REFORMING SOCIAL SECURITY: DISTRIBUTIONAL, EQUITY, AND ECONOMIC CONSIDERATIONS

Robert L. Clark

Most of the debate over reforming national social security systems centers on the desirability of introducing individual accounts and the need to restore long run financial balance. However, there are a series of parameters in these national retirement plans that affect the size of retirement benefits, how benefits vary across households, work and retirement decisions, and revenues to the system. Important characteristics include income redistribution in the current benefit formula, retirement tests, spouse and widows' benefits, treatment of the self-employed, taxation of retirement benefits, the overall cost of employee benefits, and the relationship to other employee benefits. This article examines the existing structure of the U. S. Social Security system and its prospects for amendment. The analysis begins with a review of the current funding status of the U.S. Social Security program and then examines some of the important characteristics that affect the distribution of retirement benefits. The article concludes with a brief assessment of the importance of discretionary employee benefits in the U.S.

1. FUNDING STATUS OF U. S. SOCIAL SECURITY1

On an annual basis, revenues to Social Security currently exceed expenditures; however, projections clearly indicate that in the coming years, this situation will be reverse. As a result, the U.S. Social Security system faces a long-term actuarial deficit that will tend to increase in the coming years unless significant reforms are adopted. This section briefly describes the financial status of this retirement program.

In the United States, Old Age, Survivors and Disability Insurance (OASDI) or Social Security primarily is financed by a payroll tax (Federal Insurance Contribution Act) paid by employers and employees. Employed persons have the payroll tax withheld from their wages. A payroll tax equal to 6.2 percent of covered earnings is paid by employees to finance the national retirement and disability system. This represents a tax of 5.3 percent for retirement benefits and 0.9 percent for disability benefits. Employers also pay a payroll tax of 6.2 percent of covered earnings. The employer contributions do not count as earnings in the determination of employee compensation subject to the payroll or income taxes. The employer contributions are a business expense for the firm and thus are deducted from corporate income tax liability. Maximum annual earnings subject to these taxes are $87,000 in 2003. The maximum level of earnings subject to the payroll tax is increased automatically each year by the rate of growth of the national average annual earnings.

Since 1951, self-employed individuals have been covered by Social Security and are required to make mandatory contributions to OASDI. Tax rates for self-employed individuals are set in the Self-Employed Contribution Act (SECA). Self-employed persons pay the combined tax (employee plus employer payroll tax) of 12.4 percent of their net taxable earnings; however, several tax provisions have been adopted in an attempt to make the tax burden for the self-employed analogous to that of employees. The provisions in the tax code tend to reduce the payroll and income tax liability of the self-employed by allowing a deduction from net earnings from self-employment equal to the amount of net earnings before the deduction times one-half the SECA tax rate (or 6.2 percent of net earnings). As a result, the self-employed do not make Social Security contributions or pay income tax on 6.2 percent of their net earnings or the money that is equivalent to the employer's contribution for Social Security.

Social security taxes are paid by 96 percent of American workers. Some federal workers hired before

1984, railroad workers, some state and local government are not covered by Social Security. Unlike in Japan, avoidance of the tax by self-employed persons does not appear to be widespread; however, illegal alien workers often are paid in cash and many remain outside the system.[1]

In 2001, wage and salary earnings of 145 million employees totaled $4.7 trillion of which $4.0 trillion were reported as taxable. This means that 84.2 percent of earnings were subject to the payroll tax. The average worker had estimated annual earnings of $32,615. Approximately 94 percent of all employees had total earnings below the Social Security taxable earnings limit, thus about 9 million workers had earnings greater than this amount. There were 15 million self-employed individuals who reported total earnings of $0.3 trillion of which 65.9 percent were subject to Social Security taxes. The average earnings per self-employed person were $22,680. Approximately 94 percent of all self-employed individuals also had total net earnings less that the Social Security earnings cap implying that about one million self-employed persons had earnings above this amount. Earnings from self-employment were much more unequally distributed than employee compensation.

In 2002, the retirement and disability programs paid a total of $462 billion to 46 million beneficiaries.[2] During that same year, these programs received over $627 billion. in revenues generating a net surplus for the year of $165 billion.[3] This surplus was added to prior surpluses in the OASDI Trust Fund. At the end of 2002, OASDI Trust Fund assets totaled a record $1.4 trillion. Thus, the accumulated monies in the Trust Funds represented 288 percent of annual expenditures in 2003. Despite the existence of a current annual surplus, the U.S. Social Security faces a serious long-term financial deficit. Current projections indicate that tax revenues will continue to exceed expenditures until 2018. As a ratio of annual expenditures, the Trust Fund peaks in 2016 with assets equaling 471 percent of annual expenditures. In the following years, expenditures rapidly outpace revenues and the Trust Fund is projected to be depleted in 2042. Table 1 highlights the key dates associated with the transition from annual surpluses to annual deficits. The primary reason for the rapid increase in costs between 2010 and 2030 is the continued aging of the baby boom cohort. This aging of the population reduces the number of workers per beneficiary from 3.3 in 2002 to 2.2 in 2030.

The 75-year trends in the cost of paying benefits as scheduled under current law are compared to the projection of annual income in Figure 1. The figure shows that costs are anticipated to be lower than tax revenues until 2018. All scheduled benefits can continue to be paid through 2042 by combining tax revenues with funds obtained by redeeming government securities held in the Trust Fund. By 2042, the Trust Fund is exhausted and revenues from the payroll tax would be sufficient to pay only 73 percent of scheduled benefits. The figure clearly shows that either scheduled benefits must be reduced or taxes must be increased.

