# **HARVARD**

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

# ACCOUNTING FOR SOCIAL SECURITY BENEFITS

Howell E. Jackson

Discussion Paper No. 520

08/2005

Harvard Law School Cambridge, MA 02138

This paper can be downloaded without charge from:

The Harvard John M. Olin Discussion Paper Series: <a href="http://www.law.harvard.edu/programs/olin\_center/">http://www.law.harvard.edu/programs/olin\_center/</a>

The Social Science Research Network Electronic Paper Collection: http://papers.ssrn.com/abstract\_id=######

# Accounting for Social Security Benefits

by

# Howell E. Jackson\*

©2005 Howell E. Jackson. All Rights Reserved

Every year, the Social Security Administration mails Social Security Statements to all eligible workers over the age of 25. These Statements include estimates of monthly retirement and other benefits that participants are projected to receive under the Social Security Act. The Statements also summarize Social Security Administration (SSA) records about participants' earnings history, which determines benefit levels, and provide various background information about the Social Security program and its finances. For many Americans, the Social Security Statement is the principal source of information about Social Security benefits. This paper analyzes the content of the current Social Security Statement. While the Social Security Statements are useful tools for certain kinds of financial planning and allow participants to check the accuracy of the Administration's records of their earnings history, the Statements may also lead participants to misinterpret the value of their Social Security benefits and may make it difficult for participants to compare Social Security benefits to other sources of retirement savings. In addition, the current Social Security Statements obscure the extent to which additional years of labor market participation increase the value of Social Security benefits. After reviewing the strengths and weakness of the current structure of Social Security Statements, the chapter then describes how these statements might be supplemented with estimates of the actuarial value of Social Securities benefits for individual participants. This supplemental information would make it easier for participants to compare Social Security benefits to other sources of retirement incomes, and would highlight the manner in which participants' Social Security benefits accrue over time thereby mitigating some of the labor market inefficiencies associated with Social Security payroll taxes. The chapter concludes with a review of several potential drawbacks of supplementing Social Security Statements with accrued values, including the possibility that this supplemental information would make it more difficult to change Social Security benefits in the future, the possibility that disclosing the accrued value of Social Security benefits could lead some workers to make offsetting reductions in other forms of retirement savings, and the possibility that this supplemental information might make the redistributive aspects of the Social Security system more transparent, potentially weakening support for the program among some constituencies.

<sup>\*</sup> James S. Reid, Jr., Professor of Law, Harvard Law School. This paper benefitted from comments and suggestions from Michael Barr, Robert Clark, Janet Halley, Daniel Halperin, Christine Jolls, Louis Kaplow, David Laibson, Ed McCaffery, Daniel Meltzer, Martha Minow, Richard Pildes, Todd Rakoff, Michael Sandel, Hal Scott, Daniel Shaviro, Joel Slemrod, Matthew Stephenson, <a href="mailto:hjackson@law.harvard.edu">mailto:hjackson@law.harvard.edu</a>. Jeff Strnad, William Stuntz, and participants in the Behavioral Public Finance Conference of April 23-24, 2004, in Ann Arbor, Michigan. I also received valuable research assistance from Laurie Burlingame (HLS '06) and financial support from the Olin Center for Law, Economics and Business at Harvard Law School.

#### Introduction

For most working Americans, Social Security benefits represent a significant financial asset, in many cases their principal or sole source of retirement income. According to the Social Security Administration, the aggregate present value of Social Security benefits promised to those age 62 and older was \$4.3 trillion dollars in January 2003. Economists sometimes refer to this figure as the "Social Security wealth" of retirees. Under current statutory formulas, younger workers are also entitled to substantial Social Security benefits with an aggregate present value on the order of \$7.4 trillion as of 2003. So, the total net present value of the Social Security benefits for all American workers and retirees was in the range of \$11.7 trillion at the end of January 1, 2003. By way of comparison, the total market capitalization of the New York Stock Exchange was \$12.3 trillion as of year-end 2003. (NYSE (2004).) So, crudely speaking, the Social Security wealth of American workers and retirees is roughly equal to the value of the Big Board.

My topic in this chapter is the manner in which the Social Security Administration describes to Social Security participants the nature and value of their entitlements – and particularly their retirement benefits – under the Social Security Act. The critical document here is the Social Security Statement, the annual statement that the Social Security Administration sends to every worker and retiree over the age of 25. A copy of a sample Social Security Statement is attached as Appendix A. Given the importance of Social Security benefits to so many Americans, it is surprising how little academic attention has been given to the content and

According to the SSA, Social Security benefits consist thirty-nine percent of the income of the elderly. For two thirds of elderly Social Security beneficiaries, the program constitutes fifty percent or more of their income, and for approximately one fifth of these beneficiaries, Social Security constitutes their sole source of retirement income. See <a href="http://www.ssa.gov/pressoffice/basicfact.htm">http://www.ssa.gov/pressoffice/basicfact.htm</a>.

<sup>&</sup>lt;sup>2</sup> SSA's FY2003 Performance and Accountability Report at 146.

<sup>&</sup>lt;sup>3</sup> *Id.* For current workers under the age of 62, the present value of projected Social Security benefits was \$21,015 billion whereas the present value of projected future taxes to be paid by this cohort of workers (principally through payroll taxes) was \$13,576 billion. The difference between these two figures – \$7,439 billion – represents an estimate of the net present value of Social Security benefits to workers under the age of 62.

implications of Social Security benefits. Again, a comparison to the stock market is instructive. Financial disclosures for capital market investments are routinely and rigorously analyzed in academic journals, and the regulation of these securities disclosure requirements is amended and supplemented with regularity. Aside from the occasional General Accounting Office report, Social Security Statements are almost never subject to public scrutiny or scholarly analysis. This disparity is all the more striking when one considers that the primary users of securities disclosures are institutional investors and other sophisticated parties fully capable of safeguarding their own interests, whereas the recipients of Social Security statements include the vast majority of U.S. workers and retirees, many of whom have little expertise in financial analysis.

The chapter begins with a review of the current Social Security Statement, identifying both its strengths and limitations and then exploring a range of cognitive biases that might affect the way in which recipients of the statement interpret its information regarding both the value of Social Security benefits and the manner in which those benefit values accrue over time. The next section outlines an alternative approach to describing Social Security benefits, an approach that emphasizes the economic value of retirement and other benefits that Social Security provides. Compared to the current Social Security statements, supplemental disclosures based on this alternative presentation would make it easier for participants to compare Social Security benefits to other forms of retirement savings, such as 401(k) plans and individual retirement accounts. Annual estimates of the economic value of Social Security benefits would also better communicate to participants the extent to which their continued participation in the labor force increases the value of their Social Security retirement benefits and generates ancillary benefits, such as disability and survivors insurance, with significant economic value.

The chapter then considers some potential drawbacks of providing participants estimates of the economic value of Social Security benefits, including both the possibilities that these

<sup>&</sup>lt;sup>4</sup> See, e.g., U.S. General Accounting Office (1998); U.S. General Accounting Office (1997); U.S. General Accounting Office (1996b); U.S. General Accounting Office (1996a); U.S. General Accounting Office (1989).

estimates will be more difficult for participants to understand and that such disclosures might have undesirable collateral consequences, such as off-setting reductions in other forms of retirement savings. Also included in this section is some speculation about potential political consequences of estimating the economic value of Social Security benefits for both the traditional system of Social Security benefits and various reform proposals. While one generally associates enhanced disclosure with improvements in public debate over government policies, it is conceivable that greater clarity with respect to the economic value of Social Security benefits – particularly in relationship to the level of annual payroll taxes contributed to the Social Security system on behalf of participants – could undermine support for traditional Social Security benefits in the minds of some. Whether one should oppose greater clarity regarding the value of Social Security benefits out of concern that this clarity would dilute support for the Social Security program raises some difficult questions of democratic legitimacy, which this chapter identifies but does not attempt to resolve.

The chapter concludes without endorsing a specific set of reforms. Though the current Social Security Statement is misleading in many respects, one cannot be confident how best to reform the current version of the document without undertaking considerable additional investigation, including, one would hope, extensive test marketing of alternative presentation formats. Recent writing in the field of behavior economics offer important insights into some of the reasons why individuals may have difficulty interpreting the information contained in those statements. And these insight can help guide government officials design new disclosure formats, perhaps modeled on the economic value approach outlined in this chapter or perhaps employing yet other method of disclosure. While the precise contours of an improved Social Security Statement remain to be determined, what is clear is that the Social Security Statement is one of the most important communication that the federal government sends out to the general public each year, and as such the document deserves much more attention from public official and academic writers than it has received to date.

# **Box One Trust Fund Accounting vs. Disclosures for Social Security Participants**

This chapter is related to a recent article in which I explored the manner in which the Social Security Administration and the Federal Government account for the Social Security trust funds themselves. Howell E. Jackson, Accounting for Social Security and its Reform, 41 Harv. J. Legis. 59 (2004). There, I argued that the country and its political leaders would be more likely to come to grips with the financial problems of Social Security if the annual Social Security Trustees Report accounted for the program with a modified system of accrual accounting rather than the cash flow accounting the federal government currently employs. During the course of 2003, the value of Social Security accrued benefits for current workers and retirees increased by approximately \$800 billion and equaled roughly \$12.7 trillion by year end. As the system's financial resources – principally its investments in special issue government bonds – increased by only \$152 billion last year, the Social Security's implicit debt increased by nearly \$650 billion in 2003. Had the Social Security Administration reported this \$650 billion deficit in 2003 rather than the \$152 billion cash-flow surplus it actually reported, the effect on public opinion and our political leadership could have been pronounced. In particular, by locating the source of Social Security's future problems in promises being made today, a modified system of accrual accounting would force both the general public and our political leadership to recognize that with each passing year the system's financial difficulties are worsening significantly. This change in accounting format would, I argue, greatly improve the prospects for meaningful and timely reform of the Social Security system. In that earlier paper, my principal focus was on how changes in the manner in which the government reports the annual financial performance of Social Security could improve public understanding of the problems of the Social Security system and hence the prospects for prompt and much-needed reform. Implicit in my analysis were the propositions that accounting formats matter and that changes in accounting formats could change political outcomes.

In this chapter, I once again consider issues of financial presentation, but here I explore the individualized statements that each Social Security participant receives. For the most part, I am concerned with the usefulness of those statements for helping participants make sensible decisions about their personal financial plans, including both decisions of how much to save for retirement and how long to stay in the work force. My claim is that current Social Security Statements are difficult for most individuals to understand and likely to lead to errors in financial planning and labor market participation. Of course, Social Security participants are also political agents, and the information that they receive in their individual Social Security statements may also have political consequences, both in terms of their understanding of the value of the current Social Security benefits and the impact and desirability of various reform proposals. Thus, there are political implications both for the current content of Social Security Statements and any changes that might be made to those statements. Thus, at least indirectly, this chapter also touches upon the politics of Social Security and its reform.

#### I. The Current Social Security Statement

I begin with a review of the current Social Security Statement, describing first the financial information that the statement highlights and then discussing some of the limitations and idiosyncrasies of this method of presentation. I then consider the implications of the current format for participant perceptions regarding the value of Social Security benefits, drawing in part from relevant research in the field of behavioral economics.

While the discussion in this section has several critical dimensions, I should preface my analysis by noting that there is much to be admired in the Social Security Administration's existing statement format. Compared to most other government disclosures, the document is clear and well-written. The statement, along with companion on-line resources on the Social Security Administration website, undoubtedly provides important and useful retirement planning information for millions of Americans. And even though the Social Security Statements have not received substantial attention in the academic community, one cannot doubt that the Social Security Administration staff has worked diligently to refine the document over time and been conscientious in responding to the concerns of various constituents.

#### A. An Overview of the Current Social Security Statement

Beginning in the late 1980's, the Social Security Administration began to experiment with sending out individualized account statements to participants who requested information about their projected benefits. At the time, relatively few participants – less than two percent of workers paying payroll taxes – made such requests. Shortly thereafter, Congress mandated that the Social Security Administration initiate a program to distribute annual statements to all eligible workers aged 25 or over by 2000. The SSA estimated that this mandate would eventually require the distribution of approximately 123 million statements a year. The initial format of the disclosure statement was a six-page Personal Earnings and Benefit Estimate Statement (PEBES), which was subsequently revised in the late 1990's and replaced with the current four-page Social Security Statement. (U.S. General Accounting Office (1996b).)

