

# **SOCIAL SECURITY**

## **Old-Age, Survivors, and Disability Insurance Program**

### **SUMMARY OF THE 1984 TRUSTEES REPORT**

**APRIL 5, 1984**

**OFFICE OF THE ACTUARY  
SOCIAL SECURITY ADMINISTRATION**

# SUMMARY OF THE 1984 SOCIAL SECURITY TRUSTEES REPORT: OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM

## HIGHLIGHTS

The actuarial estimates indicate that OASDI benefits can be paid on time well into the next century on the basis of all four sets of economic and demographic assumptions. Over the next 75 years, the OASDI program is in close actuarial balance, based on the intermediate-B set of assumptions.

This year's estimates are similar to last year's, which showed that the Social Security Amendments of 1983 had substantially improved the financial condition of the OASDI program.

The stabilizer provision of the 1983 amendments is not expected to affect the automatic benefit increase for December 1984, even on the basis of very pessimistic assumptions. Thus, the 1984 cost-of-living increase in OASDI benefits will almost certainly be based on the full increase in the Consumer Price Index, even if the applicable wage increase is less.

In the short range, the OASDI funds are estimated to increase each year, on the basis of all but the most pessimistic of the four sets of assumptions used. Based on the pessimistic set of assumptions, the combined assets as a percentage of program outgo are estimated to decline somewhat, before beginning to increase in 1988.

In the long range, this year's projections indicate that the program has an average actuarial deficit of 0.06 percent of taxable payroll over the next 75 years, based on the intermediate-B assumptions. This represents a slight decline from the 0.02-percent surplus shown in 1983, due mainly to projections of more disability awards. The program remains in close actuarial balance, however, based on the intermediate-B assumptions, because the estimated average income rate over the next 75 years equals 99.6 percent of the estimated

average cost rate. This is within the range of "close actuarial balance," which requires that, over the long-range period, the average income rate be between 95 and 105 percent of the average cost rate.

This year's short-range estimates, on the basis of all but the most pessimistic of the four sets of assumptions used, show somewhat higher levels of combined OASI and DI assets after 1984 than were shown a year ago. This improvement reflects the stronger economic recovery in 1983 and early 1984 than was expected a year ago. This effect is partly offset by projections of more disability benefit awards and fewer terminations than had been projected last year and by somewhat lower trust fund growth in 1983 than had been estimated.

The trust fund levels again are estimated to remain relatively low through 1987. The trust fund levels based on the pessimistic assumptions now are estimated to be lower after 1985 than estimated last year. Benefits could still be paid on time during the short-range projection period, based on these assumptions, but the margins for safety would be very small. Thus, if economic conditions in 1984-87 are worse, in terms of their effects on the trust funds, than those assumed in the pessimistic set, the OASDI program could again experience financial difficulties in the near future. After 1987, the program is projected to become less vulnerable to temporary economic downturns.

The estimates based on all four sets of assumptions indicate that the OASI fund will grow rapidly enough to repay by 1988 the \$12.4 billion owed to the HI fund and the \$5.1 billion owed to the DI fund. These repayments would be made earlier on the basis of the pessimistic projections, which indicate that repayment would make a difference in the ability of the HI or DI fund to pay benefits on time.

## 1. INTRODUCTION

This summary gives an overview of the 1984 Annual Report of the Board of Trustees of the Old-Age and Survivors Insurance and Disability Insurance Trust Funds.

The Old-Age, Survivors, and Disability Insurance (OASDI) program, also referred to here as the Social Security cash benefit program, consists of two separate parts which pay monthly benefits to workers and their families:

- (1) **Old-Age and Survivors Insurance** (OASI) pays benefits after a worker retires or dies.
- (2) **Disability Insurance** (DI) pays benefits after a worker becomes disabled.

The Social Security program is financed essentially on a pay-as-you-go basis. That is, taxes paid into the program are used to pay benefits to current beneficiaries. However, Social Security does maintain trust funds that hold all assets not needed currently to pay benefits and administrative expenses. Social Security funds may not be used for any other purpose.