For the 75-year projection period, the Trustees estimate an actuarial deficit of 1.92 percent of social security coverage wage earnings. This represents an unfunded liability associated with scheduled benefits of $3.5 trillion over the 75 years.[4] The deficit could be eliminated by immediately increasing the payroll tax by 0.96 percentage points paid by both employers and employees (from 6.20 to 7.16 percent for each). This would be an increase in the Social Security tax rate of 15 percent $(7.16/6.2 = 1.15)$. Alternatively, benefits immediately

Table 1. KEY DATES FOR THE TRUST FUNDS

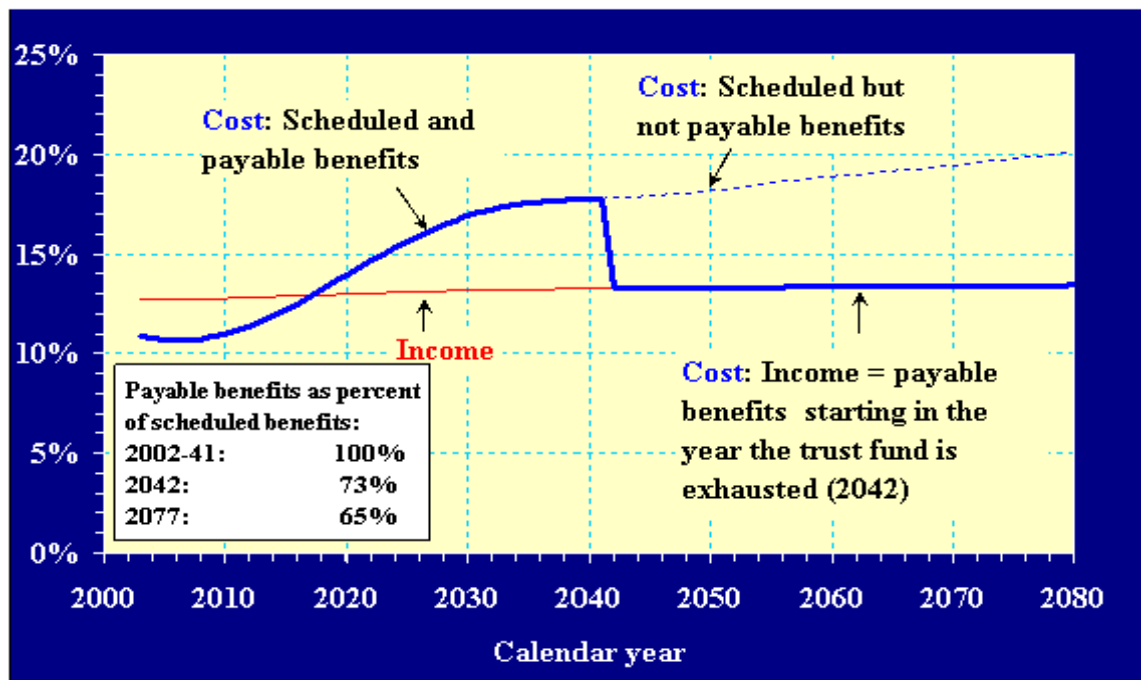|	OASI	DI	OASDI	HI
First year outgo exceeds income excluding interest	2018	2008	2018	2013
First year outgo exceeds income including interest	2030	2018	2028	2018
Year trust fund assets are exhausted	2044	2028	2042	2026

Source: U. S. Socual Security Administration. 2003. Status of the Social Security and Medicare Programs: A SUMMARY OF THE 2003 ANNUAL REPORTS.
http://www.ssa.gov/OACT/TRSUM/trsummary.html#wp35982

could be reduced by 13 percent. The magnitude of the increase in taxes needed or the reduction in benefits required to restore actuarial balance between now and 2077 is very time dependent. Figure 2 shows that if tax increases are delayed until 2042 when the Trust Fund is depleted, the payroll tax rate would need to be increased by 46 percent instead of the 15 percent required in 2003. The deficit could also be eliminated with a transfer from general revenues of $3.5 trillion. If all scheduled benefits are paid, retirement and disability payments will increase from 4.4 percent of Gross Domestic Product in 2002 to 7.0 percent in 2077.
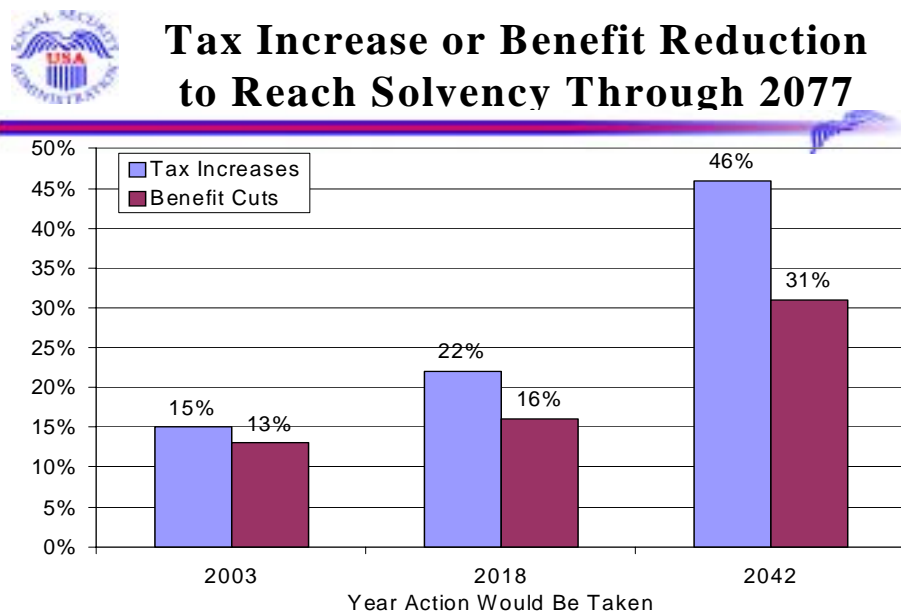
None of the proposals for reforming the U.S. Social Security systems include any additional prefunding in the context of the Trust Funds (Clark, 2003).[5] In general, prefunding of Social Security retirement benefits arises with the addition of individual accounts. All of the reform proposals that include individual accounts spe-

Figure 1

Source: Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, The 2003Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Washington: USGPO, 2003, Figure II.D2, page 8.