In its current form, the Social Security Statement conveys multiple messages to participants and retirees. Some of the information relates to the program generally. For example, the statement begins with a cover letter from SSA Commissioner Jo Anne B. Barnhart trumpeting broad scope of Social Security benefits ("Social Security is for people of all ages . . ."), and includes on the fourth page a section titled "Some Facts About Social Security, which explains the different kinds of benefits that Social Security provides and highlights key choices for those near or in retirement. (Participants over 55 years also receive a separate, two-page insert discussing retirement options in more detail.) Somewhat in tension with this glowing description of the program, the Statement also notes the "serious future financial problems" the system currently faces. In particular, Commissioner Barnhart's cover letter cites SSA estimates that the system's resources will be able to pay only about 73 percent of scheduled benefits in 2042.

While the Social Security Statement's general information frames the disclosure document in important ways – to which I will return below – the heart of the statement lies in pages two and three, where the Social Security Administration reports two kinds of information that are specific to the individual recipient. First and likely of greatest interest to most recipients are estimates of the recipient's projected retirement benefits. For ease of reference, I have reproduced in Box Two, the relevant information from a sample statement for Wanda Worker (a hypothetical participant formerly known as John Q. Public in earlier versions of the statement) that the Social Security Administration has prepared for illustrative purposes. The statement includes three sets of estimates. The first is for retirement benefits, depending on whether the participant retires at 62, the relevant normal retirement age (67 for Wanda Worker, who was born in 1963), or 70. In addition, the form reports the level of disability benefits the recipient would receive if disabled in 2004, and then also a range of estimates regarding the survivors' benefits that the recipient's family might be eligible to receive if Wanda were to die in 2004. At the bottom of the page, the Statement also includes the participant's name, date of birth, estimated annual earnings in the future, and a truncated Social Security number.

The second category of personalized information comes on page three of the statement and

deals with the recipient's earnings history and payroll taxes. The statements report the SSA's records of the recipient's lifetime earnings. In the case of Wanda Worker, the earnings go back to 1979, when as a 16-year-old she earned \$474. (The statements report both Social Security earnings and Medicare earnings, although for Wanda the figures are identical as her earnings have never passed the upper boundary for the imposition of Social Security payroll taxes.) At the bottom of the third page is one final category of personalized information: the level of taxes that the recipient has paid to Social Security and Medicare. Both individual and employer taxes are reported, as well as information on the current payroll tax rates for Social Security and Medicare. In Wanda Worker's case, her Social Security taxes "paid over your working career through [2002]" are reported as \$24,723, with the same amount reported as being paid by her employers.

Box Two
<b>Your Estimated Benefits</b>

▼\*Retirement You have earned credits to qualify for benefits. At your current earnings rate, if you

stop working and start receiving benefits ...

At age 62, your payment would be about ... \$882 a month

If you continue working until ...

your full retirement age (67 years), your payment would be about ... \$1,278 a month

age 70, your payment would be about ... \$1,594 a month

▼ \*Disability You have earned enough credits to qualify for benefits. If you became disabled right now,

Your payment would be about ... \$1,169 a month

**\*Family** If you get retirement or disability benefits, your spouse and children also may qualify for

benefits.

**▼**\*Survivors You have earned enough credits for your family to receive survivors benefits. If you die this

year, certain members of your family may qualify for the following benefits.

Your child ... \$911 a month
Your spouse who is caring for your child ... \$911 a month
Your spouse, if benefits start at full retirement age .. \$1,215 a month
Total family benefits cannot be more than ... \$2,233 a month

Your spouse or minor child may be eligible for a special one-time death benefit of \$255.

▼\**Medicare* You have enough credits to qualify for Medicare at age 65. Even if you do not retire at age 65, be sure to contact Social Security three months before your 65<sup>th</sup> birthday to enroll in Medicare.

\*Your estimated benefits are based on current law. Congress has made changes to the law in the past and can do so at any time. The law governing benefit amounts may change because, by 2042, the payroll taxes collected will be enough to pay only about 73 percent of scheduled benefits.

We based your benefit estimates on these facts:

Your name ... Wanda Worker Your date of birth ... May 5, 1963

Your estimated taxable earnings

per year after 2003 ... \$35,051 Your Social Security number (only the last **four digits** are shown to help prevent identity theft) ...

XXX-XX-2004

The individualized information in the current Social Security Statement serves two distinct purposes.<sup>5</sup> First, the information about projected benefits is intended to assist recipients in both planning their retirement and also understanding the magnitude of the disability and survivors benefits provided under the program. Second, the statement includes past earnings information in order to confirm the accuracy and completeness of the Social Security Administration's records. The statement encourages recipients to review this earnings information carefully and report any errors to a toll-free phone number. As Social Security benefits are directly tied to earnings history, the accuracy of the statement's benefit projections depend on the completeness of the SSA's earnings history for the recipient.

#### B. Limitations of Information Included in the Current Social Security Statement

Without denigrating the undeniable value of the twin goals of the current Social Security statements – providing individualized estimates of benefits and inviting correction of SSA earnings records – I will now offer a series of comments on the limitations of this disclosure format. In presenting this critique, I am particularly interested in aspects of the Social Security statement that might influence (or distort) participants understanding of true economic value of Social Security benefits and the relationship between Social Security taxes and benefits. As will be clear shortly, the limitations I note below do not point ambiguously in one direction. While, on balance, I think it is likely that the current disclosure format would tend to lead participants to under-value Social Security benefits, some aspects of the disclosure form likely have the opposite effect.

#### 1.) Benefits Payments Denominated in Monthly Amounts

Consistent with the Social Security Act's benefits formulas, the Social Security statement reports benefits in terms of monthly payments, presumably because benefit payments are sent out monthly. Generally, however, when people talk about income levels, they speak in terms of

<sup>&</sup>lt;sup>5</sup> See U.S. General Accounting Office (1989). SSA officials have also testified that the Statements have a third goal to "help educate the public about Social Security and build public confidence. Id.

annual salaries, which are, of course, 12 times higher than monthly income levels. While one might resist this point as merely an arithmetic artifact, I would note that the earnings information reported on page three of the Social Security statement is reported as annual earnings. To the extent that the critical question of retirement planning is projecting and then achieving appropriate levels of income replacement, the Social Security statement complicates that fact by describing benefits and earnings history in two different currencies. (By way of comparison, if Wanda Worker were informed that her retirement benefit at 67 was projected to be \$15,336, she would more easily see that Social Security would replace 43.8 % of the \$35,051 of annual income that she is projected to earn for the rest of her working life.)

#### 2) Retirement Benefits Based on Projected Earnings

Another important feature of Social Securities Statements is that the estimated earnings of participants are based on the assumption that participants will continue to earn income at their current levels. So, in the case of Wanda Worker, she is assumed to continue her current earnings through her retirement, which if she retires at her normal retirement age of 67 means that she is projected to earn \$35,051 (in current dollars) a year through 2029. To a degree, this approach to benefits projection is understandable. In planning for retirement, what one needs to know is the projected level of retirement benefits, and it is sensible to include in such projections the benefits attributable to likely future earnings. The approach does, however, have a somewhat peculiar effect on the participant's sense of entitlement to scheduled benefits as well as their awareness of the degree to which retirement benefits under the Social Security Act accrue through annual participation in the workforce.

Let me begin with the point about entitlement. By projecting scheduled benefits with hypothetical future earnings, the Social Security Statement is telling participants like Wanda Worker what their retirement benefits are likely to be if they continue working until a particular

<sup>&</sup>lt;sup>6</sup> The SSA has on-line software that allows workers to alter these assumptions and make their own estimates of earnings levels. See <a href="http://www.ssa.gov/planners/calculators.htm">http://www.ssa.gov/planners/calculators.htm</a>.

age. To be sure, the information is prefaced with a warning – "The law governing benefit amounts may change." – and the warning is supplemented with a footnote reiterating Commissioner Barnhart's admonition that, in 2042, system resources will be able to support only 73 percent of benefits. Still, one wonders how most recipients understand these reservations, particularly when projected benefits are so prominently displayed. And, at least for someone Wanda's age, the possibility of benefit reductions in 2042 may seem fairly remote as she will be 79 at that point and 12 years into her retirement, should she retire at 67.

The manner in which the Social Security Statement disguises the incremental value of work force participation is a bit more complex, but related. By projecting future earnings through retirement, the Social Security Statements make it seem that workers do not get much more in terms of Social Security retirement benefits by working an additional year. Take, for example, Wanda Worker. On her January 2, 2004, Social Security Statement, she was told that she could expect a retirement benefit at 67 of \$1,278. An interesting question to ask is what was her projected retirement benefit for the same retirement age when she received her Social Security Statement the previous year – that is, in January 2003. Based on my calculations, Wanda Worker's 2003 projected monthly retirement benefits at age 67 earlier would have been \$1,257 or a nominal difference in benefits of only \$21. (Indeed if one adjusts the two levels of projected benefits to put them in the same current dollars, Wanda Worker's projected real benefits actually declined from 2003 to 2004.<sup>8</sup>) So, at least for this hypothetical worker, a review of successive Social Security Statements would suggest only minimal nominal accretion of benefit value over time.

<sup>&</sup>lt;sup>7</sup> Somewhat inaccurately, the footnote says that payroll taxes will cover only 73 percent of benefits, whereas the actual coverage ratios include both payroll and certain income taxes levied on Social Security retirement benefits.

Adjusting with the CPI index, Wanda Workers' 2003 projected monthly retirement benefits would have a value of over \$1,285 if expressed in the same constant dollars as appeared in her 2004 statement. The reason for this real decline in benefits is that Wanda Worker's earnings did not increase as fast as the SSA's average wage index in the most recent year, and so her projected earnings through retirement were a little lower in relative terms than they had been a year earlier.

# 3.) Opacity with Respect to Social Security Indexing Formulas

Moving to more technical aspects of benefit calculations, the Social Security Statements include a limited amount of information about the indexation of benefits. To begin with, the statements do not purport to project actual benefit levels – that is, the projected retirement benefits are not adjusted for expected inflation but rather are expressed in terms of current dollars. Introductory text does, however, explain that the benefits will be adjusted for cost of living increases "[a]fter you start receiving benefits." Whether most recipients understand that the starting level of benefits will also be indexed for price increases is not clear, but on balance I think the Administration made a sensible choice to express benefit levels in current dollars and not reported adjusted levels of benefits. The risk of participants misconstruing the meaning of benefits denominated in future dollars strikes me as substantial. On the other hand, the current approach does raise the possibility that some readers will undervalue the projections because they do not understand how indexing formulas work under the Act.

One of the reasons, I suspect, that the Social Security Statement is artful with respect to the issue of indexation relates to the fact that retirement benefit projections do not include adjustments for projected increases in average real wages. Although Social Security benefits are tied to real wage increases during participants' working lives and the long-term financial projections contained in the Trustees Reports are based on estimated increases in real wages, the Social Security Statements do not assume any increase in real wages in the future. As a result, the aggregate projected retirement benefits in all Social Security Statements (discounted for individual mortality) are a good deal less than the projected benefits reported in the Trustees Annual Reports. While there may be paternalistic grounds for low-balling projected retirements with respect to

<sup>&</sup>lt;sup>9</sup> The SSA's on-line software allows participants to project benefits in future dollars as opposed to current dollars.

<sup>&</sup>lt;sup>10</sup> In response to an on-line query, an SSA representative explained the Administration's policy as follows: "The statement does not reflect 'indexing' because index earnings are based on national average earnings and we cannot predict the national earning level 12 years from now." Email from SSA.Comments@ssa.gov (Apr. 1, 2004).

average real wage growth that may not in fact occur, this omission – which is nowhere mentioned in the statements themselves – also reduces the perceived value of Social Security retirement benefits as compared with their true value.

#### 4.) The Treatment of Payroll Taxes

The current Social Security Statement has a relatively limited amount of information about individual payroll taxes, just estimates of the amount of taxes paid by both the recipient and employers through the last reported year of earning. 11 So, focusing in on just Social Security taxes, page two of Wanda Worker's statement's estimates through 2002, she and her employers each paid \$24,723 of payroll taxes or a total of \$49,452. What exactly recipients make of this payroll-tax information is hard to say. Presumably, most readers are not well versed in the standard labor economics view that employer taxes are borne by workers, and it seems plausible that many recipients think only their own share of these taxes counts as an individual's contribution – that is, in the case of Wanda Worker, \$24,723. If some, like Wanda Worker, were to compare that figure with the projected monthly retirement benefit of \$1,278 at age 67, Social Security might seem like a very good deal. After all, in less than twenty months of retirement, Wanda Worker would get benefits equal to more than her cumulative payroll taxes. It is, of course, hard to know whether recipients do engage in such ill-informed back-of-the-envelope calculations. If so, this aspect of the Social Security Statement would have the tendency of making the Social Security retirement program seem like an advantageous proposition, undercutting some of the factors discussed elsewhere in this chapter, which generally suggest that statements tend to make participants under-estimate the true value of the program. 12

14

The previous incarnation of the statement – the Personal Earnings and Benefit Estimate Statement (or PEBES), which was discontinued in 1999 – was somewhat more complete in that it reported annual employee payroll taxes along with reported earnings, but did not include any estimates of employer taxes.

