Statement of Social Insurance
Old-Age, Survivors and Disability Insurance
75-Year Projection as of January 1, 2005

(In billions)

	2005	2004	2003	2002	2001
		Estimates from Prior Years			
Actuarial present value[1] for the 75-year projection period of estimated future income (excluding interest)[2] received from or on behalf of:					
Current participants[3] who, at the start of projection period:					
Have not yet attained retirement eligibility age (Ages 15-61)	$15,290	$14,388	$13,576	$13,048	$12,349
Have attained retirement eligibility age (Age 62 and over)	464	411	359	348	309
Those expected to become participants (Under age 15)[4]	13,696	12,900	12,213	11,893	11,035
All current and future participants	29,450	27,699	26,147	25,289	23,693
Actuarial present value[1] for the 75-year projection period of estimated future cost[5] for or on behalf of:					
Current participants[3] who, at the start of projection period:					
Have not yet attained retirement eligibility age (Ages 15-61)	23,942	22,418	21,015	20,210	18,944
Have attained retirement eligibility age (Age 62 and over)	5,395	4,933	4,662	4,402	4,255
Those expected to become participants (Under age 15)[4]	5,816	5,578	5,398	5,240	4,700
All current and future participants	35,154	32,928	31,075	29,851	27,899
Actuarial present value[1] for the 75-year projection period of estimated future excess of income (excluding interest) over cost	-$5,704	-$5,229	-$4,927	-$4,562	-$4,207
Trust fund assets[6] at start of period	1,687	1,531	1,378	1,213	1,049
Actuarial present value[1] for the 75-year projection period of estimated future excess[7] of income (excluding interest) and trust fund assets at start of period over cost	-$4,017	-$3,699	-$3,550	-$3,350	-$3,157

Footnotes to the Statement of Social Insurance

[1]Present values are computed on the basis of the intermediate economic and demographic assumptions specified in the Report of the Board of Trustees for the year shown and over the 75-year projection period beginning January 1 of that year. Totals do not necessarily equal the sum of the rounded components.

[2]Income (excluding interest) consists of payroll taxes from employers, employees, and self-employed persons; revenue from Federal income-taxation of scheduled OASDI benefits; and miscellaneous reimbursements from the General Fund of the Treasury.

[3]Current participants are the "closed group" of individuals age 15 and over at the start of the period. To calculate the actuarial present value of the excess of future income (excluding interest) from or on behalf of these individuals over future cost for them or on their behalf, subtract the actuarial present value of future cost for them or on their behalf from the actuarial present value of future income (excluding interest) from them or on their behalf. The projection period for the closed group would theoretically include all future working and retirement years, a period which may exceed 75 years in some instances. While the estimates are limited to the 75-year projection period, the net present value of future income and cost for the closed group participants beyond 75 years is not material.

[4]Includes births during the period.

[5]Cost includes scheduled benefit payments, administrative expenses, net transfers with the Railroad Retirement program, and vocational rehabilitation expenses for disabled beneficiaries.

[6]Trust fund assets represent the accumulated excess of all past income, including interest on trust fund assets, over all past expenditures for the social insurance program. The assets are invested only in securities backed by the full faith and credit of the Federal Government.

[7]The negative value represents the magnitude of the unfunded obligation of the program over the 75-year projection period. The calculation of the actuarial balance used for analysis by the Social Security trustees differs from the calculation of the amount presented on this line. The trustees' actuarial balance is expressed as a percentage of the taxable payroll and includes the cost of attaining a target fund balance equal to the estimated next year's cost at the end of the period.

Assumptions Used for the Statement of Social Insurance

The estimates used in this presentation for the current year (2005) are based on the assumption that the programs will continue as presently constructed. They are also based on various economic and demographic assumptions, including those in the following table:

			Period Life Expectancy At Birth[3]				Average Annual Percentage Change In:				Average Annual Interest Rate[9]
	Total Fertility Rate[1]	Age-Sex-Adjusted Death Rate[2] (per 100,000)	Male	Female	Net Annual Immigration (persons per year)[4]	Real-Wage Differential[5] (percentage points)	Average Annual Wage in Covered Employment	CPI[6]	Total Employment[7]	Real GDP[8]	
2005	2.02	854.2	74.8	79.6	1,075,000	2.1	4.2	2.2	1.7	3.6	4.2%
2010	2.01	828.2	75.4	80.0	1,000,000	1.3	4.1	2.8	0.7	2.5	5.7%
2020	1.98	764.7	76.5	80.8	950,000	1.0	3.8	2.8	0.3	1.9	5.8%
2030	1.95	705.0	77.5	81.7	900,000	1.0	3.8	2.8	0.2	1.8	5.8%
2040	1.95	652.1	78.5	82.5	900,000	1.1	3.9	2.8	0.3	1.9	5.8%
2050	1.95	605.7	79.4	83.2	900,000	1.1	3.9	2.8	0.2	1.8	5.8%
2060	1.95	564.6	80.2	83.9	900,000	1.1	3.9	2.8	0.2	1.8	5.8%
2070	1.95	528.1	81.0	84.6	900,000	1.1	3.9	2.8	0.2	1.8	5.8%

Table 1: Assumptions Used for the Statement of Social Insurance 2005

1. The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire childbearing period. The ultimate total fertility rate is assumed to be reached in 2029.

2. The age-sex-adjusted death rate is the crude rate that would occur in the enumerated total population as of April 1, 2000, if that population were to experience the death rates by age and sex observed in, or assumed for, the selected year. It is a summary measure and not a basic assumption; it summarizes the basic assumptions from which it is derived.

3. The period life expectancy for a group of persons born in a given year is the average that would be attained by such persons if the group were to experience in succeeding years the death rates by age observed in, or assumed for, the given year. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived.

4. Net annual immigration is the number of persons who enter during the year (both legally and otherwise) minus the number of persons who leave during the year.