Figure 2

Tax Increase or Benefit Reduction to Reach Solvency Through 2077

cific that monies are diverted from the payment of current benefits into the individual accounts of workers. These monies are then available for investment in approved assets. Over time, a larger component of the overall system would become prefunded if individual accounts were adopted. Similar debates on Social Security reform are occurring in many countries. In general, these debates do not include proposals for prefunding traditional defined benefit type retirement plans. Many transitional and developing countries are considering various types of individual accounts plans and most of these would involve funding of the individual accounts; however, reforms in the more developed countries that involve the use of notional individual accounts often do not include any prefunding.
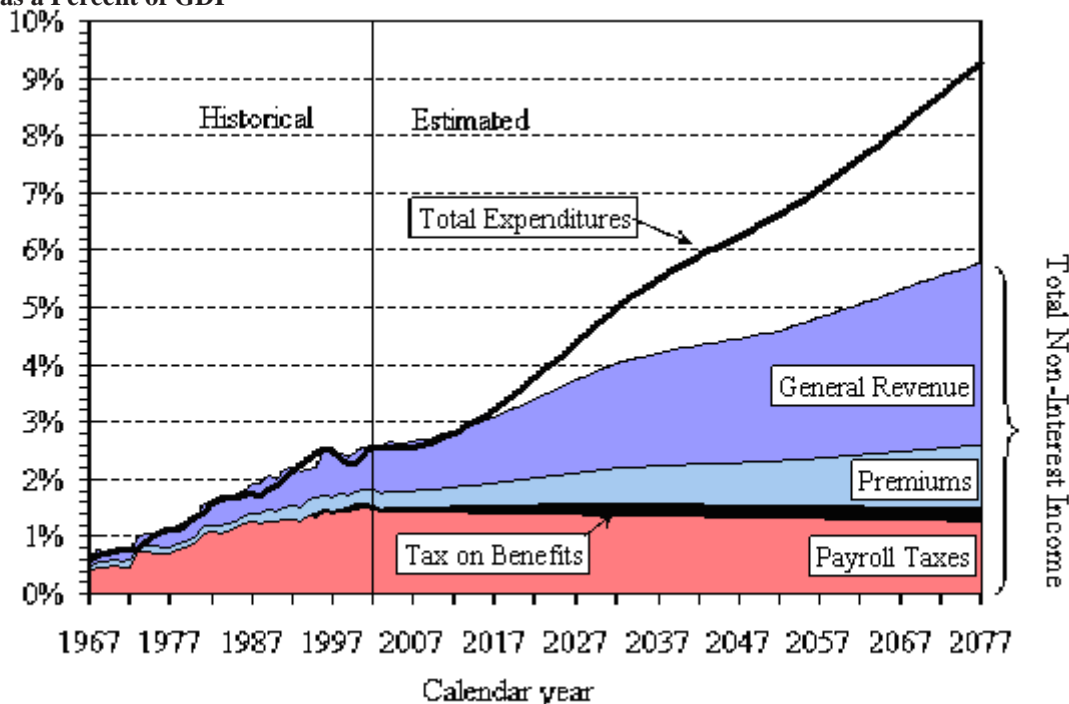
Medicare

The government provides health insurance to the elderly through Medicare and to the poor through Medicaid. Medicare is composed of two parts: Hospital Insurance (HI) or Medicare Part A and Supplementary Medical Insurance (SMI) or Medicare Part B. Part A is funded by a payroll tax paid by workers and their employers and the Part B is financed by premiums paid by older persons plus monies from general revenues. Cost of these programs is expected to escalate rapidly in the coming years. Figure 3 illustrates the explosive growth in projected Medicare expenditures compare to anticipated revenues from the payroll tax, beneficiary premiums, and general revenues. Medicare expenditures for both Parts A and B are projected to increase from 2.6 percent of GDP in 2002 to 5.3 percent by 2035 and then rise to 9.3 percent in 2077 (Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2003).

The current cost of the first part of Medicare is 1.45 percent of payroll paid by employers and a similar amount paid by employees. The payroll tax for Medicare is paid on all earnings. Currently, tax revenues exceed expenditures; however, this position will reverse in the near future and the Medicare Trust Fund is projected to be depleted in 2026 (see Table 1). Projections indicate that the payroll tax will provide revenues sufficient to pay only 73 percent of expected expenditures by 2026 and just 30 percent in 2077. The 75-year actuarial deficit for HI is 2.4 percent of payroll implying that if the payroll tax were raised today from 1.45 percent to 2.65 percent for both the employer and the employee, there would

