the same time. (Theoretically, the term "earnings sharing" could apply to any amount of cross-subsidization of individual accounts from one spouse to another, whether account contributions were equally divided or not.)
[b] Pension Benefit Guaranty Corporation.

administrative errors committed by the same number of employers.[14] Hence, even if IAs alone were to entail administrative costs proportionate with those of Social Security today (0.6 percent of annual benefits paid, or about $14 per covered worker),[15] adding IAs to the program would increase total administrative expenses simply because IAs have their own set of administrative tasks.

Even tasks required for *both* the traditional (defined benefit) Social Security system and for new (defined contribution) IAs could increase costs. For example, benefit claims would need to be processed separately for each system. Other possibilities include separate benefit statements for each part of the Social Security system; contribution arrangement differences between traditional payroll taxes and IA contributions; and enrollment practice variation for the defined benefit versus IA systems.

## How Much Expense Depends Largely on Policy Design

The magnitude of the additional costs for administering two fairly distinct Social Security systems is highly dependent on how IAs are designed. Design details vary across reform plans, to the extent that they have been presented at all. Table 1.4 shows a matrix of possible responsibilities for major administrative tasks and some of the questions they raise. Hundreds of combinations of these responsibilities are possible for any actual IA system. The following section discusses some of the most critical administrative cost questions raised in this matrix and explores many possible answers and implications in the context of the current Social Security debate.

***Who Holds and Provides Record Keeping for Accounts?***—One mutual fund industry expert observes that "the most important determinant of administrative costs boils down to one question: who does the record keeping?" (Dickson, 1998). At one end of the spectrum, the "Individual Accounts Plan" proposed by two members of the 1994–96 Social Security Advisory Council would give the federal government sole responsibility for administering IAs, including the provision of mandatory annuities at retirement (Social Security Advisory Council, 1997). Similarly, legislation introduced by Rep. Thomas Petri (R-WI) in June 1998 would establish a central government clearinghouse to

[14] *See section on "What Businesses Participate?" for a discussion of employer errors under the current system.*

[15] *The Old-Age and Survivor Insurance program (OASI) has an annual administrative expense equal to 0.6 percent of benefits paid. The Disability Insurance program (DI) has a higher administrative expense rate of 2.7 percent of benefits. The combined OASDI program operates with total administrative costs equal to 0.9 percent of benefits paid annually (Board of Trustees, 1998, Table IIC1, p. 38).*

serve as IA record keeper.[16] Likewise, NCRP, which has devoted more attention to administrative issues than possibly any reform group to date, recommended that "the burdens of record-keeping for each individual [account] be assumed by a bureau within Social Security" (National Commission on Retirement Policy, 1998, p. 12). The NCRP plan also would assign this bureau responsibility for enforcing limits on size and timing of withdrawals from IAs.

Other reform groups rejected the concept of delegating most record-keeping duties to the government. For example, the Committee for Economic Development (CED) recommended that "no new government bureaucracy" be created in reforming Social Security and warned of political implications for government-held accounts. Their report admonished: "Even if assets are credited to the accounts of individuals, it would be difficult to insulate them from government influence of budgetary juggling."[17] Similarly, members of the 1994–1996 Advisory Council supporting the "Personal Security Accounts Plan" (PSA) recommended managing IAs through private institutions. In addition to rejecting the idea of government as record keeper for IAs, the creators of these plans discarded the idea of government as sole provider of mandatory annuities. Several legislators, including Rep. Mark Sanford (R-SC) who sponsored the 1997 "Personal Retirement Accounts Plan,"[18] also rejected it.

Still others have suggested a combination of public and private approaches. Healey (1998, p. 2) proposed delegating at least part of IA administration to a quasi-public agency. Quasi-public corporations are private corporations with a special franchise granted to them by Congress in return for an obligation to provide specified services to a public policy sector.[19] Some quasi-public corporations, by design, function in areas where the private sector cannot operate profitably or is deemed to operate ineffectively. How a quasi-public organization assigned to administer Social Security IAs would be structured or function has not been explored.

This vast range of choices for IA record keeper(s) creates uncertainty about which system might be enacted into law. Yet another uncertainty is how each player would perform if assigned the role—or part of the role—of record keeper. Having the government provide administrative services for IAs could facilitate efficiency by centralizing the process and providing economies of scale, but would the government become bureaucratic and slow to assimilate new advances in cost-saving technologies? On the other hand, would competition among private vendors lower administrative service costs, or would competition[20] only increase marketing costs and thereby add to administrative expenses?[21] Moreover, how would regulations imposed by the government on any individual account system—private or public—add to administrative burdens? (Heller, 1998)[22]

***How Are Account Contributions Made and Investments Credited to Individual Accounts?***—Yet another issue clouding estimation of IA administrative costs is that most proposals

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[16] *H.R. 4076.*

[17] *See Committee for Economic Development (1997). The committee refers as an example to the time when Congress refused to raise the federal debt limit. In order to avoid default on the nation's debt, Treasury Secretary Robert Rubin delayed interest payments and withdrew funds from the accounts of federal workers participating in the Thrift Savings Plan.*

[18] *H.R. 2782, The Strengthening Social Security Act of 1997.*

[19] *Typically, these are public service entities such as water or power authorities or specialized insurance or financial corporations. Examples include the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae). Some of these organizations operate without subsidies and offer publicly traded securities while maintaining their special status and franchise under the law.*

[20] *For a discussion, see McGough, 1998.*

[21] *For example, individual account marketing expenses have been of concern in the Chilean Social Security system (Shah, 1997).*

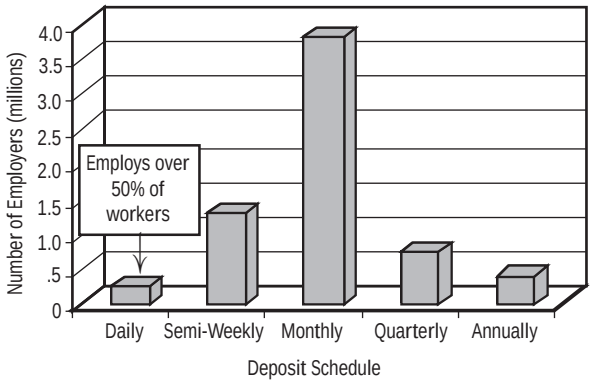
[22] *One reporter writes, "Some experts wonder if the [financial services] industry could profitably manage millions of individual accounts that would see less than $500 a year in contributions, yet probably carry major reporting requirements and substantial regulatory oversight" (Hansard, 1998). For more on regulatory concerns, see the section on "How Would Accounts Be Regulated?"*

are unclear on a number of points that, when eventually detailed, could create large disparities in administrative expenses between ostensibly similar reform proposals. Of the few groups that address how contributions would be deposited into IAs, the NCRP recommends "working within the current payroll tax structure." Others recommend increasing employer responsibilities, as has been done overseas (Harris, 1998; The Heritage Foundation, 1997). Still others reject both approaches and prefer an individual approach based on an individual retirement account (IRA) contribution model. IA contributions could also be deposited directly by the government through general revenues (e.g., tax surpluses). Each type of approach will be discussed in turn.

*The Current Payroll Tax Structure*—The overwhelming majority of U.S. employers send payroll taxes for all of their employees, along with federal income taxes, in regularly scheduled[23] lump-sum payments to Federal Reserve Banks or other authorized institutions (chart 1.2). Quarterly, via the Form 941,[24] employers report to the IRS the amounts they have sent on aggregate.[25] Employers currently must reconcile only at the beginning of the year how much of the aggregate payroll and federal tax contribution from the previous year was paid on behalf of each employee (through the Form W-2). (See chart 1.3.)

These infrequent (i.e., annual) reporting practices mean that it can take a year or more for some payroll taxes paid on behalf an individual employee to be *identifiable* as such. (Because employer tax payments are reconciled once each year, this delay is not the same for all tax payments; a December payment, for instance, is generally identifiable within a month after payment, whereas a January payment waits about a year.) Moreover, it takes several months after payroll tax contributions are identified as being paid on behalf of individuals for the SSA to post the attendant work credits to individual Social Security earnings records. (See chart 1.3.) The time lag is even longer for the approximately 14 million self-employed workers in the United States (U.S. Department of Commerce, 1997), for whom it can take up to 16–22 months before the aggregate taxes they have sent over the year can be separated into payroll taxes and federal income taxes.[26]

Chart 1.2
**Employers by Wage and Tax Deposit Schedule, 1997**




Source: Unpublished data, Social Security Administration, 1998.

The implication for an IA system that uses the current tax collection and wage crediting system is that it would take at least 7–22 months for every dollar contributed to the individuals' accounts during a calendar year to be sorted out in terms of individual ownership. That is, it would take that long for contributions to be sorted from the aggregate taxes that employers send to the government over the year and actually deposited into workers' IAs. This lag, or "float period,"

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*[23] Both employee contributions and employer matching contributions are sent together in one lump sum periodically. Periodic payments for the overwhelming majority of employers are made on a semiweekly or monthly schedule, depending on the employer's employment and income tax withholdings for a 12-month look-back period. Actual deposit schedules are based on both determination of deposit schedule and the employer's payroll period (Internal Revenue Service, 1998).*

*[24] Certain employer groups, such as farmers, send alternative forms, while the majority of employers send Form 941 Quarterly Tax Returns.*

*[25] Only employers who withhold federal income tax from employee compensation and are subject to withholding and payment of Social Security and/or Medicare taxes are required to file Form 941 (O'Toole, 1998). For a list of the very few exceptions that apply, see O'Toole, 1998, pp. 8-21–8-22.*

*[26] Self-employed workers send W-2 type information on their individual tax returns in April, generally. Sometimes, an extension to October is granted.*

Chart 1.3

**Administration of the Current Social Security System: Wage Collection and Crediting Process**

***Year #1***

Department of Treasury receives aggregate federal income tax (including FICA) contributions from employers (no breakdown of contributions on behalf of individual employees) over the year, generally on a semi-monthly or monthly basis. Funds are deposited and held in Federal Reserve Banks or other authorized institutions.

Department of Treasury reconciles employer's Quarterly Federal Tax Returns (reported deposits) with actual aggregate tax deposits made by employer over the year on an ongoing basis.

*Department of Treasury*

*Employers*

Jan. (1) | Feb. (2) | Mar. (3) | Apr. (4) | May (5) | June (6) | July (7) | Aug. (8) | Sept. (9) | Oct. (10) | Nov. (11) | Dec. (12)

Quarterly Federal Tax Return sent to Internal Revenue Service (IRS) for Year 1.

Quarterly Federal Tax Return sent to IRS for Year 1.

Quarterly Federal Tax Return sent to IRS for Year 1.

*Employers send tax deposits to Department of Treasury with no breakdown of contributions on behalf of individual employees, generally on a semi-monthly or monthly basis over the entire year.*

***Year #2***

*SSA and the IRS verify reports, work with employers on correcting errors, and SSA posts correct data to earnings records.*

*Social Security Administration (SSA)*

SSA begins receiving and preparing W-2/W-3 reports.

SSA begins processing paper reports.

SSA begins processing magnetic reports.

SSA begins mailing notices about unverified SSNs and names.

SSA receives quarterly tax return data from IRS and IRS receives W-2 data from SSA. Agencies compare data and begin reconciliations.

SSA begins mailing notices about unverified discrepancies in reconciling.

98 percent of magnetic reports are fully processed by July 30, and most U.S. workers are credited with earnings from Year 1.

98.5 percent of both paper and magnetic reports from Year 1 are fully processed, with most U.S. workers credited with earnings from Year 1.

Missing reconciliation cases from Year 1 are identified and notices are mailed by SSA.

*Employers*

Jan. (13) | Feb. (14) | Mar. (15) | Apr. (16) | May (17) | June (18) | July (19) | Aug. (20) | Sept. (21) | Oct. (22) | Nov. (23) | Dec. (24)

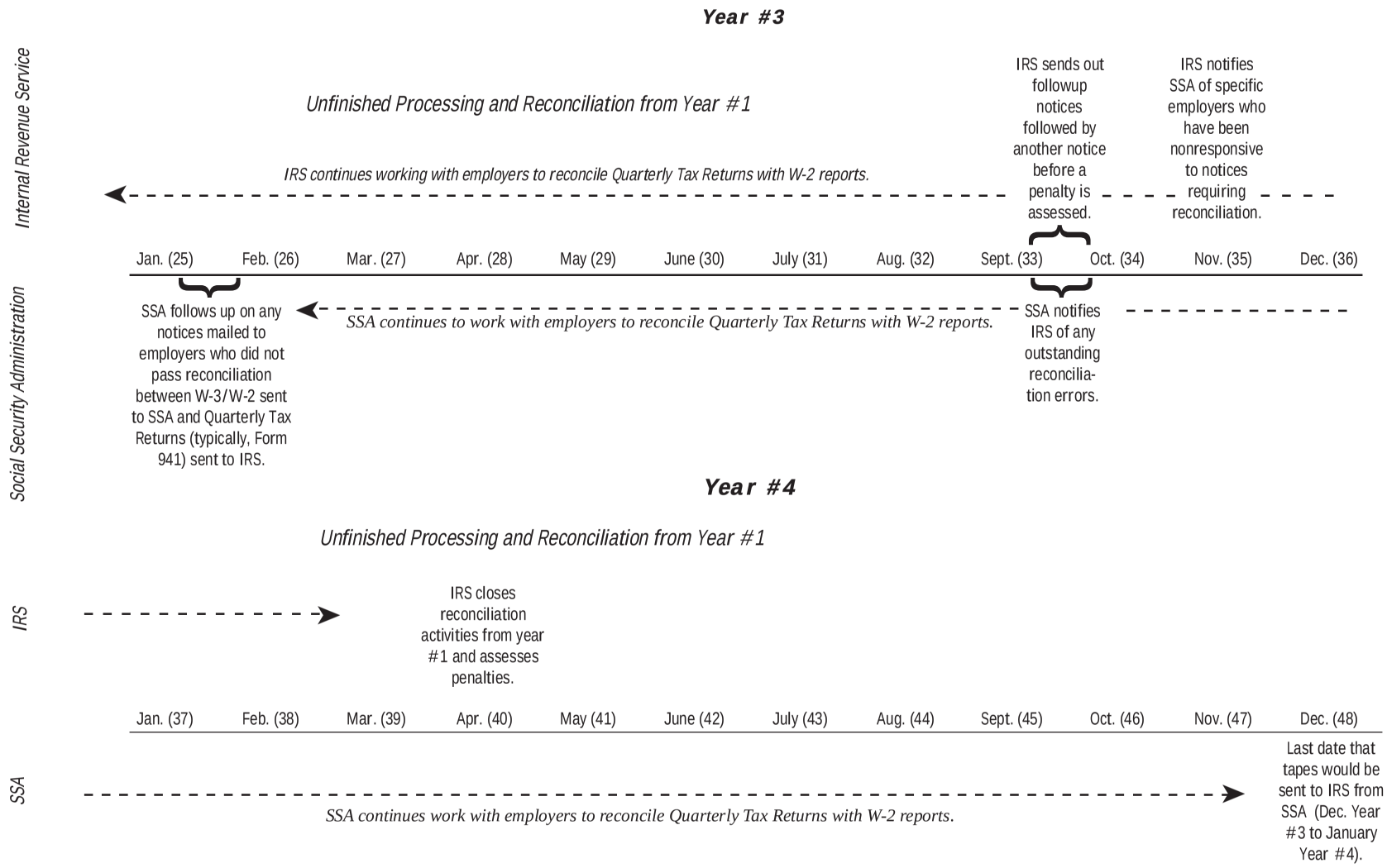
Employers submit W-2/W-3 forms by Mar. 2 (in 1998) reporting what portion of aggregate FICA contributions paid to Treasury in Year 1 were on behalf of each employee (see 3). ALSO: 4th Quarter Federal Tax Return sent to IRS for Year 1.

Most self-employed persons send individual tax returns to IRS.

SSA receives tapes from IRS to post wages for self-employment earnings and earnings from domestic employment.

*Employers assist SSA and IRS in making any necessary corrections.*

Chart 1.3 (continued)




Source: Employee Benefit Research Institute.

Table 1.5
**Periodicity In Contributions and Interest Earnings Affects Benefits**

| Time (End of Month) | Monthly Contribution Schedule | Quarterly Contribution Schedule | Annual Contribution Schedule[a] |
|---|---|---|---|
| Month 13 | $1,346 | $1,339 | $1,207 |
| Month 25 | 2,683 | 2,668 | 2,501 |
| Month 37 | 4,116 | 4,093 | 3,889 |
| Month 49 | 5,653 | 5,621 | 5,377 |
| Month 481 | 262,481 | 260,966 | 254,166 |

Source: Employee Benefit Research Institute tabulations.
[a]Total annual deposits of $1,200; assumed rate of return of 7 percent.

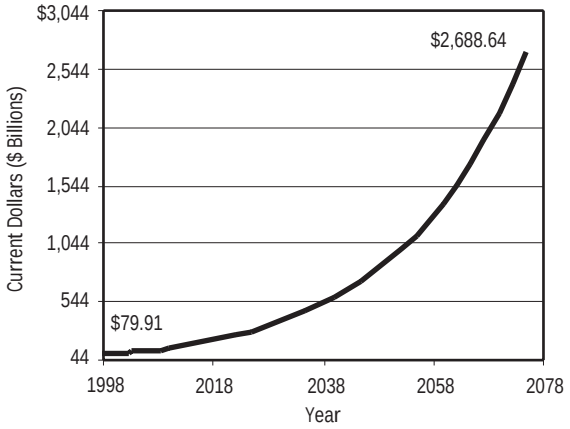
between contributions and credits (known as Type 1) does not affect benefits under the current system, because benefits are based on wage credits (a defined benefit) rather than cash contributions and/or investment returns thereon (a defined contribution). In the absence of special provisions, investment earnings would be lost on each dollar of payroll contribution for 7–22 months if the current payroll tax collection system was used to administer IAs.

There are two possible objections to such long float periods. First, floats could result in substantial losses in IA accumulations due to the nature of compound interest. For instance, assuming identical annual rates of return at 7 percent, a once-a-year deposit schedule of $1,200 would yield $254,166 after 40 years (481 months)—or $8,315 less than what a monthly deposit schedule of $100 per month would provide ($262,481). (See table 1.5.)

If this loss of $8,315 does not seem like a lot over a lifetime, consider that Congress mandated that starting in 1998, all except smaller employers must deposit their payroll and federal income taxes electronically rather than through federal tax deposit (FTD) coupons. Despite significant and ongoing political opposition,[27] Congress passed this rule with the rationale that electronic deposits "will put the deposited amounts in Treasury's account one day earlier than under the paper coupon deposit system," and the amounts will therefore "earn more interest" (O'Toole, 1998, p. 8–11). If Congress overcame political opposition in order to obtain a day's worth of additional investment time, it stands to reason that IA participants might reject the idea of sacrificing many months' worth of investment time.

A second criticism of long float periods is that investment markets might be affected if floats resulted in the accumulation of large amounts of payroll revenue being saved up and sent to individual accounts every 12–18 months or so. Chart 1.4 shows projected annual account contributions from an IA system based on 2 percent of taxable payroll. In 1998 alone, IA contributions would have equaled almost $80 billion. By comparison, the average daily dollar volume traded on the NASDAQ stock exchange in 1996 (the latest year

Chart 1.4
**Estimated Individual Account Contributions (Current Dollars) from a 2 Percent of Taxable Payroll Carve-Out, Based on Trustees' Intermediate Assumptions, 1998–2075**




Source: Employee Benefit Research Institute estimates based on data from 1993–1998 annual reports of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (Baltimore, MD: U.S. Social Security Administration, 1993–1998).

*[27] The penalty for not filing electronically (10 percent of the tax liability) has been delayed at least twice because of opposition from employers.*

available) was just under $13 billion (NASDAQ, 1998). Methods of dealing with float periods of this type under the current payroll tax collection system are discussed in Appendix 1.

A second type of "float period" (Type 2) results from the many mistakes that are made by employers in the process of sending payroll taxes and reporting wages. Losses from these mistakes (including lost investment returns) could be only temporary, while the government works to recover contributions from the employer; or permanent, if contributions are never recovered (e.g., the employer goes bankrupt and no due payroll contributions can be collected). A number of options are available to deal with such float periods, each with its own set of advantages and disadvantages, as detailed in Appendix 1.

*Quarterly W-2s*—If approaches to minimizing or eliminating Type 1 or Type 2 float periods (as detailed in Appendix 1) are unacceptable, then the current wage reporting and tax collection process cannot be used for IA administration. A possible alternative might be to increase the reporting requirements under the current system. For example, employers might be required to report W-2 information along with their quarterly wage and tax statements (Form 941), as was the case prior to 1978.[28] This arrangement would lessen float time between when dollars are contributed and when those contributions are credited to individuals' accounts. In most cases, interest on IAs could accumulate sooner if W-2s were issued on a quarterly basis rather than annually.

The obvious drawback to this approach is the additional cost to employers. Data from the 1972 Senate Select Committee on Small Business lend some insight as to the magnitude of these costs. The chairman of the President's Advisory Council on Management Improvement testified before the committee that eliminating the quarterly wage report in favor of a single annual wage report (Form W-2) would result in "substantial net savings within the Internal Revenue Service and the Social Security Administration" (p. 802) and save small employers[29] alone an estimated $235 million annually (p. 813) (President's Advisory Council on Management, 1972). Adjusted to 1997 dollars, that would amount to about $900 million a year.

Hence, small businesses could be facing a cost increase of roughly $900 million a year under an IA system that required quarterly rather than annual W-2 reports. The administrative expenses for more frequent reports would also impose additional costs on larger employers and the government agencies that process W-2 information. Presumably, employers' additional administrative expenses would be passed onto employees through slower growth in cash compensation, or through fewer benefits (ERISA Industry Committee, 1998, p. 66). Such expenses could also possibly hamper business expansion or establishment, or increase consumer prices.

A second drawback to using the current wage and tax reporting structure is that float periods would still exist with quarterly reports, albeit they would be shorter than with annual reports. Workers might be more amenable to losing this shorter period of investment time, obviating the need to handle Type 1 floats. As shown in table 1.5, the 40-year (481 months) difference in account balances between a quarterly and a monthly deposit schedule is $1,515 on contributions equal to $1,200 per year (at an assumed identical annual rate of return of 7 percent).

A third possible criticism of quarterly W-2 reporting is that workers would continue to expect protection from Type 2 float periods (i.e., those caused by reporting errors), but for all the additional burden put on employers, little might be achieved in terms of error prevention. While quarterly reconciliation might be somewhat easier and less error-prone than annual reconciliation, expert administrators claim it would still be much more difficult to reconcile errors on a quarterly rather than a monthly basis.

*The 401(k) Approach*—A seemingly simple alternative to annual or quarterly wage reporting would be to administer IAs in a manner similar to the way 401(k) plans are operated today. This method is proposed in the Individual Social Security Retire-

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[28] *Prior to 1978, W-2 information was filed on Form 941A of the quarterly 941 reports. Congress acted in order to reduce the inherent administrative burden on employers who had to file several times each year, versus once.*

[29] *Employers with 499 or fewer employees.*

ment Accounts Act of 1997 (H.R. 2929),[30] the Savings Account for Every American Act of 1998 (H.R. 3683), [31] and in the Social Security Solvency Act of 1998 (S. 1792).[32]

With 401(k) plans, employers are required to deposit account contributions soon after contributions are made.[33] However, this requirement would dramatically increase administrative expenses for the millions of employers[34] that do not offer defined contribution plans and therefore do not have the administrative infrastructure already in place to assist in the administration of IAs. In 1996 comments to the Pension and Welfare Benefits Administration (PWBA) regarding a proposal to require the deposit of 401(k) plan funds on the same schedule as tax deposits are made, employers made a very clear distinction between the time and cost involved in paying *aggregate* taxes and the cost involved in crediting funds to *individual* 401(k) accounts (U.S. Department of Labor, 1998, p. 5):

> Tax deposits are made without providing any data regarding the allocation of the deposit amounts to individual employees until the end of the year. By contrast, commenters stated that each time participant contributions are transmitted to the [401(k)] plan, eligibility must be confirmed, contributions must be allocated to the participants' individual accounts, and the individual accounts must be reconciled to the aggregate amount.

Commenters also indicated that those additional tasks would likely be most burdensome for smaller employers that lack timesaving technology.[35, 36]

If IA contributions were administered like 401(k) plans nevertheless, where employers would send monthly contributions is likely to make a difference in terms of float time. If the employers were required to send monthly contributions through a government clearinghouse, [37] some Type 1 float time might remain while deductions from workers' earnings were processed through employer payrolls, through the central clearinghouse, and into individual accounts. Alternatively, Type 1 float periods would be completely eliminated if employers were required to send monthly contributions on behalf of specific employees directly to

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*[30] H.R. 2929, sponsored by Rep. John Porter (R-IL), states that "under such plan, 5 percent of the employee's wages is deducted by the employer and paid to the employee's individual Social Security retirement account within 10 business days after the date of payment of such wages . . . The employer receives no compensation for the cost of administering such plan."*

*[31] H.R. 3683, sponsored by Rep. Pete Sessions (R-TX), states that the employer "makes timely payment of the amount so deducted [from payroll] as a contribution to the designated S.A.F.E. account, and . . . the employer receives no compensation for the cost of administering such program."*

*[32] S. 1792, sponsored by Sens. Daniel Patrick Moynihan (D-NY) and Robert Kerrey (D-NE), states that, "the employer is required to pay the amount so contributed with respect to the specified voluntary investment account of the electing employee within the same time period as other taxes . . . with respect to the wages of such employee . . . under which the employer receives no compensation for the cost of administering such plan."*

*[33] Contributions must generally be credited to individual 401(k) accounts within 15 business days of the beginning of the month following the month in which the contribution was made (U.S. Department of Labor, 1996).*

*[34] There are no widely accepted estimates of the number of employers that offer defined contribution savings plan to their employees. However, since about 37 percent of workers who are offered a defined contribution plan do participate in the plan at any given time (Yakoboski, 1994, p. 48), and the majority of workers are employed by a minority of the approximately 6.5 million U.S. employers (unpublished information, SSA, 1998), it stands to reason that a majority of employers do not offer a defined contribution plan.*

*[35] While a tax break could be provided for smaller employers for additional administrative requirements, these theoretically would not ease total administrative burdens. If financed through general revenues, these costs would be directly transferred to taxpayers (although not necessarily directly to all participants).*

*[36] See section on "Which Businesses Participate?" for a discussion of how small employer technology limitations affect the current wage collection and crediting process.*

*[37] Given the recent hearings on Internal Revenue Service performance, an interesting political debate might develop over whether a government clearinghouse should be operated by the IRS, which would then be responsible for enforcing contribution levels and disseminating amounts to investment providers.*

investment providers, rather than to a single government clearinghouse. However, if employees were free to choose providers, this approach likely would be the most expensive of all contribution and record-keeping schemes and most burdensome for employers.

Costs might also rise, although probably not to the same degree, if employees and employers could opt out of the Social Security system and instead deposit payroll contributions to employment-based defined contribution plans. However, alternative arrangements would need to be made for the majority of employers who do not offer defined contribution plans. In addition, some type of government audit of employer records likely would be required in order to ensure employer compliance.

*The IRA Approach*—Another option for crediting account contributions is modeled on individual retirement accounts (IRAs). Presumably, Type 1 float periods would be eliminated under the IRA approach, as IA contributions would be made on a regular basis directly by individuals to the institution holding their IA.[38] To check for errors (i.e., Type 2 float losses), both the institution and/or the worker could submit proof that the correct amount was contributed at the proper time(s). Presumably, both individuals and their providers would hold records of investment history in case lost contributions needed to be credited or excess contributions needed to be deducted later. It is possible that individuals or service providers would be required to convey copies of this information to the government.

The primary objections to this approach are enforcement concerns. Former IRS Commissioner Fred Goldberg states that relying on individuals to make IA contributions directly "wouldn't work."[39] Still other commentators suspect that such an approach would be far more expensive than other administrative options. Additional expense would result because of the economies of scale and bargaining power that centralized plans have relative to individual plans for negotiating investment and management fees (Cavanaugh, 1998; Schultz 1998).[40]

*General Revenue Funding*—Some plans propose funding accounts through government tax credits or refunds, say, through federal budget surpluses (for example, H.R. 3456[41] and S. 2369[42]). It remains unclear what would happen to account contributions after any surplus runs out, or if a budget surplus large enough to fund 148 million IAs never materializes. Nevertheless, IA account contributions could come from general revenues whether or not there is a surplus. The government could agree to pay workers' accounts a flat amount or an earnings-based contribution on a periodic basis.

Such a general revenue-funded system likely would require more data on a more frequent basis than currently is collected by the government in order to determine contributions. For example, would only workers receive contributions, as opposed to all U.S. nonretired residents? How would "nonretired" be defined? Or would the system cover only workers above a certain earnings threshold? Would the government's contribution amount be flat or based on earnings? If based on earnings, would it be weekly, monthly, or annual earnings? Anything more specific than annual earnings would require record keeping of a worker's earnings at a specific time—information that is not gathered under the current system.

The contribution amount theoretically could be calculated based on annual information (e.g., annual earnings from two years ago to ensure most records had time to be reconciled), but paid in portions on a more frequent basis (e.g., monthly).

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*[38] One idea is to provide taxpayers with a year-end tax credit, which they would have to invest in their Social Security accounts. Since the government would keep the money until this time, a float period would exist between the time when workers paid payroll taxes and when funds became available for investment.*

*[39] Unwritten statement made on Sept. 29, 1998, at a meeting of the Retirement Security Network, Washington, DC, Rayburn House Office Building.*

*[40] Another means of getting contributions from employees to individual accounts is to create a work force that acts as intermediaries, as is the case in Chile. There, individual workers interact with collection agents directly to transmit funds.*

*[41] H.R.3456, the Personal Retirement Savings Account Act of 1998, sponsored by Rep. John Kasich (R-OH).*

*[42] S. 2369, the Personal Retirement Accounts Act of 1998, sponsored by Sen. William Roth (R-DE).*

This would eliminate concerns about depositing IA funds into the financial markets all at once. Another advantage is that, since all IA contributions would be paid using general revenues, presumably there would be little need to create a separate contingency reserve for correcting errors discovered many years later. If the IAs permitted investment choice, account holders would need to tell the government where to send contributions. Workers could possibly communicate directly with the fund provider to change investment options. Presumably, automatic options would be selected for workers who fail to choose investment options.

Put simply, general revenue funding would circumvent many practical constraints faced by other contribution schemes. However, a criticism of this approach is that it would involve government spending from general revenues, raising precisely the same political concerns about tax pressures and political risk that prompted proposals for IAs to replace part of the current Social Security system in the first place.

*Earnings Sharing*—Earnings sharing under a defined contribution system, as defined here, is when the monies due for individual account contributions from each working member of a married couple are summed and deposited in equal shares between the husband's and wife's IAs at the same time. (Theoretically, the term "earnings sharing" would apply to any amount of cross-subsidization of individual accounts from one spouse to another, whether account contributions were equally divided or not.) Earnings sharing is offered as a means of simplifying Social Security IA claims at divorce, and of ensuring egalitarian policy outcomes for couples.[43] An example of a proposal that calls for earnings sharing between spouses is that from Laurence Kotlikoff of Boston University (Ekaterina and Spiegler, 1998).

Unfortunately, earnings sharing could multiply IA administrative complexity and costs. First, the government would be brought in to mediate any claims of errors in earnings sharing practices, whether IAs are administered through the current wage and tax collection process, a quarterly process, the 401(k) approach, or the IRA approach. Especially in divorce cases, IA records and record keepers presumably would be subject to court subpoena.

More notably, individual information that is currently not recorded would need to be collected. Although Social Security today pays benefits to spouses and divorced spouses, SSA must only obtain proof of marriage at the time benefits are claimed. But under an individual account system with earnings sharing, the overseeing government agency and the entity directing contributions to IAs would need to have consistently accurate and up-to-date records throughout the life of a marriage in order to correctly direct contributions to both spouses' accounts.

Since more than two million marriages occur each year, along with more than one million divorces and annulments (U.S. Department of Commerce, 1998, p. 105), administrative record keeping for earnings sharing under IAs would be substantial. Depending on the degree of sophistication of the contribution and interest crediting system for IAs, keeping track of marriages and divorces in order to ensure that contributions were credited properly to each spouse's account could literally require tracking every participant's marital status on a month-by-month basis. This would require a technological infrastructure that does not currently exist within the federal government.

Without adequate record keeping on the front end, more mistakes would need to be dealt with retrospectively. Retrospective crediting for missed contributions would presumably be easiest for spouses with existing accounts and investment selections. In those cases involving spouses for whom mandatory IAs were never opened, some type of approach would be needed to credit lost investment earnings.

***How Many Investment Choices and Services?***—*Valuation Periods*—One large determinant of administrative costs under an IA system would be whether participants' account valuation is performed on a daily or periodic basis. Valuation is the process by which investment gains or losses are reflected in account balances. If valuation is daily, then participants' accounts reflect daily changes in market performance. Because valuation is rather

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[43] *Such policies are generally directed at women, who tend to earn less and live longer than men, and spend less time in the work force.*

involved, daily valuation is more expensive than periodic valuation. Pooled assets in each investment fund must be reconciled with market performance. Then, each individual investor's share of that aggregate pool must be identified and communicated to the entity holding the investor's individual account. Such reconciliation, identification, and comparison must be performed for each investment fund that an individual holds in his or her portfolio. To catch any errors in the valuation process, credited values in each shareholder's account are summed in order to compare them to the aggregate value of the investment pool. Any differences indicate errors that must be reconciled.

While periodic valuation saves on administrative costs, participant account balances are current only after immediate valuation, and participants must wait until the next valuation period to see how market performance has changed their account balances, to withdraw account balances at their current value, and/or for the effect of asset allocation transfers to materialize. With daily valuation, balances are always current when participants make account inquiries. For this reason, daily valuation is used by 64 percent of 401(k) plans (IOMA, 1998). Without daily valuation for a system of IAs, political concerns may arise, as suggested by the following statement made recently in IOMA's 401(k) Management Report (1998): "In these times of market volatility . . . forcing employees to stay in a fund they want to get out of is courting a lawsuit" (p. 15). On the other hand, the extent to which daily valuation would increase expenses is largely undetermined.

*Preretirement Access*—Most major Social Security reform proposals prohibit loans and other preretirement access to IA balances (Olsen 1996 and 1998; Appendix 2 of ERIC, 1998). However, even if loans were initially prohibited, loan provisions might be added to IAs over time as a result of political pressure (Heclo, 1998).[44] And the administrative costs for loan provisions could be significant. For instance, average administrative costs per participant in the federal government's TSP grew from $16.64 in 1995 to $20.27 in 1997 (an increase of 21.8 percent), a year after universal-purpose loans were first allowed. In 1997 alone, the TSP administered over 220,854 loan disbursements equaling $1.5 billion for its 2.3 million participants (Federal Retirement Thrift Investment Board, Monthly Activity Reports, April 1998).

If loans were allowed in an individual account Social Security system, a host of questions arise that would affect administrative expense: Are loans allowed for any purpose, or only hardship? Who would serve as gatekeeper? If hardship restrictions or other limits were placed on loans, could participants appeal denials of loan applications? If so, additional administrative burdens would be introduced, as methods for processing appeals would be required. Which government agency would enforce loan repayment for participants who borrow against their IA balances (Reno, 1998)? And what happens if participants default on repayments?

*Other Services and Options*—Unlike prohibitions on preretirement access to IA balances, other design features that will affect administrative costs are left uncertain in the NCRP plan and wholly unaddressed in many other proposals. These are service features such as the frequency of permitted fund transfers between investment options and/or other approved savings plans (i.e., rollovers); access to plan and investment information; and the number of investment options offered. Not surprisingly, analysis of industry data for 401(k) plans indicates that greater services result in greater administrative costs ((k)la, 1997). One mutual fund industry executive who did not want to be identified in this report estimated that a Social Security IA system would require financial services firms to hire over 100,000 new workers in order to provide services similar to those provided for most 401(k) participants.

In contrast, systems with less choice can be less expensive to operate. Although administrative costs for the TSP have risen over time as participant services have been expanded (chart 1.5), TSP still serves as an example of an individual account system with limited services:

- TSP participants are limited to four investment options.

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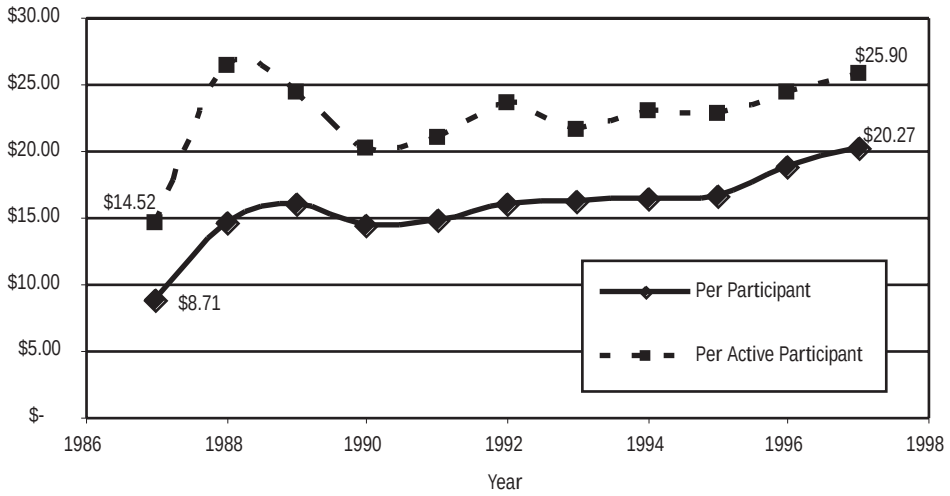
[44] *Heclo (1998) says, "The very advantage claimed for the new system—namely, the political attraction of selling forced savings with the idea that 'it's your money'—will make it more difficult in the long run to sustain such nest eggs for retirement" (p. 5).*

Chart 1.5
**Administrative and Investment[a] Costs ($1997) per Participant, Federal Thrift Savings Plan, 1987–1997**




Source: Employee Benefit Research Institute tabulations from financial statements of the Thrift Savings Fund, 1988–1998 (Washington, DC: Arthur Anderson & Co., 1988–1998).
[a]Includes funds restricted for the purchase of fiduciary insurance. All costs represented on an accrual basis. Revenue is recognized when earned and expenses are recognized when incurred.

- Investment options are limited to index funds.
- Participants are limited to biannual account statements.
- Participants are limited to monthly interfund transfers.

Although these limited-service features reduce costs, they have trade-offs. For example, TSP participants are constrained by monthly interfund transfer rules in their abilities to time investments.[45] (Refer to Appendix 2 for details.)

As a result of service and investment restrictions, the TSP provides fewer transfers per participant than most private plans. The TSP administers 300,000 interfund transfers for approximately 2.3 million participants per year.[46] Plus, the TSP receives about one-sixth the volume of phone calls (under 11,000 calls daily) reported by one major financial services firm (Federal Retirement Thrift Investment Board, Monthly Activity Reports, April 1998). In contrast to the 100,000 new-worker estimate for a private-sector-operated IA system with 401(k)-type services and investment options, a federal TSP expert estimates the government would need 10,000 additional employees to respond to participant inquiries for an IA system with TSP-like services and investment options (Cavanaugh, 1998).

While the increasing use of the Internet is allowing expanded investment choice and services at minimal additional cost,[47] Internet use is not as common or prevalent nationwide as many Washington policymakers may believe. One survey found that fewer than 20 percent of Americans under age 45 had accessed the Internet over a 30-day period in 1997 (table no. 889, U.S. Department of Commerce 1997, p. 566). In addition, one large financial services provider reports that just 12 percent of its customers take advantage of its on-line account inquiry and interfund transfer options (Fidelity,

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[45] *Interfund transfers made by the 15th of the month are credited on the last business day of that month, at the closing price of the investment fund for the last business day of the month. If transfers are made after the 15th of the month (with some exceptions for weekends or holidays), the transfer is not processed until the last business day of the following month. For a discussion, see Causey (1998).*

[46] *Figures are from the end of April 1997 through April 1998.*

[47] *Dickson (1998) states, "Over the Internet [account] inquiry would cost virtually zero."*

Table 1.6
**Average Number of Jobs for Persons Ages 18–32 in 1978-1995**

| Age in 1995 and Gender | Total [a] | 18–22 Years | 23–27 Years | 28–32 Years |
|---|---|---|---|---|
| Total | 8.6 | 4.4 | 3.3 | 2.6 |
| Men | 8.9 | 4.5 | 3.4 | 2.8 |
| Women | 8.3 | 4.3 | 3.1 | 2.4 |

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Number of Jobs, Labor Market Experience, and Earnings Growth: Results From A Longitudinal Survey* (Washington, DC: Department of Labor, 1998).
[a]Jobs that were held in more than one of the five-year age periods were counted in each column but only once in the total column.

1998). Though Internet use is growing, additional services and investment choice will continue to mean significant increases in administrative expenses for the foreseeable future. Moreover, anecdotal evidence suggests that expanded access to inexpensive and easy means of making account inquiries and interfund transfers does not lower overall service costs, since more customers take advantage of the services as a result.

***Which Workers Are Covered Affects Cost and Complexity***—*Employment-Based Individual Accounts*—Hustead (1996) found that average per-participant administrative costs for private defined contribution plans are correlated with firm size. If such a correlation existed for all plans, then a mandatory system of IAs for Social Security would have very low per-participant costs, as Social Security covers nearly 148 million workers. However, the types of economies of scale that appear to contribute to Hustead's results are likely to apply only within the limited universe of workers who are covered by employment-based plans. An important distinguishing feature of the employment-based retirement system is its voluntary nature, resulting in coverage bias. For instance, employment-based retirement plans generally exclude workers who do not meet age, tenure, and hourly work requirements. Such restrictions are prevalent among private-sector, federal, state, and local retirement plans.

Though the unfortunate outcome of participation restrictions is less pension coverage among certain types of workers, some argue that restrictions actually increase overall employment-based pension coverage by making plan sponsorship administratively manageable and cost-effective for employers; otherwise, employers might not offer plans in a voluntary system. Excluding certain types of workers from defined contribution plan eligibility keeps administrative costs relative to plan assets lower than would otherwise be the case. Participation restrictions (especially age) generally limit record keeping to longer-term workers (table 1.6). The more mobile the work force covered by a plan, the more frequently employers have to set up accounts, provide education upon enrollment, and make benefit distributions upon job termination, and the less time employees have to accumulate account balances.

Employees not meeting tenure, hourly work, and/or age requirements tend to have lower earnings than those who meet these criteria. For example, about 75 percent of workers with annual incomes in excess of $30,000 participate in an employment-based plan, compared with one-quarter of those with incomes under $20,000 a year (Employee Benefit Research Institute, 1997). Lower incomes translate into fewer contributions to a defined contribution plan relative to the costs of plan administration.

Restrictions imposed by most mutual funds serve as an example of the direct relationship between the size of account balances and administrative costs. About 90 percent of U.S. mutual funds have minimum investment requirements that effectively suppress the average administrative cost-to-asset ratio (Investment Company Institute, 1998).[48] Nonetheless, minimum investment contributions sometimes take many years before generating enough income for the financial service provider to recoup its start-up costs on the account (Dickson, 1998).[49] As one investment firm president

[48] *Page 25. The largest majority is the 39 percent requiring a minimum investment of between $500 and $1,000. Twenty-four percent require $500 or less to start investing. Lower minimums do not necessarily mean that administrative costs are not significant.*

[49] *Consider someone earning $30,000 under an IA system in which 2 percent of taxable payroll is contributed to IAs annually. "A low-cost mutual fund provider may only charge an average of 0.3% annually, resulting in first-year revenue of just $1.80, which would not even cover the cost of sending account statements. These accounts would take many years before recovering just their start-up costs."*

explains, his company's minimum investment requirement of $250 requires at least $50 monthly deposits thereafter. Even then, he reports, "it takes close to 10 years before the accounts become profitable" to his company (Hansard, 1998).

Interestingly, even the "universal" pension system proposed by the Carter Administration would have had participation restrictions. The plan drawn by the President's Commission on Pension Policy in 1980 allowed employers to restrict participation to workers between the ages of 25–65 with over 1,000 hours of service. At the time this Minimum Universal Pension System (MUPS) was under consideration, workers meeting these criteria comprised just 54 percent of the total work force (Salisbury, 1980).

In summary, participation restrictions that effectively lower administrative costs relative to assets are used in virtually all defined contribution plans. These restrictions generally limit participation to workers with more job tenure, higher ages, greater incomes, and full-time job status. Administering today's defined contribution plans is less expensive and less complex than would otherwise be the case in the absence of eligibility restrictions.

*Social Security Coverage Differs From Employer Coverage*—In contrast to the voluntary, employment-based system, or even MUPS, Social Security coverage is almost universal,[50] and no one has proposed placing participation restrictions on IAs. Unlike a mutual fund or defined contribution plan that can restrict participation to some extent, political constraints would likely result in an IA system that covers either all eligible workers (through a mandatory IA system) or all who wanted to participate (in a voluntary IA system).

As a result, the population covered by IAs would differ substantially from that covered by employment-based retirement plans. For example, IA participants would have lower earnings: In 1996, 46 percent of workers covered by Social Security had annual incomes of $15,000 or less, while only 16 percent of employment-based defined contribution plan participants had incomes under $15,000 in 1993 (the last year for which data are available).[51] Moreover, persons earning less than $15,000 annually accounted for just 8.3 percent of workers with a salary reduction plan (i.e., a 401(k)-type of plan).

Some dismiss the significance of the proportion of Social Security participants with low earnings by arguing that covering low earners is not administratively costly in the long term, as those workers are younger workers and adults in transition who become higher-wage earners later in life. To an extent, they have a point; fewer than 6 percent of full-time, full-period jobholders experience more than 12 months of low wages[52] in a 24-month period (Ryscavage, 1996). However, this 6 percent still amounts to millions of full-time workers who work for prolonged periods at low wages—and it does not count the millions of part-time workers who would have very small account balances if contributions were based on earnings. Moreover, younger workers are not the only ones who earn small amounts. EBRI tabulations of the March 1997 Current Population Survey reveal that among workers earning below $10,000–$15,000 a year a significant proportion were in their peak earning years (chart 1.6). Similarly, using W-2 data recorded by the SSA, Kunkel (1996) found that three-quarters of women ages 35–64 in 1993 reported annual wages of under $18,000. In addition, at least 25 percent of males ages 34–45 in 1993 had earnings of approximately $15,000 or less.

In addition to having lower earnings, the population covered by Social Security IAs would likely be more mobile than those covered by the employment-based retirement system. SSA received over 220 million W-2 reports for just 132 million workers in 1993, suggesting that Social Security covers many workers holding multiple jobs or changing jobs over the course of a year. The fact that 81 percent of workers covered by an employer-sponsored plan have been at their jobs for at least a year, and 48 percent have been there five years or more,[53] suggests that the population covered by

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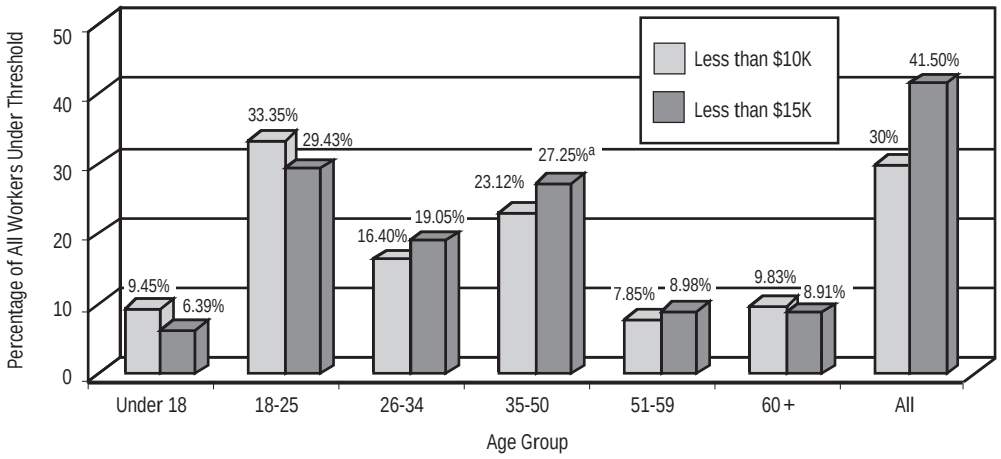
*[50] For a description of workers who are exempt from Social Security participation, see Myers (1993), pp. 33–47.*

*[51] Yakoboski (1994), Table 19, "Salary Reduction Plan Sponsorship and Participation Among Civilian Nonagricultural Wage and Salary Workers Aged 16 and Over, 1988 and 1993," pp. 48–49.*

*[52] Defined as wages equal to or less than $5.70 per hour.*

*[53] Tabulations from table 19, pp. 48–49 in Yakoboski (1994).*

Chart 1.6
**Workers with Annual Earnings Under $10,000 and $15,000, 1997**




Source: Employee Benefit Research Institute tabulations, March 1998 Current Population Survey.
[a]Of all workers earning less than $15,000 in earnings in 1997, 27.25 percent were workers between the ages of 35 and 50.

employment-based retirement plans has lower job turnover. In summary, the 47 percent of workers covered by a retirement plan in 1993[54] are different, on average, from the 96 percent of the work force that Social Security IAs would cover. Social Security includes more young, mobile, low-earning, part-time, and seasonal workers—all the populations that have been traditionally excluded from employment-based plans. Hence, all else equal, employment-based plans are able to achieve lower administrative expenses than Social Security IAs would be able to achieve simply by virtue of the populations covered. As a result, the applicability of direct comparisons between IAs and employment-based retirement plans is tenuous at best.

*Case Example: The Thrift Savings Plan*—The TSP, the largest single operating defined contribution plan with individual investment choice in the United States today, features a very low administrative cost-to-asset ratio and low administrative expenses per participant, relative to other defined contribution plans.[55] It is doubtful that such low administrative expenses per participant could have been obtained if TSP covered the same percentage of part-time, seasonal, multiple-employer, or low-wage earners as does Social Security (table 1.7). On a *proportionate* basis, Social Security covered 1.8 times as many part-time workers as the TSP, almost twice as many workers under age 21, and more than 10 times as many workers with annual earnings of $15,000 or less.

***Which Businesses Participate?***—If employers will be expected to assist in administering IAs, which businesses participate is a policy decision that will affect administrative costs. Just as workers covered by employment-based defined contribution plans are different from the general population (see above), the businesses sponsoring these savings plans also tend to have distinguishing characteristics that lower administrative expenses.

Larger firms are far more likely than small and medium-size firms to offer any kind of voluntary retirement plan, including defined contribution plans (Employee Benefit Research Institute, 1997). By comparison, like Social Secu-

*54 Specifically, the civilian labor force ages 16 and over. 1993 is the latest year for which figures are available. See Yakoboski (1994), p. 22.*

*55 It is extraordinarily difficult to directly compare costs per participant or the administrative cost-to-asset ratios across plans, though anecdotal evidence and repeated testimony from pension experts underscores that the TSP does indeed provide lower administrative costs than other defined contribution plans. For evidence of the difficulty of direct, dollar-for-dollar cross-comparisons, see the sections, "Uncertainties Abound" and "How Much Education and By Whom?"*

Table 1.7
**Comparison of the General U.S. Work Force[a] With Federal Workers[b,c]**

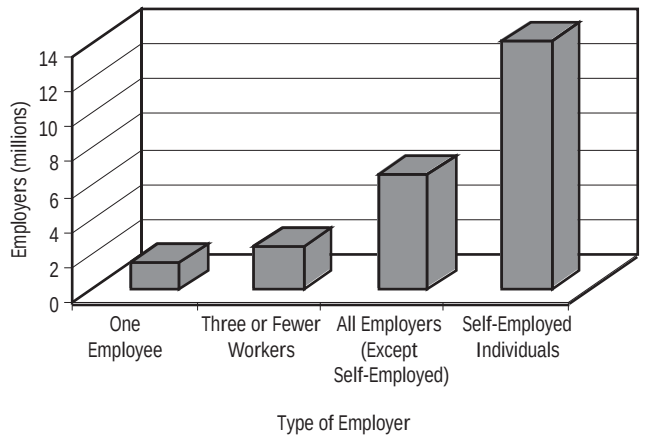
| | General Work Force | Federal Workers |
|---|---|---|
| Part-Time Workers | 20.8% | 7.4%[d] |
| Mean Age | 38.7 | 44.8 |
| Workers Under Age 21 | 10.3% | 3.5% |
| Average Annual Earnings | $26,489 | $43,187 |
| Percentage with 4-Year Degrees or More | 28.5% | 39% |
| Average Length of Service | 4.2 years | 15.9 years |
| Workers With Aggregate Earnings of $15,000 or Less | 41.5% | 3.5% |

Source: Employee Benefit Research Institute tabulations of the 1997 Current Population Survey, 1998. 1997 average earnings and age data for federal workers from Office of Personnel Management (OPM), 1998. Data for 4-year degrees in 1997 from OPM, 1997, and U.S. Department of Commerce, 1998. Average length of service data for 1996 is from OPM, 1998, and EBRI unpublished tabulations from the February 1996 Current Population Survey, 1997.
[a]In 1997, 96.0 percent of paid civilian employees were covered by Social Security (OASDI) (U.S. Congress, 1998.)
[b]Most federal civilian employees participate in either the Federal Employees Retirement System (FERS) or the Civil Service Retirement System (CSRS). In 1996, 49 percent of federal civilian workers participated in the FERS, and 44 percent participated in CSRS. In 1988, 82.9 percent of FERS-covered workers made voluntary salary deferrals to the Thrift Savings Plan (TSP) (Federal Retirement Thrift Investment Board, 1997). The same year, 60 percent of CSRS participants made voluntary salary deferrals. Hence, roughly 68 percent of federal workers participate in the TSP.
[c]Note: Data do not include employees on leave without pay.
[d]Data from the Federal Retirement Thrift Investment Board (1998) indicate that 8 percent of TSP participants were part-time *or* intermittent workers (p. 2).

rity today, universal participation in IAs would affect virtually all employers, including very small ones.[56] For example, 14 million self-employed individuals report wages to SSA; 37 percent of the 6.5 million employers reporting wages to SSA (excluding the self-employed) have three or fewer workers; and 23 percent (1.5 million employers) have only one employee (unpublished data, Social Security Administration, 1998). (See chart 1.7.)

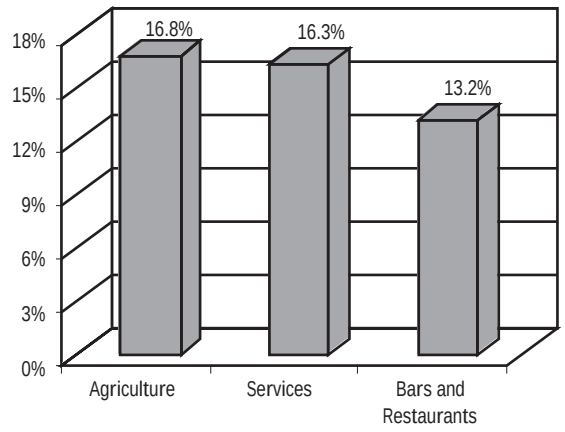
Implications for the cost of an IA system are twofold. First, smaller firms tend to make more administrative mistakes, and second, smaller firms have technological limitations that make processing their wage and tax data more time-consuming, burdensome, and potentially expensive—for small employers and government agencies alike. As a

Chart 1.7
**Number of Employers Reporting W-2 Wage and Tax Statements to the Social Security Administration, 1997**




Source: Unpublished data, Social Security Administration, 1998.

Chart 1.8
**Percentage of All Employer Reporting Errors, by Industry, 1998**




Source: *Social Security Today*, Vol. 3, No. 4 (July/August 1998).

result, an IA system that relies on small employers to help administer it will be slower and more error-prone than if small employers were excluded, all else being equal.

*Accurate Administration*—Firm size is correlated with employer stability.[57] Unlike employers sponsoring defined contribution plans, approximately 10 percent of employers reporting wages to SSA go out of business each year (unpublished data, SSA, 1998). About 3.9 million businesses were estimated to have started up in 1996, while about 1.6 million terminated for various reasons (Dennis, 1997).[58] The SSA reports that employer stability is correlated with accurate, timely administrative record keeping in terms of the quality of wage data sent by employers to the SSA (unpublished data, Social Security Administration, 1998).

Unfortunately, because Social Security covers many small and unstable employers with limited technology, administrative mistakes are routine occurrences in the current wage reporting and tax collection system. For instance, 8 percent of the 223 million reports submitted to Social Security each year are initially inconsistent with employer reports submitted to the IRS, and 5 percent (or 10 million reports) provide information failing to match anyone's Social Security record. Chart 1.8 shows that errors are primarily concentrated in industries with large turnover rates and seasonal employment (i.e., agriculture, bars and restaurants, and services)— the very industries that have the lowest rates of employment-based retirement plan sponsorship (Employee Benefit Research Institute, 1997).

While the SSA is able to reduce the number of reports containing Social Security-related errors to 4 million a year through a variety of internal routines and initiatives, the total number still containing errors is larger than 4 million, since it

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[56] *Almost every kind of employment is required to include participation in the Social Security program (Myers 1993). Some state and local employers who opted out of the program have been allowed to stay out, although many reform proposals would change this (Olsen, 1996).*

[57] *Small businesses comprised a disproportionate share of the 72,000 business failures in 1994 (U.S. Census,* Statistical Abstracts*, table 862). Furthermore, over 90 percent of bankruptcies and failures occur in small businesses (*The White House Conference on Small Business Issue Handbook, 1994*). In 1996, 849,839 small businesses terminated (Small Business Answer Card, 1997 at www.sba.gov/ADVO/stats/answer.html).*

[58] *Most numbers used to assess business turnover focus on businesses that terminate at a loss, but business experts generally believe that such terminations are the minority. The Wells Fargo/NFIB 1998 report states that business start-up and turnover rates are generally underestimated with conventional measures (Dennis, 1997).*

does not include incorrect reports caught in the IRS editing process.[59] SSA or the IRS send discrepancy notices to erring employers,[60] but SSA data show that only about 40 percent of employers respond to SSA notices and just 20 percent of notices result in a corrected wage report.

Some of these mistakes are due to employers going out of business and not submitting required forms, employers believing workers are contractual workers rather than salaried employees, and a myriad of common human errors such as typographical mistakes.[61] For example, every year, some employers mistakenly report only to IRS or SSA rather than (correctly) to both agencies. Or, employers may incorrectly calculate nontaxable compensation as taxable or vice versa.[62]

Considerable government efforts are spent to ensure that employer payroll tax contributions over the year match the sum of their quarterly reports (Form 941); that Form 941 reports match the W-3 Transmittal of Wage and Tax Statement totals; and that W-3 statements match the W-2 Wage and Tax Reports. Of the millions of mistakes made annually, most are resolved within a year after the employer is notified of an error (which can be up to 23 months after the wages in question were earned). However, some errors can remain unresolved for decades, and some are never resolved (chart 1.3). While penalties exist for employers who make mistakes, they typically are imposed only if the employer acts out of "willful negligence" (Internal Revenue Service, 1998).

To protect workers from errors made by their employers, SSA posts earnings credits to participants' records even if their employer has failed to send the attendant taxes, so long as proof of individual earnings is supplied.[63] For example, workers can (and sometimes do) receive wage credits posted to their records today for work done in the 1960s or even earlier. Unless workers are "held harmless" in this way under an IA system, workers could lose significant cash contributions and interest earnings because of employer error or noncompliance.

Benefits under the Social Security system today are exclusively based on credits from past work history, leaving more room for error than a cash-based system (like an IA system) that must account for every dollar. SSA has tolerance thresholds that effectively reduce the number of errors that must be investigated. Employer records are not investigated if there is a discrepancy of one wage credit ($700) or less in 1998 (Myers, 1998) between the IRS Form 941 reports and the Social

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*[59] EBRI staff did not locate IRS estimates as to how many reports continue to contain errors after IRS editing routines are applied.*

*[60] IRS sends copies of its quarterly wage report (Form 941) records to SSA, and SSA exchanges data with the IRS. SSA and IRS use these data to check whether the information the employer reported sending (to a Federal Reserve Bank or other authorized institution) regarding aggregate FICA taxes matches what the employer reports for individual employees on the W-2. If the IRS and W-2 data agree, no further action is needed. If they do not agree (i.e., the case is "discrepant"), one of the agencies investigates the problem. If the total on the IRS' quarterly tax returns is smaller than that reported on the SSA's W-2 form, the IRS investigates. If SSA's W-2 forms have the lower total, SSA investigates—but only if the report is off by more than one work credit.*

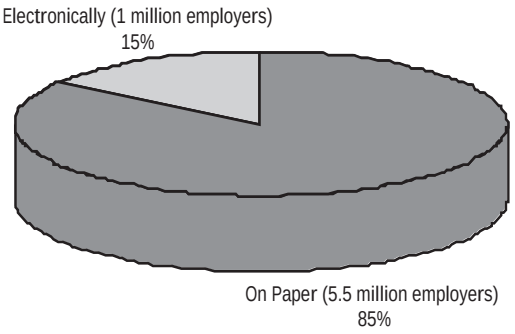
*While the reality of the interaction between agencies and employers is actually more complex, one can theoretically think of SSA as investigating employers that report more on their 941 Forms than on their W-2s to ensure that the Social Security trust funds and workers' earnings records are credited their due. The IRS can be thought of as investigating employers that report more on their W-2s than on their 941 Forms to ensure that the U. S. Department of Treasury has received the contributions it needs from employers to credit the Social Security trust funds with the amount they are due.*

*[61] See "Social Security: Software Specifications and Edits for Annual Wage Reporting–Tax Year 1997" (Baltimore, MD: Social Security Administration, 1997: pp. 3–4) for a list of nine common employer errors that result in a mismatch between data submitted on different required forms. This publication is available online at www.ssa.gov.*

*[62] There are a number of rules surrounding who is an employee that the employer must pay payroll taxes for and what forms of compensation are taxable versus nontaxable (Internal Revenue Service, 1998; O'Toole, 1998).*

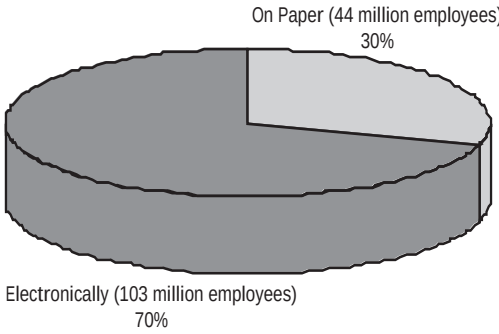
*[63] Sometimes, if employers acted in good faith and had strong reason to believe contributions and reports were prepared properly, they may be exempted from their own mistakes under special circumstances (Internal Revenue Service, 1998).*

Chart 1.9
**Percentage of Employers Sending W-2 Wage and Tax Statements to the Social Security Administration Annually, by Source, 1997**




Source: Unpublished data, Social Security Administration, 1998.

Chart 1.10
**Percentage of All W-2 Wage and Tax Statements Sent to the Social Security Administration, by Source, 1997**




Source: Unpublished data, Social Security Administration, 1998.

Security W-2 report totals. SSA alone sends out 500,000 initial notices to employers each year who fail this reconciliation check. The number would be almost twice as high if SSA did not permit the one-credit error threshold (unpublished data, SSA, 1998). Partially as a result of the error tolerance, about 98.5 percent of all Form W-2 reports are fully processed and attendant wage credits are posted to individual earnings records by September after the year they were earned.

Whether an IA system would be able to match this speed in crediting IAs with contributions would depend largely on whether workers and policymakers are willing to accept annual errors of up to $700 per employer—a seemingly small sum that, in the long run, could amount to millions of dollars in lost IA retirement income. Under the current Social Security system, allowing up to a one-credit error generally does not affect benefits because most workers have more than four work credits (the maximum) for any given year, since they earn more than $2,800 annually ($700 x 4). Those who do not exceed four work credits a year may also not be affected by an employer's error, as it may not apply to their wages at all, or their portion of the error may be less than one credit's worth of earnings for them. But such an error threshold would almost always affect benefits in an IA system.

*Administrative Time Frame and Effort*—Small employers tend to lack technological tools (computers) that allow government agencies such as the SSA and IRS to process their data electronically (without first converting it from paper). About 85 percent of employers reporting wages to SSA file their reports on paper, and not electronically[64] (chart 1.9). Not surprisingly, 90 percent of paper filers were small firms with fewer than 25 employees (unpublished SSA data, 1998). In addition, the only employers that are permitted to pay payroll and income taxes using federal tax deposit coupons—which require hand-written information using a soft-lead pencil—are smaller employers.[65] However, because very large firms employ about half of all workers, most wage reports are reported electronically (chart 1.10), and most federal tax deposits were made electronically.

The differences in time and effort between processing electronic and paper reports are illustrated in the way Social Security is administered today. Paper Form W-2 reports must be reviewed for completeness and scanned into computer format

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[64] *Electronic reporting can be done through diskette, wire-to-wire reporting, bulletin board, or magnetic tape.*

[65] *Smaller employers are those depositing less than $50,000 in payroll taxes per year. In addition to smaller employers, new employers may pay with coupons. Since these are the only exceptions to the electronic deposit rule, "the vast majority of payroll taxes [are] paid electronically" (O'Toole, 1998, pp. 8–10).*

by SSA. Those that cannot be scanned are manually reviewed and keyed into the system in groups, or batches. Batches are then sent to the National Computer Center for processing. Any outstanding errors or reports that cannot be read are saved until the reconciliation process at the start of each calendar year.

On the other hand, electronic reports are sent immediately for reading, and the approximately 10 percent that cannot be initially read are sent back to employers for correction (unpublished data, Social Security Administration, 1998). In addition, if more than half the records have errors, the file is sent back to the employer for correction. Hence, electronic reporting involves less time to check for errors, less intensive SSA staff time to correct errors, and more employer responsibility for providing accurate information prior to the reconciliation process. As a result, the "processing year" for electronic reports is considered to be two months shorter (January through August) than for paper reports (January through October). Technological limitations are also cited as a reason why firm size is related to pension coverage. For example, the federal government's Thrift Savings Plan is administered electronically, as are defined contribution plans among other large employers. One TSP expert states that "most private employers could not meet TSP reporting standards" because of its intensive use of computer technology (Cavanaugh, 1998). All else being equal, administering IAs through employers covered by Social Security is likely to be more expensive than administering today's defined contribution plans.[66]

*Implications*—The limitations of employers participating in the existing Social Security system have implications for policy decisions as to whether employers should assist in IA administration. They also have implications for using defined contribution plan administrative costs to predict the costs of an IA system that depends on employers to help administer it. Because of the lost investments and compounding time that can occur in an IA system, timely and accurate contributions are extremely important—so much so that additional regulations and enforcement activities may be levied on employers if they are called upon to administer all or part of an IA system (see "How Would Accounts Be Regulated?" below). Inevitably, mandating that employers assist in the administration of IAs would increase their burdens and costs, whether or not regulations are increased. Such a change could have major economic and political implications, as employers are a cornerstone of the U.S. economy and have considerable political influence.

***How and When Are Benefits Paid?***—Benefits can be paid from an employment-based retirement plan in a number of ways. Employers can provide annuities or timed withdrawals for retired beneficiaries. In addition, participants can use lump-sum distributions from an employment-based retirement plan to purchase a private annuity or to open a bank account that permits timed withdrawals (the amount of which are usually based on life expectancy and account balance). Alternatively, benefits can be paid in lump sums to retirees, or in preretirement lump sums as a result of property division upon divorce. (See Appendix 2 for a description of how the TSP distributes account assets.) Costs vary across and within these benefit distribution methods (e.g., annuities with more features may cost more, or variation in fees may exist for identical annuity products).[67] Similarly, IA balances could be distributed in any number of ways, with variation in cost. For example, some would argue that the cost of a government-provided annuity would differ from one purchased though the private markets. In addition, record-keeping and distribution costs would be affected by such issues as whether IAs would be divisible assets upon divorce, whether they could be rolled over into other qualified retirement plans, whether they would be considered inheritable wealth, and whether spousal consent would be required.[68]

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[66] *It is unknown whether the administrative compliance costs experienced by employers sponsoring defined contribution plans are more or less than the additional costs that would result in covering all employers in an IA system.*

[67] *See section on "How Much Education and By Whom?" regarding variation in annuity pricing among identical products.*

[68] *See Pension and Benefits Reporter (1998) for a discussion of spousal consent falsification on TSP loans for an idea of compliance issues that might arise under an individual Social Security account system requiring spousal consent for distributions.*

Allowing rollovers and dealing with property claims could exponentially increase the amount of paperwork involving IAs. For example, Aaron (1998) argues that tracing spouses after divorce would be difficult under an IA system unless spousal information like that required from newly hired federal employees was somehow obtained for all workers (this is spousal information that private employers do not routinely collect). Moreover, Hustead (1998) claims that for employment-based retirement plans today, "complex sets of regulations . . . require spousal notification of rights and approval of optional elections [and] determination and payment of benefits under a Qualified Domestic Relations Order (QDRO)."[69, 70] In other words, IA record keepers could find themselves in the middle of millions of spousal disputes and divorce claims.

Another large factor in IA benefit distribution costs would be how very small account balances are handled before a participant reaches retirement age. Today, employers sponsoring retirement plans are allowed to "cash-out" retirement account balances of $5,000 or less upon employee termination. This means employers can refuse to hold accounts less than $5,000 whenever a worker leaves, resulting in lower administrative cost-to-benefit ratios in employment-based plans than would otherwise be the case if employers had to hold small accounts indefinitely.

Presumably, the growth of IAs into larger nest eggs for continuous workers with lower incomes is desirable public policy and one of the goals for adding individual Social Security accounts. A more ambiguous policy question is whether Social Security, employers, or the financial services firm that holds accounts should be required to maintain very small account balances for workers who have dropped out of the work force for substantial periods of time. For example, would accounts equal to $115 (roughly what a minimum-wage earner would contribute over two summers, at a 2 percent contribution rate) be held inactive for four or eight years while students obtain a full-time education? Would women or men with small balances who leave the work force permanently or for long periods of time have their accounts maintained until retirement age?

If small Social Security IA balances for persons who leave the labor force were not able to be cashed out, then the SSA, employers, or financial services firms that issue account statements and educational materials would need to constantly keep track of those persons. Social Security does not currently keep up-to-date address information on every working-age person, or even on persons currently paying into the system. Individuals could be required to keep their own records up-to-date at the risk of losing account statements if they failed to do so.

However, a political argument might be made successfully that, in a mandatory IA system, those keeping records on participants' money would be obligated to keep the owners periodically abreast of asset losses and gains.[71] If so, keeping track of persons who have temporarily or permanently left the labor force would be a new and significant challenge, as illustrated by the recent controversy in Congress over how the U.S. Census Bureau should count the number of U.S. citizens. Constantly updating individual addresses and account

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*[69] A QDRO is a judgement, decree, or order that creates or recognizes the right of an alternative payee (such as a former spouse, child, etc.) to receive all or a portion of a participant's retirement plan benefits (Profit Sharing/401(k) Council of America, 1998).*

*[70] The QDRO process is so complicated today because each QDRO must comply with the individual retirement plan to which it is going to apply. If everyone participated in one type of plan, such as Social Security individual accounts, it would be relatively simple to have a standard QDRO procedure. While the importance of QDRO complexity to an IA system is therefore overblown by some critics of IAs, the fact that the IA record keeper could find itself in the middle of millions of spousal disputes and divorce claims is no small administrative matter.*

*[71] The Social Security program needs to keep track of participants' addresses only when they are beneficiaries, not over their entire lives. Presumably, individuals receiving regular Social Security checks have a greater incentive to keep the administration abreast of their current information. However likely or unlikely, one can at least imagine participants who are lax in keeping their records up to date complain bitterly later that had they known about a change in account balance (e.g., because of market losses), they would have been able to prevent additional loss. To some extent this argument applies to employment-based defined contribution plans, but the onus is usually on individual responsibility because the individual participates on a voluntary basis.*

statements for all Social Security recipients in the United States would be extremely difficult, if not impossible.

The last (1990) Census count reportedly missed approximately 2–4 million persons who were disproportionately Hispanic, black, and/or children (Maxwell, 1997; Greenhouse, 1998). The Census, however, is conducted every 10 years. Keeping track of persons on a year-to-year basis (or month-to-month) would be a far greater challenge; the Census Bureau estimates that 42.1 million Americans (or 16 percent of the population) moved between March of 1996 and 1997. Of that total, most movers (65.9 percent) stayed in the same county, 18.9 percent moved between counties within the same state, and 15.2 percent changed states (U.S. Department of Commerce, 1998).

Indeed, mobility is considered the major reason why individuals were missed by the U.S. Census count (Brownrigg and Martin, 1989). Error factors identified in the Census apply equally to the challenges of keeping accurate records on IA participants' addresses:

- Mobility.
- Language and illiteracy barriers.
- Concealment to protect resources (e.g., illicit income), combined with disbelief in census confidentiality.
- Irregular housing and household arrangements.
- Resistance, passive or active, as a strategy for dealing with outsiders, especially government.

Another maintenance issue for small account balances is that if administrative costs were charged as a percentage of account balances, these accounts would be in effect subsidized by other account holders. To some extent, cross-subsidization of small account holders already occurs in today's employment-based defined contribution system. However, such subsidies would be larger in an IA system because the spread between the smallest accounts and the largest accounts likely would be greater. How much the subsidy would cost and whether very small accounts should be maintained for former workers are unanswered questions that would affect administrative costs under an IA system.

***How Would Administrative Cost Be Charged, and Who Would Pay?***—Institutions providing individual retirement accounts (IRAs) often charge a flat-rate annual administrative fee (Lussier, 1998) on small account balances in order to compensate for the fact that small accounts pay lower investment management fees.[72] If flat fees were applied to all Social Security IAs, these fees would disproportionately affect those with smaller account balances, which would raise issues of fairness if such fees were charged to participants (Aaron, 1998). For example, for 46 percent of the work force covered by Social Security, annual account contributions of 3 percent of taxable payroll would amount to $450 or less. For a worker earning just $15,000 a year and contributing 3 percent ($450) to an IA, a $22 flat annual fee would constitute almost 5 percent of the year's contributions. This same $22 flat rate would represent 2.4 percent of contributions for a $30,000-a-year wage earner, and just 1.5 percent of contributions for a $50,000-a-year wage earner. Hence, flat fees would have a regressive impact on lower-income Social Security participants.

The regressive effects of flat-rate fees on small accounts have led to a suggestion that smaller contributions be pooled until they are large enough to be transferred into an IA (Schieber, 1998). Another idea is to charge administrative costs as a set percentage of annual account assets.[73] This percentage approach, especially in a system using private administrators, raises the possibility that larger account holders would be courted by investments firms, because they would be more profitable to service. This practice could result in two separate types of IA providers—a basic one for smaller account holders, and a privileged one that provides more services and better fund managers (and possibly higher returns as a result) for larger account holders who are able to pay for these advantages.

However, neither flat nor percentage-based costs would necessarily be charged directly to participants' accounts. Theoretically, the government could pick up all or a portion of the

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[72] *Dickson, 1998, personal communication, Oct. 2, 1998.*

[73] *For example, Shah (1997) argues for changing Chile's administrative charges to a percent basis. Also see Goldberg (1998), pp. 4 and 6.*

administrative charges for individual accounts. Alternatively, the government could cross-subsidize small account holders by levying larger administrative charges on bigger accounts. Or, as is common among commercial defined contribution administrators, administrative and investment fees could be "bundled," so that investment fees cross-subsidize the expense of plan administration. Anecdotally, at least, defined contribution plan administration is not very profitable in and of itself—which is why most large-scale defined contribution plan administrators also offer investment services.

***How Would Accounts Be Regulated?***—Whether IAs are administered in the private or public sector, the government would likely become actively involved in their regulation as soon as real or perceived problems or abuses are discovered in the IA system. Arthur Levitt, chairman of the Securities and Exchange Commission, recently underscored this possibility: "Regulators would need to spend more money and effort fighting a potential increase in fraud. A big influx of new, relatively unsophisticated investors can create more opportunities for fraud, as happened in the long-running bull market that turned downward this summer" (Gordon, 1998). By another account, Levitt stated that IAs "hold considerable implications for oversight of the markets" and "would require regulators to step up efforts at investor protection" (Stevenson, 1998). The clear implication is that regulation of individual accounts is inevitable, and that these new regulations would affect participants, employers, and the government.

*Many Ways to Regulate*—Ross (1998) lists many ways that the government could regulate individual accounts (table 1.8). Among them are registration of participants; establishing and protecting beneficiary and participant rights; setting and enforcing standards for reporting and disclosure (see next section); balancing investment choice versus risk by setting investment guidelines (e.g., asset class limitations as a percentage of a portfolio and other investment restrictions) and ensuring that the guidelines are adhered to; regulating withdrawals; and taxing IA withdrawals (for example, penalizing early withdrawals from accounts). Examples of all these restrictions are evident today both in the United States (e.g., the penalty taxation for unsanctioned early withdrawals from IRAs or 401(k)s) and abroad (e.g., the limitations in Chile's privatized system that restrict equity investments to 37 percent of an account balance).

Table 1.8
**Many Possible Areas of Individual Social Security Account Regulation**

1. Registering participants.
2. Establishing and protecting beneficiary and participant rights.
3. Setting standards for reporting and disclosure.
4. Ensuring standards are met.
5. Setting investment guidelines.
6. Making sure the guidelines are adhered to.
7. Regulating withdrawals.
8. Taxing accounts.

Source: Stanford G. Ross, "Regulation of Pension Fund Investments and Distributions." Mimeo, February 1998.

Other potential areas of regulation include limiting the number of times investment companies can buy and sell (i.e., actively manage) investment funds[74] and subjecting IA fund managers to the same regulations that cover the fund managers of tax-qualified defined contribution plans (Schieber, 1998). Additional regulations could also be added to the annuity market as a result of an IA system.

