

1979 ANNUAL REPORT OF  
THE BOARD OF TRUSTEES OF THE  
FEDERAL OLD-AGE AND SURVIVORS INSURANCE  
AND DISABILITY INSURANCE TRUST FUNDS

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COMMUNICATION

FROM

THE BOARD OF TRUSTEES  
FEDERAL OLD-AGE AND SURVIVORS  
INSURANCE AND DISABILITY INSURANCE  
TRUST FUNDS

TRANSMITTING

THE 1979 ANNUAL REPORT OF THE BOARD, PURSUANT TO  
SECTION 201(c) OF THE SOCIAL SECURITY ACT



APRIL 24, 1979.—Referred to the Committee on Ways and Means and  
ordered to be printed

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## LETTER OF TRANSMITTAL

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BOARD OF TRUSTEES OF THE  
FEDERAL OLD-AGE AND SURVIVORS INSURANCE  
AND DISABILITY INSURANCE TRUST FUNDS,  
*Washington, D.C., April 13, 1979.*

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES,  
*Washington, D.C.*

SIR: We have the honor to transmit to you the 1979 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund (the 39th such report), in compliance with the provisions of section 201 (c) of the Social Security Act.

Respectfully,

W. MICHAEL BLUMENTHAL,  
*Secretary of the Treasury,*  
*and Managing Trustee of the Trust Funds.*

RAY MARSHALL,  
*Secretary of Labor.*

JOSEPH A. CALIFANO, JR.,  
*Secretary of Health, Education, and Welfare.*

STANFORD G. ROSS,  
*Commissioner of Social Security*  
*and Secretary, Board of Trustees.*

(III)



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FEDERAL OLD-AGE AND SURVIVORS INSURANCE  
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# **1979 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND AND THE FEDERAL DISABILITY INSURANCE TRUST FUND**

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## **I. THE BOARD OF TRUSTEES**

The Federal Old-Age and Survivors Insurance Trust Fund, established on January 1, 1940, and the Federal Disability Insurance Trust Fund, established on August 1, 1956, are held by the Board of Trustees under the authority of section 201(c) of the Social Security Act. The Board is comprised of three members who serve in an ex officio capacity. The members of the Board are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health, Education, and Welfare. The Secretary of the Treasury is designated by law as the Managing Trustee. The Commissioner of Social Security is Secretary of the Board. The Board of Trustees reports to the Congress once each year, in compliance with section 201(c)(2) of the Social Security Act. This report is the annual report for 1979, the 39th such report.

## **II. ADVISORY COUNCIL ON SOCIAL SECURITY**

The Secretary of Health, Education, and Welfare on February 26, 1978, announced the appointment of an Advisory Council on Social Security under the provisions of section 706 of the Social Security Act. Under the law, the Social Security Advisory Council is charged with making a comprehensive study of the status of the social security cash benefit and Medicare programs. This study is to include an examination of the financial status of the trust funds in relation to the long-term commitments of the programs, benefit levels, the scope of coverage, and other aspects of the programs, including their impact on public assistance.

The Council is required to submit its final reports to the Secretary of Health, Education, and Welfare no later than October 1, 1979. After the Council's reports are transmitted by the Secretary to the Congress and to the Board of Trustees of each of the trust funds, the Council will cease to exist. Comments on the Council's report and recommendations with respect to the old-age, survivors, and disability insurance program will be included in the 1980 annual report of the Board of Trustees.

The Council commissioned a Panel of Consultants, consisting of three actuaries and three economists, to review the cost estimates for the old-age, survivors, and disability insurance program and related subjects. The Panel has submitted a final draft report of its findings. In general, the Panel found the assumptions and methodology under-

lying the projections in the 1978 annual report of the Board of Trustees to be reasonable. The Panel did recommend some changes in the assumptions, in part because of emerging experience after the preparation of the 1978 annual report. Many of these recommendations are reflected in the estimates that appear in this report. The Panel's final draft report is available to the public; its final report will be published as an appendix to the Council's final report.

### III. HIGHLIGHTS

The important features of the 1979 annual report are described in this section.

1. Highlights during fiscal year 1978 were:

(a) The assets of both trust funds combined declined by \$4.3 billion, to \$35.3 billion on September 30, 1978. This represents 34 percent of the estimated outgo in the following fiscal year, 1979. Income amounted to \$89.6 billion, 10 percent more than in fiscal year 1977. Expenditures totaled \$93.9 billion, also 10 percent more than in fiscal year 1977. A smaller decline in the combined trust funds is expected in fiscal year 1979. In fiscal year 1978, income to the disability insurance trust fund exceeded expenditures for the first time since 1974. This was primarily because of an increase in contribution rates allocated to the disability insurance trust fund, which became effective on January 1, 1978. Another contributing factor was a significant decline in the number of newly disabled workers who began to receive benefits in 1978.

(b) The following changes of major importance occurred in the program:

(1) The total contribution rates increased from 4.95 percent to 5.05 percent for employees and employers, each, and from 7.0 percent to 7.1 percent for self-employed persons, effective January 1, 1978;

(2) An automatic cost-of-living benefit increase of 6.5 percent became effective for June 1978 (the published statement announcing the determination of this increase is shown in appendix B);

(3) The contribution and benefit based increased from \$16,500 to \$17,700 effective January 1, 1978;

(4) The annual exempt amount under the retirement test increased from \$3,000 to \$4,000 for beneficiaries aged 65 and over, and from \$3,000 to \$3,240 for beneficiaries under age 65, effective January 1, 1978; and

(5) The amount of earnings required for a quarter of coverage was changed from \$50 or more in a quarter to \$250 on an annual basis, beginning January 1, 1978.

(c) The trust funds earned interest amounting to \$2.4 billion during fiscal year 1978. The effective annual rate of interest earned by the combined assets of the trust funds during the 12 months that ended June 30, 1978, was 7.2 percent.

(d) The number of persons receiving monthly benefits under the OASDI program totaled 34.4 million at the end of September 1978. An estimated 110 million workers had earnings in calendar year 1978 that were taxable and creditable toward benefits under the program.

2. For 1979 the following changes of major importance have been made in the program, effective January 1:

(a) The method of computing benefits was changed to a new formula which stabilizes the future relationship between benefits and earnings;

(b) The contribution and benefit base was increased from \$17,700 to \$22,900;

(c) The exempt amount under the retirement test was increased from \$4,000 to \$4,500 for beneficiaries aged 65 and over, and from \$3,240 to \$3,480 for those under 65; and

(d) The amount of annual earnings required for a quarter of coverage was increased from \$250 to \$260.

The published statement announcing the last three changes is shown in appendix C.

3. Projections of the financial status of the old-age and survivors insurance and disability insurance (OASDI) program are shown under three sets of economic and demographic assumptions to indicate the general range of such projections under differing assumptions. Under the intermediate set of assumptions, the old-age and survivors insurance (OASI) and disability insurance (DI) trust funds, combined, increase in every year after 1980 until the early years of the next century.

Under a more optimistic set of assumptions, it is estimated that income will exceed expenditures in every year after 1980 for as far into the future as projections are made (75 years). Under a more pessimistic set of assumptions, however, expenditures from the OASI trust fund are projected to exceed income in every year through 1984, and the fund would experience cash-flow problems, as noted below.

Detail on these projections is given for three time periods of particular interest:

(a) Short-range (1979–1983)—Financing is adequate to maintain positive OASI and DI trust fund balances through 1983 under the intermediate and optimistic sets of assumptions. Under the pessimistic assumptions, the DI trust fund is also adequately financed through 1983. However, the OASI trust fund balance becomes so low that cash-flow problems begin in 1983.

(b) Medium-range (1979–2003)—Under the intermediate assumptions, annual expenditures average 10.59 percent of taxable payroll, while tax income averages 11.76 percent of taxable payroll. This produces an estimated actuarial surplus of 1.17 percent of taxable payroll over the next 25 years. However, under the pessimistic assumptions, the cash-flow problems of the OASI trust fund that begin in 1983 would continue until a year or two after a scheduled increase in contribution rates in 1990.

(c) Long-range (1979–2053)—Under the intermediate set of assumptions, annual expenditures average 13.38 percent of taxable payroll while tax income averages 12.19 percent of taxable payroll. This produces an estimated actuarial deficit of 1.20 percent of taxable payroll over the next 75 years. It should be recognized that the long-range estimates are subject to appreciable variability because of the uncertainties concerning the future behavior of various economic and demographic factors.

#### IV. NATURE OF THE TRUST FUNDS

The Federal Old-Age and Survivors Insurance Trust Fund was established on January 1, 1940, as a separate account in the United States Treasury. All the financial operations of the OASI program are handled through this fund. The Federal Disability Insurance Trust Fund—another separate account in the United States Treasury and thus a fund entirely separate from the Federal Old-Age and Survivors Insurance Trust Fund—was established on August 1, 1956. All the financial operations of the DI program are handled through this fund.

The major sources of receipts of these two funds are (1) amounts appropriated to each of them under permanent appropriation on the basis of contributions paid by workers and their employers, and by individuals with self-employment income, in work covered by the old-age, survivors, and disability insurance program and (2) amounts deposited in each of them representing contributions paid by or on behalf of workers employed by State and local governments and by such employers with respect to wages covered by the program. All employees, and their employers, in employment covered by the program are required to pay contributions with respect to the wages of individual workers. Employees are required to pay contributions with respect to cash tips, but employers are required to pay contributions on only that part of tip income deemed to be wages under the Federal minimum wage law. All covered self-employed persons are required to pay contributions with respect to their covered self-employment income.

In general, an individual's contributions are computed on annual wages or self-employment income, or both wages and self-employment income combined, up to a specified maximum annual amount, with the contributions being determined first on the wages and then on any self-employment income within the annual maximum amount. An employee who pays contributions on wages in excess of the annual maximum amount (because of employment with two or more employers) is eligible for a refund of the excess contributions. The amount of benefits that an individual (or his dependents or survivors) may become entitled to under the OASDI program is based on the amount of the individual's taxable earnings in each year. The maximum amount of earnings taxable in a year is also the maximum amount of earnings creditable toward benefits in that year, and the maximum amount is referred to as the contribution and benefit base.

The contribution rates applicable to taxable earnings in each of the calendar years 1937 and later, and the allocation of the rates between the two trust funds, are shown in table 1. For 1980 and later, the contribution rates shown are the rates scheduled in the provisions of present law. The contribution and benefit base for each year 1937-81 is also shown in table 1. The contribution and benefit base for each year 1975-78 was determined under the automatic increase provisions in section 230 of the Social Security Act. The base for 1979, and the scheduled bases for 1980 and 1981, are specified in the provisions of present law as last amended in 1977. The automatic increase provisions will again be applicable after 1981.

TABLE 1.—CONTRIBUTION AND BENEFIT BASE AND CONTRIBUTION RATES

Calendar years	Contribution and benefit base	Contribution rates (percent of taxable earnings)					
		Employees and employers, each			Self-employed		
		OASDI	OASI	DI	OASDI	OASI	DI
1937-49	\$3,000	1.000	1.000				
1950	3,000	1.500	1.500				
1951-53	3,600	1.500	1.500		2.2500	2.2500	
1954	3,600	2.000	2.000		3.0000	3.0000	
1955-55	4,200	2.000	2.000		3.0000	3.0000	
1957-58	4,200	2.250	2.000	0.250	3.3750	3.0000	0.3750
1959	4,800	2.500	2.250	.250	3.7500	3.3750	.3750
1960-61	4,800	3.000	2.750	.250	4.5000	4.1250	.3750
1962	4,800	3.125	2.875	.250	4.7000	4.3250	.3750
1963-65	4,800	3.625	3.375	.250	5.4000	5.0250	.3750
1966	6,600	3.850	3.500	.350	5.8000	5.2750	.5250
1967	6,600	3.900	3.550	.350	5.9000	5.3750	.5250
1968	7,800	3.800	3.325	.475	5.8000	5.0875	.7125
1969	7,800	4.200	3.725	.475	6.3000	5.5875	.7125
1970	7,800	4.200	3.650	.550	6.3000	5.4750	.8250
1971	7,800	4.600	4.050	.550	6.9000	6.0750	.8250
1972	9,000	4.600	4.050	.550	6.9000	6.0750	.8250
1973	10,800	4.850	4.300	.550	7.0000	6.2050	.7950
1974	13,200	4.950	4.375	.575	7.0000	6.1850	.8150
1975	14,100	4.950	4.375	.575	7.0000	6.1850	.8150
1976	15,300	4.950	4.375	.575	7.0000	6.1850	.8150
1977	16,500	4.950	4.375	.575	7.0000	6.1850	.8150
1978	17,700	5.050	4.275	.775	7.1000	6.0100	1.0900
1979	22,900	5.080	4.330	.750	7.0500	6.0100	1.0400
Changes scheduled in present law:							
1980	25,900	5.080	4.330	.750	7.0500	6.0100	1.0400
1981	29,700	5.350	4.525	.825	8.0000	6.7625	1.2375
1982-84	( <sup>1</sup> )	5.400	4.575	.825	8.0500	6.8125	1.2375
1985-89	( <sup>1</sup> )	5.700	4.750	.950	8.5500	7.1250	1.4250
1990 and later	( <sup>1</sup> )	6.200	5.100	1.100	9.3000	7.6500	1.6500

<sup>1</sup> Subject to automatic increase.

All contributions are collected by the Internal Revenue Service and deposited in the general fund of the Treasury as internal revenue collections, except for amounts received under State agreements (to effectuate coverage under the program for State and local government employees) which are deposited directly in the trust funds. The internal revenue collections are immediately and automatically appropriated to the trust funds on an estimated basis. The exact amount of contributions received is not known initially because contributions under the OASDI and hospital insurance programs and individual income taxes are not separately identified in collection reports received by the Treasury Department. Periodic adjustments are subsequently made to the extent that the estimates are found to differ from the amounts of contributions actually payable on the basis of reported earnings. Adjustments are also made to account for any refunds to workers who paid contributions on wages in excess of the contribution and benefit base.

Another source of income to the trust funds is interest received on investments held by the funds. That portion of each trust fund which, in the judgment of the Managing Trustees, is not required to meet current expenditures for benefits and administration is invested, on a daily basis, in interest-bearing obligations of the U.S. Government (including special public-debt obligations described below), in obligations guaranteed as to both principal and interest by the United States, or in certain federally sponsored agency obligations that are designated in the laws authorizing their issuance as lawful invest-

ments for fiduciary and trust funds under the control and authority of the United States or any officer of the United States. These obligations may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price.

The Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the trust funds. The Act provides that these obligations shall bear interest at a rate equal to the average market yield (computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue) on all marketable interest-bearing obligations of the United States then forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of such calendar month.

The income and expenditures of the trust funds are also affected by the provisions of the Railroad Retirement Act which provide for a system of coordination and financial interchange between the railroad retirement program and the OASDI program. Under these provisions, transfers between the railroad retirement account and the trust funds are made on an annual basis in order to place each trust fund in the same position as it would have been if railroad employment had always been covered under social security.

Several other provisions in the Social Security Act also affect the income and expenditures of the trust funds. Income is affected by provisions for (1) annual reimbursements from the general fund of the Treasury to the OASI and DI trust funds for any cost arising from the granting of noncontributory wage credits for military service, according to periodic determinations made by the Secretary of Health, Education, and Welfare; (2) annual reimbursements from the general fund of the Treasury to the OASI trust fund for any costs arising from special monthly cash payments to certain persons who reached age 72 before 1968, almost all of whom are not eligible for cash benefits under other provisions of the OASDI program; and (3) the receipt of unconditional money gifts or bequests made for the benefit of the trust funds or any activity financed through the funds. In addition to the payment of benefits from the trust funds, the following expenditures from the trust funds are authorized: (1) costs of vocational rehabilitation services furnished to disabled persons receiving benefits because of their disability, which may not exceed a specified percentage of the benefits certified for payment to these types of beneficiaries in the preceding year; (2) expenses incurred by the Department of Health, Education, and Welfare and by the Treasury Department in carrying out the provisions of title II of the Social Security Act and of the Internal Revenue Code relating to the collection of contributions; and (3) expenditures for construction, rental, and lease or purchase contract of office buildings and related facilities for the Social Security Administration.

The net worth of facilities and other fixed capital assets is not carried in the statements of the operations of the trust funds presented in this report. This is because the value of fixed capital assets does not represent funds available for benefit or administrative expenditures.

and therefore is not viewed as being a consideration in assessing the actuarial status of the trust funds.

## V. SUMMARY OF THE OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1978

### A. OLD-AGE AND SURVIVORS INSURANCE TRUST FUND

A statement of the income and disbursements of the Federal Old-Age and Survivors Insurance Trust Fund in fiscal year 1978, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 2. Comparable amounts for fiscal year 1977 are also shown in the table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1977 AND 1978

[In thousands]

	Fiscal year 1977	Fiscal year 1978
Total assets of the trust fund, beginning of year.....	\$37,055,202	\$35,372,213
Receipts:		
Contributions:		
Appropriations.....	61,517,723	66,574,306
Deposits arising from State agreements.....	7,676,046	7,859,698
Gross contributions.....	69,193,769	74,434,004
Less payment into the Treasury for contributions subject to refund.....	298,960	387,225
Net contributions.....	68,894,809	74,046,779
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service.....	378,000	382,000
Noncontributory credits for persons interned during World War II at places operated for the interment of U.S. citizens of Japanese ancestry.....		2,724
Payments to noninsured persons aged 72 and over:		
Benefit payments.....	208,652	176,727
Administrative expenses.....	2,640	2,205
Interest.....	24,610	49,272
Total reimbursement for payments to noninsured persons aged 72 and over.....	235,902	228,203
Interest:		
Interest on investments.....	2,275,080	2,153,535
Interest on amounts transferred from the supplemental security income general fund account due to adjustment in allocation of administrative expenses.....	15,033	-600
Gross interest.....	2,290,113	2,152,935
Less interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs.....	3,130	1,655
Less interest on amounts transferred to the disability insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	95	139
Net interest.....	2,286,888	2,151,142
Gifts.....	10	6
Total receipts.....	71,795,610	76,810,854
Disbursements:		
Benefit payments.....	71,270,519	78,524,092
Transfer to railroad retirement account.....	1,207,841	1,588,664
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year.....	6,797	6,107
Transfers to the disability insurance trust fund due to adjustment in allocation of costs for prior periods.....	705	354
Total payment for costs of vocational rehabilitation services.....	7,502	6,461

See footnotes at end of table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1977 AND 1978—Continued

[In thousands]

	Fiscal year 1977	Fiscal year 1978
Administrative expenses:		
Department of Health, Education, and Welfare .....	\$830,303	\$931,715
Treasury Department .....	127,902	103,973
Construction of facilities for Social Security Administration .....	14,733	13,332
Expenses of the Department of Health, Education, and Welfare for administration of vocational rehabilitation program for disabled beneficiaries .....	48	50
Interfund transfers due to adjustment in allocation of:		
Administrative expenses .....	19,229	22,327
Costs of construction <sup>2</sup> .....	2,415	-57
Transfers to the supplemental security income general fund account due to adjustment in allocation of administrative expenses <sup>3</sup> .....	-1,887	14,300
Gross administrative expenses .....	992,743	1,085,638
Less receipts from sales of supplies, materials, etc. ....	6	53
Net administrative expenses .....	992,737	1,085,586
Total disbursements .....	73,478,599	81,204,803
Net addition to the trust fund .....	-1,682,989	-4,393,949
Total assets of the trust fund, end of year .....	35,372,213	30,978,264

<sup>1</sup> A positive figure represents a transfer of interest to the trust fund from the supplemental security income general fund account. A negative figure represents a transfer of interest from the trust fund to the supplemental security income general fund account.

<sup>2</sup> A positive figure represents a transfer from the OASI trust fund to the other social security trust funds. A negative figure represents a transfer to the OASI trust fund from the other social security trust funds.

<sup>3</sup> A positive figure represents a transfer from the trust fund to the supplemental security income general fund account. A negative figure represents a transfer to the trust fund from the supplemental security income general fund account.

Note: Totals do not necessarily equal the sum of rounded components.

The total assets of the OASI trust fund amounted to \$35,372 million on September 30, 1977. During fiscal year 1978, total receipts amounted to \$76,811 million and total disbursements were \$81,205 million. The assets of the trust fund thus decreased \$4,394 million during the year to a total of \$30,978 million on September 30, 1978.

Included in total receipts during fiscal year 1978 were \$66,574 million representing contributions appropriated to the fund and \$7,860 million representing amounts received by the Secretary of the Treasury in accordance with State agreements for coverage of State and local government employees and deposited in the trust fund. As an offset, \$387 million was transferred from the trust fund into the Treasury as repayment for the estimated amount of contributions subject to refund to employees who worked for more than one employer during the course of a year and paid contributions on wages in excess of the statutory maximum earnings base.