To give readers a sense of the disparity between the level of payroll taxes reported in the Social Security Statement for Wanda Worker – \$24,723 for herself and \$49,452 combined – and other potentially

# 5.) Uncertainty of Benefit Payments

The Social Security Statement's treatment of uncertainty is limited in several respects. In terms of understanding the value of Social Security benefits, participants should in theory consider two different kinds of uncertainty: uncertainty as to the continued provision of benefits as currently structured under the Social Security Act (sometimes described as "scheduled benefits") and uncertainty as to the likelihood that a particular individual will actually receive the benefits described.

The current Social Security Statement addresses the first of these uncertainties – the possibility of scheduled benefit changes – in several ways. First, as mentioned above, the statement includes two separate disclosures that in 2042 system resources will cover only 73 percent of scheduled benefits. The statement underscores this solvency concern by elsewhere

more complete measures of the value of payroll contributions, I have computed a range of estimates.

- First, as all benefit projections in the Social Security Statement are expressed in terms of current dollars, one might also express payroll taxes in current dollars. This adjustment would raise the level of combined payroll taxes to \$61,846 according to my estimates.
- Second, if one were to add in a time value of money element with, for illustrative purposes, a real interest rate of three percent, the present value of cumulative payroll taxes paid by Wanda Worker and her employers since 1979 would be approximately \$88,255 in current dollars.
- Next, to the extent that the Social Security retirement benefits are being projected based on future payroll tax contributions through retirement, one might be interested in comparing the level of cumulative life-time combined payroll taxes, either simply aggregated in current dollars (\$179,196) or adjusted for the time value of money at a three percent interest rate (\$362,921).

To be sure, there are good reasons for not amending the Social Security Statement to include any of these cumulative reports of payroll tax contributions. Each could be confusing. The reason I include these alternative estimates here is to suggest how the current statement's reporting of cumulative nominal payroll taxes could give recipients a mistaken view of the true relationship between their payroll taxes and benefits. While there is much to be said in favor of rallying public support for the Social Security system, the inclusion of potentially misleading comparisons in the Social Security Statement is not an appropriate mechanism, at least in my view, for accomplishing this end. Under the old PEBES, there may have been a justification in reporting annual payroll taxes on the grounds that this information might help recipients corroborate the accuracy of SSA records, but it is hard to believe that any appreciable number of recipients keep records of cumulative nominal payroll taxes. If errors are to be detected, recipients seem much more likely to find them from reviewing reported earnings records.

noting that Congress could reduce benefit levels in the future. While most Social Security experts would agree that reductions in scheduled benefits are a very real possibility – particularly for 40-year-old workers such as Wanda Worker – one limitation of the current formulation of the Social Security Statement is that it offers the same degree of warning to both young and old participants. Most political observers believe that the likelihood of benefit cuts for older workers is lower than the likelihood for younger workers. And should older workers experience some benefit cuts, these will likely be lower than those applied to younger workers. By giving the same level of warning to both workers, the current Social Security Statement may be simultaneously too alarmist and excessively reassuring for different age cohorts of participants.<sup>13</sup>

Another source of uncertainty, not directly disclosed in the statement, is the possibility that participants such as Wanda Worker will not survive to receive retirement benefits at all or will not live to enjoy those benefits for a substantial period of time. It is unclear what assumptions participants have about their own mortality. Were a participant, such as Wanda Worker, to consult the most recent demographic projections in the 2004 Annual Report of the Social Security Trustees, she would learn that a woman in her birth cohort is projected at 65 to have a life expectancy of 20 years, implying that she might reasonably expect benefits payment for 18 years after turning 67. But that life expectancy is conditional upon reaching the age of 65, and mortality risk in the intervening 25 years is non-trivial.<sup>14</sup>

A related uncertainty concerns the likelihood that participants will receive two other kinds of benefits described in the Social Security Statement: disability benefits and survivor benefits (a form of life insurance). Unlike retirement benefits, these other benefits represent extremely low-probability events. The current Social Security Statement provides no information about the

<sup>&</sup>lt;sup>13</sup> The manner in which benefit payments are projected – using full scheduled benefits based on a continuation of current earnings until retirement – exacerbates the problem for younger workers because it reports a level of benefits based in substantial part on future earnings.

For example, according to Social Security Administration estimates, the average annual mortality rates for the population under age 65 in 2003 was 233.4 deaths per 100,000. Board of Trustees (2004).

likelihood that these events will occur or any sense of the value of these benefits to participants such as Wanda Worker. Again, it is unclear what participant assumptions would be with respect to the likelihood of receiving these benefits and hence the value of this feature of the Social Security program.

#### 6.) Reprise of Limitations

The implications of the foregoing "limitations" of the Social Security Statement are ambiguous. As I mentioned at the beginning of this section, the statements are designed to communicate to participants their projected monthly benefits and to corroborate the Administration's earnings records. The document is, in my view, reasonably successful on these two dimensions, but at a cost of confusing or misleading recipients on several other dimensions. As explained above, some of the confusions would likely lead recipients to underestimate the value of their Social Security benefits: denominating benefits in monthly (as opposed to annual) payments and not more fully describing the system's extremely generous indexing rules are both likely to have this effect.

Other features of the Statement might have an off-setting effect. Most notably, describing payroll taxes in cumulative, nominal terms makes the real cost of Social Security benefits seem much lower than other possible measures of payroll contributions. The fact that benefits are based on total projected benefits has an ambiguous effect on participant perceptions. On the one hand, as explained below, total projected benefits constitute a measure of benefits that is at the upper end of conceivable benefit measures, and accordingly will tend to provide recipients of the statement with a favorable impression of the value of Social Security benefits. On the other hand, by reporting total projected benefits every year, the Social Security Statements disguises the extent to which participation in the labor force increases individual benefits over time and compensates participants, at least in part, for annual payroll tax contributions. The incompleteness of the Social Security Statement's discussion of uncertainty is also, I think, ambiguous. Conceivably, if the statement included a more complete discussion of uncertainties, participants would impose a higher mental discount on their valuations of benefits. On the other

hand, if the statements dealt with these uncertainties in another, more complete way, participants might assign greater values to certain benefits – perhaps just disability and survivors benefits, but perhaps also retirement benefits as well.

## C. The Relevance of Cognitive Biases to Social Security Statements

The analysis in the previous section of this chapter focused principally on objective limitations in the Social Security Statement – omissions and limitations that would inhibit fully rational individuals in their efforts to comprehend the value of the Social Security benefit and participation in the Social Security program. In this section, I turn to a range of cognitive biases that may affect participant perceptions of the value of Social Security benefits.<sup>15</sup>

### 1.) Tendency of Individuals to Undervalue Retirement Income

I start with the most obvious of biases: the inability of many individuals to balance consumption during their working lives with their need for income in retirement. As Peter Diamond has recently explained, the reason Social Security exists is to correct the distortion caused by the failure of individuals to prepare adequately on their own for retirement income in the absence of a mandated, government program. (Diamond (2004).) In part, the case for Social Security rests on a paternalistic notion that many individuals lack the self-discipline or self-awareness to make sensible inter-temporary choices about consumption across a life-time. An alternative justification is that a mandatory governmental program provides a more efficient and effective vehicle for retirements savings than individuals could obtain on their own. Yet another way of understanding Social Security is as a mechanism whereby the government protects itself against opportunistic behavior on the part of individuals who intentionally under-save for retirement with the expectation that they can then rely on government relief in old age.

At least the first of these justifications for Social Security – the inability of individuals to

Admittedly, the line between what I term objective limitations and cognitive biases is not bright. For example, the limitation of benefits being described in monthly payments – as opposed to an income – rests on assumptions about cognitive biases of a sort.

make appropriate inter-temporal choices between current consumption and retirement income – has important implications for cognitive biases with respect to the Social Security Statement. It implies that even if the Social Security Statement gave a perfectly clear and accurate picture of the system's retirement benefits, at least some individuals would value those benefits less than they should. In other words, if we need Social Security because individuals undervalue retirement income, it therefore follows that individuals will tend to undervalue the retirement income that Social Security provides even if those benefits are described accurately and comprehensively.

## 2.) Tendency to Undervalue Periodic Payments Over Time

Aside from the general difficulties that individuals encounter in making inter-temporal choices between current consumption and retirement income, a number of more narrow cognitive biases may affect the ability of individuals to value properly Social Security benefits. For one thing, individuals have difficulty in estimating the value of periodic payments, such as monthly benefit checks. As many retailers have discovered, there are advantages of selling products with periodic price-tags ("\$9.99 a week" or "only pennies a day") rather opposed to lump-sum In my own research, I have uncovered significant differences in the level of payments. compensation that mortgage brokers receive when their compensation is paid through higher monthly payments as opposed to up-front fees. 16 And the behavioral economics literature offers ample support for the proposition that individuals have a tendency to overestimate the cost of lump sum amounts as compared with periodic payments. (Lowenstein & Thaler (1989).) In other words, there are good reasons to believe that individuals make systematic errors in time value of money calculations, tending to underestimate the present value of periodic payments. This insight has direct implications for the Social Security Statement as all benefits are expressed in terms of monthly payments. The weight of behavioral economic research suggests that individuals will tend to undervalue the payments presented in this way, implying that individuals will undervalue the benefit payments described in the Social Security Statement.

<sup>&</sup>lt;sup>16</sup> Jackson & Berry (2002).

#### 3.) Difficulties in Valuing of Annuities & Inflation Protection

Another potential source of bias concerns the particular (and economically valuable) features of Social Security benefits. All Social Security benefits are inflation-indexed and retirement benefits are structured in the form of lifetime annuities or joint-life annuities in the case of married participants. There is an extensive economic literature explores both annuities and inflation protection. (Brown (2000); Brown, Mitchell & Poterba (2001).) While some contrary opinions exist, the weight of the evidence in both areas suggest that individuals undervalue both the insurance that ordinary annuities provide against the financial risk of a long life and the protection that inflation-adjusted annuities provide against unexpected increases in price levels. To the extent that one credits the literature on these two points – and I do – they suggest two more sources of cognitive biases that will tend to lead individuals to under-estimate the true value of Social Security retirement benefits.

#### 4.) Uncertainty Regarding Benefits Changes & Individual Qualification

Individual responses to uncertainty is another area in which there has been much recent writing on cognitive biases. (Baron, ch. 11 (2001).) Unfortunately, the literature in the field is ambiguous, as there is evidence that individuals both over and under-estimate the significance of risk in different contexts. Accordingly, the literature does not offer clear insight into how individuals are likely to assess the various risks associated with Social Security benefits: either the overarching uncertainties of whether and how Congress might reduce benefit payments or the individual uncertainties of whether participants will actually receive disability, survivors, or even retirement benefits. Perhaps the best that one can say on this score is that the existence of these uncertainties means that further individual errors in the valuation of Social Security benefits are possible.

#### 5.) The Endowment Effect & Source Dependence

Two other cognitive biases may also bear on participant valuation of Social Security benefits as presented in the current version of the Social Security Statement. First is the

endowment effect, as a result of which individuals supposedly value objects more highly when they possess those objects than when they do not. (Thaler (1980).) As explained above, the current Social Security Statement presents participants with their full projected benefits at retirement under the assuming of continued employment for the remainder of the participant's working life. Arguably this disclosure format gives participants a kind of constructive possession – or entitlement to – those benefits, thereby increasing the perceived value of those benefits as compared to their valuation of comparable benefits available, for example, by purchase from a private annuity provider but not yet in the participant's constructive possession.<sup>17</sup>

Another potentially phenomenon identified in the behavioral economics literature is source dependence, a tendency of individuals to value objects more highly when the objects are perceived to be awarded in return for the individual's own efforts. (Loewenstein & Issacharaoff (1994).) As explained earlier, the current form of the Social Security Statement obscures the relationship between labor market participation and the accrual of benefits. While the Statements make clear that benefits are generally tied to employment history, the direct relationship between each year's work and benefit accrual is not highlighted in the current statement. The absence of clarity on this point has, as I explain elsewhere, potential implications for labor market efficiencies, but it also could tend to reduce participant's subjective valuation of retirement benefits. If relevant in this context, source dependence might lead individuals to value their Social Security benefits less highly than they would if the benefits were more clearly and directly tied to labor market participation.