*Predicting the Extent of Regulation*—On one hand, today's downsized government environment suggests that IA regulation would be constrained because of government personnel limitations. The SSA employed 83,000 persons in the mid-1980s but has 62,000 today, a drop of 25 percent (U.S. Department of Commerce, 1997, p. 134).

On the other hand, the trend towards increased regulation of employment-based plans, especially since the passage of the Employee Retirement Income Security Act of 1974 (ERISA) portends a large role for government regulation of IAs. Given the amount of regulation that currently exists for *voluntary* retirement accounts, some speculate all the more regulation would be built around a *mandatory* individual Social Security system. The reasoning is that if the government

[74] *The number of times funds are bought and sold, or "churned," in active fund management affects administrative costs. Other transaction costs are discussed in Middleton (1998).*

forces people to save through these accounts, it has a liability (implicit or explicit) for ensuring that these accounts are operated in the participants' interests. The Joint Committee on Taxation calls the rules surrounding employer-provided retirement benefits "among the most complex set of rules applicable to any area of the tax law" (Joint Committee on Taxation, 1998, p. 4).

*Regulatory Risks*—Regulatory risks include both a lack of adequate regulation and too much regulation, and each type of regulatory risk places "conjectural liabilities" on government. Heller (1998) suggests that *lack* of government regulation may impose a "conjectural liability," inasmuch as the government would feel obligated to provide retirement benefits in the event of a market downturn or, presumably, in the event of real or perceived account mismanagement. In other words, the government could be called upon to pay up if individual Social Security accounts don't work out as planned. But if policymakers sought to minimize this liability, they might overregulate, as some argue has been the case in Peru and Chile (Shah, 1998; Heller, 1997). In some years, regulatory expenses in those nations contributed to such high set-up and marketing expenses that investment returns were offset and participants received a negative rate of return (Shah, 1998).

However, the government may also open itself to a conjectural liability *by* regulating, Heller suggests. By involving itself in the supervision of private account activity, the government creates for itself some liability if "these funds fail to yield satisfactory returns, let alone if there is fraud or bankruptcy" (Heller, p. 9). In other words, would the government be called upon because it had played a part in an IA system that had an undesirable policy outcome (whether overregulation was to blame or not)?

*Who Would Pay the Price of Regulation?*—While there is currently no way to realistically estimate what a new regulatory structure for IAs would cost, an obvious concern is whether regulatory costs would be transferred to account holders. If the government were to set up an elaborate infrastructure for self-regulation, costs presumably would be covered through tax revenues. If the private sector administered the accounts, evidence from the Chilean system suggests that expenses incurred by administrators would be passed onto account holders through higher commissions (Shah, 1997, p. 6). If commission limits imposed on administrators disallowed the full offset of regulatory compliance expenses, then costs could be passed to consumers through other fees; the government could subsidize administrators; or administrators could find IA management no longer in their financial interests and stop providing services. In summary, the nature, expense, and ramifications of IA regulation present many unknowns.

***How Much Education and By Whom?***—Efficient markets depend on educated consumers. Yet more than half of all Americans do not know the difference between a stock and a bond, and only 16 percent say they have a clear idea of what an individual retirement account is.[75] To make a market-oriented individual account system work most efficiently, consumer education would be critical. Such a public education effort, which would involve describing sometimes-complicated financial terms and concepts, would be a massive challenge, at best. This is especially true for the 21 percent of the adult population with only rudimentary reading and writing skills (at or below the fifth-grade level, according to the National Center on Education Statistics, 1993),[76] and who have little if any exposure to retirement accounts, annuities, or investing.

In addition, education appears to be necessary for persons already possessing retirement accounts, as research shows that a significant number of defined contribution account participants in employment-based plans do not understand the basics of investing (Bernheim, 1994; Katzeff, 1998; Yakoboski and Schiffenbauer; 1997; Employee Benefit Research Institute, 1998). The fact that many who would benefit from purchasing an annuity at retirement do not do so (Gebhardtsbauer, 1998) suggests a lack understanding of annuities as well. Moreover, many who

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[75] *Statement of Arthur Levitt, chairman of the Securities and Exchange Commission, as reported in Burns, 1998.*

[76] *For a discussion of the challenge of explaining the basics of benefits under the current Social Security program, see U.S. General Accounting Office, 1996b.*

do purchase annuities are unlikely to fully understand the many types of fees that can be imposed,[77] and how these fees affect annuity payouts. Perhaps partially as a result of a lack of comprehensible information from providers, research suggests premiums among identical annuity products vary significantly (U.S. Congressional Budget Office 1998, p.14).

The importance of (and lack of) education does not stop at the participant level. Two studies suggest that even many employers do not have a firm understanding of the total administrative expenses paid for their own 401(k) plans (KPMG, 1998; U.S. Department of Labor, 1998b). This lack of knowledge is worrisome, given that DOL recently conducted a study that found that 401(k) plan fees varied by as much as 300 percent within one investment type (White, 1998)[78] and can comprise up to 3–5 percent of 401(k) balances per year ((k)la, 1997; Kalbrener, 1998). In most arrangements, fees are passed on to participants but are sometimes shared by the employer. Although sometimes not directly incurred by the employer, such fees are important to employers because high fees lessen the effectiveness of plan sponsorship to business goals.

One reason that individuals and employers do not have a good understanding of expenses may be that some are not willing to devote time to learning how administrative expenses affect investment returns. However, DOL (1998b) found that even those persons trying to learn face a formidable challenge:[79]

> . . . Not all investment products disclose the fees and expenses charged to a 401(k) plan. . . [A] Dalbar study in 1992 shows that 78% of plan sponsors did not know how much their costs were, largely because there are about 80 different ways in which vendors charge fees . . .

Assuming that better fee disclosure would be required (see regulation section above) if almost all of the U.S. work force was placed into mandatory Social Security accounts, widespread education would still be necessary. Explanations would be required of investment basics and annuity options, in addition to encouraging participants to monitor their fees. These activities could be handled several ways, and the level of education required would depend on the type of reform. The more freedom participants have to make their own decisions about individual Social Security accounts (e.g., choosing among fund options, purchasing an annuity, making interfund transfers), the more education would be required. In any event, education can be provided on an ongoing basis (e.g., as is the case with the TSP), or at the beginning of an IA system through a massive public outreach campaign (e.g., as was done in Australia). Because educational activities are so contingent on as-yet undefined reform designs, their contribution to total administrative costs is unknown.

## Estimating the Boundaries of Uncertainty

***Key Modeling Assumptions***—In the analysis with the EBRI-SSASIM2[80] model presented below, administrative costs are explicitly subtracted from Social Security benefits. While this could be the case in practice, administrative costs could also be imposed on workers through less direct channels. For example, if general revenues funded a portion of administrative costs, then workers would still pay some of the costs through higher income tax rates. If employers were asked to absorb administrative costs, then costs could be passed onto workers or through slower growth in compensation. The calculations below do not take into account such possible second-order effects, but are instead based on the assumption that administrative costs directly reduce benefits obtained through the Social Security program. This was the only way to make administrative costs explicit.

The analysis below also assumes that administrative costs cut directly into *fixed* benefits.

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*[77] See Tam (1998) for a brief description of these fees.*

*[78] A useful way to classify expenses and fees for the 401(k) plans is: Set-up and conversion fees, recurring administrative costs, communications expenses, investment management fees, distribution fees, and mortality and expense risk fees (U.S. Department of Labor, 1998b).*

*[79] The 1998 DOL report, Study of 401(k) Plan Fees and Expenses, was part of a multi-pronged campaign launched in November 1997.*

*[80] For background on the model, see Olsen et al. (1998).*

Table 1.9
**Real Average Annual Indexed Annuities[a] ($1997) Payable at Age 62 From a 2 Percent Individual Social Security Account[b]**

| | Low Annuity Loading/Low Admin. Fees[c] | High Annuity Loading/High Admin. Fees[d] | Difference $ | Difference % |
|---|---|---|---|---|
| 1946 | | | | |
| Male | $ 948 | $ 743 | $ 206 | –22% |
| Female | 434 | 331 | 103 | –24 |
| 1960 | | | | |
| Male | 2,754 | 1,862 | 891 | –32 |
| Female | 1,314 | 891 | 423 | –32 |
| 1976 | | | | |
| Male | 4,970 | 2,982 | 1,988 | –40 |
| Female | 2,628 | 1,531 | 1,097 | –42 |
| 2026 | | | | |
| Male | 7,872 | 4,673 | 3,199 | –41 |
| Female | 4,285 | 2,479 | 1,805 | –42 |

Source: Employee Benefit Research Institute.
[a]Average over 1,000 stochastic scenarios.
[b]The lifetime nominal rate of return on account assets for the 1946 birth cohort is 6.71 percent. For the 1960, 1976, and 2026 birth cohorts, the returns are 6.85%, 6.86%, and 7.00%, respectively.
[c]*Low* administrative costs are assumed to be 0.100; *low* annuity loading factor is 1.050.
[d]*High* administrative costs are assumed to be 2.000; *high* annuity loading factor is 1.150.

But in reality, a positive correlation sometimes exists between returns and administrative costs; that is, investment strategies yielding higher returns sometimes have higher administrative fees (U.S. Department of Labor, 1998b; Vantagepoint Funds, 1998). Unfortunately, sometimes higher returns are offset enough by higher fees that the net yield is the same as for lower-return strategies (Dickson, 1998). In other cases, however, there is more of an interplay between administrative costs and benefits (Patterson, 1998). The possibility of administrative costs *increasing* benefits was not modeled, because administrative detail sufficient to assess any positive effect is lacking under all reform proposals to date.

Moreover, even if administrative details were spelled out, estimation of administrative costs' positive effects on benefits would be highly speculative. For example, if these costs paid for investment education, how effective would this education be in getting participants to invest more wisely and earn higher returns on their IA contributions? If costs paid for oversight and regulation, how much would these provisions protect beneficiaries from losing assets due to employer or investment services fraud or mismanagement? Indeed, how much would beneficiaries need to be protected from fraud in the first place? Although not quantified in this report, it strongly bears noting that if one assumes that at least a portion of administrative costs are paying for worthwhile participant services, it seems reasonable to believe some of these services would increase returns and, to some extent, thereby offset their own costs.

Moreover, even if additional administrative costs were not offset by higher benefits, they might still be desirable. For example, the current Social Security system has been criticized as keeping its administrative costs low because it does not provide enough services for beneficiaries (Myers, 1993). In each Social Security system, trade-offs exist between services and costs (Mitchell, 1996).

***Individual Account Balances***—Because administrative costs under a system of individual Social Security accounts are largely uncertain for the reasons delineated above, table 1.9 presents benefit effects under a range of administrative costs (including annuity costs). Results are presented for workers who earn steadily at the average for their age and gender from age 22 through retirement at age 62. For comparative purposes, the high- and low-cost plans are assumed to have the same pre-cost returns, as workers are assumed to invest

identically.[81]

The ranges of administrative assumptions were selected after consultation with a number of annuity and administrative experts. High administrative costs are assumed to be 200 basis points annually (that is, 2 percent annually of account balances). High annuity loading factors are assumed to be 15 percent of account balances (that is, the annuity provider would claim 15 percent of the total account balance upon purchase of the annuity as remuneration for providing the annuity). Low administrative costs are assumed to be 10 basis points annually, or 0.10 percent of account balances. Low annuity loading factors are assumed to be 5 percent of account balances due upon annuity purchase.

Account contributions equal to 2 percent of taxable payroll[82] are assumed to begin in the year 2000 (see table 1.9). Hence, workers born in 1946 contribute to individual Social Security accounts for 10 years (from ages 52–62), and workers born in 1960 participate for 24 years (from ages 38–62). Workers born in 1976 and 2026 commence account contributions at age 20 and 21 and continue until age 62 (for a total of 40 years). Upon retirement, all account balances are assumed to be converted into real single life annuities (i.e., indexed annuities that pay benefits to one recipient) that provide monthly payments for life.

The fact that workers born in 1946 and 1960 do not participate in the IA for the major portion of their working lives largely explains their lower IA balances, relative to workers born in 1976 and 2026.[83] This is also the reason why the difference between real (inflation-adjusted) annual benefits under the high and low administrative cost assumptions for these birth cohorts is lower than those for workers born in 1976 and after. While IA benefits for workers born in 1946 are simulated to be 22–24 percent lower on average under high administrative cost assumptions, their 1960 counterparts could experience 32 percent lower benefits. In comparison, workers born in 1976 and 2026 would receive 40 percent to 42 percent lower benefits under high administrative cost assumptions than under low-cost assumptions.

As the 40–42 percent difference for workers born in 1976 and 2026 indicates, workers contributing to IAs over the major portion of their working lives would (not surprisingly) be hit hardest by high administrative costs. For the steady-earning male born in 1976, the high versus low administrative costs translate into annual annuity benefits of $4,970 versus $2,982—a $1,988 difference annually. For his 2026 counterpart, administrative cost differences could result in a $7,872 or $4,673 annual benefit—a $3,199 difference.[84] Hence, IA benefits seem highly sensitive to administrative costs.

## ■ Policy Implications

Despite their importance, administrative details about how individual Social Security accounts would operate have been largely unaddressed by a majority of individual account proponents. Even when they are addressed, sources of uncertainty abound, as little is understood about the systemic administrative costs under existing defined contribution accounts that are sponsored by employers.

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*[81] The macroeconomic feedback effects and productivity feedback links are turned off in the model for purposes of this comparison.*

*[82] Plans such as the Individual Accounts (IA) plan, offered by the 1994–96 Social Security Advisory Council (SSAC); H.R. 4256 (sponsored by Reps. Jim Kolbe (R-AZ), Charles Stenholm (D-TX) et al., 1998); and S. 2313 (sponsored by Sens. Judd Gregg (R-NH), John Breaux (D-LA), et al., 1998) propose individual account contributions equal to 2 percent of taxable payroll. The CED plan recommends a 3 percent individual account contribution (2 percent from workers, 1 percent from employers), and the plan proposed by Rep. Nick Smith (R-MI) recommends 2.5 percent contributions. Some plans recommend larger contributions, such as the SSAC's Personal Savings Account plan (5 percent) and the Porter plan (10 percent). See Olsen (1998) for a summary of plan parameters.*

*[83] An additional factor is that average returns over 1,000 scenarios for individual account balances are higher across later cohorts. For the 1946 cohort, individual account returns equal 6.71 percent (nominal). For the 1960 cohort, returns average 6.85 percent. Returns average 6.86 percent for the 1976 cohort and 7.00 percent for those born in 2026.*

*[84] The differences in dollar benefits are attributable to real wage growth between the generations, as Social Security initial benefit calculations take into account real wage growth.*

As EBRI-SSASIM2 model analysis has shown, administrative cost variations can create differences of thousands of dollars in annual benefits, even under an individual Social Security account system based on just a 2 percent annual salary contribution.

If Social Security reformers expect IAs to fulfill policy objectives, they need to decide on a variety of administrative details that could profoundly affect administrative costs, and to which individual account benefits appear to be highly sensitive. A few of the many questions needing answers: How frequently would employers be required to report contributions on behalf of specific employees? Would employers be required to send contributions to one entity or many? And how many and what types of services would be accessible to account participants? Far from being "mere technicalities" that are better left to agency personnel, administrative details will affect the feasibility, character, and desirability—ultimately, the success or failure—of any system of individual Social Security accounts that Congress may enact.

Once proponents develop their preferences in terms of individual account operation, then administrative feasibility and costs should be researched in detail. As explained above, the populations covered by Social Security are sufficiently different from those covered by the employment-based retirement system to warrant independent examination of Social Security individual account administrative feasibility and expenses. In other words, administrative costs and options for individual Social Security accounts will require separate analysis that cannot be obtained simply by looking at the experiences of employment-based retirement plans.

Specifically, richer data about the population covered by Social Security and a better understanding of administrative fees for today's defined contribution plans are needed. In addition, highly detailed input from professional record keepers and technology professionals—preferably those without preexisting political agendas—in both the government and private sectors, and with multiple levels of expertise, must be obtained. Until this type of research is gathered, broad claims about the overall administrative feasibility or unfeasibility, efficiency or inefficiency of individual Social Security accounts will continue to largely reflect opinion and political desires, rather than substantive fact.

# ■ Appendix I

## Dealing With Float Periods of 18 Months or More

To summarize the previous discussion, "working within the current payroll tax structure" produces two distinct types of float periods, each with implications for participants' economic well-being (table 1.10).

***Type 1 Float Periods: Option #1***—To address Type 1 float periods, the government could credit workers' IAs with contributions and investment earnings *theoretically* until *actual* cash contributions are deposited. This could be done on a retrospective basis. One way could be for the government to invest all aggregate payroll contributions received over the year in a uniform investment pool. At the end of the year, workers' IAs could be credited with their cash contributions as well as a uniform rate of return from the pooled funds. After being credited to IAs, the investments would presumably be available to workers to allocate among personally selected investments.

This approach to eliminating interest losses during Type 1 Floats is open to criticism for the following reasons. Foremost, this approach would require the government to choose an investment for the pool of incoming annual tax deposits. If the government could invest in anything other than government-issued securities, this approach

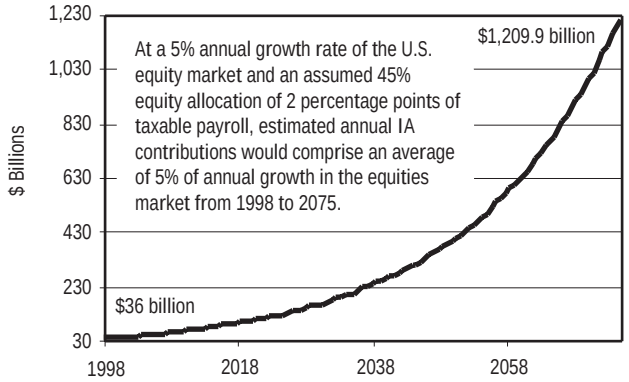
Table 1.10
**Summary of Float Periods under the Current Tax Collection and Wage Crediting Process**

| Type of Float | Occurrence | Implications |
|---|---|---|
| Type 1 | Delays between correct contributions and correct account crediting. | Lost investment earnings. |
| Type 2 | Delays because of errors between contributions and crediting. | Lost investment earnings and/or lost credit for account contributions. |

Source: Employee Benefit Research Institute.

Chart 1.11

**Estimated Annual Individual Account Contributions Allocated to Equities (Current Dollars) from a 2 Percent of Taxable Payroll Carve-Out, Based on Trustees' Intermediate Assumptions, 1998–2075**




Source: Employee Benefit Research Institute estimates based on data from Flow of Funds and The 1993–1998 Trustees Reports (Social Security Administration).

would invite concerns about social investing and political manipulation of investment decisions. Similar concerns have been raised surrounding government investment of the Social Security trust funds and are sometimes given as a rationale for favoring individual accounts over such central government investment in the first place. However, it might be considered less objectionable for the government to invest relatively small amounts (i.e., annual payroll contributions) as opposed to the large amounts accumulated in the Social Security trust funds.

As chart 1.4 suggests, even if the government were limited to investing incoming aggregate IA contributions over the year in U.S. government securities, large sums of money would accrue and then be credited to individuals' investment accounts. The first question that arises is where the federal revenue would come from to liquidate the $80 billion in government bonds needed (at a minimum) for cash depositing into IAs. A second question is how such regular, mass liquidation would affect the government securities market. Finally, if individuals were able to then direct these funds among different investments, how would mass periodic injections of IA funds into other markets (particularly the equities markets) affect pricing levels and market activity? Chart 1.11 shows that injections of 45 percent of annual IA contributions equal to 2 percent of taxable payroll into the equities market would likely represent a large sum, possibly amounting to a 5 percent share of total annual U.S. equity market growth.[85]

Another possible criticism of this approach is that it would subject the government to political and financial liabilities if participants perceived that the investment pool performed poorly over a particular year, especially if they thought their contributions would have performed better under an alternative investment selection. For example, if the government initially invested exclusively in U.S. Treasury bonds, would individuals pressure it to diversify into higher yielding investments? After all, some are already calling for equity investment of the OASDI trust funds, which are owned collectively and whose investment performance is less directly related to Social Security benefits than initial IA contributions would be. Would workers' perception that their money was being initially invested in a manner inconsistent with their desires lead to pressure for the government to invest in private securities?

***Type 1 Float Period: Option #2***—An alternative approach to handling Type 1 floats exists if workers

[85] *The effect of periodic mass injections of IA funds into private markets (e.g., on pricing levels) was a concern raised by the Center for Strategic and International Studies (CSIS) task force on individual account administration on Sept. 25, 1998.*

find it politically unacceptable for their initial IA contributions to earn a uniform investment return. Rather than assigning all contributions and accounts a fixed rate of return for the first 7–19 months or so, the government could permit workers to select personal investment options once a year for their incoming contributions. The Social Security Administration, or a quasi-public agency, or another entity, could be assigned to compute *aggregate* investments and invest incoming pooled funds accordingly. To avoid concerns about social investment, investments could be allocated among the same fund managers that were selected for IA asset allocation.[86] Ideally, at the end of the year, the assigned entity would have predicted aggregate investments well enough to retrospectively credit workers with their individual payroll contributions plus any earnings or losses resulting from personal investment selections. This approach would eliminate at least part of the interest loss resulting from the float period between contributions and deposits to IAs. In addition, it would ensure more gradual and smaller infusions of IA contributions into market investments, obviating to at least some degree adverse pricing and other undesirable market reactions surrounding the expected large IA deposits.

However, this approach could also be criticized for several reasons. First, the government or quasi-public agency in charge of allocating incoming contributions among investment providers would somehow need to know workers' investment decisions one year in advance. Individuals (or their employers) would at least be given, if not mandated, the option to report individual investment selections on annual payroll contributions for IAs. Perhaps a default option would be used for individual workers who fail to communicate this information. But at this point, individuals who want a say in their IA investments would be given an administrative task that does not exist under the current wage reporting and tax collection system. Furthermore, unless workers were only allowed a certain grace period during which to detect contribution and investment errors made on a given year's IA contributions, historical records would need to be maintained on these investment selections over workers' lifetimes. Such records would be necessary to resolve mistakes discovered years later, using the return rates from workers' investments at the time the incorrect IA deposits were made or correct deposits were not made.

Another objection to this approach to handling Type 1 floats concerns fairness among individual workers. Under such a system, individuals would be subsidizing one another, since annual returns on asset allocations are a function of market performance *when contributions are received* over the year. For example, a seasonal employee whose contributions are made by his or her employer at the end of the year during a low point in the market would receive a higher rate of return than the contributions actually earned, if the returns on other workers' contributions during the earlier part of the year were higher. This would happen because, under the current wage crediting and tax collection system, the government only knows the individual's annual contributions, not when the contributions entered the market.

Perhaps the most significant objection to this approach, however, is that some workers might demand greater investment choice for their initial annual contributions. The idea of requiring workers to make annual investment decisions in January for contributions made the following December might not play well with investors who believe, for example, that they would have avoided a drastic November market downturn in the absence of such restrictions. If individuals demanded the ability to select investments more frequently, the government would need to keep track of when their contributions were made as well as their investment choices over the course of the year. Such heavier record-keeping demands would inevitably increase administrative costs. In addition, new administrative burdens would be introduced, because this information would have to be communicated to the IA record keeper, precluding the ability to work within the existing payroll tax structure.

A final criticism of the second approach to

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[86] *Members of the CSIS task force on individual account administration, at a meeting on Sept. 25, 1998, are credited with the idea of averting social and political investing concerns beyond those already implied by government selection of IA investment options by using the same investment managers to invest aggregate incoming funds as would be chosen to manage IA funds in a system of limited investment choices.*

handling Type 1 floats is that it would presumably consign to the government and/or other IA record keeper any liability or surplus arising from unsuccessful attempts to predict aggregate investment choices and to invest in a way that matches the predicted requirements exactly. Errors might be small proportionate to contributions but large in absolute dollars. The government, or quasi-public agency, or other entity that allocates the incoming aggregate funds to investment managers would have either too much or too little money at the end of the year. If there were too few funds with which to credit IAs, some party would face a financial liability. On the other hand, if there were too much money at the end of a year and the surplus were placed into general revenues, an IA contingency fund, or individual accounts, an incentive could exist to regularly invest more aggressively than projected needs would suggest is necessary.

***Type I Float Periods: Option #3***—A final approach to handling Type 1 floats would be for the government to project payroll contributions from one year into the next year. Based on these projections, workers could be credited with account contributions to invest as they choose before the actual contributions reach their accounts. Workers whose actual payroll contributions were higher or lower than the projections would receive end-of-the-year adjustments to their account balances.
A criticism of the third approach to handling Type 1 floats—advance crediting based on income projections—is that some people would receive too much in initial IA credits. This would happen to workers whose annual incomes were lower than projected by the government, but who may be angry nonetheless at seeing the government take away these revenues. For others, initial credits would be too low, i.e., their actual income would be higher than projected.

Conversely, adding amounts to the accounts and crediting them retrospectively to the workers' investment choices would be administratively challenging. The IA record keeper would have to ascertain when and by what amounts the projections deviated from reality and what investments the workers had made during those periods. Presumably, this third approach to handling float periods would be less administratively challenging if accounts were credited with a uniform investment return. However, the objections raised earlier in reference to the first option for handling Type 1 float periods would also apply to this approach.

***Type 2 Float Periods***—To the extent feasible, the government could use the above three general methods of crediting workers' accounts retrospectively during the Type 1 float. However, these or other approaches would be fully effective only if Type 2 floats were precluded for workers experiencing administrative errors. Recall that the Type 2 float period would exist when employers and/or the government make mistakes (e.g., the employer's W-2 and 941 reports do not have equal sums[87]) and workers' accounts are not credited on the proper schedule.

To hold workers harmless while the government investigates the employer, the government might choose to give workers their cash and investment earnings as soon as the earnings can be proven, even if IA contributions are not yet collected from the employer. While the government pursues the employer (if it is still in business), the worker could be credited retroactively with interest from general revenues or the special contingency reserve. Alternatively, a government insurance entity like that currently existing for private defined benefit plans (i.e., the Pension Benefit Guaranty Corporation) could be created and funded through payroll taxes, employer contributions, individual account contributions, or other means.

Criticisms of this approach include the following. First, this approach to Type 2 floats would depend on workers' ability to prove payroll deductions made on specific amounts of wages, which might be difficult if the employer is noncompliant or erroneous in issuing the W-2 wage reports. In the current system, it sometimes takes decades for workers to discover missing wage credits and to prove that they have accrued.

Second, presumably, workers participating in an IA system who discover employer errors years after they are made would require back contributions and would want to be made whole for lost investment time. This would necessitate a more

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[87] *Under some circumstances, amounts on the W-2, W-3, and Form 941 may not add up for valid reasons (Internal Revenue Service, p. 23).*

complicated error reconciliation process than exists under current Social Security policy. To perform retroactive crediting for errors discovered under a system of individual investment choice, the government would need a record of workers' investments at the time IA contributions should have been made. A record-keeping agent would need to be assigned this responsibility. Presumably, it could not be workers, who would have an incentive to falsify investment information records to indicate high-yielding investment choices. Alternatively, workers could be given a grace period for discovering errors and required to accept any errors discovered after the grace period expired.

A third criticism of approaches that would annually match employee IA contributions with accounts is that annual reconciliation is much more difficult than more frequent checks. One defined contribution plan administrator stated that rectifying errors on a monthly basis, as opposed to daily, is one of the most time-consuming and costly parts of administration. Reconciliation of reports and contributions on an annual basis would be an even more formidable challenge.

A final criticism of this approach is that having the government or an insurance agent make workers whole for employer errors would likely result in increased employer regulation and penalties. In a cash system of IAs—as opposed to the current earnings credit system—inaccurate contribution amounts and timing would result in increased liability for making participants whole for employer errors. In today's system, employers are generally subject to deposit penalties only if they have acted out of "willful neglect" (Internal Revenue Service, 1998, p. 20). Due deposits can be collected at a later date without the need to make participants whole for lost investment income. It is not known whether, in a cash-based system, the government would continue to be lenient in imposing penalties on employers that are acting in good faith. (See section titled "How Would Accounts Be Regulated?")

# ■ Appendix 2

## Overview of the Federal Thrift Savings Plan

***History***—The federal Thrift Savings Plan (TSP) is a key component of the three-part Federal Employees' Retirement System (FERS) that became effective on January 1, 1987, and covers those employees who first entered a covered position on or after January 1, 1984. The TSP is a tax-deferred defined contribution retirement savings and investment plan that contains features typically found in private-sector 401(k) plans. Even though the FERS Act of 1986 established the TSP, employees in both the Civil Service Retirement System (CSRS) and the FERS may participate. The TSP is considered a supplement to CSRS retirement benefits, and the contribution rules are different than those for FERS participants.

According to a Congressional Research Service (CRS) report, Congress included the TSP as a part of FERS for three reasons: (a) to increase retirement income replacement rates under FERS, especially for higher paid employees for whom Social Security replacement rates are low; (b) to provide a portable benefit and thereby reduce retirement income penalties associated with changing jobs; and (c) to replicate benefits available to private-sector workers (Merck, 1996). As of March 31, 1998, thrift savings fund accounts were maintained for more than 2.3 million participants. The participation rate among FERS employees has risen from 28.9 percent in 1987 to 85 percent in 1998 (Federal Retirement Thrift Investment Board, 1998a).

***Work Force***—Federal workers tend to be more educated than the general work force. For example, 28.5 percent of the general U.S. work force had a bachelor's degree or higher in 1996 (U.S. Department of Commerce, 1998, p. 399), as compared with 39 percent of the federal work force (U.S. Office of Personnel Management, 1997). Federal workers also tend to be older, have less job turnover, and higher average earnings (table 7).

***Eligibility***—Open seasons occur twice a year: May 15 to July 31 and November 15 to January 31. CSRS participants can begin making contributions to the TSP during any open season. FERS participants newly hired in any month from January to June become eligible to participate in the TSP the first full pay period starting the next January. They begin to receive the automatic 1 percent employer contribution, and, if they elect to contribute, the employer matching contribution. FERS participants newly hired July through December

become eligible to participate the first full pay period starting the next July. They begin to receive the automatic 1 percent employer contribution and, if they elect to contribute, the employer matching contributions.

***Employer and Employee Contributions***—TSP participants may contribute either a percentage of basic pay each pay period or a fixed dollar amount. All contributions must be made through payroll deductions; lump-sum contributions are not permitted. Employee contributions to the TSP reduce the individual's taxable current income for federal (and usually state and local) income tax purposes. FERS employees may contribute up to 10 percent of basic pay on a pretax basis; CSRS employees may contribute up to 5 percent of basic pay on a pretax basis. All participants are also subject to the annual deferral limit set by IRC Sec. 402(g)—the same limit as for Sec. 401(k) deferrals. The limit is subject to an annual inflation adjustment and was set at $9,500 in 1996. Employees may change their contribution rates only during the open seasons.

The government (acting in the role of employer) automatically contributes 1 percent of basic pay for all eligible FERS participants, regardless of whether the employees make personal contributions. For FERS participants who choose to make their own contributions, the government matches the first 3 percent of employee contributions at 100 percent and the next 2 percent of employee contributions at 50 percent. As noted, CSRS participants may make tax-deferred contributions to the plan, but there are no automatic or matching employer contributions for CSRS participants.

***Investment Options***—There are three TSP investment funds: the Government Securities Investment Fund (G Fund), the Common Stock Index Investment Fund (C Fund), and the Fixed Income Index Investment Fund (F Fund). Individuals who choose to invest in the C and/or F Funds are required to sign a statement saying that they understand and accept the risk of investing in these funds. If a FERS participant does not submit an investment election form, the automatic 1 percent employer contribution is invested in the G Fund.

The G Fund consists of investments in short-term nonmarketable U.S. Treasury securities specially issued to the TSP. By law, all investments in the G Fund earn interest at a rate equal to the average of market rates of return on U.S. Treasury marketable securities that are outstanding with four or more years to maturity. The Federal Retirement Thrift Investment Board manages the G Fund.

BZW Barclays Global Investors, N.A. (Barclays) manages the C Fund and the F Fund through competitive bid. The C Fund is invested primarily in the Barclays Equity Index Fund, a stock index fund that tracks the Standard & Poor's 500 (S&P 500) stock index. The F Fund is a bond index fund invested primarily in the Barclays' U.S. Debt Index Fund, which tracks the Lehman Brothers Aggregate (LBA) bond index.

***Vesting***—All TSP participants (both CSRS and FERS employees) are immediately vested in their own contributions and investment earnings on those contributions. FERS enrollees are also immediately vested in the government matching contributions, plus associated investment earnings. Most FERS participants vest in the automatic 1 percent employer contribution and its earnings after three years of federal civilian service. However, members of Congress, congressional staff, and certain political appointees to the Executive Branch vest in the automatic 1 percent employer contribution after two years of such service. If an employee leaves federal service before vesting, the automatic 1 percent employer contribution and its earnings are forfeited. In the case of death, vesting is immediate.

***Plan Loans***—Those eligible for the TSP Loan Program include current employees with a TSP account that has at least $1,000 in employee contributions and investment earnings. TSP loans were once available only for purchase of a primary residence, educational expenses, medical expenses, and financial hardship. Due to participant demand, loans are now available for any purpose. The interest rate charged is the G Fund rate in effect at the time the loan application is received. Repayment is made through payroll deductions. To obtain a TSP loan, FERS employees must obtain spousal consent, and the spouses of CSRS employees must be notified of the loan application by the TSP.

***Death Benefits***—A participant may designate beneficiaries (including a surviving spouse, children, parents, or other named beneficiary) to receive the TSP account balance if the participant dies with a TSP account. Payments to spouses of deceased participants are subject to 20 percent mandatory federal income tax withholding. The withholding tax cannot be waived, although spouses of deceased participants can avoid the withholding by having the TSP transfer all or a portion of the payment to an IRA (but not to another eligible retirement plan). Payments to beneficiaries other than a spouse are subject to 10 percent withholding, which may be waived. Payments to nonspouse beneficiaries cannot be transferred to an IRA or other plan.

***Withdrawal of a TSP Account Balance***—Employees who separate from federal service are permitted to withdraw their TSP accounts. An individual must be separated from federal service for 31 or more full calendar days before the TSP account can be paid out. Withdrawal options include: (1) a TSP life annuity, (2) rollover into another qualified retirement plan, (3) a single payment and/or (4) a series of monthly payments that begin immediately or at some future date. Participants also have the option of leaving their accounts with the TSP on separation and making a withdrawal decision later. Amounts paid to participants from TSP accounts are considered taxable income for federal income tax purposes in the year in which payment is made. Payments not subject to these rules include TSP annuity purchases and direct transfers by the TSP to IRAs or other eligible retirement plans, since such payments are not made directly to the individual.

The first withdrawal option, known as the TSP annuity, is a monthly benefit that is paid for life. A participant can request a single life annuity (with level or increasing payments), a joint life annuity with his or her spouse, or a joint life annuity with someone other than a spouse. As with the single life annuity, a participant with a joint life annuity can choose to have level or increasing payments. For participants with TSP account balances of at least $3,500, an annuity can be purchased from the TSP's annuity provider. If an account balance is less than $3,500, the participant can request an annuity with a specific future date. (The account must be at least $3,500 before the annuity can be purchased.) Annuity payments are taxed as ordinary income in the years in which they are received.

The second option is for an individual to transfer all or a portion of a TSP account to an IRA or other eligible retirement plan (in some cases, a series of monthly payments can be transferred). If this option is chosen, the participant continues to defer taxes on the amounts transferred, and savings continue to accrue tax-deferred earnings until the money is withdrawn.

The third withdrawal option is the single payment option, which is simply a withdrawal of the entire TSP account balance in a single payment. Participants with vested account balances of $3,500 or less are subject to automatic cash-out procedures. Under the automatic cash-out procedure, the account balance is automatically paid directly to the participant unless the participant makes another withdrawal election. An automatic cashout is subject to the same taxes as other cash payments from the TSP. If the amount withdrawn in a single payment is paid directly to the participant (and is not transferred to an IRA or other eligible retirement plan), the payment is subject to mandatory 20 percent withholding. In addition to the ordinary income tax an individual must pay on money received directly from the TSP account, the IRS imposes a 10 percent penalty tax on amounts received from the TSP if the individual separates or retires before the year he or she reaches age 55 and receives the money before age 59$^1/_2$. In this case, the individual is subject to the penalty tax on all amounts received before age 59$^1/_2$.

The fourth withdrawal option is a series of monthly payments. Participants may choose the number of monthly payments they want to receive. Another option available to participants is to choose a specific dollar amount for each monthly payment. A final alternative is for participants to have monthly payments computed by the TSP based on an Internal Revenue Service (IRS) life expectancy table. As with the single payment option, an individual who chooses the monthly payments option (unless the payments are based on life expectancy) is subject to a 10 percent penalty tax on all amounts received before age 59$^1/_2$ if he or she separates or retires before the year he or she reaches age 55. Individuals who reach age 70$^1/_2$ and

are receiving a series of monthly payments from their TSP accounts are subject to IRS minimum distribution requirements.

An alternative to withdrawal for participants with an account balance greater than $3,500 is to leave the entire TSP account balance in the TSP (up to age 70 1/2). Accounts continue to accrue investment earnings tax-deferred, and individuals can continue to change investment allocations among the three TSP funds by making interfund transfers.

***Limits on Participant Choice and Services***—The TSP has some limits on participant choice and services relative to private 401(k) plans. For example, only during open seasons may employees begin or terminate contributions, alter contribution amounts, and/or change the way future contributions are invested. Plus, for FERS employees, the investment allocations chosen necessarily apply to both personal contributions and to agency automatic and matching contributions. In private plans, participants can often allocate their own contributions differently from employer contributions.

Also in private plans, participants can generally begin or cease contributions at any time after they are eligible for plan participation. Although TSP participants may stop contributing at any time, if they cease contributions during an open season, they must wait to resume making contributions until the next TSP open season. If a participant stops outside an open season, he or she must wait until the second open season to resume making contributions.

Twice a year, in late May and November, employees receive participant statements showing employee and employer contributions and gains or losses due to investment experience. In many private-sector plans, account statements are sent on a more regular basis.

Although interfund transfers of previously contributed amounts are permitted in any month, participants must generally wait until the next month before their investment choices are executed. Interfund transfers made by the 15th of the month are executed on the last business day of that month at the closing price of the investment fund for the last business day of the month. If transfers are made after the 15th of the month (with some exceptions for weekends or holidays), the transfer is not put through until the last business day of the *next* month. (For a discussion of this topic, see Causey, 1998.)

***Administration***—The Federal Retirement Thrift Investment Board, an independent federal agency, manages the TSP. The board consists of five members who are nominated by the president and must be confirmed by the Senate. The board members serve part-time and appoint a full-time executive director of the agency. In total, the agency had 110 employees as of September 30, 1996 (U.S. Department of Commerce 1998, p. 348). The agency is able to maintain a small administrative staff in large part because of the limited choice of investments available to participants, the type of work force covered, and the fact that federal agencies perform administrative tasks for the TSP, such as participant education, that are not counted as administrative expenses.

Such factors have allowed the TSP to charge very modest administrative costs per participant. In 1997, TSP administrative expenses per participant were approximately $20 a year (see chart 5). Although relatively low compared with private 401(k) plans, the cost per participant has grown by 133 percent since the program's inception, largely because of the addition of participant services over time.

*Information based on Employee Benefit Research Institute,* Fundamentals of Employee Benefit Programs, fifth edition.

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# 2

# *Basic Administrative Tasks and Generic Alternatives*

## by Girard Miller

## ■ Introduction

My goal is to provide a quick bird's eye overview of the various ways to think about individual accounts. It is important to recognize from the outset that this is a very complex endeavor, and there will be a lot of work involved to integrate the pieces. This would be a monumental undertaking—if it happens.

Individual accounts are similar to defined contribution systems, but there are a number of differences. On a national level, the complexity is magnified by the fact that we are not dealing with one record keeper maintaining records for a large number of employers. Instead, we have millions of individuals, and they will not all necessarily fit what we would normally consider to be the 401(k) model. Many small unsophisticated employers do not make their payroll contributions in the automated fashion that the industry has developed. We have a highly mobile population. Given the median income in the United States—somewhere between $15,000 and $17,000 per year—at a 2 percent contribution rate, we come out with half the population contributing some amount lower than $300 per year. If you compare administrative costs against that number, you can see how we have an issue. Potentially, we are going to have a multitude of competing investment vehicles. It is a daunting challenge to determine how to reconcile these with the millions of employers that will be involved.

Regulatory issues will be abundant and, obviously, there will be a lot of opportunity for people to make mistakes. There is also plenty of opportunity for sales people to sell all sorts of products at the wrong prices to the wrong people.

## ■ Technical Issues

First of all, this is, unfortunately, not a fully electronic world. Of course, at the high end, electronic transmission is the standard mechanism for the industry to convey payroll data and payroll contribution information in the defined contribution industry. But, even in our organization, for example, with 5,000 public employers, more than 2,000 are involved with us in some way through paper processing. At the national level, millions of employers will be involved in the transmittal of paper documents.

Substantial technology issues are ahead of us to achieve cost effectiveness. Current scanning technology is not 100 percent effective in terms of its ability to take the written document and convert it accurately into digital data necessary to achieve the economies of scale that the defined contribution industry has enjoyed to date. We also have to cope with employers that do not submit data on a weekly or biweekly basis, those involved in sporadic processes. So, there are many challenges.
We do have good news coming with Internet technology, however. By the end of next year, a number of us in the record-keeping business will be able to share the powerful and dramatic changes in the efficiency of handling a great deal of the small employer data; but still, that is out there in the near future.

The variations that we are going to have to handle in administering individual accounts include the fact we have multiple payroll sourcing, and it is going to come in different forms. Reconciliation no longer will occur only among the employer, the record keeper, and the employee. The Social

Security Administration (SSA) or some other national agency will be in the middle of this, multiplying the complexity of the system. That applies to statements, and it also will apply to transfers and records. There will be a major national database issue for all of us to confront. Obviously, this will require coordination.

The intricacy of any proposed system will be substantial, and there are issues of equity in terms of public- and private-sector alternatives, in terms of the options offered to low-income individuals versus high-income individuals, and in terms of how we maintain low costs across the board. For the system to operate efficiently, a national system must be able to exploit scale. We will have to determine how to take advantage of existing economies of scale. How do we leverage off of existing systems?

To help us today, there are three fables to remember: the mountain and the molehill, seven blind men and the elephant, and the Tower of Babel. The first fable involves the "mountain" of running a national, complex system. Kelly Olsen and Dallas Salisbury of the Employee Benefit Research Institute explain that individual accounts will be the largest financial services undertaking ever conducted in the history of the western world.[1] It is important for us to realize the size and complexity of this undertaking. Obviously, there will be a lot of bumps in the road. The job for all of us in the various professions involved is to not turn every molehill into a mountain. Separating the manageable issues from the impossible problems is a challenge. That will take leadership, coordination, and a vision.

## ■ Policy Issues

In terms of policy issues, there are many. What role would the public sector play in this? What role is there for the private sector? What activities will government, the SSA, or other similar agencies undertake? What will be contracted out? What will government permit and essentially turn over to the private sector? How will that be regulated? And, then, how big is Big Brother? What records will be pumped into some huge national database that would attempt to monitor the investment activities of every American?

In terms of high-level issues, we have that of investment education. How do we educate the entire populace on how to invest their money in individual accounts? All investment organizations intend for their product to be a part of the options. How do we create a level playing field? How do we do the record keeping? And, how do we centralize the required data?

Clearly, government has a role with respect to public education of the entire populace as to how the system operates and the available investment alternatives. What will the government produce in terms of information in the public domain that would be available through print media as well as the Internet? Who will regulate the private sector in industry practices? Then, on the private-sector side, what will the third-party record keepers (TPRs) and the investment houses do in terms of providing investment information and education to the individual employee participants? What financial planning functions would fall to the private sector?

## ■ Administrative Issues

There are going to be issues on payroll, and we have public agencies that would have to be involved. It is likely that there needs to be some default system. We will quickly find that the economics of providing services to the entire population do not fit the model of a private-sector 401(k) defined contribution plan. Today, many companies gladly take on high-margin employer business, but they will not want anything to do with the residual portion of the population where the economics are unprofitable. That raises the question of the role of government.

There also will be the question of whether there would need to be a governmental clearinghouse. There are some who would prefer to follow an individual retirement account (IRA) model, but that simply will not work on a decentralized basis with millions of employers, each of which is accommodating thousands of investment options. So, one of the questions would be, will there be a central clearinghouse? And again, what would be the role of government as a regulator? What would be the

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[1] *See Kelly Olsen and Dallas L. Salisbury, "Individual Social Security Accounts: Issues in Assessing Administrative Feasibility and Costs,"* EBRI Special Report *SR-34 and* Issue Brief *No. 203 (Employee Benefit Research Institute, November 1998).*

role of the private sector?

As I discussed earlier, not everybody is electronic. For individual accounts to work, the system will need to be digital-based, not paper-based. The large employers are clearly there already. Also, the third-party administration payroll services have the capacity to get us there through electronic media. We also have the advantage of the Federal Reserve Board and the banking system, which already have been doing Treasury and tax accounts and consolidating information. So, there is a major available pipeline. But, today, millions of millions of employers are operating on paper-based systems. How we make this leap on a cost-effective basis will be one of the daunting challenges.

Once payroll is in, we still need to get the individual account and the employer account reconciled, and we have to tie that back in to the extent that the SSA or another agency is able to monitor the employee's activities. So, there are multiple reconciliations required at a higher level of complexity than is standard in the defined contribution industry as we know it today. No employer reports its biweekly payroll activity to the Department of Labor. If you think about what could happen here in terms of the complexity of the system, depending upon the level of centralization, it is significant.

## Two Models

There probably are two models to go forward—but this is not gospel. Other people may have different ways to characterize this. One model would envision a system in which there is a complete consolidation and centralization of a national database that keeps track of the investment accounts, if not on a weekly or biweekly basis, then at least on an annual basis. It is also possible to envision a system in which there is some version of a coordinating database, but there would also be independent record keeping following what is essentially the private-sector defined contribution model for those employees, where feasible.

The issue that we will face is, can the SSA "let go?" If we monitor a system and operate a system of individual accounts, one of the fundamental questions to be addressed up front is the fundamental issue of the extent of centralization in the system. If we do not have it, will it result in errors, problems, and scams?

On the investment side, we will face the inevitable issues of what options to mandate, what options to permit, and which will be provided and controlled by government. How do you keep politics out of that? What would be the individual choice for those who want to have access throughout the free market? And, finally, how do you coordinate all of those systems?

Previously, Dallas Salisbury has pointed out that there will be monumental staging and timing considerations. Not all of this would happen at once. So, this takes us to the second fable about the seven blind men who tried to describe the elephant. One felt the tail, and he said that the elephant was a rope. Another felt the tusk, and he said that this was a sword. And another felt the leg; he said that it must be a tree. The point is that everyone involved in this process has some version of individual accounts that is a personal perspective on that elephant. We have to come up with common language that brings people together in a unified context to understand the complexity of this system.

To get that, we will take a look at some of the strategies for investing the money. There is a challenge to each of us from at least four sectors: the defined benefit community, the index fund community, the defined contribution community, and the IRA community. There is a challenge from the defined benefit industry, and, certainly, the pension actuaries have made a good point here. There is an opportunity to learn from both the public-sector and private-sector defined benefit models that may give us one way to handle the process of investments for individuals—to produce market returns without producing individual risk. But this also raises the issue of getting the government involved in the investment process and offering guarantees of returns to individuals.

We also know already from the Federal Thrift Savings Plan that there is investment-index efficiency out there. Those who believe in efficient capital markets would probably say that you do not need to have individual investments if people can have access to a broad-based index fund or family of funds. The third group would be those who would say, "Gee, let's do things like the private sector in the defined contribution universe." Then, finally, there would be those advocates who say that an

individual can choose any investment of their choice; essentially this would be the IRA model. This propels us to the fable of the Tower of Babel, which symbolizes what we would have if you tried to throw all of that together. Initially, many people would be speaking different tongues, and there would be no coordination of those four fundamental categories of investment activity. Providing a common lexicon will be a monumental task.

Four generic designs are provided in tables 2.1–2.4. The first would seek to meet the challenge of the defined benefit industry with a Universal Fund, a cash balance type of arrangement. The second option would offer index fund efficiency through an Efficient Markets Family of Funds. The third option would provide opportunities for defined contribution plan types of administration through employers, with employer-selected fund options. The final option would be to offer individual choice through IRA-like accounts.

## The Universal Fund

The universal fund essentially would be a large national pension fund. The difference would be that individuals would be given credit for a specific earnings rate. This fund would be nationally administered and available to all workers as a default option if the employer chose nothing else. Again, this is needed for the many millions of employers who lack the payroll-processing capability to channel funds into different investment vehicles.

Money could simply flow into a single account, and it would earn interest at a specific earnings rate. That earnings rate would be determined actuarially; it would not fluctuate on a daily basis. No market value adjustments would have to be made; individuals would simply earn whatever the compound rate of return is for a balanced portfolio.

In essence, the fund would absorb market risk, and there would, of course, be actuarial surpluses and actuarial deficiencies over time. That prospect raises a host of political issues. It would, nonetheless, simplify record keeping because we would not have the issue (especially at the lower common denominator end of the industry) of how to handle all these millions of accounts where you have $13.26 going through, as well as the fact that it comes through at awkward periods of time. The computer simply would attribute 7 percent annual interest or whatever the earnings rate would be. That would greatly simplify record keeping and reduce costs to the small accounts.

This approach would probably be favored by people I will call protectionists or preservationists. Some would call them parochial. But let's not forget that some people do not like to invest money in the first place. Half the population wants the returns of the stock market, but they do not want to actually have to go out and do the work of it. So, there are advantages, at least, in terms of simplicity. There would be minimal need for investment education, and employers could offer other programs as a mandatory option, if they want to do other things.

A universal fund or a cash balance fund also could provide the underwriting capability for an annuity option when people retire. This vehicle could allow the rollover of an individual account into a lifetime stream of earnings upon the retirement of the individual.

Finally, if it does happen, once the money is in this fund, it would be very difficult to transfer it around to other places because there would be a huge opportunity for anti-selection. An individual could have the opportunity to make a post-hoc election to move his or her money to another investment vehicle at different times of the market cycle.

## Efficient Market Family of Funds

The second category is the Efficient Market Family of Funds, which would be a series of index funds. Most of you are familiar with the Federal Thrift Savings Plan, but certainly there could be a couple of stable value options, and there could be asset-allocation type funds mixed into this. This might be operated under federal contract by private-sector firms, similar to the Federal Thrift Savings Plan. This would provide huge economies of scale because of the billions of dollars under management and the passive approach to investment management. This approach could provide a benchmark for all of the private-sector fund activities. You would have low fees and average market returns, and individuals who would be choosing other investment vehicles could use this as a focus point, much as the Tennessee Valley Authority has done in the water indus-

try. An employer would have to make an election to offer, if it is not going to be administered centrally through the federal system because there could be a requirement to split payroll here. That does introduce complications. It raises the question, would there be a federally contracted record keeper who would handle all of this at the national level?

## Defined Contribution Model

The defined contribution model would leverage the existing system, which would provide economies of scale. One of the great advantages is that we are working with silicon here, and what we have learned in our place is we can take a 401(k) record and add other investment activity for the same participant at a very low marginal cost. One of the powerful advantages here is that we already have an industry capable of doing this kind of record keeping. It may be possible to do this at a very streamlined expense. The employers, therefore, would piggyback on their own defined contribution plans in achieving economies of scale. The advantage to the individual is that you could then offer an expanded investment menu, in these cases chosen by the employers. The employer, nonetheless, would have fiduciary responsibility.

The difference between that and the 401(k) is how to assure that all Americans are given at least some of the same investment options. You could envision a scenario in which every employer would still be required to also provide the record keeping for the Universal fund. Their employees would have access to that option, just as the people who are operating in a paper-based system, and their employer would also have to offer the index fund series to provide direct competition to those employer-selected investments, again providing a public-sector competitive yardstick.

The issue here is fiduciary liability for the employers. We have this already with the 401(k). What would be the rules in Social Security individual accounts? What would be the role of the federal government in terms of oversight regulation, not to mention the issue mentioned earlier of how and how often would we have reconciliation at the national level? Would the government monitor these activities annually, quarterly, monthly, biweekly, weekly, daily? As you can see, there are a whole lot of issues as to how often there would be an interchange of these data.

## The IRA Model

There are two ways to offer complete freedom of choice. One would be the IRA rollover model. Under the current system of existing rules, for example, in 401 plans and qualified defined contribution plans, an individual upon separation from employment can move his or her money into a rollover IRA. That model would keep the IRA industry, in essence, out of the payroll business, which introduces a lot of complexity up front. This approach would simply allow these other vehicles to be the accumulation instrument through which the asset balances are finally pooled to become large enough to be viable from an investment product management and sales capability later on. Essentially, they would become the incubators for the private sector, which then would have to find ways to convince individuals to take their money out of the accounts they have accumulated and move it over to a rollover IRA arrangement.

The other alternative would require a clearinghouse, some sort of a national system through which employers would essentially channel money and through which the individual choices would be made, because we know that small employers will not have the capacity to divert their payrolls into this large number of investment options.

So, a myriad of variances exists. Aristotle, who liked to classify things, would have loved this because we can come up with all sorts of nomenclature, genus, and species of the various proposals that are inevitable—and everyone will have their own. Every person involved in this process has some idea in the back of his or her mind of how, ideally, individual accounts ought to be set up, what the investment vehicles ought to be, how the record keeping should operate, and how it will affect his or her organization. And, of course, everybody expects his or her pet project to be how it will eventually come through Congress.

In the final analysis, this will require a Hegelian solution. It will be a synthesis of all of the different competing, contrasting, and conflicting proposals that we hear, discuss, and debate at the EBRI forum, but the end result would be probably something that could be workable. Just remember the Tower of Babel: You will need to have a common lexicon.

## Option I. The Default Option: A "Universal Fund" (Cash Balance-Like Plan)

This fund would be nationally administered and available to all workers as a default option. It would serve as the backbone of the SSA record-keeping system because interest would be credited to a participant's Universal Fund account at a predetermined rate, thus simplifying the record keeping. Private firms offering other investment alternatives at the payroll site would be required to offer and recordkeep this fund as well.

The Universal Fund would operate as a huge national pension fund, investing passively in a balanced mix of stock and bond index funds that encompass as much of the investable capital markets as possible. Earnings (and losses) of investments by the fund would remain in the fund, and participants' accounts would be credited with daily accruals at a specific interest rate that will be adjusted over time in response to changing capital markets experience and the long-term outlook for investments. As with a defined benefit pension plan, the fund would experience actuarial surpluses and shortfalls. The governing body of the fund would be appointed on a nonpartisan basis. Investment trustees' fiduciary duties would be to serve the interests of participants; actuaries or the board would be accountable to the Congress, because ultimately the federal taxpayers would be liable for a prolonged actuarial deficiency in the fund.

Many individuals would prefer to obtain long-term capital market returns without making personal investment decisions and taking short-term market risk. This fund would meet these needs, but with a sacrifice of liquidity and marketability. Once in the fund, participants generally would be obligated to remain there, although the trustees and actuaries could design an arrangement allowing for advance notification of withdrawal over an extended time period (such as five or seven years), to permit some portability but to discourage anti-selection (the individual's *post hoc* decision to withdraw money at par after a loss is experienced by the fund).

This fund could also serve as the funding vehicle for a national annuity option, whereby investors in other funds such as index funds or privately managed accounts could exchange their assets for a fixed or inflation-protected life annuity.

### Policy and Administrative Issues

1. Investments: How to ensure that the funds are not invested politically, and whether they offer access to capital markets to small companies that are not exchange-listed.
2. Actuarial: How to manage the real and political risk of a depression scenario in which the fund experiences a huge deficit. The risk of a "run on the fund" argues against allowing this to be a marketable or transferable asset class.
3. Anti-selection: Cannot allow free right to transfer, unless fund is at or near par.
4. If transfers out of the fund are allowed over extended periods, e.g., 10 years, then record keeping coordination with TPAs will be more complicated.
5. As the default fund, the probability is higher that missing records and errors will hit this fund. Could be relatively higher administrative costs, although these costs may still be relatively lower than other options.

## Option II. The Efficient Markets Funds Family

To provide as many workers as possible the efficient access to capital markets available through index funds, the Efficient Markets Funds Family would be operated by private firms under contract with SSA. The funds would include a broad market stock index fund, an S&P 500 fund, an international fund, a broad bond market fund, a special stable-value (nonmarketable) U.S. Treasury bond fund that pays all investors the same variable rate, and one or more multi-asset funds that combine these products to provide broad capital markets diversification.

Access to these funds would be made available to all workers whose employers facilitate entry into the fund family. For employers that elect only to offer this fund family and the Universal Fund, the payroll contributions would be forwarded directly to the national plan administrator for the Efficient Markets Funds Family. This could either be a federal agency or a private firm under contract. (If a contractor, conflict of interest regulations would preclude the firm from offering privately managed accounts.) To meet differing

Table 2.1
**Option I: Administrative Responsibility Matrix, Universal Fund**

| Task | Government | Employer | Individual |
|---|---|---|---|
| Investment product education | • Public school system<br>• Web site | • Basic information brochure<br>• Must decide whether other options are offered | • Necessary only if other options are offered |
| Enrollment | • Account established when SSN is issued. Contributions credited from payroll. | • Notifies SSA at time of first contribution | • No action needed if universal fund is default |
| Payroll withholding and contribution | • SSA provides paper and electronic conduits for employers<br>- e.g., via Fed/banks<br>- e.g., EDI | • If Universal Fund is sole option, then to SSA or its agent | • No involvement if this is the default option |
| Participant accounting and record keeping | • Establishes and maintains Universal Fund account for all known investors | • If Universal Fund is sole option, no action | • Automatic if this is the default |
| Contribution reconciliations | • Reconciles with ER and TPA reports | • Submits and reconciles files quarterly or annually | • N/A |
| Investment fund management | • Oversees management of Universal Fund through independent board | • N/A | • N/A |
| Payroll investment allocations | • None required if default<br>• May need to offer facility if Option II is also selected | • Employer decides whether Universal Fund is a pure default<br>• Employer can elect to split payroll, but is not required | • Can only choose options offered by employer<br>• If Universal Fund is default, no choice |
| Transfers between funds | • Facilitates with TPAs and IRAs if transfers are permitted | • N/A | • N/A |
| Transfers to life annuity | • Facilitates transfer to life annuity | • N/A | • Makes election to annuitize |
| Reconciliation with SSA<br><br>Statements | • Maintains active participant files under Options I and II<br>• Reconciles with omnibus under Option III | • Quarterly or annual report | • N/A |
| Identifying mistakes | • Issue to default investors | • None if this is sole option | • Responsible for review |
| | • Oversight and audit | • From payroll reconciliation | • Reviewing statements |
| Calculating losses incurred as a result of mistakes and compensating participants | • Reconcile only for federal program; not for private TPAs | • Responsible for actions of TPAs but will likely recover | • Limit (e.g., 120 days) on full reimbursement; declining thereafter |

Source: Girard Miller.

employer needs and capabilities, the payroll contribution system interface could provide for either direct allocation to the various funds from payroll if the employer's system allows, or it could provide for a single transfer to the default investment option from which the worker can then make telephonic, Internet, or paper-based transfers to other funds.

For employers that also offer privately managed accounts using the defined contribution record-keeping model (see Option III below), this fund family would be mandatory, so that employees are given the option of a very low-fee, passively managed competitor. If an employer does elect to offer Option III, which includes private-sector funds in a defined contribution record-keeping arrangement, then the TPA for that system would trade with these funds on an omnibus basis and record all participant investment activity on its system.

Table 2.2
**Option II: Administrative Responsibility Matrix, Efficient Markets Fund Family**

| Task | Government or Servicing Agent | Employer | Individual |
|---|---|---|---|
| Investment product and options education | • Produces basic investment education brochure<br>• Web site | • Employer elects to offer; if so, required to provide investment education materials | • Could be required to acknowledge receipt of information prior to investing |
| Enrollment | • Through payroll transfer from employer or third party | • Submits payroll data indicating that employee has selected these options | • Must elect into these funds |
| Payroll withholding and contribution | • Receives direct payroll contributions | • Submits directly or by payroll service; otherwise through TPA | • Directs the $ or % to go to this option |
| Participant accounting and record keeping | • Provides fund accounting and services for those who invest directly | • None required. Participant directs either through SSA/Agent or TPA | • N/A |
| Contribution reconciliations | • Reconciles with employers or payroll services; audits TPA if DC model | • Reconciles with SSA if direct; otherwise audits TPA reports | • N/A |
| Investment fund management | • Contracts for fund management custodian and related services | • Elects to offer this fund family; may decline if unable to process | |
| Universal Fund access | • Provides central facility to serve both the Universal Fund and the Efficient Markets Fund family | • Can transfer a single contribution or multiple | • May or may not make fund selections at worksite; can allocate by phone |
| Payroll investment allocations | • Could be a single option by direct investment, multiple if through TPA | • Single option or multiple option if through TPA | |
| Transfers between funds | • By telephone or Internet if direct; or via TPA | • Decides which processing platform to offer employees | • Via phone, VRU, or Internet |
| Transfers to life annuity | • Facilitates transfers of assets and underwriting of annuity | • N/A | • Makes election |
| Reconciliation with SSA | | • Payroll (if desired) | |
| Statements | • Issues statements for funds if held directly | • Decides frequency and format | • Reviews |
| Calculating losses incurred as a result of mistakes and compensating participants | • Responsible for individual errors if investment is direct; regulates TPAs | | |

Source: Girard Miller

Unlike the Universal Fund, these funds would be exchangeable daily to other privately managed accounts. If an investor wishes to transfer to any of the investment options provided in Option III and Option IV below, a telephone or Internet transfer facility could facilitate these transactions.

## Policy and Administrative Issues

1. Coordinating payroll contributions from employers to a central plan administrator. Reconciliation.
2. Providing telephone and Internet exchange features.
3. Providing educational services in support of the products, a function usually provided by defined contribution plan administrators.
4. Serious competition to the private sector from these "nationalized" funds. For example, most retail index mutual funds available might be priced considerably higher than these national superfunds unless their administrative expenses inflate the total expense ratio.
5. These could become "incubator accounts" to be targeted later (under Option IV) by private sector firms with a "creaming" strategy once the balances grow to be highly profitable.

## ■ Option III. Defined Contribution Model: Payroll-Based, Privately Managed Investment Options

Using the existing technology of the defined contribution industry (Sec. 401, 403 and 457 plans), employers could elect to offer a predetermined family of investment products that includes the Universal Fund, the Efficient Markets Funds Family, and a menu of employer-selected investment options.

Vendors, TPAs, and privately managed funds would be regulated and certified. If offered by the employer, then employees would be free to choose between these products. Employees can initiate transfers between funds (where allowed) through their government-supervised and -regulated record keeper. Employers would be required to provide for participant investment education and would be subject to fiduciary responsibility for their selections of funds. Regulatory fee limits might be necessary, although employer bargaining power and competition from the Efficient Markets Funds will tend to moderate the fees.

This option takes advantage of existing industry infrastructure, and for many employers, a single statement can be issued with multiple employee accounts (e.g., 401(k) and these accounts). In many cases, workers would access the same funds used by their defined contribution retirement plan, in addition to the federally mandated options.

### Policy and Administrative Issues

1. Regulation, certification, reconciliation, and audit of TPAs
2. SSA will not maintain actual "control" of the TPA's records. It receives periodic reports and (some agency, either SSA or DOC) has regulatory control. The actual record keeping is independent of the government's. It's a dual system.
3. Coordination of data files to ensure federal/SSA awareness of individuals' balances.
4. Coordination of transfers and record keeping of the Universal Fund and Efficient Markets Funds by TPAs.
5. Benefit will be available only to employees of whose employer offers this option. Not universal.
6. Phasing: Whether to allow this option immediately or wait one to two years for Options I and II to stabilize. The irony is that the private-sector defined contribution industry is better prepared to implement immediately than is the government.

## ■ Option IV. IRA Model: Individual Privately Managed Accounts

Under this option, workers would be allowed to move their accounts to any approved/regulated private account manager similar to an IRA. Although some theorists suggest these accounts could be offered directly from the payroll system, the reality is that most employers, practitioners, and researchers agree that this would be administratively impractical because of the complexity and cost of multiple vendor sourcing and funds transfers. Although a clearinghouse might serve as an intermediary, this would probably complicate the system and raise costs during the initial years of implementation. Instead, the recent thinking is that workers would use the other payroll-based savings systems (e.g., Options II and III) to accumulate assets, and then be allowed to make transfers to an individually managed account, similar to a rollover IRA transfer from a defined contribution plan.

### Policy and Administrative Issues

1. Allows "creaming" of high-balance accounts which could adversely affect economics of other options.
2. Regulation of investment providers and sales practices. Greater opportunity for high-fee and high-commission products to be "sold" to unsophisticated individuals.
3. Control and regulation of fees.
4. Once money is rolled out, need to have an administrative mechanism to monitor individual balances and to permit transfers back to other options.
5. Greater risk of individual investment losses since the universe of products will be much broader.
6. Phasing: this option might be delayed for 3–5 years to reduce confusion and to permit asset accumulations that would improve the economics for all involved.

Table 2.3
**Option III: Administrative Responsibility Matrix, Defined Contribution Model**

| Task | Government | Employer | Third Parties: Payroll & Record Keeper | Individual |
|---|---|---|---|---|
| Investment product and options education | • Regulates vendors and product literature<br>• Provides Universal Fund and Efficient Markets Funds Family options and investment education materials | • Required to provide if this option is selected; directly or by certified vendor | • Regulated TPA must provide investment education for all options | • Required acknowledgment and/or attendance |
| Enrollment | • Facilitates omnibus access to Universal and Efficient Markets Family funds by TPAs | • Facilitates process at worksite | • Establishes account records<br>• Provides for payroll withholding and investment allocations | • Must make fund elections under this option |
| Payroll withholding and contribution | • Audits<br>• Regulates | • Submits payroll contributions<br>• Interfaces with TPA and audit reports | • Provides full service | • N/A |
| Participant accounting and record keeping | • Regulates | • Audits TPA or self-administers | • Provides full service | • N/A |
| Contribution reconciliations | • Audits<br>• Regulates | • Reviews and audits<br>• Reconciles with TPA | • Responsible for complete reconciliation: EE, ER, SSA, etc. | • N/A |
| Universal Fund interfaces | • Omnibus transactions with TPAs | • Provides investment education and compliance reports | • Provides record keeping for individuals; omnibus contributions to SSA | • May elect this fund as one or only option from menu |
| Efficient Markets Funds Family interfaces | • Omnibus transactions with TPAs | • Provides investment education and compliance reports | • Provides record keeping for entire funds menu | • May select these funds from overall menu |
| Investment fund management for privately managed investments | • Regulates | • Makes fund menu selections similar to 401(k) | • Provides record keeping and servicing for entire funds menu | • Selects individual funds and allocates |
| Payroll investment allocations | • N/A | • Allows choices of funds; could self-administer | • Executes participant allocations; splits payroll to respective funds | • Directs allocation of payroll contributions |
| Transfers between funds | • Facilitates omnibus transfers in and out of Efficient Markets Funds family | • Determines media and cost through selection, negotiation, or self-administration | • Facilitates paper, telephone, VRU, and Internet transfers | • Execute transfers as desired |
| Transfers to life annuity | • Facilitates purchase of life annuity | • N/A | • Makes fund transfers | • Makes election |

(continued)

Table 2.3 (continued)

**Option III: Administrative Responsibility Matrix, Defined Contribution Model (continued)**

| Task | Government | Employer | Third Parties: Payroll & Record Keeper | Individual |
|---|---|---|---|---|
| Reconciliation with SSA | • Works with employers and TPAs<br>• Audits and regulates | • Payroll reconciliation with SSA if self-administered, or via TPA | • Provides reports and reconciles payroll, account transfers and fund transfers | • N/A |
| Statements | • Regulates | • Reviews and audits employer statements | • Submits statements to employer, individual, and SSA. Quarterly and on demand (online or fax) | • Receives and reviews |
| Calculating losses incurred as a result of mistakes and compensating participants | • Regulatory responsibility | • Fiduciary responsibility | • Primary responsibility | • Limits on claim if delayed |

Source: Girard Miller.

Table 2.4
**Option IV: Administrative Responsibility Matrix "IRA Model": Individual, Private Accounts[a]**

| Task | Government | Employer | TPAs and Investment Product Providers | Individual |
|---|---|---|---|---|
| Investment product and options education | • Regulates products and sales material | • Not involved | • Investment product providers will provide | • Individual responsibility |
| Enrollment | • No investments made through enrollment | • N/A | • In this model, investment in individually controlled accounts is made *after* enrollment, by funds transfer | • Employee first enrolls elsewhere, then transfers to private account |
| Payroll withholding and contribution | • No payroll interface | • No payroll interface | • No payroll interface | • No payroll interface |
| Participant accounting and record-keeping | • Provides for regulation, audit, and supervision of account transfer process | • If active account transfers to individual ownership, employer is out of picture | • TPAs facilitate transfer accounting<br>• Investment product providers then assume record keeping | • Individual must monitor the transfer |
| Contribution reconciliations | • Same as other options; these funds are not involved at front-end | • N/A for this option | • N/A for this option | • Individual assumes responsibility after the transfer |
| Investment fund management | • Regulates | • Not involved with private options | • Private product provides | • Makes personal selections |
| Payroll investment allocations | • These funds are not involved at front-end | • N/A for this option | • N/A for this option | • N/A for this option |
| Transfers between funds | • Facilitates transfer from Efficient Markets Funds to private accounts | • Facilitates transfers if self-administered. If entire individual account transfers out, employer is relieved of responsibility | • Facilitates transfers, similar to 401(k) to IRA rollovers | • Directs the transfer |
| Transfers to life annuity | • Facilities transfer of funds back from private accounts<br>• Regulates private annuity providers | • N/A | • Life insurance companies might offer products to compete | • Makes election to annuitize<br>• May decide between public and private products |
| Reconciliation with SSA | • Same as other options at front-end | • Files report on funds transfer if self-administered | • Files report of funds transfer to individual | • N/A |
| Statements | • Regulates and audits | • No involvement once all of an account is transferred to individual ownership | • Documentation of transfer to employer, SSA, and individual | • Responsible for review |
| Identifying mistakes | • Regulates process | • Minimal involvement; none once funds are held by individual | • Primary responsibility for administrative errors | • Responsible for detecting errors |
| Calculating losses incurred as a result of mistakes and compensating participants | • Regulates | • Not involved | • Primary responsibility and liability | • Responsible for error detection within specified period |

Source: Girard Miller.
[a]Note: This assumes no payroll interface and only transfers/rollovers from other three options.

# 3

# *Annual Wage Reporting—Can It Be Used for Individual Accounts?*

by Jane Ross

## Introduction

Part of my job is to provide some very basic information about administrative functions that need to take place with individual accounts and the role that the current governmental structure might play in this. Many of the proposals to change Social Security call for individual accounts, but few have considered the administrative implications. As the Employee Benefit Research Institute (EBRI) concluded in its study, "Individual Social Security Accounts: Issues in Assessing Administrative Feasibility and Costs,"[1] this would be one of the largest undertakings in the history of the U.S. financial market. To date, no system has the capacity to administer such a system. Some plans, such as the Breaux-Gregg/Stenholm-Kolbe Plan,[2] discuss a centrally administered individual account using some of the framework of our existing annual wage reporting system. But does this make sense and would it work? What tasks are comparable to what goes on in the way we are reporting now, and what would need to be developed?

## Three Basic Models

First, there are three basic models for individual accounts—centrally managed, 401(k), and individual retirement account (IRA). Regardless of the model that is discussed, each has to accomplish core administrative tasks. But, they differ on how to distribute these tasks among the players—the government, employers, the self-employed, financial institutions, and individuals. I would start by looking briefly at these core tasks.

Our list is quite similar to the one in the Employee Benefit Research Institute's *Issue Brief* and demonstrates all the things that need to be done. If you are going to administer an individual account and establish and maintain a record for each individual account, you have to enroll workers and keep a record of investment allocations, address changes, and corrections of mistakes. These activities could actually be part of the current W-2 process. However, data elements such as life events and changes of address are not collected now and systems modifications would be needed. Beyond establishing and maintaining a record, we need to consider investing account contributions, including functions such as determining the amount of a contribution, sending contributions to accounts, managing the investments, etc., and then paying the investment earnings—another large task.

Addressing compliance and fraud issues would be critical if individual accounts are going to meet their objective. Yet most plans fail to address these issues. Arthur Levitt, Chairman of the Securities and Exchange Commission, recently said regulators would need to commit greater resources to combat a potential increase in fraud. They will also need to work to ensure that costs to investors are effectively disclosed, another nontrivial issue. Customer service and educating the American

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[1] *See Kelly A. Olsen, Jack VanDerhei, Dallas L. Salisbury, and Martin R. Holmer, "How Do Individual Social Security Accounts Stack Up? An Evaluation Using the EBRI-SSASIM2 Policy Simulation Model,"* EBRI Issue Brief *No. 195 (Employee Benefit Research Institute, March 1998).*

[2] *Legislation introduced in July 1998 based on the National Commission on Retirement Policy's comprehensive Social Security reform package; sponsored by Sens. John Breaux (D-LA) and Judd Greg (R-NH) and Reps. Charles Stenholm (D-TX) and Jim Kolbe (R-AZ).*

public are core administrative tasks that need to be addressed in any individual account system.

## Managing a New System

Next, we need to look at a centrally managed account model and how it relates to the current annual wage reporting (or AWR) system. By centrally managed, I refer to the government's primary responsibility to ensure that all core tasks are accomplished. I am not suggesting that government does not contract out a great many of these tasks. The current AWR system refers to the process of reporting W-2s and W-3s, so that the Social Security Administration (SSA) can collect information on individuals and their earnings. This is a centralized system already familiar to employers. Thus, it could be used to provide information needed to credit contributions to individual accounts with little additional information needed from employers. The AWR system provides a "hook" that reduces the employer burden and would probably not require a lot of extra information to even be added to the W-2 or W-3 forms. That is its major attraction, but there would need to be modifications to the current system to change it from a credit-based system to a cash-based system. Today, all SSA needs to know is an individual's earnings. We do not need to know how much of a contribution or tax they paid.

We also need to think through such things as processing tolerances, which are very practical for SSA's credit-based system. Tolerances are the amount below which you do not worry about whether you have made a mistake. That dollar amount might be different if you were referring to an individual account that is cash-based. Additionally, contribution submission and reporting timeframes might need to be modified. Currently, earnings are reported on an annual basis and the majority of accounts are updated 15 to 20 months after wages are earned. This process could be streamlined; and perhaps reports could be submitted more frequently. But in doing those sorts of things, you clearly need to look at the administrative costs—increased costs.

SSA obviously also has a structure for processing claims based on earnings. If you were talking about a claw-back plan or an integrated system that in the end requires a single check be sent to the beneficiary, then SSA's claim process could possibly be involved.

While the current AWR process can be modified to address the tasks of establishing and maintaining a record for each individual, it would involve some expansion. Remember, however, that this is just one of the administrative functions that needs to be done. There is some advantage to what goes on now at Social Security, and it is important to understand what it is. Our current system is limited with regard to the broad range of administrative functions that need to be undertaken if you are going to have individual accounts.

The other area where the AWR process may be of use is compliance and enforcement for 401(k)- and IRA-type plans. The AWR file could serve as the baseline match for contribution investment data submitted by employers on behalf of workers or by individuals on their own behalf. As we know, it would be very complex if information were flowing from a broad variety of sources. Would there, in fact, be some central way to validate whether a contribution was made? AWR might be used for that.

## The Current Status of Wage Reporting

How do we do AWR today? Basically, it's a four-year process. That takes away some enthusiasm right away. In the first year, you have to earn the wages. Then in the second year, employers report to SSA, and SSA processes the reports. In the third and fourth years, we reconcile our information to make sure that SSA and the Internal Revenue Service (IRS) have the same information. We compare W-2/W-3 information to quarterly tax return information reported to IRS. If you were talking about wages earned in 1998, by September 1999, 98.5 percent of earnings items would have been processed and updated to individual records. For the current system, that is a perfectly adequate time frame, but it is a serious consideration if you are thinking about it as an investment mechanism.

There are four basic steps to the AWR process. First, we receive the W-2s/W-3s from employers and convert paper records to magnetic media. Currently, 5.5 million of the 6.5 million employers are sending their information on paper, mainly because they are small employers (fewer

than 250 employees). Obviously, things could be done about that, but that is where we are at the moment. Second, we balance the reports to ensure that the totals on the W-2s add up to the totals that appear on the W-3. As stated earlier, this step has a processing tolerance. We do not pursue discrepancies if they are below a certain amount; but if this was "real" money in an individual account, you might want to change the tolerance level. Then we want, of course, to make sure that the name and Social Security number on the W-2 match our master-file so that the right earnings are posted to the right account. Fourth is the reconciliation process between IRS and SSA that I mentioned earlier.

## Conclusion

What's the bottom line? Can Social Security's AWR framework be used for individual accounts? The answer is yes—IF the plan is centrally managed and modifications are made to SSA's systems to include administrative tasks such as enrolling workers, tracking life events, managing investments, and paying account contributions. The AWR framework could provide a good starting point. It would be a very challenging task that would not have to be started from the beginning—which is a big plus. But, there are a number of core administrative tasks that the government would need to add if it were to run a centrally managed system.

# 4

# *Issues Involved in Using the Annual Wage and Tax Process to Administer Individual Social Security Accounts*

by Kelly A. Olsen

## Introduction

Jane Ross, Deputy Commissioner of the Office of Policy at the Social Security Administration (SSA), states that—with some modification—the current annual wage reporting process could be used to administer individual Social Security accounts (IAs).[1] This paper will identify the basic conceptual tradeoffs and implications of using the annual wage reporting system. First, it provides a brief overview of how the system operates and how defined contribution plans operate differently. Then, it discusses policy tradeoffs and implications of using that system to administer IAs.