Net contributions amounted to \$74,047 million, an increase of 7.5 percent over the amount for the preceding fiscal year. Growth in contribution income resulted primarily from (1) the higher level of earnings in covered employment and (2) the two increases in the maximum annual amount of earnings taxable—from \$15,300 to \$16,500 effective on January 1, 1977, and from \$16,500 to \$17,700 effective on January 1, 1978. Although the first increase in the maximum annual amount of earnings taxable, from \$15,300 to \$16,500, became effective in 1977, earnings between \$15,300 and \$16,500, which were taxable during all of fiscal year 1978, were taxable during only part of the preceding fiscal year. The increase in net contributions that resulted from the

higher maximum taxable amounts was offset by the decrease in the contribution rate for employees and employers, each, from 4.375 percent to 4.275 percent that became effective on January 1, 1978, as a result of provisions in the 1977 amendments. (This decrease was offset by increases in the contribution rates allocated to the disability insurance trust fund, from 0.575 percent to 0.775 percent, and the hospital insurance trust fund, from 0.9 percent to 1.0 percent. The resulting net increase in the total contribution rate for the OASI, DI, and hospital insurance trust funds—from 5.85 percent to 6.05 percent, for employees and employers, each,—was the same as the increase that had already been scheduled for January 1, 1978, under the law as in effect prior to the 1977 amendments.)

Reference has been made in an earlier section to provisions of the Social Security Act under which the OASI and DI trust funds are to be reimbursed annually from the general fund of the Treasury for costs of granting noncontributory credits for military service and for the costs of payments to certain noninsured persons aged 72 and over who have less than three quarters of coverage.

In accordance with section 217(g) of the Social Security Act, the Secretary of Health, Education, and Welfare made a determination in 1975 of the level annual appropriations to the trust funds necessary to amortize over a 39-year period, beginning in fiscal year 1977, the estimated total additional costs, for military service performed before 1957, arising from payments that have been made after August 1950 and that will be made in future years, taking into account the amounts of annual appropriations in fiscal years 1966–76 that have been deposited into the trust funds. The annual amounts resulting from this determination were \$354 million for the OASI trust fund and \$92 million for the DI trust fund. In accordance with section 229(b), the Secretary determined that the old-age and survivors insurance trust fund should receive reimbursement of \$28 million, and the disability insurance trust fund should receive reimbursement of \$36 million, for additional costs attributable to noncontributory credits for military service performed after 1956. Thus, reimbursements amounting to \$382 million for the OASI trust fund and \$128 million for the DI trust fund were received in December 1977.

A reimbursement amounting to \$228 million for the costs of monthly payments to certain noninsured persons aged 72 and over was transferred from the general fund of the Treasury to the OASI trust fund in fiscal year 1978. This reimbursement, made under section 228, reflected the costs of payments made in fiscal year 1976 and adjustments in the costs of payments made in prior fiscal years.

Section 231 of the Social Security Act provided for a single reimbursement from the general fund of the Treasury to each of the two trust funds for the estimated total costs arising from the granting of noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of U.S. citizens of Japanese ancestry. In accordance with section 231, the Secretary determined that the reimbursements for such costs should be \$2,724,000 for the OASI trust fund and \$3,000 for the DI trust fund. These amounts were transferred to the trust funds in December 1977.

The OASI trust fund received \$6,081 in gifts in fiscal year 1978 under the provisions authorizing the deposit of money gifts or bequests in the OASI and DI trust funds.

The remaining \$2,151 million of receipts consisted of interest on the investments of the trust fund and net interest on amounts of inter-fund transfers arising out of adjustments in the allocation of administrative expenses, construction costs, and the costs of vocational rehabilitation services for prior fiscal years.

Of the \$81,205 million in total disbursements, \$78,524 million was for benefit payments, an increase of 10.2 percent over the corresponding amount paid in fiscal year 1977. This increase was due to (1) the automatic cost-of-living benefit increases of 5.9 percent and 6.5 percent, which became effective for June 1977 and June 1978, respectively, under the automatic provisions in section 215(i), and (2) the continuing growth in both the total number of beneficiaries and the average benefit amounts resulting from the rising level of earnings. Although the first automatic benefit increase of 5.9 percent became effective in 1977, the resulting higher benefit levels, which were in effect during all of fiscal year 1978, were in effect during only part of the preceding fiscal year. The increase in benefit payments from fiscal year 1977 to fiscal year 1978 also reflects the effects of various provisions in the 1977 amendments.

In accordance with the provisions of the Railroad Retirement Act which coordinate the railroad retirement and OASI programs and which govern the financial interchanges arising from the allocation of costs between the two systems, the Railroad Retirement Board and the Secretary of Health, Education, and Welfare determined that a transfer of \$1,524,700,000 to the railroad retirement account from the OASI trust fund would place this trust fund in the same position as of September 30, 1977, as it would have been if railroad employment had always been covered under the Social Security Act. This amount was transferred to the railroad retirement account in June 1978, together with interest to the date of transfer amounting to \$63,964,000.

Expenditures of the OASI program for the costs of vocational rehabilitation services amounted to about \$6.5 million. These services were furnished to disabled adults—dependents of old-age beneficiaries and survivors of deceased insured workers—who were receiving monthly benefits from the OASI trust fund because of their disability.

The remaining \$1,086 million of disbursements from the OASI trust fund represents net administrative expenses. The expenses of administering the programs financed through the four trust funds—the OASI, DI, hospital insurance, and supplementary medical insurance trust funds—are allocated and charged directly to each trust fund on the basis of provisional estimates. Similarly, the expenses of administering the supplemental security income program are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are effected by interfund transfers, including transfers between the OASI trust fund and the supplemental security income general fund account, with appropriate interest allowances.

Net administrative expenses charged to the OASI trust fund and to the DI trust fund in fiscal year 1978 totaled \$1,413 million. This amount represented 1.6 percent of contribution income and 1.6 percent of expenditures for benefit payments and payments for the costs of vocational rehabilitation services during the fiscal year. Corresponding percentages for each of the last 5 years for the OASDI system as a whole and for each trust fund separately are shown in table 3.

TABLE 3.—RELATIONSHIP OF NET ADMINISTRATIVE EXPENSES OF THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM TO CONTRIBUTION INCOME AND BENEFIT PAYMENTS, BY TRUST FUND, FISCAL YEARS 1974-78

Fiscal year	Total—Administrative expenses as a percentage of—		Old-age and survivors insurance trust fund—Administrative expenses as a percentage of—		Disability insurance trust fund—Administrative expenses as a percentage of—	
	Total contribution income	Total benefit payments <sup>1</sup>	Contribution income	Benefit payments <sup>1</sup>	Contribution income	Benefit payments <sup>1</sup>
1974	1.6	1.6	1.5	1.5	2.5	2.5
1975	1.7	1.8	1.5	1.5	3.4	3.3
1976	1.8	1.7	1.6	1.5	3.4	2.9
July-September 1976	1.7	1.6	1.5	1.4	3.3	2.7
1977	1.8	1.7	1.4	1.4	4.2	3.4
1978	1.6	1.6	1.5	1.4	2.6	2.7

<sup>1</sup> In determining the percentages shown, payments for the costs of vocational rehabilitation services are included with benefit payments.

Note: In interpreting the figures in the above table, reference should be made to the accompanying text.

In table 4, the experience with respect to actual amounts of contributions and benefit payments in fiscal year 1978 is compared with the estimates for fiscal year 1978 which appeared in the 1978 annual report. The actual experience for each trust fund was quite close, relatively, to the estimates. Reference was made in an earlier section to the appropriation of contributions to the trust funds on an estimated basis, with subsequent periodic adjustments to account for differences from the amounts of contributions actually payable on the basis of reported earnings. In interpreting the figures in table 4, it should be noted that the "actual" amount of contributions in fiscal year 1978 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions in fiscal year 1978 does not reflect adjustments to contributions for fiscal year 1978 that were to be made after September 30, 1978.

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1978

[Amounts in millions]

	Old-age and survivors insurance trust fund		Disability insurance trust fund	
	Net contributions	Benefit payments	Net contributions	Benefit payments
Actual amount	\$74,047	\$78,524	\$12,404	\$12,214
Estimated amount published in 1978 report	\$74,093	\$78,965	\$12,427	\$12,410
Actual as percentage of estimate	100	99	100	98

Note: In interpreting the figures in the above table, reference should be made to the accompanying text.

At the end of fiscal year 1978, about 34.4 million persons were receiving monthly benefits under the OASDI program. About 29.5 million of these persons were receiving monthly benefits from the OASI trust fund. The distribution of benefit payments in fiscal years 1977 and 1978, by type of beneficiary, is shown in table 5. Approximately 74 percent of the total benefit payments from the OASI trust fund in fiscal year 1978 was accounted for by monthly benefits to retired workers and their dependents and about 17 percent by monthly benefits to aged survivors and disabled widows or widowers of deceased workers. Approximately 9 percent of the benefit payments represented monthly benefits on behalf of children of deceased workers and monthly benefits to widowed mothers and fathers who had children of deceased workers in their care.

TABLE 5.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE OF BENEFICIARY AND PAYMENT, FISCAL YEARS 1977 AND 1978

(Amounts in millions)

	Fiscal year 1977		Fiscal year 1978	
	Amount	Percent of total	Amount	Percent of total
Total .....	\$71, 271	100	\$78, 524	100
Monthly benefits .....	70, 950	100	78, 192	100
Retired workers and their dependents .....	52, 225	73	57, 739	74
Retired workers .....	46, 952	66	51, 944	66
Wives and husbands .....	4, 450	6	4, 886	6
Children .....	824	1	909	1
Survivors of deceased workers .....	18, 563	26	20, 308	26
Aged widows and widowers .....	11, 486	16	12, 730	16
Disabled widows and widowers .....	233	( <sup>1</sup> )	261	( <sup>1</sup> )
Parents .....	51	( <sup>1</sup> )	52	( <sup>1</sup> )
Children .....	5, 622	8	6, 005	8
Widowed mothers and fathers caring for child beneficiaries .....	1, 170	2	1, 260	2
Noninsured persons aged 72 and over <sup>2</sup> .....	161	( <sup>1</sup> )	146	( <sup>1</sup> )
Lump-sum death payments .....	321	( <sup>1</sup> )	332	( <sup>1</sup> )

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> The trust fund is reimbursed from the general fund of the Treasury for the costs of payments to beneficiaries with less than three quarters of coverage.

Note: Totals do not necessarily equal the sum of rounded components.

Special payments to noninsured persons aged 72 and over amounted to \$146 million, or less than 0.2 percent of total benefit payments from the trust fund. As stated earlier, the costs of such payments to persons who have fewer than three quarters of coverage are reimbursable from the general fund of the Treasury. About 97 percent of the total amount of the payments made in fiscal year 1978 to noninsured persons aged 72 and over went to persons with fewer than three quarters of coverage.

The balance of the benefits paid during fiscal year 1978 consisted of lump-sum death payments.

The assets of the OASI trust fund at the end of fiscal year 1978 totaled \$30,978 million, consisting of \$30,955 million in the form of obligations of the U.S. Government or of federally sponsored agency obligations, and an undisbursed balance of \$23 million. Table 6 shows the total assets of the fund and their distribution at the end of fiscal years 1977 and 1978.

TABLE 6.—ASSETS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1977 AND 1978

	Sept. 30, 1977		Sept. 30, 1978	
	Par value	Book value <sup>1</sup>	Par value	Book value <sup>1</sup>
<b>Investments in public-debt obligations:</b>				
<b>Public issues:</b>				
<b>Treasury bonds:</b>				
2¾-percent, investment series B, 1975-80	\$1,064,902,000	\$1,064,902,000.00	\$1,064,902,000	\$1,064,902,000.00
3-percent, 1995	70,170,000	70,152,252.19	70,170,000	70,153,276.15
3¼-percent, 1978-83	60,200,000	59,864,616.62	60,200,000	59,923,801.82
3¼-percent, 1985	25,700,000	25,040,727.35	25,700,000	25,127,664.47
3½-percent, 1980	449,450,000	450,794,956.02	449,450,000	450,358,754.22
3½-percent, 1990	556,250,000	551,016,670.71	556,250,000	551,440,994.91
3½-percent, 1998	552,037,000	545,528,469.61	552,037,000	545,837,174.77
4-percent, 1980	153,100,000	153,088,652.74	153,100,000	153,093,516.34
4½-percent, 1989-94	91,300,000	90,798,748.77	91,300,000	90,828,974.97
4½-percent, 1975-85	78,023,000	77,863,877.54	78,023,000	77,884,860.86
4½-percent, 1987-92	33,000,000	34,046,689.68	33,000,000	33,940,246.68
6¾-percent, 1984	31,500,000	31,814,087.61	31,500,000	31,768,677.33
7-percent, 1981	50,000,000	49,843,333.09	50,000,000	49,883,333.05
7½-percent, 1988-93	99,934,000	98,669,769.32	99,934,000	98,749,197.44
7½-percent, 2002-07	15,000,000	14,991,248.32	15,000,000	14,991,617.02
7½-percent, 1995-2000	22,180,000	21,498,128.94	22,180,000	21,528,774.78
8-percent, 1996-2001	90,500,000	90,407,683.92	90,500,000	90,411,557.28
8½-percent, 2000-05	22,450,000	22,444,249.14	22,450,000	22,444,447.98
8½-percent, 1995-2000	50,000,000	50,691,919.25	50,000,000	50,661,616.25
8½-percent, 1994-99	6,352,000	6,508,372.96	6,352,000	6,501,155.68
<b>Total investments in public issues</b>	<b>3,522,048,000</b>	<b>3,509,966,453.78</b>	<b>3,522,048,000</b>	<b>3,510,431,642.00</b>
<b>Obligations sold only to this fund (special issues):</b>				
<b>Certificates of indebtedness:</b>				
7-percent, 1978	5,180,294,000	5,180,294,000.00		
7½-percent, 1978	1,649,440,000	1,649,440,000.00		
8¼-percent, 1979			4,769,492,000	4,769,492,000.00
8½-percent, 1979			1,294,723,000	1,294,723,000.00
<b>Notes: 6¾-percent, 1980</b>	<b>326,153,000</b>	<b>326,153,000.00</b>		
<b>Bonds:</b>				
7½-percent, 1981	125,846,000	125,846,000.00		
7½-percent, 1982	125,846,000	125,846,000.00		
7½-percent, 1983	125,846,000	125,846,000.00		
7½-percent, 1984	125,846,000	125,846,000.00	125,846,000	125,846,000.00
7½-percent, 1985	125,846,000	125,846,000.00	125,846,000	125,846,000.00
7½-percent, 1986	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7½-percent, 1987	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7½-percent, 1988	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7½-percent, 1989	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7½-percent, 1990	125,848,000	125,848,000.00	125,848,000	125,848,000.00
7½-percent, 1991	125,848,000	125,848,000.00	125,848,000	125,848,000.00
7½-percent, 1992	2,014,741,000	2,014,741,000.00	2,014,741,000	2,014,741,000.00
7½-percent, 1981	688,956,000	688,956,000.00		
7½-percent, 1982	688,956,000	688,956,000.00		
7½-percent, 1983	688,956,000	688,956,000.00		
7½-percent, 1984	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½-percent, 1985	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½-percent, 1986	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½-percent, 1987	688,955,000	688,955,000.00	688,955,000	688,955,000.00
7½-percent, 1988	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½-percent, 1989	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½-percent, 1990	1,366,865,000	1,366,865,000.00	1,366,865,000	1,366,865,000.00
7½-percent, 1981	522,029,000	522,029,000.00		
7½-percent, 1982	522,029,000	522,029,000.00		
7½-percent, 1983	522,029,000	522,029,000.00	459,237,000	459,237,000.00
7½-percent, 1984	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1985	522,028,000	522,028,000.00	522,029,000	522,029,000.00
7½-percent, 1986	522,028,000	522,028,000.00	522,028,000	522,028,000.00
7½-percent, 1987	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1988	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1989	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1990	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1991	1,888,893,000	1,888,893,000.00	1,888,893,000	1,888,893,000.00
7½-percent, 1981	677,910,000	677,910,000.00		
7½-percent, 1982	677,910,000	677,910,000.00		
7½-percent, 1983	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½-percent, 1984	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½-percent, 1985	677,910,000	677,910,000.00	677,910,000	677,910,000.00

See footnotes at end of table.

TABLE 6.—ASSETS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1977 AND 1978—Continued

	Sept. 30, 1977		Sept. 30, 1978	
	Par value	Book value <sup>1</sup>	Par value	Book value <sup>1</sup>
Investments in public-debt obligations—Continued:				
Obligations sold only to this fund (special issues)—Continued:				
Bonds—Continued:				
7½-percent, 1986	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½-percent, 1987	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½-percent, 1988	677,909,000	677,909,000.00	677,909,000	677,909,000.00
7½-percent, 1989	677,909,000	677,909,000.00	677,909,000	677,909,000.00
8¼-percent, 1993			1,555,736,000	1,555,736,000.00
Total obligations sold only to this fund (special issues)	31,332,779,000	31,332,779,000.00	26,889,767,000	26,889,767,000.00
Total investments in public-debt obligations	34,854,827,000	34,842,745,453.78	30,411,815,000	30,400,198,642.00
Investments in federally sponsored agency obligations:				
Participation certificates:				
Federal Assets Liquidation Trust—Government National Mortgage Association:				
5.10-percent, 1987	50,000,000	50,000,000.00	50,000,000	50,000,000.00
5.20-percent, 1982	100,000,000	100,000,000.00	100,000,000	100,000,000.00
Federal Assets Financing Trust—Government National Mortgage Association:				
6.05-percent, 1988	65,000,000	64,874,063.08	65,000,000	64,886,250.64
6.20-percent, 1988	230,000,000	230,000,000.00	230,000,000	230,000,000.00
6.40-percent, 1987	75,000,000	75,000,000.00	75,000,000	75,000,000.00
6.45-percent, 1988	35,000,000	35,000,000.00	35,000,000	35,000,000.00
Total investments in federally sponsored agency obligations	555,000,000	554,874,063.08	555,000,000	554,886,250.64
Total investments	35,409,827,000	35,397,619,516.86	30,966,815,000	30,955,084,892.64
Undisbursed balances <sup>2</sup>		-25,406,511.59		23,179,467.85
Total assets		35,372,213,005.27		30,978,264,360.49

<sup>1</sup> Par value, plus unamortized premium, less discount outstanding.

<sup>2</sup> The negative figure represented an extension of credit against securities to be redeemed within the following few days.

The net decrease in the par value of the investments owned by the fund during fiscal year 1978 amounted to \$4,443 million. New securities at a total par value of \$84,992 million were acquired during the fiscal year through the investment of receipts and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the fiscal year was \$89,435 million. Included in these amounts are \$77,724 million in certificates of indebtedness that were acquired, and \$78,490 million in certificates of indebtedness that were redeemed, within the fiscal year.

The effective annual rate of interest earned by the assets of the OASI trust fund during the 12 months ending on June 30, 1978 was 7.2 percent. (This period is used because interest on special issues is paid semiannually on June 30 and December 31.) The interest rate on special issues purchased by the trust fund in June 1978 was 8¼ percent, payable semiannually. The special issues purchased by the trust fund in June 1978, at the interest rate of 8¼ percent, included \$1,556 million in Treasury bonds maturing in 1993. Although the interest rate on bonds is generally limited to 4¼ percent by the provisions of 31 U.S.C. 752, amendments to these provisions authorize the issuance of bonds at rates of interest exceeding 4¼ percent, subject to

certain restrictions. Public Law 92-5, enacted March 17, 1971, amended the provisions to authorize the issuance to the public and to Government accounts of up to a total of \$10 billion in bonds at rates of interest exceeding  $4\frac{1}{4}$  percent. Public Law 93-53, enacted July 1, 1973, further amended the provisions of 31 U.S.C. 752 by (1) removing the \$10 billion limitation on the aggregate face amount of such bonds that may be issued and (2) limiting the amount of such bonds that may be held by the public at any one time to \$10 billion.

Section 201(d) of the Social Security Act provides that the public-debt obligations issued for purchase by the OASI and DI trust funds shall have maturities fixed with due regard for the needs of the funds. Under this section, the general practice is to spread the maturity dates for the holdings of special issues as nearly as practicable in equal amounts over a 15-year period.

As a result, the OASI trust fund held \$20,826 million in special issues (bonds) at the end of September 1978 that were distributed in equal amounts of about \$2,015 million maturing in each of the years 1984-1992 and in smaller amounts maturing in 1983 and 1993 (table 6). The investment operations of the fund in fiscal years 1977 and earlier are described in the 1978, and earlier, annual reports.

#### B. DISABILITY INSURANCE TRUST FUND

A statement of the income and disbursements of the Federal Disability Insurance Trust Fund during fiscal year 1978, and of the assets of the fund at the beginning and end of the fiscal year is presented in table 7. Comparable amounts for fiscal year 1977 are also shown in the table.