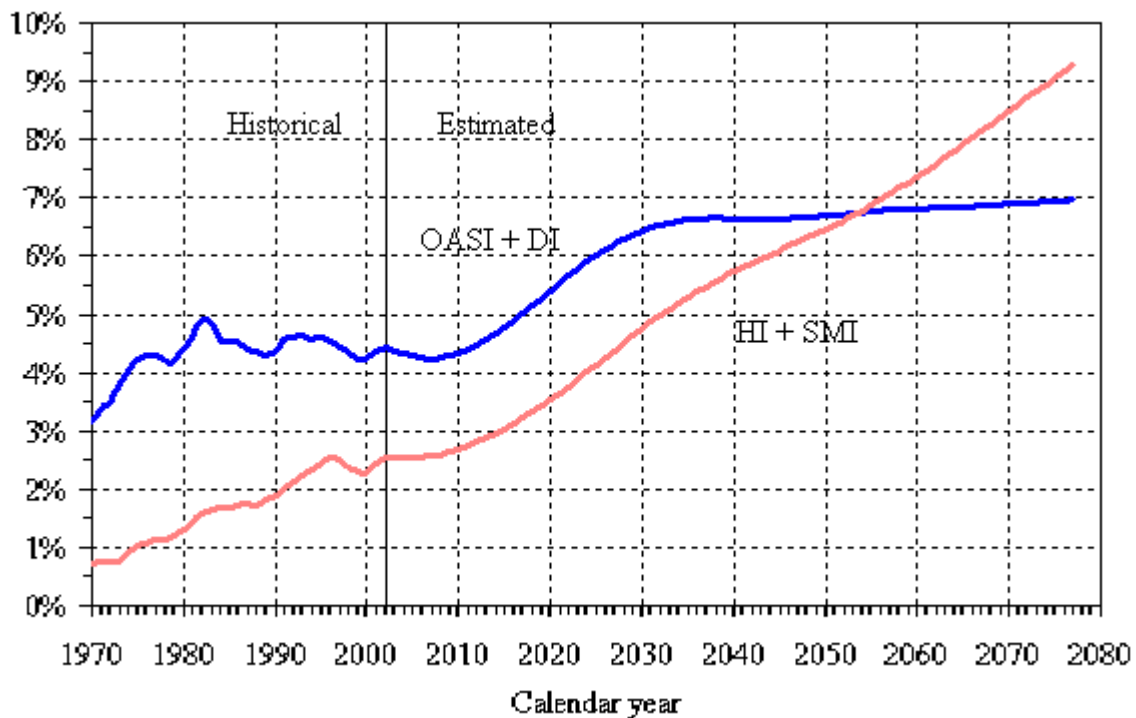**Figure 3. Medicare Expenditures and Non-Interest Income by Source as a Percent of GDP**

Source: U. S. Socual Security Administration. 2003. *Status of the Social Security and Medicare Programs: A SUMMARY OF THE 2003 ANNUAL REPORTS.* http://www.ssa.gov/OACT/TRSUM/trsummary.html#wp35982

be sufficient monies to finance this part of Medicare. To continue SMI benefits at current levels would require higher premiums and transfers from general revenues. Projections indicate that this program will increase in cost from 1.1 percent of GDP in 2002 to 4.2 percent by 2077. This rapid increase in projected expenditures for Medicare is shown in Figure 4 and compared to the slower but still very significant increase in the projected cost for OASDI.

Reform of national retirement programs must include a comprehensive assessment of retirement benefits paid in cash as well as those paid in the form of health insurance. The expected explosion of health care costs for the aging population should be of major concern to policymakers. Addressing the twin problems of financing future retirement and health care benefits is perhaps the biggest economic challenge of the twenty-first century. Table 2 shows the 75-year deficit for Medicare is 2.4 percent of payroll which exceeds the deficit for Social Security of 1.92 percent of payroll. These projections imply that the current combined payroll tax would have to be raised immediately from 15.3 percent of payroll to 19.62 percent in order to pay all scheduled benefits during the next 75 years. The growing magnitude of the twin funding problems is illustrated in Figure 5. The financial status of these problems continues to worsen when projections are continued beyond 2077.

Figure 4. Social Security and Medicare Cost as a Percentage of GDP

Source: U. S. Socual Security Administration. 2003. *Status of the Social Security and Medicare Programs: A SUMMARY OF THE 2003 ANNUAL REPORTS.* http://www.ssa.gov/OACT/TRSUM/ trsummary.html#wp35982

Table 2. ACTUARIAL DEFICIT OF THE OASI, DI, AND HI TRUST FUNDS

(As a percentage of taxable payroll--total does not add due to rounding)

	OASI	DI	OASDI	HI
Actuarial Deficit	1.56	0.35	1.92	2.40

Source: U. S. Socual Security Administration. 2003. Status of the Social Security and Medicare Programs:
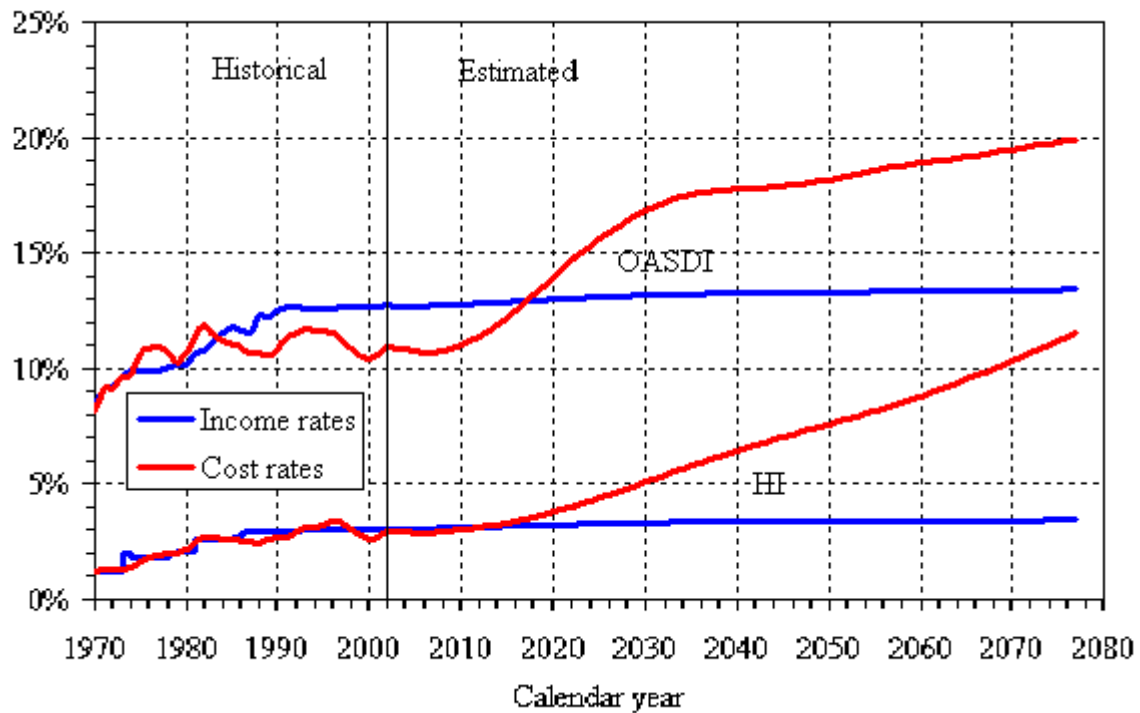A SUMMARY OF THE 2003 ANNUAL REPORTS.
http://www.ssa.gov/OACT/TRSUM/trsummary.html#wp35982