## Annual Wage Reporting in Brief

SSA pays benefits monthly based on its liabilities to beneficiaries (as determined through beneficiaries' earnings records). A lesser-known fact is that the U.S. Department of Treasury (Treasury) transfers funds monthly to SSA, based on the Social Security trust funds' estimated liability. Where does Treasury get the funds to do this? It collects Federal Insurance Contribution Act (FICA) taxes from employers, Self-Employment Contribution Act (SECA) taxes from the self-employed, and income taxes on Social Security benefits. In addition, Treasury credits the Social Security trust fund surplus with interest.

Thus, today's Social Security system is *liability-based* in that the Social Security trust fund balances and benefit payments are not contingent on tax revenues. In other words, the Treasury transfers funds to the Social Security program based on liabilities even if the Treasury hasn't been able to collect every last dollar that is due to the Social Security system. There are some real advantages to utilizing this type of defined benefit, liability-based system for all parties involved—employers, workers, and the government—in terms of time, tolerance, and employee protections. One advantage of today's defined benefit, liability-based system is that *time* is provided to correct errors in wage records and tax contributions. Most workers' benefits are not payable until many years after their wages are reported, and the Social Security program's ability to send monthly benefit checks does not depend on incoming tax revenues. Therefore, government agencies and employers have time to work together to ensure that the amounts that are reported to the Internal Revenue Service (IRS) match the amounts that are reported to SSA.

How many errors exist in today's defined benefit, liability-based system? Each year, billions of dollars are misreported in wages and taxes. The overwhelming majority (98.5 percent) of errors in wage reports are resolved within six months. However, the remaining 1.5 percent are under investigation for up to four years from the time the attendant wages are earned, and most are never resolved.

Another advantage of the current system is that having time to resolve errors means that government agencies have less incentive to impose penalties on employers who are acting in good faith. In the information for employers on the SSA and the IRS Web sites there is evidence of tolerance for employers acting in good faith; many penalties that the IRS legally could impose on employers are

[1] *See Jane Ross, "Annual Wage Reporting—Can It Be Used for Individual Accounts?" in this volume.*

not imposed.

Today's liability-based system also gives participants time to resolve errors years after they are made. Consider an individual who had wages that were not reported to his or her earnings record 20 years ago. At any time, this person can contact SSA, prove the wages were earned, have the wage record corrected, and receive proper benefits.
The defined benefit, liability-based system also allows a tolerance of very small employer errors by SSA. This benefits at least half a million employers annually. About one million employers report more in taxes to the IRS than they do in attendant wages to SSA. SSA only contacts erring employers if the wage records mismatch the tax records by more than one wage credit—i.e., $700 in 1998. As a result, only half that number (500,000) of employers need to be contacted by Social Security. Half a million employers equals about 7 percent of all employers, compared with the 15 percent of employers that SSA would need to contact if there were no error tolerances.

Another advantage of the defined benefit, liability-based system is that it protects participants from any employer wage reporting and/or tax contribution mistakes or fraud. Again, if workers discover an error in their wage records and can prove that they had covered earnings, they are not held liable for the employer's error. This is true whether or not the employer has sent in the proper FICA taxes on behalf of these workers.

## ■ Defined Contribution Plans

Most discussion of Social Security IAs has assumed that these accounts would be defined contribution plans. It is therefore important to note that defined contribution plans operate entirely differently in terms of time, tolerance, and worker protection.

First, time matters for investment returns in defined contribution plans. The sooner money is deposited to an individual account, the sooner it can start earning investment returns (and, given positive investment returns, the bigger the ultimate benefit payable to the participant). Time lost because of errors or delays means lost benefits if investment returns are positive.

Second, there is zero tolerance of errors in today's defined contribution plans, because tolerance levels in a defined contribution system would create lost contributions and lost retirement income. By contrast, in the Social Security defined benefit system, if the error equals less than one wage credit, it is unlikely to affect benefits payable.

Finally, at least among the kinds of defined contribution plans existing today, protection is not guaranteed if an employer is delinquent. No government agency or insurance company guarantees contributions and returns if an employer has made mistakes that cannot be resolved.

## ■ Using the Annual Wage Reporting System to Administer IAs: Policy Implications

A central question is: "Who would absorb the inevitable time lags, errors, and losses associated with today's system if they become part of an individual account system, or would the annual wage reporting system have to be changed?"
Features of the annual wage reporting system that are not problematic in today's defined benefit, liability-based system become problematic in a defined contribution type of approach.
For example, what would happen with the time lags that exist in the current system, during which errors are resolved and wages are posted to earnings records? Who would "absorb" them? One idea might be to change the rules of the system so that employers would be required to submit wage reports more frequently. For example, wage reports were required quarterly before 1978—a type of system that might be reinstated. Or, a more frequent reporting system could be required, such as the monthly schedule required of employers that sponsor defined contribution plans.

Another approach would be to work within the current annual wage reporting system to minimize the number of errors by imposing stricter penalties on employers when penalties cause delays in crediting workers' accounts. Wage reports take about six months to process from the time they are received by SSA. Since 98.5 percent of all earnings records are posted six months after they are issued, employers would have some time to work with the government agencies if an error is discovered. However, any errors remaining on wage reports beyond six months could be subject to stricter penalties than common practice under the current system.

Another alternative would be to have the

government absorb these time lags. This alternative is similar to one of the options that Girard Miller of the ICMA Retirement Corporation discusses in his work.[2] The government could have some type of universal fund and credit accounts with investment returns during the wage report processing and error reconciliation time lags. Contributions would go to the government to invest until funds could be allocated to individual accounts, or the government could send those funds to a third party to invest. Still another approach would be for workers to absorb these time lags. Workers could lose investment returns while wage reports are being processed, and they might also lose investment time if employer errors could not be resolved quickly.

Another key question regarding the use of the current annual wage reporting system to administer IAs is: "Who would absorb the current system's tolerance for small errors?" One option would be to modify the current system to impose stricter penalties on employers when they do not report exactly the same amount to IRS as to SSA. Alternatively, the government—or some quasi-public agency such as Stanford Ross mentioned[3]—could step in to fund individual accounts on a liability basis. The liability would be based on earnings records, for example.

Funding IAs on a liability basis would mitigate at least some of the problems (discussed above) resulting from errors on the IRS tax collection and contribution side. Yet, good wage report data would still be required, and problems existing on that side of the administrative process would still need absorption or resolution. Nonetheless, funding IAs based on earnings records is one approach that would allow the government or a quasi-governmental agency to make participants whole for investment or contribution losses due to errors discovered many years after they occurred. (It bears noting that if IAs were funded on a liability basis, they would no longer be defined contribution plans but rather would be some type of hybrid approach—i.e., a cross between defined benefit and defined contribution plans.)

The final central question regarding use of the annual wage reporting process to administer IAs is how employee protection would be handled, given current error tolerances. If participants were to lose contributions because of error tolerances, this means that some of the worker protections of the current system would be lost. Another issue involving participant protection is that unless the government steps in or unless employers stop making mistakes, workers would simply lose investment time or contributions because of employer errors or fraud.

## The Bottom Line: Policy Tradeoffs

Conceptually, an IA Social Security system would necessarily have more employer burdens, more worker liabilities, and/or more government (or quasi-public agency) involvement and/or liability. It is important to be aware of these tradeoffs as reform is debated. Most importantly, it is incumbent on policymakers and the American voters to decide which ones can be mitigated with innovative policy design, and of those that cannot, which are worth making and in what combinations.

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[2] *See Girard Miller, "Basic Administrative Tasks and Theoretical Constructs," in this volume.*

[3] *See Stanford Ross, "The Feasibility of Voluntary Accounts in the Private Sector," in this volume.*

# 5

# *Sensitivity of Individual Account Performance to Administrative Costs*

**by Jack VanDerhei**

## ■ Introduction

At the Employee Benefit Research Institute's last policy forum on Social Security two years ago we presented the preliminary results of our Social Security Reform Analysis Program. Much work has has gone into the EBRI-SSASIM-2 policy simulation model since that time. Martin Holmer with Policy Simulation Group has greatly extended the model's capabilities, as the following discussion will demonstrate.

This demonstration represents the first public attempt to analyze legislative proposals as well as to conduct sensitivity analysis of their administrative costs. We will show the impact of some cost assumptions on two legislative proposals that include individual accounts. Since there is a great deal of debate concerning correct cost assumptions, an entire range of assumptions is used with regard to these proposaals.

First, we show the results of our analysis of S.2313, The 21st Century Retirement Act, sponsored by Sens. Judd Gregg (D-NH), Fred Thompson (R-TN),Charles Robb (D-VA), Craig Thomas (R-WY), and Dan Coates (R-IN). This proposal is very similar to the one advanced by the National Commission on Retirement Policy (NCRP). The second proposal analyzed is S.1792, The Social Security Solvency Act co-sponsored by Sens. Daniel P. Moynihan (D-NY) and Robert Kerrey (D-NE).

## ■ Cost Assumptions

To start, we wanted to get some realistic assumptions concerning the cost elements—both during the accumulation phase (referred to as administrative costs) and during annuitization. We have consulted with several experts in the field, each of whom has a personal opinion on cost, so the task is to establish a range. At the low end we assumed 10 basis points, on an ongoing basis, and an annuity loading just 5 percent over and above the expected cost. The intermediate assumption is 100 basis points per year and a 10 percent loading on the annuity. At the high end, we assumed 200 basis points per year and a 15 percent annuity loading.

This analysis focuses on only one element in order to show what the impact would be on the total benefits, not just the defined contribution/ individual account component.

What is shown here is the actuarial present value of lifetime benefits for members of the various birth cohorts and also broken down by gender and by different wage profiles. The model has been updated with the most recent assumptions—the 1998 intermediate range assumptions from the Social Security Trustees' Report.

Chart 5.1 shows, in thousands of dollars, the present value of benefits by age cohort for S. 2313. Again, this is very similar to the NCRP proposal, assuming no individual accounts. In essence, all we are modeling here is the defined benefit portion. The male-female part of the legend should be obvious. But the terms *average, low, and high* denote different wage profiles. For low earners the focus is on people who consistently earn only 45 percent of the average, and for the high wage earners we analyze people who earn exactly 160 percent of the average for people in their age cohorts.

Chart 5.2 shows the analysis for the same proposal but adds in the 2 percent individual account under S. 2313, with the result that all the benefits increase and the ones in the later age cohorts increase rather dramatically.

Chart 5.3 breaks out the defined contribution element—the individual account element—and shows it as a percentage of the overall benefits. As expected, the high wage earners will have a much higher percentage of their overall retirement balance in the individual account because of the redistribution of the defined benefit formula, and males will have a much higher percentage than females, given the unisex longevity element in the defined benefit component.

Chart 5.4 presents a sensitivity analysis of cost, starting with the average cost assumptions for S.2313 (100 basis points per year with a 110 percent annuity loading factor) and comparing it with the high cost assumptions (200 basis points per year and 115 percent annuity loading factor). As would be expected, exactly the same rank order occurs as was discussed earlier. Those with the highest percentage of their overall retirement benefits coming from the individual accounts are going to have the greatest impact. As can be seen in the later birth cohorts (for example, those born in 2023), benefit reductions are over 10 percent and starting to approach 12 percent, going from average cost assumptions to high cost assumptions.

Chart 5.5 shows the full gamut, going from low annual cost assumptions to high cost assumptions. Again, the rank orders are the same as before, but perhaps the most important aspect is the magnitude of the benefit reductions. Males born in the year 2023 who are high wage earners would experience as much as 23 percent reductions in benefits, on average, going from the low cost assumptions to the high cost assumptions.

Chart 5.6 shows S. 1792, the Moynihan proposal. There is a somewhat different distribution of benefits over time. The result is a much higher present value of benefits in later age cohorts than occurs in the previous proposal.

In Chart 5.7 it is assumed that individuals have taken full advantage of the voluntary 2 percent account. The chart shows the present value of benefits under the Moynihan proposal for these people.

Chart 5.8 is similar to chart 5.7 but because the defined benefit component is so much more valuable under the Moynihan proposal, especially for later age cohorts, the overall percentages coming from the individual accounts under these assumptions turn out to be much smaller than those experienced under S. 2313.

Chart 5.9 shows the same analysis as presented in chart 5.5 in terms of the difference between average cost and high cost under S.1792. Note that this tops out at about 8.5 percent to 9 percent in the later age cohorts for the high wage earner males.

Chart 5.10 shows basically the same thing, but again this shows the full gamut of cost differentials going from low cost to high cost assumptions. And again, because under the S.1792 proposal the overall value of the defined benefit component is so much greater, especially for the later age cohorts, the overall percentages decline as far as administrative cost impact is concerned. Again, this is because the individual account component will be a much smaller overall percentage of the balance.

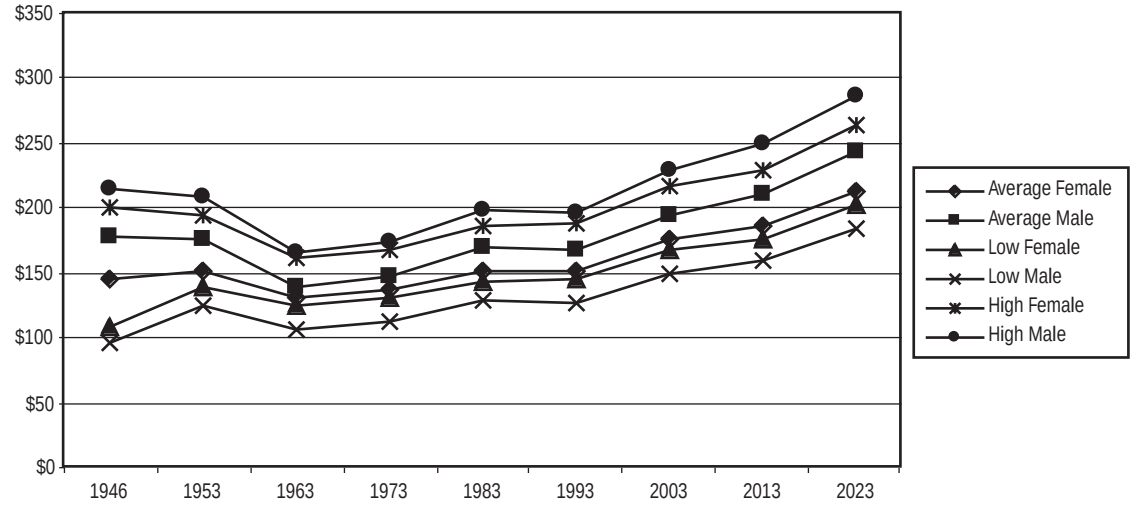
MR. SALISBURY: Does that assume everyone would use the individual account?

MR. VAN DERHEI: Yes. Under the S.1792 proposal, the assumption was that all individuals take full advantage of the individual account.

Please note that although the foregoing analysis is limited just to the mean values obtained from the simulations, in most cases we run a thousand different scenarios. Charts 5.11–5.16 show the distributions obtained from these simulations. The distributions are broken down by gender and by wage profile, and give an indication, based on the year that an individual was born, of the kind of distribution that will occur. For example, focusing on the 2023 cohort for the average wage females (chart 5.11), the mean value of the present value of benefits is about $325,000. However, in the fifth percentile it can drop down to as little as $200,000, while in the 95th percentile, it is up to $400,000.

Chart 5.1

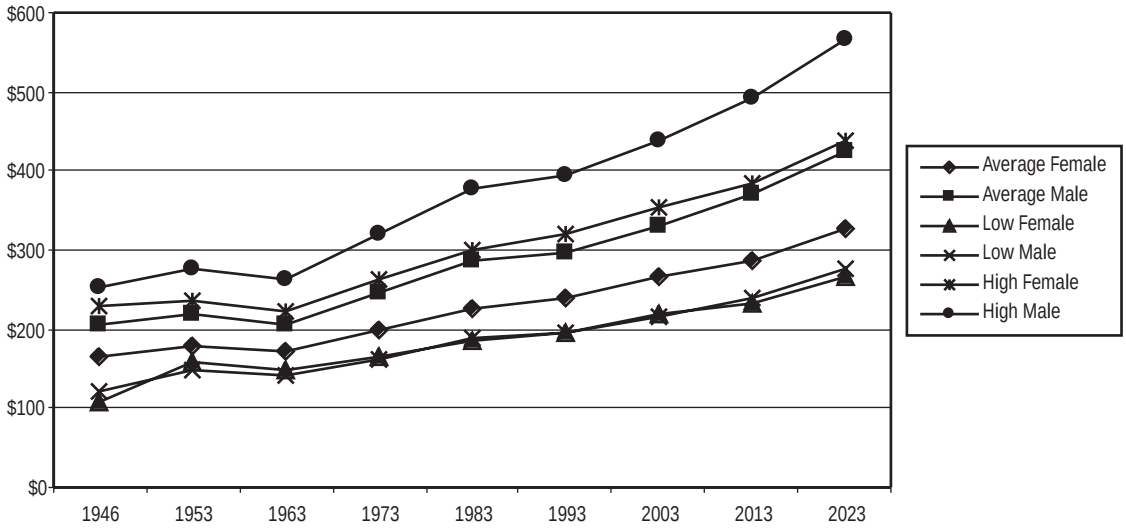
**Present Value of Benefits ($1,000s) by Age Cohort: S. 2313-NCRP,[a] No Individual Accounts**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.2

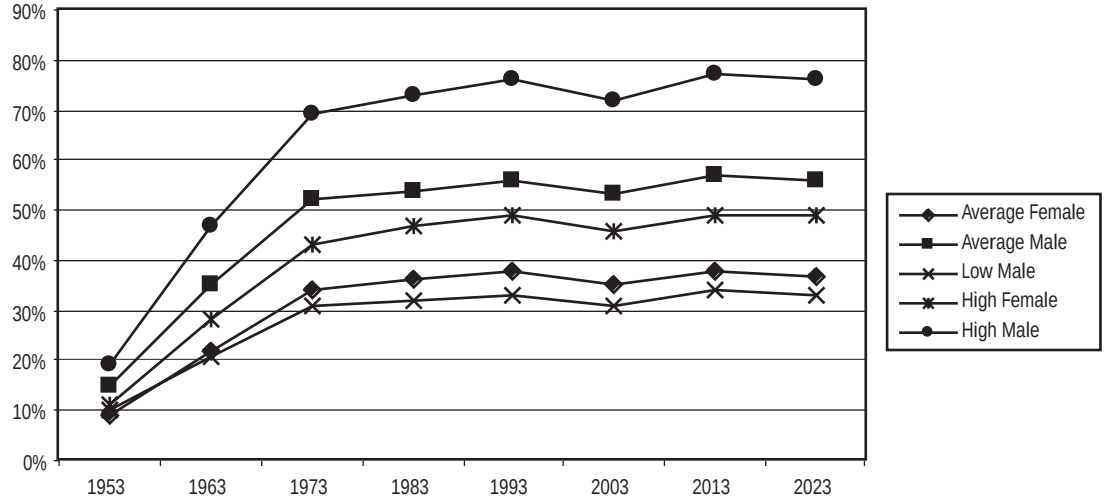
**Present Value of Benefits ($1,000s) by Age Cohort: S. 2313-NCRP,[a]**
**1999 Average Cost Individual Accounts**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.3

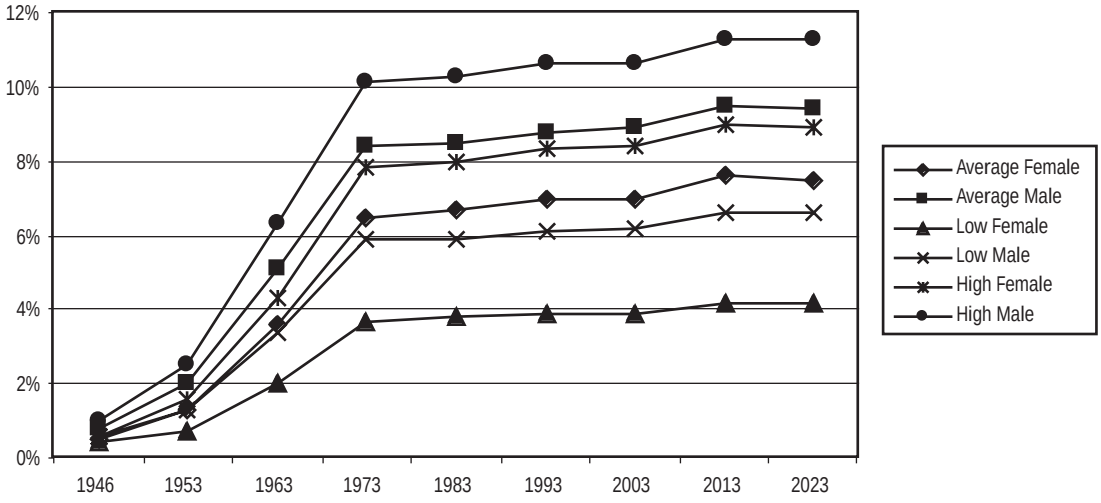
**Percentage of Present Value of Benefits From Average Cost Individual Account by Birth Cohort, S. 2313-NCRP[a]**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.4

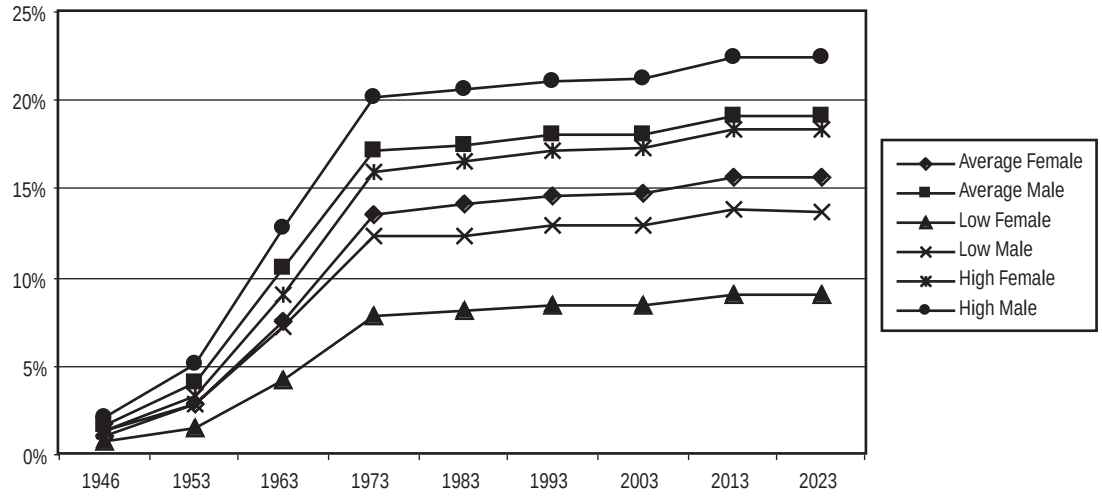
**Percentage Reduction in Benefits Going From Average to High Cost by Birth Cohort, S. 2313-NCRP[a]**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.5

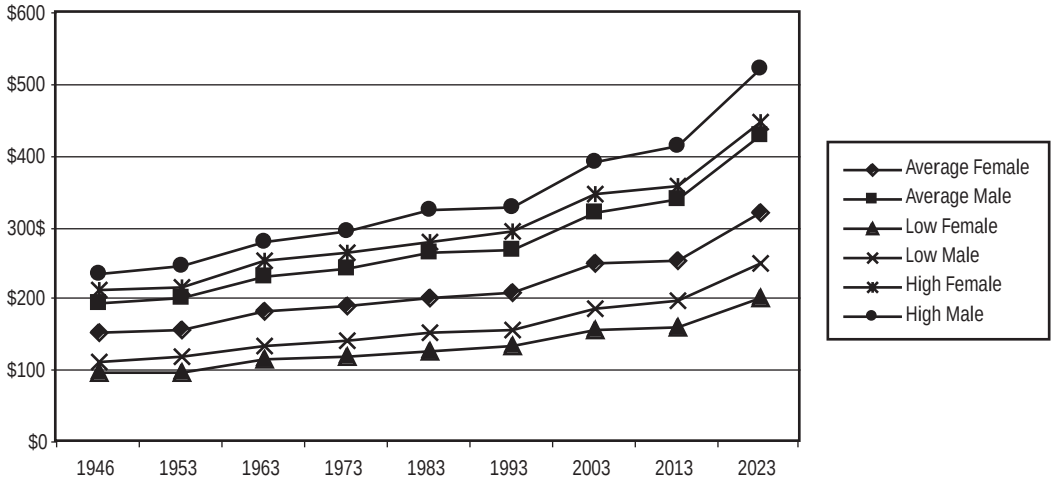
**Percentage Reduction in Benefits Going from Low to High Cost by Birth Cohort, S. 2313-NCRP[a]**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

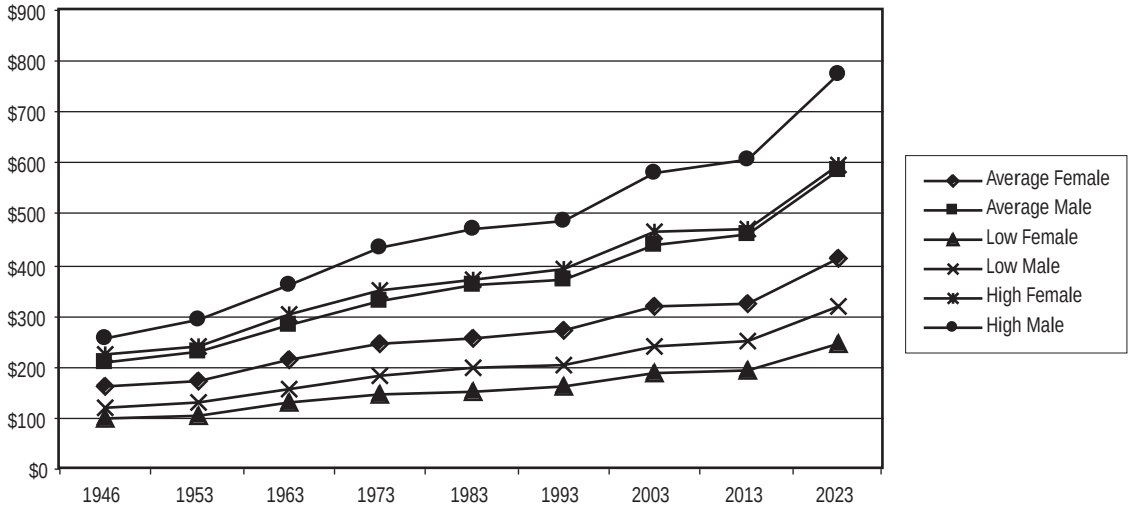
Chart 5.6

**Present Value of Benefits ($1,000s) by Age Cohort: S. 1792, No Individual Accounts**



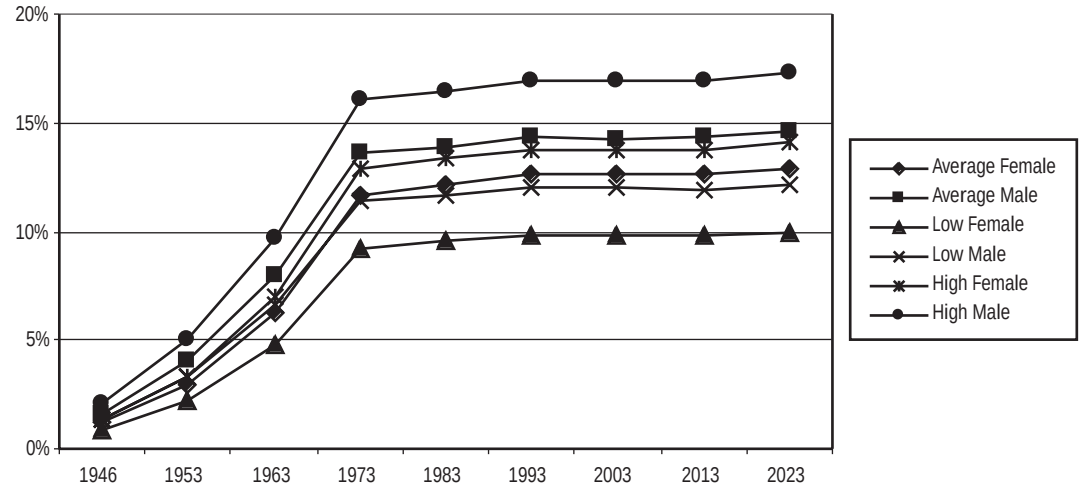

Source: Unpublished tabulations from EBRI-SSASIM2.

Chart 5.7
**Present Value of Benefits ($1,000s) by Age Cohort: S. 1792, 1999 Average Cost Individual Accounts**



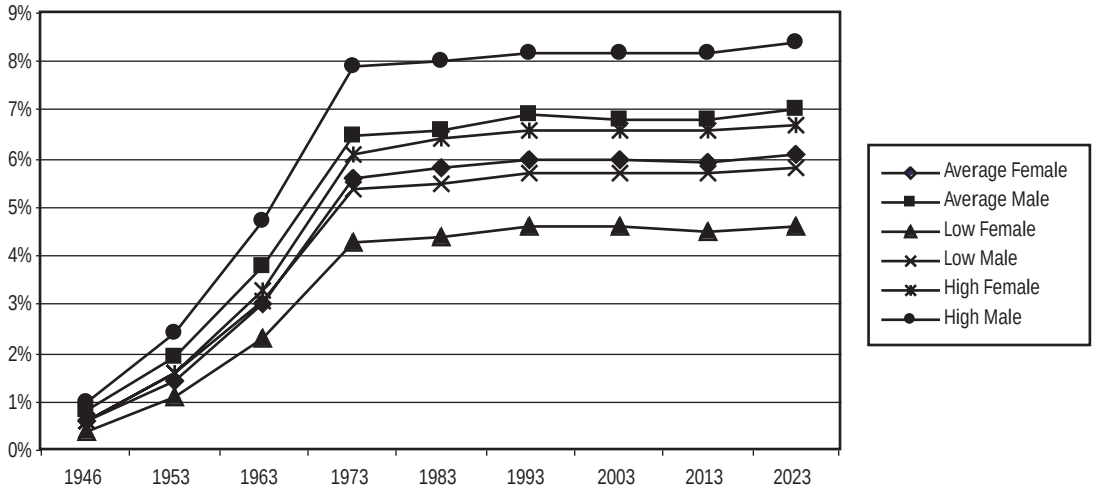

Source: Unpublished tabulations from EBRI-SSASIM2.

Chart 5.8
**Percentage of Present Value of Benefits From Average Cost Individual Accounts (1999) by Birth Cohort, S. 1792**



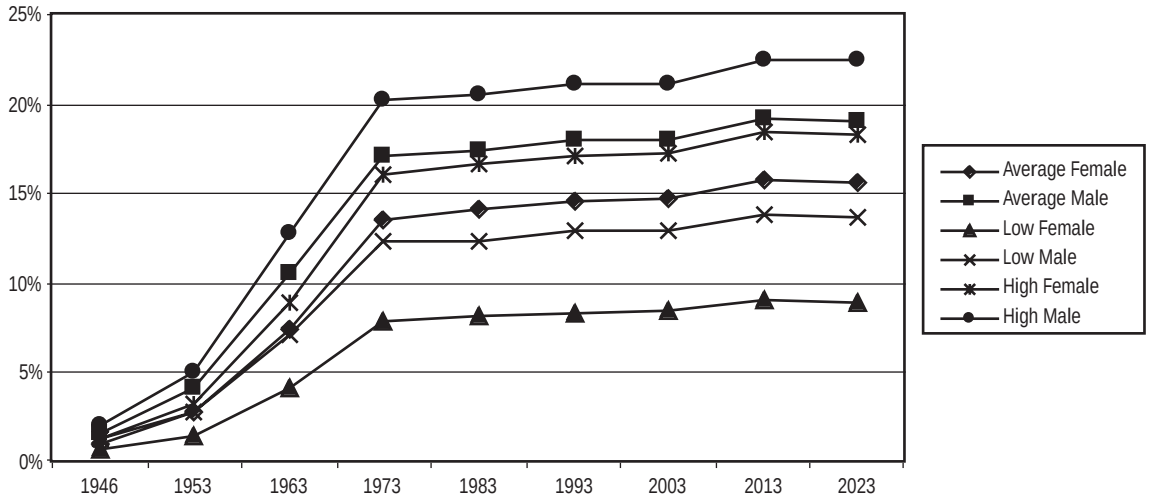

Source: Unpublished tabulations from EBRI-SSASIM2.

Chart 5.9
**Percentage Reduction in Benefits Going From Average to High Cost by Birth Cohort, S. 1792**



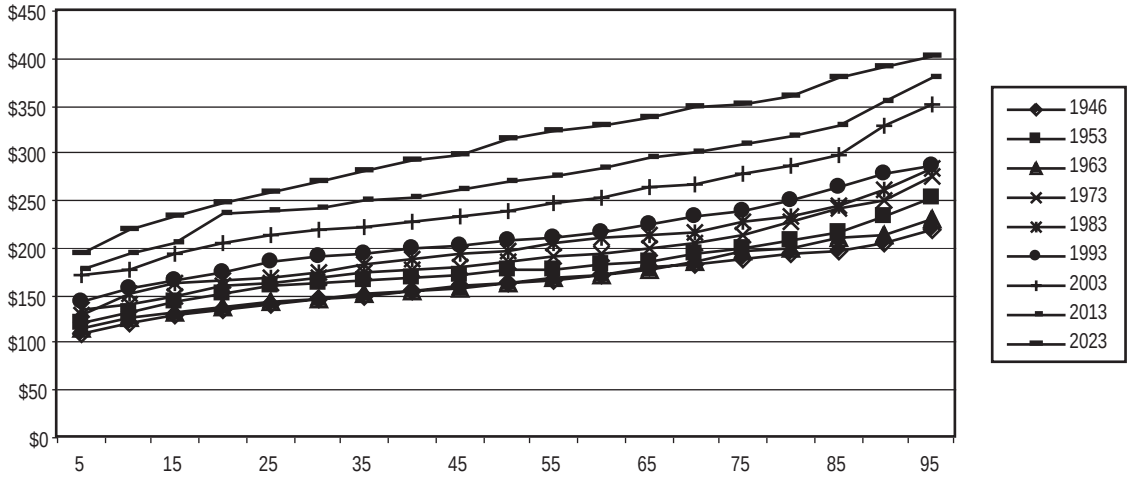

Source: Unpublished tabulations from EBRI-SSASIM2.

Chart 5.10
**Percentage Reduction in Benefits Going From Low to High Cost by Birth Cohort, S. 1792**



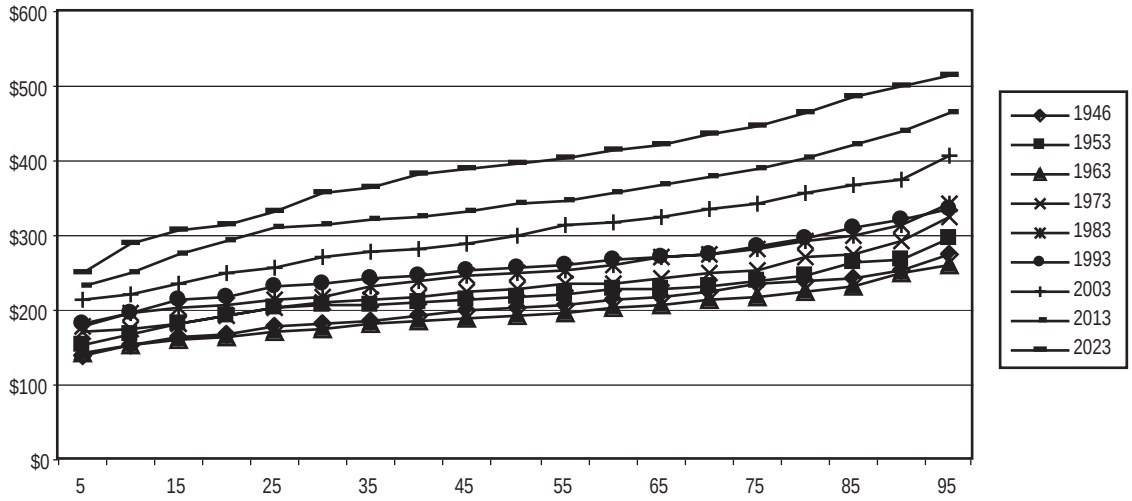

Source: Unpublished tabulations from EBRI-SSASIM2.

Chart 5.11
**Average-Wage Females: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**



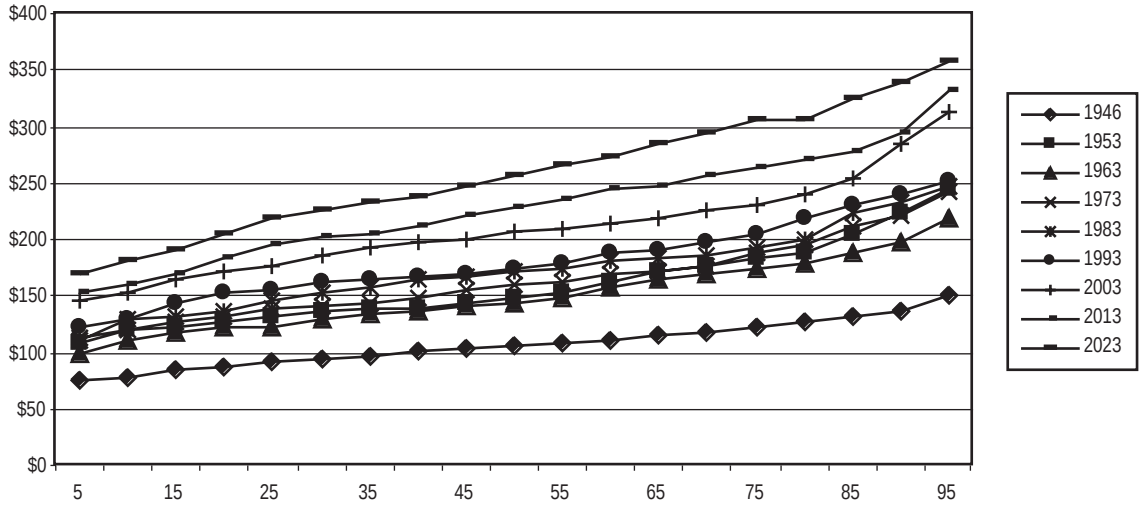

Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.12
**Average-Wage Males: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**



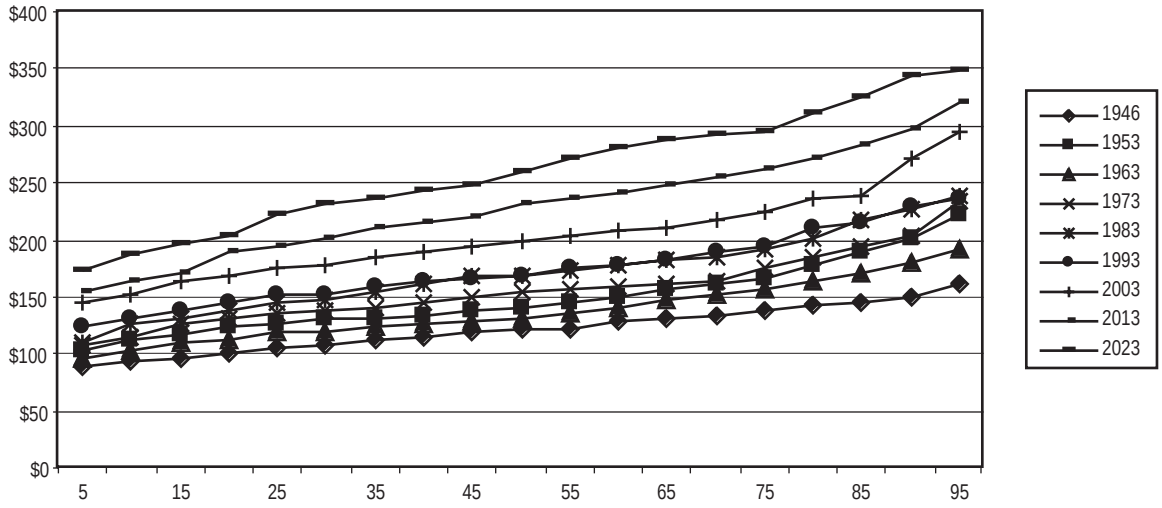

Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.13
**Low-Wage Females: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**



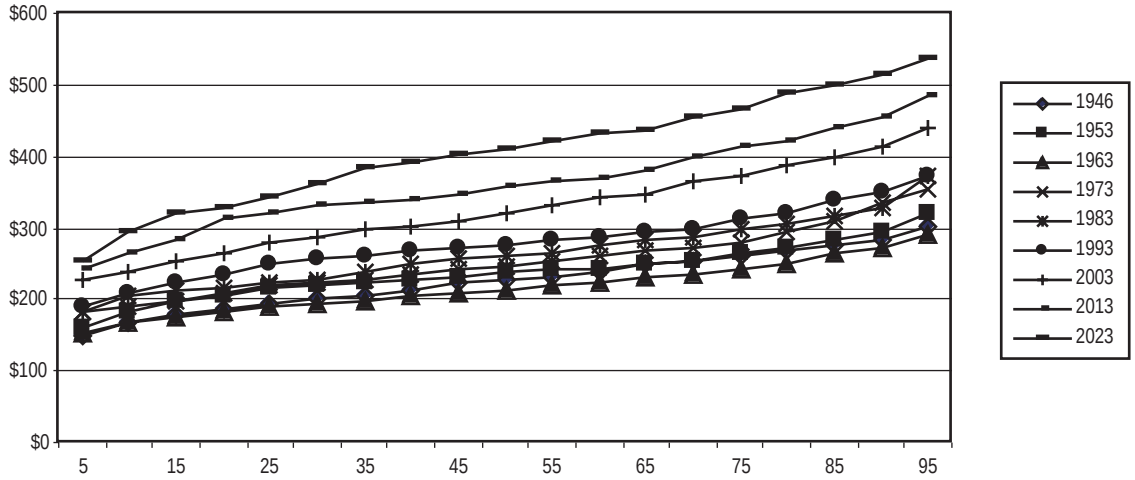

Source: Unpublished tabulations from the EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.14
**Low-Wage Males: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**



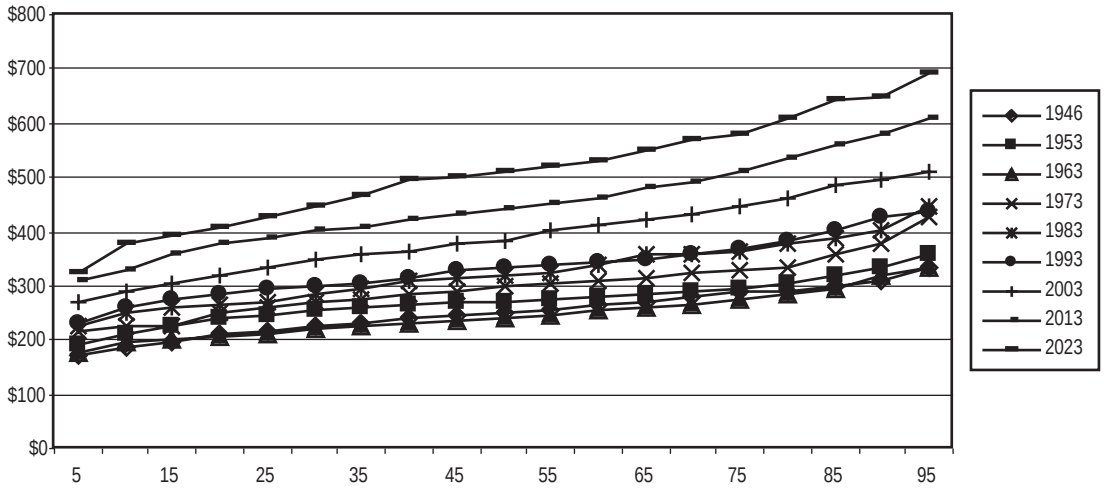

Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.15
**High-Wage Females: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**




Source; Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

Chart 5.16
**High-Wage Males: Distribution of Present Value of Benefits ($1,000s) by Birth Cohort, S. 2313-NCRP[a] (high cost)**




Source: Unpublished tabulations from EBRI-SSASIM2.
[a]National Commission on Retirement Policy.

# 6

# *Impact of Social Security Individual Accounts on Employer Plans*

by Janice Gregory

## Introduction

Much of my discussion is based on work that the ERISA Industry Committee did over the past couple of years, which was published as *The Vital Connection, An Analysis of the Impact of Social Security Reform on Employer Sponsored Retirement Plans*.

This book presents some of the challenges that we face if we turn to the government to establish, maintain, and dispense benefits from Social Security individual retirement accounts. My job is to make you aware of even greater challenges if we dump all this on employers. In so doing, I am not trying to argue against such accounts. If the country decides it wants to create them, it will, and it probably can. Whether the accounts succeed or not, however, will depend on how well we have constructed them.

## The Goal of Individual Accounts

While the focus of discussion in this book is on feasibility and not on policy, we have to establish at the outset what our purpose is in setting up such accounts (see chart 6.1). For example, if our primary purpose is to increase national savings over the next decade, we might be less likely to carve out part of the payroll tax for individual accounts and more likely to add on a payroll tax. In addition, we might be less concerned about administrative costs and more concerned about enforcement.

If our primary purpose is to provide a mechanism for individuals to recoup benefits that they will lose under reforms that reduce current benefit obligations, we might be less concerned about whether the contributions come from a carve-out or an add-on and more concerned about administrative costs and other factors that would affect the rate of return. If our primary purpose is to find a politically acceptable way to compel the baby boom generation to pay more for its own retirement—while it also pays for the previous generation's retirement—then we might be more concerned about ease of administration and rate of return and less concerned about national savings.

Social Security reform, including the creation of individual Social Security retirement accounts, should not deter the creation and maintenance of retirement plans voluntarily sponsored by employers for their employees. If we saw off one leg of the retirement stool while reshaping the other, we have severely constrained the ability of individuals to obtain a reasonable and secure retirement. Our policy choices will be judged failures—and rightfully so.

Employer-sponsored plans can and have adapted to many circumstances over the decades; they can adjust to Social Security reform, too—but only if their needs are taken into account. Employer-sponsored plans are flexible enough to expand, and they are flexible enough to shrink—and, in many cases, disappear. For example, between 1982 and 1995, when increasing layers of restrictions and regulations were imposed on tax-qualified retirement plans in general and defined benefit plans in particular, defined benefit plans

Chart 6.1
**Individual Accounts**

- Purpose Is Relevant
- Creation and Maintenance of Employer-Sponsored Plans Is Vital, and Is Not a "Given"
- Employer-Sponsored Plans Can Adjust Only If Their Needs Are Taken into Account

ceased to exist in the small employer market. They also came under siege in the large employer market. Make no mistake: Ill-conceived Social Security reform could cause a shrinkage of pension sponsorship and coverage in this nation.

## Feasibility of Employer Management

(1) As noted on chart 6.2, most employers have no experience collecting and depositing employee contributions. There are 6.5 million employers and about 700,000 employer-sponsored retirement plans. Even where there is a plan, it often is funded solely through employer contributions that occur on a quarterly or an annual basis. Thus, most employers do not have experience with a 401(k)-type setup.

(2) Increased administrative costs reduce coverage under employer-sponsored plans. Current law purposefully permits employer plans to exclude employees with tenuous attachment to the work force, such as those who are not age 21, those who do not have 1,000 hours of service with the employer, etc. The law permits this to make the administration of a retirement plan cost effective. Such cost-savings mechanisms, which are just as important for large employers as they are for small employers, would not be available under a universal Social Security individual account program that you are asking the employer to manage.

I asked one of my members how many employees they had. This was a large company that had a significant retail segment, and they said that on any given day they had between 76,000 and 82,000 employees, a range of 6,000 employees. If you start thinking about signing up all of these people and getting their investment allocations, you need to think again about whether going through the employer is the easiest place to do this.

Another factor driving up administrative costs is the transition. It is entirely possible that if you set up individual accounts, an employer who now has a single retirement plan will need to simultaneously administer the current plan for its older employees, who are probably going to be grandfathered under the current system, as well as administer a different plan for the new employees, who may be under a different system. And, perhaps, there may be some transition things in between. Under such confusing, frustrating, and costly circumstances, some employers, particularly small employers, may be less inclined to offer a retirement plan at all. And major employers are going to have to radically alter the design of their plans.

Chart 6.2
**Axioms**

- Most Employers Do Not Have Experience Collecting and Depositing Employee Contributions.
- Increased Administrative Costs Will Reduce Coverage Under Employer-Sponsored Plans.
- Employees Have Multiple Employers.
- Timing and Tracking of Investments Is Complicated.

(3) Then there is an issue with employees who have multiple employers. Employers are not in a position to administer accounts that their employees establish while employed somewhere else. Will individuals have to establish a new account each time they go to a new employer? Handling rollovers will be confusing and increase administrative costs, as well as multiply the chance for error. This problem is especially acute regarding employees who have several employers in a year. There are 144 million workers and something like 223 million W-2s filed each year. So, this is not a small problem. A lot of people work for more than one employer.

(4) Timing and tracking of investments is complicated. For example, 401(k) plans require considerable investment in systems that ensure that the deposits are correctly matched and that all the data are reconciled. In a defined contribution individual account system, as has been noted, there is little or no room for error. Most of the employers, particularly small employers, still file their wage reports on paper, and they are not equipped to install the systems required for a 401(k)-type plan. This has to happen somewhere else. On chart 6.3 we move to axiom (5), which is that employers are not equipped to manage accounts for former employees or for individuals who for whatever reason have left the work force, either temporarily or permanently. Former employees are extremely difficult for former employers to keep track of. They move, and they forget to tell you. And, if you have more than one former employer, it is even more likely to happen. And then the employees, when

Chart 6.3
**Axioms**

- Employers Are Not Equipped to Manage Accounts for Former Employees.
- Employers Will Be Unable to Administer Withdrawals from Accounts.
- Employers Might Incur Burdensome Reporting Requirements.
- Employers Would Not Be in a Position to Choose Default Investment Options.

Chart 6.4
**Axioms**

- The Administrative Costs Could Be Substantial

The simplest, least intrusive, and least costly method for employers and employees is to require the employers' contributions to be made according to procedures as close to current law as possible, have the government allocate funds to each worker's account, and have the worker tell the government directly how to allocate his or her account balance among the available investments.

they come back, often have trouble finding where their former employer is. Their former employer has merged, has changed its name, has moved, or, in some cases, has even gone out of business. That account is still out there somewhere, but it may be difficult to find.

(6) Employers will be unable to administer withdrawals from accounts. An employee's wage history is scattered among various employers. It is impossible for the employer to administer all of this if the employer has incomplete information and little or no ability to correct that information. If there are restrictions on the portion of the account that can be withdrawn at any given time, or if an annuity purchase is required, employers simply will not have all of the account information.

(7) Employers might incur burdensome reporting requirements. Proposals that require the employer to deposit employee contributions in the private sector accounts pose extraordinary compliance issues for the government. It would be very difficult to verify that the payments were actually made and that money is being invested in accordance with applicable fiduciary standards. If you require employers to administer the deposits into those accounts, it might result in very significant reporting requirements for employers and may also expose them to new liabilities.

(8) An employer will not be in a position to choose a default investment option. Somebody in the policy end of the nation is going to have to do that. Unless the Social Security program or something else specifies the universal default option, employers are going to have administrative difficulties and increased liability when they receive no investment direction from employees or when an investment option closes, which does happen. So what do you do with the money then?

Finally, as the axiom in chart 6.4 indicates, the administrative costs can be quite substantial when you move the administration of Social Security individual accounts out into the employer market. In fact, they might even be excessive. A large part of such costs are fixed cost per account; you have fixed costs for record keeping, communication, collecting, and processing deposits. If you are repeatedly asking people to re-enroll, re-elect, and establish many different accounts, you have compounded all these costs.

The most simple, least intrusive, and least costly method, from the point of view of the employer, as well as the employees, is to require the employer's contributions to be made according to procedures as close to current law as possible. This would require having the government allocate the funds to each worker's account, and having the worker tell the employer directly how to allocate the account, if there are investment choices.

As indicated in chart 6.5, the most complicated, intrusive, and costly mandate for employers would be to require that the employer transmit individual account contributions to any fund that the employee designates—and do so frequently. This option also may be the most costly for the government in the long run because it will incur the responsibility for establishing and maintaining a detailed and intrusive enforcement and tracking program.

Chart 6.5
**Employer Options**

The most complicated, intrusive, and costly scenario for employers is to require the employer to transmit individual account contributions to any fund that the employee designates on a frequent basis. This option may also be the most costly for the government, which will incur responsibility for establishing and maintaining a detailed and intrusive enforcement and tracking program.

Chart 6.6
**Option I. A Cash-Balance-Like "Universal Fund"**

Pluses
- If W-2 is basis for reporting, no additional sign-up costs
- If deposits can be made on aggregate basis, no additional contribution cost
- Minimal additional liability for errors
- No additional costs or liabilities for investment selection, account management, or benefit distribution
- No need to track former employees
- Employees may become more aware of need for retirement savings

Chart 6.7
**Option I. A Cash-Balance-Like "Universal Fund"**

Minuses
- Additional cost if more rapid reporting required
- Some additional cost if defined benefit and defined contribution deposits must be segregated; substantial additional cost if deposits must be attributed to individuals
- Employees may reduce contributions to employer-sponsored savings plans or take less interest in employer establishing a plan

## ■ Employer Considerations Under the Four Options

Beginning with chart 6.6, I present some of the pluses and minuses that may arise for employers under the four options presented earlier.

Under the cash balance option, if the W-2 remains the basis for reporting and if deposits are made on an aggregate basis, there is a savings there for employers in that there are no additional sign-up or contribution costs. They have minimal additional liability for errors. They have no additional costs or liabilities for investment selection account management or benefit distribution, and they do not have to track former employees. And, in an individual account system, employees may become more aware of the need for retirement savings. But as shown in chart 6.7, there are some minuses. If more rapid reporting is required, and if deposits must be segregated, for example, between the defined benefit and defined contribution, there will be additional costs. If deposits must be attributed to individuals, employers will face a much higher cost. Also, something that you will see in each category is the question of what happens to the employer plan, particularly if there is a plan like a 401(k) plan. Does the employee reduce his or her contributions to the employer plan or take less interest in the employer even having a plan? Employees would have this other entity out there, which they might think may fill that need. It will not, but they may think so.

The positive aspect for employers of option 2, the efficient market fund (as shown in chart 6.8) is that it is optional. They will not face added costs or liabilities for investment selection, account management, or benefit distribution. Again, they will not have to track former employees. Minuses, however, begin to add up. It is presented as an option, but the pressure may be high to mandate at least this much to be an option for all employees. You are more likely to increase employer cost by requiring segregation of deposits, more rapid attribution of deposits to individuals, and more responsibility for employer education. Many employers may not be able to procure allocation choices from the employee, as shown in chart 6.8. So you need to handle that.

In terms of the payroll base, as shown in chart 6.9, where you piggyback the new system on top of your current system, it is optional for the employer. This is the advantage of the piggyback, but the minuses in this are potentially more significant than I thought earlier. The question was

Chart 6.8
**Option II. The Efficient Markets Funds Family**

Pluses
- Optional for employer
- No additional costs or liabilities for investment selection, account management, or benefit distribution
- No need to track former employees
- Employees may become more aware of need for retirement savings

Minuses
- Pressure may be high to mandate coverage
- More likely to increase employer costs by requiring—
  - segregation of deposits
  - more rapid attribution of deposits to individuals
  - employer education regarding investment choices
  - procurement from employees of employee allocation choices
- Many employers may not be able to comply
- Employees may reduce contribution to employer-sponsored savings plans or take less interest in employer establishing a plan

Chart 6.9
**Option III. Payroll-Based, Privately Managed Investment Options**

Pluses
- Optional for employer
- Some employers can piggyback on current plan
- Employees may become more aware of need for retirement savings

Minuses
- May become a requirement for employers who want to offer 401(k) plans
- May dramatically increase regulation of employer-selected investment options
- Employer reporting requirements will be dramatically increased
- May dramatically increase regulation of procedures regarding sign-up of employees, employee education on investment choices, reporting to employees on account balances, etc.
- None of the current cost-saving exclusions will be available (and may be denied to employer plan as well)
- Employers must track former employees
- Expenses incurred to transfer accounts to other employers
- Employer liability increased for investment selection and account management
- Employees may reduce contributions to employer-sponsored savings plans or take less interest in employer establishing a plan

raised by Girard Miller: "Can Social Security or can the government let go?"[1] This may become a requirement. If you are going to offer a 401(k) plan, you have to do this. It may dramatically increase the regulation of employer-selected investment options. Once you get into this, the interest of the government is heightened regarding what employers are doing in that area. As noted in chart 6.9, they could face increased regulation of procedures regarding sign-up, education, reporting, etc. And their reporting requirements definitely would go up.

[1] *See Girard Miller, "Basic Administrative Tasks and Generic Alternatives," in this volume.*

Chart 6.10
**Option IV. IRA Model**

Pluses
- Provides a mechanism for employers to cash out former employees

Minuses
- Employees may reduce contributions to employer-sponsored savings plans or take less interest in employer establishing a plan

None of the cost-saving exclusions will be available for those employees who only work for the employers for a week or a month. The employer has to have them in this system; why would they not be able to participate in the employer's system? That issue will be on the table. Of course, it is a cost issue. The employers are going to have to track former employers. As noted in chart 6.9, they are going to have to transfer accounts. The employer is going to have increased liability. And, again, what happens to he employer's underlying plan?

As shown in chart 6.10, the last option does not involve employers a whole lot, although I am open to education on that. It would provide a mechanism for employers to cash out former employees.

# 7

# *Employer Concerns on the Issue of Privatization of Social Security Taxes*

by Nora Daly

## ■ Introduction

As a representative of the American Payroll Association, I would like to discuss employer concerns with proposals to privatize a portion of Social Security taxes.

The American Payroll Association is a nonprofit, tax-exempt educational association which represents payroll professionals. The group's 17,000 members work for companies representing a cross-section of the U.S. economy, including manufacturing, banking, health care, and education. We also have a number of members who handle the payroll for federal, state, and local governments as well as for a number of Native American tribes. In addition, a small percentage of our members work for so-called "third-party service providers." These are companies that are in business specifically to handle the payroll for organizations that hire them.

I have been in the field of payroll since 1980 and my specialty is payroll taxes. When payroll professionals speak of taxes we include employer responsibilities to: withhold and deposit taxes, file returns, and reconcile with the government. On the employee side, employers must explain to employees that their taxes are calculated correctly and that their wages and taxes are correctly reported to the appropriate governmental agencies.

I very much appreciate the opportunity to discuss my concerns before the very audience that may be making changes in the future. Such a common-sense approach is not always practiced. The expense to American business under such circumstances can be enormous.

For example, in 1987 Congress passed legislation that the President signed into law making group life insurance coverage in excess of $50,000 FICA taxable. Up until that time, those amounts had only been taxable for income taxes. There was no requirement to withhold the income taxes. Rather, individuals were responsible for paying the income taxes when they filed their IRS Form 1040.

In 1987, then, we had a law introduced which required that employers withhold a flat tax on "phantom" income. This created a lot of work for employers throughout the United States.

At the time, I was the tax specialist for payroll at Pacific Bell and it became my responsibility to lead the project to change the programs, files, written methods, and forms to accomplish this legislative change. At the end, Pacific Bell spent in excess of $250,000 to withhold $60 in FICA taxes on group life insurance in excess of $50,000. That is a tremendous waste of employer resources. And, even though the initial program changes were done during 1987–1988, when I left Pacific Bell in 1995 the systems personnel were still dealing with issues regarding the taxation of this phantom income.

## ■ The Challenge

The changes that we envision payroll professionals —and their systems—would have to make to support privatization include:

- separating the amount of Social Security tax which is to be "privatized" from the portion which will be treated as it is today;
- tracking the taxes within the system as separate amounts;
- reconciling the withheld taxes as separate amounts;
- remitting the withheld taxes as separate amounts; and
- reporting the withheld taxes as separate amounts on pay stubs, output reports, W-2's, W-3's.

Before Congress moves to make such changes required, they should consider all the issues discussed in this book and raised in earlier discussions by the Employee Benefit Research Institute. The impact on the employer community could be significant and costly. Without an assurance that the changes will make a material difference to future beneficiaries we question the benefit of making those changes.

Payroll is arguably the most heavily legislated area of American business. The calculation of a worker's pay involves the consideration of a myriad of laws. Among them: taxes at a federal, state, and local level; labor law controlling wage, hour, and payment issues; employment verification requirements; Family Medical Leave Act; Americans With Disabilities; new hire reporting; child support withholding; tax levies; education loans; and creditor garnishments.

Employers who fail to comply with any of the above requirements are subject to penalties that can be very expensive. Privatization of Social Security taxes could add another potential penalty layer.

Payroll is responsible for many forms including W-2, W-2c, W-3, W-4, W-5, 940, 941, and 6559. Of all those forms, the only ones not affected by privatization would be the W-4, W-5, and 940. In addition, payroll departments are responsible for tax depositing. Depending on the method Congress were to enact for collecting funds for individual retirement, another penalty layer—dealing with the collection and remission of withheld funds for these accounts—could be added.

The proposals being advanced for individual retirement accounts tend to include a requirement that employers educate their employees regarding privatization and their investment options. This is not a requirement that employers can take lightly.

Another area of concern for business and government is in matching employee earnings with the appropriate Social Security record. Currently, the Social Security Administration has approximately $300 billion in Social Security earnings that it cannot credit to any individual worker. This is a result of employers providing forms W-2 (either magnetically or via paper) where the name on the W-2 cannot be associated with the Social Security number provided on the form. It is seldom the employer's fault—some employees do not know their Social Security number and guess; some use a valid Social Security number but change their name with their employers and not Social Security; some employees provide a false Social Security number.

For tax year 1995, filed in 1996, Social Security provides the following statistics:

- 24 .1 million W-2 items were reported.
- 3.5 million W-2's are sitting in the Social Security Administration's suspense account because of name/Social Security number mismatches.

With the privatization of a portion of Social Security, we see that we could have as many as 3.5 million items in suspense with Social Security and an additional 3.5 million unposted within the privatization system.

Congress also needs to be alerted to the relationship of employers to the employment verification process. Currently, employees provide employers with documentation that proves their eligibility to work in the United States. Under current law, employees who fail to prove their eligibility within three days of hire must be terminated. The labor law requires that the employee be paid for those three days and tax law requires that those wages and taxes be reported to the government. Where would the privatization funds be invested for these workers? Would the employer be subject to additional penalties for not getting correct data when hiring the employee in the first place?

Employers also have concerns regarding the frequency of reporting the withheld amounts. There have been some very good analyses provided regarding the lag time between withholding the tax and the investment. If Congress were to try to cut that lag by requiring more frequent wage/tax reporting, employers would incur additional reporting burdens and exposure to penalties.

In preparation for this discussion, I spoke with my technical colleagues at Oracle regarding the current availability of database software to help the record keeper track over 200 million individual accounts and update those accounts daily as proposed in Universal Option 1 ("participants' accounts would be credited with daily accruals at a specific interest rate that will be adjusted").

I was assured that there is database software available today which can support that volume with that level of activity. The accounts could be divided into smaller bundles and multi-threaded for updates, which would help run the updates quicker.

Nonetheless, we have significant concerns regarding how data would be backed up and stored. A thorough disaster recovery plan would be essential and a good audit trail would have to be provided so that restored data could be proven to be correct for all participants.

## Conclusion

Currently, employers shoulder an enormous burden, handling many complex record-keeping, information reporting, and tax obligations unrelated to their core business interests. In many instances they face penalties for noncompliance.

The establishment of individual retirement accounts to supplement Social Security may be an effective way to address the imminent benefit shortfall. But the impact of shifting new responsibilities onto employers for the administration of this program should not be overlooked or underestimated. If the collection of funds for the establishment of individual requirement accounts is established via the wage withholding process, Congress must look for ways to minimize burdens on the employers who would be responsible for collecting and depositing the withheld funds and who would no doubt be required to maintain documentation about how, where, and when they deposit those funds.

# 8

# *Administering Individual Social Security Accounts: A Payroll Service Bureau Perspective*

by Stephanie L. Ward

## Introduction

Of all the legislative issues on the table in 1999, Social Security reform will have the greatest impact on employers—particularly if it is restructured into a cash-based individual account system. Switching to a system of individual accounts would be a massive undertaking—affecting 144 million employees and 44 million retirees. Over 200 million new accounts would have to be created just to start up the new system, according to the Society for Human Resource Management. Compare that with 31 million held by the largest financial institution in the United States today, and the challenge before government, employers, service bureaus, and fund providers is startling.

Service bureaus are especially concerned about the impact of Social Security reform because they handle the payroll administration for other employers. That includes all withholding and deductions, such as employment and income taxes, 401(k) contributions, health and life insurance premiums, and garnishments. They report and reconcile data required by various government agencies, and provide tax filing services—transmitting federal, state, and local tax payments and processing all the accompanying forms, including W-2s and 941s.

Service Bureaus process payroll for more than one-third of the private-sector work force. That is approximately 40 million workers, based on U.S. Department of Labor numbers for October 1998, employed by over 600,000 employers. Ceridian serves over 40,000 U.S. employers and issues 15 million paychecks per month. Ceridian's tax filing service deposits $98 billion in employment taxes with the Internal Revenue Service per year, about 14 percent of all federal taxes deposited.

## Priority Issues

From the perspective of a payroll service bureau, the impact of individual Social Security accounts could be summed up in two broad categories for the employer community—what employers and service bureaus know and what they don't know. What they know is that, under any individual account system, employers will have to maintain multiple payroll systems, particularly during transition. But what is likely to determine the overall complexity and cost for employers in implementing an individual account system are the additional compliance obligations, currently unknown. Proposed individual account systems give individuals control over—allow them to decide what to do with—their own tax dollars. It's unprecedented.

## Maintaining Multiple Systems and Transmitting to Multiple Locations

How many payroll systems would employers have to maintain simultaneously? And to how many locations would employers have to send employee contributions? During the transition to an individual account system, the employee population basically would be split into younger workers—who would be required or allowed to immediately contribute under a new individual account system; older workers near retirement—who would be grandfathered into the existing system; and likely a third population of workers above a certain age

who would contribute something to individual accounts but derive most of their Social Security benefit from the current defined benefit system. Employers would have to be prepared to maintain separate systems that would recognize the different requirements of each employee population.

The design of an individual account system will determine the number of locations to which employers would be required to send employee contributions. The most burdensome and complex would be to send contributions to multiple locations. Under one possible scenario, an employer could be allowed to choose from a number of competing private fund providers to offer individual accounts to its employees. In addition to this privately managed fund, employers may be required to interface with a government default fund and provide a Thrift Savings Plan (TSP)-type option as well (as described under Girard Miller's options[1]). That would mean employee contributions must be transmitted to multiple locations.

But while this design would allow employers a choice of offering a privately managed, riskier fund to their employees in addition to government-sponsored funds, service bureaus would have no choice. Service bureaus must be prepared to comply with the different requirements for each option and each private provider that an employer may choose, adding to the complexity of administering individual accounts. The number of financial institutions that would be certified to provide individual account funds could determine the variety of formatting and other requirements with which service bureaus would have to comply. Service bureaus face a similar situation with employer 401(k) plans. Different 401(k) fund providers have different formatting requirements for the transmission of data and contributions. For example, some 401(k) providers require the employer or service bureau to break out the fund allocation, while others do it themselves. Service bureaus must be prepared to meet a variety of requirements.

401(k) plans, however, are voluntary. Individual Social Security accounts presumably would be mandatory. A key to administering a mandatory individual account system with the option of privately managed funds, across all employee and employer levels, would be standardization of requirements for fund providers. Without standardization, complexity will paralyze.

An example of this challenge is employer New Hire Reporting (NHR). Authorized under welfare reform in 1996, NHR—reporting information on each new hire to state child support enforcement agencies, and the states to a national directory of new hires—was created to assist federal and state governments in tracking down parents who owe child support, particularly across state lines. NHR is a federal mandate on employers, but its requirements are only a floor. As long as states meet the federal minimum, they may add data reporting requirements and shorten the time frames for transmitting reports. And that is exactly what most states have done, creating a patchwork of NHR requirements. Service bureaus must comply with every single one. Standardization would help reduce unnecessary administrative complexity.

## ■ Compliance Obligations—Key Issues

A second set of priority issues includes unknown compliance obligations. Unknown because individual account contributions would not constitute a required tax or a voluntary 401(k) contribution. An individual account contribution would be a hybrid of the two. Not only are there fundamental differences between a tax, and in this case employment taxes, and a voluntary contribution, but there are differences for employers in administering the two. Employment taxes are uniformly applied to all employees at the same rate, not subject to election, and deposited in the aggregate with the employee detail reconciled later. Voluntary 401(k) contributions vary considerably in the amount and rate of withholding, the employee-level detail must travel with the dollars, and the dollars are credited to individual accounts. These differences are important when considering employer and service bureau compliance issues, some of which include:

- The time frame for depositing individual account contributions. How frequently would employers and service bureaus have to deposit contributions into employees' individual accounts? Policymakers are considering tying

[1] *See Girard Miller, "Basic Administrative Tasks and Generic Alternatives," in this volume.*

individual account contributions to the current payroll tax deposit system. They would be making an incorrect assumption, however, that depositing individual account contributions would be similar to processing tax deposits. The current payroll tax deposit system only requires employers to reconcile annually aggregate taxes paid with what should have been paid on behalf of each employee.

- The U.S. Department of Labor (DOL) in 1996 unsuccessfully proposed to link 401(k) contributions to the payroll tax deposit system. Under the DOL's proposal, employers would have had to transfer 401(k) contributions to individual accounts within a very short time frame. Many large employers would have had to deposit contributions within one business day of the deduction, unnecessarily increasing employer burdens. The tax deposit schedule is designed for transmitting dollars *in the aggregate*, not for depositing dollars to millions of individual accounts. For employers without sophisticated payroll systems, compliance with this requirement would involve enormous cost.

- The frequency and complexity of government reporting and reconciliation requirements to a number of government regulators. Agencies could include the Social Security Administration and the Internal Revenue Service, which already are involved in the wage reporting process. It also could include the DOL, which may have an interest in ensuring that employers and fund providers meet various fiduciary and information reporting requirements, similar to current Employee Retirement Income Security Act rules.

- The frequency of employee investment elections and account rollovers. How often employees would be permitted to change investment elections also would determine administrative complexity. Lawmakers likely will want to allow employees as much opportunity as feasible to make changes. The more often employees are allowed to make investment changes, the greater the administrative complexity. Employers and service bureaus also are concerned about a process for handling account rollovers for employees. With a growing mobile work force, this is an issue that cannot be ignored.

- The frequency of account statements to employees and responding to employee questions. Employees are likely to want regular and frequent statements of account, including how their investments tie in with employer-sponsored retirement plans. Will this be the employer/service bureau's responsibility? Or the responsibility of the government or fund providers? Employers also can expect a constant stream of questions from employees about their Social Security accounts that may require setting up sophisticated interactive voice response systems to effectively handle thousands of employee calls.

## Conclusion

Restructuring the credit-based defined benefit Social Security system into a cash-based individual account system would have a tremendous impact on employers and service bureaus that are steeped in the administration of Social Security through payroll tax collection and wage reporting. Just look at the numbers—almost 7 million private-sector businesses employ 121 million workers. Employers send to the Social Security Administration more than 240 million W-2s per year. Proposed changes to a system of this magnitude could result in significant administrative burdens on employers. The challenge for policymakers will be to create an individual account system that provides enough flexibility for individuals while keeping employer administrative costs at a minimum.

# 9

# *Administration of Private Defined Contribution Plans and Analogy to Proposed Social Security Individual Accounts*

by Carol R. Sears

## Introduction

I am President of the American Society of Pension Actuaries, an Enrolled Actuary, a Fellow in the American Society of Pension Actuaries, a Certified Pension Consultant, and a Vice President of a third party administrative, record keeper, and actuarial firm in Peoria, IL, that serves small business pension plans. We provide professional service to over 1,100 small business private pension plans covering about 100,000 participants. About 225 plans are daily-valued defined contribution plans.

## Cost Drivers

The major theme of this discussion is drivers of cost, with emphasis on where and why costly errors occur in the private plans, how costly they are, and how errors might be handled in privatized Social Security accounts—because any of the proposed schemes will naturally have to handle errors.

Each of the routine cost drivers is hugely more costly when an error has to be corrected. Each of these drivers has multiple responsible parties communicating to make the funding flow into or out of the plan correctly. Cost is two-fold and includes human effort to fix as well as a deposit to make a plan "whole." That is, it includes human effort plus the "fix it" cost.

Record keeping for privatized Social Security accounts would be similar to that for private plans, and would include: participant, employer, record keeper, and fund. In addition, the government could be involved. Each relies on the other in the private world and this would be the case in the privatized Social Security world, too. If any one party makes a mistake, correction requires:

- Discovery,
- Analysis of when and where the mistake occurred,
- Calculation of account without error,
- Money to make "it so,"
- Or forgiveness, if participant is money ahead.

Note: Correction means to have the appropriate shares or units after the correction. This can be quite different from basing the correction on cash.

Who pays what it takes to make it so?

- In the private world it is usually the culprit—so any of the above.
- In a privatized Social Security world, the group could also include the government.
- *But* errors should be *expected* and *corrected in a timely manner.* How can participants be personally inspired to manage an important piece of their retirement income needs if they are not protected?

A plan needs many checks and balances before any trading into or out of plan funds occurs so that accuracy can be obtained, but a plan cannot have so many checks and balances that they slow down the processing abnormally. Otherwise, you create an error due to a participant just by the lack of timely investing or exchanging. Private plan daily valuation service guarantees usually are

24–48 hours from receipt of data in good order. Participants expect gains to be replenished and lost losses to be forgiven—leaving the worst of both worlds for any of the responsible parties.

Let me give you a concrete example of what can occur in the private plan world. A participant makes a change in selected funds for future deposits. For whatever communication glitch reason, this switch is not electronically coded. Time goes by—even an average participant's fund fix can run to thousands of dollars. There are lots of similar examples.

I would like to expand on the practical details of a few of these cost drivers and suggest an analogy with privatized Social Security accounts.

The first four are connected: participants' ability to direct, whether each money source can be independently directed; how many funds can be chosen; do these funds "talk to each other" through a common clearinghouse or trading platform; and does the employer submit data electronically? In the private daily plan world a routine "deposit loop" looks like this:

- Employer or its payroll provider sends money per source and per participant electronically to record keeper *and* ACHs (electronically) send gross deposit to a holding fund at the common clearinghouse.

- Clearinghouse sends deposit confirmation to record keeper (electronically).

- Record keeper receives both payroll data and confirmation and ties out the sources of deposit subtotals (salary deferral, loan payments, etc.) to the clearinghouse confirmation. If they tie, record keeper sends "buy order" to the clearinghouse (in its required format) to send the money from the holding fund into plan's selected investment funds according to participant investment choices that the record keeper maintains.

- If they do not tie, the record keeper works with payroll provider to identify which is wrong—data or deposit? Although the possibility of errors is less when this is done electronically rather than manually, errors still occur, such as decimal point slips or negative amounts, and human interaction is needed, which is costly and slow. Keep in mind all money waits even though only one person may be the root of the error.

Once a supposed accurate buy occurs, the clearinghouse sends a confirmation of the number of shares purchased per investment fund in the plan to the record keeper. The record keeper updates the participant accounts by source and fund and refreshes the Voice Response Unit/Web Response Unit (VRU/WRU) (i.e., the trade is "settled"—the new account can be heard by the participant).

Errors can still have happened if the deposit is posted to the wrong Social Security number or if the deposit is improperly broken down by source, but such errors may require participants to notice them eventually—they expect to have unlimited time to discover and report errors and still be made whole!

In a privatized Social Security world, the opportunity for errors in any of the above steps is hugely exacerbated—especially for small business employers who, more often than large employers, are ill-equipped to handle their end of this kind of "daily"-valued plan now and so usually don't have one—as is their choice. *Someone* has to oversee the checks and balances—figure out what doesn't tie—and still be ready to figure out what might have been mis-deposited when errors are later discovered. What will be the appropriate service standards for privatized Social Security accounts? 24 hours? The more time that goes by until an error is noticed, the more opportunity is created for the lost "market" appreciation to increase and more deposits to contain similar errors.

Electronic communication is an absolute must for all parties, if only to isolate possible error sources. Small businesses may not be equipped for this. With privatization, who will deposit the "fix it" money—the employer? Will the participant forgive it? Will the record keeper want to be in the business, if possibly responsible? Will the government? How is the participant protected?

Another set of cost drivers is VRU/WRU availability and frequency of trades within a plan. In an ideal daily record-keeping plan, participants make fund exchange requests, loan requests, and any inquiries exclusively in VRU. The unit produces an electronic file that the record keeper sends

to the clearinghouse. The trade is posted—confirmed—settled—updated and then heard in T-1 to T-3 (one to three days). The unit also prints out a written confirmation that is snail-mailed or faxed to the participant the morning following his or her request. Participants have the responsibility of reviewing the confirmation to make sure they placed the request they really wanted or to realize they have received no confirmation and, therefore, they did nothing.

You might be surprised that the constant availability of VRU/WRU and 24-hour access to fund transfer requests, etc., actually reduces churning. For example, when the market suffered in August 1998—the VRU's received five to 10 times as many inquiry calls as usual—*but* maybe only 1½ or 2 times as many fund exchange requests.

I believe it essential that any privatized Social Security system have the VRU/WRU (or whatever gives cutting edge access to participants). *However*, the maintenance of such a system, coupled with communication to all the parties, would be a huge endeavor. Also, the participants would have to be educated and able to take on their responsibilities.

## Conclusion

In summary, if Social Security does embrace some element of privatization, a massive education and clear assignment of responsibility effort must occur first. Initially, employers and *all* participants will need extensive training, followed by a trial and error period—the *error* part will be very prevalent. Expectations of all relevant parties in terms of the timing of their function would have to be clear. Avoiding hard feelings for missing a market opportunity if within predetermined service standards is essential.