TABLE 7.—STATEMENT OF OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING FISCAL YEARS 1977 AND 1978

(In thousands)

	Fiscal year 1977	Fiscal year 1978
Total assets of the trust fund, beginning of year.....	\$6,458,609	\$4,243,131
Receipts:		
Contributions:		
Appropriations.....	8,133,602	11,142,746
Deposits arising from State agreements.....	805,160	1,312,550
Gross contributions.....	8,938,762	12,455,296
Less payment into the Treasury for contributions subject to refund.....	39,260	50,900
Net contributions.....	8,899,502	12,404,396
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service.....	103,000	128,000
Noncontributory credits for persons interned during World War II at places operated for the internment of U.S. citizens of Japanese ancestry.....		3
Interest:		
Interest on investments.....	374,008	249,289
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs <sup>1</sup> .....	-2,362	1,959
Interest on amounts transferred from the old-age and survivors insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	95	139
Total interest.....	371,741	251,387
Total receipts <sup>2</sup> .....	9,374,244	12,783,786

See footnotes at end of table.

TABLE 7.—STATEMENT OF OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING FISCAL YEARS 1977 AND 1978—Continued

[In thousands]

	Fiscal year 1977	Fiscal year 1978
<b>Disbursements:</b>		
Benefit payments.....	\$11,135,237	\$12,213,895
Transfer to railroad retirement account <sup>3</sup> .....	—318	29,797
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year.....	77,849	84,693
Less transfer from the old-age and survivors insurance trust fund due to adjustment in allocation of costs for prior periods.....	705	354
Total payment for costs of vocational rehabilitation services.....	77,144	84,339
Administrative expenses:		
Department of Health, Education, and Welfare.....	329,044	337,222
Treasury Department.....	17,911	18,588
Construction of facilities for Social Security Administration.....	162	1,614
Expenses of the Department of Health, Education, and Welfare for administration of vocational rehabilitation program for disabled beneficiaries.....	552	550
Interfund transfers due to adjustment in allocation of administrative expenses <sup>4</sup> .....	31,692	—30,646
Gross administrative expenses.....	379,361	327,329
Less interfund transfers due to adjustment in allocation of costs of construction.....	1,687	75
Less receipts from sales of supplies, materials, etc.....	14	20
Net administrative expenses.....	377,659	327,234
Total disbursements.....	11,589,722	12,655,265
Net addition to the trust fund.....	—2,215,478	128,521
Total assets of the trust fund, end of year.....	4,243,131	4,371,652

<sup>1</sup> A positive figure represents a transfer of interest to the disability insurance trust fund from the other social security trust funds. A negative figure represents a transfer of interest from the disability insurance trust fund to the other social security trust funds.

<sup>2</sup> Includes gifts amounting to \$159.60 during fiscal year 1978.

<sup>3</sup> The negative figure for fiscal year 1977 represents a transfer from the railroad retirement account to the trust fund.

<sup>4</sup> A positive figure represents a transfer from the disability insurance trust fund to the other social security trust funds.

A negative figure represents a transfer to the disability insurance trust fund from the other social security trust funds.

Note: Totals do not necessarily equal the sum of rounded components.

The total assets of the DI trust fund amounted to \$4,243 million on September 30, 1977. During fiscal year 1978, total receipts amounted to \$12,784 million and total disbursements were \$12,655 million. The assets of the trust fund thus increased \$129 million during the year to a total of \$4,372 million on September 30, 1978.

Included in total receipts were \$11,143 million representing contributions appropriated to the fund, and \$1,313 million representing amounts received by the Secretary of the Treasury in accordance with State coverage agreements and deposited in the fund. As an offset, \$51 million was transferred from the trust fund into the Treasury as repayment for the estimated amount of contributions subject to refund to employees who worked for more than one employer during the course of a year and paid contributions on wages in excess of the statutory maximum earnings base.

Net contributions amounted to \$12,404 million, an increase of 39.4 percent over the amount for the preceding fiscal year. The major part of this growth resulted from the increase in the contribution rate for employees and employers, each, which was allocated to finance the DI program—from 0.575 percent to 0.775 percent—that became effective on January 1, 1978. The increase is also accounted for, in part, by the same factors, insofar as they apply to contributions of the DI

trust fund, that accounted for the increase in contributions to the OASI trust fund (described in the preceding section).

In addition, the trust fund received \$128 million in December 1977 from the general fund of the Treasury, as reimbursement for the costs of noncontributory credits for military service. Of this amount, \$92 million was reimbursed in accordance with section 217(g) and \$36 million was in accordance with section 229(b), as described in the preceding section.

In accordance with section 231, the trust fund received \$3,000 in December 1977 from the general fund of the Treasury, as a single reimbursement for the estimated total costs arising from the granting of noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of U.S. citizens of Japanese ancestry.

The remaining \$251 million of receipts consisted of interest on the investments of the fund, plus interest on amounts of interfund transfers.

Of the \$12,655 million in total disbursements, \$12,214 million was for benefit payments, an increase of 9.7 percent over the corresponding amount paid in fiscal year 1977. This increase is accounted for by the same factors insofar as they apply to disabled-worker beneficiaries and their dependents, that resulted in the increase in benefit payments from the OASI trust fund (described in the preceding section).

Provisions governing the financial interchanges between the railroad retirement account and the DI trust fund are similar to those referred to in the preceding section relating to the OASI trust fund. The determination made as of September 30, 1977, required that a transfer of \$28,600,000 be made from the DI trust fund to the railroad retirement account. This amount was transferred to the railroad retirement account in June 1978, together with interest to the date of transfer amounting to \$1,197,000.

The remaining disbursements amounted to \$327 million for net administrative expenses and \$84 million for the costs of vocational rehabilitation services furnished to disabled-worker beneficiaries and to those dependents of disabled workers who are receiving benefits on the basis of disabilities that have continued since childhood.

As stated in an earlier section, the total amount of funds that may be made available in a fiscal year for payment for the costs of vocational rehabilitation services may not exceed a specified percentage of the benefits certified for payment in the preceding fiscal year from the OASI and DI trust funds to disabled persons receiving benefits because of their disability. This statutory limitation on the amounts to be made available was 1½ percent in fiscal years 1974 and later. Beginning with payments for fiscal year 1977, the funds made available for vocational rehabilitation costs are further curtailed by limitations in the Budget of the United States for each year. The data presented below show the relationship between the total amount of payments for the costs of such rehabilitation services for each fiscal period during fiscal years 1974-78, and the corresponding amount of benefits paid in the prior fiscal period from the trust funds to disabled beneficiaries.

Fiscal year to which costs of rehabilitation services are charged	Amount of payments for costs of rehabilitation services <sup>1</sup> (in thousands)	Estimated amount of benefit payments in preceding fiscal year to disabled beneficiaries (in thousands)	Payments for costs of rehabilitation services as a percent of preceding year's benefit payments
1974 .....	\$52,164	\$4,643,016	1.12
1975 .....	82,070	5,533,493	1.48
July 1975-September 1976 <sup>2</sup> .....	117,805	8,824,547	1.33
1977 <sup>3</sup> .....	85,803	8,547,410	1.00
1978 .....	48,466	9,983,200	.49

<sup>1</sup> The amounts shown represent the expenditures for a fiscal year and differ from amounts expended in a fiscal year as shown in accounting statements of the trust funds on a cash basis. The amount shown for each fiscal year is subject to further change.

<sup>2</sup> The amount of payments for costs of rehabilitation services represents the total amount for the 15-month period July 1975 through September 1976. The estimated amount of benefit payments to disabled beneficiaries represents total payments during the corresponding earlier 15-month period July 1974 through September 1975.

<sup>3</sup> The estimated amount of benefit payments to disabled beneficiaries represents total payments during the preceding 12-month period October 1975 through September 1976.

At the end of fiscal year 1978, some 4.9 million persons were receiving monthly benefits from the DI trust fund. The distribution of benefit payments in fiscal years 1977 and 1978, by type of beneficiary, is shown in table 8.

TABLE 8.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE DISABILITY INSURANCE TRUST FUND BY TYPE OF BENEFICIARY, FISCAL YEARS 1977 AND 1978

[Amounts in millions]

	Fiscal year 1977		Fiscal year 1978	
	Amount	Percent of total	Amount	Percent of total
Total .....	\$11,135	100	\$12,214	100
Disabled workers .....	9,180	82	10,071	82
Wives and husbands .....	491	4	531	4
Children .....	1,464	13	1,612	13

Note: Totals do not necessarily equal the sum of rounded components.

The assets of the fund at the end of fiscal year 1978 totaled \$4,372 million, consisting of \$4,351 million in the form of obligations of the U.S. Government and an undisbursed balance of \$21 million. Table 9 shows a comparison of the total assets of the fund and their distribution at the end of fiscal years 1977 and 1978.

TABLE 9.—ASSETS OF THE DISABILITY INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1977 AND 1978

	Sept. 30, 1977		Sept. 30, 1978	
	Par value	Book value <sup>1</sup>	Par value	Book value <sup>1</sup>
<b>Investments In Public-Debt Obligations:</b>				
<b>Public issues:</b>				
<b>Treasury notes:</b>				
6-percent, 1978	\$2,000,000	\$2,000,885.10	\$2,000,000	\$2,000,126.46
6¼-percent, 1978	2,000,000	2,000,340.94		
<b>Treasury bonds:</b>				
3½-percent, 1990	10,500,000	10,158,767.99	10,500,000	10,186,435.55
3½-percent, 1998	5,000,000	4,780,585.55	5,000,000	4,790,992.55
4-percent, 1980	30,250,000	30,248,052.56	30,250,000	30,248,886.44
4½-percent, 1989-94	68,400,000	67,847,660.07	68,400,000	67,880,966.91
4¼-percent, 1975-85	20,795,000	20,783,825.06	20,795,000	20,758,298.54
4¼-percent, 1987-92	80,800,000	80,888,771.28	80,800,000	80,879,743.80
6½-percent, 1984	15,000,000	15,037,524.64	15,000,000	15,032,099.32
7½-percent, 1988-93	26,500,000	25,889,274.44	26,500,000	25,927,644.56
7½-percent, 2002-07	10,000,000	9,994,165.52	10,000,000	9,994,411.22
8-percent, 1996-2001	26,000,000	25,973,478.22	26,000,000	25,974,590.98
8¼-percent, 2000-05	3,750,000	3,731,031.77	3,750,000	3,731,717.33
<b>Total investments in public issues</b>	<b>300,995,000</b>	<b>299,334,363.14</b>	<b>298,995,000</b>	<b>297,432,913.66</b>
<b>Obligations sold only to this fund (special issues):</b>				
<b>Certificates of indebtedness:</b>				
7-percent, 1978	710,032,000	710,032,000.00		
8¼-percent, 1979			1,232,000,000	1,232,000,000.00
<b>Bonds:</b>				
7½-percent, 1982	5,830,000	5,830,000.00		
7½-percent, 1983	5,830,000	5,830,000.00		
7½-percent, 1984	5,830,000	5,830,000.00		
7½-percent, 1985	5,830,000	5,830,000.00		
7½-percent, 1986	5,830,000	5,830,000.00	5,830,000	5,830,000.00
7½-percent, 1987	5,831,000	5,831,000.00	5,831,000	5,831,000.00
7½-percent, 1988	5,831,000	5,831,000.00	5,831,000	5,831,000.00
7½-percent, 1989	5,831,000	5,831,000.00	5,831,000	5,831,000.00
7½-percent, 1990	5,831,000	5,831,000.00	5,831,000	5,831,000.00
7½-percent, 1991	5,831,000	5,831,000.00	5,831,000	5,831,000.00
7½-percent, 1992	274,851,000	274,851,000.00	274,851,000	274,851,000.00
7½-percent, 1981	22,839,000	22,839,000.00		
7½-percent, 1982	84,338,000	84,338,000.00		
7½-percent, 1983	84,338,000	84,338,000.00		
7½-percent, 1984	84,338,000	84,338,000.00		
7½-percent, 1985	84,338,000	84,338,000.00		
7½-percent, 1986	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½-percent, 1987	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½-percent, 1988	84,337,000	84,337,000.00	84,337,000	84,337,000.00
7½-percent, 1989	84,337,000	84,337,000.00	84,337,000	84,337,000.00
7½-percent, 1990	206,000,000	206,000,000.00	206,000,000	206,000,000.00
7½-percent, 1981	63,020,000	63,020,000.00		
7½-percent, 1982	63,020,000	63,020,000.00		
7½-percent, 1983	63,020,000	63,020,000.00		
7½-percent, 1984	63,020,000	63,020,000.00		
7½-percent, 1985	63,020,000	63,020,000.00		
7½-percent, 1986	63,020,000	63,020,000.00	63,020,000	63,020,000.00
7½-percent, 1987	63,019,000	63,019,000.00	63,019,000	63,019,000.00
7½-percent, 1988	63,020,000	63,020,000.00	63,020,000	63,020,000.00
7½-percent, 1989	63,020,000	63,020,000.00	63,020,000	63,020,000.00
7½-percent, 1990	63,020,000	63,020,000.00	63,020,000	63,020,000.00
7½-percent, 1991	269,020,000	269,020,000.00	269,020,000	269,020,000.00
7½-percent, 1981	121,663,000	121,663,000.00		
7½-percent, 1982	121,663,000	121,663,000.00		
7½-percent, 1983	121,663,000	121,663,000.00		
7½-percent, 1984	121,663,000	121,663,000.00		
7½-percent, 1985	121,663,000	121,663,000.00		
7½-percent, 1986	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½-percent, 1987	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½-percent, 1988	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½-percent, 1989	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½-percent, 1990	121,663,000	121,663,000.00	121,663,000	121,663,000.00
8¼-percent, 1983			173,182,000	173,182,000.00
8¼-percent, 1984			241,389,000	241,389,000.00
8¼-percent, 1985			208,860,000	208,860,000.00
8¼-percent, 1993			241,389,000	241,389,000.00
<b>Total obligations sold only to this fund (special issues)</b>	<b>3,940,915,000</b>	<b>3,940,915,000.00</b>	<b>4,053,306,000</b>	<b>4,053,306,000.00</b>
<b>Total investments in public-debt obligations</b>	<b>4,241,910,000</b>	<b>4,240,249,363.14</b>	<b>4,352,301,000</b>	<b>4,350,738,913.66</b>
<b>Undisbursed balances</b>		<b>2,881,258.19</b>		<b>20,912,860.12</b>
<b>Total assets</b>		<b>4,243,130,621.33</b>		<b>4,371,651,773.78</b>

<sup>1</sup> Par value, plus unamortized premium, less discount outstanding.

The net increase in the par value of the investments owned by the fund during the fiscal year amounted to \$110 million. New securities at a total par value of \$14,436 million were acquired during the fiscal year through the investment of receipts and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the year was \$14,326 million. Included in these amounts are \$12,538 million in certificates of indebtedness that were acquired, and \$12,016 million in certificates of indebtedness that were redeemed, within the fiscal year.

The effective annual rate of interest earned by the assets of the DI trust fund during the 12 months ending on June 30, 1978, was 7.4 percent. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1978 was 8¼ percent, payable semiannually.

The investment policy and practices described in the preceding section concerning the OASI trust fund apply equally to investments of the assets of the DI trust fund.

## VI. ACTUARIAL COST PROJECTIONS

The actuarial cost projections throughout this report are based on the assumption that the present statutory provisions and regulations affecting the OASDI program will remain unchanged.

Section 201(c) of the Social Security Act requires that the Board of Trustees report annually to the Congress on the operations and status of the OASI and DI trust funds during the preceding fiscal year and on the expected operations and status of those trust funds during the ensuing 5 fiscal years. Such information for the fiscal year that ended September 30, 1978, is presented in the preceding section of this report. Such information for fiscal years 1979–1983 is presented later in this section.

Section 201(c) of the Social Security Act also requires that the annual report of the Board of Trustees includes “a statement of the actuarial status of the trust funds”. Such a statement has customarily been made for the medium-range period (25 years) and the long-range period (75 years), each period commencing with the year of the issuance of the report. Basic to the discussion of the medium-range or long-range actuarial status of either trust fund is the concept of expenditures as percent of taxable payroll. The expenditures include benefit payments, administrative expenses, net transfers under the financial interchange between the OASDI trust funds and the railroad retirement account, and payments for vocational rehabilitation services for disability beneficiaries. The taxable payroll consists of the total earnings which are subject to social security taxes, adjusted to reflect the lower effective contribution rates on self-employment income, on tips, and on multiple-employer “excess wages”. With this adjustment, the expenditures (divided by the taxable payroll and expressed as a percentage) can be compared directly to the combined employer-employee tax rate in the law.

Over the medium-range and long-range periods, the actuarial status is measured by the difference between the average of the tax rates scheduled in the law and the estimated average future expenditures, expressed as a percentage of taxable payroll. This difference is referred to as the actuarial balance. If the actuarial balance is positive, the system is said to have an actuarial surplus; and if negative, to have

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an actuarial deficit. In recent years the system has been said to be in "close actuarial balance" over the long-range period if the average of the scheduled tax rates over the 75-year period is within 5 percent (either higher or lower) of the estimated average expenditures as a percentage of taxable payroll. Statements of the current actuarial status are shown later in this section. The methods used to estimate the actuarial status are described in Appendix A.

In recent years, until the enactment of the Social Security Amendments of 1977, the taxes collected each year have been intended to approximately equal the expenditures, and the trust funds have been intended only to absorb temporary excesses of expenditures over income that may occur during periods of adverse economic experience. Under this "current-cost" method of financing, the trust funds should not grow too large (through continued annual surpluses) nor too small (through continued annual deficits). Although there is no general agreement as to the optimum trust fund size, the trust funds should have sufficient assets to allow time for executive and legislative action to prevent their exhaustion should the program experience continued annual deficits.

Projections of trust fund assets at the beginning of the year as a percentage of trust fund expenditures during the year (called trust fund ratios) are shown in a later section. Because of the tax increases scheduled in the 1977 amendments, during a period commencing in the 1990's the trust funds are projected to become much larger than would be expected under a current-cost method of financing.

#### A. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

Future income and expenditures for the OASDI system will depend upon many economic and demographic factors. Among those factors are: rates of fertility, mortality, net immigration, labor force participation, marriage, unemployment, inflation, prevalence of retirement, and prevalence of disability. Income to the system will depend upon how these factors affect the size and composition of the working population and the general level of earnings. Similarly, expenditures will depend upon how the size and composition of the beneficiary population and the general level of benefits are affected. Unfortunately, it is impossible to forecast precisely the behavior of these various economic and demographic factors.

The projections presented in this report result from applying the best available knowledge of economic and demographic factors and their inter-relationships to make unbiased assumptions about the future. These cost projections are a meaningful indicator of the trend and range of future income and expenditures. Even though they cannot be considered exact predictions of emerging experience, they provide insights which are essential for making informed policy decisions.

Because future income and expenditures will depend on future economic and demographic developments, the projections presented in this report are based on three alternative sets of assumptions—designated as alternatives I, II, and III. Alternative II is also referred to in this report as the intermediate set of assumptions (or, more briefly, the intermediate assumptions). Alternatives I and III may be characterized respectively as more "optimistic" and more "pessimistic" than alternative II. For ease of reference, alternatives I and III are some-

times referred to as the optimistic and pessimistic sets of assumptions (or, more briefly, the optimistic and pessimistic assumptions), respectively.

Table 10 shows the economic assumptions under the three alternatives. Under both the intermediate assumptions (alternative II) and the optimistic assumptions (alternative I), the rates of economic growth in 1979 and 1980 are assumed to be lower than the rates experienced during 1976-78. Under the pessimistic assumptions (alternative III), economic growth is assumed to decline substantially in 1979 and 1980, with a recession beginning in the last half of 1979 and extending through the first half of 1980. Under all three sets of assumptions, more rapid economic growth is assumed to occur after 1980 than is assumed in 1979 and 1980.