Figure 5. Income and Cost Rates
[Percentage of taxable payroll]

2. DISTRIBUTION OF RETIREMENT BENEFITS

Total household benefits paid by the U.S. Social Security system differ by the work histories of individual workers, their level of earnings, and their family status. To examine these issues, we first present a detailed discussion of how benefits are calculated and then examine how the distributional impact of the current system.[6]

Calculation of Retirement Benefits

To be eligible to receive retirement benefits, a worker must satisfy a coverage requirement by earning forty quarters of credited service. In 2003, an individual is awarded a quarter of coverage for each $890 in covered earnings. A worker can earn a maximum of four quarters for working during a year. Thus, earnings of $3,560 or more in 2003 yields four quarters of coverage. The earnings required for a quarter of coverage increases each year based on the rate of increase in the national average annual covered earnings. An individual must be age 62 and have 40 quarters of coverage to be eligible to receive retirement benefits.

The Primary Insurance Amount (PIA) is the monthly benefit amount paid to workers who initially accept retirement benefits at the normal retirement age. The PIA is also the base figure from which monthly ben-

efit amounts are paid to the worker's family members or survivors. A worker's PIA is derived from annual indexed taxable earnings. The determination of PIA involves three basic calculations - the indexing of past earnings, the calculation of the average indexed monthly earnings (AIME), and the application of a benefit formula to the AIME.

First, covered earnings over the worker's entire working career are examined. Past annual earnings are revaluated by indexing prior nominal earnings to the growth in real average covered earnings. This indexation is a central part of the current system and combined with other indexed components of the benefit formula means that benefits for future retirees automatically grow at the same rate as average wages in the economy. Second, these indexed earnings from age 21 until age 60 are used to calculate the worker's AIME. The lowest five of these 40 years of indexed earnings are dropped and the remaining 35 years are then used to determine the AIME. Thus, AIME is determined by adding the highest 35 years of indexed earnings and then dividing this total by 420 months (35 years times 12 months) to yield the AIME. Finally, a three-part benefit formula is used to compute the PIA from the AIME. The formula is weighted to provide a higher replacement ratio (PIA/AIME) to those with lower earnings. The progressive benefit formula results

in the replacement ratio declining as AIME rises. Thus, workers with lower average earnings will have a higher replacement ratio than those with higher lifetime average earnings. The 2003 formula provides a PIA equal to the sum of:

   a. 90 percent of the first $606 of AIME, plus
   b. 32 percent of the next $3,047 of AIME, plus
   c. 15 percent of AIME over $3,653

The dollar amounts in the formula are called bend points. The bend points are increased each year in proportion to increases in the average annual earnings level. The benefit formula used to determine the PIA of a worker depends on their year of eligibility (reaching age 62) not the year they first receive benefits. For those who retire at age 65 in 2002, the PIA would be calculated using the eligibility rules that prevailed in 1999.

Actual benefits received depend on the age of acceptance. The earliest age that benefits can be received is 62; however, benefits are reduced when they are begun before the normal retirement age. Historically, the normal retirement age has been 65. Legislation in 1983 specified that the normal retirement age gradually be increased to 67. This process is now underway. When completed, persons starting benefits at age 62 will receive only 70 percent of their PIA while those beginning benefits at age 67 will receive 100 percent of the PIA. Benefits are also increased when initial acceptance is postpone beyond the normal retirement age.

Once individuals begin to receive retirement benefits, benefits are increased annually in January by cost-of-living adjustments (COLA). The COLA is based on the rate of increase in the Consumer Price Index (CPI) for the previous year. Thus, benefits in retirement are increased to maintain their real purchasing power.

This discussion provides the basic structure for calculating retirement benefits in the United States. It also highlights several important areas that must be considered in reforming this and other national retirement programs. First, if scheduled benefits to future retirees are reduced as part of amendments to restore financial solvency, how will these changes be incorporated into the benefit formula? Should benefits be reduced across the board? This method of benefit reduction could be accomplished by reducing each of the three components in the formula by the same percentage. This is basically a distributional issue and indicates a specific concern for low-income retirees. Should the indexing formula for past earnings be changed from wage indexing to price

indexing? The current system maintains a constant replacement ratio over time while a shift to price indexing would result in declining replacement ratios with increases in real earnings.

In comparison, the Japanese Social Security system has a two-part benefit formula. First, there is a basic benefit that provides a flat benefit to all qualified workers and their spouse. Employees also are covered by an earnings-related benefit that is based on a single generosity parameter. The combination of these two benefits achieves a similar type of income redistribution as does the progressive benefit formula in the U.S. system. Over the past two decades, a series of reforms have been adopted that have reduced future retirement benefits. Most of these reductions have been in the benefit formula of the earnings related benefit.

Distribution of Benefits by Household Characteristics

Current benefit rules produce significant distributional effects based on income, gender, and household composition. The preceding discussion indicates how the progressive benefit formula provides a larger replacement ratio to low income workers. Throughout the history of Social Security this form of redistribution has been considered a desirable social objective. We now examine Social Security rules that provide different lifetime benefits to men and women and to different types of households.