The Secretaries of the Treasury, Labor, and Health and Human Services now serve as trustees of the Social Security trust funds. They report annually to the Congress on the condition of each fund and on projected future financial results.

The figures given in this summary, on a calendar-year basis, are for the OASDI program as it is now structured.

Single copies of the complete annual report for OASDI can be obtained without charge from the Social Security Administration, Office of Public Inquiries, Room 4100 Annex, Baltimore, Maryland 21235.

### **OASDI Income and Trust Funds**

Most OASDI revenue comes from payroll taxes paid by employees, their employers, and the self-employed. (Additional payroll taxes go into a separate trust fund for the Hospital Insurance (HI) part of Medicare. This summary focuses on OASDI and does not discuss Medicare except in the context of interfund borrowing.)

Table 1 shows the OASDI payroll-tax rates for employers and employees, as established by law. The combined employee-employer rates are twice the rates shown. Taxes at these rates are paid on each worker's earnings up to the earnings base, \$37,800 in 1984. In future years, this Social Security earnings base will rise as average wages increase. For the self-employed, the OASDI tax rate now is the same as the combined

employee-employer rate.

During 1984 only, employees receive an immediate credit of 0.3 percent of taxable earnings, resulting in an effective contribution rate of 5.4 percent as compared to the employer rate of 5.7 percent. The trust funds receive income as if employees were paying the full 5.7 percent rate. Certain tax credits are also allowed to the self-employed over the next few years to provide a transition to the new higher rates, and thereafter to provide greater parity with employees on an after-tax basis.

**Table 1.-Payroll Tax Schedule**

Year	Contribution rates (percent of taxable earnings) payable by employee and em- ployer, each		
	OASI	DI	Total
1983	4.775	0.625	5.40
1984-87	5.200	0.500	5.70
1988-89	5.530	0.530	6.06
1990-99	5.600	0.600	6.20
2000 & later	5.490	0.710	6.20

The trust funds serve as a contingency reserve to absorb temporary fluctuations in income and outgo. When income exceeds outgo, the excess builds up the trust funds. When outgo exceeds income, the trust funds are drawn down. The trust funds are invested in U.S. government securities bearing rates of interest similar to those for long-term securities issued to the general public.

The exact timing of income and outgo can be important under pay-as-you-go financing. In order to match OASDI income with outgo more closely, in 1983 an advance-tax-transfer provision took effect. This provides that Treasury transfers each month's estimated payroll tax receipts to the trust funds at the beginning of the month when cash benefits are paid. The Social Security funds pay interest to Treasury for the extra days the funds have the money.

Commencing in 1984, partial income-taxation of benefits provides another significant source of Social Security revenue. This tax is collected by Treasury throughout each year, and paid in advance from Treasury to the Social Security funds every calendar quarter.

The law also permits limited interfund borrowing among the OASI, DI, and HI funds through 1987; such loans must be repaid with interest before 1990.

## 2. RECENT FINANCIAL RESULTS

Table 2 presents a summary of 1983 financial results for OASDI, including the cash income (or revenue), outgo (or disbursements or cost), and changes in assets during 1983, with 1982 results shown for comparative purposes.