Also, small business employers simply cannot run their primary business and be expected to first understand and then to properly administer benefit programs. Lack of desire coupled with lack of ability is an opportunity for a privatized Social Security system to be unappreciated or even cursed, and will cause certain irritation. Believe me, employers who are irritated or overwhelmed by the process and their administrative involvement in daily-valued plans move back into the traditional private pension world today. This occurs more frequently with small business. I hope I have clarified at least some of the effort needed to make "privatized" accounts in our nation's current private pension system work today. Please use caution in demanding such effort within Social Security. The error potential and participant disillusionment potential could be huge.

# 10

# *Survey of Small Businesses on Social Security Individual Accounts: Report of Findings*

by Mathew H. Greenwald

## Overview

- Three-fourths of small employer decision-makers have heard about proposals to reform Social Security by allowing individuals to divert a portion of their Social Security taxes into individual accounts. However, four in 10 of those who have heard about these proposals do not consider themselves to be knowledgeable about them.
- Respondents generally support the idea of Social Security individual accounts. Nearly six in 10 respondents say they favor this type of reform. One-fourth are neutral, 14 percent oppose this type of reform, and 5 percent feel unable to give an opinion.
- One-third of decision-makers—considerably less than the proportions who have heard about these proposals or favor this type of reform—report they have thought about the fact that employers might be required to *help administer* a Social Security individual accounts system.
- Opposition is greater than support for the idea of helping with the administration of individual accounts. Among those who have thought about being required to help administer individual accounts, four in 10 say they feel positively, but one-half react negatively.
- Although a majority favors this type of reform in general, majorities do not favor any *one* of three possible *approaches to administering* a Social Security individual accounts system that were tested. Small employer decision-makers are equally likely to favor reporting investment choices annually on W-2 reports (46 percent) or sending a portion of taxes directly to the financial services providers of the workers' choice (48 percent). Adding those respondents who say they are neutral but lean towards favoring each of these methods yields slightly more support for a once-a-year approach than for a 401(k)-type of approach (59 percent and 53 percent, respectively).
- There is less *opposition* towards a once-a-year approach than towards the other methods tested. Only two in 10 oppose or lean towards opposing a once-a-year approach, compared with 35 percent who oppose or lean towards opposing a 401(k)-type of approach, and 45 percent who oppose or lean towards opposing a four-times-a-year approach.
- Almost one-fourth of respondents would not favor any of the three specific approaches tested even if these were the *only* ways a Social Security individual accounts system could pass Congress. In addition, six in 10 of these respondents say there is *no* type of employer-administered system that they would support.
- Despite the fact that the three approaches tested clearly have different payroll processing cost implications, respondents are not willing to *spend* more for one approach than for another. For each approach, two in 10 are willing to pay nothing, 15 percent are willing to spend up to $500 annually, one in 10 is willing to pay between $500 and $999, and one-fourth are willing to pay $1,000 or more per year.
- One-fourth of those who say they favor each approach are willing to spend *little or nothing* in order to help administer a Social Security individual accounts system.
- More than one-half of those respondents who favor and are willing to pay something in additional processing costs for each approach

indicate they would no longer favor that approach if Social Security taxes increased from 15.2 percent of taxable payroll to 17.2 percent. Conversely, over three-fourths of those who favor but are unwilling to pay anything for each approach indicate they would continue to favor the approach if processing costs were offset by a reduction in Social Security taxes from 15.2 percent to 13.2 percent.

- Two in 10 decision-makers say that considering employers' possible role in administering Social Security individual accounts has changed the way they feel about this type of reform. While three in 10 of these respondents—7 percent of total respondents—say they are now more likely to favor this type of reform, six in 10—13 percent of total respondents—are now less likely to favor it.

## ■ Detailed Findings

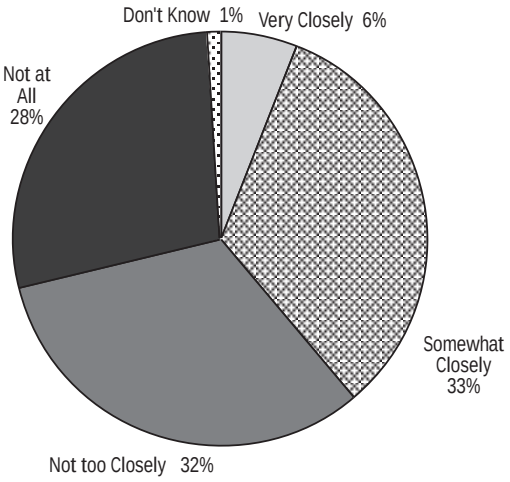
In order to understand potential reactions of small employers to Social Security individual accounts, the Employee Benefit Research Institute commissioned Mathew Greenwald & Associates, Inc., to conduct a survey of small businesses with five to 100 full-time employees. In particular, the study sought to evaluate the level of support for Social Security individual accounts among small employer decision-makers and the extent to which these decision-makers would be willing to assume additional burdens to administer some system of individual accounts.

### Awareness of the Debate on Social Security Reform

The majority of small employer decision-makers interviewed are not following the debate on Social Security reform in Congress closely—six in 10 respondents say they are following the debate not too closely (32 percent) or not at all (28 percent). Just one-third are following the debate somewhat closely (33 percent) and only 6 percent are following it very closely (chart 10.1), although respondents from companies in the services and finance industries are slightly more likely than others to report following the debate very or somewhat closely.

Despite the fact that many are not following the debate closely, three-fourths of small employer decision-makers surveyed say they have heard about proposals to reform Social Security by allowing individuals to divert a portion of their Social Security taxes into individual accounts (77 percent). Respondents from companies in excellent financial condition are more likely to indicate they have heard about this type of reform proposal, as are those from companies whose payroll processing costs in 1997 were $5,000 or more. On the other hand, respondents from companies in the retail trade industry are less likely than others to report having heard about proposals to create individual accounts as part of Social Security.

Chart 10.1
**Following the Debate on Social Security Reform**
(n = 500)

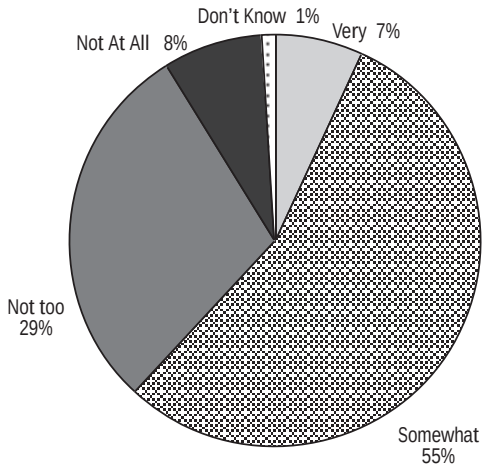



Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

Among respondents who have heard about proposals for Social Security individual accounts, more than six in 10 feel either very knowledgeable (7 percent) or somewhat knowledgeable (55 percent) about these proposals. Three in 10 decision-makers who have heard about these proposals feel they are not too knowledgeable about them (29 percent), and almost one in 10 is not at all knowledgeable about the proposals (8 percent) (chart 10.2). Not surprisingly, those who have closely followed the debate about Social Security reform are much more likely to feel very or somewhat knowledgeable about the reform proposals than are those who have followed the debate not too closely or not at all.

Chart 10.2
**Knowledge of Social Security Individual Accounts Proposals**

Among those who have heard about Social Security individual accounts proposals (n=386)

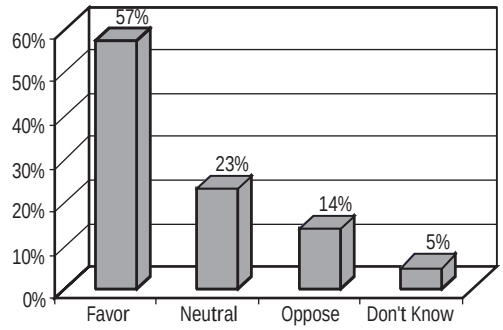



Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

## Reaction to Social Security Individual Accounts

*Support for Individual Accounts*—Over one-half of small employer decision-makers say they favor Social Security reform that would allow individuals to divert a portion of their Social Security taxes into individual accounts (57 percent). Approximately one-fourth are neutral about this type of reform (23 percent), while 14 percent oppose Social Security individual accounts. Five percent feel unable to give an opinion (chart 10.3).

Chart 10.3
**Support for Social Security Individual Accounts (n=500)**




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

Respondents who favor or oppose individual accounts are more likely than those who are neutral to be informed about the Social Security reform debate. In fact, they are not only more likely to be following the debate closely, but they are also more likely to feel knowledgeable about Social Security individual accounts proposals. Therefore, it is not surprising that decision-makers from companies in fair or poor financial condition—who are less likely to have heard about proposals for establishing Social Security individual accounts—are more likely to be neutral about this type of reform than are those from companies in excellent or good financial condition.

Reasons offered for favoring individual accounts include the following: it leaves the choice of how the money is invested up to the individual (38 percent of those favoring this type of reform); it will generate higher returns and give people more money in retirement (25 percent); and Social Security is running out of money and its future is uncertain (16 percent). Respondents who had not previously heard of proposals for Social Security individual accounts are more likely than others to cite the last reason. This may explain why those from the retail industry or from companies whose payroll processing costs in 1997 were less than $5,000—two groups less likely to have heard of the proposals—are also more likely to mention this reason.

Respondents who oppose Social Security individual accounts are most likely to say that this is because individuals will mismanage their funds (41 percent). Three in 10 respondents say they oppose this type of reform but do not give specific reasons (30 percent), and no other reasons are offered by more than 5 percent of those who oppose individual accounts.

One-half of small employer decision-makers who are neutral about Social Security individual accounts say they do not understand the issues or do not have enough information to form an opinion (53 percent). As might be expected, those who feel they are not too or not at all knowledgeable about the reform proposals are more likely to mention this reason, as are those who had not previously heard of the proposals. Two in 10 respondents simply say they are undecided (19 percent). Reasons for being neutral mentioned by smaller proportions of respondents are a mix of

positive and negative factors: people will mismanage their funds (8 percent), it will benefit some but injure many (4 percent), the future of Social Security is uncertain (3 percent), higher returns will result in more money for retirement (3 percent), and it leaves the choice up to the individual (3 percent).

Respondents who are neutral are not alone in citing a mix of positive and negative factors. A handful of those favoring this type of reform express negative, as well as positive, opinions about Social Security individual accounts (4 percent), suggesting that they retain certain reservations despite their support. However, a few respondents opposing individual accounts also mention both positive and negative factors (7 percent). These respondents may acknowledge that some benefits would be obtained through these reforms, but believe that the disadvantages would outweigh the advantages.

*Employer Administration of Social Security Individual Accounts*—Only one-third of small employer decision-makers say they have thought about the fact that employers might be required to help administer a Social Security individual accounts system (35 percent), although these respondents are among the most likely to favor such a system. As might be expected, those who feel very or somewhat knowledgeable about the reform proposals are more likely than those who are not knowledgeable to have thought about being required to help administer such a system. Those in the manufacturing industry are also more likely to say that they have thought about this requirement.

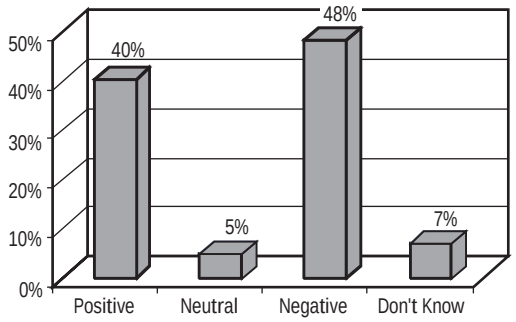
When asked how they would feel about helping to administer Social Security individual accounts, almost one-half of small employer decision-makers report they would feel negatively (48 percent). Four in 10 say they would feel positively (40 percent) and the remainder are either neutral (5 percent) or unable to provide an opinion (7 percent) (chart 10.4).

Not surprisingly, those who favor individual accounts proposals are more likely to feel positively about helping to administer the system, while those who oppose the proposals are more likely to feel negatively about administering it. Those who say they had thought about being required to help administer a Social Security individual accounts system are also more likely to say they feel positively. However, owners and co-owners are less likely to feel positively than presidents and other small employer decision-makers, and respondents from companies in good, fair, or poor financial condition are less likely to feel positively than those from companies in excellent financial condition.

Reasons mentioned for feeling positively about helping to administer an individual accounts system include the following: people would have more choice and more chance for gain (40 percent); it would cost less (8 percent); and they already do it with pension plans and retirement programs (8 percent). Two in 10 offer general positive comments (19 percent). Respondents from companies with five to 20 full-time employees are more likely than others to mention people having more choice and chance for gain as a reason for feeling positively about administering the system, while those from companies with 51–100 employees are more likely to say the fact that they already administer such a system with pension plans and retirement programs is a reason they feel positively.

Decision-makers who feel negatively about helping to administer an individual accounts system are most likely to say this is due to increased paperwork for the employer (50 percent) and the development, education, and implementation costs of such a system (17 percent). Other reasons cited for feeling negatively are that it is the government's responsibility (10 percent), too much responsibility for other peoples' money is put on the employer (6 percent), and other general negative

Chart 10.4
**Feelings about Administering Social Security Individual Accounts**
(n = 500)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

comments (15 percent). Owners and co-owners are more likely than other respondents to say they feel negatively because of the additional paperwork involved. Respondents from companies with 51–100 employees or whose payroll processing costs exceeded $5,000 in 1997 are more likely than those from smaller companies to cite the cost of development, education, and implementation as a reason for feeling negatively about administering an individual accounts system.

Small employers who are neutral about helping to administer the system also mention increased paperwork for the employer (26 percent) and the costs of development, education, and implementation for such a system (17 percent).

## Reaction to Implementation Approaches

Survey respondents were presented with three possible approaches to administering a Social Security individual accounts system. The first was for employers to report workers' total Social Security account taxes and investment choices once a year on their W-2 reports. After this approach was presented, it was explained that there would be up to a 19-month lag before workers received credit for their taxes, which could result in significant lost investment time. To cut down this time lag, the second approach required employers to file W-2 reports containing workers' Social Security account taxes and investment choices four times a year rather than once a year. The third approach presented was the quickest way for workers' individual accounts to be credited with their taxes. It used a 401(k) plan model and required employers to send part of Social Security taxes directly to the financial service provider of each worker's choice on a monthly basis.

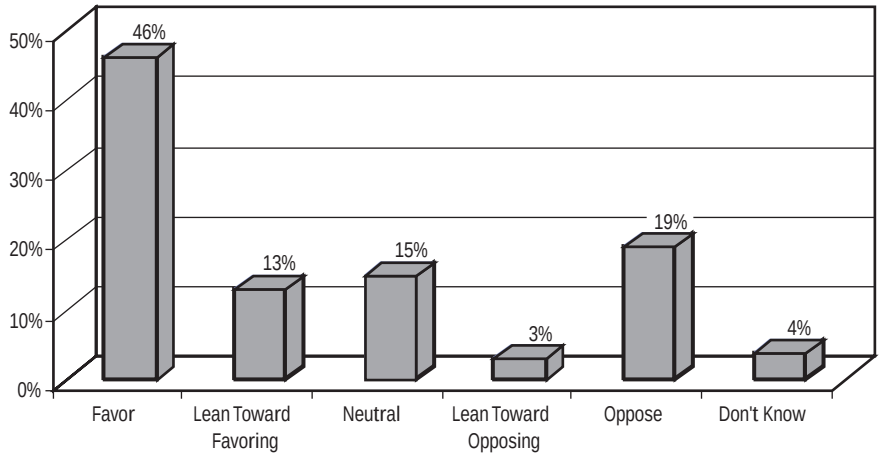
## Reporting Investment Choices Once a Year

Almost one-half of small employer decision-makers say they would favor implementing Social Security individual accounts by having employers report workers' total Social Security taxes and investment choices once a year on their W-2 reports (46 percent). An additional 13 percent of respondents say they are neutral but lean towards favoring this approach (chart 10.5). Those from companies with 51–100 full-time employees or with payroll processing costs exceeding $5,000 in 1997 are more likely than other respondents to favor this method.

Two in 10 respondents say they oppose this approach to implementing individual accounts (19 percent), three percent say they are neutral but lean towards opposing it, and 15 percent maintain they are neutral about this approach. Respondents from companies that process their payroll internally are more likely to oppose this method of administration than are those from companies processing their payroll externally.

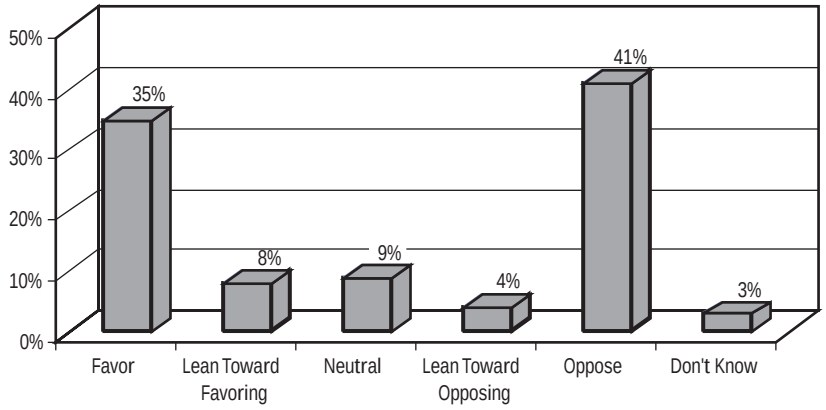
Almost one-fourth of decision-makers who

Chart 10.5
**Support for Reporting Investment Choices Once a Year**
(n = 500)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

Chart 10.6
**Support for Reporting Investment Choices Four Times a Year**
(n = 500)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

are neutral or oppose this approach to implementing a Social Security individual accounts system nevertheless say they would favor this method if it were the *only* way this type of reform could pass Congress (23 percent). Three in 10 say they would be neutral (29 percent), and four in 10 would oppose it (40 percent) even under these circumstances. Respondents from companies that process their payroll internally are more likely to continue to oppose this method of implementing individual accounts, as are those in the wholesale or retail trade industries.

*Reporting Investment Choices Four Times a Year*—Just four in 10 small employer decision-makers indicate they would favor or lean towards favoring implementing a Social Security individual accounts system by requiring employers to report workers' total Social Security account taxes and investment choices four times a year on their W-2 reports (favor, 35 percent; lean towards favoring, 8 percent) (chart 10.6). Respondents from companies in excellent or good financial condition or those that process their payroll externally are more likely than others to favor this method of administration.

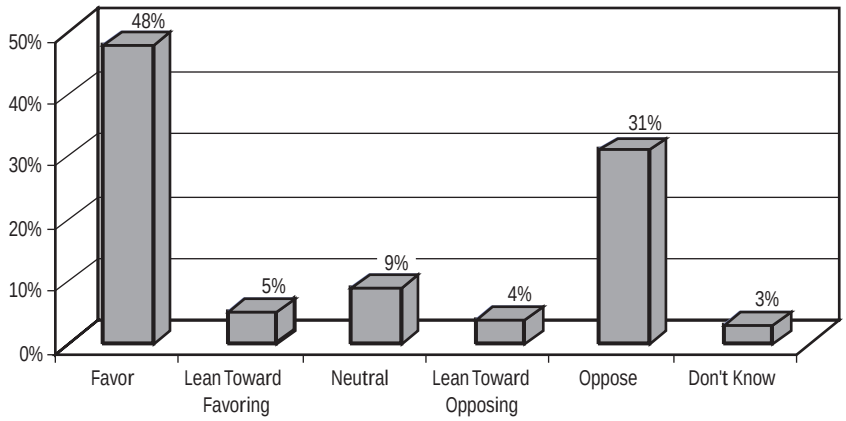
Four in 10 respondents oppose this implementation approach (41 percent), and 4 percent say they are neutral but lean towards opposing it. One in 10 respondents takes a neutral position on this administration method (9 percent).

As with the first approach tested, respondents indicating they are neutral or oppose this approach to implementing a Social Security individual accounts system were asked how they would feel if it were the *only* way this reform could pass Congress. Under these circumstances, just over half say they would continue to oppose this administrative method and two in 10 each would favor it (20 percent) or be neutral (22 percent).

*Sending Taxes Directly to Financial Service Providers*—One-half of small employer decision-makers say they would favor an approach that required them to send part of Social Security taxes directly to the financial service provider of each worker's choice on a monthly basis (48 percent). An additional 5 percent say they would be neutral but lean towards favoring it (chart 10.7). Respondents from companies employing between 71–100 full-time workers are more likely than others to favor this method of implementing an individual accounts system, as are those from companies in excellent financial condition. In addition, those from the services and finance industries are more likely than those from the wholesale and retail trade industries to favor this approach.

Three in 10 oppose this method of implementing Social Security individual accounts (31 percent) and 4 percent are neutral but lean towards opposing it. One in 10 maintains a neutral stance (9 percent). As with the other approaches examined, respondents from companies that process their payroll internally are more likely to oppose this method than are those from companies

Chart 10.7
**Support for Reporting Investment Choices Directly to Providers**
(n = 500)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

processing their payroll externally.

Nearly two in 10 decision-makers who are neutral or oppose this approach to implementing an individual accounts system nevertheless say they would favor this method if it were the *only* way this type of reform could pass Congress (17 percent). Almost one-fourth say they would be neutral (23 percent) and just over one-half would oppose it (57 percent). Respondents who say they had previously thought about employers being required to help administer an individual accounts system are more likely to favor this approach under these circumstances, while those who had not thought about it are more likely to be neutral. Decision-makers in services and finance industries are also less likely to continue to oppose this method than are respondents in other industries.

*Comparing the Three Implementation Approaches*—Although almost six in 10 small employer decision-makers say they favor Social Security individual accounts, less than one-half favor any *one* of the approaches tested. Respondents are equally likely to favor a once-a-year and a 401(k)-type of approach (46 percent and 48 percent, respectively). Adding those respondents who say they are neutral but lean towards favoring each of these methods yields slightly more support for a once-a-year approach (59 percent and 53 percent), although those who feel positively about helping to administer the system are most likely to favor a 401(k)-type of approach.

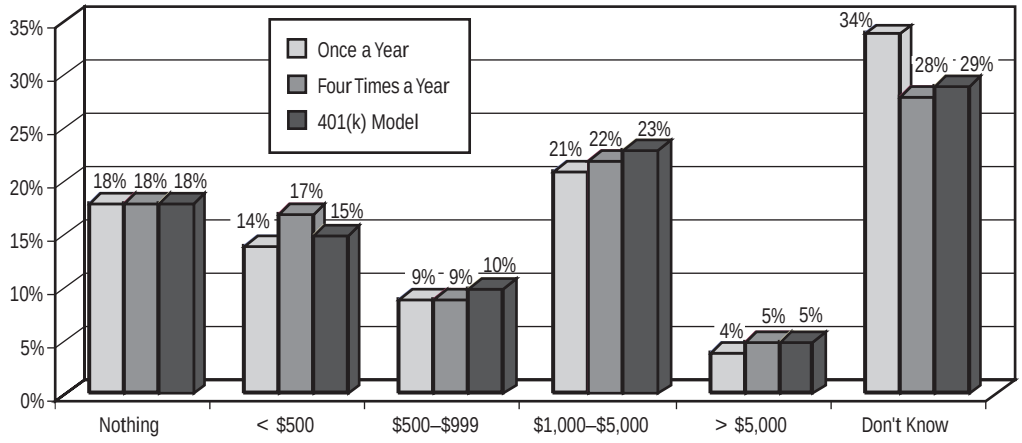
Decision-makers are also less likely to oppose or lean towards opposing a once-a-year approach than a 401(k)-type of approach (22 percent and 35 percent, respectively). While respondents who generally oppose this type of reform, those with negative feelings about helping to administer an individual accounts system, and those from companies processing their payroll internally are all more likely than others to oppose *any* approach, they are less likely to oppose the once-a-year method than other approaches.

Almost one-fourth of small employer decision-makers maintain they would be neutral, lean towards opposing, or oppose all three of the specific implementation methods tested in the survey even if these are the only ways a Social Security individual accounts system could pass Congress (24 percent). Six in 10 of these respondents say they would not support any type of employer-administered individual accounts system (59 percent). Fewer than two in 10 agree that there is some type of employer-administered system that they would support (17 percent) and the remainder are unable to say (23 percent).

## Amount Small Employers Are Willing to Spend

There are no differences in the amounts decision-makers favoring each of the three different implementation approaches are willing to spend annually in additional payroll processing costs while still favoring the Social Security individual accounts system. Approximately 15 percent are willing to

Chart 10.8
**Amount Small Employers Will Spend on Administration**
(Once a year, n = 293; 4 times a year, n = 212; 401(k) model, n = 265)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

spend up to $500 annually (once a year, 14 percent; four times a year, 17 percent; 401(k) model, 15 percent). One in 10 of those favoring each approach are willing to pay between $500 and $999 (once a year, 9 percent; four times a year, 9 percent; 401(k) model, 10 percent) and just one-fourth are willing to pay $1,000 or more per year (once a year, 25 percent; four times a year, 27 percent; 401(k) model, 28 percent) (chart 10.8).

Respondents who favor each implementation approach are also equally likely to say they are willing to spend nothing in additional payroll processing costs and still favor the system (18 percent each). Not surprisingly, respondents who feel negatively about helping to administer the individual accounts system are more likely to say they will pay nothing.

The amount that respondents report they are willing to spend and still favor the system is related to the number of full-time employees, current payroll processing costs, gross revenues, and the financial condition of the company. Respondents from companies with more employees, higher payroll processing costs, higher revenues, or better financial conditions are generally willing to spend larger amounts.

Three in 10 decision-makers who favor each approach are unable to say how much they are willing to spend in additional payroll processing costs and still favor the system (once a year, 33 percent; four times a year, 28 percent; 401(k) model, 28 percent). Those who are unable to provide their company's payroll processing costs or gross revenue are much more likely than others to indicate that they do not know how much they are willing to spend.

Those respondents who are willing to pay something in additional processing costs were asked if they would still favor each approach if Social Security taxes also increased from 15.2 percent of taxable payroll to 17.2 percent. Approximately one-third of these respondents agree they would still favor each approach under these circumstances (once a year, 33 percent; four times a year, 37 percent; 401(k) type, 38 percent), but over one-half say they would no longer favor it (once a year, 60 percent; four times a year, 54 percent; 401(k) type, 55 percent).

For each approach, decision-makers claiming they would pay nothing in additional payroll processing costs were asked if they would favor the approach if the additional processing costs were offset by a reduction in Social Security taxes from 15.2 percent of taxable payroll to 13.2 percent. Under these circumstances, three-fourths of those who would pay nothing for a once-a-year approach would reverse their opinion (77 percent), 85 percent would change their opinion about a four-times-a-year method, and 90 percent of those who would pay nothing for a 401(k)-type approach would reverse their opinion. Despite the apparent differences in these percentages, they are

not meaningful due to the small sample sizes involved.

### Support for Individual Accounts Reconsidered

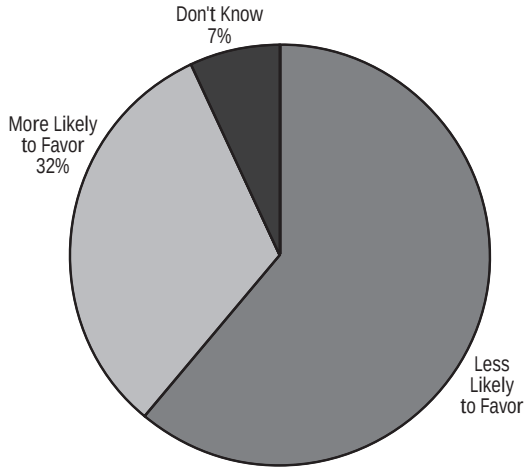
Two in 10 respondents acknowledge that the process of considering employers' possible role in administering Social Security individual accounts has changed the way they feel about this type of Social Security reform (21 percent), while three-fourths say it has not changed their feelings (74 percent). Respondents who are neutral or who have not previously heard of these proposals are more likely than others to reply that considering the employers' role has changed the way they feel, as are those with negative feelings about helping to administer an individual accounts system. Decision-makers in the wholesale and retail trade industries are also more likely than others to say it has changed how they feel about this type of Social Security reform.

Six in 10 of the small employer decision-makers who have reconsidered the way they feel about Social Security individual accounts indicate they are now less likely to favor this type of reform (61 percent) (chart 10.9). Four in 10 report they are less likely to favor it because it is not the employer's responsibility (39 percent). Almost one-fourth each cite a belief that business should not have to bear the cost of administering a new system and the fact that it places more burden on the employer as reasons for being less likely to favor this type of reform (23 percent each).

Just three in 10 of the decision-makers who have changed their opinion are now more likely to favor the Social Security individual accounts (32 percent). These respondents offer several reasons for becoming more favorable: individual accounts offer more choice and a chance for greater returns (six respondents); the employer can do a better job (five respondents); and it puts control in the payer's hands, away from the government (three respondents). Six respondents also say they need more information on the new system.

Chart 10.9
**Direction of Change in Opinion of Social Security Individual Accounts Proposals**

Among those who have changed the way they feel about this type of Social Security reform (n = 105)




Source: Employee Benefit Research Institute and Mathew Greenwald & Associates, Survey of Small Businesses on Social Security Individual Accounts.

## Appendix

### Methodology

The questionnaire for the survey was designed by Greenwald & Associates in cooperation with the staff of the Employee Benefit Research Institute.

Data were gathered through 20-minute telephone interviews among a random sample of owners, presidents, and other heads of businesses and organizations in the private sector that employ between five and 100 full-time workers. Interviewing was conducted between September 11 and October 15, 1998, by trained, professional interviewers at National Research, Inc., of Washington, DC, under the supervision of Greenwald & Associates.

In order to compare survey responses among small employers of various sizes, interview quotas were implemented. In total, 500 interviews were completed—183 among companies with 5–20 full-time employees, 157 among companies with 21–50 full-time employees, and 160 among those with 51–100 full-time employees.

The margin of error for this study (at the 95 percent confidence level) is plus or minus approximately four percentage points. Responses for companies with five to 20 full-time employees have a margin of error of plus or minus approximately seven percentage points, while responses for companies with 21–50 or 51–100 full-time employees have a margin of error of plus or minus approximately eight percentage points. Other subgroup responses will have different margins of error, depending on the size of the group.

## Profile of Survey Respondents

Approximately one-third of the interviews each were conducted with companies having between five and 20 full-time employees (37 percent), 21 and 50 full-time employees (31 percent), and 51 and 100 full-time employees (32 percent). Overall, three in 10 companies have between one and four part-time employees (31 percent). One in 10 has five to nine part-time employees (11 percent) and slightly larger proportions employ 10 to 19 or 20 or more part-time workers (13 percent and 15 percent, respectively). Three in 10 small employers currently employ no part-time workers (30 percent). Most respondents either own or co-own their business (30 percent) or are president of their company (28 percent). One in 10 is a general manager (10 percent) and five percent are chief executive officers. The remaining respondents include executive directors, chief financial officers, partners, and vice presidents.

Two in 10 respondents each are from companies in the retail trade (22 percent) or professional services industries (21 percent), while 15 percent are in the manufacturing industry. Approximately one in 10 each is in the business services (11 percent), finance, insurance, and real estate (9 percent), construction (8 percent), or wholesale trade industries (8 percent). Fewer respondents represent each of the remaining industry groups.

Almost six in 10 companies process their payroll and related taxes internally (56 percent), four in 10 have them processed externally (39 percent), and the remainder use some other method or are unable to provide this information.

More than one in 10 respondents report that the cost of processing their total payroll and related taxes in 1997 was less than $2,000 (13 percent). Almost two in 10 say it cost between $2,000 and $4,999 (18 percent), one in 10 says it cost between $5,000 and $9,999 (10 percent), and 15 percent report the total cost was $10,000 or more. A large proportion of respondents—more than four in 10 for mid-size and larger companies—are unable to provide an estimate of these costs. As might be expected, the reported cost of processing payroll and related taxes generally increases with the number of full-time employees.

Almost one-half of respondents are unable to provide an estimate of the cost of processing 1997 W-2 forms for their company (46 percent). However, 15 percent of respondents say processing 1997 W-2 forms cost their company less than $200, 13 percent report costs of $200–$499, 15 percent report costs of $500–$1,000, and 8 percent say it cost more than $1,000.

Almost two in 10 companies surveyed report gross revenues of less than one million dollars for their 1997 fiscal year (17 percent). An additional two in 10 say their company had gross revenues of $1,000,000–$2,999,999 (20 percent), one in 10 cites revenues of $3,000,000 to $4,999,999 (9 percent), and 13 percent each report revenues of $5,000,000–$9,999,999 or $10,000,000–$30,000,000. Only 4 percent say their company had gross revenues of more than $30,000,000 for their 1997 fiscal year. Almost one-fourth of respondents are either unable to provide this information (11 percent) or refuse to provide it (13 percent).

Overall, three in 10 respondents report that their company is in excellent financial shape (30 percent), almost one-half say it is in good shape (46 percent), two in 10 say it is in fair shape (20 percent), and only 3 percent report that their company is in poor financial shape. Respondents' perceptions of the financial outlook for their business parallel their perceptions of its financial condition. Three in 10 say the outlook is excellent (29 percent), one-half say it is good (49 percent), two in 10 say it is fair (17 percent), and only 2 percent believe it is poor.

# 11

# *A Perspective from Small Business*

## by Brian Reardon

## ■ Introduction

The National Federation of Independent Businesses (NFIB) represents 600,000 small business men and women nationwide. As an NFIB lobbyist, my views are going to be a little bit more political than technical. We have viewed or reviewed or polled NFIB members extensively on the issue of Social Security reform, and we have done a survey that just came out last summer. So, let me summarize where small business is on this issue and try to shed a bit of light as to the whole question of administrative burdens and what small businesses are going to be willing to shoulder.

## ■ Small Business Wants Action

First of all, small businesses are very cognizant of the fact that Social Security faces financial difficulties. Ninety-one percent of those people polled assessed Social Security's financial situation as either serious or very serious. A vast majority wants action quickly; 85 percent responded that Congress should act as soon as possible to reform the Social Security system.

## ■ Small Business Wants PRAs

A majority of small business owners support the concept of personal retirement accounts (PRAs); 70 percent responded favorably to the idea of private investment of Social Security assets. And in a follow-up question, a ratio of 5-1 supported individual control or decision making in making those private investments.

Thus, in essence what you have is a population that is overwhelmingly aware of the financial conditions of Social Security. They support taking action sooner rather than later, and, generally speaking, they support the concept of personal retirement accounts.

## ■ The Administrative Burden

Now we get to the question of administrative burden. What is small business willing to shoulder as far as increased paperwork costs? Here is the question we asked them. Respondents were told that a partially privatized system of individual accounts would require additional paperwork. They were also told that as employers, they would need to separate the amount to be invested in individual accounts from FICA, and that they would have to forward that money to a place of the employer's choosing. The text explicitly noted that each employee might wish to send his or her money to a different place. In other words, if an employer has 10 employees, it might have to cut 10 different checks and send those checks to 10 different locations.

Sixteen percent thought this would be a very serious paperwork burden; 33.6 percent thought it would be somewhat serious; 40.9 percent thought it was not very serious; and 7.1 percent said it would be no new burden. In other words, they were evenly split, 49 percent to 49 percent in this worse-case scenario, where the employer cut checks to disparate locations.

That indicates there is hope. That is, in between that extreme example and status quo of what they are required to do now, there has to be some middle ground where you can get small businesses to support the implementation of personal requirement accounts. Keep in mind: it is a concept they generally support.

The Employee Benefit Research Institute's (EBRI) survey essentially asks the same question. It came up with a very similar number; that is, 48 percent support the idea of creating personal retirement accounts, even if they have to cut individual checks and send them out to individual locations. EBRI asked a very interesting follow-up

question of those who were neutral or not supportive of doing that: What if that was the only option you had in order to get personal retirement accounts? An additional 10 percent said, "Okay, we would support that." In other words, the EBRI study found 58 percent support for personal accounts with a heavy administrative burden among small business owners.

## Conclusion

Janice Gregory has addressed some of the reasons why you should have an individually based system, rather than have employers pick and choose the investment options that their employees are going to have available.[1] Girard Miller addressed the fiduciary responsibilities that are associated with that.[2] There are portability issues that you now have in the health care system, which is, essentially, employer-based. Those same problems would occur if you had an employer-based system of private investment accounts, and then you also have the administrative burden and the cherry-picking issues that you also see in health care. In other words, let's learn from our experiences in health care and design PRAs that focus on individuals rather than on employers. It's the best place to start.

Finally, let me leave you with one thought on personal retirement accounts. It's what I call the "Jesse Jackson Approach to Social Security Reform: Think IRA, not 401(k)."

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[1] *See Janice Gregory, "Impact of Social Security Individual Accounts on Employer Plans," in this volume.*

[2] *See Girard Miller, "Basic Administrative Tasks and Generic Alternatives," in this volume.*

# 12

# *Comments on "Issues Involved in Using the Annual Wage and Tax Process to Administer Individual Social Security Accounts"*

## by Louis D. Enoff

Kelly Olsen's excellent discussion should serve as a basis for future work to ensure that any new system deals with the reality of the magnitude of change required. It points out several cogent facts that I believe deserve comment.

1. The change will be expensive. I agree. What is the alternative? Are we willing to live with the current system just because of the complexity and investment required to change? What is the cost limit for administrative changes? Over what period can the costs be spread? What are the costs of keeping the current system? (Suspense accounts mean lost credits usually for the lowest earning, most needy beneficiaries. Minorities, particularly those with compound names, seem to suffer nonposting at a particularly high rate.) Is it worth investing in a whole new wage reporting system which will not only establish and service individual accounts but that will also simplify and make less costly for employers the current reporting systems?

2. There are answers for most of the issues now. The only plausible way to move to an individual accounts system would be to use the existing Social Security/Internal Revenue Service (IRS) wage and tax collection and reporting system. This system is far from perfect for this endeavor, but is the most efficient way to go. It also allows for easy government subsidization of the startup costs and is already in place.

A new system would have to be built in order to maintain and service individual accounts for all workers covered by Social Security. This would take at least three years from the point that a design specification was finalized and a contract let. In the meantime, the current Social Security Administration record-keeping system could be used to allocate and maintain credits for the covered workers. Work would have to be done to establish current addresses, but much of this work would have to be done anyway to administer the new PEBES requirements correctly. The PEBES statements could be used to notify workers about their entitlement to special individual accounts. Based on the British experience, which is the only comparable system (60 million accounts), the cost is likely to be around $200 million. If the process of build and rent is utilized as it was in the UK, these start-up costs can be spread over several years and there is not a need to allocate the large up-front costs through the federal budget process.

Much concern is expressed that workers would lose the benefit of interest earned during the period between when the withheld taxes/contributions are collected and the time that they are credited to individual accounts. I would not consider this a loss since workers are now getting nothing for this float period. Actually, the Trust Fund does get credit for interest during this period. Using the same estimation techniques that are currently used, the appropriate amounts could be transferred to a holding account, as is currently done in the British system. Although it may take from nine to 18 months for the correct sum to be transferred to an individual's own account, the interest earned during the float period could be allocated upon transfer. This process would also be helpful in spreading some of the administrative costs from the smaller accounts. Actually, a process

could be created whereby an individual account would not be created until a worker had accrued a certain amount of credit in this holding account. Although the British system has its own set of problems, there has been no outcry about this allocation process and the loss of float. If workers are properly informed about the process in advance, problems should be minimized. Perhaps future improvements to the wage reporting system could vastly improve this time lag. However, for the present, this seems to be the only way to achieve the objective of individual accounts.

In terms of the costs for administering the education process and the movement of accounts from fund to fund, it is obvious that, at least at the outset, the number of choices for investment would have to be limited to 10 or fewer approved funds. Movement from fund to fund would also have to be limited, and there should be an exit fee to discourage movement from occurring too frequently. While many may criticize these limitations as less than desirable, I believe they are the best we can do at this time to move toward our goal. The education process is another matter. I believe it would be possible to create a work group from among potential fund managers and their representative organizations that could develop a generic program that could be distributed by employers, the Social Security Administration, and the IRS. More specific education or sales material should be limited and screened by the appropriate regulatory body. At least at the outset, there should be a limitation on marketing expenses!

Most of the other objections or questions could also be addressed by this process.

3. There are some questions which deserve further study and which may not be satisfactorily determined within one year. These issues include (1) Earnings Sharing—the potential benefits and the administrative difficulties, (2) Annuities—should they be required for all individual accounts at retirement? To what extent? Are the costs so prohibitive as to require some government-backed alternative? Could these costs be lowered because of the volume? (3) How to provide the education and incentives necessary to encourage and in some cases allow second careers to curtail our continuing early retirement. (4) Age of eligibility for retirement. While raising the normal retirement age may have some impact, much remains to be done regarding workers in particular occupation or earnings categories.

Also the STAWRS initiative of the Reinventing Government Strategy should be reviewed in light of the potential savings for employers in wage and tax reporting. It is possible that the combination of individual accounts and some of the proposed simplifications of this initiative could combine into a powerful incentive for creating a whole new tax and wage reporting process. Building a new process for these combined needs would bring even greater simplification and savings.

# 13

# *Demographic Differences Between the Population Covered by Employment-Based Defined Contribution Plans and the Total Work Force Covered by Social Security*

**by Jack VanDerhei**

## ■ Introduction

It has frequently been suggested that either the federal Thrift Savings Plan (TSP) or perhaps a private defined contribution universe could serve as some kind of analogy for what might happen under the individual accounts proposed for Social Security. To pursue this suggestion, we decided to look at some of the demographic differences between TSP participants and other segments of the working population.

To do this we needed accurate administrative data on TSP participants in order to compare them with private defined contribution participants. We then wanted to get an idea of what the Social Security covered work force looks like by first separating out some of the problem areas such as the self-employed and other areas that we didn't think would necessarily be a problem such as federal government employees.

We ended up piecing together a number of data bases.[1] There was a problem with the nonreporting of the self-employed and with individuals who participated in both defined benefit and defined contribution plans.

## ■ Wage Distribution

Probably the type of information that we are most often asked for is the wage distribution differences among the general population, those covered by Social Security, those covered by the private defined contribution universe, and TSP participants. (The latter refers only to actual participants, not to those who were eligible for the TSP. Obviously it is the participants who generate the administrative expenses.)

It was found that, after separating out government employees and the self-employed, about 50 percent of the total universe in 1990 was earning $20,000 or less[2] (chart 13.1).

Among TSP participants, approximately 30 percent earned $20,000 or less, and for those with private defined contribution coverage it was about 22 percent. Among the self-employed, approximately 55 percent were making less than $20,000 a year. In a 2 percent individual account environment, $20,000 a year or less will amount to less than $400, or less than $10 a week as far as a contribution into the account is concerned.

## ■ Annual Hours of Work

Next we looked at annual hours of work (chart 13.2) because, as Janice Gregory points out,[3]

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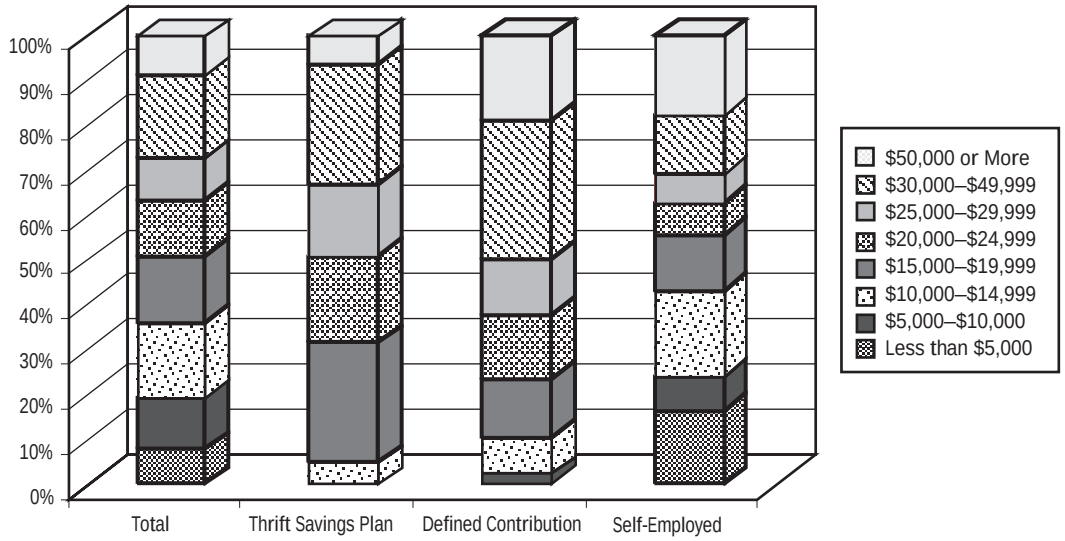
*[1] Thanks to David MacArthur, U.S. Department of Labor, for providing output based on administrative data from the 1990 survey of TSP participants. With the help of Paul Yakoboski, we compared these data with some of the April 1993 CPS supplement information, in order to determine whether pension participants were defined contribution plan participants, which seemed to be the relevant universe to look at in this case.*

*[2] Deflated to 1990 dollars to achieve equivalence between the TSP reported numbers and the April 1993 reported numbers.*

*[3] See Janice Gregory, "The Impact of Social Security Individual Accounts on Employer Plans," in this volume.*

Chart 13.1

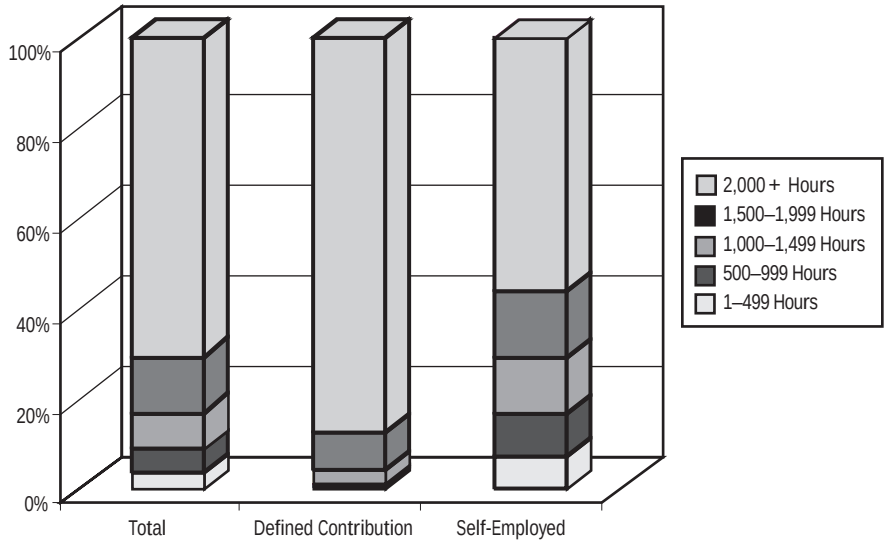
**Distribution of Annual Earnings: Total Workers vs. Defined Contribution Participants, Excluding Self-Employed and Government Employees**




Source: Unpublished Employee Benefit Research Institute tabulations of April 1993 CPS Supplement.

Chart 13.2

**Distribution of Annual Hours: Total Workers vs. Defined Contribution Participants, Excluding Self-Employed and Government Employees**




Source: Unpublished Employee Benefit Research Institute tabulations of April 1993 CPS Supplement.

private defined contribution sponsors are able to exclude part-time employees. In the total work force (again, separating out the self-employed and government workers), about 25 percent of those otherwise qualified for Social Security coverage were working less than 2,000 hours per year. Among private defined contribution participants, it was about 10 percent, and among the self-employed about 45 percent.

We didn't have the equivalent type of information for TSP, but, based on their administrative records, it appears that about 97.4 percent were considered full-time, so again there is a very sizeable difference.

## Tenure

Chart 13.3 shows tenure, which is a concern because of rollovers. As the amount of turnover increases, the complexity increases. There will be small dollar amounts for short-term employees. Workers who have less than one year with the current employer or who are self-employed represent about 20 percent of the total working population. TSP participants and private defined contribution participants each constituted less than 5 percent, and the self-employed about 10 percent.

Chart 13.3

**Distribution of Tenure: Total Workers vs. Defined Contribution Participants, Excluding Self-Employed and Government Employees**

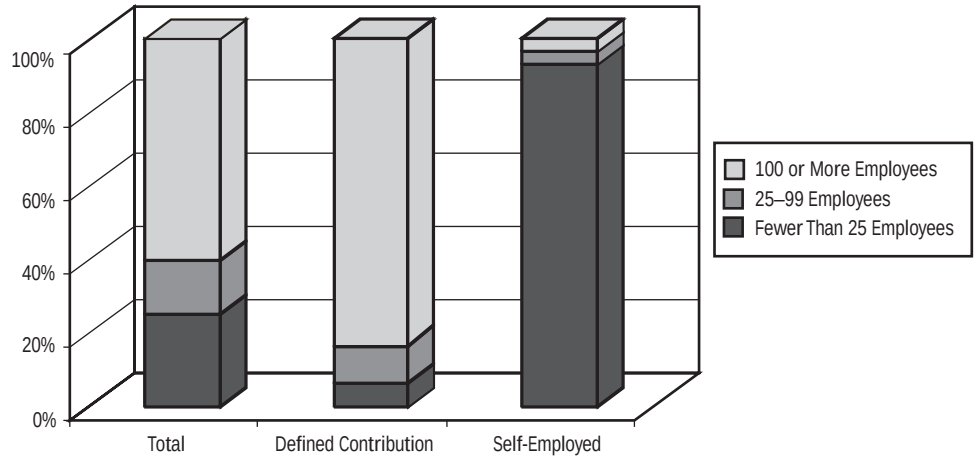

Source: Unpublished Employee Benefit Research Institute tabulations of April 1993 CPS Supplement.

## Firm Size

Chart 13.4 shows firm size. Obviously, there is no TSP bar here. What is of concern is overhead costs. If there are fixed costs, how many employees can they be distributed over? Among the total population, about 25 percent of nongovernment employees are self-employed or worked for firms with fewer than 25 employees. Even though those small firms represent the vast majority of private defined contribution plans, they only represent about 5 percent of all covered employees.

Chart 13.4

**Distribution of Firm Size: Total Workers vs. Defined Contribution Participants, Excluding Self-Employed and Government Employees**

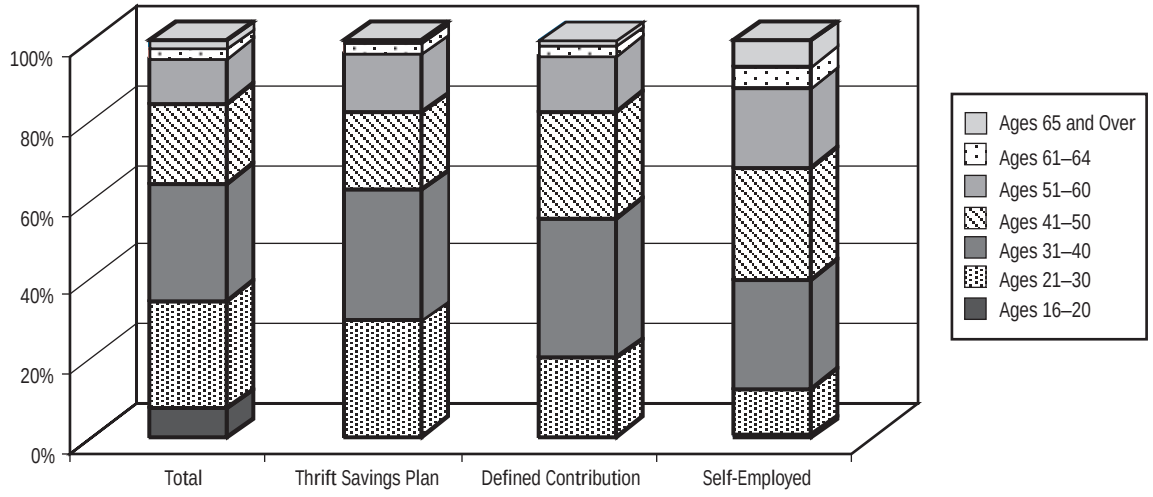



Source: Unpublished Employee Benefit Research Institute tabulations of April 1993 CPS Supplement.

## Age

We do not know how the age breakdown of the population would affect cost assumptions. About the only conclusion we have reached on this question is that the total population is slightly younger than the rest of the covered categories (chart 13.5).

Chart 13.5
**Distribution of Age: Total Workers vs. Defined Contribution Participants, Excluding Self-Employed and Government Employees**




Source: Unpublished Employee Benefit Research Institute tabulations of April 1993 CPS Supplement.

# 14

# *The Infeasibility of Individual Accounts*

## by Francis X. Cavanaugh

## ■ Introduction

Previously, I have talked about why you cannot model individual accounts after the federal Thrift Savings Plan, where I worked for eight years. Now, that seems to be a dead issue, but we should be pursuing most actively the question of administrative costs. The November 1998 *Issue Brief* by the Employee Benefit Research Institute (EBRI) referred to previous 401(k) cost estimates by the Government Accounting Office of about $100 per participant per year and to a private study that said it was between $49 and almost $300.[1] Another private study said it was about $100 per account per year. I am trying to square that with some of the other, much lower, estimates we have been hearing about costs.

## ■ Current Costs

The estimates referred to in the EBRI report seen to be borne out by a recent article in *The Wall Street Journal* (November 13, 1998, p. C1), which discussed how 401(k)s have become available to small business. It included a table that showed the costs charged by Fidelity, Vanguard, and T. Rowe Price. It included, as an example, T. Rowe Price going into a small company with only 10 employees and setting up a nice little 401(k) for them. But, to do that, it charged the employer $1,300 in start-up costs; it also charged the employer $35 a head plus $2,400 a year. It charged the employee .65 to 1 percent for the money management. Now, those were apparently competitive costs because they were in line with the costs of these other firms; and they are aggressively looking for this business. When you add up those numbers, it comes to approximately $300 per individual account per year.

If you are talking about Social Security individual accounts and something like $20,000 incomes, which we have addressed as the average, then 2 percent of $20,000 provides only $400 a year to the account. Keep in mind that Social Security is characterized by very small firms; we are a nation of small businesses, some 6.5 million out there. More than half have fewer than 10 employees; 40 percent have fewer than five. This is the universe with which we are dealing. When you take that $300 administrative cost with only $400 going into the account in the first year, that is an expense ratio of 75 percent, which is 7,500 basis points, compared with the Thrift Savings Plan, which is 6 basis points. The next year, you cut it down substantially because the account builds up. But if you are putting just $400 into an account each year and $300 comes out for administrative expenses, that leaves you with $100 on which you earn interest or dividends. If you run those numbers out to, say 50 years, you are still under water. The administrative expenses exceed any reasonable estimate of investment earnings.

## ■ Conclusion

The problem we have here is that people look at, for example, the Thrift Savings Plan and say, if the Thrift Savings Plan can do it for $23 a head (6 basis points) with 2.3 million federal employees, then why cannot we do even better with Social Security with 148 million employees? "We should get

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*1 See Kelly A. Olsen and Dallas L. Salisbury, "Individual Social Security Accounts: Issues in Assessing Administrative Feasibility and Costs,"* EBRI Special Report *SR-34*/Issue Brief *No. 203 (Employee Benefit Research Institute, November 1998).*

economies of scale." That is the wrong way to look at it. The economies of scale come by having a large number of employees per employer—to spread out the fixed costs. So long as we are a nation of small businesses, the only way you're going to get economies of scale is to get those 6.5 million businesses to merge into conglomerates. That is not going to happen. So that is what we have in our competitive market today; and that is why individual accounts are not feasible.

# 15

# *A Workable System of Private Accounts*

## by Fred Goldberg

## ■ Introduction

The burden of proof for a system of universal private accounts belongs on those who favor such individual accounts. We must be honest about whether and how they can be implemented. Private accounts may be good policy, and may even be good politics, but if they cannot work, they are not worth doing. I am working with Professor Michael Graetz of the Yale Law School on a paper that will be published by the National Bureau of Economic Research (NBER) in early 1999. It describes in detail a very specific model for implementing private accounts and answers a host of legitimate questions, including many that are raised in this book. It describes, in my opinion, a workable system of universal private accounts.

## ■ Four Design Criteria

In discussing the design of private accounts, sometimes we jump too quickly to an answer, when it makes more sense to start with the criteria. What are we trying to design? What's the report card? What does a system of private accounts have to do before we can say it is going to work? While there are lots of ways to describe the criteria, I think it boils down to four:

First, the system should minimize administrative costs and distribute those costs fairly. This suggests asset-based allocation of fees, rather than a flat-dollar fee per account. It also raises the question of whether all administrative costs ought to be funded from the investment pool. If a universal infrastructure for the creation of wealth for all Americans is a public good, then perhaps some of the administrative costs ought to be paid from general revenues. Regardless of who pays, however, it is important to keep the costs in line. We have been working with a number of folks on the cost question, and have come to the same conclusion as most other commentators. On a fully phased-in basis, after a three- to five-year phase-in, you can run a system like that described by Gregory Ahern[1] for 30 to 50 basis points. This is consistent with the work of Olivia Mitchell and others, and there seems to be a high degree of confidence in this estimate.

Second, the system should impose no incremental burden on employers. You could, of course, design a system that would break the backs of small business. Just ask Francis Cavanaugh.[2] But you shouldn't. And, as I'll get to shortly, you don't have to. It is possible to design a system of universal private accounts that imposes no additional burden on employers.

Third, the system has to be simple; it has to be easy to understand and administer; and, in some fundamental way, it has to meet the expectations of participating workers and beneficiaries for simplicity, security, independence, and control.

Fourth, the design needs to be flexible. It should accommodate a variety of funding mechanisms—carve-out, add-on, general revenues. It should be able to accommodate voluntary additional contributions, including contributions encouraged by tax incentives. It should be able to address a variety of approaches to protecting spousal rights and handle a variety of benefit payout requirements. Whatever system is chosen, it is important that the mechanics—the plumbing and wiring, if you will—be able to accommodate a wide variety of policy choices, and that it be capable of handling changes in those policy choices over time.

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[1] *See F. Gregory Ahern, "Administrative Framework for an Individual Account, Market-Based Social Security System," in this volume.*

[2] *See Francis X. Cavanaugh, "The Infeasibility of Individual Accounts," in this volume.*

## Design Alternatives

While there are many ways of describing the functions that a private account system has to perform, it is easy to think of it in three steps: (1) setting up and crediting accounts; (2) investing those accounts during the build-up phase; and (3) making distributions at the back end. There are other important activities, education and the like, but they all occur within the context of these three tasks.

There are three models that accomplish these three functions: (1) an employer-based model (the 401(k) analogy); (2) an employee-based model (the individual retirement account (IRA) analogy); and (3) a centralized system administered by the government. The first two won't work in the context of a universal system. They are too expensive, impose too many burdens on employers and workers, and are too complex. If anyone wants to figure out how to make either model work, good luck. If the goal is a universal system of private accounts that meets the four criteria I've laid out, we are stuck with a centralized administrative system.

## Setting Up and Funding Accounts

In terms of setting up and funding accounts, the key is that we already have the necessary infrastructure—the Internal Revenue Service (IRS) and Social Security. Between the two, we are already maintaining accounts for more than 100 million workers and beneficiaries. They provide the platform to get the first task done in a way that costs very little, imposes no incremental burden on employers or workers, and is relatively easy to understand and administer. And, it's flexible.

To set up and fund an account, you need to know who the person is—name, address, account number, and the amount that should be credited. It turns out that the necessary information is already provided to the IRS. And it has been, for many years. The incremental cost of building on this base is tiny. And again, in light of what others keep saying, I want to repeat myself. This approach imposes no additional burden on employers. This approach imposes no additional burden on employers. It's also flexible. It can accommodate any funding mechanism (carve-out, add-on, or general revenues), rules regarding spousal rights, voluntary additional contributions (with or without tax incentives).

## Investing Funds

For the investment piece, a two-tier approach makes the most sense. As others have said, you need a simple system with limited investment choices, limited flexibility, limited written statements and reports, and age-appropriate default options. The consensus view is that this approach could be implemented by contracting out to the private sector, would meet the needs of most workers, and that—after a three- to five-year phase-in—could be administered for 30 to 50 basis points.

In addition, individual participants should be permitted to roll out of that system into privately sponsored funds. This option is essential for three reasons: to provide workers with choice and flexibility; to maintain the integrity of the first-tier system; and to minimize the risk of government interference with the capital markets. While these private funds should be regulated, the regulatory framework is already in place—the Securities and Exchange Commission, the Department of Labor, the Treasury, and the Fed. This is a complex array of regulators, but they are currently dealing with safety and soundness, disclosure, and permitted investment alternatives. Once again, the key is to build on existing systems.

## Distributions

The pay-out system should also be built around a two-tier structure. The first tier should give participants the option of piggybacking on the existing Social Security system—turn over what they have accumulated and make a corresponding adjustment in what they receive from Social Security. The key here is a simple alternative. Many workers won't want to deal with annuity options, shop for alternatives, and the like. Again, however, workers and beneficiaries should have other options. Flexibility and choice are essential. The system should accommodate workers who want joint-and-survivor annuities that cover disabled children or elderly parents; workers who want to make special provision for long-term care; and

workers who want their accounts to accumulate for their heirs or charity. Once again, the systems are already in place, through Social Security and the private annuity markets, and the key is to build on those existing systems.

## The Funding Issue, Revisited

This brief summary does little justice to the existing infrastructure that makes it possible to implement a workable system of private accounts. The NBER paper mentioned previously explores the design in far greater detail.

However, I would like to discuss the funding question a bit further. Most commentators assume that funding should occur based on Social Security processing of W-2s. This causes great concern over the lag in funding. Some suggest that the solution would be to impute earnings during the delay; others suggest that employers should be required to file monthly reports. Still others use the lag—or the need to burden employers—as an excuse to trash private accounts as unworkable.

It turns out that funding based on information provided the IRS is much more efficient and solves most of the problems identified by other commentators. The way the system would work is that when individuals file their tax returns, the IRS has almost all of the information necessary to fund private accounts. The only thing that's missing is the participant's investment choice, which can be addressed through a form that is filed with the tax return. This approach makes sense for four reasons: (1) it imposes no additional burden on employers; (2) it's efficient, because the IRS already collects the information and has a processing system in place; (3) it's flexible; and (4) it reduces the lag in funding from 18 months to less than four months.

This leads me to the "550 Mantra"—a number that has taken on cult-like significance (at least, in the eyes of those who cloak their policy objections to private accounts in the guise of "administrative concerns"). As we've heard today, 550 million of 650 million employers file their W-2s on paper. This is a fact, but it is also a fact that I'm wearing a red and blue tie. So what. The fact that most employers file their W-2s on paper is irrelevant if IRS data collection is used to fund accounts. It just doesn't matter.

Another benefit of relying on IRS processing is that it integrates the funding and investment choice functions. This is important if workers can choose among a limited number of government-sponsored options, and becomes even more important for those workers who choose privately sponsored funds. In this regard, it is worth noting that about 20 percent of all refunds are currently issued electronically (the same process that would be necessary to fund private accounts maintained by the private sector). It is also works equally well with any funding source, and provides the flexibility to accommodate voluntary additional contributions, especially if they are encouraged by tax incentives.

More than 10 percent of all returns are filed within 45 days after the end of the year; more than 80 percent are filed within 3+ months after the end of the year. With Telefile, electronic filing, 1040Ezs, and 1040As, most workers could file and have their accounts funded by the end of February. Those not required to file returns could file investment election forms, along with their W-2s, at any time after the end of the year. For those who don't file, funding would only occur after Social Security processing of W-2s. This last number is, of course, likely to dwindle when there is a reason to file (after all, it's a benefit, not a liability); nonetheless, it might be appropriate to credit these accounts with imputed earnings.

A final observation on the issues of error correction and fraud. As a preliminary matter, the error rate under current law is quite small—less than 1 percent, based on what we've heard today. When the stakes change, that error rate is likely to decline further. Moreover, with respect to errors and fraud, the practical answer is the same: the money's still around. In stark contrast to the EITC, where the money's gone before the problems are detected, the funds in private accounts are available to correct inadvertent mistakes and intentional deception.

## Conclusion

None of this is intended to suggest that the system will be flawless. It won't. But it's important to put the administrative issues in context. Imagine that you are trying to design a universal system of retirement and disability insurance. Your heart's in

the right place, but there is no such thing as Social Security numbers. There is no such thing as payroll taxes. There is no such thing as computers. All records are maintained on paper, come and go on paper, and are delivered by mail. Lots of participants don't even have telephones. Designing and implementing that system would be hard. Really, really hard. But they did it. They did it in 1935. If today's administrative hand-wringers had been around back then, we wouldn't have Social Security today.

Hard, of course, is a relative concept. A system of private accounts obviously poses difficult administrative issues. But think about what they did more than 60 years ago. If you follow the advice that Gregory Ahern and others are providing, if you build on the existing infrastructure, it is absolutely clear that you can implement a universal system of private accounts that is flexible, inexpensive, easy to administer, poses no burdens on private employers, and meets the expectations of the American public. The real question is whether you want to do it.

# 16

# *Managing Mandatory Savings Plans: Implications of Foreign Experience*

**by Adam Carasso, Lawrence Thompson, Phuong Tran, and Eric Zaretsky**

## ■ Introduction

The idea of adding a system of funded, individual defined contribution accounts to our Social Security system has attracted increased attention in recent years. A number of people have offered a variety of plans designed to accomplish this. The plans feature a range of approaches to both designing and implementing individual accounts, and they differ widely in the degree to which they specify the administrative processes through which such accounts are to be implemented.

It is always tempting at this stage of a policy debate to focus on the merits of different policy approaches on the assumption that acceptable administrative arrangements for the policy option selected can be developed later. In that way, the debate can concentrate almost exclusively on the many complex and interrelated policy design issues that will have to be settled. Previous experience with reform proposals affecting other parts of our social welfare system cautions us, however, to avoid giving in to this temptation. Careful analysis of the administrative implications of a particular proposal can have a major impact on its political support, sharply reducing the support for proposals that are otherwise attractive on policy grounds and enhancing the attractiveness of what might otherwise be considered the ugly ducklings of policy development.

We are fortunate that several other countries have developed systems of funded, individual defined contribution accounts as a part of their social security systems. These other countries have also developed a variety of different arrangements for administering these accounts. By examining the arrangements that they have developed we can gain important insights into the implications of different policy approaches in our own country. Such insights will supply important new information to the current debate and reduce the risk that we might make a policy decision that we will ultimately regret.

This discussion will describe the administrative arrangements adopted in a number of other countries and comment on some of the implications for the United States. It will first review the range of issues that must be addressed in any individual account plan. Then it will describe the approach used in each of eight other countries—three in Latin America, four in Europe, and one in Central Asia. It will conclude with some observations about implications for the current debate in the United States.

## ■ General Administrative Issues

The various proposals for funded accounts differ dramatically. Some people propose that the accounts serve as voluntary supplements to current Social Security benefits (or, at least, to the level of benefits sustainable on a long-term basis), while others propose mandatory accounts financed by diverting a part of the current Social Security tax. In some proposals, individual accounts are managed entirely by private investment managers with little or no restriction on the kinds of investments allowed. In other proposals, governmental agencies play a much more important role in managing the system, and individual discretion is sharply limited. Proposals also differ in the mechanisms to be used to collect and track contributions, to enforce collection rules, to select the particular pension fund manager responsible for each account,

and to decide on the investment strategy that will be used.

Several examples illustrate the diversity. Martin Feldstein and Andrew Samwick have proposed that individual accounts be implemented through a mandate that each individual worker open an individual retirement account (Feldstein and Samwick, 1998). In this plan, funds would be transferred directly from the individual worker to the investment manager, and the worker would be compensated with a refundable tax credit. The calculation of the required contribution, remitting of funds to the proper investment account, and reporting of the transaction to the oversight agency in the government would be handled entirely by the individual on a totally decentralized basis.

Rep. John Edward Porter (R-IL) and the supporters of the recent Advisory Council's Personal Security Accounts (PSA) plan each have proposals that would also allow each worker to select his or her own fund manager but would require employers to assume responsibility for making regular (presumably at least monthly) transfers of funds to the investment manager each worker has chosen (Bok et al., 1997; and Porter, 1997). Information on the earnings and contributions of each individual would also be submitted to the investment managers each time a financial transfer is made. Employers would continue to make Social Security payroll tax payments as they now do to finance other benefits, such as disability, survivor, and any residual retirement benefit.

Several proposals envision a system of funded individual accounts that build on the mechanisms now in place to collect Social Security payroll taxes and information on each worker's contributions (for example, Gramlich and Twinney, 1997; and Center for Strategic and International Studies, 1998). The employer would not have to assume any new responsibilities for calculating and remitting contributions or for reporting individual earnings, but might have to play a new role in providing information on employee investment options and procedures.

The three approaches illustrate the range of administrative arrangements that are now being proposed for implementing individual accounts. The previous description fails, however, to give an appreciation of the multitude of additional issues that will have to be addressed before any of these proposals could actually be implemented. The authors of most of these proposals supply few, if any, additional specifics about the administrative arrangements they envision, despite the fact that the success of their proposals is likely to depend on the effectiveness and efficiency of these arrangements. This paper will explore some of these issues.

One administrative issue that must be resolved involves the process to be used to move the money from the employer to the investment manager. Presumably, the actual movement of money will mainly be the responsibility of the commercial banking system in all individual account plans, just as is the case today for moving Social Security contributions and income tax payments. Several issues must be addressed to ensure that this process flows effectively, however:

- Who will be responsible for ensuring that the correct amount has been transferred to each investment manager and that the transfers occur on time? What enforcement tools will they have? Currently, the Internal Revenue Service (IRS) is responsible for ensuring that payments are prompt and accurate, and a whole range of IRS enforcement tools is available to ensure payment of contributions due. In some proposals, however, the IRS is not likely to be in a position to continue to play this role efficiently and effectively.

- Who will be responsible for contributions that are not deposited correctly through no fault of the employee? Will the employee be compensated for lost investment earnings if the contributions don't get deposited in the proper account? What happens if the employer goes out of business without having paid all of the contributions it owes? Under the current Social Security system, workers do not suffer any reduction in retirement benefits if earnings reports come in late or if their employer fails to remit all that is due. A conscious decision will have to be made about how these situations will be handled under a system of individual accounts and how any resulting liabilities will be financed.

A second set of issues involves how each individual's earnings or contributions will be reported. At present, each individual's annual total

earnings with each employer are reported annually by the employer to the Social Security Administration (SSA) on the same form that is used to report wages paid subject to income taxation. Small employers are allowed to submit reports on paper forms; large employers are required to file electronically. Reporting frequency and format can become important issues under individual account plans because of the link between reporting frequency and the ability of workers to alter the allocation of their contributions among alternative investments, the length of time elapsing between the withholding of contributions from their pay and the investment of these contributions in the fund of the worker's choice, and the burden placed on the employer to administer this process. Issues to be resolved include:

- How frequently must earnings reports be filed? Each time a transfer is made to the investment manager? Each month? Each year?

- In what form must these reports be filed to allow efficient processing? Will everyone be required to file electronically? If not, will the use of paper forms be restricted to certain formats that will facilitate electronic scanning?

- If the contributions are deposited more frequently than the earnings reports are filed, where will the money be held pending notification of how it is to be allocated among accounts? Will workers be compensated for the earnings lost during this holding period?

- How closely will the earnings reports be checked for accuracy? At present, SSA checks the reported name and number against its master list before recording earnings. This is to make sure that the employer didn't make a mistake in recording an individual's account number. SSA and IRS also check to see that the total of all of the individual earnings amounts reported corresponds to the contributions that the employer paid to make sure, among other things, that the employer didn't forget to include an earnings report for one or more workers. If the earnings reporting process is to be decentralized, other institutions may have to be created to play this role. Presumably, to perform these duties these other institutions would also have to have access to both the IRS and SSA master files, which are not currently available to the general public.

A third set of issues involves how each worker is to record his or her investment choices. Individual account plans invariably give the worker a choice about either which company will manage his or her funds, which particular investment portfolio these funds will be invested in, or both. The existence of this choice means that a process must be developed to inform workers about their options, to register worker choices, to allow workers to alter their choice, and to link information about the worker's choice to the flow of information about contribution amounts and the system that is processing the money. Some of the issues that will have to be resolved are:

- Who will be responsible for informing workers about their investment options? Will this be a new responsibility assigned to employers following the precedent of 401(k) plans? What kinds of requirements and liabilities will this entail? If employers are not held responsible for this function, will independent agents be allowed to play this role, following the model now used for marketing many insurance and other financial products?

- How often will employees be allowed to change their choice about where their new contributions are to go? How often will they be allowed to change the allocation of their current investments? Will fund managers be allowed to charge exit fees? Will people be allowed to have more than one account or must they move their entire balance? Will small, inactive accounts be protected from loss of principal if annual fees are higher than their investment earnings?

- Who will keep track of the account to which each individual's contributions are to go? Who will inform that entity if the individual wishes to change his or her mind? How will we avoid the kinds of problems currently arising with misrepresentations about changes in long-distance telephone carriers? Will workers be compensated if their choice is altered without their

knowledge or if an error is made in the allocation?

Under even the best-designed system, mistakes will be made and disputes will arise about how much money was transferred and to where. Decisions will have to be made about how such disputes are to be resolved. Currently, both the IRS and the SSA have elaborate and extensive dispute resolution procedures, which involve several levels of appeals to independent decision-makers. The IRS even has its own court system, designed to give access to a judiciary process at modest cost. Parts of the securities industry have mandatory arbitration procedures for resolving disputes, operating under the general oversight of the Securities and Exchange Commission (SEC). Dispute resolution in the insurance industry tends to be under the jurisdiction of individual state insurance departments. In some cases, the only recourse is to the civil courts. If an individual accounts plan is set up, a dispute resolution mechanism will also have to be designed. The issues to be resolved include:

- What process will be used to settle disputes arising in the process of operating the individual accounts? Will this involve a new institution or the assignment of new responsibilities to an existing institution?

- Who will pay the costs of dispute resolution? Will individuals be required to hire lawyers? Who will enforce the decisions?

- Can the insurance and banking industries become involved in managing individual accounts without federalization of the regulation of these industries?

A detailed exploration of each of these issues is neither advisable nor possible at this time. It is useful, however, to gain a better understanding of how these issues have been handled in other countries and, where possible, to gain an understanding of some of the implications of the different arrangements. The next section of this paper reports on the arrangements and experiences of other countries. The last section suggests some implications for the design of individual accounts in the United States.

## ■ Country Reports

### Argentina

***Overview***—The social security program in Argentina dates back to 1904, when a pension system was created for public-sector workers. Coverage was gradually expanded to virtually the entire population, with the major expansions occurring between 1944 and 1958.

As in other Latin American countries, over time social security benefit promises eventually outstripped the ability of the system to pay. Some groups were able to get benefits equal to 90 percent of their previous salary. Others were able to retire as early as age 50. In 1995, more than 20 percent of the retirees were younger than age 60 (SAFJP, 1998b, p. 15).

Repeated financial crises eventually led to a consensus that reform was needed. The redesigned system was enacted in 1993 and made effective in 1994.

***Coverage***—The new system is supposed to cover all wage and salary workers and all self-employed workers, except for the military and certain persons employed by provincial and municipal governments. Enforcement has been a problem however.

The new Argentinean system consists of two separate pillars. The first pillar is a pay-as-you-go, defined benefit plan operated by the government in which all covered workers participate. There are two second-pillar systems, and both current and future workers choose the one in which they wish to participate. One of the options is an additional pay-as-you-go defined benefit plan operated by the government and the other is a system of funded, defined contribution accounts operated under government supervision by private-sector pension fund managers. Individuals selecting the public plan may later shift to the private plan, but individuals selecting the private plan may not shift back to the public plan. Individuals with service under the previous plan are also eligible for a compensation payment defined as 1.5 percent of the average of their last 10 years of earnings times the years of service they had under the old plan.

Currently, some 2.3 million people have elected the pay-as-you-go, defined benefit option for the second pillar. Some 6.7 million people have registered with one of the private pension fund

administrators to participate in the funded, defined contribution option, but only about 3.3 million actually pay contributions each year.

The first pillar pays a benefit ranging from 27.5 percent to 31.6 percent of the average wage, depending on the number of years that the individual has contributed to the system. The defined benefit option of the second pillar pays a benefit of 0.85 percent of average earnings over the final 10 years of work for each year of service under the plan. Benefits under the defined contribution option depend on the accumulated value of pension contributions and investment earnings. As part of the reform, the retirement age is gradually being increased from 60/55 for men and women, respectively, to 65/60.

The system is financed by contributions of 16 percent from the employer and 11 percent from the employee. Contributions are paid on earnings up to about six times the average wage level. The employer's share finances the first-pillar benefits and the employee's share finances the second-pillar benefits. There is also a government contribution to help finance the first-pillar benefits and the transition payments to those who transferred to the funded system in the middle of their careers.

***Structure of Individual Accounts***—Individuals choosing the funded second-pillar alternative select a private pension manager to handle their account. These private pension managers are known by their Spanish acronym as AFJPs. There were originally 21 AFJPs, of which 18 are still in existence. Despite the relatively large number of competing firms, some 40 percent of the contributors are concentrated in the largest three companies (Pierce, 1996, p. 402).

AFJPs are single-purpose companies set up with the sole purpose of managing the individual account plans. Each AFJP may offer only one fund. The composition of the investments (how many assets may be invested in government securities, stocks, etc.) is strictly regulated by law. The choice of an AFJP is also the choice of that AFJP's investment portfolio.

AFJPs are supervised by a special government agency, the Superintendent of Pension Fund Management Companies (SAFJP), which was also set up for the sole purpose of supervising pension fund administrators. Its responsibilities include issuing of investment, accounting, and disclosure regulations and monitoring compliance with those regulations (Queisser, 1998, p. 5).

As of September 30, 1998, average account holdings (calculated by dividing the number of accounts by the number of account holders) were $1,471, as reported in an interview with Marcelo de Biases of the Superintendent's Office. He went on to report that account projections for the year 2030 are $433,392,000,000, or 41 percent of the national gross domestic product (GDP). Current total assets are $8,800,000,000, or 2.8 percent of GDP (Queisser, 1998, p. 7).