#### 5.) Reprise of the Impact of Cognitive Biases

As is often the case in reviews of cognitive biases, there is ambiguity as to the overall effect of the foregoing factors. (Posner (1998).) Many of these considerations suggests that individuals will tend to underestimate the value of Social Security benefits. In particular, the

While the endowment effect suggests that participants might their projected Social Security benefits more than comparable benefits not yet within their possession, participants make still undervalue both forms of benefits for the reasons described earlier.

tendency of individuals to underestimate the value of periodic payments, evidence suggesting that individuals undervalue annuities and inflation protection, and source dependence all point towards undervaluation. On the other hand, the endowment effect points towards overvaluation and the effect of uncertainty in the receipt of benefit payments is ambiguous. On balance, my own intuition would be that cognitive biases pointing towards undervaluation likely dominate, but that is only an intuition. An interesting question that the foregoing analysis raises is how much of the first cognitive bias I identified – the inability of individuals to make appropriate inter-temporal choices between current consumption and retirement income – is simply a product of the other more narrow cognitive biases relating to the valuation of periodic payments, annuities & inflation adjustments. One implication of this analysis is that the failure of individuals to prepare adequately for retirement income may be over-determined. For current purposes, however, it is sufficient to note that the behavioral economics literature offers several bases for suspecting that individuals face numerous difficulties in interpreting the benefit descriptions included in the current Social Security Statement.

#### II. An Alternative Approach to Presenting Social Security Benefits

In the following section, I sketch out an alternative approach to presenting Social Security benefits to participants. Rather than emphasizing projected monthly retirement benefit – the focus the current Social Security Statements – the alternative approach outlined here highlights the expected present value of Social Security benefits over the course of participants' working lives. This approach is generally consistent with the manner in which economists value Social Security benefits when attempting to establish the Social Security wealth of individuals. (Jackson (2004).)

As explained in more detail below, the presentation of expected present values has two principal advantages over the current Social Security Statement. First, this alternative presentation may make it easier for participants to understand the economic value of Social Security benefits in comparison to other types of financial assets. Second, this approach would

allow participants to see more clearly the relationship between the annual accrual of Social Security benefits and the amount of payroll taxes that participants and their employers pay into the Social Security trust funds each year.

In presenting this alternative approach to describing Social Security benefits, I am not advocating that this presentation format should replace or even necessarily supplement the current Social Security Statement. Nor am I suggesting that this approach would address all the shortcomings of the current Social Security statement outlined above. Rather I am offering this alternative to illustrate the availability of different presentation formats and to explore their implications in terms of financial planning, labor market participation, and ultimately political support for Social Security and its reform. Whether the benefits of alternative format warrant changes in the Social Security disclosures is a matter that requires considerable additional study.

The section first considers several different ways in which the expected value of Social Security benefits might be defined and then argues in favor of a measure of expected value that represents the accrued value of benefits under current statutory formula. This measure of expected value had various advantages in terms of assisting participants in financial planning and understanding the true value of their labor market participation. This measure also is roughly comparable to the kind of information that the Swedish government provides participants in its public pension program and is similar to the kinds of information that TIAA-CREF participants have received in the past. (See Boxes Three and Four.)

#### A. Three Approaches to Valuing Retirement Benefits

There are several different ways in which one might estimate the present value of a participant's retirement benefits under Social Security.

## 1.) Total Projected Benefits

First, one could calculate the present value of total projected retirement benefits either at retirement or at the present time. In the case of Wanda Worker, for example, that would mean

estimating the value of a life-time annuity of \$1,278 a month or \$15,366 year starting at age 67. Assuming the 18-year life expectancy in retirement that the 2004 Trustees Report projects for a woman of her age and using a three-percent real discount rate, Wanda Worker's projected benefit has an expected value of \$211,116 on the eve of her retirement at 67 in 2030 or \$97,893 if discounted back to the end of 2003. (Both amounts are expressed in constant 2003 dollars.) In a sense, these are the values implicit in the Social Security Statement, as they represent the actuarial cost of the projected benefit, using an 18-year life expectancy and a three-percent real discount rate.

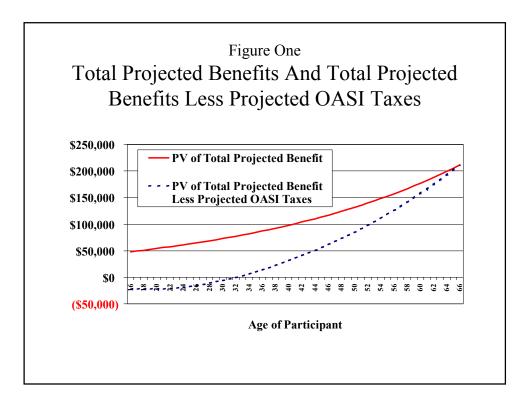
Whether this is an appropriate valuation of Social Security retirement benefits is a different question. One obvious problem with this estimate is that it is based on projected benefits, which participants such as Wanda Worker have not yet earned under the Social Security Act. In addition, the valuation does not take into consideration the future taxes that the participant and his or her employers will have to pay over the balance of the participant's working life. In other words, the valuations described in the preceding paragraph could be considered the value of gross projected benefits without any consideration of future taxes.

#### 2.) Projected Benefits Less Projected Taxes

Framed this way, an obvious refinement would be to adjust the foregoing valuation to account for the cost of future taxes. This approach – valuing projected benefits, less projected taxes – is often employed in economic literature when the task at hand is estimating an individual's Social Security wealth. (Jackson (2004).) However, the adjustment is complex. One should not deduct all Social Security payroll taxes, because only a portion of those taxes are associated with retirement benefits. For example, disability insurance taxes, which currently constitute 1.8 percent of payroll (or just under fifteen percent of combined employee-employer contributions), support another form of benefit: disability insurance. Even the OASI taxes, which on a combined basis constitute 10.6 percent of payroll, are not exclusively dedicated to retirement benefits, as they also support survivors benefits and spousal benefits.

As economists often do, however, one could put aside these complexities and report the net present value of participants' total projected retirement benefits less the present value of future combined OASI combined taxes, and come up with a net valuation of retirement benefits. In the case of Wanda Worker, at the end of 2003, the present value of her projected combined OASI taxes was \$66,420, implying a net valuation of her projected retirement benefits equal to \$31,474 at that time. To give a better sense of the relationship between net valuations and gross valuations, I have charted the gross and net benefit valuations based on Wanda Worker's past and projected earnings record. Note that the two measures converge on the eve of Wanda Worker's retirement at 67, when no more payroll taxes will be paid. Until her early thirties, the net value of her benefits is negative because the present value of future OASI combined taxes is greater than the present value of her total projected benefits, discounting both measures at a three percent real interest rate.

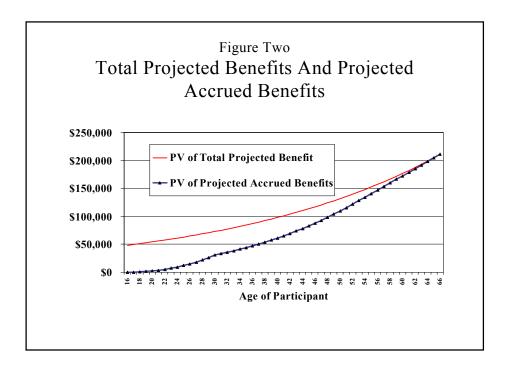
These charts are somewhat stylized as all valuations are based on current benefit formulas and benefits attributed to pre-2003 earnings are adjusted to reflect subsequent wage indexing. Valuations of OASI payroll taxes reflect actual taxes imposed through 2003 and current combined rates projected for the future. Because Wanda's future earnings history and the extent of wage indexation were unknown in years prior to 2003, contemporaneous valuations of her projected benefits would have differed from those shown in these figures.



#### 3.) Projected Benefits Accrued Benefits to Date

Another approach to valuing Social Security benefits is to present the value of benefits accrued to date under current statutory formula. Also occasionally employed in economic analyses of Social Security wealth, this methodology reflects the present value of only that portion of projected benefits that is based on earnings history to date. As it presents a measure of accrued benefits, it does not factor in the cost of future payroll taxes. As an adjunct to a presentation of this sort, one might also include an estimate of projected retirement benefits if the participant stopped working and made no further payroll tax contributions to the Social Security. For those within the academic community, this presentation style – accrued benefits with projected levels of retirement income based on accumulations to date – is familiar because it is the format the TIAA-CREF annual reports used to follow. (See Box Three on TIAA-CREF Reports.)

In the case of Wanda Worker, her Social Security earnings record through the end of 2003 would generate a basic retirement benefit of \$799.10 a month, or \$9,589.20 a year, if she retires at 67, just under 63 percent of her total projected benefit at that age is projected in her Social Security Statement. Again assuming an 18-year life expectancy and using three-percent real discount rate, this annuity has an actuarial value of \$131,885 on the eve of retirement and \$61,154 at the end of 2003. Again figures are in constant 2003 dollars. Figure Two reports a time series of this valuation method for Wanda Worker along with the valuation of total projected benefits less projected taxes. Again, both time series converge on the same point at the eve of her retirement, as all benefits are fully accrued at that point and no additional taxes are due. Note, however, that the value of Wanda Worker's accrued benefits is always positive because the accruals are not offset by future taxes.<sup>19</sup>



Under current law, participants must pay a minimum amount of payroll taxes spread over forty quarters – that is, over ten years – to be eligible to receive retirement benefits. Accordingly, roughly the first ten years of accruals shown in Figure Two represent unvested accrued benefits.

# Box Three A Brief History of Disclosure Statements for TIAA-CREF Participants

An interesting source of comparison for the Social Security Statement is the annual statement that TIAA-CREF sends to its participants. Originally, the TIAA-CREF statements reported only projected levels of annual retirement income that participants could be expected to receive under the organization's standard annuity option. Over time, however, participants began requesting information on the projected value of their accounts at retirement. Reportedly, participants were interested in comparing the value of other TIAA-CREF accounts to other sorts of savings and, perhaps, were considering rolling over lump sum distributions from TIAA-CREF to other firms, an option generally permitted under TIAA-CREF contracts.

Over the course of the 1990's, the TIAA-CREF forms evolved to include information on both current account balances and projected annuities based on current account balances, plus a second set of projections based on projected account balances assuming a continuation of current contributions and then projected levels of retirement income based on total projected accumulations. Typically, these projections were based on an assumed rate of return along with a higher and lower estimated rates of return.

In the past few years, TIAA-CREF has simplified its annual statements to report only current accumulations and no longer provides written estimates of either projected account balances or projected levels of retirement income. A number of factors apparently contributed to this change. To begin with, NASD regulations reportedly impose some constraints on reporting projected yields, presumably out of fear of industry abuse. In addition, as the range of TIAA-CREF's annuity payout options has increased, it became less clear which annuity options were appropriate to use for projecting retirement income. Finally, the availability of web-based software provided an alterative mechanism for allowing participants to make their own projections. This web-based software now provides the only mechanism through which TIAA-CREF participants can obtain projected account balances and projected levels of retirement income.

The TIAA-CREF experience offers an interesting point of comparison. The current Social Security Statement is similar to the original TIAA-CREF statements, which were focused on projected levels of retirement income. In the 1990's, TIAA-CREF moved to a model similar to the alternative approach discussed in this chapter: including current balances and also projections of retirement income levels based on both current and projected balances.

Source: Telephone Interview with Steve Weisbart of TIAA-CREF (Mar. 25, 2004)

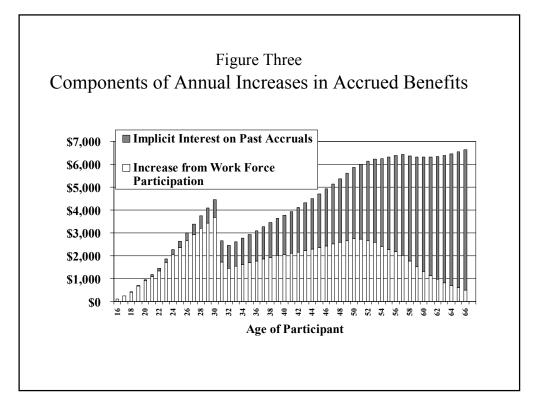
#### 4.) Annual Changes in Benefit Levels

Once Social Security retirement benefits are presented in terms of present values of one sort or another, one might also report changes in valuations from year to year. First differences of this sort offer one perspective on the benefit that individual participants derive in terms of increased Social Security retirement benefits over the course of a single year. In addition, this annual accretion of benefit might plausibly be compared to the participant's annual payroll taxes with potentially important implications for labor market efficiencies.