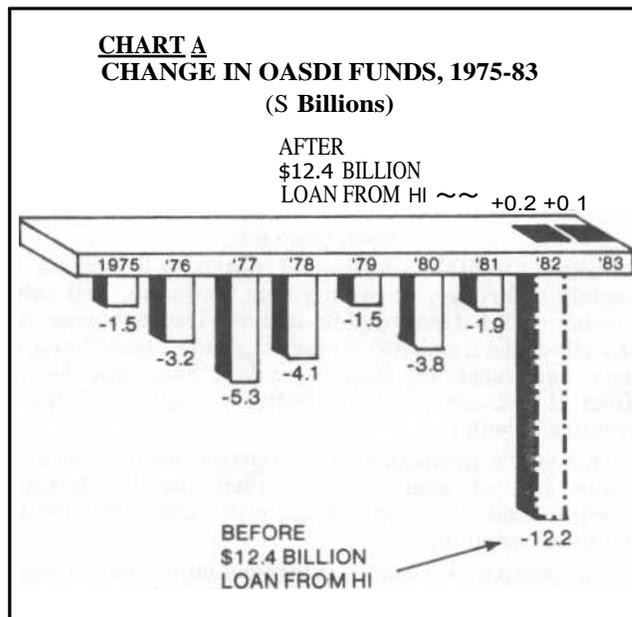
**Table 2.- Results of Financial Operations During 1983**  
[Billions]

	1983 OASDI Results	Comparative 1982 Results
Trust Fund assets on January 1	\$24.8	\$24.5
Income during year:		
Payroll taxes	156.3	145.7
Net interest	8.3	1.4
General fund payments	6.7	0.9
Total income	171.3	147.9
Outgo during year:		
Benefit payments	166.7	156.2
Administrative expenses	2.2	2.1
Transfer to Railroad Retirement Account	2.3	1.8
Total outgo	171.2	160.1
Interfund loans: amounts received	—	12.4
Net increase in Trust Fund during year..	0.1	0.2
Trust Fund assets on December 31	24.9	24.8

Note: Components may not add to totals due to rounding.

OASDI income during 1983 exceeded outgo slightly, as various provisions of the Social Security Amendments of 1983 began to take effect and strengthen the financing of the program. The amount paid for OASDI administrative expenses in 1983 again was 1.3 percent of benefit payments.

Chart A shows that 1983 was the first year since 1974 that the combined OASDI funds increased without resorting to borrowing. The 1982 increase of \$0.2 billion included a \$12.4 billion loan from the HI fund; the OASDI funds must repay this \$12.4 billion to HI before 1990. (Also, the OASI fund must repay to DI a 1982 loan of \$5.1 billion.)



### 3. ACTUARIAL PROJECTIONS

The annual report contains 75-year projections of each fund's estimated financial operations and status. Because precise prediction of the future is not possible, alternative sets of reasonable assumptions are used to make short- and long-range estimates that indicate the trend and general range of future costs. Future experience could, however, fall outside the range indicated by these assumptions.

#### *Assumptions Used*

Future OASDI income and outgo will depend on mortality, fertility, unemployment, inflation, and other economic and demographic factors. Demographic factors affect the numbers of people paying Social Security taxes and receiving benefits, while economic factors affect the levels of these people's wages and Social Security benefits.

This year's projections are prepared using four alternative sets of assumptions, called the "optimistic," "intermediate-A," "intermediate-B," and "pessimistic" sets of assumptions.

Intermediate-A assumes future economic performance resembling the experience in periods of more robust economic growth, while intermediate-B assumes less robust economic growth. Both intermediate projections use the same demographic assumptions.

Appendix A shows selected values of several assumptions used in the four basic projections, and describes these assumptions more fully.

No single measure is used to assess the actuarial status of the OASDI funds. Short-range measures usually focus on the adequacy of reserves available to pay benefits despite temporary adverse conditions without changing the existing programs. Long-range measures usually focus instead on the balance between income and outgo during the projection period.

#### *Measures of Short-Range Actuarial Status*

The **trust fund ratio** (or **fund ratio**) is the usual measure of the OASDI program's ability to *pay* benefits on time in the near future. The fund ratio at the beginning of a year is the fund at the end of the prior year, plus advance tax transfers, expressed as a percentage of that year's expenditures. A fund ratio of 25 percent means that the amount in the fund is one-fourth of annual outgo (or enough to pay benefits for about three months in the absence of any income). At the beginning of 1984, the fund ratio for OASDI was 21

percent. Of course, the ratio for any year can only be estimated before the year is completed and the amount of expenditures is known.