The first pillar of the Argentine system and the defined benefit option for the second pillar are managed by the National Administration of Social Security (ANSes), an agency of the national government.

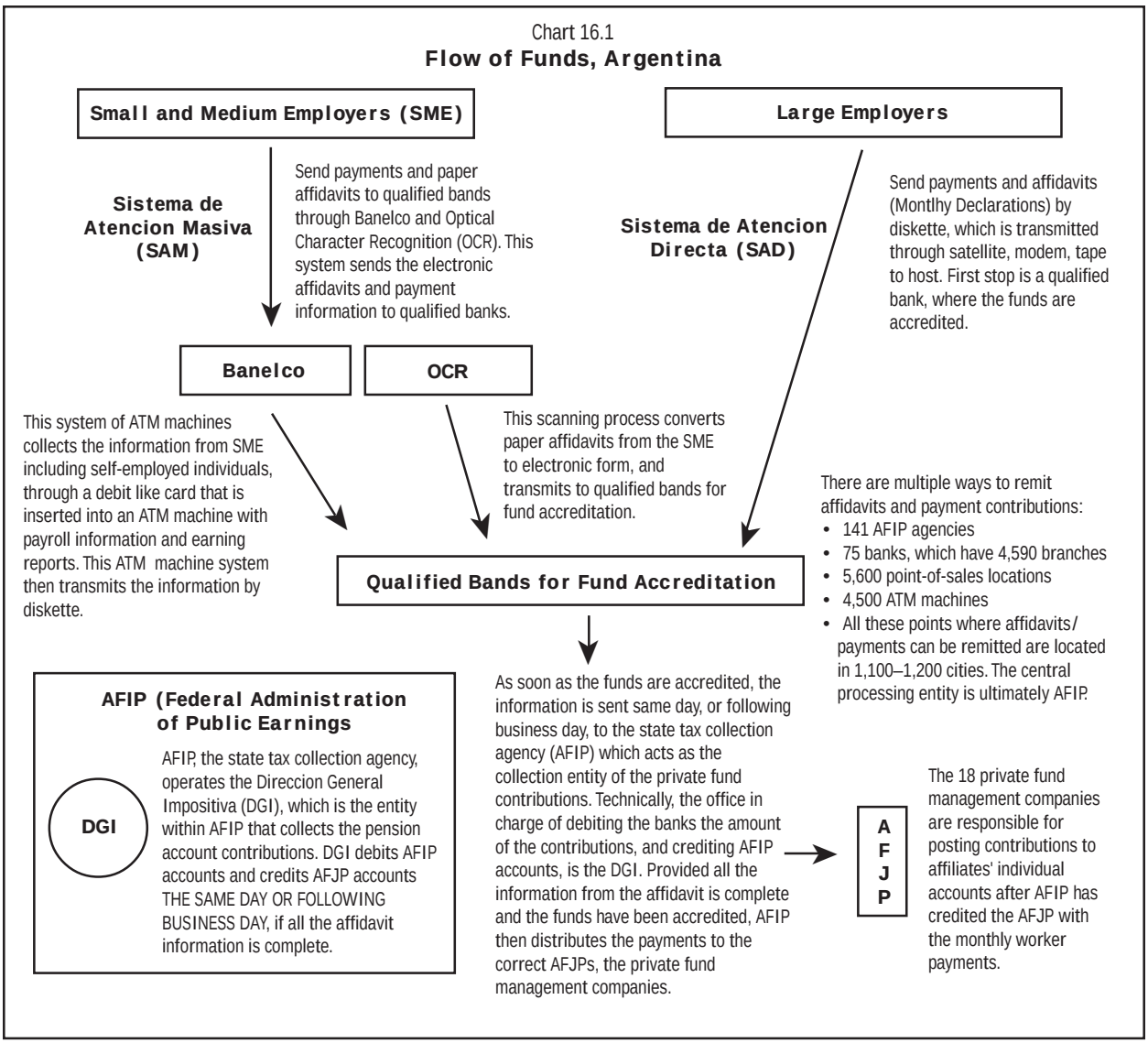
Flow of Funds—In Argentina, pension contributions for both pillars as well as health insurance contributions are collected jointly through the banking system under the supervision of a centralized agency called the Federal Agency of Public Earnings (AFIP). Each month employers deposit their contributions and submit a declaration containing the relevant payroll information. Contributors can make payments and submit their reports at any of 1,451 local offices of AFIP or at the facilities of any of 75 banks, which have a total of 4,590 branches and some 4,500 ATM machines. The facilities are available in some 1,100 to 1,200 cities across the country. Small employers (approximately 100,000) send their information in hard copy while larger employers (approximately 250,000) send their information on diskette. The larger employers use software provided to them by AFIP to generate their reports, and smaller employers use forms that have been distributed by AFIP.

Within AFIP, there are two processing systems for the claims that come in from employers; one utilizes optical character recognition scanning to process information from small and medium-sized employers, and the other reads, validates, and transmits information electronically from large employers to the proper source. Information is transmitted from both systems to a central processing unit daily.

Quality Control—AFIP serves as the checkpoint for verification of employee information. AFIP checks the declarations and rejects them if it finds errors. The employer will receive a notice when the validation has been completed if there was a delay due to error or omission of key information. For small employers, the validation is completed when the declaration is received by the central processing office. The contributor is notified in the case of error, such as missing information. In general, AFIP claims that the margin of error is low, statistically insignificant, and can only be corrected through a claim from the appropriate employer. In an interview with AFIP representatives, they claim there are no funds that are deposited to the wrong account due to the electronic transmittal of information via AFIP from the banks to the AFJPs.

Employee Choice—The employee is free to choose from among the 18 AFJPs. ANSes considers those persons who do not specify to their employer where they wish to establish an individual account to be "undecided" and will assign them at random to one of the AFJPs (de Biases, 1998). The employee can obtain information on the different private fund managers through sales agents for the individual funds or by calling/visiting the Department of Individual Account Holders within the Superintendent's Office, the government oversight agency of all AFJPs. The employee is allowed to change fund administrators up to twice each year. The process for switching fund managers is relatively simple: the employee applies to the branch office of the AFJP that he/she wishes to join and signs the paperwork requesting the change. The

Chart 16.1
**Flow of Funds, Argentina**



AFJP to which the worker applies then verifies that the employee has contributed for at least four months to the fund he/she is leaving (a prerequisite for changing fund managers). It takes approximately four months to finalize the change of fund administrators, according to an SAFJP representative.

***Employee Rights and Enforcement***—From each AFJP, the employee can expect a quarterly report of earnings and investment performance. These quarterly reports, by law, must contain the following information (SAFJP, 1996, p. 329–330):

- Number of shares registered for each employee.
- Dates of activity, costs for shares.
- Balance of shares.
- Value of shares after each transaction or fund activity.
- Fluctuation in price of shares for each month in statement period.
- Accumulated value of fund.
- Accumulation average for all individual accounts and the average commission of the privately managed funds.

Should employees experience any problems with their individual account (i.e., if they feel their fund manager has misled them with illegal investments, if there are complications in postings to their account, if there are missing contributions that were withheld but not posted to their account, etc.) they can appeal to the Department of Individual Account Holders in the Superintendent's Office, which administers a Complaint Reporting Service. All complaints or reports are investigated through this office. If the account holders' charges are found to be correct, as reported in an interview with a worker in the Argentinean Superintendent's office, the fund administrator or responsible party is then fined or sanctioned by the SAFJP.

Given the complicated, multi-tiered process between the time the employer withholds the worker's earnings and the time this money is deposited into the worker's individual account, there are potential problems inherent in the system. If the employer does not remit all the withholdings that it claims on the declaration, this omission will be discovered on the worker's quarterly earnings statement sent by the AFJPs. The worker then can approach the Department for Affiliates at the Superintendent's Office, the agency charged with the supervision of all private fund managers. The employee is compensated for lost accrual of investment interest by the employer if the employer is at fault for failing to remit the contributions in a timely manner. Again, the only way such an omission can be detected proactively on the part of the employee is through careful examination of his or her quarterly report; the only other way the money will be deposited in the worker's account is if the employer willingly remits the unpaid balance from previous declarations, plus interest and fines. In this way, employees are compensated for investment losses. It is unclear what punishment is usually administered to employers who do not voluntarily remit these payments; by law, failure to remit payments can result in two to six years of imprisonment, while falsification of information can result in three to eight years of imprisonment (SAFJP, 1996, p. 363).

Another scenario is if a payment is transmitted from AFIP to the AFJP but no account exists for the worker. In this case, the money is held in a temporary account until the Registry of Affiliates, which lists the AFJP each affiliate has chosen, is updated. If the time period for the temporary account has expired and that worker still is not listed in the Registry, then the affiliate is assigned an AFJP in a random selection process by the Superintendent's Office. The money is then transferred from the temporary account to the affiliate's new AFJP.

***Government Guarantees***—The state guarantees a minimum basic pension for the publicly administered pillar, the Universal Basic Pension Plan. Workers who have worked and contributed for 30 years will be eligible for this minimum pension. The government monitors the investment returns of each account and enforces the provision governing minimums and maximums. The minimum return in each AFJP is defined as 70 percent of the average performance for all individual accounts or the average minus two percentage points, whichever value is higher. Any AFJP whose returns fall below this level must compensate account holders by drawing down its fluctuation fund (Conferencia Interamericana de Seguridad Social, 1995, p. 25). If an AFJP becomes insolvent, the state guarantees this minimum accrual on individual accounts.

## Chile

***Overview***—The Chilean social security system was created in 1924. Prior to the reform, social security was provided through a group of defined benefit pension programs operating on a pay-as-you-go basis. As was the case in many other Latin American countries, over the years benefit promises grew faster than could be financed by worker contributions, and the government was required to close the gap through transfers from the general budget. By the late 1970s, 20 percent of government expenditures were for payments to health and pension plans, including both subsidies and contributions for government employees. The reform adopted in 1981 was designed, among other things, to insulate the system from additional unfunded benefit promises by removing control over benefit levels from the political process.

***Coverage***—The Chilean social security system covers all wage earners except those in the armed forces. The self-employed are not required to participate, but may do so on a voluntary basis.

At the time of the reform, the old system was closed to new labor force entrants. Workers already in the old system were given the option of converting to the new system and receiving a bond calculated to recognize the value of the rights they had already accrued. The combination of worker choices and the natural aging of the closed population has caused participation in the old system to shrink steadily.

The Superintendent that oversees the pension system reports that the total work force in 1995 was 5.3 million, of which one-forth were self-employed. Approximately 10 percent of these self-employed have registered with ("affiliated with") one of the private pension funds operating under the new system, but only about 40 percent of those who are affiliated with a pension fund contribute in any given year. Thus, the coverage rate for the self-employed is approximately 4 percent of the active work force.

Most of the remaining 3.9 million people are covered on a mandatory basis in either the old or the new system. Each year some 3.2 million people contribute to the privately managed accounts under the new system.

***Structure of the New System***—Workers under the new system select a private firm to act as a pension manager. The firms, known by their Spanish acronym of AFP, are established for the sole purpose of managing pension fund assets, and each manages one fund. When a worker affiliates with a fund, an account is opened in that worker's name. If the worker is transferring from a different AFP, the entire balance in the worker's account is transferred to the new account. Additional deposits are credited to that account. The account operates much like shares in a U.S. mutual fund operate. Investment earnings of the whole portfolio are allocated on a pro-rata basis to each of the account holders.

Workers reaching retirement age have the option of drawing down the balance in their account through what is called a programmed withdrawal or purchasing an annuity from an insurance company independent of their pension fund manager. Programmed withdrawals are managed by the AFP. The amount that can be withdrawn in each year is determined through a complex formula that takes into account the worker's account balance and life expectancy and the rate of return earned on the account balance each year. Programmed withdrawals produce annual payments that tend to decline each year.

Workers selecting the annuity option transfer the entire balance in their pension account to an insurance company in return for a life annuity. Annuities in Chile must be price indexed. Workers who begin by taking a programmed withdrawal may purchase an annuity later. Of course, once an annuity has been purchased, it is not possible to revert to a programmed withdrawal subsequently.

When the reform began in 1981, there were 12 AFPs competing for business. Since then, new firms have been founded while others have been merged out of existence. There are now 13 AFPs competing for business (www.safp.cl 1998). Notwithstanding the existence of more than a dozen competitors, however, the industry is fairly concentrated. Some 69 percent of all of the worker affiliations under the system are with one of the three largest institutions (Queisser, 1998, p. 7).

At the end of 1997, the total value of the privately managed pension accounts in Chile was $32.9 billion, some 44 percent of the Chilean GDP.

The Superintendent's Office projects that funds will grow to some 60 percent of GDP by 2004. As of June 1998, the average balance in each account was $5,052.24.

Flow of Funds—Technically, all contributions to the new system come from workers. In practice, the contribution is to be deducted from the worker's pay by the employer and remitted to the proper AFP. Contributions can be paid either directly to the AFP or to a collection agent affiliated with the AFP. Each payment of contributions to each AFP is to be accompanied by a payroll list containing the names and other identifying information and the amount of the contribution included for each individual worker affiliated with that AFP.

Under the rules established for the operation of the system, each employer's contributions and payroll list are to arrive at the central processing division within the respective AFP within 10 working days from the day the contribution was deducted from the paycheck.

Controls—If an employer (or self-employed individual) submits incomplete information, the AFP notes on the account "Incomplete Documentation" or "Missing Documentation." The contribution will effectively start to earn interest from that point, even though it has not officially been posted to an account, as the Superintendent's Office stated in a written response to a questionnaire. After noting the incomplete verification of that account, the AFP pension fund manager attempts to collect the missing information within five working days from the employer.

There is no information on the volume of deposits that get credited to the wrong account. In any event, such errors would have to be called to the attention of the AFP by the individual workers when they reviewed their account statements.

If the AFP receives a payment for an individual who does not have an account, the payment is placed in a temporary account pending resolution. Periodically, the Superintendent conducts a review of all of the temporary accounts to see whether the AFPs are successfully resolving these discrepancies. As of June 1998, the total amount of money in such temporary accounts was 0.58 percent of the total assets in the AFP system (Bustamente, 1998).

In principle, employers who fail to make their obligatory contributions will be penalized and have to pay the contributions plus interest and any applicable fines. The standard fine for a late payment is 20 percent of the amount owed plus interest. It is the responsibility of the AFP to collect the late payment, even if the individual in question may subsequently have changed AFPs. If payment cannot be arranged on a voluntary basis, the AFP must go to court to get a judgment against the liable party.

There appears to be little vigilant monitoring of this requirement on the part of the Superintendent, however, other than saying that the AFP will undertake the necessary legal steps to secure payment.

The volume of contributions that employers have acknowledged they owe but AFPs have not yet collected is not large. As of December 1997, it totaled $162 million for all 13 of the AFPs, or some 0.53 percent of total AFP account assets.

Employee Options—Chilean affiliates are allowed to choose freely from among the AFPs. Once affiliates have been with an AFP for four months, they are free to switch to another AFP; however, recent legislation restricts them to making two such switches in any 12-month period. In order to transfer, affiliates must submit a transfer request to a sales agent at the AFP to which they wish to transfer, and the sales agent will process their request.

Pension fund affiliates are entitled to quarterly reports from their AFP, which contain the following information (SAFJP, 1996, p. 180):

- Value of shares.
- Balance of individual account.
- AFP commissions/fees.
- Quarterly earnings.
- Mandatory payments, additional payments, voluntary contributions.
- Value of recognition bond (if applicable).
- Total provisional savings to date.
- Initial and final value of share after each transaction.
- Profits of AFP system.
- Average profits and commission of the system.

If affiliates experience problems with their individual accounts in the AFP system, they have

three options: (1) approach the AFP where the affiliate is registered, (2) contact the Superintendent's Office, or (3) go through the court system. We have no data on the number of individuals availing themselves of the second or third options or of the outcome of the disputes.

***Employer Responsibilities and Burdens***—Employers are required to maintain a master list showing the AFP affiliation of each of their employees. Each month, they are required to prepare the payroll list and submit it—and their payment—to the respective AFPs or to their collection agents.

Employers have no legal responsibility to inform their employees of retirement/investment options; rather, it is the responsibility of the AFP to operate a public relations office staffed with investment counselors capable of advising the affiliates.

***Government Guarantees***—The government guarantees a minimum pension to all participants who have worked at least 20 years under the system. The minimum pension is 25 percent of the average wage. The government finances the minimum by topping up the account balance of a retiree whose account has insufficient resources to cover a payment at the minimum level. Some pensioners qualify for the minimum benefit at the time they retire. Others may qualify for the minimum benefit if they have prematurely exhausted their account balance through taking programmed withdrawals.

The government also supervises a process through which each AFP guarantees that the investment returns for its affiliates will not be substantially below the returns for affiliates in the other AFPs. The guarantee is that if accruals in any one year are two percentage points less than the average real performance of all AFPs, the AFP will make up the difference between actual earnings and the minimum guarantee by drawing money from a fluctuation reserve that each must maintain. If the fluctuation reserve at an AFP is exhausted, or for any other reason the AFP is not able to meet its required payments, the government will step in. It will dissolve the AFP and make good on the guarantee.

Finally, in the event of default by an insurance company on an annuity contract (or a disability or survivor's pension), the government will guarantee benefit payments up to the minimum pension and, thereafter, 75 percent of the payable benefit up to a ceiling (Queisser, 1998, p. 2). No specific fund has been set aside to finance such a guarantee, however.

## Hungary

***Overview***—Throughout Hungary's communist period, the pension system consisted of a single-pillar pay-as-you-go (PAYG) scheme that provided generous benefits to pensioners at low retirement ages. As in many former socialist countries, the government was the sole provider of pensions and there was little perceived need or incentive for individuals to save on their own. Hungary did not have any developed private retirement system through employers or tax-favored savings accounts. As the system matured during the postwar period, the PAYG system began to account for a greater amount of government spending. During Hungary's transition into a market economy, despite high payroll tax rates, the revenue obtained from employer/employee contributions was insufficient to cover the pension system's expenditures. The transition put stress on Hungary's pension system as early retirement, an aging population, and unemployment caused the dependency ratio to increase.[1]

The increase in pension spending and the unsustainability of the current system prompted the government to implement pension reforms. Hungary's PAYG system (first pillar) was supplemented in 1993 with a voluntary private pension component (third pillar), which allowed employees to make voluntary contributions into designated funds. In 1997, Hungary passed a comprehensive pension reform law that changed the existing PAYG system and introduced a new mandatory private pension component (2nd pillar) into the system (State Private Funds Supervision, 1997, p. 5).

***Coverage***—The old and new systems in Hungary provide comprehensive coverage for public and private employees, as well as the self-employed. Coverage under the old system was provided

[1] *The ratio of pensioners to employed grew from 35.8 percent in 1980 to 46.1 percent in 1990 to 74.8 percent in 1995 (Palacios and Rocha, 1997).*

Table 16.1
**Hungary's Pension System**

| | | Coverage (Percentage of Work Force) | Participation (Percentage of Work Force) |
|---|---|---|---|
| First Pillar | NA | | NA |
| Second Pillar | Workers given until September 1999 to switch into new system | | 34 |
| Third Pillar | Voluntary | | 21 |

exclusively under a one-pillar, PAYG pension system. Retirees under the new system will be covered under a three-pillar pension system: (1) a reformed PAYG, (2) mandatory pension funds, and (3) voluntary pension funds. The PAYG reform will be phased in gradually over the next 10 years and will include a benefit payment based on average lifetime earnings, higher retirement ages, and stricter eligibility requirements. The retirement age, which was 60/55 for men and women, respectively, in the old system, will be increased to 62 for both sexes in the new system. Other changes have also been made that restrict coverage to those paying into the system. For example, maternity leave and university years will not be counted as service years in the new system, except if contributions are made for this time (Parniczky, 1998a).

Upon retirement, pensioners will receive a portion of their income from the PAYG component and a portion of their income from the mandatory individual accounts component. The general ratio between the first and second pillars will be 3/4 to 1/4 respectively, which refers to both contributions and expected pension benefits. Retirees will receive income from this second pillar based on the amount they have paid into their fund and returns on investment (Parniczky, 1998a).

Voluntary individual accounts, the third pillar, provide an added source of income at retirement for those who choose to make voluntary contributions during employment. Decisions about whether or not to invest in these funds, how much to invest, and which funds to invest in are left entirely up to each employee. This pillar is completely voluntary, although there are incentives (e.g., tax-deductible contributions) that might encourage some workers to invest money in the voluntary funds.[2]

***Structure of Individual Account Plan***—If employees opt into the new system, they will pay 8 percent of their salary into the mandatory private pension funds. Money began to flow into the mandatory funds in September 1997 for those employees who were already working in Hungary at that time and had chosen to switch to the new system. As of July 1998, new entrants are automatically placed into the new pension system. Currently there are 44 private pension funds that employees can choose from when investing money in mandatory individual accounts.[3] During the first year since the introduction of the second pillar, approximately 34 percent of the work force have switched into the new system.[4]

The third pillar voluntary funds will remain with the introduction of the second pillar mandatory funds. Although both types of funds are supervised by the State Private Fund Supervision (SPFS) and may be operated by the same fund manager, their operation is controlled by different laws and regulations. For example, funds in the second pillar must have mandatory internal reserves, must make a contribution to a Guarantee Fund, and are subject to restrictions on internal asset management. The licensing procedures and requirements of second and third pillar funds are also different (Palacios and Rocha, 1997).

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[2] *Members of funds in this third pillar have grown rapidly over the past five years. In 1994, there were 13,211 members of funds; by the third quarter of 1997, this total had reached 569,820. Assets under management in this system have grown from approximately $2 million in 1994 to $162 million in 1997. The number of funds has grown from 75 in 1994 to 258 in 1997 (State Private Funds Supervision, 1997). The average monthly contribution paid cooperatively by members and employers in 1997 was $21 (approximately 60 percent of which was paid by the employer) (Parniczky, 1998a).*

[3] www.penztarfelugyelet.hu/angol/adatbazis_main.htm.

[4] *1,300,000 workers have switched into the new system and there are 3,800,000 active workers in Hungary (Parniczky, 1998b).*

Flow of Funds—Under the new system, employers must transfer both information and contributions to both the Pension Insurance Fund (PIF) (the old system) and the private pension funds (the new system). The Pension Insurance Fund receives 22 percent employer and 1 percent employee contributions from employers on a monthly basis. Employers are also responsible for deducting the required contributions (8 percent) from employees' wages and transferring this money, along with salary information, to the designated pension fund of the employee's choice every month. Salary and other important information is submitted to the fund in the form of three data forms.[5]

Employers are responsible for providing information on the choice of funds to the Hungarian Central Statistical Office, an independent administrative organization operating under the supervision of the government. After an employee has selected a fund and has informed his/her supervisor, the employer must submit this information to the regional office of the Hungarian Central Statistical Office within 15 days. The regional statistical offices act as information collectors for the SPFS. Employers employing more than 10 people are required to submit this information on magnetic data storage devices (www.penztarfelugyelet.hu—SPFS Web page, October 1998).

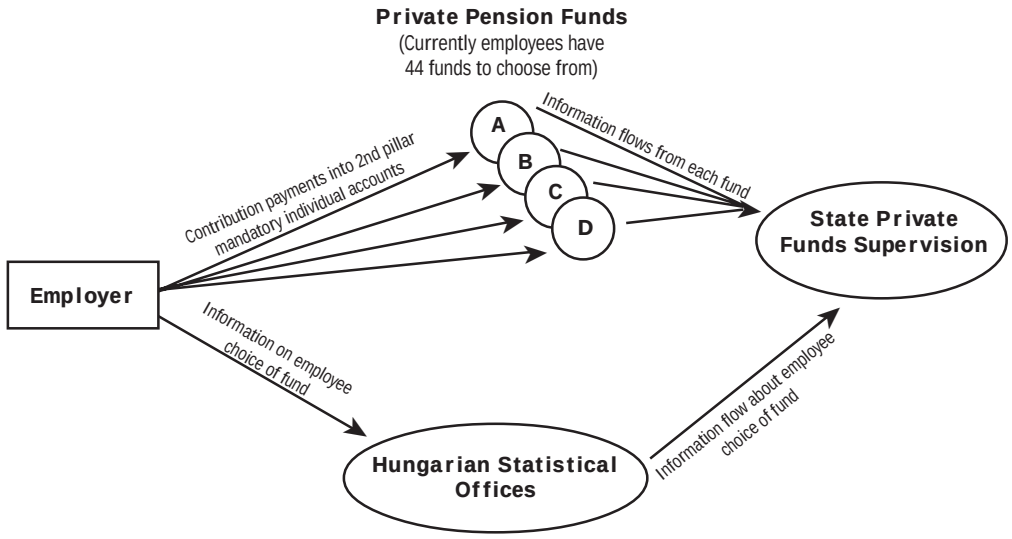
The SPFS, an independent agency under the Finance Minister's supervision, has assisted employers in transferring the necessary information by developing software packages that support storing the data on magnetic devices. This package can be downloaded from the SPFS Web site. Information collected by the Central Statistical Office and the private pension funds is later sent to the SPFS (www.penztarfelugyelet.hu—SPFS Web page, October 1998).

Controls—The SPFS is responsible for ensuring that both voluntary and mandatory funds operate in compliance with the law. The SPFS regulates and licenses new funds and oversees the operation, reporting, and disclosure requirements of existing funds under the new pension system. This agency also compiles information and develops educational material to further the formation of funds and to

[5] *Some employers are incorrectly submitting these reports to government institutions instead of to the appropriate pension fund. This has apparently caused some confusion and resulted in delays in establishing contribution rights. The SPFS subsequently revised the data sheets, emphasizing that the report should be submitted to the funds (www.penztarfelugyelet.hu/Angol/index_angol.htm).*

Chart 16.2

**Flow of Information and Contributions for Second Pillar Mandatory Accounts, Hungary**



assist employees in making prudent investment decisions (The State Private Funds Supervision, 1997).

A number of safeguards have been required of the mandatory funds to provide greater security to investors.[6] Second-pillar funds must have at least 2,000 members and a manager and a working organization composed of professionals from the primary functions of the pension fund. An internal reserve must be established totaling $50,000, which protects against the fluctuation of the investment performance by providing a minimum-return guarantee. There are rules of diversification stipulated in the law that govern managers' investment decisions. Pension funds are required to publish their audited annual report, which consists of a balance sheet, profit and loss statement, and financial report. The report must contain cost information regarding the operation of the fund and a calculation on investment returns based on market value. Marketing techniques used by funds must follow the regulatory guidelines established in the recent law. For example, funds cannot make any commitments regarding their future performance and can only advertise based on the results of past experience. Each fund member will receive a statement about his or her individual account annually (Parniczky, 1998a).

In order to ensure that the correct amount is being transferred to each fund, the SPFS will annually crosscheck records with the Pension Insurance Fund (PIF) regarding employers. Since the basis for contributions is the same for both the PAYG system and the mandatory accounts, the SPFS can check whether the correct amount has been transferred to the funds.[7] However, the SPFS must wait until the PIF receives annual statements from employers before any comparison can take place. The SPFS will then be able to cross-reference the data sheets sent by the employer to the funds and the annual statements sent by the employer to the PIF. The percentage of the accounts that will be cross-referenced is still unclear. Workers can also validate that the correct amount is being credited to their chosen fund by reviewing the annual statements their fund provides them (Parniczky, 1998b).

If a mistake is found or an employer has not fulfilled his obligations under the new system, there are generally two enforcement mechanisms that provide for a resolution. If either the pension fund or the SPFS determines that an employer is not fulfilling his obligations under the new system, then the Enforcement Agency within the social security system can be contacted.[8] This agency has a number of tools that can be used to coerce payment, including the power to start bankruptcy procedures and access to the firm's bank account. Additionally, either the employee or the SPFS can sue the employer directly. This type of dispute resolution does not have a strong tradition in Hungary, and there is some degree of uncertainty about how effective and efficient such a process will be (Parniczky, 1998b).

Employee Choice —Employees can choose only one fund in which their contributions can be invested. Currently there are 44 different funds in the second pillar mandatory accounts component (http:/// www.penztarfelugyelet.hu/Anglo/ adatbazis_main.htm). Employees are allowed to change funds every six months and must inform their employer about their choice of fund or their desire to switch to a different fund (Hajdu, 1998).

***Employee Rights and Enforcement***—Employees have the right to choose between remaining in the old pension system (PAYG) or switching to the new system (individual accounts).[9] New entrants into the labor force after July 1, 1998, must choose the new system. Employees have the right to access information on the performance of each fund, regardless of membership, and have the right to

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[6] *Act LXXXII on private pension funds (1997) and Act XCVI on voluntary mutual insurance funds (1993) provide the general regulatory framework in which funds must operate.*

[7] *The basis for contributions refers to employee wages.*

[8] *The Enforcement Agency for social security payroll contributions is located within the Health Insurance Fund; however, this agency is responsible for enforcing the payment of contributions for* both *the health care and pension systems. The SPFS does not have its own enforcement agency.*

[9] *Everyone in Hungary needs to decide by September 1, 1999. Individuals who have selected the private pension funds option will be given a second chance to switch back to the PAYG system by December 31, 2000. After this date, no changes can be made.*

choose the fund in which to invest their contributions. Funds must provide employees with a personal account statement at least annually (Parniczky, 1998a).

***Employer Responsibilities and Burdens***—Under the new system, employers must deduct 8 percent of employee wages and transfer these contributions to funds the employees designate. Employers must record each worker's choice of fund and process employee requests to change funds. Since there are currently 44 different pension funds in which the money can be invested, employers will be making payment transfers to numerous funds every month. Employers are also obligated to fill out two to three data sheets (each of which contains approximately 25 fields). The first data sheet details the worker's employment history and salary, the second records contributions transferred for investment, and the third is used to note any changes or corrections. These data sheets must be submitted by the employer to the designated fund for each employee every month (Parniczky, 1998b).

***Government Guarantees***—The government provides a minimum pension in the first pillar based on the number of service years and average lifetime earnings. There is also an explicit guarantee in the form of a social assistance program, which is financed from general taxation (Parniczky, 1998a).

Retirees are entitled to a minimum guarantee for individuals receiving a portion of their pension from the second pillar, defined as 25 percent of the individual's first-pillar pension. In order to be entitled to this guarantee, individuals must spend a minimum of 15 years in the system. A central guarantee fund (GF) has been established, financed by portions of the contribution paid by fund members (0.3 percent to 0.5 percent), in order to secure this minimum pension in the second pillar. In addition, the GF will provide additional insurance if funds are unable to pay out the total amount of the member's individual account in the case he or she wants to switch funds. Neither the government nor the GF guarantees the investment returns (Parniczky, 1998a).

## Kazakhstan

***Overview***—The pension system in Kazakhstan prior to independence was a typical Soviet-style PAYG scheme, characterized by high payroll tax contribution rates, early retirement ages, and generous benefits. The government was viewed as the sole provider of social security benefits, and there was little incentive for individuals to save for retirement years. The collapse of the Soviet Union brought a number of changes to Kazakhstan, including the reduction or elimination of price controls and subsidies, an increase in privatization, and economic problems associated with the transition to a market economy. High unemployment, liberal early retirement rules, and government increases in pension benefits created a high dependence on the system after Kazakhstan's independence.

In order to address this issue, a pension reform working group, composed of members of Kazakhstan's government, was established in 1996 to develop an alternative pension system and a plan for its implementation. A concept paper was presented in 1997, outlining the necessary steps needed for reform. The new Pension Law, which was passed in June 20 and became effective in January 1998, is patterned after the Chilean model (International Management Communications Corporation (IMCC), 1998).

***Coverage***—Under the old pension system, all employed persons residing in Kazakhstan were insured. A number of professionals, including teachers, government workers, athletes, and artists, received pensions under special provisions (U.S. Social Security Administration, 1997). Some professions were also given special treatment under the previous system, such as workers employed in hazardous or high-risk occupations and professionals with ties to political groups. Special treatment included early retirement ages and higher benefits (IMCC, 1998).

A number of changes have been made with the implementation of the pension reforms. The retirement age, which was 60 for men and 55 for women in the old system, will be increased over a four-year period to 63 for men and 58 for women. Many of the categories that received preferential treatment in the old system have been eliminated, although special treatment will be maintained for certain groups, including military personnel and women with five or more children.

According to David Weig, a pension specialist with experience in Kazakhstan, only 50 percent of the work force is participating in the individual accounts component of the pension system. This low level of compliance is partly the result of a general distrust by the population of financial institutions and the government. In addition, the quick pace of reforms did not allow for adequate time for educational campaigns to inform employers and employees about their new obligations and rights under the reformed system (Weig, 1998).

***Structure of Individual Accounts***—The new system introduced in Kazakhstan is a mandatory, defined contribution scheme. Over a period of 30 or more years, it will gradually replace a more traditional PAYG, defined benefit system. The system also provides for a voluntary defined contribution supplementary scheme. New entrants entering the labor force in 1998 will be covered exclusively by the new system, while workers who have been employed for at least six months of service prior to January 1, 1998, will receive benefits from both systems. The amount a retiree will receive from the PAYG component will depend on the number of years he or she was employed prior to January 1, 1998, and the retiree's previous salary (IMCC, 1998).

The old pension system, based exclusively on the PAYG scheme, was financed by a payroll tax of 25.5 percent. Under the new system, the PAYG component will be financed by a payroll tax of 15 percent, paid for by the employer, while the mandatory, funded accounts will be financed by a deduction of 10 percent from workers' wages. The voluntary supplements will be financed by tax deductible contributions paid either by the employer, the employee, or both.[10]

Flow of Funds—All money in the pension system should flow from employers into the State Center for Benefit Payments (SCBP). This includes both the 15 percent PAYG contribution and the 10 percent deduction for the second-pillar component. The SCBP, the primary institution in Kazakhstan's social security system, is responsible for PAYG payments to current retirees and for money transfers to a designated fund chosen by an employee.

The SCBP receives $70 million per month in contribution payments, with about 60 percent going into the PAYG system and 40 percent going into the prefunded component. Payments designated for individual accounts are processed within 24 hours and invested in funds chosen by employees. The SCBP maintains worker and retiree records by assigning each individual a Social Individual Code (SIC). These codes are new to the social security system and some time will be required before all applications for codes have been processed. Currently, 2.7 million workers have applied for the Social Individual Codes (out of 3.5 million workers in the formal sector) (IMCC, 1998).

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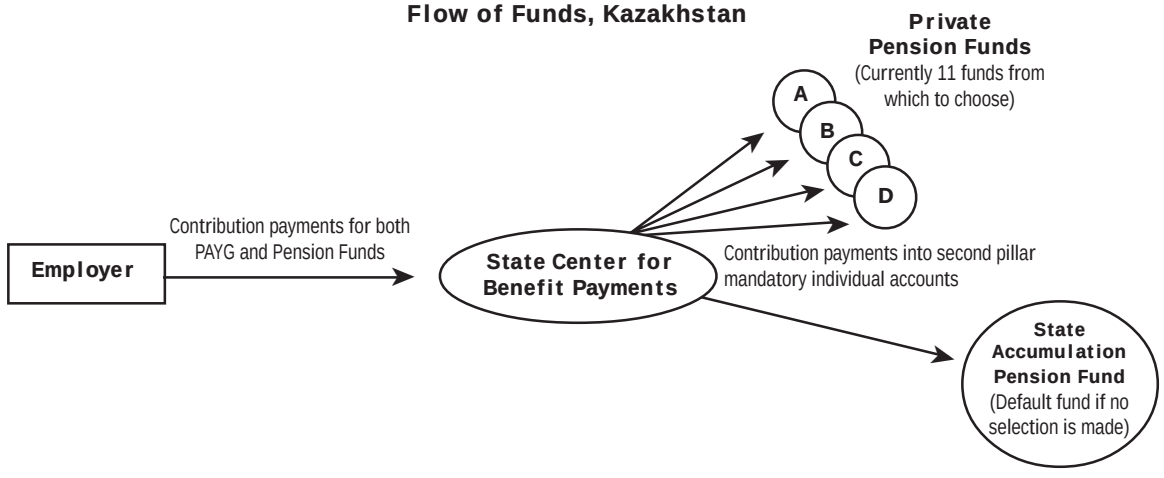
*[10] Currently, contributions in the voluntary funds (third pillar) are minimal.*

Chart 16.3
**Flow of Funds, Kazakhstan**



Controls—A number of new institutions have been created under Kazakhstan's new pension system. These institutions are meant to provide the necessary supervision and regulatory structure needed to ensure the safety of investments in the funds. The National Pension Agency (NPA) licenses and supervises pension funds, and the National Securities Commission (NSC) licenses and supervises investment managers and custodians. The SCBP is responsible for collecting contributions, maintaining records, transferring money to the pension funds, and distributing pensions. These three institutions, combined with newly passed legislation and regulations, are intended to safeguard the investments of Kazakhstan's workers.

The management structure required for funds was designed to increase the confidence of employees in the investment of their contributions. There are three parts to the management structure (pension company, investment manager, and custodian):

- The pension company is responsible for the general operation of the fund, including hiring the investment manager and custodian, marketing, record keeping, enrolling members, and government reporting.

- The investment manager conducts research and develops a policy for investment. The manager is responsible for making the investment decisions.

- The custodian holds the fund's assets and executes trades based on instructions from the investment manager.

This separation of responsibilities provides greater security for the investment of employee contributions (www.pension.almaty.kz, 1998).

Employee Choice—Employees are given a choice about the pension fund in which their money will be invested. Currently there are 12 licensed funds operating in Kazakhstan, including the State Accumulation Fund (the default if no choice is made) and one employer-owned fund restricted exclusively to company employees. The other private funds are open to anyone. According to David Weig, a pension specialist who has worked on Kazakhstan's pension reforms, 87 percent of all contributions are going into the State Accumulation Fund. Many workers have failed to make a choice about where their money should be invested because of the rapid implementation of the pension reforms, resulting in insufficient time to prepare and educate employees (Weig, 1998).

After making a decision about the type of fund the worker wants to invest in, the worker should contact a fund representative. A contract, which states the rights and responsibilities of each party, must be signed by both the fund and the worker. The worker is then expected to inform his or her employer about the decision that was made (www.pension.almaty.kz, 1998).

***Employee Rights and Enforcement***—Employees have the right to choose the fund in which their money will be invested. The number of funds to choose from is expected to increase in the future, although currently there are 10 private funds, one company-owned fund, and one State Accumulation Fund. Employees can change pension funds twice a year. Pension funds are also obligated to send to each individual annual statements containing earnings and account information. An appeal process has been established for employees who believe their fund has not acted appropriately (www.pension.almaty.kz, 1998).

***Employer Responsibilities and Burdens***—Employers are responsible for sending pension contributions on behalf of their employees to the State Center for Benefit Payments. Under the new system, the employer must send these payments as two separate payments: 15 percent of the total employee payroll to the PAYG system and 10 percent of each employee's salary for the individual accounts component of the system. The money designated for employee individual accounts (10 percent) must be divided into separate amounts for investment into different funds. In addition, each employer must send a list detailing the names of the workers whose contributions were included in that transfer. Transfers should be paid monthly and are due by the 10th day of the month following wage payment to employees (www.pension.almaty.kx, 1998).

***Government Guarantees***—The government guarantees a certain minimum pension if the combined PAYG and individual accounts pension

falls below a certain minimum level. Under the 1998 budget, this minimum level was equal to 2,400 Tenge, or approximately 70 percent of the survival minimum established by the World Bank. Considering that many pensioners obtain additional sources of income, either from the production of food or from other family members, this level appears to be adequate. The minimum level is expected to be raised twice a year (www.pension.almaty.kz, 1998).

## Sweden

***Overview***—Sweden's most recent pension system was established in 1960 to provide greater financial security to retirees. Like those of many westernized countries, Sweden's system was based on a pay-as-you-go (PAYG) philosophy consisting of a flat-rate universal benefit and an earnings-related supplement (Palmer, 1998b). Concerns about the unsustainability of the old system, combined with slow economic growth, the rising cost of pensions, overall demographic trends, and a desire to provide a more direct link between contributions and pensions, have led to Sweden's recent reforms.[11] A commission was established in the 1980s to assess the current pension system and to provide the government with suggestions for improvement and reform. Conclusions of the commission's work were presented in the early 1990s, followed by the establishment of two working groups. The first working group provided guidelines for reforming Sweden's pension system, and the second working group provided methods for the implementation of the reformed pension system. In June 1998, the Swedish Parliament adopted a reformed pension system, adding a prefunded individual accounts component to the PAYG scheme (Ministry of Health and Social Affairs, 1998b).

***Coverage***—In Sweden's pension system (both old and new), everyone who has lived in Sweden for 40 years or has worked for 30 years is entitled to a full pension. The pension is reduced in proportion to the number of years or points that are lacking. Coverage[12] under both the old and new systems includes Swedish citizens, aliens living in Sweden, and seamen on vessels registered in Sweden. Although individuals can start withdrawing their pension at the age of 61 from both the PAYG system and the prefunded individual accounts, the size of the pension will increase the later a person chooses to withdraw. Under the new system, retirees should submit an application for a pension to the local insurance office one month before they wish to start withdrawing their pension.

Coverage under the old and new system is dependent on the individual's age. People born in 1937 or earlier will receive retirement pensions according to the old system, while those born in 1954 or later will receive their pension entirely from the new system. People born between 1938 and 1953 will receive pension benefits partly from the new system and partly from the old system, based on their age. For example, people born in 1938 will receive 4/20 of their pension from the new system and 16/20 of their pension from the old system; people born in 1939 will receive 5/20 from the new and 15/20 from the old.

***Structure of Individual Accounts***—Sweden has begun implementation for the gradual introduction of individual accounts into the pension system, allowing for a six-year transition period (1995–2001) before the system becomes fully operational. Since 1995, 2 percent of the wages for workers born in 1954 or later has been placed in an account at the National Debt Office.[13] Beginning in 1999, when the administrative structures are functional, workers will be given a choice regarding where their money should be invested.[14] The pension contribution rate for workers is 18.5 percent of wages. After this initial phasing-in period, 16 percentage points will go toward the PAYG component and 2.5 percentage points will be invested in individual accounts (Palmer, 1998a).

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*[11] In Sweden, there will be 100 workers supporting 30 old-age pensioners in the year 2000. In 2025, the same 100 workers will have to support 41 old-age pensioners.*

*[12] The description under this section comes from the Ministry of Health and Social Affairs, 1998b.*

*[13] Employees will receive a rate of return for money invested in the interim fund at the National Debt Office similar to that offered on government financial debt (Palmer, 1998a).*

*[14] The first year individuals will be able to select a fund will be 1999. Therefore, money invested in the National Debt Office interim account during the period 1995–1997 will be transferred to individual accounts in 1999 (Ministry of Health and Social Affairs, 1998).*

Flow of Funds—Employers provide the National Tax Authority with tax contributions for all employees on a monthly basis. Payment must be made by the 10th day of each month following the month in which the worker received wages. The Postal Cheque Service registers these payments by means of magnetic tapes. These monthly aggregate tax payments do not contain information broken down by each individual worker, but represent the total sum owed for all employees. Earnings for each individual are reported to the Tax Authority only on a yearly basis. Collected contributions are transferred from the Tax Authority to the National Debt Office, where they remain in an interim fund for an average of 18 months while individual rights are being established. When earnings and contributions for individuals have been determined, the Tax Authority transfers this information to the National Social Insurance Board (NSID). The NSID is the central agency responsible for administration of the social security scheme and is complemented by social insurance offices located throughout the country. The NSID (771 employees) and the offices (total of 13,618 employees) constitute the social insurance administration. The NSID maintains records for each individual account and provides annual statements to individuals containing information on both the PAYG and prefunded components (Palmer, 1998a).

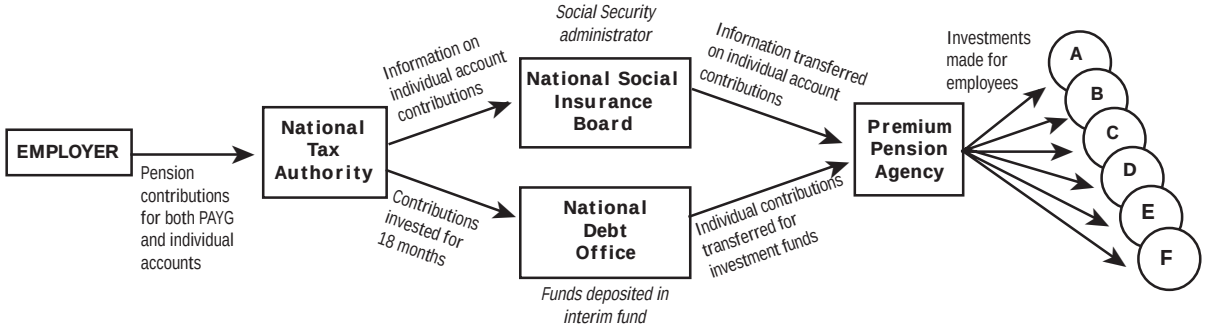
In order to implement the individual accounts component of the social security system, a new authority, the Premium Pension Authority, was created. The NSID will send out annual statements to workers informing them of their newly acquired rights and asking them to make a decision regarding the type of fund in which they wish to invest their money. This Premium Pension Authority will receive information from individual workers regarding their choice of pension fund. The authority is then responsible for investing employee contributions in the appropriate fund as chosen by each individual. The authority will transfer information to the NSID regarding the fund choice of individuals. Money will be transferred from the National Debt Office to the Premium Pension Authority to be invested in the appropriate funds (Ministry of Health and Social Affairs, 1998).

The Premium Pension Authority will not maintain records of individual accounts. Its function is to purchase shares and implement changes for those who are investing in or switching funds. The records will be maintained at the NSID.

Controls—Fund managers must operate within the regulatory framework established by the Swedish Mutual Funds Act (1990). In order to participate in the pension system, fund managers must also satisfy some additional conditions. The first condition requires the fund managers to register with the Premium Pension Authority and to reach an agreement on management service costs. This agreement will provide the mechanism for transferring information between the authority and the fund manager. Funds are also required to provide information, including brochures and annual reports, to anyone who requests it, regardless of whether they own shares. Funds cannot charge withdrawal fees (this would create complications

Chart 16.4

**Flow of Information and Contributions for Second Pillar Mandatory Accounts, Sweden**



for pensioners receiving monthly payments). Each fund must also submit a report to the authority once a year describing all costs taken from the fund. This will be made available to investors and will provide information on the cost of fund management.[15]

An agency within the National Tax Board, the Enforcement Service (ES), is responsible for overseeing compliance by employers and employees with existing tax laws, including the required pension contributions. Most of the required taxes (98–99 percent) are paid within the legal time frame. However, a number of mechanisms exist to obtain delinquent tax payments from debtors. The ES automatically sends out a reminder to those who are delinquent on payment. If payment is still not received, the ES can use coercive power to induce payment, including forced entrance into homes and businesses. The service also maintains information on individual savings, including bank accounts, shares of stocks owned, property, income, etc. The ES is empowered to start bankruptcy procedures against businesses (Smedmark and Svenstrom, 1997, p. 6).

Employee Choice—Employees will be notified by the NSID after pension rights have been established and will be asked to select a fund in which their money will be invested. When individuals are informed of their pension rights, they must contact the Premium Pension Authority with their choice. The Premium Pension Authority can be accessed through the social security offices throughout Sweden (Ministry of Health and Social Affairs, 1998b). Because the system has not become fully operational, there are currently no funds registered with the Premium Pension Authority, although between 500 and 800 funds are expected to register with the authority by September 1999 (von Bahr, 1998a).

Currently there is no limit to the number of times that workers can change funds. They must contact the Premium Pension Authority to make changes. Funds are not allowed to charge withdrawal fees, although individuals will be responsible for paying administrative charges associated with switching funds. Workers can invest their money in a maximum of five funds (von Bahr, 1998a).

It is expected that the system will begin operating with $4.5 billion, provided for in the transition period. The authority is expecting 100,000 new accounts to be added to the system each year, with $1.5 to $2 billion flowing into the prefunded pension system annually. One prediction on the prefunded system's total assets in 30 to 35 years is $62.5 billion (von Bahr, 1998a).

***Employee Rights and Enforcement***—In the new system, when employees retire they will have the right to two sources of pension benefits: income-related pensions (PAYG) and prefunded pensions (individual accounts). The majority of their contributions would have been invested in the PAYG system (16 percentage points of the 18.5 percent contribution rate). Individual pensions are based on a person's lifetime earnings. Upon retirement, the PAYG pension is calculated by the social insurance offices. Retirees who disagree with this calculation can appeal this decision or request a review. In the prefunded pension system, employees have a right to choose the fund in which their money will be invested, have open and free access to information on each fund, and switch funds when desired (Ministry of Health and Social Affairs, 1998b).

An educational campaign to inform employees of the changes in the pension system will be implemented at the beginning of 1999. The campaign will cover both the introduction of the individual accounts and the changes in the PAYG component. All forms of media will be used, including brochures, newspapers, TV, and radio. Seminars will be organized for journalists, employers, unions, teachers, and other members of society influenced by the recent reforms. The Premium Pension Authority and the National Social Insurance Board are responsible for this campaign (von Bahr, 1998b).

***Employer Responsibilities and Burdens***—The employer is responsible for paying contribution taxes for employee pensions to the National Tax Authority. Tax payments are made on a monthly basis for all employees (no breakdown for individual employees), and tax statements containing total wages for each employee are submitted to the tax authorities on a yearly basis.

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[15] *Information taken from www.pension.gov.se,* A Reformed Pension System, *Ministry of Health and Social Affairs, October 1998.*

***Government Guarantees***—The government does not guarantee any minimum rate of return on investments in the prefunded component. However, the government does guarantee a supplement pension for those people who have not earned any right to a pension or those who would receive only a low pension. This guaranteed pension depends on changes in prices rather than changes in average income (Ministry of Health and Social Affairs, 1998b).

The reformed system contains a safeguard if contributions are not deposited correctly or employers go bankrupt before all required payments are made. Each employer must pay a tax on labor, which is a percentage of aggregate employee salaries. Revenues from this tax are deposited at the National Debt Office. If it is determined that a worker's employer has not made sufficient payments before going bankrupt, the Premium Pension Authority can take a corresponding amount of money from the National Debt Office and transfer it to the funds chosen by the worker (von Bahr, 1998b).

## Switzerland

***Overview***—The goal of Swiss social security, as laid out in the Swiss Constitution, is that the combination of the public and private pillars should replace 60 percent of final salary. This goal is to be achieved through a combination of a pay-as-you-go social security program begun in 1946 and a mandated system of occupational pensions added in 1982.

The public pillar, or basic pension, is called the AHV. It pays full-career workers between 11,940 and 23,880 Swiss francs ($9,300–$18,500) per year, with the lower limit serving as the minimum pension for a full-career worker. A full career is defined as 44 years of employment for men, who can retire at age 65, and 41 years for women, who can retire at age 62. The benefit is loosely related to workers' income. It is funded on a pay-as-you-go basis through (1) an 8.4 percent payroll tax split evenly between employer and employee and (2) annual subsidies from the Swiss government amounting to 20 percent of total costs (17 percent from national government, 3 percent from localities). It covers all persons residing in Switzerland who have been gainfully employed for at least one year (U.S. Social Security Administration, 1997).

***Coverage***—The Swiss second pillar, called the BVG, is an occupational pension program covering, on a mandatory basis, almost all Swiss workers whose earnings exceed a specified amount. About 2.3 million Swiss, some 90 percent of the work force, are covered under this second pillar.

BVG contributions are required on earnings above SFr 23,880 and up to SFr 71,640 ($18,512 and $55,535). This range is called the coordinated salary. Most employers, however, maintain pension plans that cover a wider range of earnings and provide more generous benefits than is required under the mandate. Many employers make contributions to second pillar pensions for lower-income (and part-time employees) who earn less than the official minimum floor and also make contributions to those earning up to twice as much as the ceiling mandated by law.

Most self-employed persons belong to professional associations, which are mandated to provide the same level of benefit coverage as regular employers; those self-employed not affiliated with a professional association are not mandatorily covered by this pillar.

***Structure of Individual Accounts***—BVG pension plans are run by independent entities that must be organized as non-profit foundations or cooperatives. Public-sector organizations can also run BVG plans (e.g., Swiss cantons and municipalities offer and fund plans). The foundations and cooperatives are distinct legal entities with a board of trustees composed of equal numbers of worker and employer representatives. Employers affiliate with a particular fund to administer their mandated pension. The fund may serve only one employer but is more likely to serve multiple employers. Individual employees do not have the right to select a different fund than was selected by their employer. However, decisions concerning which fund to affiliate with must be made jointly by the employer and his employees. When employer and employees cannot reach agreement, an arbitrator is appointed to set the terms.

The actual management of investments tends to be contracted out to professional fund managers. A limited number of large institutions manage the majority of Swiss second-pillar assets. Life assurance companies manage 20 percent of the pension fund industry; of the pension funds going

to these companies, 10 companies manage 95 percent of total assets.

Total assets under management are SFr 223 billion ($173 billion) in 1990. Projections are SFr 366 billion ($284 billion) for 1995 and SFr 2,198 billion ($1,704 billion) for 2025 (Hepp 1990, p. 113). Given that 2.3 million Swiss are covered by the second pillar, this equates to an average account balance of SFr 75,217 ($58,308).

Workers are guaranteed that their BVG accounts will earn a return of at least 4 percent per year. This requirement and a desire for low volatility seem to have encouraged investments in fixed-price securities (such as bonds, loans, mortgages, and liquid assets) and real property assets (Hepp, 1990, pp. 177, 229). Equity holdings were nearly negligible as recently as 1990. Because many of the pension funds are having difficulty meeting the 4 percent guarantee, equity investments may become more common in the future.

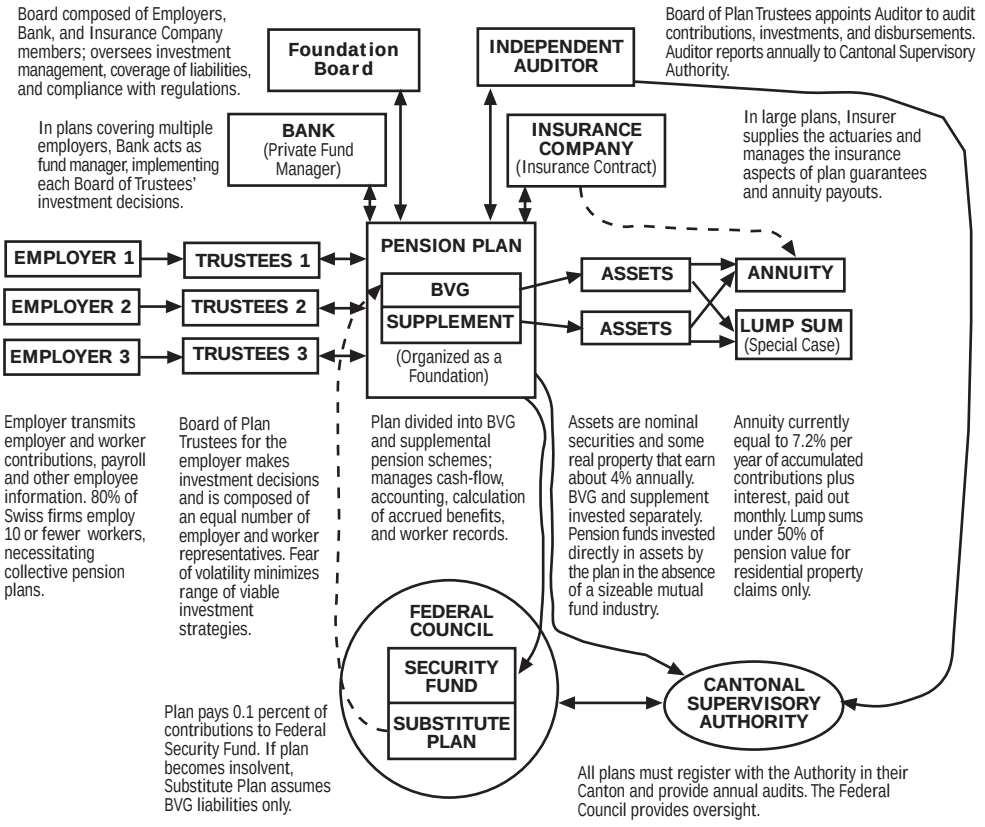
BVG pensions are intended to be portable, but the law is still evolving in this regard. Workers leaving an employer may receive a termination benefit that (1) gets credited to the next plan they join, (2) remains in the old plan and is paid out when the worker retires, or (3) must be credited to a third-pillar individual plan that the worker specifies. However, five years with the same employer are required for vesting, and termination benefits often do not include any accumulations beyond the BVG minimum contributions compounded at 4 percent per year. Termination benefits cannot be taken as lump sums.

Flow of Funds—The mandated contribution to the BVG is a fixed percentage of coordinated salary and increases with age. The employer must pay at least half of the total contribution. Total contributions for men under 34 and women under 31 are 7 percent, while contributions for men over 55 and women over 52 are 18 percent.

Contributions for each worker are sent by each employer each month to the fund that the employer is affiliated with, where they are depos-

Chart 16.5

**Switzerland's Second Pillar Occupational Scheme**



ited in the employee's individual account. Accounts earn interest at the rate earned on the investments of the fund as a whole. If, however, the fund does not earn the 4 percent minimum, the shortfall must be covered through additional employer contributions.

At retirement, a worker is allowed to take up to half of the balance in the account as a lump-sum distribution, but only if it is used either to purchase residential property or pay off a mortgage. The rest of the balance must be paid out in the form of a monthly pension. The pension pays an annual benefit defined as 7.2 percent of the accumulated value of the worker's account.

Technically, the mandated pension is a defined contribution pension. Most large plans provide benefits above the mandated minimum, however, and many of them explicitly define the level of benefits in terms of final pay, e.g., 2 percent of (the plan's definition of) coordinated salary per year of service—so they are actually defined benefit rather than defined contribution plans. In this case, the employer is liable for any additional contributions required to meet the defined benefit target.

Controls—Employers register their affiliations with the Federal Office of Social Insurance, which verifies the information and communicates it to the supervisory authority for the canton in which the employer is located. Employers that fail to affiliate with a plan within six months are assigned to the National Substitute Pension Plan, which is operated by the federal government. They will be required to make up back contributions and to pay interest charges on late payments, and they may be assessed additional penalty surcharges.

Each canton must designate an authority to supervise the pension plans established within that canton. Plans must register with the authority and submit plan rules that comply with legal regulations in order to operate. Specifically, the authority requires plans to submit periodical reports on business and investment activities (which include the costs of plan administration and transactions), examines reports submitted by the plan's auditors and accredited pension actuary, and takes appropriate measures to redress deficiencies. Pension plans must report on: benefits offered, plan organization, plan administration and financing, and audit controls.

The board of trustees of each plan is responsible for all decisions regarding the financing, investment, and management of plan assets and the publishing and circulation of plan provisions. An arbitrator is appointed in the case of tie votes. The board of trustees must designate auditors to perform annual audits of the management of the pension plan (particularly, the collection of contributions and the disbursement of benefits), its accounting transactions, and the investment management of plan assets. The board must also designate an accredited plan actuary to periodically confirm that the plan is capable of fulfilling its liabilities and that plan provisions concerning benefits and financing remain in legal compliance. Much of the day-to-day responsibility for plan oversight is charged to the accredited pension actuary, who is often an employee of an independent consulting or accounting firm (PRASA Hewitt, 1997).

Employee Choice—In the Swiss second pillar, worker choice is exercised through workers' representatives on the board of trustees of the pension fund. Individual workers do not select the fund or the fund's investment policies. On the other hand, workers are guaranteed that their retirement accounts will earn a minimum return.

***Employee Rights and Enforcement***—Each canton designates a court to rule on disputes among employers, pension plans, and claimants. The Swiss Constitution requires these judicial proceedings to be expedient and free of charge. A court of appeals, called the Federal Insurance Court, exists at the national level. Prosecutable violations by the employer, employee, pension plan staff, or claimant include (1) failure to file required information or knowingly filing false information; (2) any effort made to obstruct an audit; (3) failure to timely and accurately complete required forms. Those prosecuted will be taken into custody or fined SFr 5,000 ($3,876). Prosecutable offenses by the employer, employee, pension plan staff, or claimant include (1) undue disbursement or receipt of benefits, (2) failure by the employer or employee to pay the complete level of contributions through false or incomplete information, (3) employers deducting contributions from employees' salaries but not transferring them to the pension plan,

(4) fiduciaries or other officials compromising the propriety of employee or claimant financial information, and (5) auditors and actuaries negligently contravening their obligations. Those prosecuted are imprisoned up to six months or fined SFr 20,000 ($15,504) unless the offense occurs under the penal code, which makes it subject to a more serious punishment (PRASA Hewitt, 1997).

***Employer Responsibilities and Burdens***—Employers are responsible for monthly transfers of both contributions and information to the pension fund with which they are affiliated. They also bear additional liabilities if pension fund investments do not earn the legislated minimum.

***Government Guarantees***—The government operates a national Security Fund. It is financed by premiums charged to each pension fund. The premium is equal to the first 0.1 percent of each worker's covered earnings and is deducted from the amount that would otherwise be deposited in the worker's account.

The Security Fund insures workers against insolvency of their own fund. It is also used to subsidize those pension plans that might have particularly unfavorable age structures and to make up any shortfall that may occur with respect to contributions that should be made to the National Substitute Pension Plan.

A body called the Federal Council oversees operations of the system in general and of the Security Fund and National Substitute Pension Plan in particular. It establishes the criteria that auditors and pension actuaries must fulfill to guarantee the proper execution of plan operations.

## The United Kingdom

***Overview***—Social Security has developed in stages in the United Kingdom. The old-age pension system was established in 1908, and the current basic pension dates from 1948. A supplement to the basic benefit, called the State Earnings Related Pension System (SERPS), was enacted in 1978. It provides an earnings-related supplement to those people who were not covered by adequate employer-provided occupational plans (Young, 1998). The basic pension is a flat-rate amount set at approximately 20 percent of average earnings. SERPS initially replaced 25 percent of average earnings so that, in combination with the basic pension, the system provided retirees earning the average wage with a 45 percent replacement rate. Benefits under both programs are paid as price-indexed annuities by the Department of Social Security (DSS). Also, benefits under both of these programs are slated to grow more slowly than earnings in the years ahead.

Workers in the United Kingdom were given an additional set of choices with the creation of an optional system of individual accounts called "Approved Personal Pensions" (APPs or "personal pensions"), first offered to the public in 1988. Covered workers now have up to three options for supplemental coverage. Those who are covered by an adequate employer plan may participate in it. Alternatively, workers may take out a personal pension in lieu of either SERPS or an employer's occupational pension. Finally, workers also have the option of joining SERPS instead of participating in their employer's plan. Workers who take out personal pensions retain the right to go back to SERPS in a later year if they wish. The motive for offering personal pensions was to cut growth in state costs and encourage self-provision. The motive for allowing workers to contract out of employer-provided schemes was to facilitate labor mobility (Stecklow and Calian, 1998).

***Coverage***—All employees earning more than about £3,300 ($5,500) a year are covered by both the basic pension and one of the three supplementary pension programs. Self-employed persons with annual incomes of about £3,500 ($5,800) are covered by the basic program but not by SERPS. Those earning less than the floor for mandatory coverage can make voluntary contributions to gain coverage in the basic pensions.

In 1995, there were 21.5 million employees and 2.5 million self-employed persons in the United Kingdom. At this time, without double counting, of these 24 million workers:

- 6.75 million employees were entitled to the basic state pension but were not members of an occupational scheme.
- 1.5 million employees were in SERPS but were also enrolled in an occupational pension.
- 9.5 million employees belonged to occupational pensions contracted out of SERPS.
- 3.75 million employees belonged to personal pension plans only.

Table 16.2
**Pension Coverage of United Kingdom's 24 Million Workers in 1995 (In millions of workers)**

| Pension Plan Type | Employed | Self-Employed | Total | Percentage of Employed | Percentage of Self-Employed | Percentage of Total |
|---|---|---|---|---|---|---|
| Basic State Pension or SERPS | 6.75 | 1.25 | 8.00 | 31.4% | 50.0% | 33.3% |
| Occupational + SERPS | 1.50 | | 1.50 | 7.0 | 0.0 | 6.3 |
| Occupational Only | 9.50 | | 9.50 | 44.2 | 0.0 | 39.6 |
| Personal Pension Only | 3.75 | 1.25 | 5.00 | 17.4 | 50.0 | 20.8 |
| Totals | 21.50 | 2.50 | 24.00 | 100.0 | 100.0 | 100.0 |

Source: David Blake (1997).

- 1.25 million self-employed belonged to personal pension plans only.
- 1.25 million self-employed enrolled for a state pension only.

Within three years of their creation, enrollment in personal pensions rapidly increased to about 3.5 million active contributors. There are also about 1.5 million who have an APP but either have no current earnings, have moved back to SERPS, or have insufficient earnings for any payments to be made into the APP. The enrollment numbers have stayed fairly level for the past five to six years (Young, 1998).

***Structure of Individual Accounts***—Personal pensions are offered by life assurance companies, friendly societies, unit trusts, building societies, and banks, all with different organizational setups and administrative mechanisms. They are not a new concept. Prior to being available as an alternative to SERPS, they were marketed to the self-employed.

Workers sign up for a personal pension with a provider who registers with the state and obtains a rebate of a portion of the workers' social security contributions in order to finance the personal pension. Workers are also free to make additional contributions on their own to their personal pension plan.

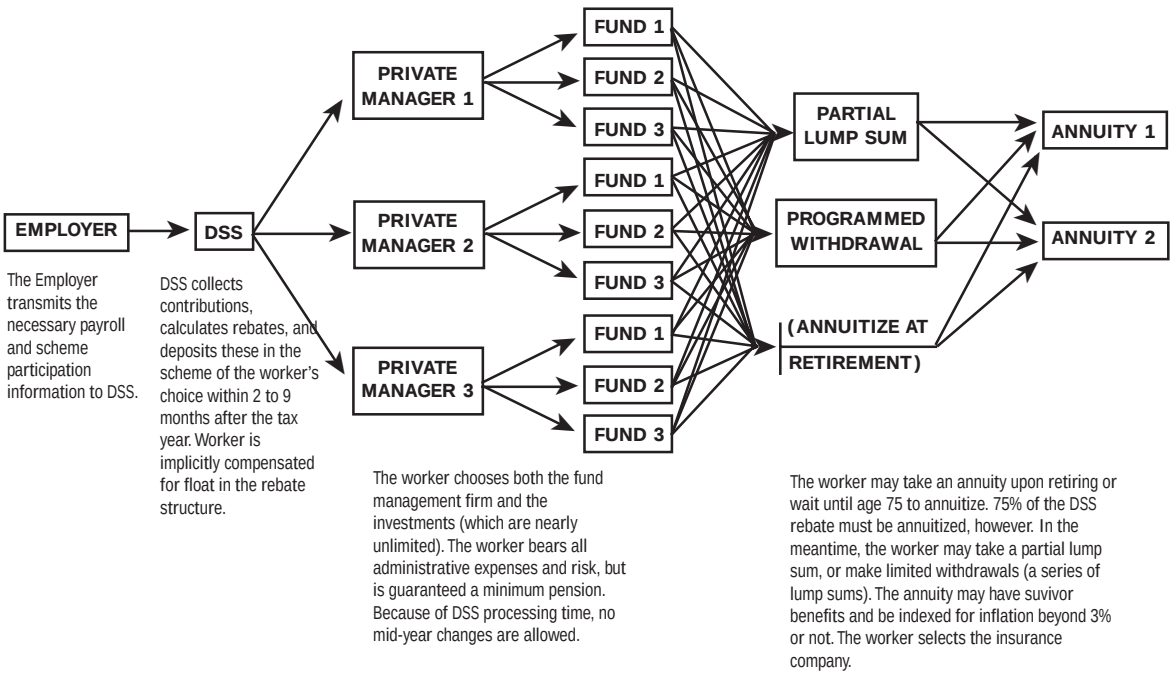
At retirement, up to 25 percent of the amount attributable to the rebate of national insurance contributions and all of the amount attributable to voluntary additional contributions can be taken as a lump sum. The rest is to be used to purchase an annuity. Retirees can purchase the annuities from an insurance company of their choice. Prior to the 1995 Pensions Act, APP pensioners had to take annuities at retirement even if yields were low. Now, annuitization can be postponed until age 75, with retirees allowed to make limited withdrawals (untaxed partial lump sums) from their accounts up until then. Annuities must offer inflation protection up to 3 percent per year. The retiree decides whether to purchase additional inflation protection and whether to purchase survivor benefits. Annuity prices are gender specific, and the annuity itself is taxable as earned income even while the lump-sum portions are not (Blake, 1997, pp. 295, 304).

The U.K. Government Actuary's office estimates that the personal pension fund industry is composed of some 180 pension account management firms, of which the top three firms control 25 percent of the market. It estimates that total assets being managed (derived from personal pension rebates) sum to £30 billion ($48 billion) and that the average worker account balance is about £8,000 ($12,800), but with a very wide distribution. By comparison, total pension fund assets (the bulk of which come from defined benefit occupational schemes) amount to £400 billion ($640 billion) or two-thirds of GDP. No official projections have been made of the amount of assets under management as the personal pension system reaches maturity or of the average balance of a typical full-career worker.

Flow of Funds—The employer pays National Insurance Contributions (NICs) monthly to DSS on the 19th day of the month after the month to which it relates. This is remitted, together with income tax amounts, to the Inland Revenue (the United Kingdom's tax authority). At the end of each year, the employer reports to DSS the employees' annual salaries and contributions made on each employee's

Chart 16.6

**United Kingdom Second Pillar Voluntary Personal Pension Scheme**




behalf. DSS reconciles the employer reports to the contributions actually received. Employers do not withhold approved personal pension rebates but simply pay the full national insurance contribution to DSS. DSS will subsequently transmit the appropriate amount to the personal pension provider. Employers give employees all the information they need each pay period to see their gross pay and all relevant deductions.

DSS maintains a list of all of the workers enrolled in approved personal pensions and their providers. After reconciling the employer date, it calculates the amount to be rebated on behalf of those with personal pensions and sends it to each of the registered providers. The rebate is normally paid between two months and nine months after the end of the tax year to which it relates. Thus, contributions made in January of one year and contributions made in December of the same year will both be credited sometime between February and September of the following year. The worker is not compensated explicitly for investment earnings lost as a result of the delay, but the rebate amounts have been set to incorporate an implicit compensation. The structure assumes an average delay of six months after the year end. Rebate amounts vary by age and gender.

Controls—Since personal pensions are financed from national insurance contributions, the collection and allocation system is the same as that used in collecting the rest of the national insurance contributions.

Employee Choice—Workers have a wide range of choices in personal pension schemes. Personal pensions may be purchased from any of a number of financial intermediaries. Pension funds may be invested in both domestic and overseas stocks, in listed as well as unlisted stocks, or in unit trusts, gilts, commercial property, or futures and options contracts.

Workers have the right to change pension providers or return to the SERPS system in a subsequent year. They may find, however, that trying to move the balance in an account from one provider to another is not a practical possibility. Many personal pension plans have early surrender penalties, which on average reduce the value of the average pension by 27 percent when cashed in prior to maturity.

***Employee Rights and Enforcement***—All workers enrolled in contracted-out pension schemes are entitled, at a minimum, to the equivalent of the SERPS benefit they would have received for the period they worked under the pension plan. The Department of Social Security collects and monitors all employees' national insurance contribution levels, so it is in position to know and enforce these rights on employees' behalf. Occupational pension schemes failing to pay this much must make deficiency payments to the worker. The DSS is not in position to monitor the personal pension system, however, beyond the tracking of contributions to and rebates from the state.

Several new institutions were created to help resolve disputes under the personal pension program. In retrospect, it is clear that the protections created were not adequate to prevent serious consumer protection problems from arising, but the system may prove sufficient to ensure that those who were harmed are compensated. The 1986 Financial Services Act that established Personal Pensions also established several "self-regulatory" agencies (Blake, 1995) that handle workers' grievances against schemes, usually related to poor investment performance or excessive commission expenses. One organization, Life Assurance and Unit Trust Regulatory Organization (LAUTRO), deals with pension providers if they are insurance companies; the other, Financial Intermediaries, Managers, and Brokers Regulatory Associations (FIMBRA), takes jurisdiction over independent financial advisors.

Cases of fraud or negligence are handled by the British Securities and Investment Board, which serves a function similar to the U.S. Securities and Exchange Commission. That board has recently examined 500,000 individuals who transferred £7 billion ($11.2 billion) from occupational to personal pension schemes and concluded that 90 percent of these persons had received inappropriate advice from pension sellers (Blake, 1997). One estimate is that the industry will end up paying at least $18 billion in compensation for inappropriate sales practices (Stecklow and Calian, 1998).

***Employer Responsibilities and Burdens***—Employers must guarantee workers a minimum pension, equal to what they would receive under SERPS. Employers making insufficient contributions or poor investments must make deficiency payments to their employees. The Department of Social Security is charged with exacting these deficiency payments and ensuring that employer contributions are made and are properly credited.

The major administrative complexity that the system creates for employers is the need to keep track of who is in which pension scheme, since the contributions remitted to the DSS differ depending on whether or not an individual participates in the employer's contracted-out pension plan. However, the employer does not need to be concerned with whether an employee is under SERPS or has taken out a personal pension.

***Government Guarantees and Protections***—There are no government guarantees related specifically to personal pensions. The regulation of personal pensions has been handled through the statutes and processes used to deal with investment and consumer fraud more generally and through the institutions normally used to regulate the various parts of the financial services industry engaged in selling personal pensions. Regulatory oversight was strengthened somewhat, however, by the creation of two new self-regulatory organizations covering the financial services industry.

## Uruguay

***Overview***—Social security began in Uruguay in 1928. By 1944, coverage had been extended to virtually all employees. By 1954, it had been extended to include the professions. However, with the passage of time, economic, demographic, and political pressures caused benefits to far outstrip the system's revenues, leading to the need for continued infusions from the government budget. By 1994, the social security system required a government subsidy equal to 7 percent of GDP (International Social Security Associations handout, 1998). The cost of the social security system to the government of Uruguay reached 15 percent of GDP and constituted 62 percent of government expenditures (www.bps.gub.uy 1998). These fiscal pressures forced the adoption of legislation in 1995 that established a mixed two-pillar system of social security benefits. The new system includes a state-administered component and a privately administered component. The privately administered component is similar to the structure of the second pillar in Argentina.

***Coverage***—The new system is mandatory for all persons under the age of 40 at the time it was implemented, including all new entrants to the labor force. Those over the age of 40 may join the new system or stay in the old system, at their option. Certain groups remain covered by other systems that were not part of the reform. These include the armed forces, bank employees, police, and notaries.

***Structure of the New System***—The new system consists of two mandatory pillars and one voluntary pillar (Belistri, 1998). The public pillar is administered by an autonomous government body set up in 1985 to run the social security program in Uruguay, the Social Security Bank (BPS). This pillar is called the Intergenerational Solidarity Fund. It is financed on a pay-as-you-go basis from social insurance contributions and value-added taxes. All workers must contribute to this pillar, based on the level of their earnings up to $842 a month (Queisser, 1998, p. 9). The fund finances both the basic benefit to be paid under the new program and the transition benefits that are owed workers who shifted to the new system in the middle of their careers.

The second pillar consists of individual accounts maintained by independent investment managers (called AFAPs in Uruguay). Mandatory contributions are made to the particular manager selected by the worker based on the worker's earnings of more than $842 a month but less than about $2,400 a month. Workers who earn less than $842 a month are also able (though not required) to make a contribution to a second-pillar pension plan. The government offers a financial incentive to encourage participation among lower earners in the second pillar. These workers may divide their required contribution between the first and second pillar and receive credit for having made 75 percent of the required contributions under the first pillar.

The third pillar provides for voluntary contributions to the pension funds from those who earn more than about $1,415 a month. These contributions receive favorable tax treatment.

The formula to calculate benefits is: 50 percent of average earnings in last 10 years, with the percentage increasing by 0.5 percent for every year worked over 35 years, up to 2.5 percent of earnings. For every year the worker postpones retirement, he or she will receive 3 percent more in benefits, up to a maximum of 30 percent (www.bps.gub.uy, 1998). For example, a 70-year-old with 40 years of service will receive 82.5 percent of his or her average earnings, in addition to individual account accumulations (www.bps.gub.uy, 1998). The minimum years of contribution to qualify is now 35 years, up from 30 years.

There are currently five private pension fund management companies (AFAPs) and one public agency that manages private pensions (Belistri, 1998). Sixty-nine percent of the affiliates are concentrated in the top three companies. These three largest companies manage 80 percent of all the system's assets (Queisser, 1998, p. 4). As of December 1997, private pension fund accumulation was $200,000,000.

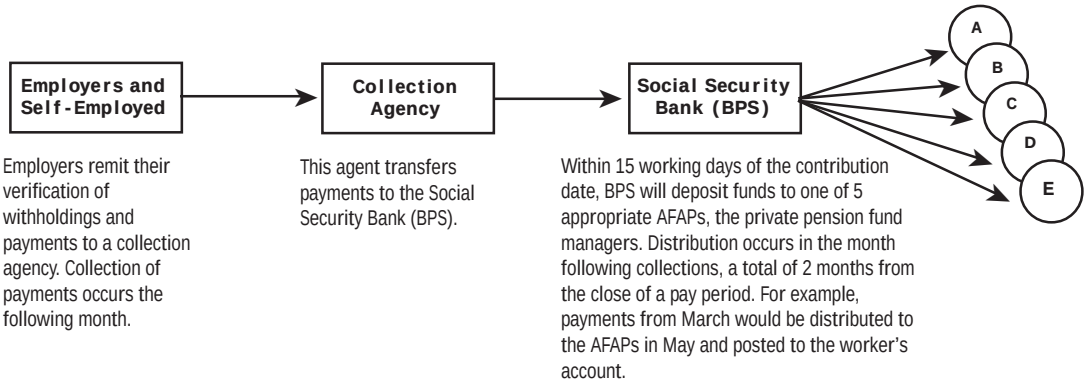
Accounts must be converted to annuities upon reaching retirement age. No programmed withdrawals are allowed.