Gender differences in lifetime benefits

The benefit formula of Social Security is gender neutral in the determination of annual benefits. This results in women receiving greater lifetime benefits compared to men. A private insurance company that sells life annuities paying a specified annual benefit would be forced to charge women as a class more for this annuity than they would for men. This is due to the greater life expectancy of women. Due to lower mortality women have a higher probability of reaching retirement than men and thus collecting on the annuity (or receiving a retirement benefit). The greater life expectancy at age 65 of women also implies that they will receive benefits over a longer retirement period. On average women will receive greater lifetime benefits than men holding all other factors constant.[7] Thus, women with the same lifetime earnings pay the same amount in lifetime taxes as men but receive greater lifetime benefits. The Social Security systems in

most developed countries, including Japan, provide gender neutral annual benefits that provides women with greater lifetime benefits per dollar of tax paid.

Single vs. married workers

Social Security provides greater lifetime benefits to a married worker compared to a nonmarried worker. This distributional effect occurs because of the spouse benefit. Social Security provides a benefit to the spouse of qualified workers equal to 50 percent of the retired worker benefit. This benefit is provided to a spouse at no additional cost to the worker; i.e. single and married workers pay the same payroll tax and earn the same retired worker benefits. Thus, married workers earn the right to a spouse benefit without having their own retirement benefit reduced.

All individuals who have worked and paid taxes on earnings are eligible to receive a benefit based on their own earnings record. If this benefit is less than 50 percent of their spouse, the partner with the lower benefit becomes dually entitled. In order to explain this benefit, let us assume that the husband has had considerably higher earnings than his wife. If the wife does not work at all, she receives a benefit equal to 50 percent of her husband's retirement benefit. If she has worked in covered employment, she will receive a benefit as a retired worker. In addition, she will receive an additional benefit equal to the difference between this benefit and 50 percent of her husband's retirement benefit. Thus, the benefit is same if the spouse had never worked.

Some analysts argue that this benefit provision discriminates against working women because they receive no additional benefits for the payroll taxes they have paid. Spouse benefits can be accepted as early as age 62; however, benefit reductions apply to those that start benefits prior to the normal retirement age. Over the past three decades, several proposals have been made to address this problem; however, none have come close to be enacted by Congress. Any change in the spouse benefit would tend to increase the benefits of households in which both partners work and reduce the benefits of households in which only one member has had covered earnings. A similar result would occur in Japan if married workers whose spouses did not work were required to pay a higher payroll tax than employees who were not married in order to finance the flat benefit payment from the National Pension.

Widow's benefits

When a retired worker dies, his or her spouse can receive 100 percent of the retired worker's benefit. The widow's benefit increases the value of Social Security for a married worker compared to a single worker. Combining this benefit with the spouse benefit implies that the value of Social Security to a one-earner couple is more than 150 percent that of a single male. This result follows because the spouse will receive a survivor benefit equal to the worker's PIA once the worker dies. In comparison, no survivor benefits are paid to the estate of a single worker. There has been little debate in the United States concerning whether it is appropriate to redistribution income away from single persons toward married couples.

For many households, the widow's benefit is only two thirds of the total benefit paid when both partners were alive. In general, equivalence scales indicated that one older person needs about 75 percent as much income as a two-person household. Thus, the reduction in total household benefits may lower the living standard of the surviving partner. A variety of proposals have been made to address this issue. In Japan, the death of a spouse also results in a reduction of household retirement benefits. The relative magnitude of the reduction in total household benefits upon the death of the spouse depends on the size of the flat benefit from the National Pension compared to the earnings-related benefit from the Employee Pension Insurance.

3. ADDITIONAL FACTORS AFFECTING HOUSEHOLD BENEFITS

Two additional factors of Social Security merit special attention due to their importance in the determination of retirement benefits. These are the earnings or retirement test and the inclusion of Social Security benefits as taxable income. Each of these items is now considered.

Earnings Test

Throughout its history, Social Security has included a retirement or earnings test that reduced the benefits for persons who continued to have earnings after starting to receive retirement benefits. Initially, benefits for all beneficiaries were reduced dollar for dollar for earnings above a specified amount. Beginning in 1978, there were different tests applied to persons above and below the normal retirement age of 65. Older beneficiaries were allowed to have higher annual earnings before having their

benefits reduced and the reduction was at a lower level.

The earnings test has been one of the least favorable aspects of the U.S. Social Security system. Empirical studies have indicated that the earnings test reduces the incentives for older persons to continue to work. Persons who remain in the labor force tend to truncate that hours of work so that earnings do not exceed the specified limit while others are more likely to complete leave the labor force and apply for Social Security benefits at an earlier age. These effects tend to adversely affect the financial status of the system. Many retirees believe that they already have earned the right to their Social Security benefits and are angry when working causes them to have lower benefits. The arguments against the earnings test led Congress to gradually relax the test by raising the dollar limits on earnings not subject to the tax and eventually to eliminate earnings test for persons above the normal retirement age.

Amendments to the Social Security Act in 2000 completely eliminated the earnings test for persons who were older than the normal retirement age. Persons receiving Social Security retirement benefits who are younger that the normal retirement age still are subject to a reduction in benefits when their earnings exceed the dollar limit. In 2003, persons younger than the normal retirement age have their benefits reduced one dollar for each two dollars in earnings above $11,520. In the year that a person reaches the normal retirement age, they can earn up to $30,720 without having any reduction in their benefits. If earnings exceed this amount, benefits are reduced by one dollar for each three dollars in earnings above the limit.

An important corollary to the earnings test, is that when benefits are reduced due to earnings above the limit, future benefits are increased by the actuarial adjustment. Benefits are recalculated as if the individual had delayed starting benefits by one month for each month benefits are reduced. Between 62 and the normal retirement age, this adjustment is basically actuarially fair implying that the earnings test should have on a small impact on younger beneficiaries. For ages above the normal retirement age, the delayed adjustment credit has historically been much lower. Thus, most of the analysis of the labor supply effects of the earnings test have been on beneficiaries who are over the normal retirement age.