5. The real-wage differential is the difference between the percentage increases, before rounding, in the average annual wage in covered employment, and the average annual Consumer Price Index (CPI).

6. The CPI is the annual average value for the calendar year of the CPI for Urban Wage Earners and Clerical Workers (CPI-W).

7. Total employment represents total of civilian and military employment in the U.S. economy.

8. The real Gross Domestic Product (GDP) is the value of total output of goods and services, expressed in 2000 dollars. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived.

9. The average annual interest rate is the average of the nominal interest rates, which, in practice, are compounded semiannually, for special public-debt obligations issuable to the trust funds in each of the 12 months of the year.

These assumptions and the other values on which these displays are based reflect the intermediate assumptions of the 2005 Trustees Report. Estimates made in prior years differ substantially because of revisions to the assumptions based on changes in conditions or experience, and to changes in actuarial methodology. It is reasonable to expect more changes for similar reasons in future reports.

Program Description

The Old-Age, Survivors, and Disability Insurance (OASDI) program, collectively referred to as "Social Security," provides cash benefits for eligible U.S. citizens and residents. At the end of calendar year 2004, OASDI benefits were paid to approximately 48 million beneficiaries. Eligibility and benefit amounts are determined under the laws applicable for the period. Current law provides that the amount of the monthly benefit payments for workers, or their eligible dependents or survivors, is based on the workers' lifetime earnings histories.

The OASDI program is financed largely on a pay-as-you-go basis--that is, OASDI payroll taxes paid each year by current workers are primarily used to pay the benefits provided during that year to current beneficiaries. The retired-worker benefits it pays replaces a larger proportion of earned income for lower earners than for higher earners. The amount of OASDI income and benefits may be altered by changes in laws governing the program.

Program Finances and Sustainability

As discussed in Note 8 to the consolidated financial statements, a liability of $61 billion as of September 30, 2005 is included in "Benefits Due and Payable" on the balance sheet for unpaid amounts of OASDI benefits due to recipients on or before that date ($52 billion as of September 30, 2004). Virtually all of this amount was paid in October 2005. Also, an asset of $1,809 billion is recognized for the "investments in Treasury securities" as of September 30, 2005 ($1,635 billion as of September 30, 2004). These investments are referred to as "trust fund assets" or "balance" throughout the remainder of this Required Supplementary Stewardship Information. They represent the accumulated excess for the OASDI program of all past income, including interest, over all past expenditures. They are invested only in securities backed by the full faith and credit of the Federal Government.

No liability has been recognized on the balance sheet for future payments to be made to current and future program participants beyond the unpaid amounts as of September 30, 2005. This is because OASDI is accounted for as a social insurance program rather than as a pension program. Accounting for a social insurance program recognizes the expense of benefits when they are actually paid, or are due to be paid, because benefit payments are primarily nonexchange transactions and are not considered deferred compensation, as would employer-sponsored pension benefits for employees. Accrual accounting for a pension program, by contrast, recognizes retirement benefit expenses as they are earned so that the full estimated actuarial present value of the worker's expected retirement benefits has been recognized by the time the worker retires.

Supplementary Stewardship Information - While no liability has been recognized on the balance sheet for future payments beyond those due at the reporting date, actuarial estimates are made of the long-range financial condition of the OASDI program and are presented here. Throughout this section, the following terms will generally be used as indicated:

- **income:** payroll taxes from employers, employees, and self-employed persons; revenue from Federal income-taxation of scheduled OASDI benefits; interest income from Treasury securities held as assets of the trust funds; and miscellaneous reimbursements from the General Fund of the Treasury;
- **income excluding interest:** income, as defined above, excluding the interest income from Treasury securities held as assets of the trust funds;
- **cost:** scheduled benefit payments, administrative expenses, net transfers with the Railroad Retirement program, and vocational rehabilitation expenses for disabled beneficiaries;
- **cashflow:** either income excluding interest, or cost, depending on the context, expressed in nominal dollars;
- **net cashflow:** income excluding interest less cost, expressed in nominal dollars;
- **present value:** the equivalent value, as of a specified point in time and adjusted using a specified interest rate, of a future stream of payments (either income or cost). The present value of a future stream of payments may be thought of as the lump-sum amount that, if invested at the specified interest rate as of the specified point in time, together with interest earnings would be just enough to meet each of the payments as they fall due.
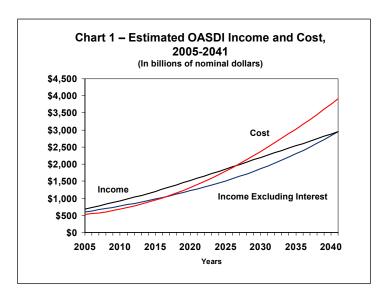
All estimates in this section are based on the 75-year projections under the intermediate assumptions in the 2005 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (2005 Trustees Report) (see Table 1). The statement presented on page 143 and the supplementary stewardship information below are derived from estimates of future income and cost based on these assumptions and on the current Social Security Act, including future changes previously enacted. This information includes:

(1) actuarial present values of future estimated cost for, and estimated income (excluding interest) from, or on behalf of, current and future program participants;

(2) estimated annual income excluding interest and cost in nominal dollars and as percentages of taxable payroll and GDP;

(3) the ratio of estimated covered workers to estimated beneficiaries; and

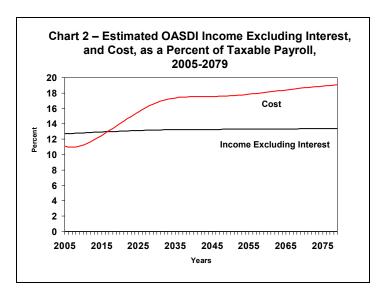(4) an analysis of the sensitivity of the projections to changes in selected assumptions.