A fund ratio below 8 percent would represent less than one month's benefit outgo, and thus would usually imply inability to pay benefits on time. In practice, to assure payment of benefits in the short range, higher levels would be needed because OASDI income and outgo fluctuate during the year, and because unforeseen changes in the economy may cause the trust funds to decline unexpectedly.

A new stabilizer provision takes effect at the end of 1984 to help avoid the need for hasty legislative action to assure payment of benefits on time. Should the trust fund ratio fall below specified thresholds, annual benefit increases will be based on the lesser of wage or price increases, instead of on price increases alone, with provision for "catch-up" benefit increases later. Trust fund ratios for purposes of this stabilizer provision, and for determining repayment of interfund loans, follow different definitions from the one used throughout this summary as described earlier.

#### *Measures of Long-Range Actuarial Status*

In analyzing the actuarial status of OASDI over the next 75 years, several different measures are commonly used.

The cost rate is the annual outgo or disbursements, as a percentage of taxable payroll. Also, the **total income rate** (or simply the **income rate**) is the combined OASDI employee-employer payroll-tax rate scheduled in the law, plus the income from taxation of benefits, expressed as a percentage of taxable payroll. Over a period of time, the average cost and income rates can be compared directly to measure the adequacy of financing.

For the entire long-range projection period of 75 years, the actuarial **balance** is the difference between the average income rate and the average cost rate. If this actuarial balance is positive, the system is said to have an actuarial surplus, and if negative, an actuarial deficit. Such a deficit is a warning that long-range financing may need to be strengthened, although it does not give a complete picture without the other measures of financing discussed here.

The program is in "close actuarial **balance**" over the long-range period if the average income rate is between 95 and 105 percent of the average cost rate.

#### 4. SHORT-RANGE FINANCING (1984-88)

Projections over the next 5 years are used by the Congress and the Administration to monitor OASDI financing. In this short-range picture, the numbers of persons receiving OASDI benefits can be forecast fairly accurately. However, changes in the national economy, which are difficult to predict, can have major effects on outgo and income.

This year's estimates indicate that, based on all four projections, OASDI can pay benefits on time throughout this 5-year period.

Chart B shows the year-by-year increases in the OASDI fund projected during 1984-88 on the basis of the intermediate-B assumptions. The amounts shown are lower than they would otherwise be because of repayment during 1986-87 of the \$12.4 billion owed to HI by the OASI fund.

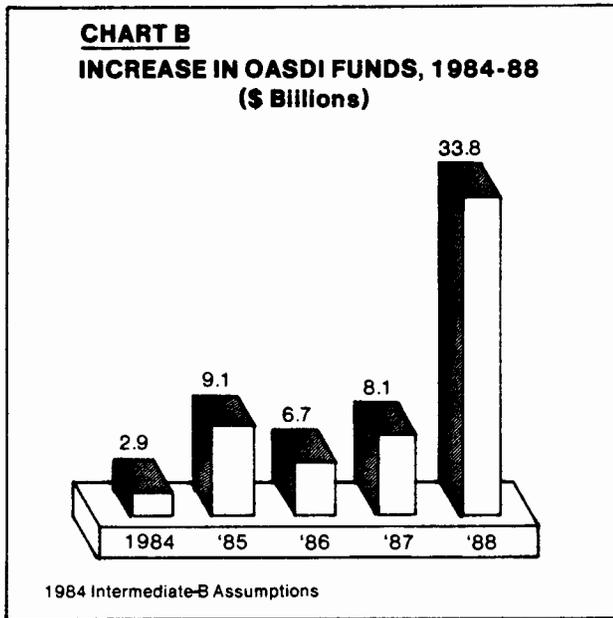
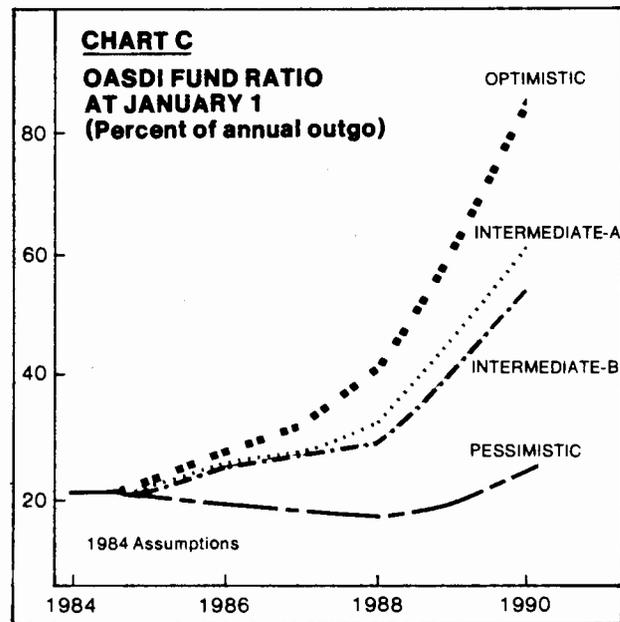