AFAPs set market-driven commissions/fees. The rates are the same for mandatory and voluntary contributors (Mitchell and Flavio, 1997, p. 14). Commissions can be fixed or calculated as a percentage of salary (Queisser, 1998, p. 25). Only one AFAP charges a fixed fee in addition to the variable fee (Queisser, 1998, p. 25). On average, fees were 2.9 percent of workers' salaries or 21 percent of all contributions (Queisser, 1998, p. 9).

Flow of Funds—Both the payments destined for the Intergenerational Solidarity Fund and those destined for the private pension funds are made to the BPS. Within 10 days from the submission date, BPS collects, and within 15 working days of the contribution date, the funds will be deposited in the individual accounts in the AFAPs. If the employer remits the payment late, it is levied a fine, which then compensates the worker for lost investments due to late account deposits. Seventy-nine percent of workers were in companies that presented their information on diskette, and the percentage is increasing (International Social Security Association, 1998, p.10). The employer sends a verification of withholdings to the tax collection agency, which then reports these payments to BPS, which in turn posts the savings to the appropriate AFAP that houses the individual account of the affiliate.

Self-employed individuals are held to the same obligations as dependent workers in that they

Chart 16.7
**Flow of Uruguayan Payments**




must submit monthly payments. The only exception is for rural workers, who must only submit quarterly earning reports/payments, as stated in a response to a questionnaire BPS answered. At the end of 12/31/96, discrepancies between contributions and payrolls were 20 percent of the system's activity. In the following two months, an additional 10 percent of these affiliates' savings were posted; five months later, 95 percent of these discrepancies were resolved (International Social Security Associations, 1998, p. 10). In a report to the International Social Security Administration Conference, General Manager Myra Tebot reports that at the end of 12/31/96, the percentage of payments received that couldn't be assigned to an affiliate was 10.65 percent. That same month, the payments that were correctly deposited numbered 191,007, or 99.8 percent of all contributions.

Employee Options—Employees are able to choose their private pension fund management company. Should the employee not choose a private fund manager, he or she is assigned one by BPS. Employees are able to change administrators, provided they have made six contributions (continuous or interrupted) to their current AFAP. In effect, the worker would have to wait a minimum of eight months to transfer, because the operation of the system is as follows: the collection of payments occurs the month following registered work, the distribution occurs in the month following collections, and a transfer is effective the month following the request; therefore, an employee would in actuality have to wait eight months to transfer to another AFAP.

***Employee Rights and Enforcement***—Employees have a right to learn of their retirement and individual account options from the AFAPs, which provide materials published by BPS. These materials contain detailed information on specific savings plans and retirement options.

In addition, employees have a right to receive a bi-annual report of activities in their individual accounts from their pension fund manager. These reports will contain the following information:

- Balance of the account in adjustable units at the beginning of reporting period.
- Type of activity, date, and amount (when referring to debits, must break down the commission, disability premium, survivors' benefits premium, and other authorized costs).
- Account balance at end of reporting period.
- Value of the readjustable unit during each transaction.
- Investment earnings of individual account.
- Investment earnings and commission of average account in the AFAP system.

In addition to these bi-annual reports, BPS is obligated to send to workers annual History of Labor Reports, which list the workers' registered work history.

Uruguay has not set up a new institution

to oversee the private pension system. Instead, oversight responsibilities are shared by BPS and the Central Bank of Uruguay. For example, if workers have problems with their AFAP and feel they have been misinformed or misled in their investment decisions, they would need to go through the Central Bank's oversight division of AFAP. If the problem has to do with incorrect inputting of information provided by the employer, the employee would direct this concern to BPS. Any concern related to the distribution of contributions is handled by BPS. The Central Bank's insurance division will intervene if the concern is related to any issue having to do with insurance companies. BPS has recently created an archival system to document and file affiliates' concerns/complaints registered through BPS.

Government Guarantees—Each AFAP is required to provide a guarantee of a minimum return to each of its account holders. The minimum is defined as the lower of the average return for all AFAP accounts minus two percentage points, or 2 percent. The government also guarantees the solvency of the AFAPs. The AFAPs are supervised by the Central Bank of Uruguay and the Superintendent of Insurance (Rodriguez, 1998, p. 16).

## Implications for the United States

Setting up a system of individual accounts in the United States will require addressing a number of very practical administrative process and procedure issues. How these issues are resolved will play a major role in determining how individual accounts will operate in practice and, therefore, how attractive an alternative they will provide to the traditional Social Security approach. The issues involve the role that government should play in managing the process and overseeing investment options, the degree to which employers should be asked to shoulder additional burdens, the capacity of existing institutions to offer satisfactory consumer protections, and the strategy to educate all the participants in the system about their new options, rights, and responsibilities.

One of the most important decisions involves the mechanism for collecting contributions from workers and moving them to the proper individual account. Should the same institutions and arrangements that are used to move money and information under the current system also be used for individual accounts, or should a new system be created? The answer has important implications for employer burdens, audit and enforcement arrangements, dispute resolution mechanisms, employee choice, and a host of other issues. A second decision involves the relationship between the individual worker and the individual account manager. Should each account manger deal directly with each worker or should record keeping, information dissemination, and, perhaps, certain investment management functions be centralized? The answer to this question has important implications for administrative costs, consumer protections, and the potential for political interference in the management of the system.

If it is decided to piggyback on the current system, contributions and earnings information can be collected using the current mechanisms for collection, audit, and enforcement. This should minimize the additional burden placed on employers and the need to create new audit arrangements. Employers are bound to incur some additional costs, however, in informing workers about the investment process and their own options, in helping to resolve disputes about contributions and deposit balances, and, perhaps, in processing the information about the options selected by each worker.

Sweden and the United Kingdom are the two most highly developed countries that have introduced individual accounts as a part of their social security systems. Both have minimized the additional employer burden by adopting this piggyback strategy. In each case, earnings information is collected only once a year and processed centrally.

From the perspective of workers, the individual accounts produced by piggybacking on the current system will provide an alternative to the current defined benefit approach to social security, but they will not operate the way that well-designed, employer-sponsored 401(k) plans operate. The long lags in reporting individual information mean that 12 to 24 months may elapse between the time that contributions are withheld and the time they are deposited in the account chosen by the worker. During that time, workers will not be able to influence how their money is

invested. Of the two other countries using this basic approach to operating individual accounts, Sweden plans to compensate workers explicitly for investment income lost during this delay, while the United Kingdom offers indirect compensation in the form of an adjustment in the amount of the rebate. One approach or the other would probably have to be adopted in the United States if we were to adopt this model.

One alternative to the 12-to-24-month time lag is more frequent employer reporting. The rest of the countries reviewed for this paper use this approach, requiring employers to submit monthly reports of each employee's earnings. Monthly reporting allows the money to move more quickly to the investment option selected by the worker, assuming that the reports are processed quickly. To speed processing, countries using monthly reporting appear, however, to employ a less extensive set of cross-checks on the accuracy of the data reports than is common in the countries relying on annual reporting. Some also impose stricter requirements covering the format and procedures for the monthly reports than are currently found in the United States. More frequent reporting and stricter requirements on reporting formats impose additional burdens, particularly for small employers.

The streamlining of the data processing routines is probably unavoidable if reports are to be processed monthly at a reasonable cost; however, streamlining of these processes is likely to increase the incidence of errors in the posting of contributions to individual accounts. This means that individual workers will have to assume more responsibility for ensuring accurate posting than they have traditionally assumed under our current Social Security system.

Closer scrutiny by workers will be important even if the current level of central data checking is maintained because prompt correction of any processing error will be far more important in a system of defined contribution, individual accounts than in the current defined benefit approach. In the current program, previous years' earnings reports can be corrected at the time retirement benefits are claimed, provided that sufficient documentation still exists. In an individual account system, missed credits will lead to lost investment earnings, which cannot easily be restored to the account some years later. In any individual account system, workers will have to get used to checking their account statements regularly to ensure that the transactions have been recorded properly.

A third approach proposed in the United States is to direct the mandate at each individual worker. This has the potential of allowing workers to time their investments within the year and route them quickly to the fund of their choice while avoiding significant additional employer burdens. The approach might involve a substantial increase in individual burden, however, particularly among those who are not now required to file an income tax return or file only a streamlined version. No country in the world has attempted to implement such an individual mandate. As a result, there is no model to follow for enforcing such a mandate, including how to deal with people who find themselves without the financial means to make the required annual pension contribution, even if they could expect to be compensated through a tax refund some months hence.

The risk of employer default is handled differently under the different approaches. The two countries that have decided to piggyback on the current annual collection system have also transferred to the government the risk that employers will fail to remit withheld contributions. Similarly, Switzerland has created mechanisms to insulate workers from this risk. In the rest of the countries, the failure of an employer to remit contributions results in lost retirement benefits for the employee.

All things considered, it is difficult to envision the United States adopting a model that imposes substantial additional burdens on employers, exposes employees to the risk that their retirement benefits will be reduced if their employers fail to remit withheld contributions, or results in a substantial increase in the volume of erroneous deposits. It is also difficult to see how an individual mandate could be enforced. This implies that, for all the shortcomings involved, if the United States is to adopt a program of mandatory individual accounts, it is likely to follow the lead of the United Kingdom and Sweden in organizing the flow of both contributions and employee earnings information.

The second decision involves how the information about investment options will be transmitted to individual workers. This has proven to be a challenge in all of the individual account

systems that are now in full operation. In both the United Kingdom and Latin America, many of the functions associated with disseminating investment information and processing applications for changing a worker's account have been taken over by commission agents, with the result that the investment earnings are reduced by relatively high administrative charges.

The situation in the United Kingdom was further complicated by the absence of regulation about the structure of commissions and the duties that agents have with respect to informing prospective customers about the consequences of their decisions. The result was a major scandal involving the misselling of pensions, with a number of personal pension holders now finding themselves in arrangements that are difficult to get out of due to high exit fees.

In the last analysis, the other systems described in this paper that are currently in full operation do not allow workers to exercise very much choice about how their money is to be invested. Individual choice is not a feature of the Swiss system. Choice is allowed in Latin America, but the combination of tight regulation of the investments of the funds and the requirement that each fund guarantee its return will not fall significantly below that of its competitors causes the funds to maintain quite similar investment portfolios. It is too early to know how the systems in Hungary and Kazakhstan will develop.

Sweden plans a system in which workers are offered a wide range of choice—though not as wide as the choice currently offered in the United Kingdom. It plans on restricting investments to licensed mutual funds that have agreed not to charge exit fees. Sweden also hopes to keep administrative costs in check by centralizing registration and account management to avoid the problem of commission agents. Finally, the Swedish Government is planning an extensive public relations campaign to inform both employers and employees about their rights and responsibilities under the new system.

If the United States wishes to restrain the level of commissions, it may have to follow either the Swedish model of centralized investment in publicly available mutual funds or the U.S. government thrift plan model in which investment choices are determined by a government authority and investment management operates under close government supervision. Since neither model has actually been implemented anywhere in the world, it is not clear how successful even these approaches will be. In either case, however, the government agency in charge of operating the individual account program would have to develop the systems for tracking employee home addresses, preparing and mailing regular account statements, receiving the requests to move funds from one account to another, etc.

Under these more centralized approaches, employers will probably have to assume the registration and education activities that are performed by commissioned agents in other countries. Employers would therefore have the additional burden of informing workers of their investment options and processing information on employee choice, at least with respect to initial investments.

Experience abroad, particularly in the United Kingdom, suggests that any plan to introduce individual accounts in this country needs to include the time and resources necessary for an extensive public information campaign to inform workers of their new rights and responsibilities. It will probably also be necessary to create a new institution—or assign a new role to a current institution—to provide information on an ongoing basis.

Each of the countries reviewed in this paper also accompanied the introduction of individual accounts with the creation of new procedures or new institutions to help resolve disputes that arise. The Superintendents created in the Latin American model are responsible both for regulation of pension fund administrators and for playing the role of ombudsman in dispute resolution. The British established a couple of new self-regulatory organizations when they created the personal pension system, and their Securities and Investment Board has been forced to intervene to straighten out the misselling problem. The Swiss created special rules for the handling of pension disputes in their court system. If the United States is to create a system of individual accounts, explicit attention needs to be paid to creating a dispute mechanism that can handle a large volume of disputes with reasonable efficiency and at a reasonable cost.

Many are attracted to the idea of creating some form of mandatory individual investment accounts as either a supplement to or a partial replacement for the current defined benefit Social Security system. The attractiveness of a particular approach to individual accounts depends, however, on the details of the administrative arrangements to be used to implement it. More attention ought to be given to the precise details and their implications than has been the case heretofore before deciding whether to implement the individual accounts approach.

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# 17

# *Administrative Constraints on Individual Social Security Accounts*

**by John M. Kimpel**

## ■ Introduction

This paper highlights some of the practical issues involved as Congress considers whether to allow a modest portion of the OASDI contribution (currently 12.4 percent of annual compensation up to $68,400 for 1998) to be directed toward an individual Social Security account. The idea is that this individual account would provide a variable part of a participant's Social Security benefit in addition to a guaranteed Social Security floor. For example, Congress could decide to enact legislation similar to the "21st Century Retirement Act of 1998,"[1] which calls for a 2 percent contribution to "Individual Security Accounts" that would provide a supplemental Social Security benefit in addition to certain guaranteed Social Security payments. Similar features have been included in earlier legislative proposals, including the Social Security Solvency Act of 1998.[2] Alternatively, Congress could adopt the proposal by two members of the 13-member 1996 Social Security Advisory Council for a 1.6 percent "Individual Account" or the proposal by five members of the Council for a 5 percent "Personal Security Account" to be invested by individual participants. All of these proposals share the common strategy of converting the current Social Security structure that is entirely defined benefit to one that is partially defined contribution.

Specifically, this paper discusses the administrative alternatives for implementing such an individual Social Security account system. To do so, I will first examine the cost and structure of the existing defined benefit structure of Social Security, and then compare it to existing defined contribution models, including the government-run Federal Thrift Savings Plan (TSP) and private market models such as the employer-based 401(k) and the individual-based individual retirement account (IRA) systems. Finally, I will address whether there are benefits to piggybacking the administration of individual Social Security accounts onto the existing Social Security system.

## ■ Defined Benefit and Defined Contribution Compared

Defined benefit plans and defined contribution plans share few of the same administrative requirements. These differences in administrative functions flow from the fundamentally different structures of the two types of plans. Defined benefit plans (such as Social Security) promise participants a specific benefit at retirement. Defined benefit plan administration therefore focuses primarily on benefit calculation and payment functions which can be deferred until workers reach retirement (although payroll histories must be stored so that such calculations can be performed at retirement). Since monies are not allocated to participants, no individual accounting is necessary. Moreover, since promised benefits are payable without regard to investment performance, participants have little concern for investment return (other than for the

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[1] *S. 2321, H.R. 4256, 105th Congress. The legislative proposal grew from a report by the National Commission on Retirement Policy. Its congressional co-chairs were Sens. Judd Gregg (R-NH) and John Breaux (D-LA) and Reps. Jim Kolbe (R-AZ) and Charles Stenholm (D-TX).*

[2] *S. 1792, 105th Congress, introduced by Sens. Daniel P. Moynihan (D-NY) and Robert Kerrey (D-NE). Among other things, this bill differs from S. 2321 by providing for voluntary, rather than mandatory, individual accounts. Additional bills calling for individual accounts have been introduced by others.*

possibility of underfunding or bankruptcy) and therefore need little education about the plan or savings in general.

Defined contribution plans, on the other hand, promise participants a specific level of contributions. The benefits ultimately received by participants will depend on the amount of contributions and investment return thereon. As a consequence, all contributions (and investment returns thereon) must be allocated to participants' accounts on an ongoing basis. Furthermore, since eventual retirement benefits depend on the investment return in a defined contribution plan, participants care deeply about investment return. Participant education is therefore critically important, particularly if participants direct the investment of their accounts.

## The Cost of Defined Benefit Administration: Public vs. Private

The cost of administering Social Security in its current defined benefit form, with no individual accounting or investment management requirements, is not inexpensive: about $2.6 billion annually.[3] This cost amounts to 0.63 percent when expressed as a percent of trust fund assets,[4] the manner in which private market plan administrative expenses are most often expressed, or about $19 per covered worker (or $14 per covered participant) per year.[5] This cost is attributable almost entirely to the storage of payroll data and the calculation and payment of benefits, since the contributions processing function is performed by the U.S. Department of Treasury.[6]

This cost is somewhat higher than the administrative cost of a traditional private market defined benefit plan. According to Mitchell, the corresponding costs of administering private market single employer defined benefit plans is 0.36 percent of plan assets.[7] When described as a dollar amount per participant, private defined benefit plan administration expenses appear higher: $130.23 per participant per year.[8] However, this number may be misleading as it includes a multitude of expenses not included in Social Security administrative expenses. It includes, for example, investment management fees, valuation fees, and trustee fees, none of which are included in Social Security. It also includes PBGC premiums and actuarial, accounting, and legal fees, which also would not be included in Social Security. Eliminating these fees would reduce the per participant charge to about $30. This is still high, but Mitchell's data are for plans with more than 100 participants, so they cover relatively small plans as well as large plans.

In a different study, Husted calculated private defined benefit plan expenses to be $683,258 for a 10,000 participant plan, or $68.33 per participant.[9] However, if we extract from that gross total actuarial, attorney, and auditor fees and PBGC premiums (which would not be included in Social Security), the per participant fee is reduced to $13.52, or less than for Social Security.[10] In other words, the data, when controlled to include

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*[3] See Mitchell, Olivia S., 1996. "Administrative Costs in Public and Private Retirement Systems," Table 4; presented at the NBER Conference on Social Security Privatization, August 1996.*

*[4] Ibid. This calculation is based on 1994 data at which point the trust fund totalled about $413 billion. As Mitchell points out (pp. 5–6), the Social Security system is mostly a pay-as-you-go account, the difference between revenues ($380 billion in 1994) and benefit payments ($317 billion in 1994) being relatively narrow. The excess revenue over the years has been deposited into a trust fund and "invested" in Treasury notes. Although this so-called trust fund is more an accounting entry than a trust fund, it attempts to represent a level of pre-funding in much the same way as does a true trust fund, and it is therefore an appropriate analogy for comparing administrative costs.*

*[5] Ibid.*

*[6] 93 percent of the Social Security Administration's costs are attributable to benefits calculation and payment. Ibid., p. 6.*

*[7] Ibid., table 9.*

*[8] Ibid.*

*[9] Edwin C. Husted, "Retirement Income Administrative Expenses." Table 3, report presented at the Pension Research Council Conference, May 1996.*

*[10] Per participant cost is the least reliable difference, given the vast difference in scale between 10,000 and 140 million.*

only functions performed by both systems, suggests that Social Security administration is more expensive than private market defined benefit administration when compared on either a percentage of assets basis or on a per participant basis.

Why are the administrative costs of Social Security as high as they are? One reason is that, by covering all workers, Social Security must reconcile data from *all* U.S. employers, no matter how small, to construct participant payroll history as required to calculate benefits. Of the approximately 6.5 million employers in the United States, 4 million have fewer than 10 employees; almost 5.5 million have fewer than 250 employees. Over 5.4 million of these employers file their wage reports with Social Security by paper and not electronically.[11] While these employers may only employ about 30 percent of the total work force, the more expensive processing required for them is a drag on the overall costs of the program. In other words, one of Social Security's greatest virtues—its universality—is also one of its problems when it comes to administrative cost.

## The Cost of Defined Contribution Administration: Public vs. Private

Many policymakers put forth the TSP as the best model for any individual Social Security account system. Part of the rationale for doing so is the presumably low administrative cost of the TSP, which is described to be only nine basis points (including investment management expenses).[12] As a consequence, these policymakers believe that individual accounts based on the TSP model could be offered with an administrative cost of no more than 10 basis points.[13] This administrative cost compares favorably, according to these policymakers, with average expense ratios of mutual funds, which they say may be as high as 200 basis points.[14]

This viewpoint raises two questions. First, can the individual Social Security account based on the TSP model really be delivered for 10 basis points? Second, would the administrative cost of a private market account really be as high as 200 basis points? The answer to both questions is "no."

With respect to the first question, the reality is that the TSP bears no resemblance to a universal individual account system. The TSP covers 2.3 million participants, all of whom work for one employer (the federal government). The TSP therefore interfaces with only one employer, the Federal government (albeit several difference agencies, but all of which communicate payroll data electronically). Moreover, the TSP covers participants who are generally well-paid (on average, over $42,000), whereas two-thirds of the workers covered by Social Security earn less than $25,000 (and on average, about $32,000).[15] Accordingly, two-thirds of those covered by individual Social Security accounts would contribute less than $500 per year (or less than $10 per week) if the contribution rate were 2 percent. The current cost structure of the TSP therefore significantly underestimates the cost of a universal personal account system based on the same model. Cavanaugh, for example, estimates that the expense ratio of such a system, even if based on the TSP, would be "many times" that of the TSP.[16]

Why? A universal individual Social Secu-

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[11] *Social Security Administration (SSA), as cited in "Setting up Individual Social Security Accounts." Panel on Privitization of Social Security presented at National Academy of Social Insurance, 10th Annual Conference, table 1.*

[12] *Mitchell, supra., table 4.*

[13] *Estimate provided by the Social Security actuaries to the National Commission on Retirement Policy ("NCRP"). See p. 10 of NCRP mark-up document "The 21st Century Retirement Security Plan," May 14, 1998.*

[14] *Francis X. Cavanaugh, remarks at the National Academy of Social Insurance 10th Annual Conference, supra, p. 3. Citing estimates of The Vanguard Group, "In the Vanguard," Summer 1996 (Valley Forge, PA), p. 10.*

[15] *Office of the Actuary, SSA, supra.*

[16] *Cavanaugh remarks, supra, p. 5.*

rity account system would negatively impact critical cost drivers, particularly:

1. The ratio of manual to electronic transactions (which would go up dramatically because of the need to reconcile payroll data with millions of very small employers).[17]
2. The average size of account balances (which would go down dramatically because of lower average incomes and lower contribution rates).[18]
3. The educational expenses (which would go up dramatically since these costs are not included in the TSP; those costs are borne by the different federal agencies employing participants).

I estimate that it would take the federal government at least three years to build the operation for a universal individual Social Security account system based on the TSP model and that it would ultimately take as many as 100,000 employees to operate it.[19] Would this ultimately cost more than 10 basis points? Undoubtedly so. While nobody really knows how much more, I believe that a reasonable estimate would be 40–50 basis points, for a total cost of 50–60 basis points.

Turning to the second issue, the average expense ratio for mutual funds is nowhere near 200 basis points, particularly when dollar-weighted. The actual expense ratio depends on the type of fund it is. For example, the typical equity index fund has an expense ratio of less than 25 basis points.[20] On the other hand, an actively managed fund investing exclusively in international securities has a significantly higher expense ratio.[21] Other types of funds have expense ratios in between. Which of these types of funds is most like the equity option under the TSP? Obviously, the equity index fund. The fact that its expense ratio is twice that of the TSP is explained by the higher level of services provided by the typical mutual fund. For example, mutual funds are valued daily and permit exchanges and redemptions on a daily basis. The TSP, on the other hand, is valued monthly and only permits exchanges and redemption on a bi-weekly basis. Similarly, the mutual fund expense ratio includes the cost of contribution processing, which is not included in the TSP expense ratio since it is done by Treasury. Furthermore, in contrast to 401(k) plans funded through

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*[17] The TSP deals with only 130 federal payroll sites, all of which communicate electronically. Moreover, contribution flow is through a single Treasury clearing account, eliminating the need for multiple contributions processing. Furthermore, the TSP limits investment options. Contrast this to Fidelity's experience in the private defined contribution plan arena. As the nation's largest defined contribution plan record keeper, Fidelity deals with over 6,000 plans covering more than five million participants. Many of these employers have multiple payroll sites. Fidelity's record-keeping operation performed over 450 million monetary transactions last year, most of which involved the processing and investment of contributions. As discussed below, the magnitude of additional costs to be expected upon implementation of individual Social Security accounts will depend on the extent to which such accounts can be piggybacked on the existing Social Security processing of payroll data and contributions.*

*[18] The average annual contribution under the TSP exceeds $2,000. The average annual contribution under a universal personal account system, assuming a 2 percent contribution rate, would be less than $650.*

*[19] This number may seem high based on the TSP's current full-time staff of only 110 employees (which probably evidences the extent to which its administrative functions are off-loaded onto the federal agencies participating in the TSP). Looking at Fidelity's experience, it takes about 600 employees to service 1 million participants in a full-service 401(k) environment. Assuming 140 million participants, this results in about 84,000 to operate an individual account system. I have adjusted this figure upwards (modestly) to reflect the negative impact of moving from an exclusively large employer market to one with millions of small employers and relatively small accounts. How much this number can be reduced by piggybacking on the existing Social Security system (and its 64,000 employees) depends on the policy choices discussed below.*

*[20] For example, the Vanguard Index Trust - 500 Portfolio and the Fidelity Spartan Market Index Fund currently each have an expense ratio of 19 basis points. Note that most of this expense ratio relates to administrative costs, since the cost of domestic equity index fund management is quite modest. The funds hold down administrative costs in a number of ways, such as having high minimums for initial investments ($3,000 in the case of Vanguard and $10,000 in the case of Fidelity).*

*[21] For example, the Vanguard Horizon Fund - Globe Equity Portfolio currently has an expense ratio of 71 basis points and the Fidelity Worldwide Fund currently has an expense ratio of 116 basis points.*

mutual funds, the TSP cost structure contains no expense for participant enrollment and education, which is borne by the participating federal agencies.

Consider Fidelity's experience in the private market defined contribution plan arena. Under the typical private sector plan we record-keep, the services typically include 10 or more investment options, daily valuation, contribution, exchange and distribution processing capabilities, 24 hour toll-free telephone and Internet services, and sophisticated employee education campaigns. Fidelity's record-keeping operation performed over 450 million monetary transactions for its 5 million participants last year. These included periodic contribution allocations among investments, daily exchanges among investment options, loan payments and repayments, and distributions (via check or by electronic funds transfer). In addition, Fidelity's record-keeping operation handled over 250,000 participant contacts via telephone calls (both voice response and representative-assisted) daily.[22] The cost for providing this broad array of investment and administrative services runs from 25 basis points to over 100 basis points, depending largely on the investment mix and array of administrative services selected by the plan sponsor.

To the extent that these fees are for administrative services (as opposed to investment management), they are largely captured by the transfer agent and other administrative fees charged to the underlying mutual funds, fees which typically run from 20 to 30 basis points and do not vary by type of fund. The investment management fees charged to the underlying mutual funds, however, will vary significantly by investment type from as low as 5 to 10 basis points for a domestic index fund to over 100 basis points for an actively managed international fund. The amount of these administrative fees and investment management fees can be found in any mutual fund prospectus under the section describing the fund's annual operating expenses.

The ultimate question is whether a private market account could be offered under an individual Social Security account system for an administrative cost as low as the current charges associated with a typical large defined contribution plan offering an equity index mutual fund. Probably not, for the same reasons outlined above as to why the TSP could not do so. To bring the cost down that low would undoubtedly require substantial (and perhaps politically unacceptable) decreases in the standard level of administrative services provided. This perhaps could be done by establishing a special class of mutual funds available only as part of the individual Social Security account system (perhaps similar to various "affinity" funds that now exist, such as the one Scudder manages for AARP). Restrictions on distributions, for example, while providing less flexibility to participants, could result in lower administrative cost. Also, the number and type of investment options could be severely limited, as is the case with the TSP. With appropriate constraints, I believe a private market individual Social Security account could be offered in the same 50 to 60 basis point range as would the TSP model. If applied to the existing Social Security trust fund balance of about $500 billion, this would result in an annual per participant fee of about $18 to $21 (with each participant having an average account of about $3,500).[23] This is not to say that the TSP model is flawed; there may be good reasons to adopt that model. But those who expect it to provide substantial cost savings when compared to a private market model will be disappointed.

## ■ To Piggyback or Not

Regardless of whether the TSP or private market model is adopted, the separate issue of the relationship between contribution processing, payroll data reconciliation and the eventual timing of participants' investment must still be addressed.

The issue here flows from the amount of time it takes for Social Security to reconcile its

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*[22] In Q2 1998, this number more than doubled to over 625,000, presumably in response to increased market volatility. This jump illustrates the need for substantial backup in administrative systems and personnel for unusual circumstances. The TSP, by contrast, which does not have a toll-free number, did only about 3 million calls last year—presumably paid for by the agencies from which participants called.*

*[23] Another way to reach this same conclusion regarding per participant fees is to anticipate that the average account balance would reach $3,500 in about five years, assuming a 5 percent annual return on a 2 percent contribution from a $32,000 average salary.*

payroll data. Since Social Security today is exclusively a defined benefit program, there is no need to do this reconciliation more often than annually. As a consequence, employers generally pay FICA payroll taxes to the Treasury soon after each periodic payroll date, but do not report specific employee wage and tax withholding data to Social Security until the end of the February following the calendar year for which the contributions were made (absent an extension). It then takes Social Security until the July following the contribution year to reconcile 98 percent of payroll data and until the September following the contribution year to reconcile 98.5 percent of the data (and the bulk of the remaining 1.5 percent remains forever unreconciled).

This leads to a critical issue as proponents discuss diverting a portion of FICA payroll taxes to individual Social Security accounts. If no changes are made to the current reconciliation process, investments in individual Social Security accounts will be delayed as long as 18 months or more. On the other hand, if we change the reconciliation process so that such investments can be made earlier, significant burdens will be placed on employers to provide more current and ongoing payroll data for reconciliation, either to the government or to private vendors. Both of the alternatives have significant costs. In the first case, participants have the lost opportunity cost of being out of the market for a substantial period of time. In the second case, the administrative costs to employers and possibly the government would increase.

Are there ways out of this box? I will discuss three.

## The Government-Run Approach

One alternative would be to continue to process contributions and payroll data as it is currently done. Upon eventual reconciliation, the government would credit to each individual Social Security account the relevant contribution. The amount credited could include an additional "notional" return to make up for the lost opportunity of being out of the market for up to 18 months or more. No significant additional burdens would be placed on employers under this approach.

Several problems arise, however, with this approach, particularly if it includes the crediting of a notional return. First, how much should the notional return be? If it were merely the short-term Treasury rate, the notional return might be significantly less than could otherwise have been obtained in the equity markets. On the other hand, if an equity rate of return is credited, participants could lose money (in a down market) or the government could be faced with a significant additional expenditure (in an up market). The amount involved is not insignificant. For example, 2 percent of national payroll equals $79.9 billion in 1998; assuming a 5 percent Treasury rate of return and average holding of 9 months, this means over $3 billion per year to be allocated to participants' accounts (and, alternatively, a 10 percent equity rate of return means over $6 billion per year).

Secondly, regardless of whether the crediting includes a notional return, delay in investment until reconciliation occurs potentially means the investment of as much as $ 79.9 billion in the domestic equity markets all at once, which could play havoc with the price and liquidity of the market. To put this issue in perspective, $79.9 billion represents about three months worth of net purchases of common stocks by mutual funds, or about 2½ times daily trading on the domestic equity markets.[24] Even if spread over a month (or $3.5 billion per day), it would equal 10–12 percent of daily trading volume.

Keep in mind that these problems arise so long as the federal government is the collector of contributions to the individual Social Security accounts, regardless of whether the individual accounts are maintained by a government agency (akin to the TSP) or by private providers (akin to a 401(k) plan).

## The Employer-Based Approach

A different administrative approach would piggyback an individual Social Security account system on the existing employer-based 401(k) (or similar defined contribution) plan system. Under this model, the 401(k) plan's record keeper would allocate the employee's 2 percent or 5 percent contribution to a sub-account under the employer's

[24] *Investment Company Institute,* 1998 Mutual Fund Fact Book, *Washington, DC: Investment Company Institute, 1998.*

401(k) plan, to be periodically invested under the plan in the appropriate investment pool at the appropriate provider. Employers would have the same fiduciary responsibilities with respect to those sub-accounts that they now have to the plan as a whole.

While this approach has the advantage of utilizing an existing processing system in the private sector that has proved to be relatively efficient, it too has several drawbacks. First, while 401(k) plans are virtually universal at large employers, they are almost nonexistent at small employers (although the new SIMPLE plan created by Congress in 1996 is beginning to make a dent). At this time, however, only about 20 percent of employees working for small businesses with fewer than 100 employees participate in any type of pension plan. A national system of employer-based individual Social Security accounts would therefore require every employer, including small businesses as well as the self-employed, to adopt and maintain a plan. This is, in essence, a mandatory employer-based pension system. This is something small businesses have historically opposed vigorously (principally because of the high administrative costs faced by these small employers). Second, even for large employers there would be some (albeit modest) incremental cost of piggybacking individual Social Security account allocations on their 401(k) systems. While this approach may be a workable solution for many employers (particularly large ones), it may be too expensive for others.

## The Individual-Based Approach

Yet a third administrative approach would be to utilize the procedures developed for annual IRA contributions. Under this scenario, a participant would instruct his or her employer to withhold only 10.4 percent or 7.4 percent (rather than 12.4 percent) of his or her paycheck for OASDI payroll tax. Instead, each participant would periodically (or perhaps only annually) deposit 2 percent or 5 percent of his or her wages in an individual account at a qualified provider selected by the participant and would submit a receipt for such contribution along with his or her income tax form. While this IRA model would minimize bureaucratic constraints and maximize individual control, the Treasury is likely to express concerns about possible Social Security fraud. The Treasury would have difficulty ferreting out those individuals who falsified receipts, underpaid their Social Security tax, or simply forgot to make a deposit.

A variant of the IRA approach could be developed to address Treasury's concerns. Under this variant, Treasury would continue to collect all Social Security payments, but a participant could obtain a tax credit if he or she chose to make contributions to a qualified provider selected by the participant. Accordingly, participants could make an individual account contribution to providers of their choice and reduce their tax payments on their income tax filings; alternatively, participants could reduce their withholding taxes or estimated taxes to reflect their anticipated tax credit. This variant gives participants maximum control over their individual Social Security accounts, although it does require participants to adjust their tax payments in order to avoid advancing the government the amount of their contributions. In addition, the tax credit should be refundable for participants who are not currently paying income tax. This variant, however, shifts much of the administrative complexities imposed on the employer under the 401(k) model to the individual. While it may be a workable solution for many individuals, it may be simply too complicated for others.

Under another alternative of this variant, participants could avoid adjusting their withholding and writing a check by instead presenting a copy of their W-2 forms to the qualified provider of their choice and requesting that their tax credit be sent directly by the Internal Revenue Service to such provider. By establishing such a system (which perhaps could be built on the existing electronic refund system), participants would be sure to have the funds available to make the contribution. While such an alternative eliminates the need for writing a check, it might share some of the problems described above with regard to the governmental approach (such as the potential delay between the collection of the Social Security payments and the transmission of the contribution to the qualified provider). In addition, all of the individual-based approaches run against the current trend of eliminating the obligation of low-income tax payers to file any income tax return.

## Conclusion

The administrative issues posed by a system of individual Social Security accounts are difficult to resolve. No existing system is sufficient to take on this enormous task. While the government-run TSP, the employer-based 401(k) system, and the individual-based IRA system each provide competent and cost-efficient administrative services to various segments of the working population, no one of these systems is capable of providing these services to the entire work force absent significant policy compromises and substantial cost.

Under a government-run approach the Treasury could both collect Social Security taxes and allocate contributions under a governmental model, but this would be a bureaucratic and slow system with relatively little individual control. The 401(k) model would be attractive to some large employers, but not all employers will want to participate in such a program. By contrast, an IRA model maximizes individual control and minimizes bureaucracy, but it might shift too much of the administrative burden to participants to be universally accepted.

Perhaps the best result would be a program encompassing multiple solutions. It is not hard to envision a scenario where some employees held individual Social Security accounts in a government-run plan, others in their employer's 401(k) plans, while still others held them in an IRA-like vehicle.

In any event, the administrative issues presented by individual Social Security accounts are significant. The factors most affecting administrative costs are account size, employer size, and number of transactions. Further analysis of the effect of these factors on the various individual account proposals needs to be done before any of them are implemented.

The final point that needs to be made is that administrative cost is only one of the decision points for any private account system, and not the most important one at that. Remember that a 10 basis point difference in administrative expense equals only $5 on a $5,000 account and $50 on a $50,000 account. Our experience in the 401(k) market tells us that the three most important decision points are (1) investment performance, (2) the quality and timeliness of record-keeping services, and (3) cost—in that order. Low administrative cost is meaningless if investment performance and/or the level of record-keeping services provided are poor.

# 18

# *Designing a System That Works*

## by Ann Combs

## ■ Introduction

We certainly have pointed out all the challenges, all the hurdles, and all the obstacles to creating a system of individual accounts. That being said, I still believe that individual accounts are worth doing. The question is, do we want to do it? How we design this system is an absolutely critical issue that we have to spend a lot of time thinking about. It will make quite a difference in whether it can work, and I do believe that we can, in fact, get the public enthusiastic about individual accounts. I do not believe that the political process has gotten to the point where we are not capable of rising to the occasion and making the kinds of decisions that need to be made.

In fact, I think a system of individual accounts could be a very important step in restoring the confidence of some of the younger generation in government and its ability to deliver. In terms of Social Security, they do not have the confidence that it will be there for them. I am reminded a little bit of the same kind of deja-vu feeling when the Advisory Council was going through its deliberations about our choices. I compared it to the stages you go through in grieving, supposedly. There is denial and anger and depression, but people eventually come to some kind of reconciliation and accept that we have to make some very tough choices.

## ■ An Alternative Choice

I look at individual accounts as an alternative to our other choices—such as centralized government investment—and a lot of people seem to be going in that direction. I think that is the wrong way to go. So, I think we have to put our thinking caps on and figure out how to make this work. There is a prominent role for the government and we should build off existing systems—for example, continue to use the Internal Revenue Service and Social Security—probably in some combination to collect FICA taxes. We can create a type of custodial trust to get that money in and invested pretty quickly in a money market or some kind of a fixed fund until it can be allocated out to individual accounts.

There are time-lag issues to consider, and people may not be earning what they would ultimately like to earn on those accounts for nine months or 18 months; but as Lou Enoff pointed out, it is better than what they are doing today.[1] So, there are ways to handle that. We can create default funds for people who do not want to make investment decisions or who just do not get around to it. And we can, over time, put this in. It will take a long period of time. We need to be upfront with the American people about that. We need to build in enough time before we start diverting money into individual accounts, and build some kind of an infrastructure. Thus we can not start it the year after it is enacted. Maybe it starts three years later, so we can get up and running. Maybe there are different levels where you start out with the centralized funds, and then add some additional options. Maybe, ultimately, we allow people to opt out. I would certainly support that. There also probably needs to be one centralized record keeper, although that function can be contracted out to the private sector.

## ■ Assigning Tasks

There is obviously a role for the financial institutions in managing this money. For example, they would, probably, ultimately be responsible for communicating to the participants in the system

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[1] *See Louis D. Enoff, "Comments on 'Issues Involved in Using the Annual Wage and Tax Process to Administer Individual Social Security Accounts'," in this volume.*

and for handling asset transfers among accounts. We have to minimize the responsibility of employers. Obviously, employers will continue to have to withhold. I am not sure whether we can do that more frequently than annual withholding and W-2-type reporting, but certainly, they will stay involved at that level. I think all the players will have a role in employee education. I think employers that already engage in it would be enthusiastic. They are educating their workers about savings and investments now in their 401(k)s. Individuals will be responsible for making their investment options—or should be. We can do it through the 1040, as Fred Goldberg suggests.[2] It seems to make sense to me. But with a default fund in place, perhaps.

I am not sure that the employer is the best place to put the responsibility for administering these accounts. I would like to hear more discussion as this debate unfolds about that. It is not necessarily true that a system of individual accounts would force employers to radically redesign their pension plans. Clearly, there is no automatic link. It is not necessarily so, that if you put in individual accounts, all employers must change their plans. Certainly, any prudent employer would go back and think about what their rationale was for their plan, to make sure it still made sense. There clearly would be secondary effects on employer plans, but it does not necessarily follow that you have to automatically redesign them.

I am impressed with how many small business employers have thought about it to some extent. I am not surprised that they have not been thinking about it; they are running businesses. But when they did think about it, they were willing to take on some administrative functions, they were willing to pay something for that. I was impressed that 31 percent of them, after hearing about the administrative role, were more intrigued. Frankly, I thought it would be zero. Some of the problems would be with midsize employers. The really tiny guys can probably handle sending out the contributions in an individual retirement account-type model; if you have only two or three employees and one of them is your spouse, maybe you are happy to do that. But if you have 100 employees, it is problematic.

## ■ Conclusion

We can design a system that works, that will allow us to prefund some retirement of the baby boom so that we do not have to pass that on to our children. That will improve individuals' rates of return versus the status quo, and it will help replace benefits that would otherwise have to be reduced, either through benefit cuts or payroll tax increases that would reduce the rate of return. And, we can increase national savings so that we can better afford an aging population. This is an incredibly important debate, and we need to work our way through this. It will have to be a much more simple system in the beginning, pretty stripped down. It does not have to look like a 401(k) plan in the first year or two. It is our responsibility to educate people, to let them know that there is a cost to all of it, that it is a complicated system, and that they are not going to have all of the bells and whistles right away. We can get by with annual or semi-annual reports; we do not need daily valuations the first year, if at all, in this kind of an account. We can have a stripped-down system that can grow over time. And we should have the wherewithal to do it—if we want to.

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[2] *See Fred Goldberg, "A Workable System of Private Accounts" in this volume.*

# 19

# *The Feasibility of Voluntary Accounts in the Private Sector*

by Stanford G. Ross

## ■ Introduction

I will make three observations and draw the implications from my personal vantage point. I favor introducing some individual account system as an adjunct or supplement to Social Security, to the extent that it is feasible. I emphasize the words "to the extent that it is feasible" and I will tell you what I think is feasible at this point in time. My views, of course, are subject to revision in the light of future developments that would produce a change in the relevant circumstances.

## ■ A Realistic Time Frame for Implementation Is Short

First, given present institutional structures, public and private, there presently is no way to create mandatory, universal individual investment accounts in a cost-effective way in a realistic time frame. There are some crucial caveats here. Were Congress to pass a law to enact a mandatory, universal scheme, I assume it is going to tell the American people that they are all going to have investments in the market. One year—two years at the most—will seem a lot of time to people to have that system in place. If it turns out that it is five to 10 years or more, which I believe is probable, I can think of nothing better designed to further undermine the credibility of government in this country. Government is not highly esteemed today; it does not have a lot of credibility. Telling the public you are going to take their money and put it in the market—and not being able to do that very promptly—could be devastating.

The principal problems are those that have been well demonstrated in these essays. They include the costs and complexity generally of an individual account system, no matter what model you use, as well as the numerous small accounts for which there is no real answer yet because there are no real precedents for dealing with these kinds of accounts. Just think of your newsboy who moves on to cutting grass, to McDonald's, etc., all in one year, and has an account with less than $100.

## ■ Government Capability Is Highly Limited

Second, for a variety of reasons, it is not realistic to turn to government to do the job. First, the Social Security Administration (SSA) and Internal Revenue Service (IRS) computer systems are overwhelmed with existing tasks. If you put a gun to their heads, they might get you a "design" for doing it in three to five years. Neither the SSA nor the IRS presently has the work force to deal with individual accounts. The populations handled by SSA offices today are heavily disability and SSI disability claimants. The old-age and survivor claims increasingly are taken on the telephone and handled by mail. The Social Security Advisory Board has recently issued a report on the disability program showing that at least two-thirds of the administrative cost of the agency is spent on that program, not the old-age program. So there would be a big problem here in trying to build individual account expertise on top of an SSA that has to develop training more comparable to the social welfare case worker area than the private investment community advisory area. The IRS, which is desperate to make its work force consumer-friendly, would be even more removed from its normal capacities.

Perhaps outsourcing to the private sector would help, but it would be problematic in terms of

keeping costs low, building needed governmental infrastructure, etc. There also is a growing gap between the IT capabilities of the government and the best of what is going on in the private sector, even with the government outsourcing its IT more and more. I could go on, but the picture is clear: the government is not a good alternative today to implement an individual account system.

## Political Support for Government Solutions Is Low Today

Third, and most importantly, the societal environment for government today will not supply the needed resources in a reliable and sustained way. We are talking about a new element of a retirement system that needs to be supported for the next 50 to 75 years and beyond. The annual appropriations process, and a lot of other things that I could mention, would be disruptive to such a system. This is not 1935, when a national consensus supported introducing a governmental approach to retirement income. It is not even 1972, when a broad, bipartisan political process supported indexing Social Security and raising promised benefits by "dynamic" projections. It is 1999, and anybody who thinks that present political processes will work to give individual account developments whatever resources they need to be successful are being unrealistic in my judgment.

In contrast to looking to government, it is reasonable to assume that the private sector could supply individual accounts to middle- and upper-income persons in an acceptable manner as it presently does with IRAs and 401(k)s. Perhaps, at some point, lower-income persons could be brought in, assuming information technology developments lower costs, and a satisfactory allocation of costs becomes politically acceptable. But here also, it is not realistic to assume the private sector could implement a mandatory, universal system at present because of the small accounts problems and the absence of a political consensus on how to allocate the costs of such a system.

## Conclusion

The implications I draw from these three observations are as follows: first, we ought to start with a voluntary individual account system that allows workers to select the financial intermediary of their choice: mutual fund, bank, insurance company, etc. Such a system would be building on what is presently out there in the private sector. If a central clearinghouse is needed for record keeping, etc., perhaps a government-supported entity (GSE) could be used initially, with a view to privatizing it in due course (as was the case with Fannie Mae when the government first introduced a home mortgage support facility).

Second, political acceptability would be greatly enhanced if a voluntary system could be supported by a tax-credit system, say 2 percent of wages, and nonelective members, those who did not choose to have an individual account in Social Security, could receive an augmented benefit under the Social Security defined benefit system for their 2 percent. Tax credit financing could avoid the problem of whether you are carving out or adding on to the 12.4 percent payroll tax. Obviously, government finances would have to be adequate to give everyone a 2 percent of wages credit. Also, there would need to be appropriate regulations, safeguards, etc., for these developments. Matching and other elements could be added to enhance such a scheme. I am simply at this point trying to suggest a concept to show the possibilities for a voluntary, private-sector approach, not trying to delineate fully a particular scheme.

The benefits of a voluntary system would be that it would move toward a more universal individual account system and would generate needed experience and greater public understanding. The key issue is whether strong advocates for and against mandatory accounts—of whom there are many—can accept a centrist compromise that could be expanded upon incrementally as conditions permit and that would move forward as public education about individual accounts increases. I would hope that in the fullness of time they will.

# 20

# *Designing an Individual Account System*

by Richard Schreitmueller

## Introduction

If Social Security is to include an individual account system, the design principle must be KISS ("Keep it simple, stupid"). If we add on bells and whistles, it isn't going to work. That means centralized administration, limited choices, and, especially, realistic expectations among the public, although the folks in Washington who pass the laws are not known for that.

Regarding lead time, I agree with Stanford Ross[1] that individual accounts would now need at least five years if they used the Social Security Administration (SSA) or the Internal Revenue Service (IRS). That is not a scientific kind of estimate, but is based on knowledge and experience with their facilities that many of us have. Of course the SSA and the IRS may have ample time to upgrade their facilities and technology before Washington can enact Social Security reform, if they start now. From a political viewpoint, if you look at the Thrift Savings Plan enacted in 1986, there was a complete consensus. It was bipartisan, everyone wanted it to work, and Frank Cavanaugh still had to pull a few rabbits out of a hat to make it happen. I don't know that Social Security individual accounts will ever have that kind of leadership or consensus.

## Providing Annuities

Fans of individual accounts often propose paying out the account as a retirement annuity, at least up to some basic subsistence level, but they've said very little about how to provide these annuities. The annuity expense factor or loading that's assumed in the model used by the Employee Benefit Research Institute is in the range of 5 percent to 15 percent, which covers the administrative and handling costs to pay out an individual account as an annuity after retirement. That seems like a lot of money. This morning we were told that range is based on today's individual annuity market, which I consider a retail-cost customized market that does not reflect a huge, mandatory, standardized program. So, we don't yet have good numbers for the cost of annuities.

If and when we get a program of individual accounts, Congress needs to say something about how to provide these annuities. The legislative history shouldn't just be silent, as was the case with ERISA (Employee Retirement Income Security Act of 1974). First off, ERISA created the Pension Benefit Guaranty Corporation (PBGC) to guarantee pension payments without a word about how the PBGC would arrange to pay these pensions. That law was on the books for many months before it became clear that PBGC generally did not intend to pay pensions directly, and instead terminating plans had to get an insurance company to pay any annuity-type benefits. Over the next 20 years we had great confusion about what would happen to these annuity benefits if the insurer later became insolvent, and how the employer sponsoring the plan had to select a very safe annuity provider. We also had to wait about 20 years before the Supreme Court ruled that ERISA had made important changes in the role of an insurer who operated a traditional pension funding contract, and so practically all the existing contracts were obsolete. Luckily, few participants in pension plans lost benefits as a result of these misunderstandings, as employers who sponsored pension plans usually had to absorb any losses one way or another.

My point is that legislation to reform Social Security shouldn't just tacitly assume that traditional annuity products will fit in nicely, or that the private market will step forward with innovative

[1] *See Stanford Ross, "The Feasibility of Voluntary Accounts in the Private Sector," in this volume.*

products that address any new problems and opportunities, because history tells us that might not happen very soon. On the next go-round, you have to be a little more careful how you design the annuity features and what alternatives you consider. Designing individual accounts under Social Security offers great opportunities to save money and give the American public more bang for the buck, simply because it would be a large, mandatory program. For this purpose, I would ask you to suspend any disbelief about whether we are going to have such a program, and try to picture how the annuities would work.

Most of what we've heard to date about these annuities implies that private insurers in the free market would somehow come up with the right answers. Maybe they would. I believe these annuities must satisfy three basic conditions, which just seem fundamental, yet we've heard little or nothing about them:

1. *Unisex pricing:* The free market doesn't lead to unisex pricing for individual annuities. But do you believe Congress and the public will accept Social Security reform that pays women smaller annuities just because they tend to live longer than men? Do the policymakers who propose individual accounts want to risk opposition from half the public? The current Social Security program doesn't penalize women for living longer, and neither should annuities under Social Security reform.

2. *No risk of insolvency:* The state guaranty agencies that now insure against insurer default would fully protect the vast majority of annuitants under the rules in effect today. Still, does it make sense for anyone ever to risk losing even one dollar of Social Security benefits because of insurer insolvency? Do the policymakers who propose individual accounts want to subject anyone to such a risk? Of course not, so annuities payable under Social Security reform need bulletproof guarantees against loss due to insufficient funds. Such a guarantee will cost little or nothing if liabilities for annuity payments are matched by high-quality fixed-income assets that have similar cash flows.

3. *Economies of scale*: Most important, you want to make sure the annuity rates, the prices you charge people when they convert individual accounts to annuities, fully reflect the economies of scale available under a large, mandatory program that can piggyback some of its record keeping off the basic Social Security program. To hold down administrative costs and avoid confusing the public, we should give retirees few if any choices for converting their accounts to annuities, and pass along to the public the resulting cost savings.

## Alternative Annuity Models

Meeting these three basic conditions isn't terribly difficult. In fact, Social Security reform legislation could find several different ways to satisfy the three conditions. Each of the alternative models outlined below would create a new government-authorized annuity fund that uses free-market pricing to a large extent and includes a government guarantee if the fund ever runs out of money:

- *Model 1: Private insurers cooperative.* In this approach, many insurers would join together to underwrite annuity benefits on a negotiated cost-plus basis. One lead insurer would administer all the annuities on behalf of the group. That may sound pretty radical, right? But they've had something very much like that for more than 30 years with the Federal Employee Group Life Insurance Program. Last I heard, it was working pretty well.

- *Model 2: Government annuity fund.* Under this approach, the government would pay annuity benefits directly, using one set of basic Social Security records. Social Security would be analogous to some existing employer retirement programs that merge together benefits from both a defined benefit plan and a defined contribution plan. That is, at retirement you take some or all of the employee's defined contribution money and move it over to the defined benefit side. The annuity fund would have assets that fully back up the annuity benefits, meaning bonds or similar fixed-income securities acquired at open-market prices, and

you'd operate the annuity fund much like a specialized insurance company.

- *Model 3: Privatized annuity fund.* In this approach, a government or quasi-government entity would pay all the annuity benefits itself, but would use competitive bids to transfer to insurers the assets and liabilities for blocks of annuities. Perhaps insurers would join together in syndicates, much as investment bankers do when bidding on offerings of securities. To the general public, this model would look much like the second one, but internally it would use private firms to hold and invest the assets and bear the financial risks. The central fund could also contract out administrative tasks.

## Conclusion

Because all these models meet the three basic conditions listed above, they're far superior to a "business as usual" retail approach to annuities under Social Security reform. Of course, if insurers can come up with even better legislative proposals, Social Security moves another step closer to successful reform and everyone wins.

# 21

# *Administrative Framework for an Individual Account, Market-Based Social Security System*

by F. Gregory Ahern

## Introduction

Our challenge is to take our experience in the defined contribution world and address the question of feasibility. I do not need to underscore the point made in the report of the Employee Benefit Research Institute and by a number of the contributors to this book. This is a very vast undertaking. To put that into context, if you were to establish a national system of individual accounts today, it would be five times the size of the combined 401(k) market as we know it. And that, in and of itself, is a mind-boggling thought. We are very sensitive to that. We are major players. And we have been carefully looking at the issue for more than three years, and we do have some conclusions.

## An Underpinning of Principles

Let me start with a couple of principles that are not purely rhetoric but need to be addressed adequately for any kind of reform to win not only political support but also to meet the test of good national policy. First, whatever the comprehensive reform solution is, whether or not it includes individual accounts, it needs to keep the promises of the current system to current retirees and those who are very close to retirement. Second, it needs to enable the younger workers to realize the fruits of their labor. And third, it must not impose an additional burden—not only on small business or business in general as we have heard—but on the national economy. Finally, the solution should address some of the problems that we have in terms of national savings and growth.

Our study is a work in progress, and we are very open to thoughts and suggestions. As a large player in the industry, we thought we would add some value by looking at the two big questions that are out there right now. One: Can a national system of individual accounts be created, and can it be done in a cost-effective way, particularly for low-income populations? And two: Can you create an individual account system that allows for the timely collection and investment of FICA taxes? This is a time-lag issue, and it is a real problem.

Some of our conclusions, from an efficiency and cost standpoint, are that you do need to build off the existing tax and data flows that are already available through the Internal Revenue Service, the U.S. Treasury, and the Social Security Administration. We do not think it is feasible to build a separate, stand-alone system right now. The current system would need to be enhanced, obviously, but it is doable. Second, the program has to be very basic and simple, at least in the initial years. You have to take an evolutionary approach, not only because this has never been tried before, but, more importantly, because it is not affordable or doable, frankly, from the point of view of the account holders—regardless of the level of subsidization that the government could realistically provide. So, we believe very strongly in an evolutionary approach. Looking at the 401(k) industry itself in the early 1980s, we saw a very similar industry growth story. The original participants in 401(k) plans had very limited options in terms of investment choices. And the frequency of statements was once a year. We think this would be a viable way to approach creating individual accounts for Social Security.

Broadly speaking, we think there are some guidelines that you want to follow. One, create individual accounts with assets that are owned by

individuals. Second, keep costs low. Third, minimize the administrative burdens on employers, and provide workers of all incomes with the opportunity to invest in capital markets, while at the same time minimize the possibility that less experienced investors will suffer poor returns compared with more experienced investors. Ideally, you want to be able to provide account holders with maximum investment choice and provide options that are appropriate for workers who prefer not to make any choices, which we think is potentially a very large segment of the population. Insure that a prudent approach to investments is followed, so that in addition to maintaining the existing Social Security safety net, it leaves intact the survivors' and disability elements of Social Security, as we know them today, as well.

## ■ Keeping It Simple

In terms of keeping it simple, in an evolutionary approach, what does that mean? It means, for example, one transfer per year; no loans; a single annual account statement; perhaps a single annual contribution; and distribution only on death or retirement. More importantly, it needs to maintain some kind of control, realistically, over telephone call volume because call volume, in the way that we run the numbers, is the single largest variable in terms of cost drivers. For example, if you were to take 140 plus million Americans and put them into a system such as individual accounts, based on what we have seen in the mutual funds industry and in the 401(k) industry, a very conservative range would be between 175 million and 350 million telephone calls per year. So, when you begin to think about dealing with that, with live bodies as opposed to through the technology available on the Internet, etc., it really becomes an issue.

## ■ The Universal Cash Approach

We believe one approach would be to take the universal cash approach and have everyone participate initially. At Level 1, a portion of FICA taxes would be invested in the collective asset pool, similar to what we have heard about where the workers would own units of the trust. At Level 2, perhaps, when the amount of FICA tax contributed by each account holder has been determined, and we realize there are obvious reconciliation problems—perhaps in a year, which may be optimistic, or longer—the amount then could be shifted into an asset allocation fund, selected by the account holder. Or, in the case of workers who prefer not to make a decision, funds could be placed in an investment consistent with their age, income, and time horizon to retirement. There is a possibility over time, although we do not think it is realistic until after a period of four to five years, that certain accounts would be given the option to roll out of the collective fund. For reasons of cost and for scale of economy, you would have to keep everyone in either Level 1 or Level 2 accounts for at least four to five years to be able to get the kind of volume that we are talking about to get economies of scale.

In the index business, it is very realistic from purely an investment management standpoint to get that kind of a service today for 10 basis points or less. We also think, over time, that you can get the cost for administration and record keeping down, given some of the parameters mentioned earlier. You do this first by keeping this simple and by using collective bargaining power. Services for this collective fund would have to be contracted out. Such services would include investment management (e.g., index funding) and other services as the capabilities grow and bells and whistles are added to the system.

If you were to take the model of individual accounts at 2 percent of FICA in the first year using the cash-balance approach, we get the cost range between one-half of 1 percent and 1.5 percent. By the end of the third year, assuming everyone stays in, you can get it to a quarter of a percent to one-half of a percent, which becomes not only reasonable but competitive from the point that you have listed alternatives including Social Security. As far as determining costs, we have reached the conclusion that you have to take the approach of basis points. It is the only way that it would work, politically, simply because of the issue of not only everyone having the same return in their accounts, but, frankly speaking, the notion of cross-subsidation needs to be addressed. Certainly, from the point of view of experience in the industry, mutual funds and 401(k)s today, the use of fees and minimums just will not work because you are talking about fees in the minimum range of $25

and up to $75. That is just not realistic with small accounts.

Finally, as a major provider, our work is reinforced by the notion that, given the makeup of the Social Security population, the experience in these initial conclusions, and subject to further information and the views provided by other contributors to this book, to achieve the automation of what is today more than 5 million paper filings, there needs to be a central or single record keeper. It cannot work, at least from a cost standpoint, and probably not from an efficiency standpoint, if you have multiple record keepers. It could be the government. It could be a consortium of private interests or something else, but we believe this needs to be addressed. And as mentioned, it is important from a cost standpoint. There are a number of advantages to this kind of an approach. It is an alternative that is open to comment and criticism and discussion, but it is only one approach. It does meet some of the needs mentioned earlier of making this efficient and cost effective, particularly to low-income people. And, it makes a legitimate case because you could make returns work, allowing all segments of the population to build wealth over time.

## Conclusion

So, to conclude, we do think that a system of individual accounts can be designed and administered on a reasonable cost basis, that administrative costs for a national system of individual accounts would decline significantly as a percentage of total assets as those assets grow over time, given some of the parameters discussed. And that if we align our investment choices and service features with the growth and balances, the expenses can be paid for by the account holder without sacrificing the benefits that higher market-based returns would bring over time.

# 22

# *The Plus in Social Security Plus*

## by Robert M. Ball

## ■ Introduction

I am opposed to any plan that cuts back on the defined benefits of Social Security and substitutes a defined contribution plan for all or part of Social Security. Instead, I favor fully financing the present level of Social Security benefits and offering workers an opportunity to participate in a supplementary savings plan on a completely voluntary basis.

## ■ Supplementary Savings Plan

The goals of this supplemental plan are quite different from the goals of a plan substituting for Social Security, and this makes it possible for a supplementary plan like mine to avoid many of the administrative difficulties of a Social Security substitute. Such a plan should take an evolutionary approach adding more difficult to administer features such as choice of investment options only after experience demonstrates its feasibility.

A supplementary plan would not necessarily, particularly at the beginning, require employers to offer the opportunity to all the employees covered by Social Security because the plan is not trying to replace the existing system. Thus, one might require employers, perhaps, to offer the plan only to those above a specified age, say 20 or 25, and who are regular full-time employees, had worked for the employer at least 90 days, and were not covered by an employer-sponsored tax-favored pension or savings plan such as a 401(k) plan. The plan might also be limited to employees after they have been employed for 90 days or so.

The goal would be to improve the savings performance of those not participating in regular savings plans and at the beginning, investment choices would be avoided, offering workers only the same investment choice as Social Security itself would be making under my proposal—50 percent in stocks and 50 percent in long-term government obligations. With this approach, all money as received would be invested at the same rate and assigned without loss to individual workers when identified once a year under the present Social Security reporting system. It would be assumed that investments by the individual were made evenly throughout the year.

Perhaps the smallest employers, say those with fewer than 10 employees, should be left outside the system until experience had been gained with somewhat larger firms. This would be feasible because Social Security is not being replaced.

Payments would be made by Social Security at the same time as Social Security benefit payments are made and in the form of indexed annuities, timed withdrawals, or a lump sum.

The effective date for operation would be at least two years after passage, giving the agency and employers time to work out administrative details.

Cost of administration would be charged as a uniform percentage per account regardless of size and would be based on the actual experience of the previous year.

All transactions would deal only with the record and claims of the employee, with any spousal rights exercised at the time of benefit payment except that there could be some division of accounts at divorce.

An appropriation from general revenue would be sought to cover start up costs as in the case of the federal employee's Thrift Savings Plan (TSP), but beyond that all administrative costs would be charged to the plan, including makeup of losses to employees for errors by the employer or the government.

Accounting statements would be made once a year at the time Social Security sends estimates of future Social Security benefits, but changes in

the amount of individual deductions would be made at the same time other withholding changes are made. Annual reports would go automatically to all for whom Social Security has an address because of income tax filings or because an individual has requested a report.

This plan lacks some desirable features—particularly those of investment choice—which are part of some of the Social Security substitute plans. But this plan has no real competitors. It doesn't have to replace what Social Security does and is not really in competition with Social Security substitute plans. Such plans, in my judgement, are not practical; I don't think they can be administered in anything like the near term with a reasonable chance of success and at an acceptable cost. It seems to me that the EBRI study is quite conclusive on this point.

## Conclusion

Although limited, at least in the early years, I nevertheless believe this plan would be worthwhile and give workers of modest means a chance to improve their incomes in retirement or disability or the income of their survivors through a simple voluntary plan that includes equity investment and that is presented to workers at the very time they are reviewing estimates of their future Social Security benefits.

Appendix
A

# *How Do Individual Social Security Accounts Stack Up? An Evaluation Using the EBRI-SSASIM2 Policy Simulation Model*

by Kelly A. Olsen, Jack VanDerhei, Dallas L. Salisbury, and Martin R. Holmer, *EBRI Issue Brief*, March 1998

## Executive Summary


- As the Social Security debate heats up, the unprecedented quantitative analysis available through the EBRI-SSASIM2 Policy Simulation Model will provide policymakers and the public with information necessary for making informed policy decisions. In fact, this type of model was specifically suggested for use in the recommendations regarding research and data in the *Report of the 1994–96 Social Security Advisory Council* (Social Security Advisory Council, 1997).
- This report shows cost, benefit, national saving, and growth projections under five options for reforming the Old-Age and Survivors Insurance (OASI) program. Of these, two are partially privatized ("two-tiered") options with individual account contributions equal to 5 percent of taxable payroll. One option is modeled under the assumption that, on average, participants invest individual Social Security account balances in a "life-cycle" mix of equities and Treasury bonds, while the other option is modeled assuming 100 percent Treasury bond investment. In addition to the two-tiered options, the report presents projections for three traditional reforms that would bring the current system into financial balance: the first would exclusively raise taxes; the second would raise taxes as well as the normal retirement age (NRA); and the third would reduce benefits only.
- A man and woman of the 1976 birth cohort are modeled because they are part of a cohort whose members would pay transition costs over their entire working lives under the generic two-tiered options modeled in this report. (Transition costs are likely to be spread across a time period at least this long under actual reform proposals.) A man and woman of the 2026 birth cohort are modeled because they are scheduled to pay no transition costs. Thus, results are illustrative of a "worst case scenario" in terms of potential transition burdens for the 1976 cohort and a best case scenario for the 2026 cohort.
- Results indicate that one traditional reform that would cut future Social Security costs is increasing the NRA to age 67 more quickly than under current law and indexing it to longevity thereafter. This reform would allow payroll taxes to be scheduled 9 percent lower after 2025 than those under a system that only increases taxes to fund current-law benefits. By 2070, cost rates under a reform that raises the normal retirement age like this would be 13.4 percent lower than those associated with funding benefit projections under the current system.
- Two highly controversial assumptions have been made in order to model the nontraditional, two-tiered options in this *EBRI Issue Brief*. First, this analysis assumes that a system of individual accounts is administratively feasible. In addition, individual account

balances are assumed to be preserved for retirement, contrary to the results of legislative activity of recent years that has expanded the potential for nonretirement use of savings in individual retirement accounts (IRAs) and employment-based pensions. If any individual account balances were available for preretirement withdrawals, the benefit projections reported for the two-tiered options in this report would be overestimates. Finally, individual Social Security account balances are assumed to be converted into indexed life annuities at retirement, allowing direct comparison of projected benefits under a partially privatized reform with those of the current system.

- Like the reform that raises the NRA, both two-tiered options would reduce future Social Security costs, but not until the transition costs to a partially privatized system are paid. In the two-tiered reforms modeled here, these costs are projected to equal 5 percent of taxable payroll over 40 years. Until the transition costs are fully paid, the two-tiered options are projected to require 18 percent higher average tax/contribution rates than a reform that raises taxes to maintain the current system.

- To reduce costs over 75 years relative to funding the current system, the traditional defined benefit portion of the OASI program would be scaled back 70 percent by 2040 under the assumptions used in this study. Largely as a result, annual real average benefits under a two-tiered system, even where a portion of account balances are assumed to be invested in equities, are lower for "average" women of the 1976 birth cohort and "average" men and women of the 2026 birth cohort relative to raising taxes only. Average women of both cohorts could expect to receive between 15 percent and 20 percent lower annual real average benefits under the Two-Tiered Option with Life-Cycle Investment than under a funded current system.

- Average women of both cohorts, like the working poor, are projected to receive lower annual real benefits under both two-tiered options than under a funded current system in part because these groups tend to benefit most from the redistributive nature of the current Social Security program.

- Largely because of transition costs paid from 2000–2040, payback ratios for persons born in 1976 are higher under a reform that funds the current system than under the Two-Tiered Option with Life-Cycle Investment. In contrast, because the 2026 cohort is projected to enter the work force after transition costs have been paid, this cohort is projected to receive significantly higher payback ratios under the Two-Tiered Option with Life-Cycle Investment than under a financially balanced current system.

- Although 2026 cohort members pay no transition costs to lower their payback ratios under the Two-Tiered Option, All Bond Investment, they also would not get high enough returns on their investments to offset the attendant reduction in traditional OASI benefits. The implication is that while the two-tiered options do not provide higher payback ratios than Raising Taxes Only for the 1976 cohort because of the transition costs scheduled in this analysis, the prospect of higher payback ratios for the 2026 cohort, which pays no transition costs, exists only if the beneficiary invests to some extent in equities.

- In terms of payback ratios and annual real benefits, the results obtained in this analysis indicate that women born in 1976 would be better off under a reform that raises taxes enough to bring the current system into balance or a system that also raises the NRA than under either of the two-tiered options. In terms of final average earnings projections, an average woman born in 1976 is projected to receive $2,042 more in preretirement earnings under the two-tiered approach that assumes life-cycle investment in equities. However, she is also likely to receive 10.4 percent less in average lifetime earnings plus net benefits under this option than under a reform that increases taxes enough to fund the current system.

- The two-tiered options involve more market risk than the traditional Social Security reform. At the 95th percentiles, benefits under the Two-Tiered Option with Life-Cycle Investment could be much larger than benefits under the more traditional reforms. However, at the 5th percentiles, benefits under the Two-Tiered Option with Life-Cycle Investment could be nearly as low as those under a system that reduces benefits only to bring the program into balance. Results suggest that from the perspective of policymakers who are more risk averse, adjusted real annual average benefits under the Two-Tiered Option with Life-Cycle Investment are lower than those under more traditional reforms.

- For some groups, such as the 2026 birth cohort, there may be a tradeoff between higher real average annual benefits under more traditional reforms and higher payback ratios under a two-tiered system, especially when benefits and payback ratios are adjusted for the higher levels of market risk inherent in a two-tiered system. Given the assumptions used in this study, risk-adjusted annual benefits are definitively higher under more traditional reforms such as Raising Taxes Only or Raising Taxes and the NRA, while risk-adjusted payback ratios are generally larger under a two-tiered system for the 2026 cohort even at higher levels of risk aversion.

- National saving is projected to be approximately 4 percentage points higher by 2040 under the Two-Tiered Option with Life-Cycle Investment than under the more traditional reforms. One explanation is the partially prefunded nature of the two-tiered system. Plus, the additional contributions made to this system through transition taxes also increase national saving, as does the assumption that a portion of prefunded benefits will be invested in equities through life-cycle investing patterns. Theoretically, however, a defined benefit system could also be designed with taxes and policy parameters that would achieve the same level of national saving.

- As a result of an increase in saving under the two-tiered system modeled in this report, real per capita gross domestic product is projected to be $3,600 higher by 2070 than under more traditional reforms. In addition, men born in 1976 are projected to receive about $3,950 more in preretirement earnings under a two-tiered system than under the more traditional reforms, and their female counterparts are projected to receive about $2,000 more.

- Under the Two-Tiered Option with Life-Cycle Investment, an average man born in 1976 is projected to receive 7.8 percentage points less in average earnings plus net benefits, and his female counterpart is projected to receive 10.4 percentage points less. However, for the 2026 cohort, highest lifetime average earnings plus net benefits are projected under the Two-Tiered Option with Life-Cycle Investment. The average man of this cohort is projected to receive 1.3 percentage points more in average earnings plus net benefits under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only, whereas the average woman born in 2026 is projected to receive 1.6 percentage points less.

## Introduction

The need for some type of Social Security reform has been well-documented,[1] and legislative interest in the issue continues to accelerate.[2] As the Social Security debate heats up, the unprecedented

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[1] *For example, see Kelly Olsen, Jack VanDerhei, and Dallas Salisbury, "A Framework for Analyzing and Comparing Social Security Policies,"* EBRI Issue Brief *no. 183 (Employee Benefit Research Institute, March 1997).*

[2] *Jackie Calmes, "President's Goal to Place 'Social Security First' is Likely to Change Debate over Budget Surplus,"* The Wall Street Journal, *29 January 1998: A20; Alex Simendinger, "A Good Time to Tackle Social Security,"* National Journal, *10 January 1998: 68–69; "Gingrich Seeks Social Security Reform Panel,"* The Washington Post, *6 January 1998: A1 and A4; "Mr. Clinton and Social Security,"* The Washington Post *(Editorial), 6 January, 1998: A12; Peter Passell, "Economic Scene: Clinton May Soon Tackle the Devilish Social Security Issue,"* The New York Times, *23 October 1997: D2; and The Associated Press, "Clinton Quietly Seeks Dialogue to Plan Social Security Repairs,"* The Washington Times, *26 August 1997: A4.*

quantitative analysis available through the EBRI-SSASIM2 Policy Simulation Model will provide policymakers and the public with information necessary for making informed policy decisions. In fact, this type of model was specifically suggested for use in the recommendations regarding research and data in the *Report of the 1994–96 Social Security Advisory Council* (Social Security Advisory Council, 1997). This *Issue Brief* is the second produced by EBRI's Social Security Reform Evaluation Research Program and the first in a series of EBRI publications that will present results from the EBRI-SSASIM2 Policy Simulation Model.

Created with the Policy Simulation Group, EBRI-SSASIM2 was designed in consultation with policy experts from the fields of finance, economics, and actuarial science who hold different views on how Social Security should be reformed. Using certain assumptions, the Model is able to closely approximate the program cost and benefit projections calculated by the Social Security Office of the Actuary.[3] In addition, as of the end of Phase III, the Model also offers several additional attributes, including:

- *Flexibility*—While a set of baseline assumptions is available for ease of use, EBRI-SSASIM2 also provides the user with unprecedented flexibility in the field of Social Security modeling to enter his or her own macroeconomic, demographic, and policy design assumptions.
- *Macroeconomic analysis*—The Social Security program both affects and is affected by the broader U.S. economy. The ability to analyze these complex interrelationships is central to much of the current debate.[4]
- *Risk analysis*—Sound projections about any social program do not involve projecting what will happen but rather what is most likely to occur within a range of possibilities. Adding macroeconomic variables to the analysis, such as projections about equity market performance, introduces additional uncertainty. EBRI-SSASIM2 explicitly quantifies this uncertainty, allowing fundamental differences in the levels of risk associated with different policy options to be clearly identified for the first time.
- *Realistic age-earnings profiles*—Social Security benefits from an individual account would be based on account contributions and investment returns. Because contributions made earlier have more time to accrue returns, the rate at which earnings are acquired affects benefits. Other policy models generally assume that workers contribute the same amount steadily over their working lives, ignoring the fact that most workers' incomes grow as they age. By using realistic age-earning profiles, the EBRI-SSASIM2 Model projects individual account benefits more accurately.

At this stage, the Model analyzes the effects of Social Security reform on the birth cohorts of 1976 and those following. Work is currently under way to add historical data to the Model that will allow analysis of cohorts born before 1976.

## ■ Generic Reforms

In the world of policymaking, provisions in one reform package are often combined with those of other packages to create final legislation.[5] In this environment, it is critical to identify which aspects of different packages drive particular policy results. To inform policymakers and the public about how individual aspects of reform packages affect Social Security's costs and benefits, EBRI's initial modeling efforts focus on the analysis of generic reforms rather than complex legislative proposals. With this knowledge, more intricate reform packages can be modeled with increased understanding of how their individual components affect policy projections.

Like actual proposals facing legislators,[6] the generic reforms modeled in this report have different cost rates and benefit provisions. Each would place the OASI program in actuarial bal-

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[3] *For more information on cross-validity testing of the model, see Holmer (1996b), pp. 79–83.*

[4] *For more information about the Model's macroeconomic capabilities, see Holmer (1997b) and Holmer (1996b).*

[5] *See Achenbaum (1986) and Light (1985) for a detailed discussion.*

[6] *For information about different reform proposals, see Kelly Olsen, "Keeping Track of Social Security Reform Proposals: A Summary,"* EBRI Notes *no. 11 (November 1996): 1–8. An update of this publication is scheduled for the April 1998 issue of* EBRI Notes.

ance[7] over 75 years. The first of these generic reforms, "Raising Taxes Only," involves raising taxes only enough to maintain current-law benefit projections. The opposite reform, "Reducing Benefits Only," gradually reduces current-law benefits in order to maintain today's contribution rates. Raising Taxes Only and Reducing Benefits Only are both *traditional reforms*.[8]

In addition, a third traditional reform, "Raising Taxes/Normal Retirement Age (NRA)," is somewhat of a hybrid of Raising Taxes Only and Reducing Benefits Only. It involves reducing benefits in that the NRA is increased more quickly to age 67 than under current law[9] and is indexed to longevity thereafter.[10] This reform also involves raising taxes enough to bring the OASI program into actuarial balance. Because the NRA increase would save on program costs, average taxes under this reform are not as high as those under Raising Taxes Only.

The fourth and fifth generic options modeled are *structural reforms* representing two different ways of setting up one basic system of "partial privatization." Under the basic system modeled here, the traditional benefits of the OASI (defined benefit) program are gradually reduced by 70 percent between 1999 and 2040.[11] In addition, a system of individual accounts requiring contributions of 5 percent of taxable payroll is introduced. At retirement, individual account balances must be used to purchase a real life annuity.[12] Transition[13] to this generic "two-tiered" system[14] is projected to cost 5 percent of taxable payroll, scheduled for payment over 40 years. Transition costs are likely to be spread across a time period at least this long under actual reform proposals. Thus, the two-tiered system modeled in this report is illustrative of a "worst case scenario" in terms of potential transition burdens for the 1976 cohort (and a best case scenario for the 2026 cohort).