Cashflow Projections - Chart 1 shows actuarial estimates of OASDI annual income, income excluding interest, and cost for 2005-2041 in nominal dollars. These estimates are only displayed through 2041, the year that the OASDI trust funds are projected to become exhausted. At the point of trust fund exhaustion, no interest earnings would be available. Moreover, because the program lacks the authority to borrow significantly to continue paying benefits, benefit payments would be limited to the available tax income. Thus, extension of this table, which is intended to illustrate the source of revenue needed to meet the cost of the program, beyond the point of trust fund exhaustion, would be inappropriate.

The estimates are for the open-group population, all persons projected to participate in the OASDI program as covered workers or beneficiaries, or both, during that period. Thus, the estimates include payments from, and on behalf of, workers who will enter covered employment during the period as well as those already in covered employment at the beginning of that period. They also include cost on behalf of such workers during that period.

As chart 1 shows, estimated cost starts to exceed income (including interest) in 2027. This occurs because of a variety of factors including the retirement of the "baby boom" generation, the relatively small number of people born during the subsequent period of low birth rates, and the projected increases in life expectancy, which increase the average number of years of receiving benefits relative to the average number of years of paying taxes. Estimated cost starts to exceed income excluding interest even earlier, in 2017. At that time, to meet all OASDI cost on a timely basis, the trust funds would begin to redeem assets (Treasury securities). To finance this redemption, the government would have to increase its borrowing from the public, raise taxes (other than OASDI payroll taxes), and/or reduce expenditures (other than OASDI cost). Alternatively, the government could make this redemption unnecessary by changing the law to increase OASDI taxes and/or reduce OASDI scheduled benefits.
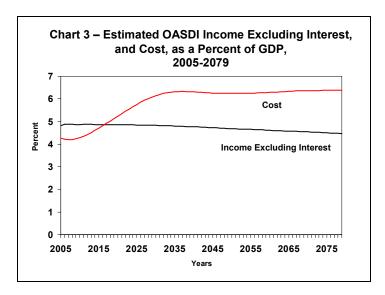

Chart 1 – Estimated OASDI Income and Cost, 2005-2041
(In billions of nominal dollars)

Percentage of Taxable Payroll - Chart 2 shows estimated annual income excluding interest and cost expressed as percentages of taxable payroll. As presently constructed, the program receives most of its income from the 6.2 percent payroll tax that employees and employers each pay on taxable wages and salaries (for a combined payroll tax rate of 12.4 percent), and the 12.4 percent that is paid on taxable self-employment income. Prior to 2017, estimated annual cost is less than estimated annual income, excluding interest, whereas thereafter it is more. After 2017, estimated cost, expressed as a percentage of taxable payroll, increases rapidly through 2030 and is rising steadily at the end of the 75-year period. The estimated income at the end of the 75-year period is sufficient to cover only 68 percent of the estimated cost.

Chart 2 – Estimated OASDI Income Excluding Interest, and Cost, as a Percent of Taxable Payroll, 2005-2079

Actuarial Balance - The statement of social insurance on page 143 shows that the present value of the excess of income (excluding interest) over cost for the 75-year period is -$5,704 billion. If augmented by the trust fund assets at the start of the period (January 1, 2005), it is -$4,017 billion. This excess does not equate to the actuarial balance in the Trustees Report of -1.92 percent of taxable payroll because the actuarial balance includes the cost of attaining a target trust fund balance by the end of the period.
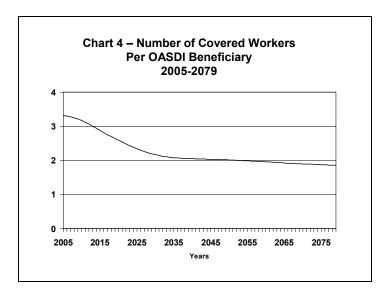
One interpretation of this negative actuarial balance (-1.92 percent of taxable payroll) is that it represents the magnitude of the increase in the average combined payroll tax rate for the 75-year period that would result in an actuarial balance of zero. The combined payroll tax rate is 12.4 percent today and is currently scheduled to remain at that level. An increase of 1.92 percentage points in this rate in each year of the 75-year projection period (0.96 percentage points for employees and employers each, resulting in a total rate of 14.32 percent or a rate of 7.16 percent for each) is estimated to produce enough income to pay all benefits due under current law for that period. Alternatively, all current and future benefits could be reduced by about 12.8 percent (or there could be some combination of both tax increases and benefit reductions) to achieve the same effect.

Percentage of Gross Domestic Product (GDP*)* - Chart 3 shows estimated annual income excluding interest and cost expressed as percentages of GDP. Analyzing these cashflows in terms of percentage of the estimated GDP, which represents the total value of goods and services produced in the United States, provides a measure of the size of the OASDI program in relation to the capacity of the national economy to sustain it.

Chart 3 – Estimated OASDI Income Excluding Interest, and Cost, as a Percent of GDP, 2005-2079

In 2004, OASDI cost was about $502 billion, which was about 4.3 percent of GDP. The cost of the program (based on current law) rises rapidly to 6.1 percent of GDP in 2030 and then gradually increases to 6.4 percent of GDP in 2079. The increase will occur because baby boomers will become eligible for OASDI benefits, lower birth rates will result in fewer workers per beneficiary, and beneficiaries will continue to live longer.

Ratio of Workers to Beneficiaries - Chart 4 below shows the estimated number of covered workers per OASDI beneficiary using the Trustees' intermediate assumptions. As defined by the Trustees, covered workers are persons having earnings creditable for OASDI purposes on the basis of services for wages in covered employment and/or on the basis of income from covered self-employment. The estimated number of workers per beneficiary will decline from 3.3 in 2004 to 1.9 in 2079.