Chart C shows the projected progress during 1984-90 of the OASDI fund ratio based on all four sets of assumptions. The chart extends slightly beyond 5 years to give a more complete picture of the trends emerging. As of January 1, 1984, the ratio was 21 percent for

OASDI. For the next few years the OASDI fund ratio is projected to remain low, eventually heading upward past 25 percent between 1985 and 1990.

The stabilizer provision of the 1983 amendments is not expected to affect the automatic benefit increase for December 1984, even on the basis of very pessimistic assumptions. Thus, the 1984 cost-of-living increase in OASDI benefits will almost certainly be based on the full increase in the Consumer Price Index, even if the applicable wage increase is less.

Based on all four sets of assumptions, the \$12.4 billion owed to the HI fund would be fully repaid in 1987 or 1988. (OASI would also repay a \$5.1 billion loan from DI during 1985-89.) Repayment is projected to be more prompt where it could make a difference in the ability of the HI or DI fund to pay benefits on time. After 1987, OASDI reserves are projected to build up more rapidly, reflecting higher payroll-tax rates. Thus, during the next few years margins of safety are thin; thereafter, the funds are less vulnerable to the adverse effects of a temporary economic downturn.



## 5. LONG-RANGE FINANCING (1984-2058)

Long-range estimates for OASDI over the next 75 years, although sensitive to variations in the assumptions, give the best available indication of the trend and general range of the program's future financial status. In this long-range period, Social Security income and outgo should tend to respond largely to demographic conditions. Most of the beneficiaries during the next 75 years have already been born, so that their numbers are projected mainly from the present population. The numbers of workers involved in these projections, however, depend on future birth rates, which are subject to more variability. Several important long-range demographic trends, already under way, are anticipated to raise the proportion of the aged in the population in the next 75 years:

- (1) Because of the large number of persons born shortly after World War II, rapid growth is expected in the aged population after the turn of the century.
- (2) At the same time, low birth rates would hold down the number of young people.
- (3) Projected declines in mortality rates also would increase the numbers of aged persons.

Chart D, showing past and future life expectancies at age 65, illustrates the improvement anticipated, based on the intermediate assumptions. (Life expectancy is the average number of years of life remaining, based on the death rates at each age in the year shown. Rates are based on census data through 1980, projected beyond 1980 by the intermediate assumptions.)