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1979-2055

Calendar year	Percentage increase in average annual—				Average annual interest rate	Average annual unemployment rate
	Real GNP <sup>1</sup>	Wages in covered employment	Consumer price index	Real wage differential <sup>2</sup>		
1960-64.....	4.0	3.4	1.3	2.1	3.7	5.7
1965-69.....	4.3	5.4	3.4	1.9	5.2	3.8
1970-74.....	2.5	6.3	6.1	.2	6.7	5.4
1975.....	-1.3	6.5	9.1	-2.5	7.4	8.5
1976.....	5.7	8.4	5.8	2.5	7.1	7.7
1977.....	4.9	6.9	6.5	.4	7.1	7.0
1978.....	3.9	8.5	7.6	.9	8.2	6.0
Alternative I:						
1979.....	3.7	8.3	9.3	-1.0	9.1	6.0
1980.....	2.3	8.6	7.3	1.3	8.6	6.2
1981.....	4.4	8.7	6.5	2.2	8.5	5.7
1982.....	4.9	7.9	5.2	2.7	7.8	4.9
1983.....	5.0	5.8	4.0	1.8	7.0	4.2
1984.....	3.9	4.9	3.1	1.8	6.1	4.0
1985.....	3.6	5.0	3.0	2.0	6.1	4.0
1986.....	3.9	5.1	3.0	2.1	6.1	4.0
1987.....	3.9	5.4	3.0	2.4	6.1	4.0
1988.....	4.0	5.5	3.0	2.5	6.1	4.0
1989.....	3.8	5.5	3.0	2.5	6.1	4.0
1990.....	3.8	5.5	3.0	2.5	6.1	4.0
1995.....	3.1	5.4	3.0	2.4	6.1	4.0
2000 and later.....	3.1	5.25	3.0	2.25	6.1	4.0
Alternative II:						
1979.....	3.7	8.3	9.4	-1.1	9.1	6.0
1980.....	2.0	8.0	7.4	.6	8.8	6.2
1981.....	4.0	9.1	6.6	2.5	8.4	6.0
1982.....	4.7	7.4	5.5	1.9	7.6	5.3
1983.....	3.6	6.0	4.5	1.5	6.9	5.0
1984.....	3.0	5.4	4.0	1.4	6.6	5.0
1985.....	3.1	5.3	4.0	1.3	6.6	5.0
1986.....	3.2	5.4	4.0	1.4	6.6	5.0
1987.....	3.3	5.7	4.0	1.7	6.6	5.0
1988.....	3.3	6.0	4.0	2.0	6.6	5.0
1989.....	3.2	6.0	4.0	2.0	6.6	5.0
1990.....	3.2	6.0	4.0	2.0	6.6	5.0
1995.....	2.9	5.9	4.0	1.9	6.6	5.0
2000 and later.....	2.9	5.75	4.0	1.75	6.6	5.0
Alternative III:						
1979.....	2.3	9.2	10.3	-1.1	9.1	6.3
1980.....	-1.1	8.7	8.9	-2	9.0	8.2
1981.....	5.4	9.2	7.3	1.9	8.5	7.4
1982.....	4.1	7.7	6.3	1.4	8.1	6.9
1983.....	4.0	7.2	6.0	1.2	8.1	6.4
1984.....	3.7	7.1	6.0	1.1	8.1	6.0
1985.....	2.9	7.2	6.0	1.2	8.1	6.0
1986.....	2.9	7.1	6.0	1.1	8.1	6.0
1987.....	2.9	7.3	6.0	1.3	8.1	6.0
1988.....	2.9	7.5	6.0	1.5	8.1	6.0
1989.....	2.8	7.5	6.0	1.5	8.1	6.0
1990.....	2.8	7.5	6.0	1.5	8.1	6.0
1995.....	2.7	7.4	6.0	1.4	8.1	6.0
2000 and later.....	2.7	7.25	6.0	1.25	8.1	6.0

<sup>1</sup> The total output of goods and services in the Nation expressed in constant dollars.

<sup>2</sup> The difference between the percentage increase in average annual wages in covered employment and the percentage increase in the average annual CPI.

<sup>3</sup> This value is for the year 2000. The value for the year 2055 is 3.3, 2.4, and 0.8 for alternatives I, II, and III, respectively.

Table 11 shows the demographic assumptions under the three alternatives. Under the intermediate assumptions, fertility is assumed to proceed at a rate which would approximately maintain a constant population, in the absence of net migration and changes in mortality. Under the optimistic assumptions, fertility is assumed to be higher than under the intermediate assumptions, while under the pessimistic assumptions, it is assumed to be lower. Under all three sets of assumptions, mortality is projected to improve through time, but the amount of improvement varies for each set. Additional detail on mortality assumptions for alternative II can be found in table A of Appendix A. Under the optimistic assumptions, disability incidence rates are assumed to remain constant at the average level observed during 1977-78 after increasing from the lower level observed during 1978. Under both the intermediate and pessimistic assumptions, disability incidence rates are assumed to increase above the level observed during 1977-78 before becoming constant, but the amount of increase is larger under the pessimistic assumptions.

TABLE 11.—SELECTED DEMOGRAPHIC ASSUMPTIONS UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1979-2055

Calendar year	Total fertility rate <sup>1</sup>	Age-adjusted mortality rate <sup>2</sup>		Adjusted gross disability incidence rate <sup>3</sup>	
		Male	Female	Male	Female
1970	2,434	10.96	8.05	5.06	3.54
1971	2,249	10.66	8.06	5.92	4.10
1972	1,997	10.77	7.94	6.35	4.50
1973	1,865	10.66	7.85	6.72	4.93
1974	1,827	10.26	7.54	7.03	5.64
1975	1,771	9.88	7.17	7.76	6.06
1976	1,719	9.73	7.07	7.23	5.51
1977	1,784	9.53	6.89	7.41	5.46
1978	1,757	9.35	6.72	5.97	4.25
Alternative I:					
1979	1,831	9.45	6.80	5.79	4.12
1980	1,871	9.36	6.72	5.85	4.17
1981	1,911	9.32	6.68	5.92	4.22
1982	1,952	9.28	6.64	6.02	4.29
1983	1,992	9.25	6.60	6.12	4.37
1984	2,033	9.21	6.56	6.23	4.46
1985	2,074	9.17	6.52	6.34	4.55
1990	2,292	9.04	6.39	6.62	4.78
1995	2,443	8.92	6.26	6.68	4.84
2000	2,493	8.80	6.13	6.69	4.86
2005 and later	2,500	8.69	6.01	6.69	4.86
Alternative II:					
1979	1,793	9.18	6.55	5.87	4.19
1980	1,809	9.02	6.38	5.97	4.25
1981	1,824	8.85	6.22	6.09	4.34
1982	1,839	8.82	6.18	6.25	4.46
1983	1,855	8.78	6.15	6.42	4.57
1984	1,870	8.75	6.11	6.61	4.72
1985	1,887	8.72	6.08	6.79	4.82
1990	2,036	8.55	5.92	7.25	5.22
1995	2,075	8.39	5.76	7.34	5.32
2000	2,100	8.23	5.60	7.36	5.35
2005 and later	2,100	8.08	5.45	7.36	5.35
Alternative III:					
1979	1,737	8.92	6.30	5.95	4.25
1980	1,715	8.67	6.07	6.09	4.34
1981	1,693	8.57	5.97	6.26	4.46
1982	1,671	8.46	5.86	6.48	4.66
1983	1,649	8.36	5.76	6.71	4.78
1984	1,627	8.26	5.67	6.99	4.98
1985	1,606	8.16	5.57	7.23	5.16
1990	1,544	7.85	5.26	7.87	5.66
1995	1,524	7.58	4.97	8.01	5.79
2000	1,509	7.34	4.72	8.03	5.83
2005 and later	1,500	7.12	4.48	8.03	5.83

<sup>1</sup> The number of children that would be born to 1,000 women in their lifetime if they were to experience the observed age-specific birth rates, and were to survive the entire child-bearing period. Ultimate rates are reached in 2005.

<sup>2</sup> The annual number of deaths per 1,000 persons in the enumerated population as of April 1, 1970. Improvement is projected to continue throughout the projection period.

<sup>3</sup> The number of awards per 1,000 persons exposed to disability, adjusted for changes from the 1978 age distribution.

<sup>4</sup> This value is for the year 2005. Mortality rates are assumed to continue declining throughout the remainder of the projection period.

The values assumed for the economic and demographic factors after the early years are intended to represent the average experience for those years and are not intended to be predictions of year-by-year values, which are expected to vary because of possible future economic cycles and demographic patterns. Although the assumptions may appear to be reasonable, based on current understanding, they may in some instances imply conditions so different from the current situation that it is important to recognize their overall socioeconomic implications and not just their effect on the OASDI program. For example, because the demographic assumptions imply a future composition of the U.S. population which is significantly different from the present composition, many of the Nation's social and economic arrangements may change substantially.

Under the intermediate assumptions, the annual rate of growth in real GNP rises to 4.7 percent in 1982 and then slows to 3 percent by 1984. At the same time, the average annual unemployment rates declines to the ultimate assumed rate of 5 percent in 1983. It is further assumed that the rate of increase in average annual wages in covered employment will fall to 5.3 percent by 1985, with an accompanying decline in the rate of increase in the average annual CPI to an ultimate rate of 4.0 percent by 1984. After 1985 the assumed rate of increase in average wages rises to 6.0 percent by 1985 and then gradually declines to the ultimate level of  $5\frac{3}{4}$  percent by the year 2000. This pattern of change in average wage increases from 1985 to 2000 reflects changes in the composition of the labor force. The real wage differential—the difference between annual rates of increase in the average wage and the average CPI—is assumed to reach an ultimate rate of  $1\frac{3}{4}$  percent per year. The annual interest rate is assumed to reach its ultimate value of 6.6 percent in 1984. The ultimate real interest rate—that is, the interest rate after adjusting for inflation—is 2.5 percent. The total fertility rate under alternative II is projected to rise slowly from its 1978 level to an assumed ultimate level of 2.1 children per woman by the year 2000. Mortality rates are expected to decrease gradually during the entire 75-year projection period, with an overall reduction from 1978 levels of about one-third by the end of the 75 years. Under alternative II, it is assumed that disability incidence rates, which declined markedly in 1978, will begin to rise again in 1980 and will continue to increase gradually through 1998, when they reach an ultimate level that is 10 percent higher than the average incidence rates for 1977 and 1978.

Under alternative I, the assumed annual percentage increase in real GNP after 1979 is higher than under alternative II. The assumed percentage increase in average annual CPI is lower in each year, declining to a lower ultimate rate of 3 percent per year by 1985. The assumed real wage differential is generally higher than under alternative II, reaching an ultimate rate of  $2\frac{1}{4}$  percent per year by the year 2000. The resulting ultimate rate of increase in average annual wages in covered employment is  $5\frac{1}{4}$  percent under alternative I. Although the ultimate interest rate of 6.1 percent is lower under alternative I than under alternative II, the ultimate real interest rate of 3 percent is higher. The total fertility rate is projected to be higher under alternative I

than under alternative II, reaching 2.5 children per woman in the year 2005. The overall percentage reduction in mortality rates during the 75-year projection period is assumed to be one-half the reduction assumed under the intermediate assumptions. Disability incidence rates are assumed to return from their 1978 level to the higher average for 1977-1978, but not to increase above that level.

The assumptions of alternative III are presented in this report to show estimates under a set of less favorable economic and demographic conditions. As a result of the assumed economic recession in 1979-80 and the following period of recovery, the rate of unemployment rises to 8.2 percent in 1980, declines to 6.9 percent by 1982, and reaches its ultimate level of 6 percent in 1984. After 1979, increases in average real wages are assumed to be lower under alternative III than under the intermediate assumptions. Although the ultimate interest rate of 8.1 is higher under alternative III than under alternative II, the real interest rate of 2 percent is lower. Also, the ultimate total fertility rate of 1.5 projected under alternative III is lower than the ultimate rate of 2.1 projected under alternative II. The overall reduction in mortality rates during the 75-year projection is assumed to be 50 percent larger under alternative III than under alternative II. Disability incidence rates are assumed to increase during the next 20 years by 20 percent over the average 1977-78 incidence rates.

#### B. AUTOMATIC ADJUSTMENTS

Under the automatic increase provisions of the law, benefits are adjusted to reflect increases in the CPI. After 1979, as a result of the revised benefit structure provided under the 1977 amendments, these automatic cost-of-living benefit increases will apply only beginning with the year a worker reaches age 62, becomes disabled, or dies. An automatic cost-of-living benefit increase of 6.5 percent, effective for June 1978, was established in May 1978, as described in Appendix B.

With the exception of predetermined amounts provided under the 1977 amendments, the contribution and benefit base, and the amount of earnings exempted from the withholding of benefits under the retirement test, automatically increase in the year following each year in which an automatic cost-of-living benefit increase becomes effective. The automatic increases in the contribution and benefit base and in the exempt amount under the retirement test are proportionate to the increase in average wages.

The 1977 amendments provided specific amounts for the contribution and benefit base for each year 1978-81 and the exempt amount under the retirement test, for beneficiaries aged 65 and over. As a result of these provisions, the contribution and benefit base increased from \$17,700 in 1978 to \$22,900 in 1979. (The \$17,700 base specified for 1978 in the 1977 amendments was the same amount that had been determined for 1978 under the automatic increase provisions, before the 1977 amendments were enacted.) Similarly, the annual exempt amount under the retirement test, for beneficiaries aged 65 and over, increased from \$4,000 in 1978 to \$4,500 in 1979.

Following the cost-of-living benefit increase that became effective for June 1978, an automatic increase in the annual exempt amount

under the retirement test from \$3,240 in 1978 to \$3,480 in 1979 was established in November 1978 for beneficiaries under age 65, as described in Appendix C. Appendix C also describes the determination of the amount of earnings a worker must have to be credited with a "quarter of coverage" in 1979. Quarters of coverage are used in determining whether a worker meets the insured status requirements for the various benefits payable under the old-age, survivors, and disability insurance program. Beginning with wages earned in 1978, when employers began reporting wages annually instead of quarterly, employees are credited with quarters of coverage on an annual basis. For each \$250 of an employee's earnings in 1978, one quarter of coverage was credited up to a maximum of four quarters. In 1979, under the automatic increase provisions, one quarter of coverage will be credited for each \$260 of earnings, up to a maximum of four quarters.

The law as amended in 1977 further provides for the determination of the contribution and benefit base that would have been in effect in each year after 1978 under the law as in effect before the enactment of the 1977 amendments. This "old-law" base is used in determining special minimum benefits for certain workers who have many years of low earnings in covered employment. It is also used for certain purposes under the railroad retirement program and the Employee Retirement Income Security Act of 1974. The old-law base for 1979 was determined to be \$18,900.

Under the automatic provisions of the law, the three different sets of economic assumptions result in the following general benefit increases in each year 1979 through 1985 (by 1985 the assumed benefit increases, under all three sets of assumptions, will have reached their ultimate levels) and the following contribution and benefit bases for each year 1982 through 1985 (amounts for 1978, and the contribution and benefit base scheduled for each year 1979-81 under present law, are also shown as a basis for comparison):

Year	General benefit increase <sup>1</sup> under alternative (percent)—			Contribution and benefit base <sup>2</sup> under alternative—		
	I	II	III	I	II	III
1978.....	6.5	6.5	6.5	\$17,700	\$17,700	\$17,700
1979.....	9.8	9.8	9.8	22,900	22,900	22,900
1980.....	7.6	7.8	9.8	25,900	25,900	25,900
1981.....	7.0	7.1	7.9	29,700	29,700	29,700
1982.....	5.8	5.9	6.5	32,400	32,100	32,400
1983.....	4.4	4.9	6.0	35,100	35,100	35,400
1984.....	3.3	4.1	6.0	37,800	37,800	38,100
1985.....	3.0	4.0	6.0	39,900	40,200	40,800

<sup>1</sup> Effective with benefits for June of the stated year.

<sup>2</sup> The amounts effective on Jan. 1 of the stated year, are specified in the law for the years 1978-81. After 1981, the amount increases under the automatic provisions.

Under the automatic provisions of the law, the three different sets of economic assumptions result in the following annual exempt amounts under the retirement test, both for beneficiaries under age 65 and for beneficiaries age 65 and over (the amounts for 1978 and 1979, and the

amounts scheduled for 1980-82 under present law for beneficiaries aged 65 and over, are also shown as a basis for comparison) :

ANNUAL EXEMPT AMOUNTS UNDER THE RETIREMENT TEST<sup>1</sup>

Year	Annual exempt amount for beneficiaries under age 65 under alternative—		Annual exempt amount for beneficiaries aged 65 and over <sup>2</sup> under alternative—	
	I	II and III	I	II and III
1978.....	\$3,240	\$3,240	\$4,000	\$4,000
1979.....	3,480	3,480	4,500	4,500
1980.....	3,720	3,720	5,000	5,000
1981.....	4,080	4,080	5,500	5,500
1982.....	4,440	4,440	6,000	6,000
1983.....	4,800	4,800	6,480	6,500
1984.....	5,160	5,160	6,960	7,080
1985.....	5,400	5,520	7,320	7,560

<sup>1</sup> Effective on Jan. 1 of the stated year.

<sup>2</sup> The amounts are specified in the law for the years 1978-82. After 1982, the amount increases automatically. Through the year 1981, the retirement test does not apply to beneficiaries aged 72 and over. After 1981, the retirement test will not apply to beneficiaries aged 70 and over.

#### C. EXPECTED OPERATIONS AND STATUS OF THE TRUST FUNDS DURING THE PERIOD OCTOBER 1, 1978, TO DECEMBER 31, 1983

The following statement of the expected operations and status of the trust funds during the period October 1, 1978, to December 31, 1983, is based on the assumptions described in the preceding section. As previously stated, it is assumed that present statutory provisions and regulations affecting the old-age, survivors, and disability insurance program will remain unchanged in the period 1979-83. Thus, the estimates reflect the effects of recent changes in the regulations governing the frequency and timing of contributions from State and local governments, which will become effective on July 1, 1980.

Estimates of the operations and status of the OASI trust fund during calendar years 1979-83 are shown in table 12 for each of the three alternative sets of assumptions that were described in the preceding section. Actual data for calendar year 1978 are also shown in the table. Under each alternative, it is assumed that employment and earnings will increase in every year through 1983, except that employment is assumed to decline in 1980 under alternative III. The number of persons with taxable earnings under the OASDI program is expected to increase from 110 million with such earnings during calendar year 1978 to about 123 million during calendar year 1983 under the intermediate assumptions. Under alternatives I and III, the number of persons with taxable earnings is estimated to reach 124 million and 121 million, respectively, by 1983. The total annual amount of taxable earnings is expected to increase from \$913 billion in 1978 to \$1,585 billion in 1983 under the intermediate assumptions. Under alternatives I and III, taxable earnings in 1983 are estimated to be \$1,607 billion and \$1,597 billion, respectively. These increases are due in part to the increases in the contribution and benefit base scheduled for 1979-81 under present law, and the increases in the base assumed to occur in 1982-83 under the automatic provisions. The increases in taxable earnings are also due to projected increases in (1) employment levels, and (2) average earnings in covered employment.

TABLE 12.—ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING CALENDAR YEARS 1978-83 UNDER 3 ALTERNATIVE SETS OF ASSUMPTIONS

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Fund at beginning of year as a percentage of disbursements during year
<b>Alternative I:</b>					
1978 <sup>1</sup>	\$78.1	\$83.1	-\$5.0	\$27.5	39
1979	90.6	93.0	-2.5	25.1	30
1980	103.0	105.0	-2.0	23.0	24
1981	118.9	116.8	2.1	25.1	20
1982	133.9	128.5	5.4	30.5	20
1983	146.1	139.2	6.8	37.4	22
<b>Alternative II:</b>					
1978 <sup>1</sup>	78.1	83.1	-5.0	27.5	39
1979	90.6	93.1	-2.6	24.9	30
1980	102.5	105.4	-2.9	22.0	24
1981	118.3	117.5	.8	22.8	19
1982	132.2	129.5	2.7	25.5	18
1983	143.6	141.0	2.6	28.2	18
<b>Alternative III:</b>					
1978 <sup>1</sup>	78.1	83.1	-5.0	27.5	39
1979	90.8	93.2	-2.4	25.1	30
1980	101.1	106.6	-5.5	19.6	24
1981	117.1	120.9	-3.8	15.8	16
1982	130.9	134.4	-3.5	12.3	12
1983	143.5	147.5	-4.0	8.3	8

<sup>1</sup> Figures for 1978 represent actual experience.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the preceding section and are shown in tables 10 and 11.

The rise in estimated income shown in table 12 under each set of assumptions reflects the increases in estimated taxable earnings under the different alternatives, as described above. In addition, the estimated income to the fund is affected by the scheduled changes in contribution rates.

Rising disbursements during calendar years 1979-83 reflect the effects of the assumed future automatic benefit increases previously shown, as well as the long-range upward trend in the numbers of beneficiaries and in the amounts of average monthly earnings underlying benefits payable under the program. The estimates also reflect the effects of the benefit provisions in the 1977 amendments. Under alternatives I and II, outgo is expected to exceed income in each year through 1980. After 1980 income is expected to exceed outgo under both alternatives I and II. Under alternative III, it is estimated that the fund will decline each year through 1983.

The growth in the number of beneficiaries in the past and the expected growth in the future results partly from the increase in the aged population and partly from two other factors—(1) in each succeeding year a larger proportion of the persons attaining age 65 are eligible for benefits, and (2) the amendments during the period 1950-77 liberalized the eligibility provisions and extended coverage to additional categories of employment.

In addition, there has been a growth in the proportion of eligible persons who receive benefits. This growth is due to several factors, among which are (1) the amendments enacted during the period 1950-77 which affect the conditions governing the receipt of benefits, and

(2) the increasing percentage of eligible persons who are aged 72 and over and who therefore receive benefits regardless of earnings. As indicated in the previous section, the age at which eligible persons may begin to receive full benefits regardless of earnings will be reduced from 72 to 70 beginning in 1982.