Chart 4 – Number of Covered Workers Per OASDI Beneficiary 2005-2079

Sensitivity Analysis

Projections of the future financial status of the OASDI program depend on many economic and demographic assumptions, including GDP, labor force, unemployment, average wages and self-employment earnings, interest rates on Treasury securities, productivity, inflation, fertility, mortality, net immigration, marriage, divorce, retirement patterns and disability incidence and termination. The income will depend on how these factors affect the size and composition of the working population and the level and distribution of wages and earnings. Similarly, the cost will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits. Because perfect long-range projections of these factors are impossible, this section is included to illustrate the sensitivity of the long-range projections to changes in assumptions by analyzing six key assumptions: total fertility rate, death rate, net immigration, real-wage differential, consumer price index, and real interest rate. The range of values chosen for the sensitivity analysis is intended to present a reasonable range within which future experience is generally expected to fall, on average over long time periods. The range of values is not intended to represent any particular probability interval around the intermediate assumptions.

For this analysis, the intermediate assumptions in the 2005 Trustees Report are used as the reference point, and each selected assumption is varied individually. All present values are calculated as of January 1, 2005 and are based on estimates of income and cost during the 75-year projection period 2005-2079. In this section, for brevity, "income" means "income excluding interest."

For each assumption analyzed, one table and two charts are presented. The table shows the present value of the estimated excess of OASDI income over cost based on each of three selected values of the assumption being analyzed. The middle values provided correspond to the intermediate assumption of the Trustees. The first chart shows estimated annual OASDI net cashflow based on each of those values. The second chart, labeled with the suffix "A," shows the present value of each net cashflow amount shown in the first chart and is included to facilitate interpreting net cashflow in terms of today's dollar. Because the calculation of present values is a discounting process, the magnitude of the present value for each year in the second chart is lower than the corresponding net cashflow amount in the first chart--positive values are less positive and negative values are less negative.
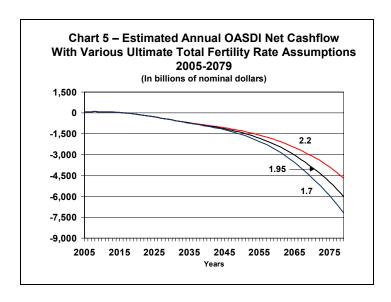
Sensitivity of program cost to changes in multiple assumptions is also useful. The Trustees Reports present high-cost and low-cost alternative assumption sets which combine the variations shown individually in this report. It should be noted that due to interactions, the combined effect of two or more assumption changes may not be equal to the sum of the effects shown separately. The Trustees have also recently added to their Annual Report an additional way of analyzing variability in assumptions and cost based on a stochastic model developed by the Office of the Chief Actuary.

Total Fertility Rate - Table 2 shows the present value of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about the ultimate total fertility rate. These assumptions are 1.7, 1.95 and 2.2 children per woman, where 1.95 is the intermediate assumption in the 2005 Trustees Report. The total fertility rate is assumed to change gradually from its current level and to reach the selected ultimate value in 2029.

Table 2 demonstrates that, if the ultimate total fertility rate is changed from 1.95 children per woman, the Trustees' intermediate assumption, to 1.7, the shortfall for the period of estimated OASDI income relative to cost would increase to $6,260 billion, from $5,704 billion; if the ultimate rate were changed to 2.2, the shortfall would decrease to $5,144 billion.

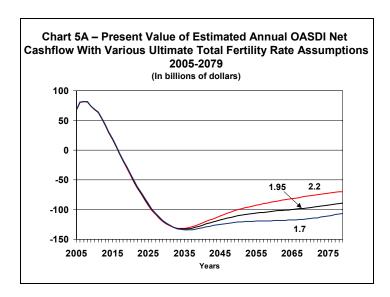| Table 2: Present Value of Estimated Excess of OASDI Income over Cost With Various Ultimate Total Fertility Rate Assumptions Valuation Period: 2005-2079			
Ultimate Total Fertility Rate	1.7	1.95	2.2
Present Value of Estimated Excess (In billions)	-$6,260	-$5,704	-$5,144

Charts 5 and 5A show estimates using the same total fertility rates used for the estimates in Table 2. Chart 5 shows the estimated annual OASDI net cashflow.

Chart 5 – Estimated Annual OASDI Net Cashflow
With Various Ultimate Total Fertility Rate Assumptions
2005-2079
(In billions of nominal dollars)

The three patterns of estimated annual OASDI net cashflow shown in Chart 5 are similar. After increasing slightly in the first three years, the net cashflow estimates decrease steadily through 2079. They remain positive through 2016 and are increasingly negative thereafter. While the fertility rate would have a substantial effect for the next 75-year period as a whole, it would have only a minor effect for the first 36 years before the OASDI trust funds are projected to become depleted under each of these fertility assumptions.

In the early years, higher fertility rates result in both reduced payroll taxes and increased benefits and, therefore, lower net cashflow. As the larger birth cohorts age and enter the labor force, however, the effect on payroll taxes gradually changes from a reduction to a net increase. By 2033 and for all years thereafter, increased payroll taxes more than offset increased benefits. Thus, from 2033 on, annual net cashflow based on higher fertility rates is higher (less negative) than annual net cashflow based on lower fertility rates.

Chart 5A shows the present value of the estimated annual OASDI net cashflow.