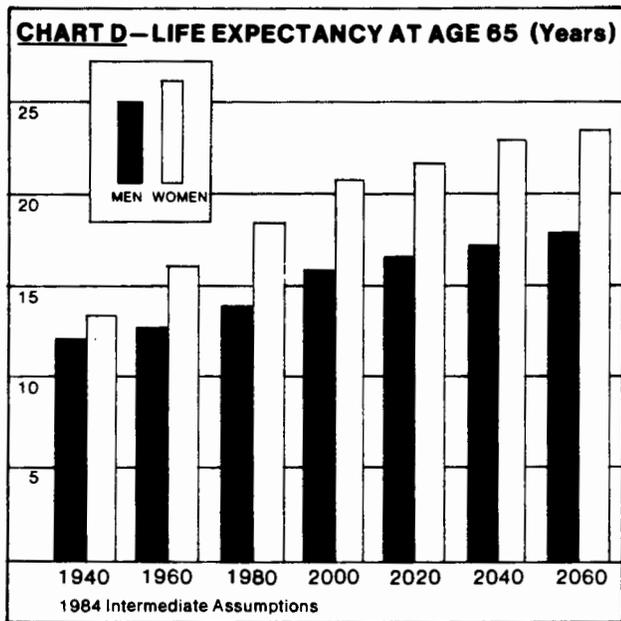


Chart E shows total fertility rates beginning with 1940, projected over the next 75 years on the basis of the three sets of demographic assumptions. The post-World War II baby boom can be clearly seen, followed

by the historically low fertility rates of recent years.

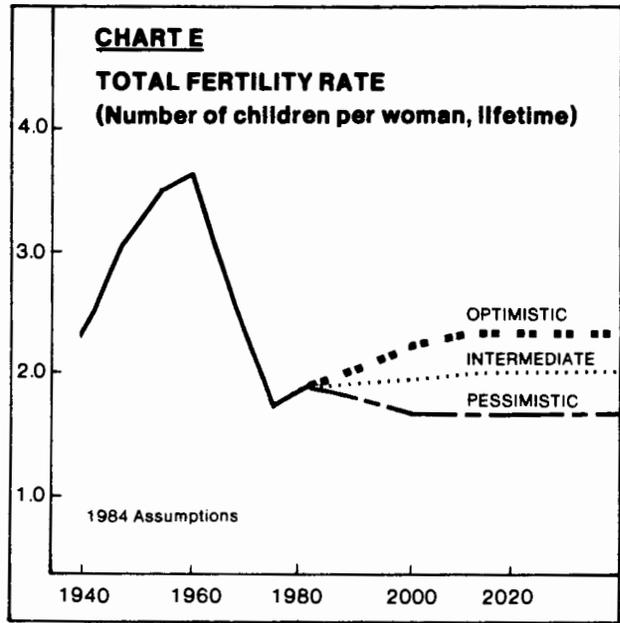


Chart F shows the long-range trend in the number of OASDI beneficiaries for each 100 covered workers, based on the three sets of demographic assumptions. ("Beneficiaries" includes not only retired workers, but also disabled workers, spouses, children and survivor beneficiaries.) This ratio has risen from 20 in 1960 to 30 currently. It is estimated to reach a level of about 50 by the middle of the next century, as the number of beneficiaries is estimated to go up more rapidly than the number of covered workers.