Let me illustrate how a calculation of this sort might work in the case of Wanda Worker using the accrued benefit valuation techniques described in the preceding subsection. As mentioned earlier, at the end of 2003, the present value of her accrued Social Security retirement benefits was \$61,154. Had a similar calculation been done at end of 2002 – that is, a year earlier – the present value of her accrued retirement benefits would have been reported as \$56,168. In other words, the value of her accrued benefit would have increased by slightly less than \$4,000 in the course of the year.<sup>20</sup> This increase is greater than her combined OASI payroll taxes for the year (\$3,715) and a substantial fraction of her total combined OASDI payroll taxes (\$4,346). Figure Three presents a time series of the first differences in accrued benefits values for Wanda Worker over the course of her working life. The figure divides the annual increase in accrued benefits into two components: an implicit interest payment on previously accrued benefits and an estimate of the amount of new benefit that the participant accrued as a result of annual earnings from workforce participation. All entries in this figure are expressed in constant 2003 dollars.<sup>21</sup>

As discussed below, this increase reflects a number of factors aside from the accrual of additional benefits from another year of work. Among other things, benefits are adjusted to reflect increases in average real wages in 2003, and there is an implicit accrual of interest on previously accrued benefits. In addition, the change reflects one year's adjustment in the value of current dollars. The year-end 2002 estimate would have expressed in current dollars at the time, one year earlier than the 2003 estimate.

Note this figure differs from the nominal differences between reported accrued values each year because the figure adjusts prior year valuations to constant 2003 dollars. In addition, subsequent adjustments for average increases in real wages are attributed to the year in which the wages were earned



5.) Adjustments for Uncertainty, Individual Characteristics, and Market

#### Values

The valuation estimates reported in the preceding four subsections reflect only actuarial values, using projected life expectancies in retirement and a real discount rate of three percent. A number of subtleties are therefore not included. For example, as mentioned earlier, these valuations are contingent upon participants surviving until retirement and the maintenance of Social Security benefits in their current form. Uncertainty exists on both of these dimensions, theoretically requiring a downward adjustment in values to present a more accurate estimate of the expected value of benefits. In addition, the valuations make no adjustment for individual characteristics, aside from the gender of the recipient as the SSA life expectancy estimates are

gender-based as opposed to unisex. Although the administrative burdens of refining estimates based on individual characteristics are considerable, one could, in theory, think of making adjustments in valuation estimates based on health characteristics or information about participants' families (for example the existence, age, and prior earnings histories of spouses and ex-spouses can substantially increase the value of Social Security retirement benefits because the program offers spousal benefits to many participants).

Even more adjustments would be necessary if the goal were to estimate the "market" value of Social Security benefits, as opposed to their actuarial value. Although the United States insurance market does not provide an annuity product comparable to Social Security benefits, one could estimate the administrative cost and profit margins that private providers would need to recover, and then inflate the actuarial values of Social Security benefits to reflect these costs.<sup>22</sup> Alternatively, one could simply add in a load factor to reflect a reasonable share of the administrative costs of the Social Security Administration.

## 6.) Valuation Issues for Disability Benefits and Survivors Benefits

All of the foregoing discussion has focused on Social Security retirement benefits, by far the largest category of Social Security benefits. But the Social Security program also provides a number of important other benefits for participants, most notably disability insurance and survivors insurance.<sup>23</sup> Unlike retirement benefits, these other benefits are contingent upon low-probability events: death or disability during a participant's working life. While one could value these benefits in a variety of ways, perhaps the simplest approach would be to conceptualize the benefits as having an annual value, roughly comparable to the value of purchasing disability insurance or life insurance in the private market. As a first approximation, one could estimate the annual value of these benefits as a participant's pro rata share of the costs of disability and

In a voluntary private market, annuity prices also are thought to include an adjustment for adverse selection effects, but these costs would probably not be appropriate for valuing a mandatory annuity program such as Social Security.

<sup>&</sup>lt;sup>23</sup> I do not address SSI benefits in this chapter.

survivor awards that the Social Security Program incurs each year.<sup>24</sup>

## B. An Alternative Disclosure Format for Social Security Benefits

To facilitate subsequent discussions, I now sketch out a specific form of supplemental disclosures highlighting both the value of Social Security benefits and changes in those values from year to year. Such a disclosure might appear as supplemental information for the current Social Security Statement, or it might be structured as a separate report available from the Social Security Administration. Or, one might think of this supplemental statement as something that a financial planner or financial planning software might produce for participants, perhaps with information downloaded from the Social Security Administration, which might then allow individuals to compare Social Security benefit values to other financial assets.

The disclosure highlights changes in Wanda Worker's accrued retirement benefits during 2003. After summarizing the amount of payroll taxes that she and her employers paid in 2003 – \$4,326 – the disclosure begins by restating the accrued value of the participants retirement benefits at the end of the previous year, which in this case is \$56,158. The statement then indicates the implicit interest of \$3,004 earned in the course of the year. Next the report adds in the value of new benefits accrued in 2003, estimated to be \$1,993. Together these adjustment indicate that the accrued value of Wanda Worker's retirement benefits at the end of 2003 were \$61,154.

Note, the costs of these awards is not the sum of cash payments under the programs each year, but rather the present value of awards claimed during the year plus an allocation of administrative costs and (if the goal is to replicate private market values) a hypothetical profit margin.

As the total accrued benefit on her 2002 Statement would have been stated in 2002 dollars, the implicit interest of \$3004 in 2003 would include both inflation adjustment on Wanda's total accrued benefit in 2002 (\$1280.08) plus a real interest rate of 3.0 percent (\$1723.44).

# Figure Four Supplemental Disclosure for Wanda Worker (12/31/03)

#### **Retirement Benefits**

In 2003, you and your employer each paid \$2,173 in payroll taxes for a combined payroll tax of \$4,326. As a result of your participation in the Social Security program last year, the value of your accrued retirement benefits under the Social Security program is estimated to have increased as follows:

Value of Retirement Benefit (as reported for 12/31/02)	\$ 56,158
Implicit Interest on Previously Accrued Benefits	\$3,004
New Benefits Accrued in 2003	\$1,993
Value of Retirement Benefit (as of 12/31/03)	\$ 61.154

#### **Ancillary Benefits**

In addition, as a result of your participation in the Social Security program last year, you received ancillary benefits estimated to have the following values:

Value of Disability Insurance Coverage in 2003: \$631

Value of Survivors Insurance Coverage in 2003: \$300 (?)

Total Value of Ancillary Benefits: \$931

The other values included in the sample report relate to ancillary benefits: disability insurance and survivors insurance. The value for disability insurance is based on the amount of disability insurance taxes that the participant and her employer paid in 2003, based on the very rough (and not entirely accurate) assumption that disability taxes cover costs of disability insurance.<sup>26</sup> My estimate for the value of survivor's insurance is cut from whole cloth.

In comparison to the current Social Security Statement, a major difference in this supplemental disclosure format is that it attempts to present benefits in the same currency as payroll taxes. In other words, it would invite participants to compare annual payroll taxes to new benefits accrued over the course of the year. So, in this case, Wanda could see that, while her payroll taxes were \$4,326 in 2003, she accrued \$1,993 in newly accrued retirement benefits plus

As the DI trust fund like the OASI trust fund is increasingly insolvent, the average actuarial value of disability benefits for participants must be greater than the average combined DI payroll taxes.

she enjoyed disability and survivors insurance coverage valued at \$931. While the sum of these benefits (\$2,924) is less than her total payroll taxes (\$4,326), the disclosure statement clearly indicates that she received substantial value for her participation in the Social Security program for 2003. (One potential source of participant confusion with this format is that Wanda might interpret the implicit interest on her previously accrued benefit as a function of her 2003 labor market participation, whereas in fact it reflects a return on prior years' labor.)

# Box Four Disclosures Under the Swedish Public Pension System

In the 1990's, Sweden reformed its public pension program to include, as its most prominent component, a notional defined contribution plan, in which participants receive annual credits equal to 16 percent of earnings. Over the course of participants' working lives, these account balances grow at the real rate of increase of per capita earnings in Sweden. Then, at retirement, each participant's account balances are converted into an annuity reflecting the life expectancy of the participant's age cohort. The Swedish notional defined contribution plan is conceptually similar to cash balance plans that are increasingly popular in the United States.

The disclosure forms that Swedish officials have developed for their notional defined contribution plan are quite similar to the alternative format outlined in the main text. Like the current Social Security Statement, the Swedish forms project expected levels of monthly retirement benefits under the assumption that participants will remain employed until retirement. On top of these projections, the Swedish disclosure then includes information about the current value of account balances, the participant's most recent year's contribution, and an indexation component – akin to an interest payment – reflecting growth in average Swedish wages. Under the Swedish system, participants also pay an annual administrative charge for the notional defined contribution plan and receive an annual inheritance payment, which distributes the account balances of members of participants' age cohort who die before retirement. The disclosure statement also reports adjustments in account balances for each year's administrative charges and inheritance gains. The Swedish disclosure forms thus highlight both the current value of participants' interest in the notional defined contribution program as well as the manner in which account balances change over the course of a year.

For an introduction to the Swedish pension plan, see Sundén (2000).

#### III. The Advantages and Disadvantages of Supplemental Disclosures

Supplemental disclosures along the lines outlined above could address a number of the shortcomings of the current Social Security Statement. In this section, I consider the extent to which these supplemental disclosures might mitigate the cognitive biases that limit the ability of individuals to value the life-time annuities as well as the difficulties individuals encounter in gauging the incremental value of annual labor market participation in terms of increased Social Security benefits. I also discuss potential drawbacks of supplemental disclosures, including the possibilities that participants might find these disclosures confusing and that some workers may respond to more accurate information about the value of their Social Security retirement benefits by reducing other forms of retirement savings.

#### A. More Accurate Reflection of the Value of Social Security Benefits

# 1. Addresses Cognitive Biases that Inhibit Understanding of Current Disclosures

Supplemental disclosures based on the actuarial value of Social Security benefits and changes in the actuarial value of benefits offer a measure of valuation that is, in certain respects, easier for participants to understand than the presentation format featured in the current Social Security Statement. Participants would not need to make adjustments for the time value of money or life expectancies in retirement or other uncertainties necessary to value disability or survivors benefit. All of these adjustments are embedded into the valuation estimates, albeit based on population characteristics and not the characteristics of the individual recipient. To the extent one credits my earlier claims – that a variety of cognitive bases inhibit the ability of participants from accurately valuing their Social Security benefits – there is a benefit in providing participants a more comprehensible summary measure of their entitlements under the Social Security program.

#### 2. Facilitates Comparisons with Other Forms of Savings

Another advantage of present value calculations of the sort proposed above is that they

would facilitate comparisons between Social Security retirement benefits and other forms of retirement savings. Though it is often said that Social Security is supposed to provide only one leg of a three-legged program of retirement savings, current benefit disclosure provides individuals very little guidance as to the relative size of their Social Security wealth as compared with other retirement savings, particularly if that savings takes the form of a defined contribution plan, such as 401(k) plan or an IRA. Getting an annual statement highlighting the value of accrued Social Security benefits would facilitate such comparisons. After all, when one estimates the accrued value of Wanda Worker's Social Security retirement benefits to be \$61,154 at the end of 2003, one is roughly equating those benefits to her having \$61,154 in an IRA or 401(k).<sup>27</sup>

### 3. Part of Larger Effort at Financial Education

A larger but related point is that better Social Security disclosures might help educate participants about the magnitude or retirement savings necessary to support adequate retirement income. The relatively low rate of retirement savings for many Americans is a much decried fact of our public economic life, but the government engages in relatively little effort to educate its population on this score. If workers such as Wanda Worker could internalize the fact that even though her accrued Social Security benefit has an estimated value of \$61,154 at year-end 2003, this level of Social Security wealth would support only \$9,589.20 of annual income or less than twenty-eight percent replacement rate of her projected pre-retirement income of \$35,051. Put in that framework, Wanda Worker and other Social Security participants might begin to think more intelligently about the amount of additional retirement savings needed to support a secure retirement. Conceivably – and here I am sure I am being excessively optimistic – individuals

To be sure, the equation is not perfect. If one assumes the 401(k) or IRA account earns more or less than a 3 percent real rate of interest, then that will affect the account's relative value as a source of retirement security. In addition, the very attractive form of annuity that Social Security provides is not available to private retirement accounts, making direct comparisons between private accounts and the accrued values of Social Security benefits more difficult. And possibility of legislative reductions in benefits levels is a risk that is not typically associated with private retirement savings account. Notwithstanding these and other differences, however, projected accrued benefits do offer individuals a rough handle on comparing Social Security retirement benefits to other forms of retirement savings.

might be encouraged to think in terms of accumulating their own retirement savings at a rate that is equal to, or perhaps even some multiple of, the accrued value of their Social Security retirement benefit throughout the course of their working career.<sup>28</sup> In that way, they would be assured that Social Security benefits would not be the only leg on which their retirement would depend.