Chart 5A – Present Value of Estimated Annual OASDI Net Cashflow With Various Ultimate Total Fertility Rate Assumptions 2005-2079
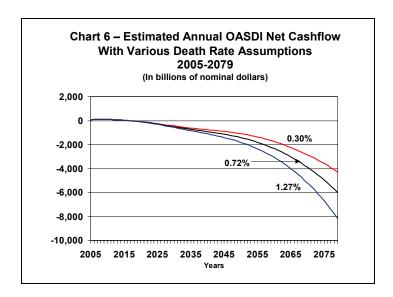**(In billions of dollars)**

The three patterns of the present values shown in Chart 5A are similar. After increasing for 2 years, the present values decrease rapidly through the mid 2030's. They remain positive through 2016 and are negative thereafter. Present values based on all three ultimate total fertility rates begin to increase (become less negative) in the 2030's (2035 for a total fertility rate of 2.2, 2036 for a total fertility rate of 1.95, and 2037 for a total fertility rate of 1.7). Thus, in terms of today's investment dollar, annual OASDI net cashflow, although still negative, begins to increase (become less negative) at that time. For example, based on all three ultimate total fertility rates, it would take less of an investment today to cover the annual deficit in 2037 than it would to cover the annual deficit in 2036.

Death Rates - Table 3 shows the present values of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about future reductions in death rates. The analysis was developed by varying the reduction assumed to occur during 2004-2079 in death rates by age, sex, and cause of death. The reductions assumed for this period, summarized as average annual reductions in the age-sex-adjusted death rate, are 0.30, 0.72 and 1.27 percent per year, where 0.72 percent is the intermediate assumption in the 2005 Trustees Report. (The resulting cumulative decreases in the age-sex-adjusted death rate during the same period are 20, 42 and 62 percent, respectively.) The life expectancy at birth, on a unisex period life table basis, is projected to rise from 77.0 in 2004 to 80.1, 83.4, and 87.6 in 2079 for average annual reductions in the age-sex-adjusted death rate of 0.30, 0.72 and 1.27 percent, respectively.

Table 3 demonstrates that, if the annual reduction in death rates is changed from 0.72 percent, the Trustees' intermediate assumption, to 0.30 percent, meaning that people die younger, the shortfall for the period of estimated OASDI income relative to cost would decrease to $4,376 billion, from $5,704 billion; if the annual reduction were changed to 1.27 percent, meaning that people live longer, the shortfall would increase to $7,303 billion.

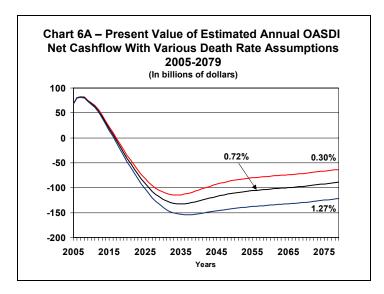| Table 3: Present Value of Estimated Excess of OASDI Income over Cost With Various Death Rate Assumptions Valuation Period: 2005-2079			
Average Annual Reduction in Death Rates (from 2004 to 2079)	0.30 Percent	0.72 Percent	1.27 Percent
Present Value of Estimated Excess (In billions)	-$4,376	-$5,704	-$7,303

Charts 6 and 6A show estimates using the same assumptions about future reductions in death rates used for the estimates in Table 3. Chart 6 shows the estimated annual OASDI net cashflow.

**Chart 6 – Estimated Annual OASDI Net Cashflow
With Various Death Rate Assumptions
2005-2079**
(In billions of nominal dollars)

The three patterns of estimated annual OASDI net cashflow shown in Chart 6 are similar. After increasing slightly in the first 3 years, the net cashflow estimates decrease steadily through 2079. They remain positive through 2016 for all three assumptions, after which the annual net cashflow estimates are negative. Relatively little difference is discernible in the early years among the estimates of annual net cashflow based on the three assumptions about the reduction in death rates. Thereafter, differences become more apparent. Because annual death rates resulting from the three assumptions diverge steadily with time, resulting estimated annual OASDI net cashflows do so, too.

Although lower death rates result in both higher income and higher cost, cost increases more than income. For any given year, reductions in death rates at the earliest retirement eligibility age of 62 and older, which are the ages of highest death rates, increase the number of retired-worker beneficiaries (and, therefore, the amount of retirement benefits) without adding significantly to the number of covered workers (and, therefore, the amount of payroll taxes). Although reductions at ages 50 to 62 add significantly to the number of covered workers, the increased payroll tax income is not large enough to offset the additional retirement and disability benefits resulting from the increased number of people surviving to age 50 and over. At ages under 50, death rates are so low that even substantial reductions do not result in significant increases in either the number of covered workers or beneficiaries.

Chart 6A shows the present value of the estimated annual OASDI net cashflow.

**Chart 6A – Present Value of Estimated Annual OASDI
Net Cashflow With Various Death Rate Assumptions
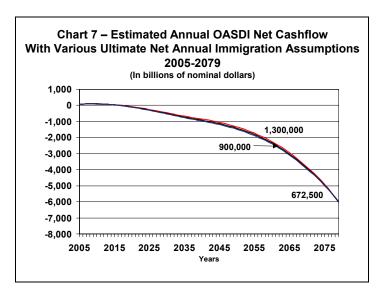2005-2079**
(In billions of dollars)

The three patterns of the present values shown in Chart 6A are similar. After increasing for 2 years, the present values decrease rapidly through the mid 2030's. They remain positive through 2016 under all three assumptions, after which the present values are negative. Present values based on all three assumptions begin to increase (become less negative) in the 2030's (2034, 2036 and 2038 for assumptions of reductions of 0.30, 0.72 and 1.27 percent per year, respectively). Thus, in terms of today's investment dollar, annual OASDI net cashflow, although still negative, begins to increase (become less negative) at that time.

Net Annual Immigration - Table 4 shows the present values of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about the magnitude of net annual immigration. These assumptions are that the ultimate net annual immigration (legal and other) will be 672,500 persons, 900,000 persons and 1,300,000 persons, where 900,000 persons is the intermediate assumption in the 2005 Trustees Report.