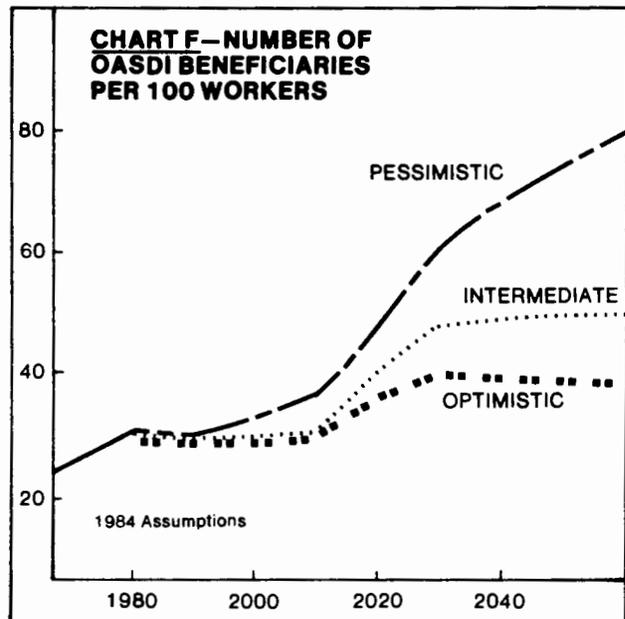


Chart G shows the trend in the estimated annual OASDI cost rate (outgo as a percentage of taxable payroll), on the basis of each of the four sets of assumptions during the next 75 years. All four projections show that the cost rate increases substantially after the turn of the century. Based on the intermediate and optimistic sets of assumptions, the outgo in relation to taxable payroll is fairly level or decreasing after 2030, while based on the pessimistic assumptions, the outgo is still increasing at the end of the 75-year period.

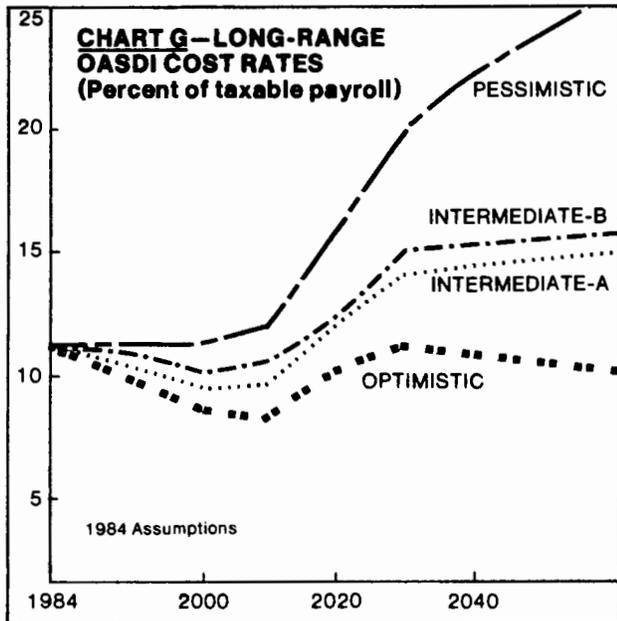


Chart H shows the estimated OASDI cost rates and income rates over the next 75 years based on the intermediate-B assumptions. During the first half of this period, the projection shows that income will generally exceed outgo, developing a substantial surplus each year. After about 2020 the reverse is true, with outgo exceeding income and thus generating substantial deficits. Over the entire period such surpluses and deficits are approximately in balance.

After 1990, when the scheduled employee-employer payroll tax rate levels off at 12.4 percent, the income rate continues to rise slightly as a result of the income from partial taxation of benefits—from 12.7 percent in 1990 to 13.2 percent in 2060 based on the intermediate-B assumptions.