### **B.** Beneficial Effects on Labor Market Efficiency

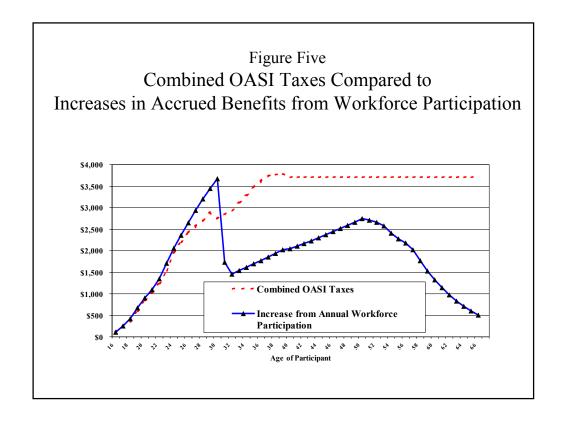
Another potentially valuable benefit of moving to a system of disclosure that includes supplemental information about the actuarial value of Social Security benefits concerns labor market efficiency. A premise of labor economics is that the effect of mandatory benefits, such as Social Security, depends not on the gross costs of these benefits, but their net impact on workers.<sup>29</sup> So, if the cost of a mandated benefit equals its value to all workers, then the imposition of that mandate will have no labor market effect. Viewed through this lense, the current disclosures regarding Social Security benefits are problematic. After all, if as suggested above, limitations of the Social Security Statement itself, coupled with various cognitive biases, cause participants to misapprehend the value of those benefits – and, in particular, the incremental value of working an additional year – then various distortions in the labor market might be expected. If, as much of the foregoing analysis suggests, participants tend to undervalue the amount of the Social Security benefits they accrue or otherwise receive each year, then participants may be inclined to engage in less labor than would otherwise be optimal.

The magnitude of this distortion could be significant. To illustrate this point, consider Figure Five, on which I have plotted the annual combined OASI taxes for Wanda Worker for each year along with the annual increases in accrued Social Security retirement benefits each year. (I

More specifically, lower wage workers might be encouraged to accumulate private retirement savings equal to the accrued value of their Social Security benefits; mid-level workers at two times accrued benefits; and workers at the maximum payroll wage perhaps three times accrued benefits.

<sup>&</sup>lt;sup>29</sup> See Summers (1989).

have omitted disability insurance taxes on the assumption that those taxes generate a disability benefit of roughly comparable value.) In terms of labor market efficiency, Figure Six is quite interesting. Contrary to the prevailing wisdom that young workers get nothing out of Social Security benefits, this figure suggests that the progressive benefit formula is quite advantageous to workers starting out in this system.<sup>30</sup> The value of annual benefit increases drops precipitously when a worker's average indexed monthly benefits exceed the first bend point (dropping replacement rates for 90 percent to 32 percent), but still constitute a non-trivial percentage of OASI taxes until – at least in the case of this worker – the number of years of substantial



On this dimension, the current Social Security Statement sends exactly the opposite message. Even though workers accrue retirement benefits the minute they enter the workforce, the current Social Security Statement reports no retirement benefits until participants have forty quarters of credit. (Telephone Interview with Rita Bontz, SSA Office of Communication (Apr. 21, 2004)). The justification for this practice is that workers are not eligible for retirement benefits until they have forty quarters of credit, but the effect is to suggest to young workers that their labor market participation has no readily ascertainable value in terms of retirement benefits.

workforce participation exceeds 35 and the impact of additional years of earnings diminishes substantially.

I leave it to other, more qualified analysts to decide whether providing this information to the workforce would have a meaningful effect on labor market efficiency. The only point I want to press here is that the picture of annual benefit accruals presented in Figure Five is not one that most workers have in their heads today when they think about Social Security benefits. Were they to receive an annual statement that highlighted the actuarial value of those benefits and their increase over time, I expect that their perception of the value of those benefits would change.<sup>31</sup>

### C. Complexity of Disclosures

An initial objection to supplemental disclosures based on estimated values of benefits is that this additional information requires additional explanations and could be confusing to many participants. It is an open question whether estimated values might be explained in a manner that would be intelligible to a wide range of participants. The Social Security Statement, for example, is designed to be accessible to individuals with at least a seventh grade education. Arguably, actuarial valuations are inherently more complicated and thus less accessible than projected levels of monthly annual income. So, while actuarial valuations may improve the understanding of some participants, they may confuse others.

The aspect of actuarial valuations that is likely to be the most confusing is the apparent loss of wealth that individuals (and their heirs) suffer when participants die shortly before or shortly after retirement and do not have a spouse. Under these circumstances, some participants may feel short-changed by the system. Apparent losses of this sort are a direct consequence of the

There is, I suppose, at least a possibility that my proposed benefit statement might cause some participants to overestimate the value of working. As Figure Three indicates, the total annual increase in accrued benefits is greater than the incremental value of an additional years work. Particularly in later years, the bulk of the annual increase in value comes from implicit interest on past accruals, which occur whether or not the participant continues working (assuming minimum life time participation of forty quarters). If participants mistakenly attribute the full increase in accrued benefits to a year's labor, they would be overestimate the value of a year's work.

fact that actuarial valuations are based on population averages and not individual characteristics, but their effect could be jarring for some and produce unproductive, potentially disruptive public reactions. The current Social Security Statement – reporting only projected monthly payments – does not have this problem, even though participants who die near or shortly after retirement can suffer identical losses.

Whether actuarial values of Social Security benefits could be described in a manner that most participants would find intelligible and helpful would require further research and testing. This issue would be of great concern were the supplemental information incorporated directly into the Social Security Statement in that confusion over this new information could diminish the usefulness of information already included in the statement. If, however, the supplemental information were available from the SSA upon request or through third-party vendors, then these concerns would diminished, as participants receiving the information would be limited to those most likely to find the information useful.

### D. Potential Unintended Consequences of Supplemental Disclosures

One of the risks of regulatory reforms is that the consequences of reforms may not conform to the expectations of policy-makers. This could also be the case with respect to the supplemental disclosures outlined above. Presented with more accurate information about the estimated value of their Social Security benefits and the annual increase in the value of those benefits, participants may react in ways that many would regard as undesirable both in terms of financial planning, labor market participation, and even political support for the Social Security program.

### 1. Reductions in Other Retirement Savings

Consider, for example, the impact of supplemental disclosures on retirement savings. One of the premises of the foregoing analysis is that cognitive biases and other factors likely cause participants to undervalue the economic significance of their Social Security retirement benefits. The supplemental disclosures outlined above are intended to help participants correct these

cognitive errors and perhaps even encourage them to understand better how much additional retirement savings they will need to achieve appropriate replacement income during retirement. It is, however, possible, that participants will react differently. Once participants see the true magnitude of their Social Security wealth, some may decide to reduce other forms of retirement savings or even increase their consumer debt. After all, if participants really do underestimate the value of Social Security benefits, it is plausible that they will reduce other forms of savings once they are informed how much Social Security benefits are truly worth. By addressing the cognitive biases that lead participants to undervalue Social Security benefits, supplemental disclosures of the sort proposed above may lead some individuals to conclude that they have accumulated too much retirement savings.

### 2. Ambiguous Labor Market Effects

Labor market effects may also work in the opposite direction outlined above. The premise of the foregoing analysis is that current Social Security Statements obscure the incremental value of additional years of labor market participation. It is further postulated that if workers were given clearer information about the annual accrual of benefits under the Social Security program, their perceived wages would increase, as would their labor market participation. It is, however, possible that at least some workers have a different assumption about their payroll taxes – that they currently assume that their annual accrual of benefits under Social Security are roughly equal to their payroll taxes. If so, accurate disclosures of the annual accrual of benefits under the Social Security program could reduce the perceived value of labor, thereby tending to reduce labor market participation (albeit not necessarily reducing labor market efficiency). Again, once the veil of ignorance is removed, one cannot be sure how participants will react.

### IV. Political Implications of Providing Supplemental Information

For the most part, this chapter addresses Social Security disclosures as a tool for financial planning and as a factor in effecting labor market efficiency. But the Social Security program is a public program, and recipients of the Social Security Statements and any supplemental information are also political actors in both voting and informing public opinion. In this final section, I consider the political implications of supplementing Social Security statements with estimates of actuarial values. Again, the overall effects are ambiguous and potentially multifaceted.

### A. Public Understanding of the Value Social Security Benefits

One of the complexities of current public discussions over Social Security is wide-spread uncertainty about the value of the program, especially for younger workers. While the lack of public confidence in the continuation of the system is often overstated,<sup>32</sup> there is ample evidence that most members of the general public have difficulty understanding the economic value of their Social Security benefits, both because of the cognitive biases outlined above and because of the possibility of future benefit cuts. At a minimum, supplemental disclosures of the sort outlined above would provide the public an alternative way of understanding the value of their Social Security benefits – putting an annual value on survivors and disability benefits and estimating the actuarial value of their accrued retirement benefits on an annual basis. By making the value of the Social Security more specific and locating the accrual of benefits in specific years, this supplemental information could perhaps increase public support for the program.

Supplemental disclosure would also do a better job of distinguishing the accrued retirement benefits of younger and older workers. In contrast with the current Social Security Statement, which presents total projected retirement benefits for all eligible participants, supplemental disclosures of actuarial values would report much higher actuarial values for older workers than for younger workers. Older workers may find these higher valuations a source of

<sup>&</sup>lt;sup>32</sup> Jacobs & Shapiro (1998).

some comfort in the face of general concerns about the long-term solvency of the Social Security program.

Clarity of benefit values could, however, also lead to reduced support for Social Security. As mentioned earlier, it is unclear how program participants currently understand the relationship of the value of their Social Security benefits and the annual payroll taxes paid on behalf of participants. As a matter of economic reality, the annual accrual of benefits for current participants is less than their payroll taxes, and this fact would be revealed in the supplemental disclosures outline earlier. To the extent that some participants were under the impression that their annual benefit accruals equaled payroll taxes, supplemental information contradicting this understanding could diminish their support for the system. How many participants currently operate under this misapprehension is an empirical question requiring additional research.

### B. Creation of Property Interests & Pressure to Resist Future Changes

A related point concerns the sense of entitlement that participants may develop with respect to retirement benefits expressed in terms of accrued actuarial values. By presenting these benefits in a format that facilitates comparison with bank accounts and other financial assets, the proposed supplemental information may encourage workers to think of those benefits as a form of property. While there is no doubt that appropriately crafted disclosures could prevent this view from having legal significance, a wide-spread perception that accrued actuarial values are property could make it more difficult for Congress to adjust accrued benefits in the future. While a case can be made that Congress should be more hesitant to reduce accrued benefits as opposed to benefits to be accrued in the future,<sup>33</sup> the legislature needs a wide range of flexibility in this area and so this aspect of reporting accrued actuarial valuations may be somewhat problematic.

On this point, however, one must also recognize that the current Social Security Statements are themselves a source of potential public resistance to change. Notwithstanding disclaimers regarding the possibility of future benefit reductions, the current statements project

<sup>&</sup>lt;sup>33</sup> Jackson (2004).

total benefits based on projected earnings of a working life as soon as a participant achieves forty quarters of credits. In other words, the statements report a level of benefits based on both accrued and to be accrued benefits. While many participants may have difficulty converting this projected level of benefits into actuarial values, the current Social Security Statement invites participants to engage in precisely this calculation. Thus, the current statement also potentially generates a fair amount of public resistance to benefit reductions.