Table 4 demonstrates that, if net annual immigration is changed from 900,000 persons, the Trustees' intermediate ultimate assumption, to 672,500 persons, the present value of the shortfall for the period of estimated OASDI income relative to cost would increase to $6,010 billion, from $5,704 billion. If the ultimate net annual immigration assumption were changed to 1,300,000 persons, the present value of the shortfall would decrease to $5,270 billion.
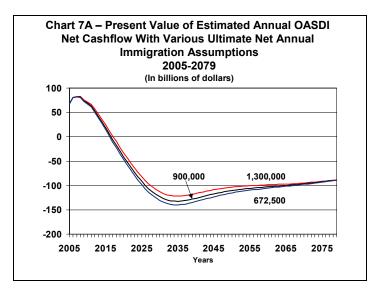
Table 4: Present Value of Estimated Excess of OASDI Income over Cost With Various Ultimate Net Annual Immigration Assumptions Valuation Period: 2005-2079			
Ultimate Net Annual Immigration	672,500 Persons	900,000 Persons	1,300,000 Persons
Present Value of Estimated Excess (In billions)	-$6,010	-$5,704	-$5,270

Charts 7 and 7A show estimates using the same assumptions about net annual immigration used for the estimates in Table 4. Chart 7 shows the estimated annual OASDI net cashflow.

Chart 7 – Estimated Annual OASDI Net Cashflow With Various Ultimate Net Annual Immigration Assumptions 2005-2079
(In billions of nominal dollars)

The three patterns of estimated annual OASDI net cashflow estimates shown in Chart 7 are similar. After increasing slightly in the first 3 years, the net cashflow estimates decrease steadily through 2079. They remain positive through 2016 for the annual ultimate net immigration of 672,500 and 900,000 persons and through 2017 for an ultimate net annual immigration assumption of 1,300,000 persons. Very little difference is discernible among the estimates of net cashflow based on the three assumptions about net annual immigration.

Chart 7A shows the present value of the estimated annual OASDI net cashflow.

Chart 7A – Present Value of Estimated Annual OASDI Net Cashflow With Various Ultimate Net Annual Immigration Assumptions 2005-2079 (In billions of dollars)

The three patterns of the present values shown in Chart 7A are similar. After increasing for a few years, the present values decrease rapidly through the mid 2030's. They remain positive through 2016 for the assumed ultimate net annual immigration of 672,500 and 900,000 persons and through 2017 for an ultimate net annual immigration assumption of 1,300,000 persons, after which the present values are negative. Present values based on all three assumptions about net annual immigration begin to increase (become less negative) in 2036 for all three assumptions.
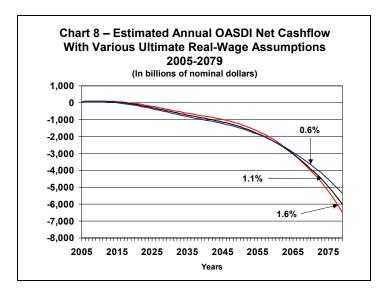
Very little difference is discernible in the early years among the estimates of present values of net annual cashflow based on the three assumptions about net annual immigration. However, as the effect of these three levels of net annual immigration accumulate, variations in present values become more apparent. Because immigration generally occurs at relatively young adult ages, the effects initially are similar to those of total fertility rates. There is no significant effect on beneficiaries (and, therefore, on benefits) in the early years but the effect on the numbers of workers (and, therefore, on payroll tax income) is immediate. Thus, even in the early years, the present values, year by year, are higher (less negative in later years) for higher net annual immigration. Because a constant number of net immigrants is assumed each year, the increased payroll taxes for a given year are eventually offset by benefits paid in that year to earlier immigrant cohorts. Thus, the present values based on the three assumptions about net annual immigration become more similar at the end of the projection period.

Real-Wage Differential - The real-wage differential is the difference between the percentage increases in (1) the average annual wage in OASDI covered employment and (2) the average annual Consumer Price Index (CPI). Table 5 shows the present values of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about the ultimate real-wage differential. These assumptions are that the ultimate real-wage differential will be 0.6, 1.1 and 1.6 percentage points, where 1.1 percentage point is the intermediate assumption in the 2005 Trustees Report. In each case, the ultimate annual increase in the CPI is assumed to be 2.8 percent (as used in the intermediate assumptions), yielding ultimate percentage increases in the average annual wage in covered employment of 3.4, 3.9 and 4.4 percent, respectively.

Table 5 demonstrates that, if the ultimate real-wage differential is changed from 1.1 percentage point, the Trustees' intermediate assumption, to 0.6 percentage point, the shortfall for the period of estimated OASDI income relative to cost would increase to $6,287 billion from $5,704 billion; if the ultimate real-wage differential were changed from 1.1 to 1.6 percentage points, the shortfall would decrease to $4,887 billion.

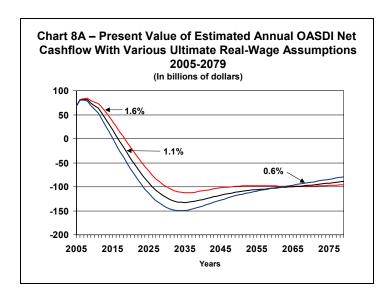| Table 5: Present Value of Estimated Excess of OASDI Income over Cost With Various Ultimate Real-Wage Assumptions Valuation Period: 2005-2079			
Ultimate Annual Increase in Wages, CPI; **Real Wage Differential**	3.4% , 2.8%; **0.6%**	3.9% , 2.8%; **1.1%**	4.4% , 2.8%; **1.6%**
Present Value of Estimated Excess (In billions)	-$6,287	-$5,704	-$4,887

Charts 8 and 8A show estimates using the same assumptions about the ultimate real-wage differential used for the estimates in Table 5. Chart 8 shows the estimated annual OASDI net cashflow.

Chart 8 – Estimated Annual OASDI Net Cashflow With Various Ultimate Real-Wage Assumptions 2005-2079 (In billions of nominal dollars)

The three patterns of estimated net annual OASDI cashflow shown in Chart 8 increase in the early years, and then decrease steadily thereafter. Estimated net cashflow remains positive through 2015, 2016 and 2018 for assumed ultimate real-wage differentials of 0.6, 1.1 and 1.6 percentage points, respectively, and is negative thereafter.