The expected operations and status of the disability insurance trust fund during calendar years 1979-83 under the three sets of assumptions are shown in table 13, together with figures on actual experience in 1978. Income will increase during calendar years 1979-83, under each alternative, reflecting the same factors, insofar as they apply to income to the DI trust fund, that are reflected in the increase in income to the OASI trust fund during the same period. Income will also rise as a result of the scheduled increases in the combined employee-employer contribution rate allocated for disability insurance, and accompanying increases in contribution rates for self-employed persons.

Disbursements will increase because of automatic benefit increases and because of increases in the numbers of beneficiaries and in the amounts of average monthly earnings on which benefits are based. Projected increases in the number of beneficiaries reflect the effects of the assumed increases in disability incidence rates under each set of assumptions, as described in the preceding section.

TABLE 13.—ESTIMATED OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING CALENDAR YEARS 1978-83 UNDER 3 ALTERNATIVE SETS OF ASSUMPTIONS

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Fund at beginning of year as a percentage of disbursements during year
<b>Alternative I:</b>					
1978 <sup>1</sup> .....	\$13.8	\$13.0	\$0.9	\$4.2	26
1979.....	15.8	14.4	1.4	5.6	29
1980.....	18.1	16.1	2.0	7.6	35
1981.....	22.1	17.6	4.5	12.1	43
1982.....	25.0	19.2	5.8	17.9	63
1983.....	27.6	20.7	6.9	24.8	87
<b>Alternative II:</b>					
1978 <sup>1</sup> .....	13.8	13.0	.9	4.2	26
1979.....	15.8	14.4	1.4	5.6	29
1980.....	18.0	16.1	1.9	7.5	35
1981.....	22.0	17.7	4.3	11.7	42
1982.....	24.7	19.4	5.3	17.0	60
1983.....	27.1	21.1	6.1	23.1	81
<b>Alternative III:</b>					
1978 <sup>1</sup> .....	13.8	13.0	.9	4.2	26
1979.....	15.8	14.5	1.4	5.6	29
1980.....	17.8	16.3	1.4	7.1	34
1981.....	21.8	18.2	3.6	10.6	39
1982.....	24.5	20.1	4.4	15.0	53
1983.....	27.2	22.0	5.2	20.2	68

<sup>1</sup> Figures for 1978 represent actual experience.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the preceding section and are shown in tables 10 and 11.

The expected operations and status of the OASI and DI trust funds, combined, during each calendar year 1979-83, under the three alternatives, are shown in table 14, together with figures on actual experience in 1978.

TABLE 14.—ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING CALENDAR YEARS 1978-83 UNDER 3 ALTERNATIVE SETS OF ASSUMPTIONS

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in funds	Funds at end of year	Funds at beginning of year as a percentage of disbursements during year
<b>Alternative I:</b>					
1978 <sup>1</sup>	\$91.9	\$96.0	-\$4.1	\$31.7	37
1979	106.4	107.5	-1.1	30.6	30
1980	121.1	121.1	(2)	30.6	25
1981	141.0	134.4	6.6	37.2	23
1982	158.9	147.6	11.2	48.5	25
1983	173.7	159.9	13.7	62.2	30
<b>Alternative II:</b>					
1978 <sup>1</sup>	91.9	96.0	-4.1	31.7	37
1979	106.4	107.6	-1.2	30.5	30
1980	120.5	121.5	-1.0	29.5	25
1981	140.3	135.2	5.0	34.6	22
1982	156.9	148.9	8.0	42.6	23
1983	170.8	162.1	8.7	51.3	26
<b>Alternative III:</b>					
1978 <sup>1</sup>	91.9	96.0	-4.1	31.7	37
1979	106.6	107.6	-1.0	30.7	29
1980	118.9	123.0	-4.1	26.6	25
1981	138.9	139.1	-.2	26.4	19
1982	155.4	154.5	.9	27.3	17
1983	170.7	169.6	1.1	28.5	16

<sup>1</sup> Figures for 1978 represent actual experience.<sup>2</sup> Outgo exceeds income by less than \$50,000,000.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the preceding section and are shown in tables 10 and 11.

The assets of the trust funds at the beginning of each year 1978-83, as a percentage of disbursements during the year, are also shown in tables 12-14. At the beginning of 1978 the assets of the combined OASI and DI trust funds were equal to 37 percent of the disbursements in 1978, as shown in table 14. By the beginning of 1979 the assets had declined to 30 percent of the estimated expenditures in 1979 under both alternatives I and II, and to 29 percent under alternative III. Under the intermediate assumptions, the assets of the combined funds as a percentage of annual expenditures, reach a low point of 22 percent at the beginning of 1981 before rising to 26 percent by the beginning of 1983. Under alternative I, the corresponding percentages are 23 percent at the beginning of 1981 and 30 percent at the beginning of 1983. Under alternative III, the percentage continues to decline throughout the 5-year period, reaching 16 percent at the beginning of 1983.

The assets of the OASI trust fund at the beginning of 1979 were equal to 30 percent of the estimated disbursements in 1979, as shown

in table 12. Under alternative I the percentage reaches a low point of 20 percent at the beginning of 1981 and then rises to 22 percent by the beginning of 1983. Under alternative II, the percentage reaches a low point of 18 percent at the beginning of 1982 and remains at that level at the beginning of 1983. Under alternative III, the percentage continues to decline, reaching 8 percent by the beginning of 1983.

It should be noted here that although a positive balance is projected for the OASI trust fund at the end of each year through 1983, under the pessimistic assumptions, the assets at the end of 1983 would not be large enough to cover the entire amount of benefits that are payable at the beginning of the following month. This kind of cash-flow problem becomes imminent if, at any time, the trust fund falls to less than about 9 percent of the following 12 months of disbursements. Under the pessimistic assumptions, the OASI trust fund would begin to experience cash-flow difficulties early in 1983. The cash-flow problems would arise because almost all of the benefits for a given month are payable, generally, on the third day of the following month, while contribution income is received more or less uniformly throughout the month, on a daily basis. For example, the benefits for December 1983—estimated to be about \$12½ billion under alternative III—are payable on January 3, 1984, before any significant amount of income can be added to the fund's estimated assets of \$8.3 billion on December 31, 1983. After the beginning of the cash-flow problem in 1983, the inability to meet benefit payments when due would continue until a year or two after the scheduled increase in contribution rates in 1990. These OASI cash-flow problems could be remedied, for example, by a reallocation of contribution rates from the DI trust fund to the OASI trust fund, since, as noted later, the DI trust fund continues to increase through the end of the century under the pessimistic assumptions and the assets of the combined OASI and DI trust funds reach a minimum level of 15 percent of annual expenditures in the 1980's.

The assets of the DI trust fund, as a percentage of annual expenditures, increase throughout the 5-year period under all three sets of assumptions—from 29 percent at the beginning of 1979 to 87 percent, 81 percent, and 68 percent at the beginning of 1983 under alternatives I, II, and III, respectively.

Assets as a percentage of annual expenditures for selected years prior to 1979 are shown in table 15 for both funds combined and for each fund separately. The corresponding figures projected for 1979–83 under the intermediate assumptions that were shown in tables 12–14, are repeated in table 15 for comparison with past experience.

TABLE 15.—ASSETS AT THE BEGINNING OF THE YEAR AS A PERCENTAGE OF EXPENDITURES DURING THE YEAR, FOR THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM, BY TRUST FUND, FOR SELECTED CALENDAR YEARS 1950-78, AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Assets at the beginning of the year as a percentage of expenditures during the year		
	Old-age and survivors insurance and disability insurance trust funds, combined	Old-age and survivors insurance trust fund	Disability insurance trust fund
<b>Past experience:</b>			
1950	1,156	1,156	
1955	405	405	
1960	186	180	304
1965	110	109	121
1966	95	96	83
1967	99	101	83
1968	101	103	83
1969	103	102	111
1970	103	101	126
1971	99	94	140
1972	93	88	140
1973	80	75	125
1974	73	68	110
1975	66	63	92
1976	57	54	71
1977	47	47	48
1978	37	39	26
<b>Estimated future experience:<sup>1</sup></b>			
1979	30	30	29
1980	25	24	35
1981	22	19	42
1982	23	18	60
1983	26	18	81

<sup>1</sup> In interpreting the estimates, reference should be made to the preceding section which describes the underlying assumptions.

Expenditures in calendar year 1978, from both trust funds combined, were 10.78 percent of taxable earnings for the year—0.68 percent more than the combined employee-employer contribution rate of 10.10 percent. After dropping to 10.36 percent of taxable earnings in 1979, because of the relatively large increase in the contribution and benefit base in 1979, 1979 expenditures from both trust funds, combined, are estimated to fluctuate within a relatively narrow range of 10.39–10.56 percent of taxable earnings through 1983, under the intermediate set of assumptions. These percentages, as well as the percentages under alternatives I and III, are shown in table 16 for both trust funds combined and for each trust fund separately. Table 16 also shows a comparison of each of the percentages with the corresponding combined employee-employer contribution rate.

TABLE 16.—EXPENDITURES FROM THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS AS A PERCENTAGE OF TAXABLE PAYROLL COMPARED WITH COMBINED EMPLOYEE-EMPLOYER CONTRIBUTION RATES, FOR CALENDAR YEARS 1978-83 UNDER THREE ALTERNATIVE SETS OF ASSUMPTIONS

Calendar year	Old-age and survivors insurance trust fund			Disability insurance trust fund			Old-age and survivors insurance and disability insurance trust funds, combined		
	Expenditures as a percentage of taxable payroll <sup>1</sup>	Combined employee-employer contribution rate	Difference <sup>2</sup>	Expenditures as a percentage of taxable payroll <sup>1</sup>	Combined employee-employer contribution rate	Difference <sup>2</sup>	Expenditures as a percentage of taxable payroll <sup>1</sup>	Combined employee-employer contribution rate	Difference <sup>2</sup>
<b>Alternative I:</b>									
1978 <sup>3</sup>	9.32	8.55	-0.77	1.46	1.55	0.09	10.78	10.10	-0.68
1979	8.96	8.66	-.30	1.39	1.50	.11	10.35	10.16	-.19
1980	9.09	8.66	-.43	1.39	1.50	.11	10.48	10.16	-.32
1981	8.93	9.05	.12	1.35	1.65	.30	10.28	10.70	.42
1982	8.88	9.15	.27	1.33	1.65	.32	10.21	10.80	.59
1983	8.84	9.15	.31	1.31	1.65	.34	10.16	10.80	.64
<b>Alternative II:</b>									
1978 <sup>3</sup>	9.32	8.55	-.77	1.46	1.55	.09	10.78	10.10	-.68
1979	8.97	8.66	-.31	1.39	1.50	.11	10.36	10.16	-.20
1980	9.16	8.66	-.50	1.40	1.50	.10	10.56	10.16	-.40
1981	9.03	9.05	.02	1.36	1.65	.29	10.39	10.70	.31
1982	9.06	9.15	.09	1.36	1.65	.29	10.41	10.80	.39
1983	9.08	9.15	.07	1.36	1.65	.29	10.44	10.80	.36
<b>Alternative III:</b>									
1978 <sup>3</sup>	9.32	8.55	-.77	1.46	1.55	.09	10.78	10.10	-.68
1979	8.96	8.66	-.30	1.39	1.50	.11	10.35	10.16	-.19
1980	9.41	8.66	-.75	1.44	1.50	.06	10.85	10.16	-.69
1981	9.36	9.05	-.31	1.41	1.65	.24	10.77	10.70	-.07
1982	9.44	9.15	-.29	1.41	1.65	.24	10.85	10.80	-.05
1983	9.43	9.15	-.28	1.41	1.65	.24	10.84	10.80	-.04

<sup>1</sup> Percentage takes into account (1) the lower contribution rate payable by the self-employed compared with combined employee-employer rate, (2) employee contributions subject to refund, and (3) that the employer contribution is payable on only a portion of tips taxable as wages. For 1978, expenditures are adjusted to exclude payments to certain noninsured persons aged 72 and over with less than three quarters of coverage, costs of which are financed from the general fund of the Treasury. Similar adjustments are not made in the projection period, 1979 and later, because such payment are relatively small.

<sup>2</sup> Represents difference between tax contribution income and total outgo, as a percentage of taxable payroll and therefore excludes the effects of other sources of income (principally interest income). Total income and outgo during 1978-83 are shown in tables 12-14.

<sup>3</sup> Percentages for 1978, though based on actual experience, are preliminary and subject to revision.

Expenditures as a percentage of taxable earnings for years prior to 1979 are shown in table 17. Corresponding estimates for 1979-83 under the intermediate assumptions, which were shown in table 16, are repeated table 17 for comparison with past experience.

TABLE 17.—EXPENDITURES FROM THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS AS A PERCENTAGE OF TAXABLE PAYROLL FOR SELECTED CALENDAR YEARS 1950-78 AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Expenditures as a percentage of taxable payroll <sup>1</sup>		
	Old-age and survivors insurance and disability insurance trust funds, combined	Old-age and survivors insurance trust fund	Disability insurance trust fund
Past experience: <sup>2</sup>			
1950.....	1.17	1.17	.....
1955.....	3.34	3.34	.....
1960.....	5.89	5.59	0.30
1965.....	7.93	7.23	.70
1966.....	6.88	6.24	.64
1967.....	6.92	6.27	.65
1968.....	7.03	6.35	.67
1969.....	7.08	6.38	.70
1970.....	8.12	7.32	.81
1971.....	9.23	8.27	.97
1972.....	9.13	8.12	1.01
1973.....	9.68	8.58	1.09
1974.....	9.71	8.55	1.16
1975.....	10.63	9.28	1.35
1976.....	10.84	9.40	1.44
1977.....	10.92	9.42	1.50
1978.....	10.78	9.32	1.46
Estimated future experience: <sup>3</sup>			
1979.....	10.36	8.97	1.39
1980.....	10.56	9.16	1.40
1981.....	10.39	9.03	1.36
1982.....	10.41	9.06	1.36
1983.....	10.44	9.08	1.36

<sup>1</sup> See footnote 1, table 16. For 1974-78, percentages are preliminary and subject to revision.

<sup>2</sup> Expenditures in each year 1966-78 are adjusted to exclude payments to certain noninsured persons aged 72 and over with less than three quarters of coverage, the costs of which are financed from the general fund of the Treasury. Because of the relatively small amount of such payments, similar adjustments are not made for future years.

<sup>3</sup> In interpreting the estimates, reference should be made to the preceding section which describes the underlying assumptions.

As stated previously, estimates of the operations of the trust funds during calendar years 1979-83 have been presented in the preceding tables of this section under three different sets of economic assumptions because of the uncertainty of future economic developments. Under the provisions of the Social Security Act, it is required that estimates of the expected operations and status of the trust funds during the next 5 fiscal years be shown in this report. In accordance with these statutory provisions, detailed estimates of the expected operations and status of the trust funds during each fiscal year 1979-83 are shown in the remaining tables of this section for the intermediate set of assumptions (alternative II) only. Similar detailed estimates under the intermediate assumptions are also shown, as in previous annual reports, on a calendar year basis for the period 1979-83.

Data on the actual operations of the OASI trust fund for selected years during the period 1940-78, and estimates of the expected operations of the trust fund during 1979-83 under the intermediate set of assumptions, are shown in tables 18 and 19 on a fiscal year basis and a calendar year basis, respectively. Corresponding figures on the operations of the DI trust fund during the period 1960-83 are shown in tables 20 and 21.<sup>1</sup> Operations of both trust funds combined are shown in tables 22 and 23.

<sup>1</sup> Data relating to the operations of the two trust funds for years not shown in tables 18-23 are contained in earlier annual reports.

TABLE 18.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1940-78 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

(In millions)

Fiscal year <sup>1</sup>	Transactions during period											
	Income					Disbursements						
	Total	Reimbursements from general fund of Treasury for costs of—			Interest on investments <sup>2</sup>	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
		Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over								
<b>Past experience:</b>												
1940	\$592	\$550		\$42	\$28	\$16		\$12		\$564	\$1,745	
1945	1,434	1,310		124	267	240		27		1,167	6,613	
1950	2,367	2,106	\$4	257	784	727		57		1,583	12,893	
1955	5,525	5,087		438	4,427	4,333		103	-\$10	1,098	21,141	
1960	10,360	9,843		517	11,073	10,270		202	600	-713	20,829	
1965	16,443	15,857		586	15,962	15,226		300	436	482	20,180	
1966	18,461	17,866		595	18,769	18,071		254	444	-308	19,872	
1967	23,371	22,567	78	726	19,728	18,886	( <sup>3</sup> )	334	508	3,643	23,515	
1968	23,640	22,662	78	899	21,622	20,737	( <sup>3</sup> )	447	438	2,018	25,533	
1969	27,348	25,953	156	\$226	1,014	24,690	23,732	\$2	465	491	2,658	
1970	31,746	29,955	78	364	1,350	27,321	26,267	1	474	579	4,425	
1971	33,982	31,915	78	371	1,618	32,268	31,101	2	552	613	1,714	
1972	37,917	35,711	137	351	1,719	35,849	34,541	2	582	724	2,068	
1973	43,639	41,318	138	337	1,847	43,623	42,170	2	667	783	17	
1974	50,936	48,455	139	303	2,039	49,485	47,849	4	723	909	1,451	
1975	58,757	56,017	140	307	2,292	56,676	54,839	8	848	982	2,081	
1976	62,327	59,555	157	268	2,347	64,295	62,140	7	935	1,212	-1,968	
July-September 1976	16,186	16,106		80	17,111	16,876	2	234		-925	37,055	
1977	71,796	68,895	378	236	2,287	73,479	71,271	8	993	1,208	-1,683	
1978	76,811	74,047	385	228	2,152	81,205	78,524	6	1,086	1,589	-4,394	
<b>Estimated future experience: <sup>3</sup></b>												
1979	87,051	84,526	384	230	1,911	90,032	87,462	9	1,169	1,392	-2,981	
1980	100,135	97,887	393	164	1,691	102,446	99,730	9	1,248	1,459	-2,311	
1981	113,486	111,392	385	149	1,560	114,425	111,581	10	1,310	1,524	-939	
1982	129,445	127,276	463	135	1,571	126,580	123,646	10	1,376	1,548	-2,865	
1983	141,229	138,957	466	118	1,688	138,196	135,178	11	1,445	1,562	3,033	

<sup>1</sup> Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 month ending on September 30 of each year. The act further provides that the calendar quarter July-September 1976 is a period of transition from fiscal year 1976, which ended on June 30, 1976, to fiscal year 1977, which began on October 1, 1976.

<sup>2</sup> Interest on investments includes net profits on marketable investments. Beginning in 1967, administrative expenses incurred under the old-age and survivors insurance program are charged currently to the appropriate trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in

interest on investments. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report of the Board of Trustees.

<sup>3</sup> Less than \$500,000.

<sup>4</sup> Includes \$3,000,000 as a single reimbursement for the estimated total costs of granting noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of persons of Japanese ancestry.

<sup>5</sup> In interpreting the estimates, reference should be made to the underlying assumptions described in the preceding section and shown in tables 10 and 11.

TABLE 19.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1940-78 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period										Fund at end of period	
	Income					Disbursements						
	Total	Reimbursements from general fund of Treasury for costs of—			Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account		Net increase in fund
		Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over								
Past experience:												
1940	\$368	\$325			\$43	\$62	\$35		\$26		\$306	\$2,031
1945	1,420	1,285			134	304	274	30			1,116	7,121
1950	2,928	2,667	\$4		257	1,022	961	61			1,905	13,721
1955	6,167	5,713			454	5,079	4,968	119		\$7	1,087	21,663
1960	11,382	10,866			516	11,198	10,677	203		318	184	20,324
1965	16,610	16,017			593	17,501	16,737	328		436	-890	18,235
1966	21,302	20,580	78		644	18,967	18,267	(1)	256	444	2,335	20,570
1967	24,034	23,138	78		818	20,382	19,468	(1)	406	508	3,652	24,222
1968	25,040	23,719	156	\$226	939	23,557	22,642	\$1	476	438	1,483	25,704
1969	29,554	27,947	78	364	1,165	25,176	24,209	1	474	491	4,378	30,082
1970	32,220	30,256	78	371	1,515	29,848	28,796	2	471	579	2,371	32,454
1971	35,877	33,723	137	351	1,667	34,542	33,413	2	514	613	1,335	33,789
1972	40,050	37,781	138	337	1,794	38,522	37,122	2	674	724	1,528	35,318
1973	48,344	45,975	139	303	1,928	47,175	45,741	3	647	783	1,169	36,487
1974	54,688	52,081	140	307	2,159	53,397	51,618	5	865	909	1,291	37,777
1975	59,605	56,816	157	268	2,364	60,395	58,509	9	896	982	-790	36,987
1976	66,276	63,362	378	236	2,301	67,876	65,699	6	959	1,212	-1,600	35,388
1977	72,412	69,572	385	228	2,227	75,309	73,113	8	981	1,208	-2,897	32,491
1978	78,094	75,471	384	230	2,008	83,064	80,352	9	1,115	1,589	-4,971	27,520
Estimated future experience:												
1979	90,562	88,208	393	164	1,797	93,137	90,558	9	1,178	1,392	-2,575	24,945
1980	102,509	100,380	385	149	1,595	105,405	102,675	9	1,262	1,459	-2,896	22,049
1981	118,263	116,123	463	135	1,542	117,480	114,621	10	1,325	1,524	783	22,832
1982	132,201	129,980	466	118	1,637	129,518	126,568	10	1,392	1,548	2,683	25,515
1983	143,626	141,308	469	102	1,747	140,982	137,948	11	1,461	1,562	2,644	28,159

<sup>1</sup> Less than \$500,000.