Kestenbaum et al (1999) found that in 1995 just over 800,000 persons aged 65 to 70 had earnings above the limit specified by the retirement test and thus, they were subject to benefit withholding. The total amount of benefits withheld from beneficiaries due to the earnings test was $4.3 billion. The median amount withheld was $3,596. This implied earnings of $10,788 above the threshold level of $11,280 or annual earnings of $22,800 for this group. Of course, some individual who expect to have earnings may have not applied for Social Security benefits. In 1995, there were 152,000 persons aged 65 to 70 who had earnings above the retirement test threshold who chose not to apply for benefits and thus were not subject to the test. Quinn, et al (1990) also found that beneficiaries tend to reduce their hours of work so as to avoid the earnings test.

As noted above, legislation in 2000 now exempts individuals older than the normal retirement age from the earnings test. Thus, all older beneficiaries can now have unlimited earnings and still receive their full Social Security benefit. Since the earnings test only applies to beneficiaries below the normal retirement age and for these persons the delayed benefit credit increases future benefits by an actuarially fair amount, the impact of the earnings test in the U.S. will be relatively small in the future.

Taxation of Social Security Benefits

Social Security benefits are subject to federal income tax whenever the total of one half of the Social Security benefit plus a person's modified adjusted gross income[8] is greater than one of the following thresholds:

1. if the total exceeds $25,000 for an individual or $32,000 for a married couple filing a joint return, the taxable amount is the lesser of: 50 percent of the Social Security benefit or half of the excess above $25,000 or $32,000 respectively.

2. if the total exceeds $34,000 for an individual or $44,000 for a married couple filling a joint return, then the taxable amount is the lesser of: 85 percent of the Social Security benefit or the sum of the smaller of the amount included in (1) above or $4,500 for an individual and $6,000 for a married couple, plus 85 percent pf the excess modified adjusted gross income above $34,000 or $44,000 respectively.

Because of these relatively high levels of income, only individuals and families in the upper part of the income distributions are required to include their Social Security benefits as taxable income. Based on income distribution data for households aged 65 and over, it is estimated that less than one third of all older households would have

Social Security benefits included as part of their taxable income. The taxes collected based on Social Security benefits do not remain in the general fund. Instead these monies are transferred to the OASDI Trust Funds. In 2002, the taxation of Social Security benefits yielded $13.8 billion dollars. This represented 2.2 percent of OASDI revenues in that year. Obviously, these tax payments are borne primarily by middle and upper income beneficiaries.

4. EMPLOYEE BENEFITS

American workers receive a wide range of benefits provided by their employer. These include health insurance, retirement benefits, and an assortment of other types of benefits. The U.S. Bureau of Labor Statistics (2003) reports that in June of 2003, total employee compensation per hour for civilian workers was $24.19 of which $17.35 or 71.7 percent was paid in cash. Table 3 illustrates the composition of total employee compensation and shows the importance of employer-provided retirement and health plans relative to the cost of OASDI and Medicare.

Hourly expenditures on OASDI averaged $1.11 or 4.6 percent of total compensation. In comparison, companies on average spend $0.86 per hour or 3.6 percent of compensation on company retirement plans. Medicare expenditures were $0.28 per hour but employers spent $1.76 on company plans for health and disability. Since only half of all workers are covered by a company retirement plan and only about two thirds of employees are in employer provided health plans, the expenditures on these benefits for those companies that offer these plans is much higher.

Employer-provided Retirement Plans

For most middle and upper income households, Social Security does not provide sufficient funds for an adequate retirement income. Thus for many of these individuals, retirement income is augmented by benefits from employer-provided pension plans and personal savings. Approximately half of the labor force is covered by a pension plan. Lower income households typically are not receiving retirement benefits from company plans. In contrast, higher income retirees tend to have benefits from their company plans that are greater than their Social Security benefits. The progressive benefit formula described above means that workers with higher earnings will have a lower replacement ratio from Social Security and thus must depend to a greater extent on other forms of retirement income.

Traditionally, most pension participants were enrolled in defined benefit pension plans; however, during the past three decades, there has been a strong and continuing movement away from defined benefit plans and toward defined contribution plans. Today, two thirds of all pension participants are covered by defined contribution plans. The expansion of coverage by defined contribution plans has been the result of increased government regulations that raised the cost of providing defined benefit plans and new options for defined contribution plans such as 401(k) plans. In addition, shifts in the composition of the labor force and in employment opportunities have made defined contribution plans more popular among workers.

Defined contribution plans require workers to decide whether to participate in the plan, how much money to contribute, and how to invest their retirement funds. These plans are much more portable than defined benefit

Table 3. Employer costs per hour worked for employee compensation and costs as a percent of total compensation: Civilian workers, June 2003

Compensation Component	Hourly costs	Percent of total compensation
Total compensation	24.19	100.0
Wages and salaries	17.25	71.7
Total benefits	6.84	28.3
Retirement & savings	0.86	3.6
Health & insurance	1.81	7.5
Paid leave	1.63	6.7
Supplemental pay	0.59	2.4
OASDI	1.11	4.6
Medicare	0.28	1.2
Other legally required	0.54	2.2
Other benefits	0.04	0.2

Source: U.S. Bureau of Labor Statistics, "Employer costs for Employee Compensation – June 2003,"

plans as they allow workers to move their account balances when leaving a company. The popularity of these plans was enhanced during the 1990s with the prolonged rise in the U.S. stock market.

Recent declines in the market combined with accounting and management scandals including Enron, WorldCom, and Tyco among others have to some extent shaken the confidence of investors. However, there is no evidence that companies are returning to defined benefit plans or that workers would now prefer defined benefit plans. New regulations to restore confidence in the accounting and auditing systems of large companies are being considered. In addition, there has been considerable debate over the use of company stock in defined contribution plans. Several proposals to reduce or limit the percentage of an account balance that can be invested in the stock of the employer; however, none of these proposals seems likely to be enacted. Other proposals providing increased opportunities for participants to sell company stock in these plans are likely to be passed by Congress.