Differences among the estimates of annual net cashflow based on the three assumptions about the ultimate real-wage differential become apparent early in the projection period. Higher real-wage differentials increase both wages and initial benefit levels. Because the effects on wages and, therefore, on payroll taxes are immediate, while the effects on benefits occur with a substantial lag, annual net cashflow is higher for higher assumed real-wage differentials. In the early years, when the effects on benefits are quite small and the effects on wages are compounding, the patterns of the estimates of annual net cashflow based on the three assumptions diverge fairly rapidly. However, around 2060, annual net cashflow becomes lower (more negative) for higher assumed real-wage differentials. This occurs because benefits would then be more fully realized at a time when the projected cost substantially exceeds income excluding interest. These effects are depicted by the patterns in Chart 8A crossing during the later years of the projection period.

Chart 8A shows the present value of the estimated annual OASDI net cashflow.

Chart 8A – Present Value of Estimated Annual OASDI Net Cashflow With Various Ultimate Real-Wage Assumptions 2005-2079
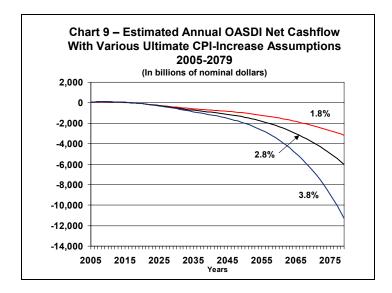**(In billions of dollars)**

The three patterns of the present values shown in Chart 8A increase the first few years, and then, decrease rapidly through the mid 2030's. They remain positive through 2015, 2016 and 2018 for assumed ultimate real-wage differentials of 0.6, 1.1 and 1.6 percentage points, respectively, and are negative thereafter. Present values based on all three assumptions begin to increase (become less negative) in the 2030's (2035, 2036 and 2037 for an assumed ultimate real-wage differential of 0.6, 1.1 and 1.6 percentage points, respectively). Thus, in terms of today's investment dollar, annual OASDI net cashflow, although still negative, begins to increase (become less negative) at that time. For the assumed real-wage differential of 1.6 percentage points, the present values continue increasing temporarily until 2055 when decreases temporarily begin again. The present values for the other two assumptions continue increasing throughout the remaining projection period. The crossover of the patterns that occurs during the later years of the projection period in Chart 8 is also evident in the present values patterns.

Consumer Price Index - Table 6 shows the present values of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about the ultimate rate of change in the CPI. These assumptions are that the ultimate annual increase in the CPI will be 1.8, 2.8 and 3.8 percent, where 2.8 percent is the intermediate assumption in the 2005 Trustees Report. In each case, the ultimate real-wage differential is assumed to be 1.1 percentage point (as used in the intermediate assumptions), yielding ultimate percentage increases in average annual wages in covered employment of 2.9, 3.9 and 4.9 percent, respectively.

Table 6 demonstrates that, if the ultimate annual increase in the CPI is changed from 2.8 percent, the Trustees' intermediate assumption, to 1.8 percent, the shortfall for the period of estimated OASDI income relative to cost would increase to $6,094 billion, from $5,704 billion; if the ultimate annual increase in the CPI were changed to 3.8 percent, the shortfall would decrease to $5,308 billion. This seemingly counter-intuitive result--that higher CPI-increases result in decreased shortfalls, and vice versa--is explained below.

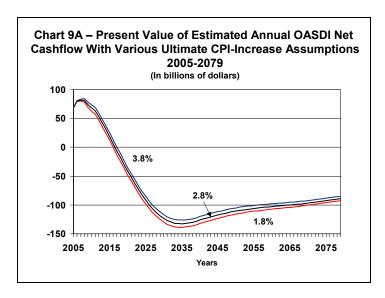| Table 6: Present Value of Estimated Excess of OASDI Income over Cost With Various Ultimate CPI-Increase Assumptions Valuation Period: 2005-2079			
Ultimate Annual Increase in Wages, **CPI**; Real Wage Differential	2.9% , **1.8%**; 1.1%	3.9% , **2.8%**; 1.1%	4.9% , **3.8%**; 1.1%
Present Value of Estimated Excess (In billions)	-$6,094	-$5,704	-$5,308

Charts 9 and 9A show estimates using the same assumptions about the ultimate annual increase in the CPI used for the estimates in Table 6. Chart 9 shows the estimated annual OASDI net cashflow.

**Chart 9 – Estimated Annual OASDI Net Cashflow
With Various Ultimate CPI-Increase Assumptions
2005-2079**
(In billions of nominal dollars)

The three patterns of estimated annual OASDI net cashflow shown in Chart 9 are similar. After increasing in the early years, the net cashflow estimates decrease steadily through 2079. Annual net cashflow remains positive through 2015 for an assumed ultimate annual increase in the CPI of 1.8 percent; through 2016 for an assumed ultimate annual increase in the CPI of 2.8 percent; and through 2017 for an assumed ultimate annual increase in the CPI of 3.8 percent. Larger increases in the CPI with the same real-wage differentials produce higher wages, which produce both higher payroll taxes and higher initial benefits. Larger increases in the CPI also produce higher benefits directly, by increasing the cost-of-living adjustments to benefits. Thus, larger increases in the CPI result in both higher income and higher cost in nominal dollars.

Larger increases in the CPI cause earnings and income to increase sooner, and thus by more in each year, than benefits and cost. The effect on wages and payroll taxes occurs immediately, but the effect on benefits occurs with a lag. Initially (through 2020) the larger percentage increase in income also results in a larger nominal-dollar increase in income, so net cashflow is increased for higher inflation in Chart 9. However, shortly after 2020, the lines in Chart 9 cross, indicating that net cashflow becomes lower (more negative) for higher assumed increases in the CPI. This occurs because program income begins to fall well below program cost, and thus the larger percentage increases in income eventually produce smaller nominal-dollar increases than for program cost.