Note: In interpreting the above, reference should be made to the footnotes in table 18.

TABLE 20.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1960-78 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year <sup>1</sup>	Transactions during period										Fund at end of period	
	Income				Disbursements							
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of noncontributory credits for military service	Interest on investments <sup>2</sup>	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses <sup>3</sup>	Transfers to railroad retirement account	Net increase in fund		
<b>Past experience: <sup>3</sup></b>												
1960.....	\$1,034	\$987		\$47	\$533	\$528		\$32	-\$27	\$501	\$2,167	
1965.....	1,237	1,175		62	1,495	1,392		79	24	-257	2,007	
1966.....	1,611	1,557		54	1,931	1,721		183	25	-321	1,686	
1967.....	2,332	2,249	\$16	67	1,997	1,861	7	99	31	335	2,022	
1968.....	2,800	2,699	16	85	2,236	2,088	15	112	20	564	2,585	
1969.....	3,705	3,532	32	141	2,613	2,443	15	133	21	1,092	3,678	
1970.....	4,380	4,141	16	223	2,954	2,778	16	149	10	1,426	5,104	
1971.....	4,911	4,569	16	325	3,606	3,381	21	190	13	1,305	6,408	
1972.....	5,291	4,853	50	388	4,309	4,046	28	212	24	982	7,390	
1973.....	5,947	5,461	51	435	5,467	5,162	39	247	20	479	7,869	
1974.....	6,768	6,234	52	482	6,385	6,159	50	154	22	383	8,253	
1975.....	7,920	7,356	52	512	7,982	7,630	71	253	29	-62	8,191	
1976.....	8,355	7,797	90	468	9,606	9,222	92	266	26	-1,251	6,939	
July-September 1976.....	2,172	2,159		13	2,653	2,555	27	71		-481	6,459	
1977.....	9,374	8,900	103	372	11,590	11,135	77	378	(-)	-2,215	4,243	
1978.....	12,784	12,404	128	251	12,655	12,214	84	327	3.	129	4,372	
<b>Estimated future experience: <sup>5</sup></b>												
1979.....	15,297	14,850	142	305	14,005	13,552	94	364	-5	1,292	5,664	
1980.....	17,494	16,954	118	422	15,709	15,199	102	423	-15	1,785	7,449	
1981.....	20,759	20,041	128	590	17,323	16,798	109	442	-26	3,436	10,885	
1982.....	24,097	23,031	155	911	18,984	18,452	115	465	-48	5,113	15,998	
1983.....	26,522	25,067	159	1,296	20,648	20,106	120	488	-66	5,874	21,872	

<sup>1</sup> Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 month ending on September 30 of each year. The act further provides that the calendar quarter July-September 1976 is a period of transition from fiscal year 1976, which ended on June 30, 1976, to fiscal year 1977, which began on October 1, 1976.

<sup>2</sup> Interest on investments includes net profits on marketable investments. Beginning in 1967, administrative expenses incurred under the disability insurance program are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in interest on investments. For

years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report of the Board of Trustees.

<sup>3</sup> The financial operations of the disability insurance trust fund began in the latter half of fiscal year 1957.

<sup>4</sup> Less than \$500,000 was transferred from the railroad retirement account to the disability insurance trust fund.

<sup>5</sup> In interpreting the estimates, reference should be made to the underlying assumptions described in the preceding section and shown in tables 10 and 11.

TABLE 21.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1960-78 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period										Fund at end of period	
	Income				Disbursements							
	Total	Reimbursements from general fund of Treasury for costs of	Contributions, less refunds	Noncontributory cred- its for mili- tary service	Interest on invest- ments	Total	Benefit payments	Payments for voca- tional rehabili- tation services	Adminis- trative expenses	Transfers to railroad retirement account		Net increase in fund
<b>Past experience:</b>												
1960	\$1,063	\$1,010			\$53	\$600	\$568		\$36	-\$5	\$464	\$2,289
1965	1,247	1,188			59	1,687	1,573		90	24	-440	1,606
1966	2,079	2,006			58	1,947	1,781		137	25	133	1,739
1967	2,379	2,286	\$16		78	2,089	1,939		11	109	31	2,029
1968	3,454	3,316			32	2,458	2,294		16	127	20	996
1969	3,792	3,599			16	2,716	2,542		15	138	21	1,075
1970	4,774	4,481			16	2,777	3,067		18	164	10	5,614
1971	5,031	4,620			50	4,000	3,758		24	205	13	1,031
1972	5,572	5,107			51	4,414	4,473		29	233	24	813
1973	6,443	5,932			52	5,973	5,718		46	190	20	470
1974	7,378	6,826			52	7,196	6,903		54	217	22	182
1975	8,035	7,444			90	8,790	8,414		91	256	29	-754
1976	8,757	8,233			103	10,366	9,966		89	285	26	-1,609
1977	9,570	9,138			128	11,945	11,463		84	399	(*)	-2,375
1978	13,810	13,413			142	12,954	12,513		86	325	30	856
<b>Estimated future experience:</b>												
1979	15,798	15,317			118	14,439	13,952		96	396	-5	1,359
1980	18,004	17,385			128	16,118	15,600		104	429	-15	1,886
1981	21,997	21,109			155	17,746	17,212		111	449	-26	4,251
1982	24,727	23,465			159	19,403	18,863		116	472	-48	5,324
1983	27,146	25,492			164	21,073	20,523		121	495	-66	6,073

\* Less than \$500,000 was transferred from the railroad retirement account to the disability insurance trust fund.

Note: In interpreting the above, reference should be made to the footnotes in table 20.

TABLE 22.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING SELECTED FISCAL YEARS 1960-78 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year	Transactions during period										Funds at end of period	
	Income					Disbursements						
	Total	Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account		Net increase in funds
Past experience:												
1960	\$11,394	\$10,830			\$564	\$11,606	\$10,798		\$234	\$534	-\$212	\$22,996
1965	17,681	17,032			648	17,456	16,618		379	459	224	22,187
1966	20,071	19,423			649	20,700	19,793	\$1	437	469	-629	21,558
1967	25,703	24,816	\$94		793	21,725	20,747	7	433	539	3,979	25,537
1968	26,440	25,362	94		984	23,859	22,825	16	560	458	2,581	28,118
1969	31,054	29,485	188	\$226	1,155	27,303	26,175	17	599	513	3,750	31,868
1970	36,127	34,096	94	364	1,572	30,275	29,045	18	623	589	5,852	37,720
1971	38,893	36,485	94	371	1,943	35,874	34,482	23	742	626	3,019	40,739
1972	43,208	40,564	187	351	2,107	40,158	38,587	29	794	749	3,050	43,789
1973	49,586	46,779	189	337	2,281	49,090	47,332	42	914	802	496	44,285
1974	57,704	54,689	191	303	2,521	55,869	54,007	54	878	931	1,835	46,120
1975	66,677	63,374	192	307	2,804	64,658	62,469	79	1,101	1,010	2,018	48,138
1976	70,682	67,352	247	268	2,815	73,901	71,363	100	1,200	1,239	-3,219	44,919
July-September 1976	18,359	18,265			94	19,764	19,431	29	304		-1,405	43,514
1977	81,170	77,794	481	236	2,659	85,068	82,406	85	1,370	1,208	-3,898	39,615
1978	89,595	86,451	513	228	2,403	93,861	90,738	91	1,413	1,618	-4,265	35,350
Estimated future experience:												
1979	102,348	99,376	526	230	2,216	104,037	101,014	103	1,533	1,387	-1,689	33,661
1980	117,629	114,841	511	164	2,113	118,155	114,929	111	1,671	1,444	-526	33,135
1981	134,245	131,433	513	149	2,150	131,748	128,379	119	1,752	1,498	2,497	35,632
1982	153,542	150,307	618	135	2,482	145,564	142,098	125	1,841	1,500	7,978	43,610
1983	167,751	164,024	625	118	2,984	158,844	155,284	131	1,933	1,496	8,907	52,517

Note: In interpreting the above, reference should be made to the footnotes in table 18.

TABLE 23.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING SELECTED CALENDAR YEARS 1960-78 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1979-83 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period											Funds at end of period
	Income					Disbursements					Net increase in funds	
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of—	Payments to noninsured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account		
<b>Past experience:</b>												
1960	\$12,445	\$11,876			\$569	\$11,798	\$11,245		\$240	\$314	\$647	\$22,613
1965	17,857	17,205			651	19,187	18,311		418	459	-1,331	19,841
1966	23,381	22,585	\$94		702	20,913	20,048	\$3	393	469	2,467	22,308
1967	26,413	25,424	94		896	22,471	21,406	11	515	539	3,942	26,250
1968	28,493	27,034	188	\$226	1,045	25,015	24,936	17	603	458	2,479	28,729
1969	33,346	31,546	94	364	1,342	27,892	26,751	16	612	513	5,453	34,182
1970	36,993	34,737	94	371	1,791	33,108	31,863	20	635	589	3,886	38,068
1971	40,908	38,343	187	351	2,027	38,542	37,171	26	719	626	2,366	40,434
1972	45,622	42,888	189	337	2,208	43,281	41,595	30	907	749	2,341	42,775
1973	54,787	51,907	191	303	2,386	53,148	51,459	49	837	802	1,639	44,414
1974	62,066	58,907	192	307	2,866	60,593	58,521	59	1,082	931	1,472	45,886
1975	67,640	64,259	247	268	2,722	69,184	66,923	99	1,152	1,010	-1,544	44,342
1976	75,034	71,595	481	236	2,866	78,242	75,665	95	1,244	1,239	-3,209	41,133
1977	81,982	78,710	513	228	2,531	87,254	84,576	92	1,379	1,208	-5,272	35,861
1978	91,904	88,883	526	230	2,264	96,018	92,865	95	1,439	1,618	-4,115	31,746
<b>Estimated future experience:</b>												
1979	106,360	103,525	511	164	2,160	107,576	104,510	105	1,574	1,387	-1,216	30,530
1980	120,513	117,765	513	149	2,086	121,523	118,275	113	1,691	1,444	-1,010	29,520
1981	140,260	137,232	618	135	2,275	135,226	131,833	121	1,774	1,498	5,034	34,554
1982	156,928	153,445	625	118	2,740	148,921	145,431	126	1,864	1,500	8,007	42,561
1983	170,772	166,800	633	102	3,237	162,055	158,471	132	1,956	1,496	8,717	51,278

Note: In interpreting the above, reference should be made to the footnotes in table 18.

The estimates in the tables in this section include the effects of various provisions to which reference has been made in earlier sections, namely, the provisions for (1) reimbursements to the trust funds from the general fund of the Treasury for the costs of granting non-contributory credits for military service and for the costs of monthly payments to certain noninsured persons aged 72 and over and (2) financial interchanges between the railroad retirement account and the trust funds.

State and local government systems may terminate the agreements under which social security coverage is provided for their public employees. Such coverage is available only on a group voluntary basis through agreements between the Secretary of Health, Education, and Welfare and the individual States. After coverage of the employees of a State, or of a political subdivision of the State, has been in effect for at least 5 years, the State may give notice of its intention to terminate the coverage of such employees. The termination of coverage becomes effective 2 years after such notice is given, unless the State withdraws the notice of termination within the 2-year period. However, once the termination becomes effective, it is irrevocable and the same group cannot be covered under social security again.

In the past few years there has been some increase in the number of terminations of coverage among State and local government employees. The total number of employees becoming covered under new agreements in each year through 1976 was larger than the number of employees for whom coverage was terminated during the year. However, in each of the last 2 years, the number of State and local government employees for whom coverage was terminated was somewhat larger than the number of employees becoming covered under new agreements. Notices have also been given of the intention to terminate coverage on the part of a larger number of State and local government employees in each of the next 2 years than the number of employees becoming covered under new agreements each year. The filing of such a notice by a State does not necessarily mean that coverage will be terminated because, as noted above, the State may withdraw the notice during the 2-year period before the termination becomes effective.

The termination of coverage for any large number of State or local government employees would have an adverse effect on the status of the trust funds, especially in the short range. In fiscal year 1978, tax contributions received by the combined OASI and DI trust funds from workers employed by State and local governments and from such employers, under all of the coverage agreements in effect, amounted to \$9.2 billion, or about 11 percent of total contributions in the year. The estimates presented in this section, and in the following sections of this report, do not reflect the effects of (1) future terminations of coverage which may become effective as a result of such notices that have been filed and that are still pending, or that may be filed in the future, or (2) future agreements that would bring additional groups of public employees under covered employment.

Under the Social Security Amendments of 1977, the Congress has directed the Secretary of Health, Education, and Welfare to undertake a study of the feasibility and desirability of covering Federal employees, State and local government employees, and employees of non-profit organizations under the OASDI and hospital insurance pro-

grams on a mandatory basis. The study is to be conducted in consultation with the Department of the Treasury, the Office of Management and Budget, and the Civil Service Commission.

D. ACTUARIAL ANALYSIS OF BENEFIT DISBURSEMENTS FROM THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES

(Specifically required by sec. 201(c) of the Social Security Act)

Effective January 1957, monthly benefits have been payable from the OASI trust fund to disabled sons and daughters aged 18 and over of retired and deceased workers in those cases in which the disability of the son or daughter has continued since childhood. Effective February 1968, reduced monthly benefits have been payable from this trust fund to disabled widows and widowers beginning at age 50.

On December 31, 1978, about 494,000 persons were receiving monthly benefits with respect to disability from the OASI trust fund. In addition to disabled beneficiaries, this total includes 41,000 mothers and fathers. These mothers and fathers—wives under age 65 of retired-worker beneficiaries and widows or widowers of deceased insured workers—met all other qualifying requirements and were receiving full-rate (i.e., not reduced for age) benefits solely because they had at least one disabled-child beneficiary in their care. Benefits paid from this trust fund to persons receiving benefits with respect to disability totaled \$950 million in calendar year 1978. Similar figures are presented in table 24 to show the experience in selected calendar years 1960-78. Figures relating to past experience for years not shown in table 24 are contained in the 1976 annual report.

TABLE 24.—BENEFITS PAYABLE FROM THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-83

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments <sup>1</sup>		
	Total	Children <sup>2</sup>	Widows and widowers	Total	Children <sup>2</sup>	Widows and widowers <sup>3</sup>
<b>Past experience:</b>						
1960.....	117	117	-----	\$59	\$59	-----
1965.....	214	214	-----	134	134	-----
1970.....	316	281	36	301	260	\$41
1971.....	338	298	40	363	307	56
1972.....	360	314	46	409	343	66
1973.....	381	331	51	492	417	75
1974.....	409	355	53	567	479	88
1975.....	435	376	59	664	560	104
1976.....	457	395	62	748	637	111
1977.....	480	414	65	868	748	120
1978.....	494	430	64	950	823	127
<b>Estimated future experience:<sup>4</sup></b>						
1979.....	504	440	64	1,051	919	132
1980.....	516	453	63	1,177	1,037	140
1981.....	526	464	62	1,301	1,153	148
1982.....	534	473	61	1,424	1,269	155
1983.....	541	481	60	1,539	1,379	160

<sup>1</sup> Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup> Reflects effect of including certain mothers and fathers. (See text.)

<sup>3</sup> Reflects the offsetting effect of lower benefits payable to disabled widows and widowers who continue to receive benefits past age 60 (62, for disabled widowers, prior to 1973) as compared to the higher nondisabled widow's (and widower's) benefits that would otherwise be payable.

<sup>4</sup> The estimates are based on the intermediate set of assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in an earlier section.

Table 24 also shows the expected future experience in calendar years 1979–83, under the intermediate set of economic assumptions described in an earlier section. Total benefit payments from the OASI trust fund with respect to disabled beneficiaries are estimated to increase from \$1,051 million in calendar year 1979 to \$1,539 million in calendar year 1983, under the intermediate assumptions.

In calendar year 1978, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the OASI trust fund and from the DI trust fund (including payments from the latter fund to all dependents of disabled-worker beneficiaries) totaled \$13,549 million, of which \$950 million, or 7.0 percent, represented payments from the OASI trust fund. Similar figures for selected calendar years 1960–78 and estimates for calendar years 1979–83, under the intermediate set of assumptions, are presented in table 25. Figures relating to past experience for years not shown in table 25 are contained in the 1976 annual report.

TABLE 25.—BENEFIT PAYMENTS UNDER THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960–83

[Amounts in millions]

Calendar year	Total <sup>1</sup>	Disability insurance trust fund <sup>2</sup>	Benefit payments <sup>1</sup> from—	
			Old-age and survivors insurance trust fund	As a percentage of total benefit payments with respect to disabled beneficiaries
			Amount <sup>3</sup>	
<b>Past experience:</b>				
1960.....	\$627	\$568	\$59	9.4
1965.....	1,707	1,573	134	7.9
1970.....	3,386	3,085	301	8.9
1971.....	4,146	3,783	363	8.8
1972.....	4,911	4,502	409	8.3
1973.....	6,256	5,764	492	7.9
1974.....	7,524	6,957	567	7.5
1975.....	9,169	8,505	664	7.2
1976.....	10,803	10,055	748	6.9
1977.....	12,415	11,547	868	7.0
1978.....	13,549	12,599	950	7.0
<b>Estimated future experience: <sup>4</sup></b>				
1979.....	15,099	14,048	1,051	7.0
1980.....	16,881	15,704	1,177	7.0
1981.....	18,624	17,323	1,301	7.0
1982.....	20,403	18,979	1,424	7.0
1983.....	22,183	20,644	1,539	6.9

<sup>1</sup> Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup> Benefit payments to disabled workers and their dependents.

<sup>3</sup> Benefit payments to disabled children aged 18 and over, to certain mothers and fathers (see text), and to disabled widows and widowers. (See footnote 3, table 24.)

<sup>4</sup> The estimates are based on the intermediate set of assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in an earlier section.

#### E. ACTUARIAL STATUS OF THE TRUST FUNDS

In recent reports, the medium-range and long-range actuarial statuses have been measured by the corresponding actuarial balances, computed over the 25-year and 75-year periods beginning with the calendar year of issuance of the report. In accordance with this practice, the statement of the medium-range and long-range actuarial statuses

Table 24 also shows the expected future experience in calendar years 1979–83, under the intermediate set of economic assumptions described in an earlier section. Total benefit payments from the OASI trust fund with respect to disabled beneficiaries are estimated to increase from \$1,051 million in calendar year 1979 to \$1,539 million in calendar year 1983, under the intermediate assumptions.

In calendar year 1978, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the OASI trust fund and from the DI trust fund (including payments from the latter fund to all dependents of disabled-worker beneficiaries) totaled \$13,549 million, of which \$950 million, or 7.0 percent, represented payments from the OASI trust fund. Similar figures for selected calendar years 1960–78 and estimates for calendar years 1979–83, under the intermediate set of assumptions, are presented in table 25. Figures relating to past experience for years not shown in table 25 are contained in the 1976 annual report.

TABLE 25.—BENEFIT PAYMENTS UNDER THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960–83

[Amounts in millions]

Calendar year	Total <sup>1</sup>	Disability insurance trust fund <sup>2</sup>	Benefit payments <sup>1</sup> from—	
			Old-age and survivors insurance trust fund	As a percentage of total benefit payments with respect to disabled beneficiaries
			Amount <sup>3</sup>	
<b>Past experience:</b>				
1960.....	\$627	\$568	\$59	9.4
1965.....	1,707	1,573	134	7.9
1970.....	3,386	3,085	301	8.9
1971.....	4,146	3,783	363	8.8
1972.....	4,911	4,502	409	8.3
1973.....	6,256	5,764	492	7.9
1974.....	7,524	6,957	567	7.5
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1976.....	10,803	10,055	748	6.9
1977.....	12,415	11,547	868	7.0
1978.....	13,549	12,599	950	7.0
<b>Estimated future experience: <sup>4</sup></b>				
1979.....	15,099	14,048	1,051	7.0
1980.....	16,881	15,704	1,177	7.0
1981.....	18,624	17,323	1,301	7.0
1982.....	20,403	18,979	1,424	7.0
1983.....	22,183	20,644	1,539	6.9

<sup>1</sup> Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup> Benefit payments to disabled workers and their dependents.

<sup>3</sup> Benefit payments to disabled children aged 18 and over, to certain mothers and fathers (see text), and to disabled widows and widowers. (See footnote 3, table 24.)