In the first generic option modeled under the two-tiered system, participants are assumed to invest individual account assets in a life-cycle manner whereby they initially invest 100 percent in equities during their twenties and gradually move to a mixed portfolio of 23 percent equities and

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*7 See Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (1997), Section IIF2B, pp. 113–116.*

*8 As part of traditional reforms based on the current system, annual cost-of-living adjustments (COLAs) of benefits are made in order to maintain constant purchasing power of the life of the beneficiary. This COLA is made in the Model based on the projected rate of inflation in a given year.*

*9 Under current law, the NRA will rise from age 65 to age 67 in two steps. First, the NRA will increase by two months for each year a person is born after 1937 until it reaches age 66 for those born in 1943. After a brief hiatus, the NRA will increase again by two months annually until it reaches age 67 for those born after 1959 (U.S. House of Representatives, 1996).*

*10 This is the same NRA reform proposed in the Individual Accounts plan supported by two members of the 1994–1996 Advisory Council on Social Security. Specifically, this reform involves increasing the NRA by two months annually beginning in the year 2000 until it reaches age 67 for those reaching age 62 in 2011. The NRA is scheduled to be indexed to longevity thereafter. When run in deterministic mode, the EBRI-SSASIM2 Policy Simulation Model can produce cost estimates very near those estimated by the Social Security Office of the Actuary (assuming no behavioral responses). See Social Security Advisory Council (1997), Appendix III, p. 234, items D1 and D2.*

*11 The 70 percent reduction applies equally to all income groups.*

*12 Life annuities provide a payment on a periodic basis for the life of the participant and possibly his or her spouse. Real annuities provide recipients with the same benefits in terms of purchasing power over time by indexing benefits to the rate of inflation. In this analysis, mandatory real life annuities are assumed to make benefits under an individual account program most comparable with benefits under the traditional OASI program (which are in the form of indexed life annuities). Annuity assumptions are discussed in greater detail in footnote 28.*

*13 A transition cost is incurred under any structural reform involving individual accounts because of the need to pay for both new individual account contributions and the current defined benefit obligations already promised under the old system. The 5 percent transition tax until 2040 under the generic two-tiered system would allow current OASI defined benefit obligations to be paid off during the period when defined benefit provisions are being scaled back for younger workers and as these younger workers begin prefunding a portion of their own Social Security benefits.*

*14 Keep in mind that a two-tiered system could take many forms, of which this generic approach is only one.*

77 percent Treasury bonds by age 60. From 2000 to 2070, returns on this type of life-cycle investment are projected by the Model to average a nominal 7.06 percent. Given EBRI's research under its Defined Contribution and Participant Behavior Research Program,[15] it is unlikely that equity investment will be uniformly this high, especially for younger participants (Yakoboski and VanDerhei, 1996). Such a high equity investment assumption has been modeled under the first two-tiered option presented in this report in order to show projections under a "best-case scenario" investment mix between Treasury bonds and equities. This generic reform option is called the "Two-Tiered Option with Life-Cycle Investment."

The second generic option modeled under a two-tiered system is one that is identical to the Two-Tiered Option with Life-Cycle Investment with the major exception that investment of individual Social Security account balances is in Treasury bonds alone. From 2000 to 2070, the Model projects average returns on Treasury bonds to be 5.97 percent (nominal). Not only do results under this option represent projections under a restrictive regulatory environment that would not allow other individual account investments, but they are also representative of benefit projections for the most conservative investors under a system with multiple investment options. This generic reform can be considered a "worst-case scenario" in terms of investment mix (or lack thereof) and is called the "Two-Tiered Option, All Bond Investment."[16]

It is important to note that this analysis makes two highly controversial assumptions in order to model the two-tiered options in this report. First, it assumes that a system of individual accounts is administratively feasible, which is not immediately evident from the available research.[17] While administrative feasibility is less of a challenge for an individual account system that is an offshoot of the present system (with the payroll tax collection, delayed credits, and investment in government bonds), it would be a significant challenge under an individual account approach that would involve accounts outside the government or demand faster credits within the government than an annual W-2 allows. For example, in this type of setting, substantial administrative cost issues arise for the tens of millions of lower-income Americans for whom annual contributions would be less than $200–$500.

In addition, another highly controversial assumption that this analysis makes in order to model the two-tiered options is that individual account balances are preserved for retirement and paid as life annuities, contrary to the results of recent activity related to IRAs and employment-based pensions.[18] If any individual account balances were available for loans or for early withdrawals, the benefit projections reported for the two-tiered options in this report would be overestimates.

## ■ Baseline Assumptions

Although literally hundreds of EBRI-SSASIM2's parameters are subject to change by the individual model user, this report's simulations are based on the Model's default, or "baseline" assumptions, which were agreed on during regular discussions with Social Security experts from the fields of economics, finance, and actuarial science. For the

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*[15] See http://www.ebri.org/DCproject/dc_program_fact_sheet.html for more information about the EBRI Defined Contribution and Participant Behavior Research Program.*

*[16] Some have questioned the markets' ability to absorb such increased Treasury or equity investment. For analysis of this issue, see Warshawsky and Hammond (1997).*

*[17] See Pozen (1997) for a discussion of administrative issues.*

*[18] For example, the Omnibus Appropriations Act of 1997 included a provision to allow participants of the federal Thrift Savings Plan to take loans from these "retirement" accounts for any reason, overriding prior legislation that restricted loans to the purposes of purchasing a primary residence, paying educational or medical expenses, or meeting other expenses only under circumstances of financial hardship. In addition, the Taxpayer Relief Act of 1997 (TRA '97) included provisions that allow IRAs now to be used to fund first-time home purchase and college expenses without incurring the 10 percent penalty tax that previously had been applied to distributions made to individuals younger than age 59[1]/2. This legislation also expanded eligibility for currently existing deductible IRAs and allowed the accumulated funds to be used for purposes other than retirement without penalty (Yakoboski and Pierron, 1997).*

Table A.1
**The 13 Key Assumption Variables**

- Total fertility rate
- Net flow of immigration
- Mortality decline rate
- Female labor force participation rate
- Male labor force participation rate
- Unemployment rate
- Inflation rate
- Productivity growth rate
- Wage-share growth rate
- Hours worked growth rate
- Nominal interest rate
- Disability incidence rate
- Disability recovery rate

Source: EBRI-SSASIM2 Policy Simulation Model.

13 key assumption variables (table A.1), the Model simulates[19] from baseline values obtained from the 1994 and 1995 Social Security Trustees' reports—with the exception of the mortality decline rate, which is simulated from a baseline value derived from the Census Bureau's mid-range projections.[20] The exact simulation process is guided by a series of baseline formulas, which the Model user can also alter. In this report, results are based on averages over 1,000 potential, real-world scenarios generated stochastically by the Model.[21]

In addition to the inflation and interest rate variables listed in table 1, EBRI-SSASIM2 simulates future values of the equity and bond markets using well-accepted econometric techniques based on historical data obtained from Ibbotson Associates (1995). (See Technical Appendix I.)

## ■ Contributions and Costs

Today, 10.6 percent of taxable payroll is collected through Federal Insurance Contributions Act (FICA) taxes to finance the OASI program. As indicated above, Reducing Benefits Only would leave this rate unchanged indefinitely, whereas Raising Taxes Only (i.e., funding current-law benefits) and Raising Taxes/NRA would increase this rate as necessary to fund benefit projections. Chart A.1 shows that the percentage of taxable payroll required to finance OASI by Raising Taxes Only is projected to rise from 10.6 percent to 16.4 percent of taxable payroll by 2060—an increase of over 50 percent. The Raising Taxes/NRA option increases taxes from 10.6 percent to 14.92 percent, with tax rates identical to those of Raising Taxes Only until 2025 and 9 percent lower thereafter.

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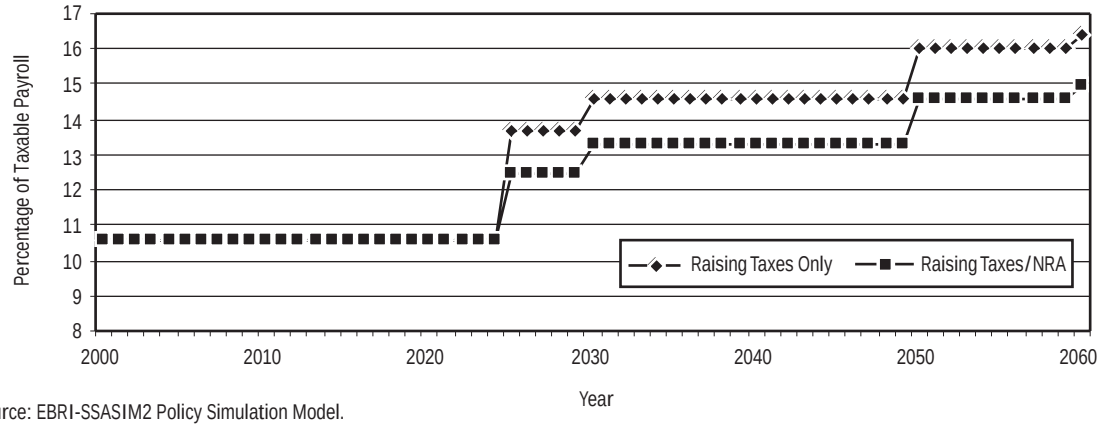
*[19] Using Monte Carlo simulation techniques over 1,000 scenarios. For more information, see Holmer (1996b)*

*[20] For a more detailed discussion of the debate over mortality decline assumptions and the effect of using the Census Bureau's mid-range assumptions rather than those used by the Social Security Trustees, see Holmer (1997a).*

*[21] For detailed information about these formulas and the Monte Carlo stochastic simulation process, see Holmer (1997b) and Holmer (1996a).*

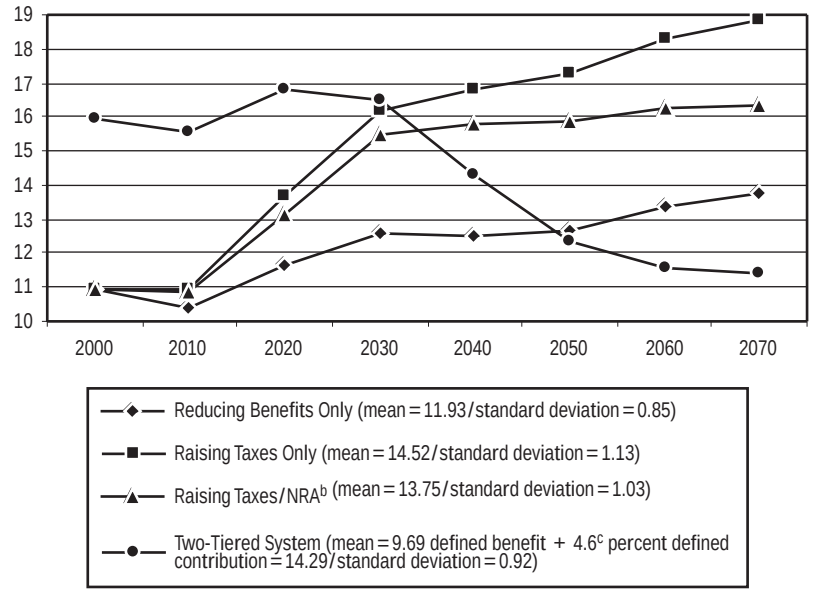
Chart A.1
**Comparison of Scheduled Tax Increases under the Raising Taxes Only Reform versus the Raising Taxes and Normal Retirement Age (NRA) Reform, 2000–2070**




Source: EBRI-SSASIM2 Policy Simulation Model.

Chart A.2

**Projected Average[a] Cost/Contribution Rates under Four Generic Reforms, 2000–2070**




Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Average over 1,000 scenarios.
[b]Normal retirement age.
[c]Contribution projections over 75 years under the two-tiered system are lower than the 5 percent of taxable payroll required by law because individual account contributions occur in only 69 years of the 75-year averaging period.

The two-tiered options modeled in this report (i.e., Two-Tiered Option with Life Cycle Investment and Two-Tiered Option, All Bond Investment) would cut the traditional Social Security benefit to 30 percent of current levels by 2040 in order to reduce the portion of FICA taxes that are used to finance the OASI program to 5.6 percent. On top of this scaled-back traditional OASI program, a second tier of individual accounts with mandatory contributions of 5 percent of taxable payroll would be added. To fund the transition to this structural reform, a tax of 5 percent of taxable payroll would be levied from 2000 to 2040, such that total tax[22]/contribution rates under the two-tiered system would equal 15.6 percent from 2000 to 2040. After 2040, combined tax and contribution rates for this reform are scheduled to drop to 10.6 percent of taxable payroll.

Although tax/contribution schedules represent the payroll contribution rates required to place each generic reform within actuarial balance[23] over 75 years, payroll contributions are not the sole source of OASI program revenues. Revenue used to finance the OASI program under these generic reforms also comes from the income taxation of Social Security benefits as well as any trust fund reserves and investment returns thereon. As a result, rates of taxable payroll contributions do not fully reflect the OASI program's total direct expenses.

Cost rates are a more comprehensive measure of the social expenditures used to operate a defined benefit Social Security program. Usually expressed as a percentage of taxable payroll, OASI cost rates measure the dollars paid in defined benefits over a certain period. The full amount required by society to finance a two-tiered system is

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[22] *Although contributions made to individual accounts are like a tax in that immediate disposable income is reduced, many argue that they are not a tax because none of this revenue is owned by the government and, provided positive returns, total lifetime income is not necessarily reduced on a present-value basis.*

[23] *See footnote 7.*

more closely approximated when any individual account contributions are added to these cost rates. Chart A.2 compares average[24] cost rates plus any required annual individual account contributions across reforms, revealing that the combined average rate for Reducing Benefits Only would average 11.93 percent of taxable payroll over 75 years. Of the reforms modeled here, this reform's cost rate is most steady from 2000 to 2070, rising slightly in the later years.

Raising Taxes/NRA proves to be the second least expensive of the five generic reforms, with cost rates averaging 13.75 percent of taxable payroll over 75 years. This compares with the average cost rate of 14.52 percent for Raising Taxes Only, the most expensive reform. Hence, Raising Taxes/NRA would have costs over 75 years that are 0.77 percentage points—or 5.6 percent—lower than Raising Taxes Only. The cost rates of both Raising Taxes Only and Raising Taxes/NRA both rise steadily over time to an average of 18.84 percent and 14.6 percent of payroll, respectively, by 2070. Notice that Raising Taxes/NRA results in over 2.5 percentage points—or 13 percent—lower cost rates by 2070 than Raising Taxes Only.

Finally, both options modeled under the two-tiered system are projected to have an average combined tax/contribution rate of 14.29 percent of taxable payroll over 75 years—more expensive than Reducing Benefits Only and Raising Taxes/NRA but slightly less expensive (0.23 percentage points) than Raising Taxes Only. However, over time, rates under the two-tiered options would grow less expensive as transition taxes end in the year 2040 and as the defined benefit portion of OASI benefits is scaled back. By 2050, the two-tiered options are projected to have a combined tax/contribution rate that is 28.5 percent less than Raising Taxes Only and 22.2 percent less than Raising Taxes/NRA. This projected tax/contribution rate "savings" under the two-tiered options relative to Raising Taxes Only and Raising Taxes/NRA occurs only after transition costs are paid off in 2040.

## ■ Benefit Projections

This analysis projects OASI benefit results for an "average" single man and an "average" single woman (with no dependents) born in 1976, as well as their 2026 counterparts.[25] A man and woman of the 1976 birth cohort are modeled because they are part of a cohort whose members would pay transition costs over their entire working lives under the generic two-tiered options.[26] A man and woman of the 2026 birth cohort are modeled because they are scheduled to pay no transition costs, since they will attain age 16 in the year 2042, two years after the end of the transition tax. Hence, benefit results are presented for both cohorts in order to compare one of the cohorts scheduled to fare worst in terms of projected transition costs to the first cohort paying no transition costs whatsoever.

The "average" man and woman modeled in 1976 and 2026 are assumed to retire at age 67 and to earn steadily at the gender, age, and cohort-wide average wages over their careers. In addition, they are assumed to die on reaching the average projected remaining life expectancy for their cohort and gender at NRA, as generated through the Model.[27] On reaching NRA, women born in 1976 are projected to live on average to age 89, and their 2026 counterparts are projected to reach age 92.

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[24] *Remember that the averages reported in this* Issue Brief *are those generated over 1,000 stochastic scenarios (Holmer 1996b).*

[25] *While the Model can compute survivor and spousal benefits on a cohort-wide basis into lifetime benefit measures, the calculation of benefits in this report does not include them for two reasons. First, the primary focus of this analysis is to identify projected retirement benefits based on a person's own labor force attachment and earnings under different reforms—not to project benefits based on a person's probability of leaving a surviving spouse or dependents. Second, it is unclear how a two-tiered system would provide survivor and spousal benefits, or at what level. As a result, most analyses by the research community thus far have not included survivors and spousal provisions in benefit comparisons between traditional and structural reforms.*

[26] *Persons born in 1976 would reach age 16 in 1992 and presumably work until at least age 67, which would be attained in the year 2046. Hence, workers in this cohort would pay transition taxes to the two-tiered system during the full 40-year period that the tax is levied, from 2000–2040.*

[27] *Based on the Bureau of the Census' mid-range projections, simulated stochastically over 1,000 scenarios.*

Table A.2
**Average[a] Annual Real Benefits Under Generic Reforms, by Birth Cohort and Gender ($1997)**

| Gender and Birth Year | Raising Taxes Only (Funding Current-Law Benefits) | Two-Tiered Option with Life-Cycle Investment[b] | Raising Taxes/ NRA[c] | Two-Tiered Option, All Bond Investment[d] | Reducing Benefits Only |
|---|---|---|---|---|---|
| Average man,[e] 1976 | $23,003 | $23,795 | $21,464 | $17,715 | $16,265 |
| Average woman,[e] 1976 | 16,455 | 13,945 | 15,361 | 10,397 | 11,647 |
| Average man,[e] 2026 | 38,922 | 37,093 | 31,203 | 28,547 | 27,398 |
| Average woman,[e] 2026 | 27,822 | 22,345 | 22,300 | 17,124 | 19,578 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Average over 1,000 stochastic scenarios. These projections, like all those in this report, are inclusive of the macroeconomic effects projected under the different reforms. The Macroeconomic Effects section of this report explores these effects.
[b]Individual account participants under the Two-Tiered Option with Life-Cycle investment are assumed to invest in a life-cycle pattern in which they begin investing account balances in 100 percent equities during their 20s and gradually move to a portfolio consisting of 23 percent equities and 77 percent Treasury bonds by age 60.
[c]Normal retirement age.
[d]This option assumes 100 percent of individual account balances are invested in Treasury bonds.
[e]Men and women of both cohorts are assumed to earn steadily over their careers at the age and gender cohort average, to retire at age 67, and to die after attaining the average remaining life expectancy for their gender and cohort at the NRA.

Men born in 1976 are projected to survive to an average age of 85 on attaining NRA, and men born in 2026 may expect to live to be 89 years old, on average.

## Average Annual Benefits

Table A.2 shows average annual real benefit projections by cohort and gender over all retirement years for Reducing Benefits Only, Raising Taxes Only, Raising Taxes/NRA, and the two-tiered options.[28] Keep in mind that traditional (defined benefit) Social Security benefits grow in real value under current law because they are indexed to wages. Because wages have historically grown over time and are projected to continue growing in the Model, traditional reforms like Raising Taxes Only (i.e., funding the current system) provide higher real annual benefits for the 2026 cohort than for the 1976 cohort—even though benefits are scheduled to remain the "same" in that they continue to follow current-law benefit policy. Also, because real wages are projected to grow over time, the 5 percent of taxable payroll contributed to individual accounts will increase in real dollar value as well, which explains why benefits for the 2026 cohort are higher than those for the 1976 cohort under the structural reforms.

Results in table A.2 indicate, not surprisingly, that the lowest projected average annual real benefits for both cohorts would occur under the options that would reduce benefits to keep current payroll tax rates unchanged and would involve individual accounts with only Treasury bond investment. Of these two low-benefit reforms, males of both the 1976 and 2026 cohorts would receive fewer projected real annual average benefits under Reducing Benefits Only, while women would receive fewer benefits under the Two-Tiered Option, All Bond Investment.

Given the contribution rates modeled in this analysis, only the man born in 1976 is projected to do better in terms of average annual real benefits under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only. He is projected to receive, on average, $792—or 3.4 percent more—in real annual benefits under this two-tiered option. In contrast, a man born in

*[28] Under the generic two-tiered reform, mandatory annuitization is assumed for the full balance of individual accounts on retirement. Annuities are assumed to be in the form of individual annuities with annuity loading factors equal to 5 percent of individual account balances. The annuity is priced assuming a continuation of recent mortality decline rates and using a real rate of interest calculated with an expected rate of inflation that is a moving average of recent inflation rates. Annuity prices for males and females differ because of longevity differences. For more information, see Holmer, 1997b.*

2026 is projected to receive $1,829—or almost 5 percent higher benefits—under Raising Taxes Only than he would receive under the Two-Tiered Option with Life-Cycle Investment.

Projected benefit differences between Raising Taxes Only and the Two-Tiered Option with Life Cycle Investment are more striking for women. A woman born in 1976 and her 2026 counterpart are projected to receive an average of $2,510 and $5,477 more, respectively, in average annual real benefits under Raising Taxes Only than under the generic Two-Tiered Option with Life-Cycle Investment. A woman born in 1976 could expect an average of 18 percent more in annual benefits under Raising Taxes Only, and her 2026 counterpart could expect an average of 24.5 percent more.

For three primary reasons, benefits under the Two-Tiered Option with Life-Cycle Investment are, on average, lower (with the exception of those received by a man born in 1976) than those under the reform Raising Taxes Only. The foremost reason applies specifically to the 2026 cohort. A significant force pushing down benefits under the Two-Tiered Option with Life-Cycle Investment is simply the combined cost/contribution rate differences between reforms. Recall that the combined cost/contribution rate for the two-tiered options is scheduled to decrease steadily from 14.34 percent in 2040 to 11.42 percent by 2070 (chart A.2). In contrast, Raising Taxes Only is projected to cost 16.81 percent of taxable payroll in 2040, rising to 18.84 percent by 2070. Largely as a result, the more expensive Raising Taxes Only reform is projected to provide higher benefits for the 2026 cohort than the Two-Tiered Option with Life-Cycle Investment.

The second reason behind lower average benefits under the Two-Tiered Option with Life-Cycle Investment largely explains the gender differentials between projections shown in table A.2. Hence, it also explains why a woman born in 1976 is projected to receive higher benefits—and a woman born in 2026 is projected to receive about the same benefits—under the Raising Taxes/NRA reform, which significantly reduces current-law benefit promises, than under the Two-Tiered Option with Life-Cycle Investment. Furthermore, it explains why women tend to fare worst in terms of annual benefits under the Two-Tiered Option, All Bond Investment than men, who fare worst under Reducing Benefits Only. The explanation is that women tend to benefit more than men from the redistributive aspects of the current defined benefit OASI system, which would be maintained fully under the traditional reform of Raising Taxes Only, and to a lesser extent under Raising Taxes/NRA and Reducing Benefits Only.[29] Because men tend to have higher earnings and more years of earnings than women, men would benefit more, on average, under a structural reform tying benefits more closely to contributions, such as a the Two-Tiered Option with Life Cycle Investment.

The OASI program is projected to continue redistributing more income to women than to men, in part because women are expected to live longer. Annual benefits under the current OASI program are provided in the form of a life annuity, with (nonsurvivor) benefits based solely on one's own earnings history. Hence, if a man and woman have identical earnings histories under the current system, they will both receive the same annual benefit for life—but the average woman will collect more in cumulative lifetime benefits because she lives more years as a beneficiary. In comparison, annual benefits from individual accounts under the two-tiered options are based exclusively on individual account accumulations. Converting identical account balances into an annuity that provides a man and woman with the same cumulative lifetime benefits must adjust for their different life expectancies. While an annuity that takes such longevity differentials into account will provide average men and women possessing identical account balances with identical cumulative *lifetime* benefits, the woman's *annual* benefit will be lower. Put most simply, the woman's annuitized benefit would have to be spread thinner so that it lasts longer.

Another reason that women benefit more from the redistributive aspects of the current system is that traditional OASI benefits are structured to redistribute income to lower income workers. Women, on average, tend to earn lower incomes than men because they spend less time in

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[29] *While the redistributive dynamics of the current system would be maintained under Reducing Benefits Only and Raising Taxes/NRA, they would not be maintained fully in the sense that real benefits for all beneficiaries would be reduced.*

the labor force[30] and because of lower average earnings.[31] The projected difference in average benefits for men versus women under structural versus traditional reforms is likely to continue so long as differences in average earning levels and job tenure patterns persist between genders.

A final reason why the Two-Tiered Option with Life-Cycle Investment has lower projected average benefits than Raising Taxes Only pertains specifically to the 2026 cohort and explains perhaps another surprising result shown in table A.2: given the contribution assumptions used in these reforms, average benefit projections for a male born in 2026 are not higher under the Two-Tiered Option with Life-Cycle Investment than those under Raising Taxes Only. In comparison, a male born in 1976 is projected to do 3.4 percent better, on average, under this two-tiered option. This result is counterintuitive to many who would have expected the favorable growth effects (see section on Macroeconomic Effects) of the Two-Tiered Option with Life-Cycle Investment over time to have caused a man born in 2026 to be more favored under this reform than his 1976 counterpart.

Examination of this result reveals that another factor pushing down average annual real benefits under the Two-Tiered Option with Life-Cycle Investment for those born in 2026 is the lower interest rates[32] projected to be experienced by this birth cohort. These lower interest rates arise largely because of the favorable economic effects of the two-tiered system, which is projected to increase national saving and provide a larger pool of capital for investment (see section on Macroeconomic Effects). Hence, the favorable growth effects under a two-tiered system lower benefits under the assumption of mandatory purchase of real annuities.[33] This is due to the fact that the purchase price of these types of annuities is increased (thus depressing benefits) when interest rates fall. It should be noted that this is a consequence of the portfolio asset allocation assumed for the insurer under this type of annuity; however, there are other types of annuities not modeled in this analysis (viz., variable annuities) that would not be subject to this type of increased price when interest rates decline.

## Payback Ratios

Because of the importance of tax/contribution rates in benefit projections, another outcome measure frequently used in comparing Social Security reforms is the relationship between tax/contribution rates and benefits. One technique for measuring the relationship between costs and benefits is to compute payback ratios, which measure the benefits an individual receives from a Social Security system against the dollars he or she has contributed. In colloquial language, payback ratios measure the "bang for the buck" relationship between contributions and benefits.[34] While

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[30] *The baseline historical assumptions for relative labor force participation rates are from the* 1996 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, *pp. 147–148. Over time, the Trustees project the difference in male and female labor force participation rates to decline from 17.7 percentage points (or a 31 percent difference) in 1995 to 12.7 percentage points (or a 22 percent difference) by 2070.*

[31] *The historical age-gender wage data used in the model are mean earnings data for 1994 from Employee Benefit Research Institute tabulations of the March 1995 Current Population Survey file. According to these data, men ages 16–67 earn, on average, 62 percent more than women of the same age group.*

[32] *In 2030, nominal interest rates under a system that raises taxes only are projected to be 6.58 percent, which is 51 basis points higher than the 6.07 percent projected under the two-tiered system. By 2140, average nominal interest rates are projected to be 6.46 percent under a system that raises taxes only, 52 basis points higher than the rate of 5.94 percent projected under the Two-Tiered Option with Life-Cycle Investment.*

[33] *As explained in footnote 12, indexed life annuities have been modeled for this report in order to render the benefits that could be provided under a system of individual accounts directly comparable to those provided by the indexed life annuities paid through the traditional OASI system. For a further explanation on how annuity prices relate to interest rates, see Holmer (1996b) and footnote 28.*

[34] *Some (see Myers, 1997, for example) have argued that payback ratios are inappropriate measures of benefits under a social insurance program such as Social Security, which, like any form of insurance, is not designed to provide returns but to protect against risks. Controversy over whether the Social Security program's performance should be held up against this measure reflects a basic tension in the current reform debate concerning whether Social Security's appropriate role is as a social insurance program or as an individual investment program.*

Table A.3
**Average[a] Payback Ratios Across Generic Reform Options**

| Gender and Birth Year | Reducing Benefits Only | Raising Taxes Only | Raising Taxes/NRA[b] | Two-Tiered Option with Life-Cycle Investment | Two-Tiered Option, All Bond Investment |
|---|---|---|---|---|---|
| Man, 1976 | 62% | 77% | 75% | 66% | 47% |
| Woman, 1976 | 83 | 106 | 102 | 75 | 53 |
| Man, 2026 | 74 | 69 | 61 | 104 | 76 |
| Woman, 2026 | 94 | 88 | 78 | 114 | 83 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]Normal retirement age.

payback ratios can be measured a number of ways (Geanakopolos et al., 1997; Myers and Schobel, 1993), EBRI-SSASIM2 measures them as the ratio of lifetime benefits to lifetime payroll tax contributions (from both employer and employee), including transition costs. [35]

Results in table A.3 indicate that average payback ratios under the Two-Tiered Option, All Bond Investment could be the lowest of all the reforms for the 1976 cohort if account balances are forced to be invested in Treasury bonds, or for "average" persons who make the most conservative investment allocations possible over their entire lives. Table A.3 also shows that average payback ratios under the Two-Tiered Option with Life-Cycle Investment are projected to be about 14 percent lower for a man born in 1976 and 29 percent lower for a woman of the 1976 cohort than payback ratios under Raising Taxes Only.

Conversely, for members of the 2026 birth cohort, the Two-Tiered Option with Life-Cycle Investment offers 51 percent higher payback ratios for men and 30 percent higher average payback ratios for women. The disparity in average payback ratio results between cohorts is due to the fact that persons born in 1976 are paying the "extra" cost of financing the transition to the Two-Tiered Option with Life-Cycle Investment—a cost that does not add to their benefit levels and therefore lowers the ratio of benefits relative to program contributions. In contrast, the 2026 cohort finances none of the transition costs.

Unlike comparisons between Raising Taxes Only and the Two-Tiered Option with Life-Cycle Investment, payback ratios between Raising Taxes Only and the Two-Tiered Option, All Bond Investment are roughly comparable for the 2026 cohort (about 7 percentage points higher for men and 5 percentage points lower for women). Although this cohort pays no transition costs that would lower their benefits under the Two-Tiered Option, All Bond Investment reform, they would not get high enough returns on their investments in Treasury bonds to offset the 70 percent cuts in traditional benefits accompanying the two-tiered options. The implication is that while the two-tiered options do not provide higher payback ratios than Raising Taxes Only for the 1976 cohort because of the transition costs scheduled in this analysis, the prospect of higher payback ratios for the 2026 cohort exists only if the beneficiary invests to some extent in equities.

## Policy Tradeoffs

Juxtaposition of average payback ratios with average benefit projections highlights the tradeoff between payback ratios and benefits that policymakers may have to face for some groups. Table A.4 shows that only a woman born in 1976 would face no tradeoff between higher payback ratios and higher benefits, because in terms of both

[35] *Both lifetime benefits and payroll tax/contributions are measured in present values. Discount rates used in the Model are the nominal interest rate for each year in a scenario. This is the standard approach in finance when interest rates vary both across time and across stochastic scenarios. Discounted values are expressed in nominal (not real) terms. Only in a more simplistic analysis that assumes no time variation and no future uncertainty can one compute present values using a single discount rate.*

Table A.4
**Comparing Average[a] Annual Real Benefits ($1997) with Average Payback Ratios**

| Group/Policy | Average Annual Real Benefits | Average Payback Ratios |
|---|---|---|
| Man, 1976, Reducing Benefits Only | $ 16,265 | 62% |
| Man, 1976, Raising Taxes Only | 23,003 | 77[b] |
| Man, 1976, Raising Taxes/NRA[c] | 21,464 | 75 |
| Man, 1976, Two-Tiered Option, All Bond Investment | 17,715 | 47 |
| Man, 1976, Two-Tiered Option with Life-Cycle Investment | 23,795[b] | 66 |
| Woman, 1976, Reducing Benefits Only | 11,647 | 83 |
| Woman, 1976, Raising Taxes Only | 16,455[b] | 106[b] |
| Woman, 1976, Raising Taxes/NRA[c] | 15,361 | 102 |
| Woman, 1976, Two-Tiered Option, All Bond Investment | 10,397 | 53 |
| Woman, 1976, Two-Tiered Option with Life-Cycle Investment | 13,945 | 75 |
| Man, 2026, Reducing Benefits Only | 27,398 | 74 |
| Man, 2026, Raising Taxes Only | 38,922[b] | 69 |
| Man, 2026, Raising Taxes/NRA[c] | 31,203 | 61 |
| Man, 2026, Two-Tiered Option, All Bond Investment | 28,547 | 76 |
| Man, 2026, Two-Tiered Option with Life-Cycle Investment | 37,093 | 104[b] |
| Woman, 2026, Reducing Benefits Only | 19,578 | 94 |
| Woman, 2026, Raising Taxes Only | 27,822[b] | 88 |
| Woman, 2026, Raising Taxes/NRA[c] | 22,300 | 78 |
| Woman, 2026, Two-Tiered Option, All Bond Investment | 17,124 | 83 |
| Woman, 2026, Two-Tiered Option with Life-Cycle Investment | 22,345 | 114[b] |

Source: EBRI tabulations of results from the EBRI-SSASIM2 Policy Simulation Model.
[a] Average over 1,000 scenarios.
[b]Highest value for gender and cohort.
[c]Normal retirement age.

policy performance measures, she is better off under Raising Taxes Only. For a male born in 1976, there is a tradeoff between payback ratios under Raising Taxes Only (i.e., funding the current system) and the benefits under Two-Tiered Option with Life-Cycle Investment. Payback ratios are about 11 percentage points higher under the Raising Taxes Only approach, and benefits are projected to be $792 higher under Two-Tiered Option with Life-Cycle Investment.

There are also tradeoffs for the average man and woman of the 2026 cohort. However, since the man born in 2026 would receive just $1,829 (or 4.9 percent) more in annual real benefits under Raising Taxes Only, but a payback ratio that is 35.5 percentage points (or about 50 percent) higher under the two-tiered system, he may favor the Two-Tiered Option with Life-Cycle Investment when weighing his options. On the other hand, a woman born in 2026 has a more profound tradeoff. She would receive $5,477 (or about 24.5 percent) more in annual real benefits under Raising Taxes Only and receive an average payback ratio that is 26.02 percentage points—or about 30 percent—higher under the Two-Tiered Option with Life-Cycle Investment. When comparing these two reforms for women born in 2026, policymakers and the public would have to decide whether adequacy of benefits or equity of payback ratios is a more pressing policy goal.

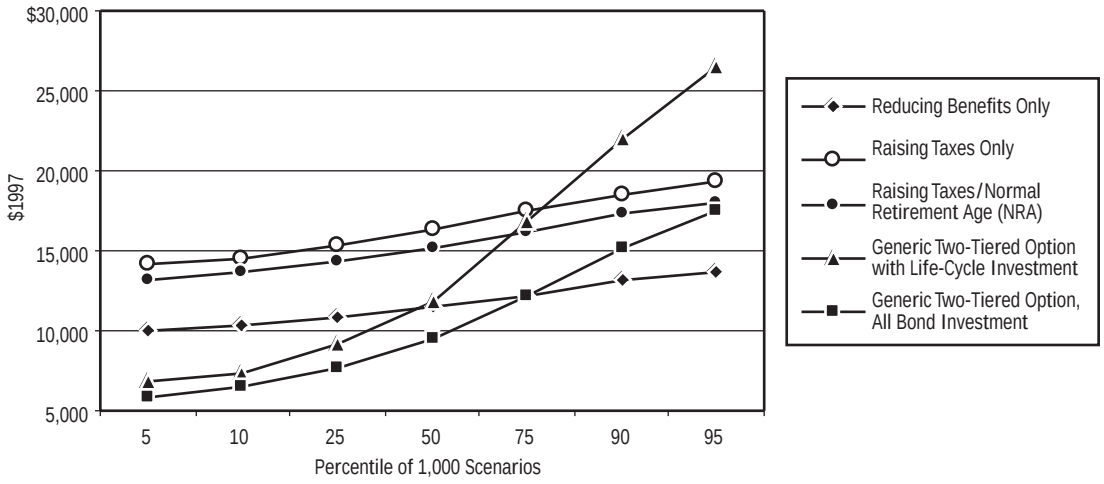
## Assessing Risk

Based on the average benefit and payback projections above, one might be tempted to simply conclude: (1) a woman born in 1976 is better off under Raising Taxes Only; (2) a man born in 1976 and a woman born in 2026 are better off under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only if one views higher payback ratios as more desirable than higher benefits; and finally, (3) a man born in 2026 is better off under the Two-Tiered Option with Life-Cycle Investment if one views higher payback ratios as more desirable than higher benefits. In actuality, reform comparison is likely to be based on a number of considerations other than average annual real benefits and payback ratios. The level of risk that policymakers are comfortable letting Social Security participants assume is one of these considerations.

Charts A.3 through A.6 show the percentile distributions of different benefit probabilities for average men and women of the 1976 and 2026 birth cohorts.[36] It is clear from the steeper upward slopes of the Two-Tiered Option with Life-Cycle Investment that this reform has the most variation, or "risk." At the 5th percentile, average benefits under this reform could fall lower than benefits under a system that simply reduces benefits to begin with. On the other hand, benefits at the 95th percentile could greatly exceed average annual benefits under any of the three nonstructural reforms in this report.

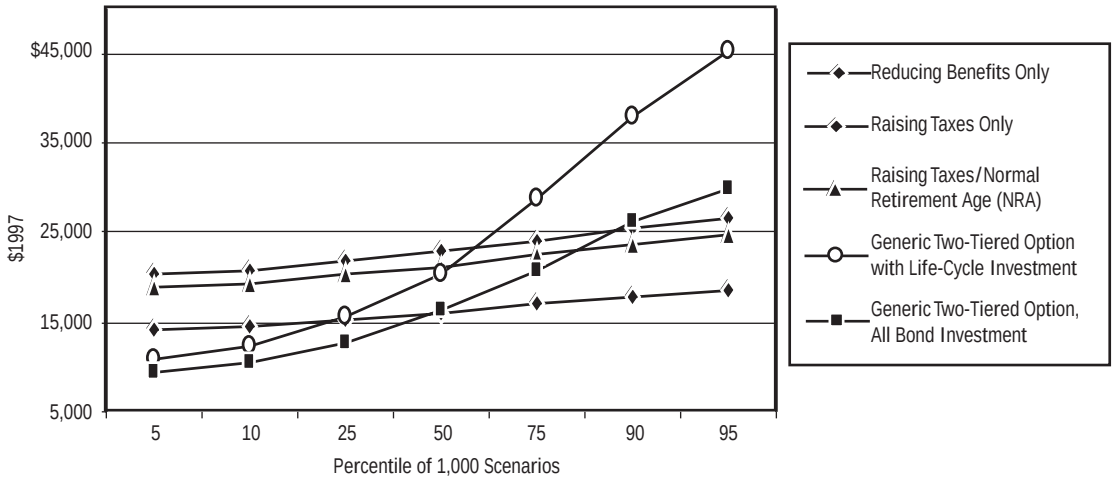
[36] *See footnote 19.*

Chart A.3
**Percentile Distributions of Annual Real Benefits for a Woman Born in 1976 under Five Reforms**




Source: EBRI-SSASIM2 Policy Simulation Model.
Note: The mean for Raising Taxes Only is $16,455, with a standard deviation of $1,645. The mean for Raising Taxes/NRA is $15,361, with a standard deviation of $1,528. The mean for Reducing Benefits Only is $11,647, with a standard deviation of $1,610. The mean for the Two-Tiered Option with Life-Cycle Investment is $13,945, with a standard deviation of $8,300. The mean for Two-Tiered Option, All Bond Investment is $10,397, with a standard deviation of $3,971.

Chart A.4
**Percentile Distributions of Annual Real Benefits for a Man Born in 1976 under Five Reforms**

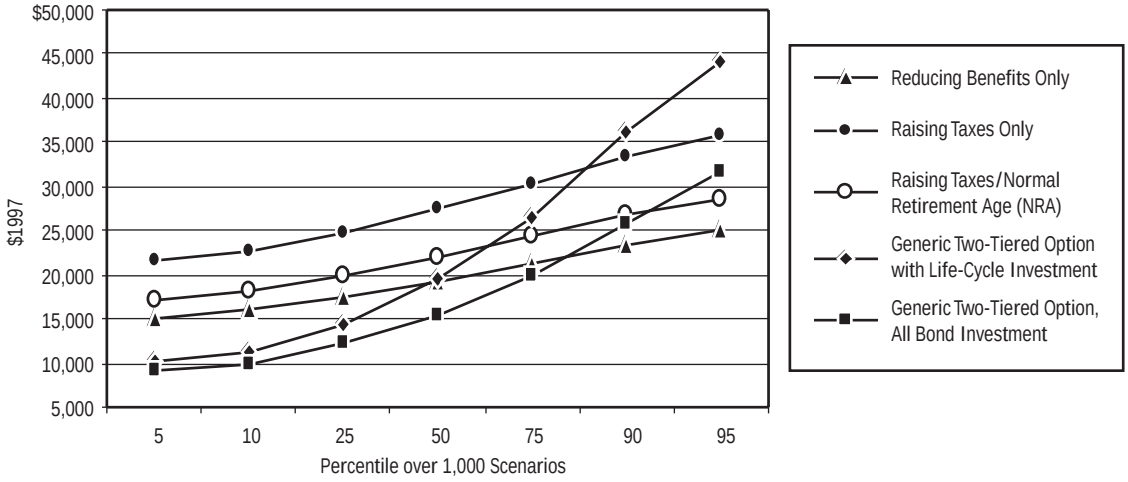



Source: EBRI-SSASIM2 Policy Simulation Model.
Note: The mean for Raising Taxes Only is $23,003, with a standard deviation of $1,952. The mean for Raising Taxes/NRA is $21,464, with a standard deviation of $1,818. The mean for Reducing Benefits Only is $16,252, with a standard deviation of $1,383. The mean for the Two-Tiered Option with Life-Cycle Investment is $23,795, with a standard deviation of $13,956. The mean for the Two-Tiered Option, All Bond Investment is $17,715, with a standard deviation of $7,128.

While not of the same magnitude, there is also considerable upward slope under the Two-Tiered Option, All Bond Investment. In comparison, less risk exists in projections for the more traditional reforms of Reducing Benefits Only, Raising Taxes Only, and Raising Taxes/NRA. While benefits are not likely ever to fall as low under these traditional reforms as under the worst-case sce-

Chart A.5

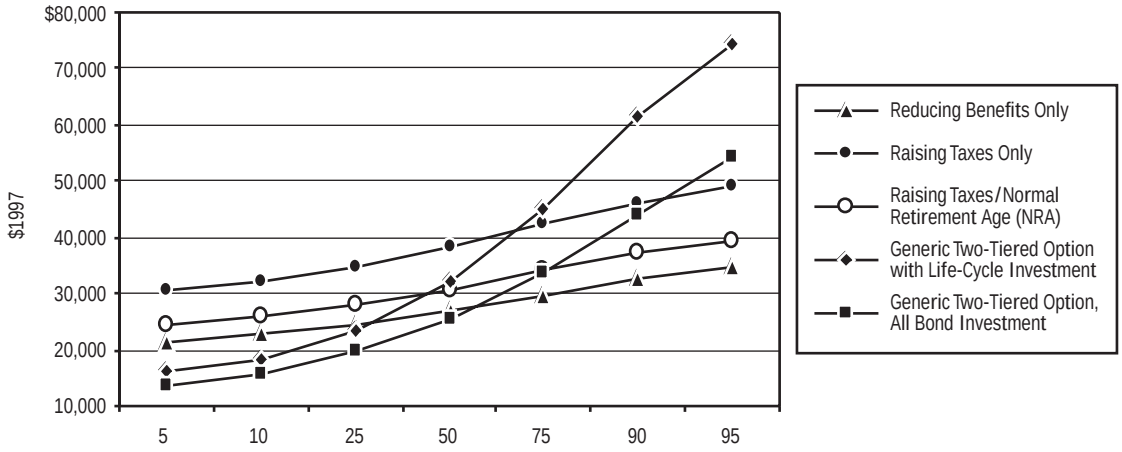
**Average[a] Percentile Distributions of Annual Real Benefits for a Woman Born in 2026 under Five Reforms**




Source: EBRI-SSASIM2 Policy Simulation Model.
Note: The mean for Raising Taxes Only is $27,822, with a standard deviation of $4,295. The mean for Raising Taxes/NRA is $22,300, with a standard deviation of $3,436. The mean for Reducing Benefits Only is $19,578, with a standard deviation of $3,012. The mean for the Two-Tiered Option with Life-Cycle Investment is $22,345, with a standard deviation of $11,870. The mean for the Two-Tiered Option, All Bond Investment is $17,124, with a standard deviation of $7,552.
[a]Average over 1,000 scenarios.

Chart A.6

**Average[a] Percentile Distributions of Annual Real Benefits for a Man Born in 2026 under Five Reforms**




Source: EBRI-SSASIM2 Policy Simulation Model.
Note: The mean for Raising Taxes Only is $38,922, with a standard deviation of $5,667. The mean for Raising Taxes/NRA is $31,203, with a standard deviation of $4,540. The mean for Reducing Benefits Only is $27,398, with a standard deviation of $3,983. The mean for the Two-Tiered Option with Life-Cycle Investment is $37,093, with a standard deviation of $20,024. The mean for the Two-Tiered Option, All Bond Investment is $28,547, with a standard deviation of $13,498.
[a]Average over 1,000 scenarios.

nario for the two-tiered options, the tradeoff is that benefits under the traditional reforms do not have the same probability of rising as high. Comparison of benefits under policies with different risk levels must take into account not only average benefit probabilities but also the degree of risk aversion policymakers believe is appropriate in pursuing those probabilities through reform.

## Risk-Adjusted Benefits

Because EBRI-SSASIM2 quantifies the amount of risk inherent in different reform approaches, benefits under different Social Security policies can be risk adjusted. Risk adjustment allows identification of the type of tradeoff between risks and returns that have long been identified through quantitative techniques in the financial community but rarely in the world of policymaking. Higher assumed degrees of risk aversion correspond to greater concern for variability (i.e., uncertainty) in projections.

It is unclear what the appropriate degree of risk aversion should be for assessing the relative merits of Social Security reforms. Therefore, the risk aversion parameters illustrated in tables A.5 and A.6 cover a wide range of attitudes toward risk, from risk neutral to a highly unlikely degree of risk aversion (risk aversion equals 3.5).[37] A risk-averse individual (anyone with a risk aversion level greater than 0) penalizes the expected rate of return on a portfolio by a certain percentage to account for the risk involved. The greater the individual's risk aversion, the larger his or her risk aversion level will be and hence the larger the penalty he or she will assign to increased uncertainty. Hence, the higher one's degree of risk aversion, the lower one will rate a reform involving risk. Because the Two-Tiered Option with Life-Cycle Investment has the highest degree of associated market risk, the relative advantage of this individual account system decreases as the risk aversion level increases in tables 5 and 6 due to increasing penalties assigned to market risk.[38]

Table A.5 has been constructed such that if the values are positive, the Two-Tiered Option with Life-Cycle Investment has an advantage in terms of annual real benefits relative to Raising Taxes Only. If values are negative, then the Raising Taxes Only option provides higher relative benefits. The higher the negative number, the more advantage that Raising Taxes Only has compared with the Two-Tiered Option with Life-Cycle Investment.

Results calculated under the assumption of risk neutrality (column 0.0) indicate that a man born in 2026 would receive average annual real benefits from the Two-Tiered Option with Life-Cycle Investment that are 5 percent lower than under Raising Taxes Only. Women of both cohorts would receive lower benefits (16 percent and 20 percent) under the Two-Tiered Option with Life-Cycle Investment. Conversely, a man born in 1976 would receive, on average, 3 percent more in real annual benefits under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only.[39] However, as one moves into a perspective of higher risk aversion for Social Security policy, the advantage of the Two-Tiered Option with Life-Cycle Investment for a man in the 1976 birth cohort wanes. By moving to a risk aversion level of 0.5, a male born in 1976 no longer receives the highest average adjusted benefits under the generic Two-

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*[37] Under the power expected utility function used in this analysis, a risk aversion level of 2.0 implies that one would be willing to pay a premium of approximately 2 percent of a dollar amount to insure against a 2 percent risk of losing one-half of the dollar amount. Compared with someone who is risk neutral (a risk aversion level of 0) and therefore willing to pay only the actuarial value of that loss (1 percent), this risk-averse individual would be willing to pay an insurance premium approximately twice the expected value of the loss. As the risk aversion level increases, the maximum insurance premium that the individual would be willing to pay increases correspondingly. For a more complete explanation of risk aversion and utility levels see Zvi Bodie, Alex Kane, and Alan J. Marcus,* Investments*, Third edition (Chicago, IL: Richard D. Irwin, forthcoming).*

*[38] Market risk is not the only type of risk involved in the Social Security reforms modeled in this report; political risk is also a factor. Unfortunately, this type of risk does not as easily lend itself to quantitative analysis.*

*[39] Data in the 0.0 column of tables A.5 and A.6 are different from percentage differences one would obtain from calculations based on the data in tables A.2 and A.3. This is because calculations in tables A.2 and A.3 and tables A.5 and A.6 data have been rounded. Calculations based on two rounded benefit numbers from tables A.2 and A.3 are not directly comparable with the data in tables A.5 and A.6, which have also been rounded for presentation purposes. The rounding used in this report does not affect the direction of the data (positive or negative), nor does it substantially alter the magnitude of results. In addition, calculations are different because tables A.2 and A.3 are based on means over 1,000 scenarios, and tables A.5 and A.6 are based on means of differences over 1,000 scenarios.*

Table A.5
**Risk-Adjusted Average[a] Annual Real Benefits: Advantage of a Two-Tiered Option Assuming Life-Cycle Investment versus Funding the Current System (Raising Taxes Only)**

| Gender and Birth Year | Risk-Neutral ← Degree of Risk Aversion → Risk-Averse | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 |
| Man, 1976 | +3% | –2% | –7% | –11% | –15% | –18% | –21% | –23% |
| Woman, 1976 | –16 | –20 | –24 | –27 | –29 | –32 | –34 | –36 |
| Man, 2026 | –5 | –10 | –14 | –18 | –22 | –25 | –28 | –31 |
| Woman, 2026 | –20 | –24 | –27 | –30 | –33 | –36 | –38 | –40 |

Source: EBRI tabulations of results from the EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.

Tiered Option with Life-Cycle Investment. That is, the positive sign in the 0.0 (risk-neutral) column becomes a negative sign at the 0.5 level. As one moves into higher degrees of risk aversion, the values become more negative (e.g., from –2 percent at 0.5 for men born in 1976 to –23 percent at the 3.5 level).

In summary, risk adjustment of the average annual real benefits presented in table A.2 suggests that from a perspective of policymakers who are more risk averse (i.e., who believe Social Security policy should be made with the lowest levels of risk in real annual benefit projections), adjusted benefits under the Two-Tiered Option with Life-Cycle Investment are lower, on average, than those of more traditional reforms. Only at levels of lower risk aversion for the four age/gender cohorts are average adjusted annual benefits projections under the Two-Tiered Option with Life-Cycle Investment higher, and even then only for an average male born in 1976.

Payback ratio projections are presented in table A.6 similarly to the annual benefit projections presented in table A.5 such that if the values in the table are positive, then the Two-Tiered Option with Life-Cycle Investment has an advantage relative to Raising Taxes Only. If values are negative, Raising Taxes Only has an advantage. The higher the negative number, the less favorably the Two-Tiered Option with Life-Cycle Investment compares with Raising Taxes Only. Results in table A.6 indicate that the "average" male and female members of the 1976 birth cohort would receive an average of 9 percent and 25 percent lower payback ratios (–9 percent and –25 percent), respectively, under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only. Results also indicate that the more favorable payback ratios

Table A.6
**Risk-Adjusted Average[a] Payback Ratios: Advantage of a Two-Tiered Option Assuming Life-Cycle Investment versus Funding the Current System (Raising Taxes Only)**

| Gender and Birth Year | Risk-Neutral ← Degree of Risk Aversion → Risk-Averse | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 |
| Man, 1976 | –9% | –14% | –18% | –22% | –25% | –28% | –31% | –33% |
| Woman, 1976 | –25 | –29 | –32 | –35 | –38 | –40 | –42 | –43 |
| Man, 2026 | +63 | +54 | +46 | +39 | +33 | +28 | +23 | +18 |
| Woman, 2026 | +39 | +32 | +26 | +20 | +15 | +11 | +7 | +4 |

Source: EBRI tabulations of results from the EBRI-SSASIM2 Policy Simulation Model.
[a] Over 1,000 scenarios.

Table A.7
**Benefits and Payback Ratios under Three Generic Reforms for Different Hypothetical Men Born in 1976**

| | Raising Taxes Only (i.e., Funding the Current System) | | Two-Tiered Option with Life-Cycle Investment | | Two-Tiered Option, All Bond Investment | |
|---|---|---|---|---|---|---|
| | Average[a] annual real benefits ($1997) | Payback ratios | Average[a] annual real benefits ($1997) | Payback ratios | Average [a] annual real benefits ($1997) | Payback ratios |
| Average Man[b] | $23,003 | 77 | $23,795 | 66 | $17,715 | 47 |
| Working Poor Man | 12,506 | 111 | 10,040 | 74 | 7,720 | 54 |
| Man with Average Life Expectancy + Five Years[b] | 23,215 | 94 | 23,851 | 81 | 17,771 | 57 |
| Maximum Taxable Wage-Earner (Man) | 27,265 | 55 | 37,360 | 63 | 28,859 | 41 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]One might initially expect that benefits for a person living five years longer would be identical to those of someone living only to the average age, given identical earnings records. However, because benefits are indexed to inflation, an extra five years will create slight differences in real benefits for these two participants.

projected under the two-tiered system for the 2026 cohort are relatively robust to risk-adjustment. Even at the extremes of risk-adjustment, the relative advantage for the two-tiered system remains. This means that for even those policymakers who believe Social Security policy should be made with high levels of risk aversion, payback ratios are indisputably better for the "average" man and woman born in 2026 under the Two-Tiered Option with Life-Cycle Investment than under Raising Taxes Only.

## Variation Among Members of the Same Cohort

The foregoing results are averages for men and women earning the cohort-wide age and gender average wages steadily over their careers, retiring at age 67, and dying after reaching the gender and cohort-wide average life expectancy at the NRA. Just as variations in benefit results between the 1976 and 2026 cohorts are identified in the previous sections, this section identifies variations among members of the same cohort by projecting benefits for six additional individuals and comparing them against the benefit results above. Approxi-

Table A.8
**Benefits and Payback Ratios under Three Generic Reforms for Different Hypothetical Women Born in 1976**

| | Raising Taxes Only (i.e., Funding the Current System) | | Two-Tiered Option with Life-Cycle Investment | | Two-Tiered Option, All Bond Investment | |
|---|---|---|---|---|---|---|
| | Average[a] annual real benefits ($1997) | Payback ratios | Average[a] annual real benefits ($1997) | Payback ratios | Average [a] annual real benefits ($1997) | Payback ratios |
| Average Woman[b] | $16,455 | 106 | $13,945 | 75 | $10,397 | 53 |
| Working Poor Woman | 9,337 | 159 | 6,124 | 88 | 4,752 | 64 |
| Woman with Average Life Expectancy + Five Years[b] | 16,600 | 124 | 13,989 | 89 | 10,431 | 62 |
| Maximum Taxable Wage-Earner (Woman) | 27,164 | 67 | 32,039 | 67 | 22,702 | 44 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]One might initially expect that benefits for a person living five years longer would be identical to those of someone living only to the average age, given identical earnings records. However, because benefits are indexed to inflation, an extra five years will create slight differences in real benefits for these two participants.

Table A. 9
**Benefits and Payback Ratios under Three Generic Reforms for Different Hypothetical Men Born in 2026**

| | Raising Taxes Only (i.e., Funding the Current System) | | Two-Tiered Option with Life-Cycle Investment | | Two-Tiered Option, All Bond Investment | |
|---|---|---|---|---|---|---|
| | Average[a] annual real benefits ($1997) | Payback ratios | Average[a] annual real benefits ($1997) | Payback ratios | Average [a] annual real benefits ($1997) | Payback ratios |
| Average Man[b] | $38,922 | 69 | $37,093 | 105 | $28,547 | 76 |
| Working Poor Man | 21,151 | 99 | 15,785 | 118 | 12,506 | 89 |
| Man with Average Life Expectancy + 5 Years[b] | 39,268 | 81 | 37,193 | 123 | 28,637 | 89 |
| Maximum Taxable Wage-Earner (Man) | 46,062 | 49 | 58,835 | 100 | 41,9223 | 67 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]One might initially expect that benefits for a person living five years longer would be identical to those of someone living only to the average age, given identical earnings records. However, because benefits are indexed to inflation, an extra five years will create slight differences in real benefits for these two participants.

Table A.10
**Benefits and Payback Ratios under Three Generic Reforms for Different Hypothetical Women Born in 2026**

| | Raising Taxes Only (i.e., Funding the Current System) | | Two-Tiered Option with Life-Cycle Investment | | Two-Tiered Option, All Bond Investment | |
|---|---|---|---|---|---|---|
| | Average[a] annual real benefits ($1997) | Payback ratios | Average[a] annual real benefits ($1997) | Payback ratios | Average [a] annual real benefits ($1997) | Payback ratios |
| Average Woman [b] | $27,822 | 89 | $22,345 | 114 | $17,124 | 83 |
| Working Poor Woman | 15,774 | 132 | 9,873 | 134 | 7,865 | 102 |
| Woman with Average Life Expectancy + 5 years [b] | 28,068 | 101 | 22,412 | 132 | 17,191 | 95 |
| Maximum Taxable Wage-Earner (Woman) | 45,828 | 57 | 51,138 | 101 | 37,316 | 69 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]One might initially expect that benefits for a person living five years longer would be identical to those of someone living only to the average age, given identical earnings records. However, because benefits are indexed to inflation, an extra five years will create slight differences in real benefits for these two participants.

mations are made to simulate benefits for working poor males and females,[40] those persons living five years past the cohort-wide and gender-specific average life expectancy after reaching NRA,[41] and members of both genders who steadily earn at three times average earnings over their careers. Those earning at three times average earnings over their careers are modeled as a proxy for workers

*[40] The working poor are defined here as earning wages at exactly the poverty level steadily over their careers. In 1995, the poverty level was approximately 38 percent of the average annual earnings level of $20,537 [EBRI tabulations, U.S. Department of Health and Human Services, Social Security Administration (1996)]. This definition of the working poor assumes that the relationship between the poverty level and average wages will remain constant over time.*

*[41] A woman born in 1976 and living five years longer than her remaining life expectancy at the normal retirement age is assumed to die at age 94, while a man of the same cohort living an additional five years is expected to live to age 90. A woman born in the 2026 cohort and living five years longer than her gender and cohort remaining life expectancy at the NRA is assumed to die at age 97. Her male counterpart is assumed to die at age 94. As stated above, remaining life expectancy by gender and cohort is an output of the Model, generated stochastically and based on the Bureau of the Census' mid-range estimate.*

earning near or at the maximum taxable wage base over their lives.[42] Keep in mind that results in tables A.7 through A.10 are not risk-adjusted, thus painting the Two-Tiered Option with Life-Cycle Investment (which has the most market risk) in the best possible light relative to the other options. Had they been risk adjusted, values for the Two-Tiered Option would be lower than is shown in tables A.7 through A.10.

Although not risk adjusted, tables A.7 through A.10 highlight four recurring themes when comparing the reforms of Raising Taxes Only with the two-tiered options. The first is the lower amount of redistribution under the Two-Tiered Option with Life-Cycle Investment versus the current system (Raising Taxes Only). Of the men born in 1976 (table A.7), the only risk-neutral person who would do better under the traditional reform of Raising Taxes Only than under the Two-Tiered Option with Life-Cycle Investment is the working poor man.[43] This man would benefit more than the others from the redistributive nature of the current OASI program, which would be maintained under the traditional reforms and which would allow him to contribute smaller amounts over his working lifetime for proportionately larger benefits at retirement.

The second recurring theme in the comparison of the two-tiered options with Raising Taxes Only is that benefit projections under the Two-Tiered Option with Life-Cycle Investment favor the more affluent most. Of the men born in 1976 who are shown in table A.7, the only clear winner under the Two-Tiered Option with Life-Cycle Investment in terms of average payback ratios and annual real benefits is the man earning roughly at the maximum taxable wage base over his career. Under a traditional OASI system like Raising Taxes Only, a larger portion of this worker's lifetime program contributions would be redistributed to retirees with lower lifetime earnings.

Of the women modeled who were born in 1976 (table A.8), again the only clear winner under the Two-Tiered Option with Life-Cycle Investment in terms of annual benefits is the most affluent woman earning at or near the maximum taxable wage base steadily over her career. The "average" woman, the woman living five years beyond her life expectancy, and the working poor woman would all receive higher payback ratios under Raising Taxes Only than under the Two-Tiered Option with Life-Cycle Investment.

Although the clear winners under the Two-Tiered Option with Life-Cycle Investment in terms of payback ratios and replacement rates are again the man and woman earning steadily at the maximum taxable wage base over their working lifetimes (tables A.9 and A.10), results for individuals in the 2026 birth cohort show a slightly different theme: a tradeoff between payback ratios and annual benefits. For the "average," working poor, and longer-living men and women born in 2026, non-risk-adjusted average payback ratios are higher under the Two-Tiered Option with Life-Cycle Investment because it more closely links benefits to contributions. However, annual real benefits are higher under the Raising Taxes Only reform because tax/contribution rates are higher. Which reform is, on average, better for these persons therefore depends on one's view of the relative importance of higher benefits (and higher contributions) versus higher payback ratios (and lower contributions).

The fourth and final recurring theme in the comparison between the two-tiered options and Raising Taxes Only is that the lowest projected benefits for all groups tend to be those under a two-tiered system where investment of individual accounts is limited to Treasury bonds, whether due to system restrictions or to participant choice. The implication is that individual accounts, themselves, do not guarantee higher benefits and payback ratios for any group. It is the investment of those individual account funds in equities that could produce higher benefits for some under a two-tiered

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[42] *Persons earning steadily at three times the gender-cohort average are modeled as a proxy for workers who earn steadily at the maximum taxable wage base over their careers. In 1995, the maximum taxable wage base was $61,200 (U.S. Department of Health and Human Services, 1996), which was 2.98 times the average annual earnings level of $20,537 (U.S. Department of Labor).*

[43] *Some research (Yakoboski and VanDerhei, 1996) suggests that persons with lower incomes tend to invest more conservatively than others, suggesting that despite their low levels, the benefits projected under the Two-Tiered Option with Life-Cycle Investment for the working poor in these tables are unrealistically high.*

system, not the fact that the system is two-tiered, per se.

## ■ Macroeconomic Effects

### Saving Effects

Although changeable by the Model user, one of the EBRI-SSASIM2 Policy Simulation Model's baseline assumptions is that increased saving or dissaving (i.e., spending or borrowing) under any reform has direct and indirect effects on other forms of saving. One way that Social Security affects national saving is through its trust fund surplus. Under the baseline assumptions, an increase in the trust fund surplus translates directly into a change in national saving.

The Model also allows two behavioral assumptions to be set to indirectly modify this direct saving effect. First, a parameter can be set to assume that a change in the OASDI trust funds affects the non-OASDI federal surplus. This parameter is set to zero under the baseline assumptions, such that the federal political process is assumed not to make decisions about federal spending or taxing based on a change in the Social Security surplus. The second indirect effect is the reaction of all nonfederal entities such as households, businesses, and state and local governments[44] to a change in the federal government's budget surplus. Under the baseline assumptions, if the federal budget surplus rises by $1, state and local governments, households, and/or businesses are assumed to react by saving 50 cents less. Conversely, if the federal budget surplus declines by $1, state and local governments, households, and/or businesses are assumed to react by saving 50 cents more.

Chart A.7 shows that the combined impact of these direct and indirect effects under the baseline assumptions is the projection of steadily rising national saving rates under the generic Two-Tiered Option with Life-Cycle Investment. These rates are projected to peak at 19.51 percent in 2020. Program income falls after the transition tax is paid off in 2040, and as a result, saving rates under the Two-Tiered Option with Life-Cycle Investment also drop. However, even by 2070, national saving rates under this system are projected to be 17.41 percent of GDP, as compared with 15 percent to 16 percent of GDP under the traditional reforms of Raising Taxes Only, Raising Taxes/NRA, and Reducing Benefits Only.

Four factors explain the rise in national saving rates[45] under the two-tiered system relative

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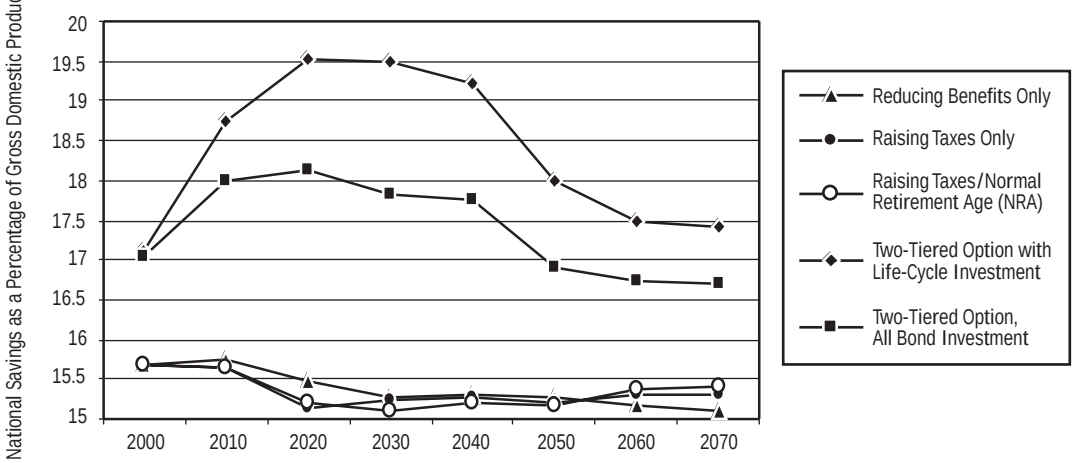
*[44] One way that households, businesses, and state and local governments may save is through retirement plans.*

*[45] For information on the savings-offset assumptions used in the Model, see Holmer (1997b).*

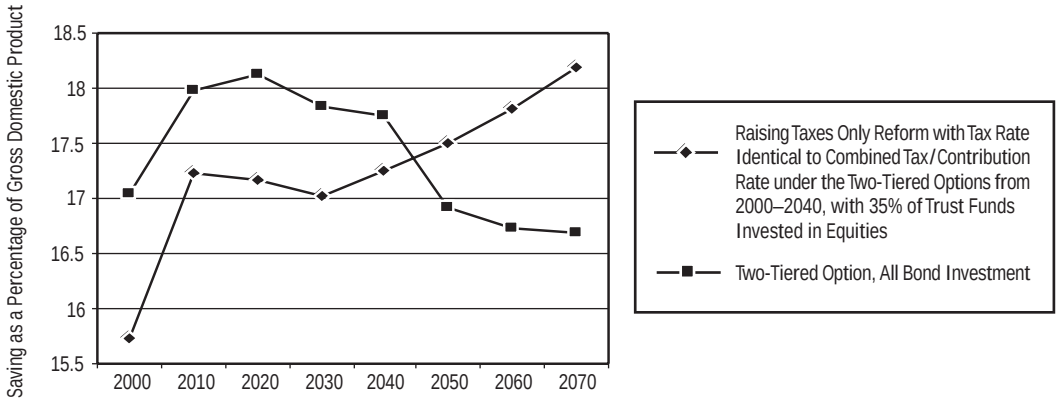
Chart A.7

**Average[a] National Savings Effects of Five Reforms**




Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Average over 1,000 scenarios.

Chart A.8
**Savings Effects under a Two-Tiered Option, All Bond Investment versus a Reform That Raises Taxes Only to Fund the Current System**




Source: EBRI-SSASIM2 Policy Simulation Model.

to the traditional reforms. First, saving rates decline slightly under the traditional reforms due to the drawing down of the OASI trust funds to pay benefits, which does not occur under the two-tiered options because defined benefit obligations are steadily decreased to 30 percent of their current levels from 2000 to 2040. Second, over 75 years, the two-tiered options are projected to be more expensive than the Raising Taxes/NRA and Reducing Benefits Only reforms, with a combined tax/contribution rate of 14.29 percent of taxable payroll, compared with 13.75 and 11.93, respectively (see section on Generic Reforms). Having more tax/contributions over a 75-year period means more revenue for boosting national saving rates.

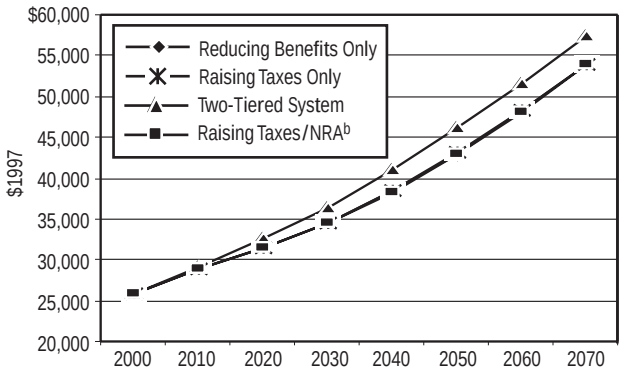
The final two explanations for higher saving projections under the two-tiered options relate to what is done with program contributions—not just how much is contributed. After all, the Two-Tiered Option with Life-Cycle Investment reform is projected to produce higher national saving effects than Raising Taxes Only, which is scheduled to have 0.23 percentage points higher contributions over 75 years. Hence, total contributions are only part of the saving story. Saving rates are also affected by the asset allocation of any program tax/contributions made in one year that are not immediately used to pay benefits. Because the Two-Tiered Option with Life-Cycle Investment is assumed to have part of this revenue invested in equities,[46] which are projected to produce higher returns than the Special Issue Treasury Bonds that traditional reforms must invest in by law, the Two-Tiered Option with Life Cycle Investment is projected to produce the highest saving rates.

Chart A.8 shows that even when Raising Taxes Only receives exactly the same tax/contribution rates from 2000 to 2040 as the Two-Tiered Option, All Bond Investment, it does not produce equal saving effects. Higher saving rates are projected under the Two-Tiered Option, All Bond Investment even when 35 percent of the trust funds under the Raising Taxes Only reform are invested in equities. Although saving for Raising Taxes Only jumps from 2000 to 2010 when equity investment begins, it does not reach the level of the Two-Tiered Option, All Bond Investment reform until after 2040. The saving differential before 2040 is a result of both higher benefit obligations under Raising Taxes Only and of more benefit prefunding under the Two-Tiered Option, All Bond Investment. The saving differential after 2040 is a result of different tax/contribution rates between the reforms. After sharing the same tax/contribution rates from 2000 to 2040 (shown in chart A.9), the Raising Taxes Only reform and the Two-Tiered Option, All Bond Investment reform return to the tax/contribution rates scheduled in the section on Contributions and Cost. This means that the Two-Tiered Option, All

[46] *See section on Generic Reforms for asset allocation assumptions under the Two-Tiered Option with Life-Cycle Investment.*

Bond Investment drops to a combined tax/contribution rate of 10.6 after 2040, and Raising Taxes Only climbs to 16.4 percent by 2060.

Chart A.9
**Average[a] Real Per Capita Gross Domestic Product ($1997) under Five Reforms**




Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Average over 1,000 scenarios.
[b]Normal retirement age.

## Per Capita GDP Effects

When saving rises under a given reform, the EBRI-SSASIM2 economic growth model assumes that additional domestic investment increases the capital stock and hence the level of national output.[47] Chart A.9 shows the real per capita GDP growth effects simulated by the EBRI-SSASIM2 Model from the saving rate effects shown in chart A.8. As indicated above, the Two-Tiered Option with Life-Cycle Investment is more likely to raise average saving rates not only because of its higher contribution/tax rates from 2000 through 2040 but because a portion of individual account contributions is invested in equities and prefunds future benefits (to a larger extent than the more traditional reforms, which are primarily pay-as-you-go). As a result, real per capita GDP is projected to be about $3,600 higher[48] by 2070 under the Two-Tiered Option with Life-Cycle Investment than under the three more traditional reforms (chart A.9).

### Earnings

The EBRI-SSASIM2 Policy Simulation Model assumes that an increase in national output translates into a somewhat smaller increase in aggregate earnings. The Model estimated that average earnings rise by about 8 percent under the Two-Tiered Option with Life-Cycle Investment.

If increasing growth and earnings is a goal for Social Security policy, policymakers and the public may be concerned with how this additional

*[47] EBRI-SSASIM2 utilizes a Cobb-Douglas production function that allows savings effects to be translated into GDP growth. For more information on the growth model, see Holmer (1997b).*

*[48] The Two-Tiered Option with Life Cycle Investment has a projected real per capita GDP that is $3,592 more than under Raising Taxes Only, $3,648 more than Reducing Benefits Only, and $3,592 more than Raising Taxes/NRA.*

Table A.11
**The Average[a] Benefits of Economic Growth for Preretirement Earnings, Men born in 1976**

| | More Traditional Reforms[b] | Two-Tiered Option with Life-Cycle Investment | Approximate Percent Difference[c] | Dollar Difference |
|---|---|---|---|---|
| Average Man | $ 48,500 | $ 52,458 | 7.5% | $ 3,958 |
| Working Poor Man | 18,400 | 19,909 | 7.6 | 1,409 |
| Man with Average Life Expectancy + Five Years | 48,500 | 52,466 | 7.6 | 3,966 |
| Maximum Taxable Wage-Earner (Man) | 145,700 | 157,518 | 7.5 | 11,818 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]Raising Taxes Only, Raising Taxes/Normal Retirement Age (NRA), and Reducing Benefits Only have almost identical effects on average preretirement earnings.
[c]Percent differences differ slightly as a result of rounding preretirement earnings figures, which has been done for presentation purposes.

Table A.12
**The Average[a] Benefits of Economic Growth for Preretirement Earnings, Women born in 1976**

| | More Traditional Reforms[b] | Two-Tiered Option with Life-Cycle Investment | Approximate Percent Difference[c] | Dollar Difference |
|---|---|---|---|---|
| Average Woman | $25,300 | $27,342 | 8.0% | $2,042 |
| Working Poor Woman | 9,600 | 10,379 | 8.0 | 779 |
| Woman with Average Life Expectancy + Five Years | 25,300 | 27,349 | 8.0 | 2,049 |
| Maximum Taxable Wage-Earner (Woman) | 76,000 | 82,118 | 8.1 | 6,118 |

Source: EBRI-SSASIM2 Policy Simulation Model.
[a]Over 1,000 scenarios.
[b]Raising Taxes Only, Raising Taxes/Normal Retirement Age (NRA), and Reducing Benefits Only have almost identical effects on average preretirement earnings.
[c] Percent differences differ slightly as a result of rounding preretirement earnings figures, which has been done for presentation purposes.

wealth is shared across income groups. Tables A.11 and A.12 illustrate the simple fact that an approximately 8 percent increase in preretirement earnings for all cohort members implies those with higher earnings would benefit most in total dollars from the positive effects of economic growth. Hence, while a man earning at the average wage would have $3,958 in higher preretirement earnings before retirement under the Two-Tiered Option with Life-Cycle Investment, his counterpart earning at the maximum taxable wage base would likely receive an average of $11,818 in higher preretirement earnings. Hence, even if the positive economic growth effects under this two-tiered system were shared equally as a percentage of income by all, the most gains would accrue to those in the upper income levels.

## Lifetime Average Earnings Plus Net Social Security Benefits

At this point in the report, the reader has been exposed to a number of different reforms and their projected costs, benefits, and policy tradeoffs. Table A.13 presents one way of synthesizing into a single number the effects of the following results shown above: (1) differing tax/contribution rates (see section on Contributions and Costs); (2) the different scheduled benefits payments and payback ratios (see section on Benefit Projections); and (3) different lifetime earnings resulting from different macroeconomic growth effects (see section on Macroeconomic Effects). Although a single measure of such a complex policy issue as Social Security reform is by no means conclusive concerning the relative desirability of different reform paths, such summary calculations are sometimes helpful in making comparisons when numerous considerations must be taken into account.

Using the results presented in this report, one is able to compute the present value[49] of

[49] *Lifetime earnings, lifetime benefits, and lifetime program taxes/contributions have been converted into present values. See footnote 35.*

Table A.13
**Lifetime Average Earnings Plus Net Social Security Benefits**

| | Reducing Benefits Only | Raising Taxes Only (Funding the Current System) as a Percentage of Reducing Benefits Only | Raising Taxes/NRA[a] as a Percentage of Reducing Benefits Only | Two-Tiered Option with Life-Cycle Investment as a Percentage of Reducing Benefits Only | Two-Tiered Option, All Bond Investment as a Percentage of Reducing Benefits Only |
|---|---|---|---|---|---|
| Male, 1976 | $3,809,675 (100%) | 102% | 101% | 94% | 92% |
| Female, 1976 | 2,409,633 (100%) | 103 | 102 | 92 | 91 |
| Male, 2026 | 6,476,447 (100%) | 97 | 96 | 98 | 97 |
| Female, 2026 | 4,077,858 (100%) | 98 | 97 | 97 | 95 |

Source: EBRI SSASIM2 Policy Simulation Model.
[a]Normal retirement age.

lifetime average earnings plus net Social Security benefits under the various generic reform options. To obtain these results, lifetime earnings are added to the lifetime program benefits from both the traditional (defined benefit) system and individual accounts. The present value of total lifetime program contributions, taking into account both individual account contributions, transition taxes, and/or taxes paid to the traditional system, was then subtracted. The resultant calculation is called "Average Earnings Plus Net Social Security Benefits."

Using Reducing Benefits Only as a baseline, results indicate that highest average lifetime earnings plus net Social Security benefits would accrue to the 1976 cohort under Raising Taxes Only, despite the higher average preretirement earnings projections presented in the section on Earnings under Macroeconomic Effects (tables A.11 and A.12). Under the Two-Tiered Option with Life-Cycle Investment, an average man born in 1976 is projected to receive 8 percentage points less in average earnings plus net Social Security benefits under the Two-Tiered Option with Life-Cycle Investment, and his female counterpart is projected to receive 11 percentage points less. However, for the 2026 cohort, highest lifetime average earnings plus net Social Security benefits are projected to be obtained under a Reducing Benefits Only reform. The average male of this cohort is projected to receive 3 percentage points more in lifetime average earnings plus net Social Security benefits under Reducing Benefits Only than under Raising Taxes Only, and the average female born in 2026 is projected to receive 3 percentage points more.

Unfortunately, the lifetime average earnings plus net Social Security benefit projections shown in table A.13 may not take into account the full costs of paying for a Social Security reform, because the Social Security program affects income taxes in many ways. For example, the trust fund balances that are drawn down to pay benefits under the traditional reforms modeled in this report depend on the federal government's ability to pay back funds it has borrowed from the Social Security trust funds. To pay these obligations, the federal government may have to raise income taxes. On the other hand, if a system of individual accounts were to provide lower than expected benefits for many retirees (because of below-expected average market performance, poor investment choice, or preretirement access to account balances, for example), more retirees could end up relying on welfare benefits such as Supplemental Security Income and Medicaid, which are financed by general tax revenues. If these programs became overburdened, income taxes might have to rise in order to accommodate the growing need.