### C. Enhancing Transparency of Some of the Redistributive Aspects of Social Security

A further potential consequence of reporting actuarial valuations of Social Security benefits – survivors and disability insurance as well as retirement benefits – is that this form of disclosure will make the redistributive aspects of Social Security benefits more transparent. As indicated above, those with much shorter than average life expectancies at retirement will see that they do not enjoy the actuarial value of their retirement benefits. High income workers will see the relatively lower rate at which their benefits accrue, and all workers who participate in the labor force at roughly the same relative earnings level for more than thirty-five years will see how relatively little their payroll taxes generate in additional retirement benefits in their last years of work. Finally – especially if the system is reformed to regain long-term solvency – everyone will see what share of their payroll taxes are being used to service and retire the system's legacy debt.

Whether clarity on all of these points is a genuine drawback is a nice question. To the extent that public support for the Social Security system rests on a misunderstanding of the system's redistributive elements raises some difficult questions of democratic legitimacy. But if we were to move to a system of disclosures that more clearly describe the actuarial value of Social Security benefits to individual participants, then it necessarily follows that it will become clear which participants are getting more value than others and how the overall distribution of benefits compares payroll taxes and other contributions to the system.

### D. Relationship to Social Security Reform

Finally, the dissemination of supplemental information about the actuarial value of Social Security benefits and the rate of accrual of their retirement benefits might effect the public debate over Social Security reform.

### 1. Providing a Different Metric for Entitlement to Future Benefits

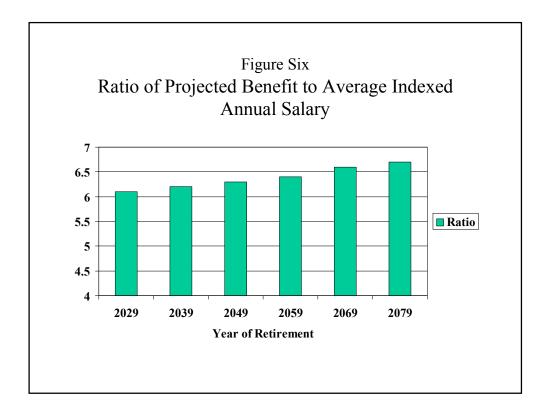
In terms of the reform debate, one potential advantage of highlighting accrued projected benefits is that it provides a new metric for evaluating changes in benefit levels. Currently, proposed benefit changes are typically measured against total projected benefits – not just for current participants, but for future participants as well. Even if the changes are limited solely to benefits that have not yet been earned, experts and politicians often characterize these changes as benefit cuts. Were the general public accustomed to tracking the value of their accrued Social Security benefits, one could imagine that they might be more accepting of changes in benefit formulas related to benefits that accrue in the future. After all, such changes would not reduce accrued benefits, only the rate at which benefits accrue in the future. By expanding the range of ways to restore solvency, an emphasis on accrued projected benefits could increase the likelihood of reforms being enacted.

### 2. Facilitates Comparisons with Individual Accounts

The development of reports for traditional Social Security benefits based on accrued values would also facilitate public consideration of reform proposals that entail the substitution of individual accounts for a portion of traditional benefits. These choices typically necessitate the comparison of a reduction of monthly annuity payments on traditional benefits on the one hand with new annual contributions to individual accounts on the other. For all of the reasons outlined above, most individuals have considerable difficulty making these comparisons. If, however, traditional benefits were described in terms of accrued values, the comparisons would be much more straight-forward.

### 3. Offers New Metrics for Valuing Retirement Benefits

Finally, the use of accrued values could offer a valuable new perspective on the gradual increase in the overall value of Social Security benefits expected to occur as a result of the increases in life expectancies. Many experts have recommended that the formula for Social Security benefits be adjusted to compensate for increases in life expectancy.<sup>34</sup> Typically, these changes are perceived to be benefit cuts, because the standard way of describing the level of Social Security retirement benefits is as a percent of Average Indexed Monthly Earnings. If, however, retirement benefits were expressed in terms of accrued value at normal retirement age, perhaps as a multiple of average indexed annual salary, then the effect of longevity increases would be very different.



<sup>&</sup>lt;sup>34</sup> See, e.g., Diamond & Orszag (2004).

Consider, once more, the case of Wanda Worker. At the eve of her retirement in 2029, the projected value of her retirement benefit (based on an18-year life expectancy in retirement) will be \$211,116 or 6.1 times her average indexed annual income of \$34,788.<sup>35</sup> However, if a similar worker entered retirement ten years hence in 2039 with the same average annual earnings, that the actuarial value of that participant's retirement benefit would increase, as a result of projected increases in life expectancies of a half a year, to \$215,525.51 or 6.2 times average annual income. Figure Five charts the growth of total projected benefit valuations over four more decades. By 2079, when comparable female workers who retire at 67 can be expected to survive for another two years, the ratio of value to average annual salary will increase to 6.7, reflecting the significant growth in benefit values over the 75-year, long-term horizon over which Social Security solvency is typically measured. Cast in this framework, proposals to maintain the ratio of benefit values to average income levels may seem less of a reduction in benefits than an elimination of projected increase.

### V. Conclusion

For many Americans, Social Security benefits constitute a significant financial asset. While the current Social Security Statement provides participants useful information about their projected benefits and earnings history, the disclosures are incomplete and subject to misinterpretation. In this chapter, I have explored various ways in which the statements might be supplemented to offer participants a more accurate picture of both the value of their Social Security benefits and the annual increase in the value of those benefits. This information could make it easier for participants to compare Social Security benefits to other forms of savings and to make more informed choices about labor market participants. Without further study, however, one cannot predict with confidence how participants would in fact respond to this supplemental information, either in terms of financial planning or labor market participation. In addition, the political implications of supplemental information are potentially multi-faceted and difficult to predict a priori. Accordingly, a fruitful subject for further research would be to conduct market

<sup>&</sup>lt;sup>35</sup> That is 12 times her AIME of \$2,899.

surveys to assess participant reaction to kinds of supplemental information discussed in this chapter and alternatives approaches to enhancing disclosures about Social Security benefits.

### **Bibliography**

Baron, Jonathan. 2000. Thinking and Deciding. Cambridge, U.K.: Cambridge University Press.

Board of Trustees, The 2004 Annual Report of the Federal Old-Age and Survivors Insurance And Disability Insurance Trust Funds. 2004.

Brown, Jeffery R. 2000. "How Should We Insure Longevity Risk in Pensions and Social Security." Boston College Center for Retirement Research: Issue Brief No. 4.

Brown, Jeffery R., Olivia S. Mitchell & James M. Poterba. 2001. "The Role of Real Annuities and Indexed Bonds in an Individual Accounts Retirement Program," in Risk Aspects of Investment-Based Social Security Reform, editted by J. Campbell and M. Feldstein. Chicago, Illinois: University of Chicago Press.

Coile, Courtney, Peter Diamond, Jonathan Gruber & Alain Jousten. 2000. "Delays in Claiming Social Security Benefits." Unpublished paper.

Diamond, Peter A., and Peter R. Orszag. 2004. *Saving Social Security: A Balanced Approach*. Washington D.C.: Brooking Institutional Press.

Electronic Privacy Information Center. "The Social Security Administration and Online Privacy." http://www.epic.org/privacy/databases/ssa/.

Jackson, Howell E. 2004. "Accounting for Social Security and its Reform." *Harvard Journal on Legislation* 41(1): 61-159.

Jackson, Howell E. & Jeremy Berry, Kickbacks or Compensation: The Case of Yield Spread Premiums (Working Draft January 2002).

Jacobs, Lawrence R., and Robert Y. Shapiro. 1998. "Public Opinion and the Politics of Reforming Social Security: Myths and Misunderstandings about Public Opinion toward Social Security." In *Framing the Social Security Debate: Values, Politics, and Economics*, edited by R. Douglas Arnold, Michael J. Graetz and Alicia H. Munnell. Washington, D.C.: Brookings Institutional Press.

Jolls, Christine. 2000. "Accommodation Mandates." Stanford Law Review 53: 223-306.

Kaplow, Louis. 1994. "Human Capital under an Ideal Income Tax." *Virginia Law Review* 80(7): 1477-1514.

Loewenstein, George & Samuel Issacharoff. 1994. "Source Dependence in the Valuation of Objects." *Journal of Behavioral Decision Making*, 7: 157-168.

Loewenstein, George & Richard H. Thaler. 1989. "Anomalies: Intertemporal Choice." *Journal of Economic Perspectives* 3(4): 181-193.

New York Stock Exchange, Fact Book (2004).

Posner, Richard A. 1998. "Rational Choice, Behavioral Economics, and the Law." *Stanford Law Review*, 50: 1551-1575.

Summers, Lawrence H. 1989. "Some Simple Economics of Mandated Benefits." *The American Economic Review*, 79(2):177-183.

Social Security Administration Customer Help: "What is a Social Security Statement?" http://www.socialsecurity.gov/mystatement?

Social Security Administration Customer Help: "Why did I get this Social Security Statement?" http://or www.socialsecurity.gov/mystatement?

Social Security Administration. 2004. Your Social Security Statement. Form SSA-7005-SM-SI (01/04). Washington: U.S. Government Printing Office (January).

Sundén, Annika. 2000. "How Will Sweden's New Pension System Work?" Boston College Center for Retirement Research: Issue Brief No. 3.

Thaler, Richard. 1980. "Towards a Positive Theory of Consumer Choice." *Journal of Economic Behavior and Organization*, 1: 39-90.

U.S. General Accounting Office. 1989. Statement of Delfico, Joseph F. Testimony Before the Subcommittee on Social Security and Family Policy Committee on Finance, United States Senate. <u>GAO's Views on An Independent Social Security Administration and The Personal Earnings and Benefit Statement.</u> (GAO/T- HRD-89-23, released on June 2, 1989).

- U.S. General Accounting Office. 1996a. Statement of Eisenstat, Diana S. Testimony Before the Subcommittee on Social Security, Committee on Ways and Means, House of Representatives. <u>SSA Benefit Statements: Statements Are Well Received by the Public but Difficult to Comprehend.</u> (GAO/T- HEHS-96-210, released on September 12, 1996).
- U.S. General Accounting Office. 1996b. Report to the Chairman, Subcommittee on Social Security, Subcommittee on Ways and Means, House of Representatives. <u>SSA Benefit Statements: Well Received by</u> the Public but Difficult to Comprehend. (GAO/HEHS-97-19, December 1996).
- U.S. General Accounting Office. 1997a. Statement of Willemssen, Joel C. and Keith A. Rhodes. Testimony Before the Subcommittee on Ways and Means, House of Representatives. <u>Internet Access to Personal earnings and Benefits Information</u>. (GAO/T-AIMD/HEHS-97-123, Released on May 6, 1997).
- U.S. General Accounting Office. 1997b. Report to the Chairman, Subcommittee on Social Security, Committee on Ways and Means, House of Representatives. SSA Benefit Estimate Statement: Additional Data Needed to Improve Workload Management (GAO/HEHS-97-101, May 1997).
- U.S. General Accounting Office. 1998. Report to Congressional Requesters. <u>SSA Benefit Estimate Statement: Adding Rate of Return Information May Not Be Appropriate</u>." (GAO/HEHS-98-228, September 1998).
- U.S. General Accounting Office. 2002. Statement of Bovbjerg, Barbara D. Testimony Before the Subcommittee on Social Security, Committee on Ways and Means, House of Representatives. <u>SSNs Are Widely Used by Government and Could Be Better Protected.</u> (GAO-02-691T, released on April 29, 2002).

### Appendix A

### Prevent identity theft—protect your Social Security number

## Your Social Security Statement

Prepared especially for Wanda Worker

WANDA WORKER **456 ANYWHERE AVENUE** MAINTOWN, USA 11111-1111



January 2, 2004

### See inside for your personal information

What's inside
▼ Your Estimated Benefits2
▼ <u>Your Earnings Record</u>
▼ Some Facts About Social Security
▼ If You Need More Information 4
▼ To Request This <i>Statement</i> in Spanish 4
(Para Solicitar Una Declaración en Español)



This **Social Security Statement** will help you understand what Social Security means to you and your family. This **Statement** can help you better plan for your financial future. It gives you estimates of your Social Security benefits under current law. Each year, we will send you an updated **Statement** including your latest reported earnings.

Be sure to read this **Statement** carefully. If you think there may be a mistake, please let us know. That's important because your benefits will be based on our record of your lifetime earnings. We recommend you keep a copy of this *Statement* with your financial records.