<sup>4</sup> The estimates are based on the intermediate set of assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in an earlier section.

#### E. ACTUARIAL STATUS OF THE TRUST FUNDS

In recent reports, the medium-range and long-range actuarial statuses have been measured by the corresponding actuarial balances, computed over the 25-year and 75-year periods beginning with the calendar year of issuance of the report. In accordance with this practice, the statement of the medium-range and long-range actuarial statuses

contained in this report pertains to the periods 1979–2003 and 1979–2053, respectively. In addition to the medium-range and long-range actuarial balances, two other indicators of the financial condition of the trust funds are shown in this report. One is the time series of estimated trust fund ratios—that is, the assets at the beginning of the year expressed as a percentage of expenditures during the year—and the other is the time series of the estimated annual expenditures (expressed as a percentage of taxable payroll). These indicators are described earlier in this section and are analyzed later in this section.

The annual expenditures as a percentage of taxable payroll are useful in establishing tax rate schedules according to the current-cost method described earlier. However, these cost estimates do not reflect any adjustment to the trust fund ratio. Therefore, before developing any financing provisions, the desired trust fund ratio and the time by which that ratio is to be attained should be determined. This is so the tax schedule can be designed not only to meet the annual expenditures but also to provide for the desired change in the trust fund ratio. For example, if it were considered appropriate to increase the combined OASDI trust fund ratio to 100 percent of the projected annual expenditures by the end of the 75-year period, it is estimated under alternative II that the trust funds would require an additional 0.14 percent of taxable payroll per year, in excess of what is needed to meet expenditures. Similarly, if it were considered appropriate to increase that ratio to 75 percent, the corresponding estimate would be 0.10 percent of taxable payroll.

### *1. Medium-Range Cost Estimates: 1979–2003*

The medium-range cost estimates are summarized in the tables shown below. For convenience of reference, those tables also summarize the long-range (1979–2053) projections discussed later in this section.

In general, the medium-range cost estimates are less sensitive than the long-range estimates to changes in demographic and economic assumptions. For example, variations in projected fertility rates have little effect on the medium-range cost estimates since almost all covered workers and beneficiaries projected for this period were born prior to the start of the projection period. The degree of confidence that can be placed in economic and demographic assumptions is greater for the first 25 years than for the entire 75-year period. Nonetheless, economic factors such as wage and price increases are subject to such a wide range of possible variation that the projections of expenditures over the medium-range period are only an indication of the trend and general range of the actual expenditures. Appendix A contains a more detailed discussion of the effect of variance in selected economic and demographic assumptions on the estimated average medium-range expenditures.

Table 26 compares the estimated expenditures under alternative II with the scheduled OASDI tax rates. After the first 2 years, the OASDI system is projected to have a surplus in each year of the medium-range period. These annual surpluses produce a medium-range actuarial surplus of 1.17 percent of taxable payroll.

TABLE 26.—ESTIMATED EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II AND COMPARISON WITH SCHEDULED TAX RATES, CALENDAR YEARS 1979-2055

[As percent of taxable payroll]

Calendar year	Estimated expenditures			Scheduled tax rate	Difference
	OASI	DI	Total		
1979	8.97	1.39	10.36	10.16	-0.20
1980	9.16	1.40	10.56	10.16	-.40
1981	9.03	1.36	10.39	10.70	.31
1982	9.06	1.36	10.41	10.80	.39
1983	9.08	1.36	10.44	10.80	.36
1984	9.11	1.37	10.48	10.80	.32
1985	9.12	1.38	10.50	11.40	.90
1986	9.12	1.39	10.51	11.40	.89
1987	9.11	1.40	10.51	11.40	.89
1988	9.08	1.41	10.49	11.40	.91
1989	9.18	1.42	10.60	11.40	.80
1990	9.27	1.42	10.70	12.40	1.70
1991	9.25	1.45	10.69	12.40	1.71
1992	9.22	1.47	10.68	12.40	1.72
1993	9.19	1.49	10.68	12.40	1.72
1994	9.16	1.52	10.67	12.40	1.73
1995	9.13	1.54	10.67	12.40	1.73
1996	9.08	1.58	10.66	12.40	1.74
1997	9.02	1.62	10.64	12.40	1.76
1998	8.98	1.66	10.64	12.40	1.76
1999	8.94	1.70	10.64	12.40	1.76
2000	8.90	1.74	10.65	12.40	1.75
2001	8.87	1.78	10.66	12.40	1.74
2002	8.86	1.82	10.69	12.40	1.71
2003	8.87	1.86	10.74	12.40	1.66
2005	8.89	1.95	10.83	12.40	1.57
2010	9.46	2.12	11.58	12.40	-.82
2015	10.57	2.22	12.79	12.40	-.39
2020	12.04	2.25	14.29	12.40	-1.89
2025	13.49	2.18	15.67	12.40	-3.27
2030	14.35	2.08	16.44	12.40	-4.04
2035	14.53	2.05	16.58	12.40	-4.18
2040	14.21	2.07	16.29	12.40	-3.89
2045	14.00	2.12	16.12	12.40	-3.72
2050	14.02	2.13	16.15	12.40	-3.75
2055	14.16	2.10	16.27	12.40	-3.87
25-yr averages:					
1979-2003	9.07	1.52	10.59	11.76	1.17
2004-28	11.12	2.15	13.26	12.40	-.86
2029-53	14.21	2.09	16.30	12.40	-3.90
75-yr average: 1979-2053	11.47	1.92	13.38	12.19	-1.20

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Table 27 compares the expenditures estimated under alternative II with those estimated under alternatives I and III. As a percentage of taxable payroll the estimated average medium-range expenditures varies from 10.01 percent under alternative I to 11.16 percent under alternative III. Under each alternative, the expenditures are fairly level throughout the medium-range period; they range from 9.81 to 10.48 percent under alternative I and from 10.35 to 11.69 percent under alternative III. The values of the annual expenditures near the end of the medium-range period under alternatives I and III differ by less than 2 percentage points. In comparison with the estimated expenditures for the year 1978 of 10.78 percent, the highest level attained during the medium-range period varies from a slightly lower value under alternative I (10.48 percent) to a somewhat higher value under alternative II (11.69 percent). As a percentage of GNP, the estimated average medium-range expenditures is fairly constant, varying from 4.40 percent under alternative I to 4.65 percent under alternative III.

TABLE 27.—ESTIMATED EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1979–2055

Calendar year	Expenditures as percent of taxable payroll by alternative			Expenditures as percent of gross national product by alternative		
	I	II	III	I	II	III
1979	10.35	10.36	10.35	4.54	4.54	4.57
1980	10.48	10.56	10.85	4.65	4.68	4.83
1981	10.28	10.39	10.77	4.63	4.68	4.83
1982	10.21	10.41	10.85	4.61	4.66	4.84
1983	10.16	10.44	10.84	4.57	4.68	4.81
1984	10.13	10.48	10.84	4.55	4.70	4.78
1985	10.09	10.50	10.87	4.53	4.71	4.78
1986	10.04	10.51	10.90	4.49	4.69	4.78
1987	9.97	10.51	10.93	4.44	4.67	4.77
1988	9.91	10.49	10.95	4.39	4.65	4.76
1989	9.98	10.60	11.10	4.45	4.66	4.76
1990	10.05	10.70	11.25	4.45	4.68	4.80
1991	10.02	10.69	11.28	4.43	4.64	4.77
1992	9.99	10.68	11.31	4.40	4.61	4.73
1993	9.97	10.68	11.33	4.38	4.59	4.69
1994	9.95	10.67	11.36	4.36	4.56	4.65
1995	9.94	10.67	11.39	4.34	4.53	4.62
1996	9.90	10.66	11.39	4.31	4.50	4.57
1997	9.87	10.64	11.39	4.28	4.47	4.53
1998	9.86	10.64	11.40	4.27	4.44	4.48
1999	9.84	10.64	11.42	4.24	4.41	4.45
2000	9.83	10.65	11.44	4.23	4.38	4.41
2001	9.81	10.66	11.50	4.21	4.36	4.39
2002	9.81	10.69	11.59	4.19	4.34	4.38
2003	9.82	10.74	11.69	4.18	4.33	4.37
2005	9.85	10.83	11.91	4.17	4.30	4.36
2010	10.33	11.58	13.09	4.31	4.46	4.59
2015	11.19	12.79	14.90	4.60	4.83	5.10
2020	12.24	14.29	17.21	4.96	5.29	5.74
2025	13.08	15.67	19.64	5.22	5.68	6.39
2030	13.31	16.44	21.59	5.23	5.84	6.85
2035	13.00	16.58	22.93	5.03	5.77	7.10
2040	12.38	16.29	23.75	4.72	5.56	7.17
2045	11.98	16.12	24.53	4.50	5.39	7.22
2050	11.87	16.15	25.17	4.39	5.30	7.23
2055	11.91	16.27	25.65	4.34	5.23	7.18
25-yr averages:						
1979–2003	10.01	10.59	11.16	4.40	4.57	4.65
2004–28	11.48	13.26	15.74	4.70	4.98	5.36
2029–53	12.45	16.30	23.74	4.73	5.54	7.13
75-yr average: 1979–2053	11.31	13.38	16.88	4.61	5.03	5.71

Note: Alternatives I, II, and III are described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Table 28 compares the average expenditures by trust fund under all three alternatives with the average scheduled tax rates. Under alternative II, the OASI and DI programs are estimated to have medium-range actuarial surpluses of 0.69 percent and 0.48 percent, respectively. In addition, under each of the other two alternatives both programs are also estimated to have medium-range actuarial surpluses. Thus, over the medium-range period as a whole, for both the OASI and DI programs, the financing appears to be more than adequate under all three alternatives. However, the pattern of estimated expenditures is such that, under the pessimistic assumptions, a cash-flow problem develops in the early years within the OASI program (as described earlier in this report).

TABLE 28.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVES I, II, AND III AND COMPARISON WITH AVERAGE SCHEDULED TAX RATE

[As percent of taxable payroll]

Calendar year	Average scheduled tax rate	Estimated average expenditures by alternative			Difference by alternative		
		I	II	III	I	II	III
<b>OASI:</b>							
1979-2003 .....	9.76	8.60	9.07	9.54	1.16	0.69	0.22
2004-2028 .....	10.20	9.62	11.12	13.25	.58	-.92	-3.05
2029-2053 .....	10.20	10.71	14.21	21.14	-.51	-4.01	-10.94
1979-2053 .....	10.05	9.65	11.47	14.65	.41	-1.41	-4.59
<b>DI:</b>							
1979-2003 .....	2.00	1.41	1.52	1.62	.59	.48	.38
2004-2028 .....	2.20	1.86	2.15	2.49	.34	.05	-.29
2029-2053 .....	2.20	1.74	2.09	2.60	.46	.11	-.40
1979-2053 .....	2.13	1.67	1.92	2.24	.47	.21	-.10
<b>Total:</b>							
1979-2003 .....	11.76	10.01	10.59	11.16	1.75	1.17	.60
2004-2028 .....	12.40	11.48	13.26	15.74	.92	-.86	-3.34
2029-2053 .....	12.40	12.45	16.30	23.74	-.05	-3.90	-11.34
1979-2053 .....	12.19	11.31	13.38	16.88	.87	-1.20	-4.69

Note: Alternatives I, II, and III are described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Table 29 shows how the pattern of the estimated expenditures affects the size of the trust funds under all three alternatives. The annual surpluses estimated to occur during the medium-range period are reflected in the high levels attained by the trust fund ratios by the end of that period. Under alternative II, the OASI and DI ratios are estimated to increase to 197 percent and 631 percent, respectively. Under alternative I, they are estimated to increase to 344 and 850 percent, respectively. The combined OASDI trust fund at the end of the medium-range period represents about 18 percent and 6 percent of the Gross National Product under alternatives I and III, respectively. Nonetheless, under the pessimistic assumptions (alternative III), while the DI ratio is estimated to increase to levels well above 400 percent, the OASI program experiences a cash-flow problem beginning in 1983 (as described earlier) so that legislative action would be necessary to guarantee the timely payment of benefits for the rest of the decade. Because of this cash-flow problem, the trust fund ratios shown for 1983 and later are theoretical in that they are calculated on the assumption that the cash-flow problem that develops in 1983 can be resolved by allowing the trust funds to borrow money, although no such borrowing authority exists in present law.

TABLE 29.—ESTIMATED TRUST FUND RATIOS OF OASDI SYSTEM UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1979-2055

Calendar year	Alternative I			Alternative II			Alternative III		
	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total
1979 .....	30	29	30	30	29	30	30	29	29
1980 .....	24	35	25	24	35	25	24	34	25
1981 .....	20	43	23	19	42	22	16	39	19
1982 .....	20	63	25	18	60	23	12	53	17
1983 .....	22	87	30	18	81	26	8	68	16
1984 .....	25	112	36	19	101	29	5	83	15
1985 .....	29	138	43	19	121	32	2	98	15
1986 .....	37	182	56	22	156	40	2	126	19
1987 .....	45	226	69	26	190	48	2	153	23
1988 .....	55	270	83	30	223	56	2	179	26

See footnotes at end of table.

TABLE 29.—ESTIMATED TRUST FUND RATIOS OF OASDI SYSTEM UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1979-2055—Continued

Calendar year	Alternative I			Alternative II			Alternative III		
	OASI	DI	Total	OASI	DI	Total	OASI <sup>1</sup>	DI	Total <sup>1</sup>
1989	64	315	97	34	256	64	2	203	30
1990	73	358	110	37	287	70	1	224	31
1991	89	419	133	46	334	85	5	262	41
1992	106	478	156	56	379	100	10	296	50
1993	124	533	180	66	421	116	14	328	58
1994	142	586	204	77	460	131	18	357	67
1995	161	635	228	88	495	147	22	383	75
1996	182	675	253	100	525	163	27	403	84
1997	203	711	279	112	550	179	32	420	92
1998	226	743	305	126	571	195	37	434	100
1999	249	772	330	139	590	211	43	445	108
2000	273	798	357	154	606	228	49	454	116
2001	297	818	382	168	617	243	56	459	124
2002	320	835	406	182	625	258	62	461	131
2003	344	850	430	197	631	272	67	461	136
2005	393	873	477	225	637	299	77	454	145
2010	485	919	563	268	634	335	74	413	136
2015	521	976	599	258	629	323	20	356	78
2020	498	1,061	586	194	635	263	(?)	292	(?)
2025	440	1,201	547	89	671	170	(?)	229	(?)
2030	378	1,391	510	(?)	737	159	(?)	171	(?)
2035	330	1,560	490	(?)	800	(?)	(?)	110	(?)
2040	307	1,671	496	(?)	841	(?)	(?)	42	(?)
2045	305	1,742	517	(?)	867	(?)	(?)	(?)	(?)
2050	307	1,839	537	(?)	902	(?)	(?)	(?)	(?)
2055	306	1,977	552	(?)	955	(?)	(?)	(?)	(?)
Trust fund is projected to be first exhausted in calendar year.....	(?)	(?)	(?)	2028	(?)	2032	2016	2042	2018

<sup>1</sup> The ratios for 1983 and later are theoretical because they are calculated on the assumption that the OASI cash-flow problem that develops in 1983 (see text) can be resolved by allowing the OASI trust fund to borrow money.

<sup>2</sup> The fund is projected to be exhausted.

<sup>3</sup> This figure is theoretical, because the OASI trust fund is projected to be exhausted.

<sup>4</sup> The fund is not projected to be exhausted within the projection period.

Note: Alternatives I, II, and III are described in the text of this report. The trust fund ratio is defined to be the trust fund assets at the beginning of the year expressed as a percentage of expenditures during that year.

The patterns of the trust fund ratios indicate an imbalance in the financing of the OASI and DI programs over the medium-range period. That is, while overall there is more than adequate financing for the medium-range period, there is not sufficient financing for OASI in the early years to preclude a cash-flow problem under the pessimistic assumptions.

The cost estimates and actuarial balances shown in this report are different from those published in last year's report. Table 30 traces the difference between the estimates in the two reports.

TABLE 30.—CHANGE IN ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II BY REASON FOR CHANGE

[As percent of taxable payroll]

Item	Medium range			Long range		
	OASI	DI	Total	OASI	DI	Total
Shown in 1978 report: <sup>1</sup>						
Actuarial balance.....	+0.79	+0.23	+1.02	-1.26	-0.14	-1.40
Average scheduled tax rate.....	9.70	1.97	11.67	10.03	2.12	12.16
Estimated average expenditures.....	8.91	1.74	10.64	11.29	2.26	13.55
Changes in estimated average expenditures due to changes in: <sup>2</sup>						
Average wage indexing series.....	+ .03	+ .01	+ .04	+ .02	+ .00	+ .02
Valuation date.....	- .02	+ .03	+ .01	+ .06	+ .01	+ .07
See footnotes at end of table.						

TABLE 30.—CHANGE IN ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II BY REASON FOR CHANGE—Continued

Item	Medium range			Long range		
	OASI	DI	Total	OASI	DI	Total
Changes in estimated average expenditures due to changes in: <sup>2</sup> —Continued						
Economic assumptions .....	+ .17	+ .03	+ .20	+ .05	+ .01	+ .06
Mortality assumptions .....	+ .13	+ .00	+ .13	+ .39	+ .00	+ .39
Disability assumptions .....		— .29	— .29		— .43	— .43
Methods .....	+ .07	+ .02	+ .09	— .23	+ .06	— .17
All other factors .....	— .22	— .02	— .24	— .11	+ .00	— .11
Total change in estimated average expenditures .....	+ .16	— .21	— .05	+ .18	— .34	— .16
Shown in this report: <sup>3</sup>						
Estimated average expenditures .....	9.07	1.52	10.59	11.47	1.92	13.38
Average scheduled tax rate .....	9.76	2.00	11.76	10.05	2.13	12.19
Actuarial balance .....	+ .69	+ .48	+ 1.17	— 1.41	+ .21	— 1.20

<sup>1</sup> Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) described in last year's report which incorporates ultimate annual increases of 5½ percent in average wages in covered employment and 4 percent in the CPI, an ultimate annual unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. The averages are computed over projection periods commencing with 1978.

<sup>2</sup> See the text for a discussion of the items shown below.

<sup>3</sup> Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) described in the text of this report. The ultimate values for the annual increases in average wages in covered employment and in the CPI for the annual unemployment rate and for the total fertility rate are the same as those included in the intermediate set of assumptions described in last year's report. The averages are computed over projection periods commencing with 1979.

Note: Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

On December 29, 1978, the series of annual average total wages to be used for indexing purposes was published in the Federal Register. Due to differences between that series and the one used prior to that time for cost estimating purposes, projected costs are increased.

In changing from the valuation periods of last year's report, 1978–2002 and 1978–2052 for the medium-range and long-range periods, respectively, to the valuation periods of this report, 1979–2003 and 1979–2053, the year 1978 is replaced by 2003 in the medium-range and 2053 in the long-range. Except for the OASI medium-range, the replacement year is a year of relatively high cost compared to the year being replaced, thereby increasing the estimated average expenditures even in the absence of any other changes.

The ultimate economic assumptions as to wage-CPI increases are the same as in last year's report. The increase in cost due to economic assumptions is primarily because of lower productivity assumed in the first 10 years of the projection period.

In the demographic area, the ultimate fertility assumption has not been changed, but the mortality level assumed in this report is about 17 percent lower by the year 2050 than in last year's report. This difference in assumed mortality levels results from incorporating in this projection an additional year of experience both in determining the trends and also in determining the level at the beginning of the projection period. Both factors reflect more improvement in mortality than was previously assumed. In addition, when determining the trends, more recognition was given to the recent rapid improvement in mortality over the past decade, as has been recommended by the Panel of Actuaries and Economists appointed by the current Social Security Advisory Council to review the social security cost projections.

Large decreases in the estimated cost of the disability insurance program in both the medium-range and long-range are due to changes in assumptions regarding disability incidences and terminations. Both incidence and termination rates have been changed to reflect more recent experience. These revised assumptions were also recommended by the Panel of Actuaries and Economists of the current Advisory Council.

Numerous changes were made in the methods used to project the costs of the OASDI system. The net result of these changes was to increase the DI estimated cost and the OASI medium-range cost, and to decrease the OASI long-range cost. The major change in method is the updating of the procedure for relating assumed future wage and CPI increases to the resulting increases in future benefit levels. The procedure uses a sample of workers with theoretical earnings histories to project future benefits. This year, in order to improve the usefulness of the procedure, the pattern of assumed age-specific wage increases was modified, and other minor changes were made as well. There were a number of other changes in method which had only minor effects on the projected costs.

Many factors other than those specifically mentioned above were changed from last year's report. The net result of these changes was a decrease in the OASI and DI medium-range and long-range costs.

Overall, the combined OASDI trust fund is shown to be in a better position in the 1979 Trustees Report for both the medium-range and long-range periods than in the 1978 Report, primarily because of the change in disability assumptions.