Chart 9A shows the present value of the estimated annual OASDI net cashflow.

Chart 9A – Present Value of Estimated Annual OASDI Net Cashflow With Various Ultimate CPI-Increase Assumptions 2005-2079
(In billions of dollars)

The three patterns of the present values shown in Chart 9A are similar. After increasing for a few years, present values decrease rapidly through the mid 2030's before beginning to increase once again. They remain positive through 2016 (2017 for an assumed ultimate annual increase in the CPI of 3.8 percent) and are negative thereafter. Present values begin to increase (become less negative) after 2035 for all three assumptions. Thus, in terms of today's investment dollar, annual OASDI net cashflow, although still negative, begins to increase (become less negative) at that time.
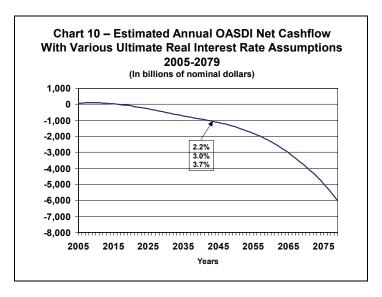
The magnitudes of the present values in Chart 9A are lower, year by year, than the amounts in Chart 9 because of the discounting process used for computing present values. This would be the case even if the nominal interest rates on which the present values are based were assumed to be the same for all three patterns of annual net cashflow. For this analysis, however, larger increases in the CPI are combined with the same assumed real interest rates, thereby producing higher nominal interest rates. The effect of these higher interest rates is to reduce the magnitudes of the present values of annual net cashflow even more--the present values of positive annual net cashflow become less positive, and the present values of negative annual net cashflow become less negative. The compounding effect of the higher interest rates is strong enough, relative to the factors increasing benefits, to reduce the magnitudes of the present values of the negative annual net cashflow of the later years sufficiently to eliminate the crossover of the patterns that occurred in Chart 9.

Real Interest Rate - Table 7 shows the present values of the estimated excess of OASDI income over cost for the 75-year period, using various assumptions about the ultimate annual real interest rate for special-issue Treasury obligations sold only to the trust funds. These assumptions are that the ultimate annual real interest rate will be 2.2, 3.0 and 3.7 percent, where 3.0 percent is the intermediate assumption in the 2005 Trustees Report. Changes in real interest rates change the present value of cashflow, even though the cashflow itself does not change.

Table 7 demonstrates that, if the ultimate real interest rate is changed from 3.0 percent, the Trustees' intermediate assumption, to 2.2 percent, the shortfall for the period of estimated OASDI income relative to cost, when measured in present-value terms, would increase to $8,063 billion, from $5,704 billion; if the ultimate annual real interest rate were changed to 3.7 percent, the present-value shortfall would decrease to $4,246 billion.
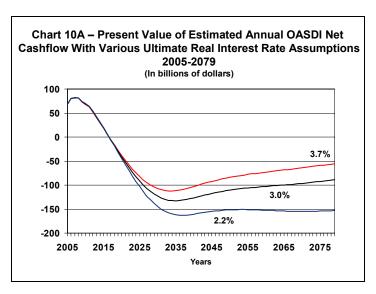
Table 7: Present Value of Estimated Excess of OASDI Income over Cost With Various Ultimate Real-Interest Assumptions Valuation Period: 2005-2079			
Ultimate Annual Real Interest Rate	2.2 Percent	3.0 Percent	3.7 Percent
Present Value of Estimated Excess (In billions)	-$8,063	-$5,704	-$4,246

Charts 10 and 10A show estimates using the same assumptions about the ultimate annual real interest rate used for the estimates in Table 7. Chart 10 shows the estimated annual OASDI net cashflow.

Chart 10 – Estimated Annual OASDI Net Cashflow With Various Ultimate Real Interest Rate Assumptions 2005-2079
(In billions of nominal dollars)

The three patterns of estimated annual OASDI net cashflow (which does not include interest) shown in Chart 10 are identical, because interest rates do not affect cashflow. After increasing through 2008, the net cashflow estimates decrease steadily through 2079. They remain positive through 2016 and are negative thereafter.

Chart 10A shows the present value of the estimated annual OASDI net cashflow.

Chart 10A – Present Value of Estimated Annual OASDI Net Cashflow With Various Ultimate Real Interest Rate Assumptions 2005-2079
(In billions of dollars)

The three patterns of the present values shown in Chart 10A are similar. After increasing for 2 years, the present values decrease rapidly through the mid 2030's. They remain positive through 2016 and are negative thereafter. Present values based on all three assumptions begin to increase (become less negative) in the 2030's (2038, 2036 and 2034 for assumed ultimate real interest rates of 2.2, 3.0 and 3.7 percent, respectively). Thus, in terms of today's investment dollar, annual OASDI net cashflow, although still negative, begins to increase (become less negative) at that time. For the assumed real interest rate of 2.2 percent, the present values continue increasing temporarily, through 2053, then decrease through 2069, and increase thereafter. The present values for the other two assumptions continue increasing throughout the remaining projection period.

Chart 10A shows a crossover in the patterns of the present values of the net cashflow. The crossover occurs at the time the net cashflow changes from positive to negative, which happens in 2017. The crossover occurs because higher interest rates result in present values that are lower in magnitude--positive amounts become less positive and negative amounts become less negative. Thus, before the time of the crossover--when the net cashflow is positive-- the use of higher interest rates results in lower present values; after that time--when the net cashflow is negative--the use of higher interest rates results in higher present values--that is, present values that are less negative--thereby resulting in the crossover.