### Social Security is for people of all ages...

It can help you whether you're young or old, male or female, single or with a family. It's there for you when you retire, but it's more than a retirement program. Social Security also can provide benefits if you become disabled and help support your family when you die.

#### Work to build a secure future...

Social Security is the largest source of income for most elderly Americans today. It is very important to remember that Social Security was never intended to be your only source of income when you retire. Social Security can't do it all. You also will need other savings, investments, pensions or retirement accounts to make sure you have enough money to live comfortably when you retire.

### About Social Security's future...

Social Security is a compact between generations. For more than 60 years, America has kept the promise of security for its workers and their families. But now, the Social Security system is facing serious future financial problems, and action is needed soon to make sure that the system is sound when today's younger workers are ready for retirement.

Today there are almost 36 million Americans age 65 or older. Their Social Security retirement benefits are funded by today's workers and their employers who jointly pay Social Security taxes—just as the money they paid into Social Security was used to pay benefits to those who retired before them. Unless action is taken soon to strengthen Social Security, in just 15 years we will begin paying more in benefits than we collect in taxes. Without changes, by 2042 the Social Security Trust Fund will be exhausted.\* By then, the number of Americans 65 or older is expected to have doubled. There won't be enough younger people working to pay all of the benefits owed to those who are retiring. At that point, there will be enough money to pay only about 73 cents for each dollar of scheduled benefits. We will need to resolve these issues soon to make sure Social Security continues to provide a foundation of protection for future generations as it has done in the past.

#### Social Security on the Net...

Visit **www.socialsecurity.gov** on the Internet to learn more about Social Security. You can read our publications, use the **Social Security Benefit Calculators** to calculate future benefits, apply for retirement, spouse's or disability benefits, or subscribe to **eNews** for up-to-date information about Social Security.

James Barnar

Jo Anne B. Barnhart Commissioner

\*These estimates of the future financial status of the Social Security program were produced by the actuaries at the Social Security Administration based on the intermediate assumptions from the Social Security Trustees' Annual Report to the Congress.

### Your Estimated Benefits

To qualify for benefits, you earn "credits" through your work—up to four each year. This year, for example, you earn one credit for each \$900 of wages or self-employment income. When you've earned \$3,600, you've earned your four credits for the year. Most people need 40 credits, earned over their working lifetime, to receive retirement benefits. For disability and survivors benefits, young people need fewer credits to be eligible.

We checked your records to see whether you have earned enough credits to qualify for benefits. If you haven't earned enough yet to qualify for any type of benefit, we can't give you a benefit estimate now. If you continue to work, we'll

give you an estimate when you do qualify.

What we assumed—If you have enough work credits, we estimated your benefit amounts using your average earnings over your working lifetime. For 2004 and later (up to retirement age), we assumed you'll continue to work and make about the same as you did in 2002 or 2003. We also included credits we assumed you earned last year and this year.

We can't provide your actual benefit amount until you apply for benefits. *And that amount may differ from the estimates stated below because:* 

- (1) Your earnings may increase or decrease in the future.
- (2) Your estimated benefits are based on current law.

The law governing benefit amounts may change.\*

(3) Your benefit amount may be affected by *military* service, railroad employment or pensions earned through work on which you did not pay Social Security tax. Visit www.socialsecurity.gov/mystatement to see whether your Social Security benefit amount will be affected.

Generally, estimates for older workers are more accurate than those for younger workers because they're based on a longer earnings history with fewer uncertainties such as earnings fluctuations and future law changes.

These estimates are in today's dollars. After you start receiving benefits, they will be adjusted for cost-of-living increases.

<b>▼</b> *Retirement	You have earned enough credits to qualify for benefits. At your current earnings rate,			
	if you stop working and start receiving benefits			

At age 62, your payment would be about... \$882 a month

If you continue working until...

your full retirement age (67 years), your payment would be about... \$1,278 a month age 70, your payment would be about... \$1,594 a month

▼ \*Disability You have earned enough credits to qualify for benefits. If you became disabled right now,
Your payment would be about... \$1,169 a month

If you get retirement or disability benefits, your spouse and children also may qualify for

▼ \**Family* If you ge benefits.

**▼** \*Survivors

You have earned enough credits for your family to receive survivors benefits. If you die this year, certain members of your family *may* qualify for the following benefits.

Your child... \$911 a month Your spouse who is caring for your child... \$911 a month

Your spouse, if benefits start at full retirement age... \$1,215 a month Total family benefits cannot be more than... \$2,233 a month

Your spouse or minor child may be eligible for a special one-time death benefit of \$255.

**Medicare** You have enough credits to qualify for Medicare at age 65. Even if you do not retire at age 65, be sure to contact Social Security three months before your 65th birthday to enroll in Medicare.

\*Your estimated benefits are based on current law. Congress has made changes to the law in the past and can do so at any time. The law governing benefit amounts may change because, by 2042, the payroll taxes collected will be enough to pay only about 73 percent of scheduled benefits.

### We based your benefit estimates on these facts:

Your name... Wanda Worker Your date of birth... May 5, 1963

Your estimated taxable earnings per year after 2003...

Your Social Security number (only the last four digits are shown to help prevent identity theft)...

\$35,051

XXX-XX-2004

### Help Us Keep Your Earnings Record Accurate

You, your employer and Social Security share responsibility for the accuracy of your earnings record. Since you began working, we recorded your reported earnings under your name and Social Security number. We have updated your record each time your employer (or you, if you're self-employed) reported your earnings.

Remember, it's your earnings, not the amount of taxes you paid or the number of credits you've earned, that determine your benefit amount. When we figure that amount, we base it on your average earnings over your lifetime. If our records are wrong, you may not receive all the benefits to which you're entitled.

▼ Review this chart carefully using your own records to make sure our information is correct and that we've recorded each year you worked. You are the only person who can look at the earnings chart and know whether it is complete and correct.

Some or all of your earnings from **last year** may not be shown on your **Statement**. It could be that we still

were processing last year's earnings reports when your **Statement** was prepared. Your complete earnings for last year will be shown on next year's **Statement**. **Note:** If you worked for more than one employer during any year, or if you had both earnings and self-employment income, we combined your earnings for the year.

- ▼ There's a limit on the amount of earnings on which you pay Social Security taxes each year. The limit increases yearly. Earnings above the limit will not appear on your earnings chart as Social Security earnings. (For Medicare taxes, the maximum earnings amount began rising in 1991. Since 1994, all of your earnings are taxed for Medicare.)
- ▼ *Call us right away* at *1–800–772–1213* (7 a.m.–7 p.m. your local time) if any earnings for years *before last year* are shown incorrectly. If possible, have your W-2 or tax return for those years available. (If you live outside the U.S., follow the directions at the bottom of page 4.)

Your Earnings Record at a Glance.

ui Luimigs	receira at a chance.	
	Your Taxed	Your Taxed
Years You	Social Security	Medicare
Worked	Earnings	Earnings
1979	474	474
1980	1,123	1,123
1981	1,983	1,983
1982	3,293	3,293
1983	4,461	4,461
1984	5,600	5,600
1985	6,950	6,950
1986	8,813	8,813
1987	10,941	10,941
1988	12,803	12,803
1989	14,520	14,520
1990	16,308	16,308
1991	17,920	17,920
1992	19,655	19,655
1993	20,534	20,534
1994	21,730	21,730
1995	23,155	23,155
1996	24,838	24,838
1997	26,806	26,806
1998	28,720	28,720
1999	30,824	30,824
2000	33,060	33,060
2001	34,237	34,237
2002	35,051	35,051
2003	Not yet recorded	

# Did you know... Social Security is more than just a retirement program? It's here to help you when you need it most.

You and your family may be eligible for valuable benefits:

- ▼ When you die, your family may be eligible to receive survivors benefits.
- ▼ Social Security may help you if you become disabled—even at a young age.
- ▼ It is possible for a young person who has worked and paid Social Security taxes in as few as two years to become eligible for disability benefits.

Social Security credits you earn move with you from job to job throughout your career.

Total Social Security and Medicare taxes paid over your working career through the last year reported on the chart above:

Estimated taxes paid for Social Security:
You paid:
You paid:
S24,723
Your employers paid:
S24,723
Your employers paid:
S24,723
Your employers paid:
S5,820
Your employers paid:
S5,820

Note: You currently pay 6.2 percent of your salary, up to \$87,900, in Social Security taxes and 1.45 percent in Medicare taxes on your entire salary. Your employer also pays 6.2 percent in Social Security taxes and 1.45 percent in Medicare taxes for you. If you are self-employed, you pay the combined employee and employer amount of 12.4 percent in Social Security taxes and 2.9 percent in Medicare taxes on your net earnings.

### Some Facts About Social Security

### About Social Security and Medicare...

Social Security pays retirement, disability, family and survivors benefits. Medicare, a separate program run by the Centers for Medicare and Medicaid Services, helps pay for inpatient hospital care, nursing care, doctors' fees, and other medical services and supplies to people age 65 and older, or to people who have been receiving Social Security disability benefits for two years or more. Your Social Security covered earnings qualify you for both programs.

### Here are some facts about Social Security's benefits:

▼ *Retirement*—If you were born before 1938, your full retirement age is 65. Because of a 1983 change in the law, the full retirement age will increase gradually to 67 for people born in 1960 and later.

Some people retire before their full retirement age. You can retire as early as age 62 and take your benefits at a reduced rate. If you continue working after your full retirement age, you can receive higher benefits because of additional earnings and special credits for delayed retirement.

- ▼ *Disability*—If you become disabled before full retirement age, you can receive disability benefits after six months if you have:
  - enough credits from earnings (depending on your age, you must have earned six to 20 of your credits in the three to 10 years before you became disabled); and
  - a physical or mental impairment that is expected to prevent you from doing "substantial" work for a year or more, **or** result in death.
- ▼ Family—If you're eligible for disability or retirement benefits, your current or divorced spouse, minor children, or adult children disabled before age 22 also may receive benefits. Each may qualify for up to about 50 percent of your benefit amount. The total amount depends on how many family members qualify.
- ▼ *Survivors*—When you die, certain members of your family may be eligible for benefits:
  - your spouse age 60 or older (50 or older if disabled, or any age if caring for your children younger than age 16); and
  - your children if unmarried and younger than age 18, still in school and younger than 19 years old, or adult children disabled before age 22.

If you are divorced, your ex-spouse could be eligible for a widow's or widower's benefit on your record when you die.

#### Receive benefits and still work...

You can continue to work and still get retirement or survivors benefits. If you're younger than your full retirement age, there are limits on how much you can earn without affecting your benefit amount. The limits change each year. When you apply for benefits, we'll tell you what the limits are at that time and whether work would affect your monthly benefits. When you reach full retirement age, the earnings limits no longer apply.

### Before you decide to retire...

Think about your benefits for the long term. Everyone's situation is different. For example, be sure to consider the advantages and disadvantages of early retirement. If you choose to receive benefits before you reach full retirement age, your benefits will be permanently reduced. However, you'll receive benefits for a longer period of time.

To help you decide when is the best time for you to retire, we offer a free booklet, *Social Security— Retirement Benefits* (Publication No. 05-10035), that provides specific information about retirement. You can calculate future retirement benefits on our website at *www.socialsecurity.gov* by using the *Social Security Benefit Calculators*. There are other free publications that you may find helpful, including:

- **▼ Understanding The Benefits** (No. 05-10024)—a general explanation of all Social Security benefits;
- **▼ How Your Retirement Benefit Is Figured** (No. 05-10070)—an explanation of how you can calculate your benefit;
- **▼ The Windfall Elimination Provision** (No. 05-10045)—how it affects your retirement or disability benefits;
- ▼ *Government Pension Offset* (No. 05-10007) explanation of a law that affects spouse's or widow(er)'s benefits; and
- **▼ When Someone Misuses Your Number** (No. 05-10064)—what to do if you're a victim of identity theft.

We also have other leaflets and fact sheets with information about specific topics such as military service, self-employment or foreign employment. You can request Social Security publications at **www.socialsecurity.gov** or by calling us at **1–800–772–1213**.

**If you need more information**—Visit **www.socialsecurity.gov/mystatement** on the Internet, contact any Social Security office, call **1–800–772–1213** or write to Social Security Administration, Office of Earnings Operations, P.O. Box 33026, Baltimore, MD 21290-3026. If you're deaf or hard of hearing, call TTY 1–800–325–0778. If you have questions about your personal information, you must provide your complete Social Security number. If your address is incorrect on this **Statement**, ask the Internal Revenue Service to send you a Form 8822. We don't keep your address if you're not receiving Social Security benefits.