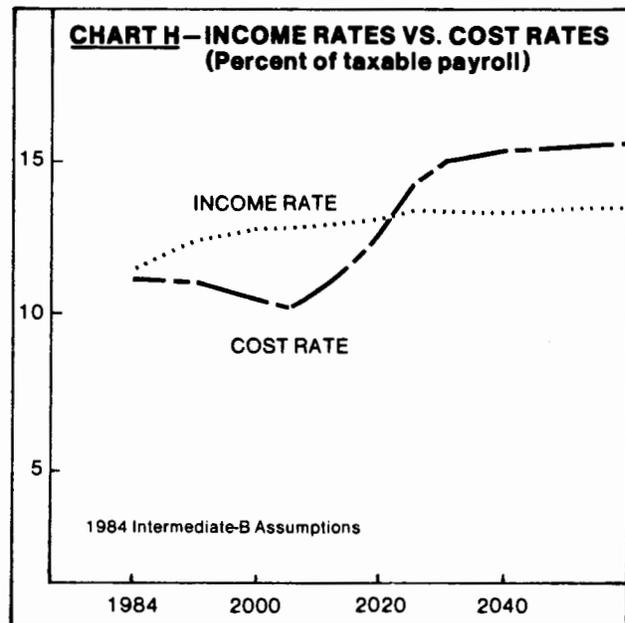


Table 3 compares the estimated OASDI cost rates and income rates for the next 75 years on the basis of the four alternative sets of assumptions. The program now has an average actuarial balance of -0.06 percent of taxable payroll over the next 75 years, based on the intermediate-B assumptions. This represents a slight decline from the average actuarial balance of +0.02 percent shown in 1983. This small decline is due mainly to higher estimates of the numbers of workers who will be awarded disability benefits. The program remains in close actuarial balance, however, because the estimated income rate over the next 75 years is 99.6 percent of the estimated average cost rate. This is well within the 95 to 105 percent range represented by "close actuarial balance."

**Table 3.—Estimated 75-Year Average OASDI Cost Rate, Income Rate, and Actuarial Balance**  
[Percentage of Taxable Payroll]

Set of assumptions	Income rate	Cost rate <sup>1</sup>	Actuarial balance <sup>2</sup>
Optimistic.....	12.76	10.01	2.75
Intermediate-A .....	12.86	12.21	0.65
Intermediate-B .....	12.90	12.95	-0.06
Pessimistic .....	13.10	17.22	-4.12

<sup>1</sup>Cost rate is the estimated outgo as a percentage of taxable payroll.

<sup>2</sup>Actuarial balance is the difference between the income rate and the cost rate before rounding.

Appendix B is an index to certain key tables in the complete annual report for 1984. Other tables in the report give technical data, results by fiscal years, and results for OASI and DI separately.

## APPENDICES

### APPENDIX A

#### *Economic and Demographic Assumptions*

The table below shows selected values of several assumptions used in the 1984 OASDI Trustees Report.

Year	Percentage increase over previous year in average annual-				
	Real GNP <sup>1</sup>	Wages in covered employment	Consumer price index	Average unemployment rate (percentage)	Total fertility rate <sup>2</sup>
Optimistic Assumptions					
1983	3.3	4.2	3.0	9.6	1.9
1984	6.1	6.1	3.9	7.7	1.9
1985	4.8	5.5	3.8	7.0	1.9
1990	3.2	4.8	2.6	5.0	2.0
2000	3.7	4.6	2.0	5.0	2.2
2010 & later	3.0	4.5	2.0	5.0	2.3
Intermediate-A Assumptions					
1983	3.3	4.2	3.0	9.6	1.9
1984	5.4	6.0	4.4	7.8	1.9
1985	4.0	5.8	4.6	7.3	1.9
1990	3.5	5.4	3.3	5.6	1.9
2000	3.1	5.1	3.0	5.5	2.0
2010 & later	2.4	5.0	3.0	5.5	2.0
Intermediate-B Assumptions					
1983	3.3	4.2	3.0	9.6	1.9
1984	4.9	5.9	4.7	7.9	1.9
1985	3.6	6.1	5.3	7.5	1.9
1990	3.0	5.6	4.0	6.2	1.9
2000	2.6	5.6	4.0	6.0	2.0
2010 & later	2.0	5.5	4.0	6.0	2.0
Pessimistic Assumptions					
1983	3.3	4.2	3.0	9.6	1.8
1984	3.4	5.2	5.2	8.2	1.8
1985	0.4	5.0	5.7	9.0	1.8
1990	2.7	6.3	5.0	7.3	1.8
2000	2.0	6.1	5.0	7.0	1.7
2010 & later	1.4	6.0	5.0	7.0	1.6

<sup>1</sup>Gross National Product (the total output of goods and services) expressed in constant dollars. The percentage increase in real GNP is assumed to change after the year 2010. The values for the year 2060 are 3.2, 2.3, 1.9, and 0.7 percent for the optimistic, intermediate-A, intermediate-B, and pessimistic assumptions, respectively.

<sup>2</sup>The number of children who would be born to a woman in her lifetime based on the birth rates at each age in the year shown (if she were to survive the entire child-bearing period).

### APPENDIX B

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