Of course, any reform that would drive up the federal government's need for income could potentially be handled without an income tax increase. Spending in other areas could be reduced, increased government debt could be undertaken with its attendant interest obligations, or Social Security benefits could be reduced. While Social Security's effect on payroll taxes is determinable, how actual Social Security reform options would ultimately affect total lifetime consumable income is contingent on a myriad of future political and economic events.

## ■ Summary and Implications

Our results indicate that no reform option appears to be win-win for all groups in all aspects. That is, no reform is likely to be a policy panacea for the challenges facing this aging nation. Social Security reform will necessitate major policy tradeoffs. This section summarizes who wins and who loses (and how) under the types of reform options modeled in this report. The report has used key assumptions based on those used by the Social Security Trustees, with the exception of the mortality decline rate, which is based on the Census Bureau's mid-range assumptions. The results presented are based on these and hundreds of other baseline assumptions, which can be altered by the individual user of the EBRI-SSASIM2 Policy Simulation Model.

Assuming that partial privatization is administratively feasible, people born in 1976 would fare less well under the partially privatized system analyzed in this report relative to maintaining the current system with tax increases—even if they invested in a mixed (life cycle) portfolio of equities and bonds (assumed to yield a nominal investment return of 7.06 percent in the simulations utilized in this report). Because the current Social Security system is largely pay-as-you go,

most of what workers pay into the system funds today's benefits. These benefits have already been accrued. Unless Congress modifies the current statute, these benefits will have to be paid. Workers moving to a privatized system would have to pay "twice"—once for the benefits going to today's beneficiaries and again to their own individual Social Security accounts. Paying for this transition would give persons born in 1976—those persons scheduled to pay transition taxes over their entire working lives in this report—fewer benefits for their Social Security contributions (that is, lower "payback ratios") and lower average net lifetime earnings (when Social Security contributions are subtracted) than a reform that would "simply" raise taxes enough to pay for the current Social Security system. That is, the extra money that average workers born in 1976 would have to contribute to Social Security to make the transition to a partially privatized system offsets the extra expected returns that could be earned from individual Social Security accounts.

Because transition costs are expected to be fully paid by the time persons born in 2026 retire, some persons born in 2026 would win under a partially privatized system. However, the degree to which they would win is influenced by the extent to which they invest in equities and might not be that much even if they pursued a life-cycle asset allocation. On average, program taxes/contributions would be about 50 percent lower by 2060, and payback ratios would be much higher for average workers born in 2026 under the partially privatized system modeled in this report than under a reform that maintained the current system by raising taxes only. These same individuals would receive payback ratios much closer to those realized by more traditional reforms if they chose to invest very conservatively (for example, a portfolio consisting entirely of Treasury bonds that produces a nominal rate of return of 5.97 percent in our simulations.)

In exchange for higher payback ratios and lower program tax/contribution rates, average workers born in 2026 who adopt a life-cycle asset allocation would receive, on average, between $1,800 and $5,500 less in annual Social Security benefits under a partially privatized system than under a system that "simply" raises taxes to pay for the current Social Security program. In addition, the potential for market risk exists in any form of privatized system, especially if assets are invested in equities. Benefits under a partially privatized system could fall to the same levels as benefits under a reform that reduces benefits to maintain current tax rates, if not lower, if the participant invests in an extremely conservative fashion or if returns on equities are not as high as those expected based on historical market performance. And, unfortunately, results indicate that increased national savings under a partially privatized system would fail for many to make up for benefit reductions and/or increased risk, as lifetime average earnings plus net Social Security benefits would be just 1.3 percent higher for men born in 2026 and 1.7 percent *lower* for women under a partially privatized system with equity investment than they would be if taxes were raised to fund today's Social Security program.

Who would benefit most from a partially privatized Social Security system? Results indicate that any system that relies more on individual accounts (which closely connect benefits with contributions and investment returns) and relies less on the traditional defined benefit system (which redistributes income from high to low wage earners) will disproportionately benefit higher wage earners. If they invested in a mixed (life-cycle) portfolio of Treasury bonds and equities, higher wage earners would do better under partial privatization than under any of the traditional reforms modeled in this report in terms of both annual benefits and payback ratios on program contributions. Given their higher levels of wealth, higher wage earners would also, on average, stand to gain most in total dollars from the beneficial effects of economic growth that are projected to arise from a partially privatized system.

Who is worst off in terms of annual benefits under partial privatization relative to a funded current system? Those with lower earnings or less attachment to the labor force, such as low-income workers and women with average earnings—even if they were to invest in a mixed portfolio that is expected to generate a higher rate of return—would receive lower annual benefits under a partially privatized system. The working poor (defined as those earning at the poverty level over their entire working lives) would also receive lower payback ratios for their Social Security contributions, as

would average women born in 1976. For lower-income earners, the returns that could be obtained by investing individual Social Security accounts partially in equities would not, on average, compensate for the additional costs of transition taxes and the reduced benefits from the current, redistributive system. In addition, lower-earning workers could be at higher risk of investing extremely conservatively and of falling into poverty if rates of return on individual account assets were below those expected based on historical averages.

Is raising taxes to fund the current system a better solution than partial privatization? Not necessarily, as funding the current system would require a 50 percent increase in Social Security (OASI) taxes by the year 2060. And, this reform would not produce the higher national saving and growth effects produced by the partially privatized system modeled in this report. Which reform is better also depends on one's view of the appropriate levels of risk, redistribution, guaranteed base benefits, and individual responsibility in the Social Security system (Olsen, VanDerhei, and Salisbury, 1997). In addition, questions of administrative feasibility and political risk (for both traditional and structural reforms) must be considered, along with the multitude of reform options that are a combination of raising taxes and/or reducing benefits (such as the NRA reform presented in this report) and/or introducing individual accounts, etc.

The simple overriding implication of this report's results, having been created under reasonable and widely accepted assumptions, is that all reform options involve tradeoffs and have winners and losers among generations and among members of the same generation. Identifying these tradeoffs is the first step in giving policymakers and the public the necessary information to engage in an informed public dialogue about the choices they are facing in preparing for the financial challenges confronting the Social Security system.

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Appendix
B

# *401(k) Plan Asset Allocation, Account Balances, and Loan Activity*

## by Jack VanDerhei, Russell Galer, Carol Quick, and John Rea, *EBRI Issue Brief*, January 1999

## ■ Executive Summary

The Employee Benefit Research Institute (EBRI) and the Investment Company Institute (ICI) have been collaborating for the past two years to collect data on participants in 401(k) plans. This effort, known as the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project, has obtained data for 401(k) plan participants from certain of EBRI and ICI sponsors and members serving as plan record keepers and administrators.

The report includes 1996 information on 6.6 million active participants in 27,762 plans holding nearly $246 billion in assets. The data include demographic information, annual contributions, plan balances, asset allocation, and loans, and are currently the most comprehensive source of information on individual plan participants. In 1996, the first year for which data are ready for analysis, the EBRI/ICI database appears to be broadly representative of the universe of 401(k) plans. Key findings include:

- For all participants, 44.0 percent of the total plan balance is invested in equity funds, 19.1 percent in employer stock, 15.1 percent in guaranteed investment contracts (GICs), 7.8 percent in balanced funds, 6.8 percent in bond funds, 5.4 percent in money funds, 0.8 percent in other stable value funds, and 1.0 percent in other or unidentified investments. This allocation implies that over two-thirds of plan balances are invested directly or indirectly in equity securities.

- Asset allocation varies with age. For instance, on average, individuals in their twenties invested 76.8 percent of their assets in equities and only 22.1 percent in fixed-income investments. By comparison, individuals in their sixties invested 53.2 percent of their assets in equities and 45.9 percent of assets in fixed-income investments.

- Investment options offered by 401(k) plans appear to influence asset allocation. For example, the addition of company stock substantially reduces the allocation to equity funds and the addition of GICs lowers allocations to bond and money funds.

- Employer contributions in the form of company stock affect participant allocation behavior. Participants in plans in which employer contributions are made in company stock appear to decrease allocations to equity funds and to increase the allocation of company stock in self-directed balances.

- The average account balance (net of plan loans) for all participants is $37,323. The balances, however, represent only amounts with current employers and do not include amounts remaining in the plans of prior employers. Nor do the balances indicate what savings would be in a "mature" 401(k) plan program.

- The average balances of older workers with long tenure at one employer indicate that a mature 401(k) plan program will produce substantial account balances. For example, individuals in their sixties with at least 30 years of tenure have average account balances in excess of $156,000; those in their fifties have balances in excess of $117,000.

## Introduction

During the past two decades, 401(k) retirement plans have become a significant part of the private pension system and an important component of the retirement security of many American workers. In these plans, participants are typically responsible for investing contributions made to their 401(k) accounts. As a consequence, future retirement incomes of a large and growing number of workers now depend upon their investment decisions.

This aspect of 401(k) plans, along with their rapid growth, has raised interest in the investment decisions made by plan participants. Information on these decisions, as well as other aspects of participant activity in 401(k) plans, is limited and, to date, has not been sufficient to study participant asset allocation. The lack of data reflects the relatively recent origin of 401(k) plans and the difficulty of collecting comprehensive information on 401(k) plan participants.

To fill this void and to enhance understanding of the contribution of 401(k) plans to retirement security, EBRI[1] and ICI[2] have collaborated over the past two years in the collection of data on participants in 401(k) plans. In this collaborative effort, known as the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project, EBRI and ICI have obtained data for 401(k) plan participants from certain of their sponsors and members serving as plan record keepers and administrators. The data include demographic information, annual contributions, plan balances, asset allocation, and loans. In 1996, the first year for which data are ready for analysis, the EBRI/ICI database appears to be broadly representative of the universe of 401(k) plans. Furthermore, it is by far the most comprehensive source of information on individual plan participants.

The purpose of this paper is to report the initial findings from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. The report includes 1996 information on 6.6 million active participants in 27,762 plans holding nearly $246 billion in assets. Updates for subsequent years will be provided as data become available.

## Summary

The analysis of the 1996 data focuses on asset allocation, plan balances, and loan activity. The principal findings are as follows:

### Asset Allocation

- For all participants in the database, 44.0 percent of the total plan balance[3] is invested in equity funds, 19.1 percent in employer stock, 15.1 percent in guaranteed investment contracts (GICs), 7.8 percent in balanced funds, 6.8 percent in bond funds, 5.4 percent in money funds, 0.8 percent in other stable value funds, and 1.0 percent in other or unidentified investments. This allocation implies that more than two-thirds of plan balances are invested directly or indirectly in equity securities.[4]
- Asset allocation varies with age. Younger participants tend to be more concentrated in stock-related investments, whereas older participants are more heavily invested in fixed-income assets. For example, the average share held in stocks through equity funds, company stock, and balanced funds declines from 76.8 percent for participants in their twenties to 53.2 percent for participants in their sixties. In contrast, fixed-income investments rise from 22.1 percent for participants in their twenties to 45.9 percent for participants in their sixties.

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*[1] The Employee Benefit Research Institute is a nonprofit, nonpartisan, public policy research organization which does not lobby or take positions on legislative proposals.*

*[2] The Investment Company Institute is the national association of the American investment company industry. Its membership includes 7,373 open-end investment companies ("mutual funds"), 450 closed-end investment companies, and nine sponsors of unit investment trusts. Its mutual fund members have assets of about $5.061 trillion, accounting for approximately 95 percent of total industry assets, and have more than 62 million individual shareholders.*

*[3] The plan balance includes assets from both employee and employer contributions.*

*[4] This figure is computed by combining equity funds, employer stock, and the equity portion of balanced funds. The latter is based upon the portfolio composition of balanced mutual funds, which typically hold 60 percent of assets in equity securities. See Investment Company Institute, Quarterly Supplemental Data.*

More specifically, younger participants hold more of their account balances in equity funds than older participants, who tend to invest more heavily in GICs and bond funds. The trend is less true for employer stock.

- Investment options offered by 401(k) plans appear to influence asset allocation. Plans offering only the options of equity, bond, balanced, and money funds tend to have the highest allocations in equity funds. The addition of company stock to these options substantially reduces the allocation to equity funds. The addition of GICs to the four options lowers allocations to all other investment options, with the greatest effect on bond and money funds.
- Employer contributions in the form of company stock affect participant allocation behavior. Participants in plans in which employer contributions are made in company stock appear to decrease allocations to equity funds and to increase the allocation of company stock in self-directed balances. In these plans, the average concentration in company stock from both employer-directed and participant-directed investments combined exceeds 50 percent of total plan balances for all age groups younger than 60.
- The allocation of plan balances to equity funds varies from participant to participant. For example, 24.5 percent of the participants have more than 80 percent of their plan balances invested in equity funds, whereas 6.9 percent have less than 20 percent allocated to equity funds and 30.6 percent hold no equity funds at all. However, of those with no investments in equity funds, more than one-half hold either employer stock or balanced funds. As a result, overall equity-related investments of those holding no equity funds are 38.5 percent of plan balances.

## Account Balances

- The average account balance (net of plan loans) for all participants is $37,323, and the median balance is $11,600. Reported account balances do not reflect additional retirement savings held in predecessor plans or rolled over into individual retirement accounts (IRAs).
- Nearly one-half of the participants have account balances with their current employer of less than $10,000, while nearly 10 percent have balances in excess of $100,000. Those individuals with balances less than $10,000 are primarily young workers or workers with short tenure with their current employer. In contrast, those with balances in excess of $100,000 are older workers with long tenure. Approximately one out of every four participants in their sixties had an account balance with his or her current employer in excess of $100,000. Similarly, approximately 31 percent of workers with 20 or more years of tenure with their current employer had account balances in excess of $100,000.

## Plan Loans

- Fifty-two percent of the plans, accounting for 70 percent of the participants, offered loans to plan participants. Among participants eligible for loans, only 18 percent had loans outstanding at year-end 1996.
- The borrowing of plan balances varies by age, tenure, and account balance. Individuals between the ages of 30 and 59 are more likely to have a loan outstanding than younger or older workers. Similarly, participants with short or long periods of tenure tend to borrow with less frequency than other participants. Finally, participants having plan balances less than $10,000 tend to borrow less frequently.
- For those with outstanding loans at the end of 1996, the level of the unpaid balance was 16 percent of the net account balance.

The remainder of the paper is organized as follows. The next section discusses the growth and development of 401(k) plans and describes their principal features. The following section provides a detailed description of the EBRI/ICI 401(k) database and compares the 1996 data with the universe of plans. It also contrasts the EBRI/ICI database with other data sources used to examine participant activity in 401(k) plans.

The next three sections provide the initial findings from the database. They begin with a section that examines asset allocation among 401(k) plan participants. Asset allocations are presented by age and investment option, and the effect of employer-directed contributions on investment patterns also is examined. In addition, the

distribution of equity fund allocations across participants is analyzed, with special attention given to those participants holding no equity funds.

The following section examines plan balances and considers the extent to which the balance depends upon age and tenure. The final section documents availability of plan loans. Characteristics of participants with outstanding loans also are analyzed.

## ■ 401(k) Plan Development

### Expansion of 401(k) Plans

During the past two decades, 401(k) plans have been the primary source of the growth in the private pension system. The overall number of private plans increased from 489,000 in 1980 to 690,000 in 1994, the latest year for which data from the Department of Labor are available (U.S. Department of Labor, 1998). During the same period, the number of 401(k) plans, which were authorized in legislation passed by Congress in 1978, increased from virtually zero to 155,000. Thus, 401(k) plans accounted for approximately 77 percent of the net increase in all private pension plans.

Similarly, 401(k) plans accounted principally for the growth in the number of participants and assets in private-sector plans. By 1994, the portion of active participants in 401(k) plans had increased to 39 percent of the total for all plans, while the 401(k) portion of total plan assets had grown to 29 percent. Contributions into 401(k) plans rose sharply, accounting for nearly 53 percent of all new contributions in 1994.

### Features of 401(k) Plans

In a typical 401(k) plan, an employee contributes a portion of his or her salary to a plan account and determines how the assets in the account are invested. The employer typically selects the investment options available to the employee.[5] These options may include pooled equity, bond, and money funds, guaranteed investment contracts (GICs), and often the employer's equity. The employer also often either matches a portion of the employee's contribution or makes an annual contribution (as a percentage of salary) to each active participant's account. In many instances, the employer contribution is required to be invested in the employer's stock. Both the employee's and employer's contributions are made on a pre-tax basis, although some plans also permit the employee to make after-tax contributions. A plan may be designed to permit a participant to withdraw funds from his or her account for hardship or to borrow from the account.[6] Access to the account balance before retirement or separation, however, is restricted by regulation,[7] and loans from the account must typically be repaid within five years.

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[5] *The law permits a defined contribution plan to be established on a basis that allows employees to direct the investment of their own accounts. Under these plans, sponsors and other plan fiduciaries may be protected from potential liability for any losses that result from participant investment decisions, provided that participants are given the opportunity to exercise control over the assets in their individual accounts and can choose from a sufficiently broad range of investment alternatives that have materially different risk and return characteristics. See Sec. 404(c) of the Employee Retirement Income Security Act of 1974, as amended, and regulations issued thereunder.*

*Technological feasibility and additional regulatory clarification from the U.S. Department of Labor (DOL) in 1992 accelerated the formation of participant-directed plans under ERISA Sec. 404(c).*

[6] *Evidence indicates that the availability of loans increases participation rates. Plans that make loans available, as reflected in the findings from a recent U.S. General Accounting Office (1997a) report, have a higher proportion of employees participating in the plan, and participants in such plans contribute an average of 35 percent more to their accounts than participants in plans with no loan availability.*

*Loans, however, may lower account balances. The effect of borrowing on a participant's retirement income (assuming the loan is paid back) is a function of the rate of return that would have been realized if the plan assets had not been loaned out. If one assumes that (1) funds would have earned rates in excess of the borrowing rates had they not been loaned out, and (2) contribution rates are not affected by the existence of the loan, then the 401(k) account balance would be smaller as a result of the borrowing activity, even after the loan is paid back.*

[7] *The value of elective contributions in a 401(k) plan may be distributed only upon death, disability, separation from service, the termination of the plan (provided no successor plan other than an employee stock ownership plan (ESOP) or a simplified employee pension (SEP) plan is established), or certain sales of*

# The EBRI/ICI Database

## Source and Type of Data

Plan administrators that are either EBRI sponsors or ICI members provided records on active participants in 401(k) plans administered by these organizations in 1996. These administrators included mutual fund companies, insurance companies, and investment management companies. Records were encrypted to conceal the identity of employers and employees but were coded so that both could be followed in subsequent years.

Data provided for each participant included participant date of birth, from which an age cohort was assigned;[8] participant date of hire, from which a tenure range was assigned;[9] outstanding loan balance;[10] funds in participants' investment portfolios; and asset values attributed to those funds.[11] An asset category for each participant was determined by summing the participant's assets in all funds.[12]

Investment options have been grouped into nine broad asset classes. Equity funds consist of pooled investments primarily investing in stocks. These funds include mutual funds, bank collective trusts, life insurance separate accounts, and other pooled investments. Similarly, bond funds are any pooled account primarily invested in bonds, and balanced funds are pooled accounts invested in both stocks and bonds. Company stock is equity in the plan's sponsor (the employer). Money funds consist of those income funds designed to maintain a stable share price. Guaranteed investment contracts (GICs) are insurance company products for which the contribution window is followed by a "holding period," during which interest is credited at a rate guaranteed not to change during the life of the contract and during which withdrawals may be made at book value to provide plan benefits. Other stable value funds are synthetic GICs[13] or similar instruments. The "other fund" category was the residual for other investments such as real estate funds. The final category consists of funds that could not be identified.[14]

The data were received in varying formats from each of the data providers. Raw data from each provider were formatted in a standardized structure. Participant data from all data providers

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*businesses by the employer. Distributions of elective contributions will be permitted after the employee has attained age 59 1/2, or before this age in the case of a hardship. For hardship withdrawals, however, the amount available is limited to the elective contributions themselves; investment income on such contributions can be included only if it is earned before December 31, 1988 (for calendar year plans). If employer contributions have been included in the ADP (actual deferral percentage) test, only these contributions and investment income may be withdrawn if they were made or earned before the end of the last plan year ending before July 1, 1989.*

*[8] Those who are less than 18 years old have not been included in the analysis. Approximately 1 percent of the participants had a birth date that was missing.*

*[9] Approximately 17 percent of the total sample had a tenure range that was missing. In addition, one data provider supplied "years of participation" rather than tenure, and this was used as a proxy for tenure.*

*[10] Two of the data providers did not supply loan information. Data from these providers were excluded from the analysis of participant behavior with respect to loans.*

*[11] Plans with assets invested exclusively in company stock were excluded from the database under the assumption that they provided no participant direction in the investment of either employee or employer contributions. We assume that all other plans provide participant direction, at least with respect to the employee contributions. This appears to be a safe assumption in general because, according to survey data (KPMG Peat Marwick, 1998), 94 percent of plans (covering 92 percent of employees) intend to comply with ERISA sec. 404(c) regulations.*

*[12] Some, but not all, of the administrators provided data on incomes, marital status, gender, and withdrawals. The number of administrators with information on these variables in 1996 was not sufficient to allow inclusion of these variables and still maintain the confidentiality of providers. Thus, the current analysis does not consider these variables.*

*[13] A synthetic GIC consists of a portfolio of fixed-income securities, "wrapped" with a guarantee (typically by the insurance company or bank) to provide benefit payments according to the plan at book value.*

*[14] Some providers were unable to provide complete asset allocation detail on certain pooled asset classes for one or more of their clients. Any plan in which at least 90 percent of all plan assets could not be identified was excluded from the analysis.*

Table B.1
**Plans, Participants, Assets, and Average Account Balances, by Plan Size (measured in participants)**

| Plan Size | Total Plans | Total Participants | Total Assets | Average Assets |
|---|---|---|---|---|
| 1–10 | 6,770 | 43,790 | $ 789,854,771 | $18,037 |
| 11–25 | 7,643 | 128,472 | 2,008,569,886 | 15,634 |
| 26–50 | 4,594 | 164,091 | 2,832,514,218 | 17,262 |
| 51–100 | 3,261 | 231,939 | 4,988,806,516 | 21,509 |
| 101–250 | 2,592 | 403,178 | 8,921,837,003 | 22,129 |
| 251–500 | 1,162 | 404,798 | 10,422,328,074 | 25,747 |
| 501–1,000 | 697 | 496,358 | 13,956,922,190 | 28,119 |
| 1,001–2,500 | 586 | 910,378 | 28,042,850,005 | 30,804 |
| 2,501–5,000 | 241 | 845,642 | 32,126,231,300 | 37,990 |
| 5,001–10,000 | 125 | 860,392 | 32,621,053,291 | 37,914 |
| >10,000 | 91 | 2,112,700 | 109,687,279,283 | 51,918 |
| All | 27,762 | 6,601,738 | 246,398,246,538 | 37,323 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

were then combined into one data set for analysis. Plan-specific data were also combined into a second standardized-format data set. Checking each individual record would have been impossible; however, a variety of aggregated statistics for each administrator's plans was reviewed by the administrators to detect inaccuracies. This resulted in some modifications of plans included in the analysis as well as reclassification of asset categories.

## Distribution of Plans, Participants, and Assets by Plan Size

The 1996 database contains 27,762 401(k) plans with $246 billion of assets and 6,601,738 participants (table B.1). Measured against the universe of 401(k) plans, the 1996 database accounts for 9 percent of all plans, 18 percent of all participants, and 31 percent of all assets.[15]

Most of the plans in the database are small, whether measured by the number of plan participants or plan assets. For example, more than 50 percent of the plans have 25 or fewer participants, and another 28 percent fall within the range of 26 to 100 participants (table B.1). In contrast, only 4 percent of the plans have more than 1,000 participants. Similarly, nearly one-half the plans have assets less than $250,000, and another 28 percent have plan assets between $250,000 and $1,250,000 (table B.2).

Participants and assets, however, are concentrated in large plans. For example, 72 percent of the participants in the database are in plans with more than 1,000 participants, and these same plans account for 82 percent of all plan assets (table B.1).

## Relationship of Database Plans to the Universe of Plans

The distribution of participants, plans, and assets in the EBRI/ICI database for 1996 is similar to that reported for the universe of plans by Cerulli Associates (1998). For each of five plan size classifications, the share of the database's assets falling within those categories is very close to the share found in the universe for that size category (chart B.1). Similarly, the share of the database's participants and plans within these size categories is approximately the same as that in the universe.[16]

## Comparison With Other Participant-Level Databases

The EBRI/ICI database is the most comprehensive source of participant-level data on 401(k) plans to

[15] *Plans and participants represent 1997 estimates from Cerulli (1998), while assets are for 1996.*

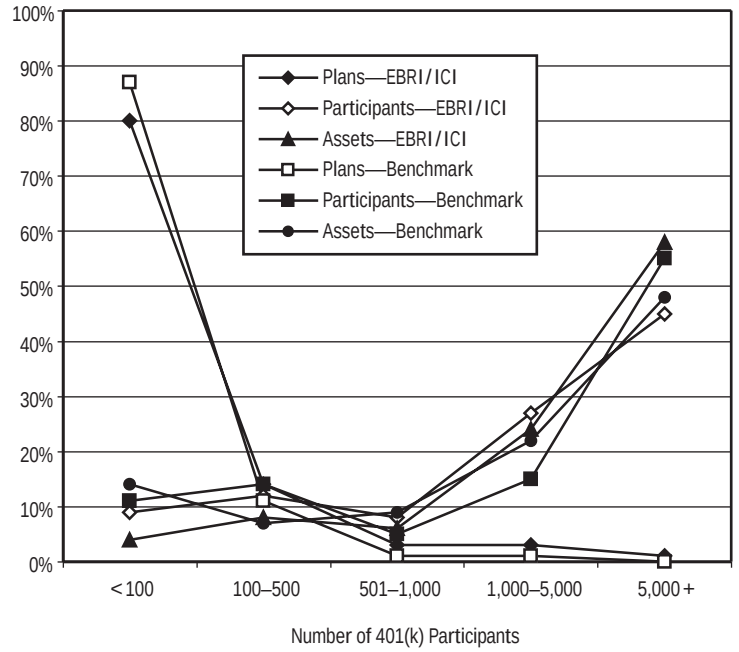
[16] *Conventional correlation statistics for the three pairs of data series are 99, 92, and 99 percent, respectively.*

Table B.2
**Plans, Participants, Assets, and Average Account Balances by Plan Size (measured in plan assets)**

| Plan Size (in total plan assets) | Total Plans | Total Participants | Total Assets | Average Account Balances |
|---|---|---|---|---|
| $0–$250,000 | 13,497 | 229,821 | $ 1,228,267,360 | $ 5,344 |
| $250,000–$625,000 | 4,838 | 180,623 | 1,947,420,421 | 10,782 |
| $625,000–$1,250,000 | 2,805 | 180,226 | 2,495,608,783 | 13,847 |
| $1,250,000–$2,500,000 | 2,087 | 234,874 | 3,711,420,947 | 15,802 |
| $2,500,000–$6,250,000 | 1,869 | 398,075 | 7,289,773,894 | 18,313 |
| $6,250,000–$12,500,000 | 959 | 417,069 | 8,376,238,006 | 20,084 |
| $12,500,000–$25,000,000 | 608 | 482,157 | 10,716,660,204 | 22,226 |
| $25,000,000–$62,500,000 | 557 | 786,662 | 21,999,382,551 | 27,965 |
| $62,500,000–$125,000,000 | 248 | 727,182 | 21,839,715,621 | 30,033 |
| $125,000,000–$250,000,000 | 141 | 630,730 | 23,946,646,100 | 37,967 |
| > $250,000,000 | 153 | 2,334,319 | 142,847,112,650 | 61,194 |
| All | 27,762 | 6,601,738 | 246,398,246,538 | 37,323 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.1
**Benchmarking Results: EBRI/ICI vs. Cerulli (1998)**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

date. Indeed, only three research projects have used administrative records;[17] much of the research has used aggregate 401(k) plan data.[18] Among those using administrative records, Goodfellow and Schieber (1997) investigated the investment elections of 36,000 participants in 24 401(k) plans. The total number of participants in the plans analyzed in their study ranged from around 150 to 6,000.[19] In addition, Yakoboski and VanDerhei (1996) analyzed the asset allocation decisions of 401(k) plan participants working for three large employers (AT&T, IBM Corporation, and New York Life Insurance Company) with a total of 180,000 employees. Finally, Hewitt Associates has developed an index to track the investment activity of 401(k) participants. This index is based upon 1.4 million 401(k) participants with approximately $62 billion in collective assets. Currently, this index reflects the experience of large corporations and does not provide any analysis of employee demographics.

Surveys of 401(k) participants have also been used to analyze participant activity and decision-making in 401(k) plans. One of the more frequently used is the Survey of Consumer Finances (SCF). The SCF is a stratified random sample of U.S. households and is administered by the Federal Reserve Board. Although the survey has the advantage of providing information on asset holdings outside the participant's 401(k) plan, it only asks the respondents to indicate plan asset allocations as "mostly in stock," "mostly in bonds," or "split between." Any analysis of this data therefore must either restrict itself to these three categories or utilize ad-hoc assumptions with respect to the actual distributions.[20]

In contrast to participant survey data, the EBRI/ICI database does not contain information about participant assets and income outside of the 401(k) plan. Nor does it contain information about defined benefit plans with the current employer or previous employers or information about spouses' income, assets, and retirement plans. Nonetheless, the broad scope of the EBRI/ICI database means that it offers the single best source of data for analyzing participant activity within 401(k) plans. Combined with the information from participant surveys, the EBRI/ICI database represents a significant step forward in understanding the role and contribution of 401(k) plans to retirement security.

## ■ Asset Allocation

### Average Asset Allocation by Age and Investment Options

Participants in the 401(k) plans in the 1996 EBRI/ICI database had, on average, 44.0 percent of their plan balance invested in equity funds, 19.1 percent invested in company stock, 15.1 percent in GICs, 7.8 percent in balanced funds, 6.8 percent in bond funds, 5.4 percent in money funds, and 0.8 percent in other stable value funds (chart B.2). A total of 0.4 percent was in other investments and 0.6 percent was in unidentified investments.[21] On the whole, approximately two-thirds of the plan balances were invested in equity securities, which represent the sum of the asset shares of equity funds, company stock, and the equity portion of balanced funds.

Participant asset allocation varies considerably with age (table B.3). Younger participants tend to invest a greater percentage of account

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*[17] Two other micro-level defined contribution databases have been analyzed but constitute different types of plans. Hinz, McCarthy, and Turner (1997) investigate asset allocations among Federal Thrift Savings Plan participants, and Ameriks, King, and Warshawsky (1997) perform a similar analysis on the TIAA-CREF population.*

*[18] A partial list of this research includes Buck Consultants (1997), Hewitt Associates (1997), Profit Sharing/401(k) Council of America (1997), KPMG Peat Marwick (1998), William M. Mercer (1997), Cerulli Associates, Inc. (1998).*

*[19] Some larger plan data were excluded because there were "strong financial incentives to invest in company stock." The year in which the data were collected was not identified; however, a subsequent publication (Clark, Goodfellow, Schieber, and Warsick, 1998) used data collected from 87 401(k) plans at the end of 1995.*

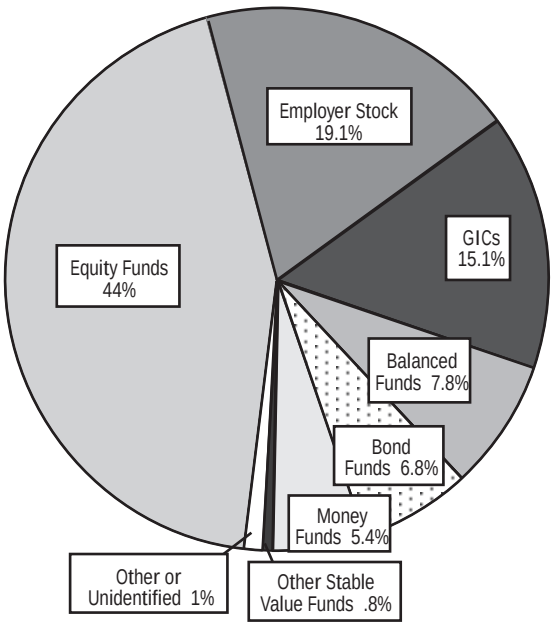
*[20] Papke (1998) uses the National Longitudinal Survey of Mature Women to analyze 232 participants in defined contribution plans. The reported investment choices, however, suffer the same constraints as the SCF.*

*[21] All asset allocation averages are expressed as a dollar-weighted average unless otherwise indicated.*

balances in equity funds; older participants are more disposed to invest in GICs. On average, participants in their twenties have 55.1 percent of their account balances in equity funds in contrast to 33.9 percent for those in their sixties. Participants in their twenties invest 7.8 percent of their account balance in GICs, and those in their sixties invest 26.1 percent. Company stock represents an average of 16.7 percent of the total account balance of participants in their twenties, rises to 21.1 percent for participants in their forties, and falls to 15.0 percent for those in their sixties.

The mix of investment options offered by a plan significantly affects asset allocation. Table B.4 shows four combinations of investment offerings, starting with a base group consisting of equity funds, bond funds, money funds, and balanced funds. Plans having just these four options have 61.6 percent invested in equity funds, 13.8 percent in balanced funds, 11.7 percent in bond funds, and 11.9 percent in money funds (panel A, line 1).[22] Adding GICs to the base group lowers the allocation in all four funds, but the greatest decrease is in bond and money funds (panel A, line 2). Thus, GICs appear to be a substitute for other types of fixed-income investments. In contrast, adding company stock to the base group produces the greatest reduction in the equity fund share (panel A, line 3). Finally, adding both GICs and company stock produces a combination of the two effects, with company stock likely displacing equity funds and GICs displacing other fixed-income investments (panel A, line 4).[23]

Chart B.2
**Asset Allocation for Total Plan Balances**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

## Asset Allocation of Employee and Employer Contributions

A participant's 401(k) plan balance reflects both the participant's and the employer's contributions to the account. Although most plans give the participant complete control over the allocation of assets from both sources, some do require that the employer's contribution be invested in employer

[22] *For convenience, minor investment options are not shown.*

[23] *A comparison of the four combinations of investment offerings by age (panels B–E) yields similar findings about the effect of investment options on asset allocation.*

Table B.3
**Asset Allocation, by Age**

| Age Cohort | Equity Funds | Bond Funds | Company Stock | Money Funds | Balanced Funds | GICs[a] | Other Stable Value Funds | Other | Unknown | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 20s | 55.1% | 5.8% | 16.7% | 5.2% | 8.3% | 7.8% | 0.1% | 0.8% | 0.3% | 100% |
| 30s | 51.2 | 5.6 | 19.6 | 4.8 | 8.1 | 9.0 | 0.4 | 0.6 | 0.6 | 100 |
| 40s | 46.2 | 6.0 | 21.1 | 5.2 | 8.0 | 12.0 | 0.6 | 0.5 | 0.6 | 100 |
| 50s | 42.5 | 7.0 | 19.5 | 5.3 | 7.8 | 16.1 | 0.9 | 0.4 | 0.6 | 100 |
| 60s | 33.9 | 9.2 | 15.0 | 6.1 | 7.2 | 26.1 | 1.6 | 0.3 | 0.6 | 100 |
| All | 44.0 | 6.8 | 19.1 | 5.4 | 7.8 | 15.1 | 0.8 | 0.4 | 0.6 | 100 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a]Guaranteed investment contracts.

stock. In such plans, the employee has discretion only over assets from his or her own contribution.

The existence of plans with employer-directed contributions suggests examining separately the allocation of participant-directed balances in these plans. Of particular interest is the extent to which participants in these plans adjust their holdings of self-directed investments in response to mandatory investments in employer stock.

Of those plans in the EBRI/ICI database for which the appropriate information is available,[24] less than 1 percent require employer contributions to be invested in company stock. This percentage is consistent with evidence found in surveys of plan sponsors. Most of the plans with this feature in the EBRI/ICI database, however, are large and thus a significantly higher 15 percent of employees and 25 percent of assets are in plans with employer-directed contributions.

The asset allocation of *participant-directed* balances in plans with employer contributions required to be invested in company stock differs markedly from that of participants in other plans. In particular, company stock represents 32.7 percent of the assets of participant-directed accounts in plans with such employer-directed contributions, compared with 19.9 percent in plans offering company stock as an investment option but not having employer-directed investments in company stock (table B.5, panels A and C). The tendency for these participants to elect to invest a higher share of the assets that they control in company stock holds not only for all participants but also for participants in different age groups.

Offsetting the higher allocation to company stock are lower shares of assets in all other types of plan investments. The share of assets held in equity funds and balanced funds differs the most from the shares in plans without employer-directed, matching contributions, but the asset shares of GICs, bond funds, and money funds are smaller as well (table B.5, panels A and C).

As a result, the overall exposure to equity through company stock and pooled investments is considerably higher for participants in plans with employer-directed contributions. For example, equity funds and company stock represent 68.7 percent of the self-directed assets of participants in plans with employer-directed contributions in company stock. For total

Table B.4
**Asset Allocation, by Age and Investment Menu**

| | Equity Funds | Balanced Funds | Bond Funds | Money Funds | GICs[a] | Company Stock |
|---|---|---|---|---|---|---|
| Investment Options | Panel A: All Ages Combined | | | | | |
| Equity, Bond, Money, & Balanced Funds | 61.60% | 13.80% | 11.70% | 11.90% | | |
| Equity, Bond, Money, & Balanced Funds & GICs[a] | 54.90 | 7.60 | 4.00 | 3.70 | 28.80% | |
| Equity, Bond, Money, & Balanced Funds & Company Stock | 38.80 | 5.10 | 8.10 | 7.90 | | 35.30% |
| Equity, Bond, Money, & Balanced Funds, GICs[a], & Company Stock | 31.60 | 6.90 | 5.40 | 1.70 | 23.50 | 30.30 |
| Age | Panel B: Plans With NO Company Stock or GICs[a] | | | | | |
| 20s | 68.70 | 12.00 | 8.70 | 9.50 | | |
| 30s | 67.60 | 12.90 | 9.30 | 9.10 | | |
| 40s | 63.90 | 14.00 | 10.70 | 10.40 | | |
| 50s | 59.70 | 14.30 | 12.50 | 12.40 | | |
| 60s | 49.70 | 14.60 | 17.60 | 17.30 | | |
| | Panel C: Plans With GICs[a] | | | | | |
| 20s | 65.20 | 7.10 | 4.30 | 3.20 | 18.40 | |
| 30s | 62.50 | 7.60 | 4.30 | 3.30 | 20.70 | |
| 40s | 58.00 | 8.00 | 4.10 | 3.60 | 25.10 | |
| 50s | 54.30 | 7.80 | 3.70 | 3.60 | 29.60 | |
| 60s | 43.10 | 6.50 | 3.70 | 4.30 | 41.70 | |
| | Panel D: Plans With Company Stock | | | | | |
| 20s | 43.10 | 5.70 | 7.60 | 6.60 | | 36.00 |
| 30s | 42.90 | 5.50 | 6.40 | 6.60 | | 35.50 |
| 40s | 39.50 | 5.20 | 7.00 | 7.40 | | 37.50 |
| 50s | 37.60 | 5.00 | 8.30 | 8.30 | | 35.50 |
| 60s | 34.60 | 4.80 | 11.60 | 9.70 | | 29.50 |
| | Panel E: Plans With Company Stock and GICs[a] | | | | | |
| 20s | 40.30 | 7.60 | 2.70 | 1.80 | 11.40 | 35.20 |
| 30s | 38.80 | 7.40 | 3.20 | 1.70 | 13.90 | 34.20 |
| 40s | 34.00 | 7.00 | 4.10 | 1.70 | 18.50 | 33.90 |
| 50s | 31.30 | 6.90 | 6.00 | 1.70 | 23.60 | 29.90 |
| 60s | 22.50 | 6.30 | 8.40 | 1.60 | 38.50 | 22.10 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: Minor investment options are not shown; therefore, row percentages will not add to 100 percent.
[a]Guaranteed investment contracts.

[24] *We were able to match the source of contributions with the fund information for a subset of the data providers in our sample.*

Table B.5
**Impact of Company Stock on Asset Allocations, by Age Cohort**

| Age Cohort | Equity Funds | Bond Funds | Company Stock | Money Funds | Balanced Funds | GICs[a] | Other Stable Value Funds | Other |
|---|---|---|---|---|---|---|---|---|
| | Panel A: Asset Allocation by Age Cohort for Participant-Directed Balances Only in Plans With Employer-Directed Contributions | | | | | | | |
| 20s | 47.3% | 1.0% | 35.3% | 2.0% | 6.1% | 8.1% | 0% | 0.1% |
| 30s | 44.7 | 1.5 | 34.0 | 3.1 | 7.1 | 9.4 | 0 | 0.2 |
| 40s | 37.2 | 2.5 | 35.2 | 6.4 | 7.3 | 11.1 | 0 | 0.3 |
| 50s | 33.1 | 3.2 | 33.2 | 7.2 | 7.5 | 15.4 | 0 | 0.4 |
| 60s | 31.7 | 3.0 | 26.1 | 8.2 | 6.6 | 23.7 | 0 | 0.7 |
| All | 36.0 | 2.6 | 32.7 | 6.5 | 7.2 | 14.6 | 0 | 0.4 |
| | Panel B: Asset Allocation by Age Cohort for Total Balances in Plans With Employer-Directed Contributions | | | | | | | |
| 20s | 30.4 | 0.7 | 58.3 | 1.3 | 3.9 | 5.4 | 0 | 0.1 |
| 30s | 27.5 | 1.0 | 59.4 | 1.9 | 4.3 | 5.8 | 0 | 0.1 |
| 40s | 23.6 | 1.6 | 58.9 | 4.0 | 4.6 | 7.1 | 0 | 0.2 |
| 50s | 23.1 | 2.2 | 53.5 | 4.9 | 5.2 | 10.9 | 0 | 0.3 |
| 60s | 25.1 | 2.3 | 41.4 | 6.4 | 5.2 | 19.0 | 0 | 0.6 |
| All | 24.3 | 1.8 | 54.6 | 4.3 | 4.8 | 9.9 | 0 | 0.3 |
| | Panel C: Asset Allocation by Age Cohort for Total Balances in Plans With a Company Stock Investment Option But No Employer-Directed Contributions | | | | | | | |
| 20s | 48.5 | 3.9 | 20.6 | 5.3 | 12.1 | 8.0 | 0.2 | 1.4 |
| 30s | 46.7 | 3.2 | 19.9 | 4.9 | 13.0 | 11.3 | 0.1 | 1.0 |
| 40s | 41.8 | 3.5 | 21.2 | 6.3 | 11.7 | 14.2 | 0.3 | 0.9 |
| 50s | 39.2 | 3.8 | 20.2 | 7.7 | 11.5 | 16.6 | 0.3 | 0.8 |
| 60s | 33.3 | 4.5 | 16.1 | 8.5 | 11.9 | 24.8 | 0.4 | 0.4 |
| All | 40.6 | 3.7 | 19.9 | 6.8 | 11.9 | 16.1 | 0.3 | 0.8 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a]Guaranteed investment contracts.

balances in these plans, the share is 78.9 percent (table B.5, panels A and B). By comparison, the combined share of equity funds and company stock is 60.5 percent in plans without employer-directed contributions (table B.5, panel C). The higher allocation to equity also holds across all age groups.

## Distribution of Equity Fund Allocations and Participant Exposure to Equities

Among individual participants, the share of assets allocated to equity funds varies widely around the average of 44.0 percent for all participants. A total of 30.6 percent of the participants held no equity funds at all, while 6.9 percent had less than 20 percent allocated to equity funds (table B.6). At the other extreme, 24.5 percent of the participants had more than 80 percent of the plan balances invested in equity funds. The remaining 38.0 percent had allocations in equity funds ranging between 20 percent and 80 percent.

The percentage of those holding no equity funds varies positively with age and tenure. Of those participants in their twenties, for example, 28.3 percent held no equity funds, compared with 46.2 percent of those in their sixties. Similarly, 24.5 percent of those with less than two years of tenure hold no equities, compared with 45.0 percent of those with more than 30 years of tenure.

The absence of equity fund holdings does not necessarily mean that a plan participant has no exposure to the stock market. Indeed, more than one-half of the individuals with no equity funds holdings had investments in either employer stock or balanced funds (table B.7).[25] For all participants

[25] *Age does not appear to be a significant variable, but the percentage investing in employer stock or balanced funds appears to be positively related to tenure.*

Table B.6
**Allocation Distribution of Participant Account Balances to Equities**

| | Zero | < 20% | 20%–80% | 80% + | Total |
|---|---|---|---|---|---|
| Total | 30.6% | 6.9% | 38.0% | 24.5% | 100.0% |
| Age | | | | | |
| 20s | 28.3 | 4.4 | 37.4 | 29.9 | 100.0 |
| 30s | 26.6 | 6.4 | 39.9 | 27.1 | 100.0 |
| 40s | 29.5 | 7.6 | 39.4 | 23.6 | 100.0 |
| 50s | 32.9 | 8.3 | 37.5 | 21.3 | 100.0 |
| 60s | 46.2 | 8.3 | 29.7 | 15.7 | 100.0 |
| Tenure | | | | | |
| 0–2 | 24.5 | 3.5 | 39.8 | 32.3 | 100.0 |
| 2–5 | 28.2 | 4.9 | 40.3 | 26.7 | 100.0 |
| 5–10 | 30.4 | 7.4 | 39.9 | 22.3 | 100.0 |
| 10–20 | 33.6 | 9.1 | 38.5 | 18.9 | 100.0 |
| 20–30 | 37.7 | 9.8 | 35.7 | 16.9 | 100.0 |
| > 30 | 45.0 | 9.3 | 30.5 | 15.2 | 100.0 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Table B.7
**Percentage of Participants With Zero Equities Who Have Exposure to Company Stock or to Balanced Funds**

| | Percentage With Company Stock and/or Balanced Funds |
|---|---|
| Age Cohort | |
| 20s | 44.7% |
| 30s | 53.1 |
| 40s | 55.6 |
| 50s | 56.1 |
| 60s | 45.3 |
| All | 52.1 |
| Tenure | |
| 0–2 | 40.0 |
| 2–5 | 42.8 |
| 5–10 | 45.9 |
| 10–20 | 55.6 |
| 20–30 | 58.9 |
| > 30 | 55.2 |
| All | 52.1 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project .

with no equity funds, 33.5 percent of assets was in company stock and 8.3 percent was in balanced funds (table B.8).

## Other Research on Asset Allocation

Form 5500, filed annually with the Internal Revenue Service by private pension plans, is a source of aggregate information on asset allocation in 401(k)-type plans. The accounts listed on the form, however, do not match those in the EBRI/ICI database and thus do not provide for a direct comparison. In addition, 1993 is the most recent year for which aggregate Form 5500 information is available on a basis in which pooled fund assets

Table B.8
**Asset Allocation Distribution for Participants With No Equities**

| | Equity Funds | Bond Funds | Company Stock | Money Funds | Balanced Funds | GICs[a] | Other Stable Value Funds | Other | Unknown | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Age Cohort | | | | | | | | | | |
| 20s | 0% | 9.5% | 36.3% | 16.8% | 11.8% | 22.4% | 0.2% | 2.4% | 0.6% | 100.0% |
| 30s | 0 | 8.8 | 40.2 | 13.5 | 10.2 | 23.1 | 1.0 | 2.0 | 1.1 | 100.0 |
| 40s | 0 | 9.0 | 40.1 | 11.7 | 9.2 | 26.6 | 1.2 | 1.2 | 0.9 | 100.0 |
| 50s | 0 | 10.5 | 34.9 | 11.2 | 8.1 | 32.0 | 1.6 | 0.8 | 0.9 | 100.0 |
| 60s | 0 | 12.3 | 22.8 | 9.9 | 6.7 | 44.3 | 2.8 | 0.5 | 0.8 | 100.0 |
| All | 0 | 10.3 | 33.5 | 11.8 | 8.3 | 32.5 | 1.7 | 1.0 | 0.9 | 100.0 |
| Tenure | | | | | | | | | | |
| 0–2 | 0 | 10.1 | 21.6 | 21.3 | 17.8 | 25.5 | 0.6 | 2.2 | 0.8 | 100.0 |
| 2–5 | 0 | 10.0 | 22.4 | 17.6 | 15.8 | 30.9 | 0.7 | 2.2 | 0.5 | 100.0 |
| 5–10 | 0 | 9.4 | 28.5 | 16.6 | 11.0 | 31.4 | 0.6 | 1.7 | 0.8 | 100.0 |
| 10–20 | 0 | 10.0 | 33.1 | 13.5 | 9.0 | 31.5 | 1.4 | 0.5 | 1.1 | 100.0 |
| 20–30 | 0 | 10.4 | 34.5 | 10.3 | 6.8 | 35.1 | 1.8 | 0.2 | 1.0 | 100.0 |
| > 30 | 0 | 14.9 | 27.0 | 6.9 | 5.4 | 40.9 | 3.7 | 0.0 | 1.1 | 100.0 |
| All | 0 | 10.3 | 33.5 | 11.8 | 8.3 | 32.5 | 1.7 | 1.0 | 0.9 | 100.0 |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a]Guaranteed investment contracts.

reported by plans have been redistributed to the underlying asset categories. In that year, plans with 100 or more participants showed the following asset allocation: 21 percent in insurance company general accounts, 19 percent in corporate stock other than that of the sponsor, 19 percent in registered investment companies, 16 percent in employer securities, 11 percent in government and corporate debt securities, 8 percent in cash, and 6 percent in miscellaneous investments.[26]

Two studies have examined administrative records for individual participants in 401(k) plans. Yakoboski and VanDerhei (1996) studied asset allocation among participants in plans of three large corporations, and Goodfellow and Schieber (1997) analyzed asset allocation of participants in 24 plans administered by Watson Wyatt. Although encompassing a considerably smaller number of participants and plans, the findings from these studies are consistent with those reported above from the 1996 EBRI/ICI database.

Several researchers have examined asset allocation from surveys of participants in 401(k) plans and 403(b) plans. Poterba and Wise (1998) used the 1992 Survey of Consumer Finances to study asset allocations in both types of plans, whereas Ameriks, King, and Warshawsky (1997) analyzed asset allocation for a sample of 403(b) plan participants. Finally, Sunden and Surrette (1998) analyzed gender differences in asset allocations in retirement plans using the 1995 Survey of Consumer Finances.

## ■ Plan Balances

The average account balance for all participants in the EBRI/ICI database is $37,323.[27] There is, however, wide variation around the average. For example, 47.2 percent of participants have an account balance of less than $10,000, while 9.8 percent have an account balance in excess of $100,000 (chart B.3).

A participant's account balance—and thus the variability across participants—depends upon a number of factors. Some of these are specific to the individual and others reflect features of the plan. At the participant level are income, contribution rate, age, length of plan participation, asset allocation, rollovers from other plans, withdrawals, and borrowings. Plan features include age of the plan and employer contributions. These determinants of account balances complicate the interpretation of average balances.

The relationship between account balances and two of the determinants can be examined using information in the EBRI/ICI database. One of these is participant age and the other is tenure of the participant with employer, which serves as a proxy for length of participation in the plan. Age and account balance should generally be positively related, as younger workers are likely to have either lower incomes or shorter periods of plan participation than older workers. In line with this observation, nearly 60 percent of those participants with account balances less than $10,000 are in their twenties and thirties, while less than one-fifth are in their fifties or sixties (chart B.4). Similarly, of those with account balances greater than $100,000, more than one-half are in their fifties or sixties, while one-tenth are in their thirties and virtually none are in their twenties.

Tenure and plan balances also have a positive association, as long-term employees likely have had a longer period in which to accumulate assets. In fact, nearly 60 percent of those with balances less than $10,000 have five or less years of tenure, and almost 90 percent of those with balances of more than $100,000 have at least 10 years

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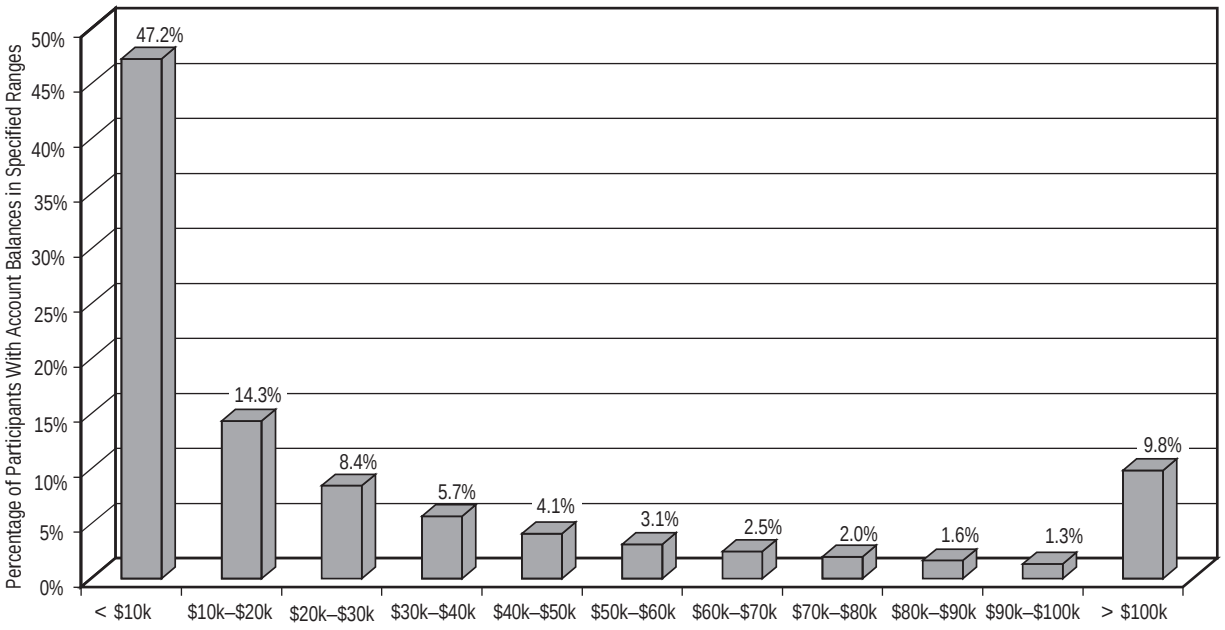
*[26] Insurance company general accounts are probably primarily GICs. Corporate stock other than sponsor securities, government and corporate debt securities, and cash reflect holdings of pooled investments other than registered investment companies. Registered investment companies are mutual funds and variable annuities registered with the Securities and Exchange Commission. These investments would include stock, bond, money, and balanced funds.*

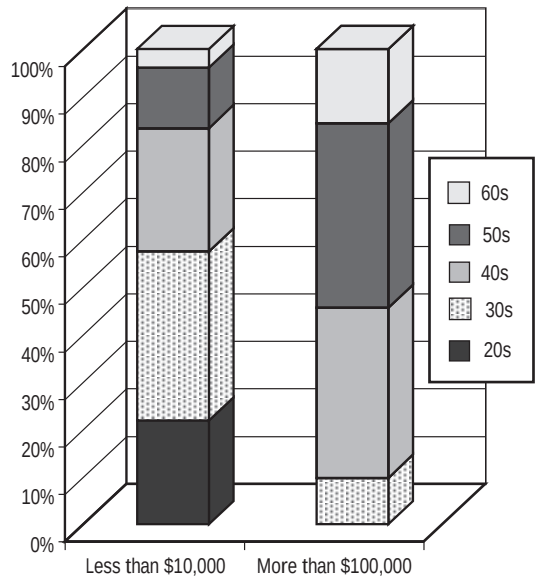
*[27] Reported balances are net of plan loans. There is an extremely wide range of estimates of average account balances in 401(k) plans. The Department of Labor (DOL, p. 85) provides an average account balance per active participant for 1994 of $26,766. However, the Goodfellow and Schieber (1997) study of 24 plans found an average balance of $38,234, and a recent study by the Profit Sharing/401(k) Council of America indicated that the average balance for participants in their survey was $75,000 in 1996 (Bureau of National Affairs, 1998). The latter number could be considered as an upper bound since it includes profit-sharing and combination plans as well as 401(k) plans.*

Chart B.3
**Distribution of Account Balances**



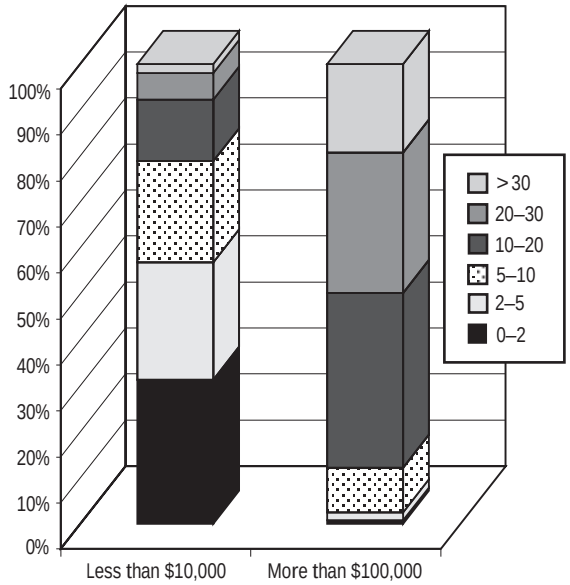

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.4
**Age Composition of Selected Account Balance Categories**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.5
**Tenure Composition of Selected Account Balance Categories**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

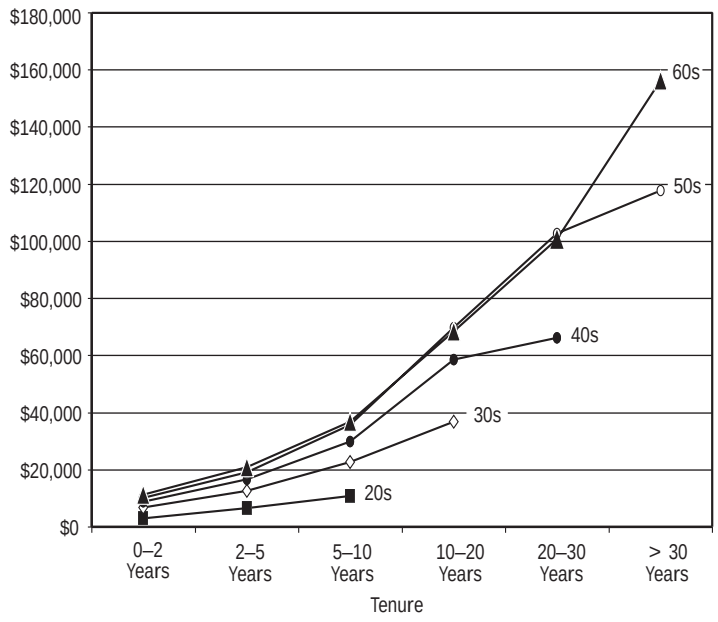
of tenure (chart B.5).

The effect of participant age and tenure is revealed more clearly by examining the effect of the interaction of the two variables on account balances. For a given age group, the average balance should increase as tenure increases: A 30-year-old participant, for example, with 10 years of tenure should, on average, have accumulated a larger plan balance than a 30-year-old with two years of tenure. This positive relationship is shown in chart B.6, which plots the average account balance by tenure for each age group. The average account balance for each age group increases, almost without exception, as tenure increases. The increase is present for all age groups but is especially large for those in their fifties and sixties. In addition, for each tenure group, the average balance rises with age.

An examination of the distribution of account balances underscores the effects of age and tenure. For example, overall, approximately 85 percent of all participants in their twenties have account balances of less than $10,000 (chart B.7). However, only 62 percent of those in their twenties with five to 10 years of tenure have account balances less than $10,000; the remaining balances exceed this figure (chart B.8).

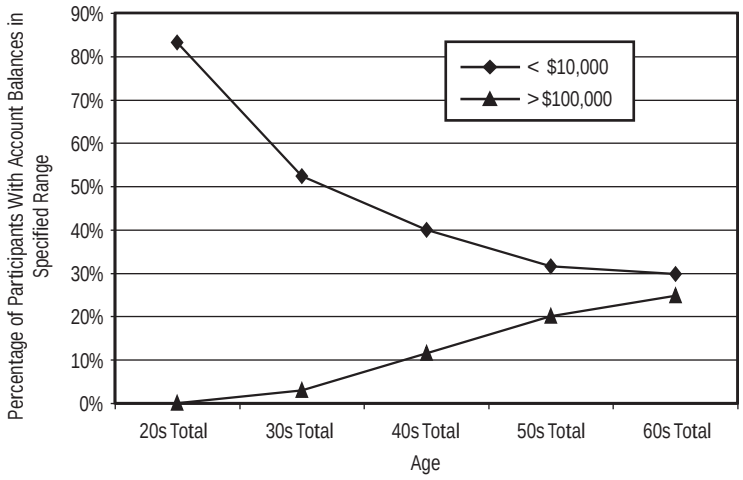
The effect of tenure and age is even more pronounced for older workers. For example, 30 percent of those participants in their sixties have account balances less than $10,000 (chart B.7). However among those with short tenure (zero to two years) 77 percent of these older participants have account balances under

Chart B.6
**Average Account Balance, by Age and by Tenure**



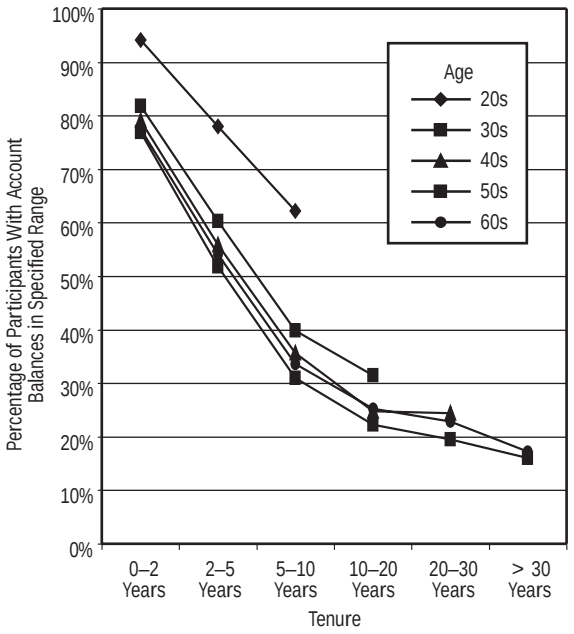

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.7
**Impact of Age on Account Balance**



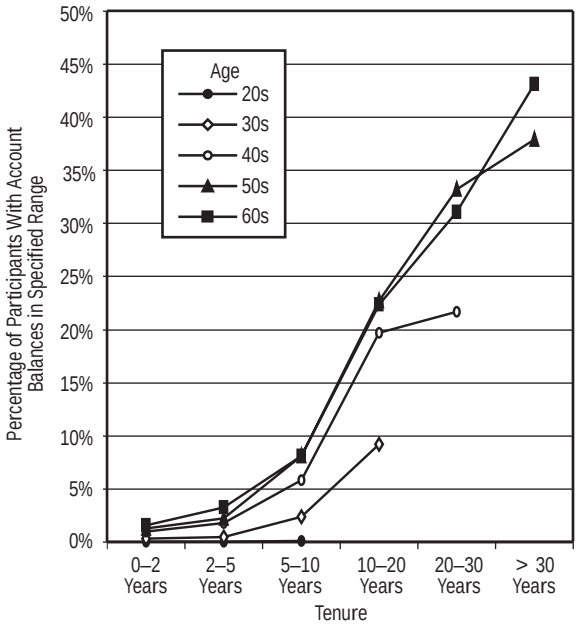

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.8
**Impact of Age and Tenure on Account Balance, Participants With Account Balances Less than $10,000**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.9
**Impact of Age and Tenure on Account Balance, Participants With Account Balances Over $100,000**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

$10,000 while less than 20 percent of those with long tenure (more than 20 years) are in this range (chart B.8). One explanation for the low account balances among this 20 percent may be that their employer's 401(k) plan has only recently been established.

Chart B.9 shows the effect of age and tenure on account balances for those participants with balances more than $100,000. Although approximately 25 percent of participants in their sixties have account balances in excess of $100,000 (chart B.7), less than 10 percent of those with 10 years of tenure or less have account balances of this magnitude. However, more than 30 percent of participants in their sixties with 20 to 30 years of tenure with their current employer have account balances of this size, and the percentage increases to 43 percent for those with more than 30 years of tenure.[28]

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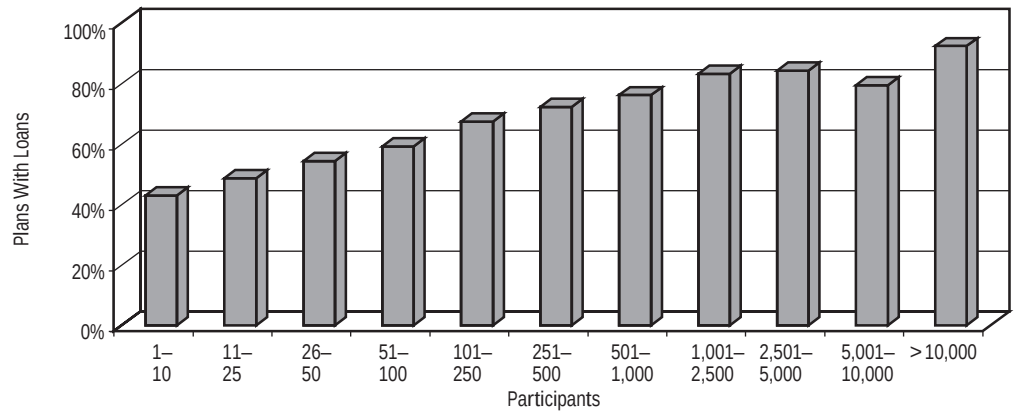
[28] *In one important respect, however, the average balance of the sixties age group with over 30 years of tenure may understate the potential balance because participants in this group could actually have been in a true 401(k) plan for no more than a fraction of that time given legislative and regulatory chronologies. However, some of these balances are undoubtedly conversions from pre-existing profit-sharing plans.*

*A more appropriate way to examine this issue is to project account balances over participants' working lifetimes under a variety of assumptions. Poterba, Venti and Wise (1997) have investigated the magnitude of 401(k) account balances at retirement age. To judge the relative importance of potential 401(k) contributions, they compare projected 401(k) assets of future generations with the 1992 assets of the Health and Retirement Survey (HRS) sample. The mean of 401(k) assets for the entire sample was only $10,808, but this was significantly affected by the majority of the respondents' having had no 401(k) accounts. Using historical experience to project future contributions, the authors find that, on average, a 37-year-old in 1996 would have a 401(k) balance upon retirement at age 65 of $91,600 and a 27-year-old in 1996, retiring at age 65, would have $125,500 (measured in 1992 dollars). The calculations assume that one-half of the 401(k) money was invested in stocks and one-half in bonds, and that average returns experienced since 1926 would be realized.*

Chart B.10
**Impact of Plan Size on Availability of Plan Loans**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

## ■ Loans

### Availability of Plan Loans

Of the 27,762 401(k) plans in the EBRI/ICI database, 52 percent offered a plan loan to participants.[29] The loan feature is primarily associated with large plans. In the database, more than 90 percent of the plans with more than 10,000 participants offered borrowing privileges to employees (chart B.10). In contrast, only 43 percent of the plans with 10 or fewer employees had the loan feature.[30] Indeed, less than 60 percent of the plans with 51 to 100 participants offered loans to employees.

### Characteristics of Participants With Outstanding Loans

The concentration of loans in large plans means that most participants in 401(k) plans have borrowing privileges. In the database, 70 percent of participants were in plans offering loans. However, only 18 percent of those eligible for loans had loans outstanding at the end of 1996.

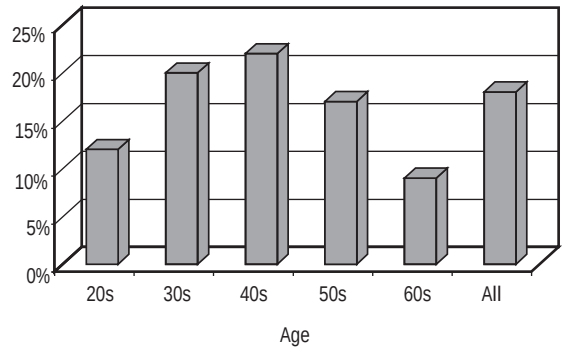
Loan activity varies by age, tenure, and account balance. Of those individuals in plans with loan provisions, the highest percentages with outstanding loans were among participants in their thirties, forties, or fifties (chart B.11). In addition, participants with short tenure (0-five years) and long tenure (more than 30 years) tended to utilize loan provisions less than other participants (chart B.12). Finally, only 11.7 percent of participants with account balances under $10,000 had outstanding loans (chart B.13). This figure is well below the 18.2 percent rate for all participants. This finding is notable, because loan availability is often thought to induce employees with the least amount of disposable income to contribute to the 401(k) plan.[31] The frequency of outstanding loans more

*[29] This is considerably smaller than the numbers reported in employee benefit consulting firms' reports. Both Hewitt (1997) and William M. Mercer (1997) report that in excess of 80 percent of their sampled plans offer loans. However, both of these surveys appear to be heavily influenced by large plan sponsors. The results in the EBRI/ICI database for plans with more than 1,000 participants appear very similar to Hewitt and Mercer.*

*[30] We were able to obtain plan-specific information on loan availability for the vast majority of the plans in the sample (including virtually all the small plans). A plan without this information was classified as having a loan if any participant in the plan had an outstanding loan balance. This may understate the number of plans offering loans (or participants eligible for loans) because some plans may have offered, but had no participants take out, a plan loan. However, the U.S. General Accounting Office (1997a, p. 4) found that over 95 percent of 401(k) plans that offer loans had at least one plan participant with an outstanding loan.*

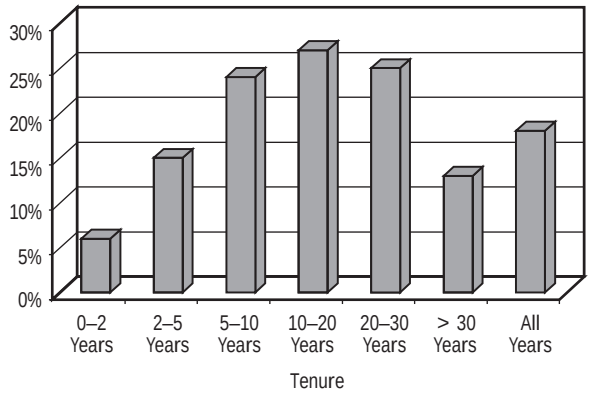
*[31] An alternative method of obtaining emergency funds is through a hardship distribution. Because we are not yet able to control for these distributions, the results may be biased for participants with lower account balances.*

Chart B.11
**Percentage of Eligible Participants With Loans, by Age**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B.12
**Percentage of Eligible Participants With Loans, by Tenure**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

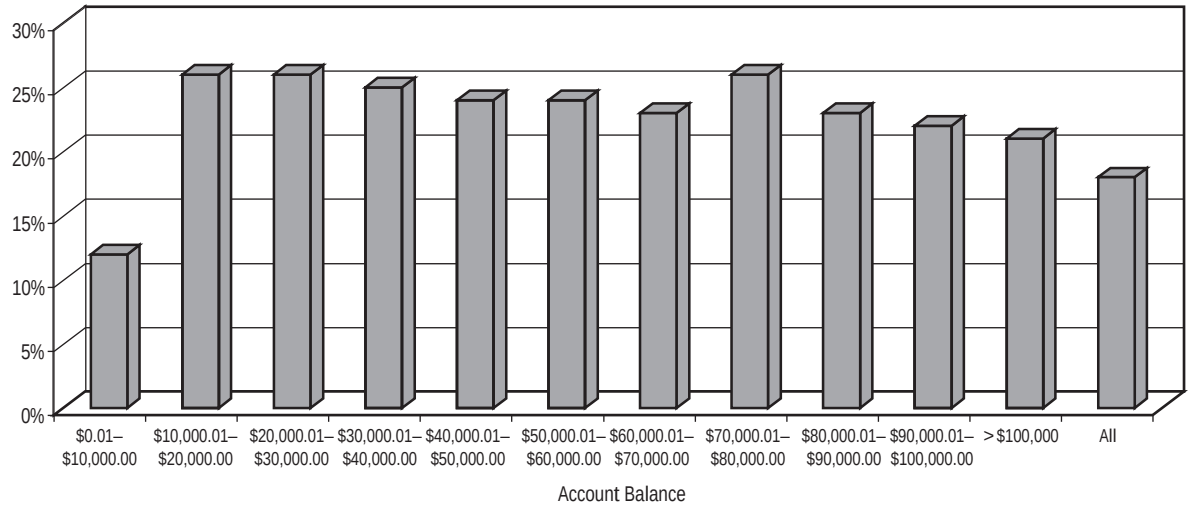
than doubles for those in the $10,000 to $20,000 account balance category and then declines gradually as balances increase.

## Average Loan Balance

For those with outstanding loans at the end of 1996, the average level of the unpaid balance as a percentage of account balances was 16 percent. This loan ratio, however, varied with age, tenure, and account balances.

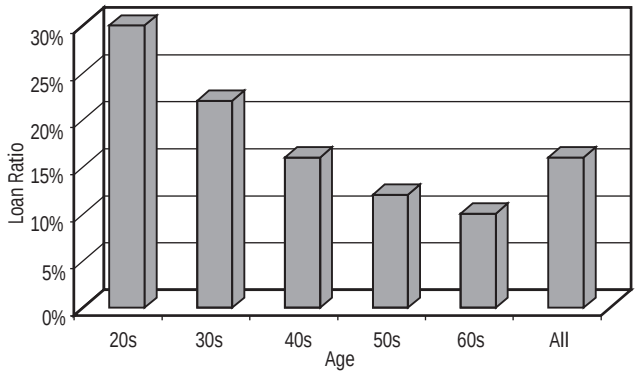
Loan ratios tend to decrease with age, dropping from 30.0 percent for participants in their twenties to 9.8 percent for those in their sixties (chart B.14). Similarly, loan ratios decrease with tenure; participants with less than two years of tenure had an average of 27.3 percent of their account balances loaned out while those with more than 30 years only had 7.4 percent (chart B.15). Loan ratios tend to decrease as account balances increase. Chart B.16 shows that outstanding plan

Chart B.13
**Percentage of Eligible Participants With Loans, by Account Balance**



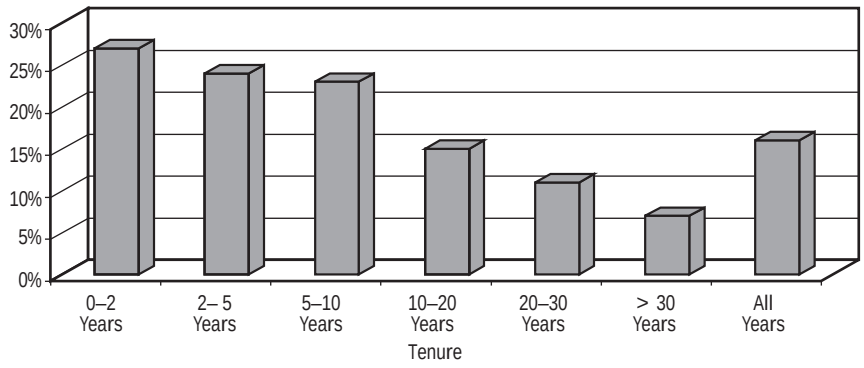

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B. 14
**Loan Ratios for Participants With Loans, by Age**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Chart B. 15
**Loan Ratios for Participants With Loans, by Tenure**




Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

loans constitute approximately 38 percent of the account balance for those with less than $10,000 in account balances who have an outstanding loan. This ratio decreases to approximately 7 percent for those with account balances in excess of $100,000.

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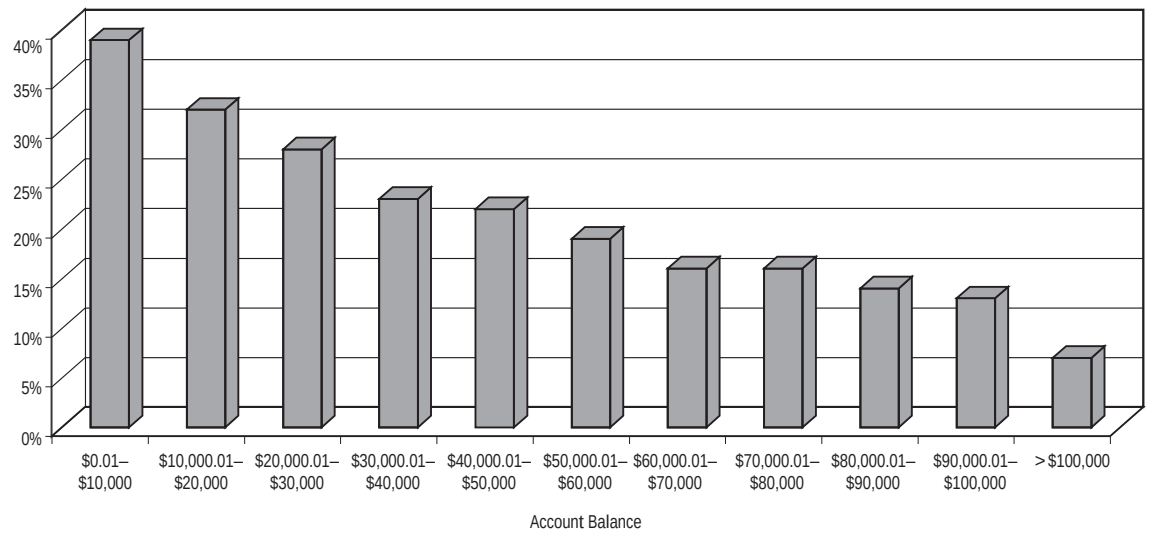
Chart 16
**Loan Ratios for Participants With Loans, by Account Balance**

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# 1

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