There is continued debate over the need for changes in pension tax laws and regulation. Several bills are currently under consider that might alter the administrative costs of various types of plans, provide new options for retirement savings, and change the desirability of certain types of pension plans. It is unlikely that any of these proposals will significantly increase the proportion of the labor force that is covered by an employer-provided pension plan.

Employer-provided Health Plans

In the United States, most people younger than 65 receive health insurance through their employers or the employer of their spouse or parent. Two thirds of non-elderly Americans are covered by employer-provided health insurance. However, approximately 17 percent of non-elderly does not have any type of health insurance (Fronstin, 2002; also see U.S. BLS, 2002). The lack of health insurance for many Americans is a major political and economic issue.

The rapidly rising cost of health insurance is a major issue for employers. During the past three years, employer premiums for health plans have been rising by over 10 percent per year during a period when the increase in the Consumer Price Index has been averaging around 2.5 percent per year. Employer costs per worker for health insurance averages around $6,000 to $10,000

per year. In the face of these rapidly rising costs, employers have been increasing the cost of health insurance that workers must pay. Employees are facing higher premiums, larger deductibles, and greater co-payments for participation in the company health plans. As health insurance costs rise faster than general prices, workers and their employers must decide whether to continue to purchase the same level of health care or reduce coverage. If quality is maintained, then other forms of compensation must be reduced.

5. CONCLUDING REMARKS

Social Security in the United States faces a major financial challenge in the twenty-first century. The current actuarial deficit over the next 75 years is 1.92 percent of payroll but larger deficits loom further in the future. The financial shortfalls are directly linked to the aging of the population. Restoring financial solvency requires that scheduled benefits be reduced or that new sources of revenue be found. It is important to note that reforming Social Security can take many forms. Proposals should be evaluated on whether they can eliminate the financial deficit; however, consideration must also be given to the distributional effects on any change. This paper highlights the need for reform and identifies some of the existing distributional anomalies imbedded in the U.S. Social Security system.

The problems confronting Social Security must be considered within an overall economic and social context. Large and growing deficits associated with health care programs for the elderly are projected. Providing health care to future retirees presents governments with a considerable economic challenge. The projected deficits of the Medicare program are growing much more rapidly that those projected for Social Security. Policy makers must find a means of addressing these rapidly expanding costs. One can not consider reforming Social Security in a vacuum. Health care programs along with employer-provided retirement benefits also must be included in future assessments. The need for comprehensive national retirement policies has never been more pressing.

Notes

1)Even many illegal aliens end up paying the payroll tax and ultimately receiving benefits. To project future

revenues and expenditures, the Trustees of the Social Security Trust Funds estimate that half of all illegal immigrants will both pay taxes and receive benefits, one quarter will pay taxes and not receive any benefits, and one quarter will work totally outside the system.

2) These statistics are taken from *The 2003 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds,* issued on March 17, 2003. See Table II.B1. The Report is available at http://www.ssa.gov/OACT/TR/TR03/tr03.pdf.

3) Payroll tax revenues accounted from $533 billion or 85 percent of total income while interest from the Trust Fund was $80 billion and revenues from income tax payments on Social Security benefits totaled $14 billion.

4) In their 2003 report, the Trustees of OASDI provided an estimate of the infinite time horizon actuarial status of Social Security. The projected deficit on the on-going program into the future is $10.5 trillion. This projection indicates that annual deficits continue for years beyond 2080.

5) Clark (2003) reviews a series of reform proposals and considers their impact on future taxes, benefits, individual accounts, and funding. The only proposal considered in this paper that provided for some additional advanced funding was the Clinton plan in which the government would have repurchased outstanding debt and transferred these government securities to the Trust Fund.

6) A more detailed discussion of these issues is provided in Burkhauser, et al (2003, forthcoming).

7) Fairness from an actuarial point of view may not be considered fair from a social point of view. In the 1980s, the United States Supreme Court in a series of rulings (Los Angeles vs. Manhart 1978; Arizona vs. Norris 1983; etc.) required all private retirement plans to be gender neutral, based on their interpretation of Title VII of the Civil Rights Act of 1964. However, the McCarren-Ferguson Act specifically exempts the private insurance industry from Title VII.

8) Modified adjusted gross income is equal to adjusted gross income plus tax-exempt interest, with the following deductions and exclusions added back: exclusion for foreign income; and exclusion for Puerto Rican income for residents of Puerto Rico.

REFERENCES

Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2003. *Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.* Washington: USGPO.

Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. 2003. *The 2003Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.* Washington: USGPO.

Burkhauser, Richard, Robert Clark, Marilyn Moon, Joseph Quinn, and Timothy Smeeding, *The Economics of an Aging Society*, Oxford UK: Blackwell Publishers, forthcoming fall 2003.

Clark, Robert. 2003. "Social Security Reform in the United States: Implications for Japan," *Japanese Journal of Social Security Policy*, Vol. 2, No. 1, June 2003, 14-23.

Employee Benefit Research Institute. 2002. "Employee Spending on Benefits 2001", *Facts from EBRI.* October.

Fronstin, Paul. 2002. "Sources of Health Insurance and Characteristics of the Uninsured," *EBRI Issue Brief Number 252.*

Kestenbaum, Bertram, Michael Shackleford, and Chris Chaplain. 1999. "Effect on Benefits of Earnings at Ages 65 or Older, 1995," *Social Security Bulletin* 62(1): 4-9.

Quinn, Joseph, Richard Burkhauser, and Daniel Myers. 1990. *Passing the Torch: The Influence of Economic Incentives on Work and Retirement.* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

U.S. Bureau of Labor Statistics. 2002. "Employee Benefits in Private Industry, 2000," *NEWS*, July 16.

U.S. Bureau of Labor Statistics. 2003. "Employer Costs for Employee Compensation - June 2003", August 26.

U. S. Social Security Administration. 2003. *Status of the Social Security and Medicare Programs: A SUMMARY OF THE 2003 ANNUAL REPORTS.*

Robert L. Clark
    Professor
    North Carolina State University