## *2. Long-Range Cost Estimates: 1979-2053*

As mentioned earlier in this section, the degree of confidence that can be placed in demographic and economic assumptions and in cost estimates based thereon decreases as the length of the projection period increases. Therefore, the degree of confidence that can be placed in the estimates shown over the long-range 75-year period is less than that which can be placed in the estimates shown over the medium-range 25-year period. Appendix A contains a more detailed discussion of the effect of differences in selected economic and demographic assumptions on the estimated average long-range expenditures. Despite the sensitivity of the long-range projections to differences in assumptions, those projections provide insights which are essential for making informed policy decisions. It is with the intention of providing these insights that the long-range estimates are presented. The tables summarizing those estimates appear earlier in this section.

As shown in table 26, under alternative II the cost of the OASI program is projected to be a relatively constant percentage of taxable payroll during the remainder of this century. After the turn of the century, it is projected to increase rapidly to a peak around 2035. The reason for the increase is that the number of beneficiaries will be increasing faster than the number of covered workers, since the large number of persons born during the period from the post-World War II years through the late 1950's and into the 1960's (when fertility rates were high) will reach retirement age and begin to receive benefits while the relatively small number of persons born during the period of current and projected low fertility rates will comprise the labor force. During the last years of the projection period, the OASI expend-

itures are projected to decrease slightly, because of the effect on the number of beneficiaries of the low birth rates experienced during the 1970's and projected through the 1980's. Table 31 shows the projected changes in the demographic structure of the United States by comparing the projected numbers of beneficiaries with the projected numbers of covered workers through calendar year 2055.

TABLE 31.—COMPARISON OF OASDI BENEFICIARIES AND COVERED WORKERS UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1945-2055

Calendar year	Covered workers (in thousands) <sup>1</sup>	Beneficiaries (in thousands) <sup>2</sup>			Covered workers per OASDI beneficiary	OASDI beneficiaries per 100 covered workers
		OASI	DI	Total		
1945.....	46,390	1,106		1,106	41.9	2
1950.....	48,280	2,930		2,930	16.5	6
1955.....	65,200	7,563		7,563	8.6	12
1960.....	72,530	13,740	522	14,262	5.1	20
1965.....	80,680	18,509	1,648	20,157	4.0	25
1970.....	93,090	23,185	2,568	25,753	3.6	28
1975.....	100,400	27,244	4,125	31,369	3.2	31
1978.....	110,480	29,327	4,861	34,188	3.2	31
Alternative I:						
1979.....	113,570	29,900	4,879	34,779	3.3	31
1980.....	115,470	30,523	4,904	35,427	3.3	31
1985.....	127,960	33,637	5,187	38,824	3.3	30
1990.....	134,710	35,435	5,696	41,131	3.3	31
1995.....	138,190	37,006	6,397	43,403	3.2	31
2000.....	142,040	37,880	7,395	45,275	3.1	32
2005.....	149,020	39,248	8,538	47,786	3.1	32
2010.....	155,370	42,433	9,535	51,968	3.0	33
2015.....	159,960	47,427	10,150	57,577	2.8	36
2020.....	163,610	53,652	10,430	64,082	2.6	39
2025.....	167,990	59,774	10,318	70,092	2.4	42
2030.....	174,040	63,457	10,077	73,534	2.4	42
2035.....	181,510	64,455	10,209	74,664	2.4	41
2040.....	189,690	63,554	10,775	74,329	2.6	39
2045.....	197,920	63,506	11,578	75,084	2.6	38
2050.....	206,320	65,483	12,181	77,664	2.7	38
2055.....	215,150	68,697	12,550	81,247	2.6	38
Alternative II:						
1979.....	113,570	29,923	4,881	34,804	3.3	31
1980.....	115,400	30,593	4,914	35,507	3.3	31
1985.....	126,400	33,976	5,315	39,291	3.2	31
1990.....	133,100	36,060	5,971	42,031	3.2	32
1995.....	136,780	37,834	6,765	44,599	3.1	33
2000.....	140,330	38,508	7,819	46,327	3.0	33
2005.....	145,480	40,488	9,005	49,493	2.9	34
2010.....	149,340	43,972	10,015	53,987	2.8	36
2015.....	151,170	49,297	10,606	59,903	2.5	40
2020.....	151,700	55,985	10,806	66,791	2.3	44
2025.....	152,190	62,618	10,569	73,187	2.1	48
2030.....	153,540	66,898	10,168	77,066	2.0	50
2035.....	155,630	68,463	10,097	78,560	2.0	50
2040.....	158,080	68,016	10,367	78,383	2.0	49
2045.....	160,300	67,921	10,754	78,675	2.0	49
2050.....	162,410	68,916	10,946	79,862	2.0	49
2055.....	164,520	70,475	10,974	81,449	2.0	50
Alternative III:						
1979.....	113,180	29,946	4,885	34,831	3.2	31
1980.....	112,650	30,678	4,927	35,605	3.2	32
1985.....	124,930	34,345	5,447	39,792	3.1	32
1990.....	131,520	36,806	6,225	43,031	3.1	33
1995.....	134,990	38,862	7,067	45,929	2.9	34
2000.....	138,270	40,103	8,103	48,206	2.9	35
2005.....	140,640	41,878	9,244	51,122	2.8	36
2010.....	140,650	45,638	10,204	55,842	2.5	40
2015.....	138,270	51,321	10,703	62,024	2.2	45
2020.....	134,260	58,416	10,759	69,175	1.9	52
2025.....	129,540	65,576	10,336	75,912	1.7	59
2030.....	124,770	70,471	9,701	80,172	1.6	64
2035.....	120,280	72,626	9,319	81,945	1.5	68
2040.....	116,010	72,657	9,110	81,767	1.4	70
2045.....	111,650	72,337	8,851	81,188	1.4	73
2050.....	107,280	71,589	8,438	80,027	1.3	75
2055.....	103,160	70,202	8,013	78,215	1.3	76

<sup>1</sup> Workers with taxable earnings at some time during the year.

<sup>2</sup> Those with monthly benefits in current-payment status as of June 30.

Note: Alternatives I, II, and III are described in the text of this report.

As shown in table 26 the cost of the DI program as a percentage of taxable payroll is also projected to remain level for the next decade and then to increase steadily until about 2020 after which it decreases slightly. The pattern of the estimated DI expenditures is affected by the same demographic factors affecting the pattern of the estimated OASI expenditures, and in addition, by the assumptions about future disability incidence experience. The increasing DI costs that are projected result in part from the projection of disability incidence rates that are higher than current levels (see Appendix A for further information).

Table 26 shows that under alternative II for the OASDI system, estimated annual surpluses continue beyond the medium-range period to about 2010, after which the system experiences annual deficits. These deficits grow rapidly to a peak around 2035 after which they decline to about 3¾ percent of taxable payroll during the last 10 years of the long-range projection period. The large deficits in the third 25-year portion of the projection period result in a long-range actuarial deficit for the total 75-year period of 1.20 percent of taxable payroll, even though the surpluses of the medium-range period more than offset the deficits of the second 25 years. This long-range deficit is about 9 percent of the estimated 75-year average expenditures (which is 13.38 percent of taxable payroll). Since the deficit exceeds 5 percent of the estimated average expenditures (that is, exceeds 0.67 percent of taxable payroll), the system is not regarded as being in close actuarial balance over the long-range period. Nonetheless, because the projected deficits described above do not occur until after the turn of the century, there is ample time to study the system and to make well-considered decisions regarding how to improve its long-range financial status. The current Social Security Advisory Council is specifically examining the financial status of the trust funds in relation to the long-term commitments of the programs.

Table 27 shows that under each alternative the estimated expenditures as a percentage of taxable payroll increase rapidly after the turn of the century. Under alternatives I and II, the expenditures peak around 2030 or 2035, while under alternative III they are still increasing somewhat at the end of the projection period. The rapid increase that occurs shortly after the turn of the century results from the post-World War II births mentioned above, a factor which is reflected in the estimates based on each set of assumptions. As a percentage of GNP, the estimated average long-range expenditures varies from 4.61 percent under alternative I to 5.71 percent under alternative III, with a value under alternative II of 5.03 percent.

Table 28 shows that for the OASI program a long-range surplus is projected under alternative I and a long-range deficit under alternatives II and III, while for the DI program a long-range surplus is projected under alternatives I and II and a long-range deficit under alternative III. The combined OASDI long-range actuarial balance ranges from a surplus of 0.87 percent under alternative I to a deficit of 4.69 percent under alternative III.

The effect on the trust funds is shown in table 29. Under alternative II, the OASI trust fund ratio is projected to rise steadily after 1982 to more than 250 percent around 2010 before decreasing rapidly until 2028, the year in which the OASI trust fund is projected to be ex-

hausted. The DI trust fund ratio is projected to rise steadily throughout the projection period to more than 900 percent by the end of the long-range projection period. Under alternative I, the OASI ratio peaks around 2015 at about 500 percent before decreasing to about 300 percent by the end of the projection period; the DI ratio increases to about 1900 percent by the end of the projection period. The combined OASDI trust fund at the end of the long-range period represents about 24 percent of the projected Gross National Product, under alternative I. Under alternative III, the OASI trust fund experiences a cash-flow problem beginning in 1983 (as described earlier), and the DI trust fund is exhausted in 2042 after reaching levels in excess of 450 percent around the turn of the century.

## VII. CONCLUSION

The actuarial cost estimates indicate that the combined assets of the old-age and survivors insurance and disability insurance trust funds will continue to decline through 1980 or 1981, depending on economic and demographic conditions, before starting to increase. Under the intermediate set of economic and demographic assumptions, the combined funds begin to increase in 1981, and continue to increase until after the turn of the century. After that, the projections suggest that because of demographic factors, demands on the OASI trust fund will severely strain the system.

It must be emphasized, however, that while the assumptions on which these estimates are based appear reasonable in view of past trends, actual experience may differ significantly from the assumptions. It is particularly important to note that long-range projections are subject to more uncertainty than are projections for shorter periods. The medium-range estimates for the next 25 years are substantially more reliable than the estimates for the next 50 or 75 years.

The OASI trust fund is expected to decline to a level that is only barely adequate to meet immediate program needs before it begins to increase under the intermediate and optimistic assumptions. By the beginning of 1982, the OASI trust fund falls to a low point of 18 percent of outgo under the intermediate assumptions, or 20 percent under the optimistic assumptions. If the economic conditions projected under the intermediate or optimistic assumptions occur, the fund is adequately financed for at least well into the next century. It should be recognized, however, that a severe or prolonged economic downturn could jeopardize the short-range actuarial soundness of the OASI program. For example, under the pessimistic assumptions, the assets drop to a level of only 2 percent of outgo by the beginning of 1985. This is considerably lower than the 9-percent level which, as explained in the body of the report, is needed for the timely payment of benefits. Thus, the financing under present law does not provide a wide margin of safety in the event that actual short-range economic conditions prove to be markedly worse than those projected under the intermediate assumptions.

The projections indicate that the increase in the DI trust fund that began in 1978 will continue throughout the next 75 years under both the intermediate and optimistic assumptions, and through the turn of the century under the pessimistic assumptions. The increase in 1978

was primarily due to the reallocation of contribution rates provided under the 1977 amendments, as well as to lower disability incidence rates in 1978. This reduction in the incidence of disability was not anticipated and its causes are not very clear, so it is uncertain whether the trend will continue in the future. Thus, the higher DI trust fund levels projected in this report (as compared to last year's report) are contingent on the realization of the lower incidence rates assumed in this year's report.

Another measure of the trust funds' actuarial soundness is the difference between expenditures and tax revenues. For the next 25 years, under present law, average annual tax income will exceed expenditures by about 1.17 percent of taxable payroll under the intermediate assumptions. This margin ranges from an excess of 1.75 percent under the optimistic assumptions to 0.60 percent under the more pessimistic assumptions. According to these projections, assets ranging from 136 to 430 percent of annual expenditures would accumulate by the end of the 25-year period.

Over the entire 75-year period, however, average annual expenditures will exceed income from taxes by 1.20 percent of taxable payroll under the intermediate assumptions and by 4.69 percent under the pessimistic assumptions. Only under the optimistic assumptions would there be a slight excess of income over expenditures. And even under the optimistic assumptions, expenditures would exceed tax revenue during the third 25-year period (2029-2053) of the long-range projections.

While the long-range forecasts are somewhat more favorable than last year's projections, the trustees emphasize that the balance between the aggregate revenues and expenditures of the combined trust funds is quite fragile in the immediate future. Therefore, the Board recommends that no reduction be made in the scheduled revenues of the old-age and survivors insurance or disability insurance trust funds without making provisions for offsetting reductions in expenditures or alternative financing arrangements, until the funds reach a level sufficient to withstand a serious economic downturn. Since the funds will not reach such a level for several years, it might be advisable to examine the need for flexibility to reallocate funds between the two trust funds in the short run.

The Board also notes that, by the turn of the century, the combined trust funds will have increased to levels ranging from about 100 to 350 percent of annual expenditures, depending on the economic and demographic assumptions. Trust fund levels in this range are higher than is generally considered necessary for contingency reserves. The Board believes that the question of long-range financing of the system, including the appropriate size of the trust funds, should be the subject of extensive study during the next several years. The current Advisory Council on Social Security is examining these issues and will report their recommendations later this year.

## APPENDIX A.—DETAILS AND SENSITIVITY OF THE LONG-RANGE COST ESTIMATES

The first part of this appendix discusses the assumptions and methods which underlie the cost estimates. Within that discussion all comments pertain to the cost estimates under each of alternatives I, II, and III unless specifically stated otherwise. The assumptions comprising each alternative have been summarized in an earlier section entitled "Economic and Demographic Factors and Assumptions," and hence will be discussed here only insofar as they are related to the methods used.

Although the estimates under alternatives I, II, and III illustrate the variation in the projected cost of the OASDI program resulting from different combinations of assumptions, they do not show the variation resulting from changes in a single assumption. This is because of the complex interactions which exist among the assumptions. The second part of this appendix deals with the sensitivity of the estimates to changes in selected individual assumptions. In this sensitivity analysis, the intermediate set of assumptions is used as a basis, and only the assumption whose effect is being analyzed is varied.

### DETAILS OF THE COST ESTIMATES

#### *General population*

Projections were made of the United States population (including persons overseas covered by the OASDI program) by age and sex for future years to 2055. The starting point was the population on July 1, 1977, as estimated by the Bureau of the Census from the 1970 census and from births, deaths, and net immigration during 1970-77. This population estimate (which includes an adjustment for net census undercount) was increased by the estimated populations in the geographic areas covered by the OASDI program but not included in the estimate of the Bureau of the Census. The population in future years was then projected from anticipated deaths, births, and net immigration.

The average annual improvement in mortality by cause for the period 1969-76 was projected to continue until 1981. From 1981 onward, the projected average annual improvements by cause were assumed to follow the pattern of the period 1951-1969. As shown in appendix table A, projected mortality for 2050 under alternative II is 31.4 percent below that estimated for 1978. This projected improvement in mortality ranges from a low of 22.8 percent for males aged 65 and over to a high of about 54.7 percent for females under 20. Separate mortality projections were developed for alternatives I and III. For alternative I, the projected average annual improvement used

for the intermediate set of assumptions was decreased by 50 percent. For alternative III, the intermediate projected average annual improvement was increased by 50 percent.

APPENDIX TABLE A.—PROJECTED MORTALITY IMPROVEMENT TO CALENDAR YEAR 2050 UNDER ALTERNATIVE II

Sex and age	Age-adjusted death rate <sup>1</sup> (per 100,000)		Mortality improvement (percent)
	1978	2050	
<b>Men:</b>			
Under 20.....	143.9	81.9	43.1
20 to 64.....	642.1	437.2	31.9
65 and over.....	6,425.7	4,959.7	22.8
Total.....	935.2	679.9	27.3
<b>Women:</b>			
Under 20.....	97.2	44.0	54.7
20 to 64.....	329.7	176.9	46.3
65 and over.....	4,148.4	2,829.4	31.8
Total.....	671.8	424.9	36.8
<b>Total:<sup>2</sup></b>			
Under 20.....	120.9	63.3	47.6
20 to 64.....	480.9	302.9	37.0
65 and over.....	5,101.4	3,720.9	27.1
Total.....	800.0	549.0	31.4

<sup>1</sup> Based on the age distribution of the enumerated population of the United States as of Apr. 1, 1970.

<sup>2</sup> Based on the sex distribution of the enumerated population of the United States as of Apr. 1, 1970.

Note: Alternative II is described in the text of this report.

Fertility rates in the United States have shown a much more erratic history than have mortality rates. The total fertility rate (which for a given year is the number of children a woman would have during her lifetime if she were to experience the age-specific birth rates observed in that year) decreased from about 3.3 after World War I to about 2.1 during the Great Depression, only to rise again to about 3.7 in 1957, and then fall to an estimated 1.7 in 1976. Preliminary data indicates a slight upturn to 1.8 in 1978.

The historical variations in fertility rates are a result of social attitudes and economic conditions, both of which are highly capricious. After consideration of the recent behavior of these factors, ultimate total fertility rates of 2.5, 2.1, and 1.5 children per woman were selected for alternatives I, II, and III, respectively. For each alternative, the total fertility rate was projected from its current level to its ultimate level in the year 2005 separately for women born in different years. In comparison with the 1.5 to 2.5 range used in this report, a range of 1.7 to 2.7 was used by the Bureau of Census in its latest series of population projections.<sup>1</sup> Included in both ranges is the theoretical population replacement rate of 2.1 children per woman, which was used in the intermediate set of assumptions. This is the total fertility rate which would eventually result in the same number of annual births as deaths, assuming no net migration and no change in present mortality.

Net immigration was assumed to be 400,000 persons per year in all three alternative sets of assumptions.

Appendix table B presents the projected population by broad age groups under alternatives I, II, and III.

<sup>1</sup> U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 704 "Projections of the Population of the United States: 1977-2050," U.S. Government Printing Office, Washington, D.C., 1977.

APPENDIX TABLE B.—U.S. POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS BY BROAD AGE GROUP UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1975-2055

Year	Population (in thousands)			Total	Dependency ratio	
	Under 20	20 to 64	65 and over		Aged <sup>1</sup>	Total <sup>2</sup>
1975.....	77,667	121,849	23,132	222,648	0.190	0.827
1976.....	76,860	123,861	23,630	224,351	.191	.811
1977.....	76,024	126,037	24,105	226,166	.191	.794
1978.....	75,133	128,217	24,645	227,995	.192	.778
Alternative I:						
1979.....	74,392	130,366	25,160	229,918	.193	.764
1980.....	73,804	132,479	25,694	231,978	.194	.751
1985.....	73,093	142,218	28,323	243,634	.199	.713
1990.....	76,973	148,453	30,997	256,423	.209	.727
1995.....	82,700	153,560	32,735	268,994	.213	.752
2000.....	87,818	159,403	33,309	280,530	.209	.760
2005.....	90,628	167,353	33,958	291,939	.203	.744
2010.....	93,429	174,800	36,338	304,567	.208	.742
2015.....	97,621	179,775	41,012	318,407	.228	.771
2020.....	103,132	182,646	46,675	332,453	.256	.820
2025.....	108,538	184,749	52,673	345,960	.285	.873
2030.....	112,934	189,212	57,030	359,176	.301	.898
2035.....	117,071	197,750	58,039	372,860	.293	.886
2040.....	122,035	208,247	57,149	387,431	.274	.860
2045.....	127,938	218,687	56,198	402,823	.257	.842
2050.....	134,008	227,434	57,578	419,020	.253	.842
2055.....	139,657	236,141	60,571	436,370	.257	.848
Alternative II:						
1979.....	74,345	130,383	25,187	229,915	.193	.763
1980.....	73,660	132,506	25,756	231,922	.194	.750
1985.....	71,700	142,345	28,629	242,674	.201	.705
1990.....	73,183	148,687	31,577	253,447	.212	.705
1995.....	75,811	153,914	33,611	263,336	.218	.711
2000.....	77,667	159,764	34,488	271,919	.216	.702
2005.....	77,781	166,661	35,441	279,882	.213	.679
2010.....	77,900	171,929	38,160	288,039	.222	.675
2015.....	78,987	174,016	43,257	296,260	.249	.702
2020.....	80,600	173,673	49,452	303,885	.285	.750
2025.....	82,338	171,999	56,118	310,456	.326	.805
2030.....	83,194	171,630	61,215	316,038	.357	.841
2035.....	83,828	174,234	62,856	320,958	.361	.842
2040.....	84,855	178,039	62,548	325,443	.351	.828
2045.....	86,303	181,437	61,881	329,621	.341	.817
2050.....	87,739	183,360	62,639	333,738	.342	.820
2055.....	88,857	185,102	64,232	338,191	.347	.827
Alternative III:						
1979.....	74,273	130,392	25,217	229,882	.193	.763
1980.....	73,441	132,532	25,818	231,790	.195	.749
1985.....	69,596	142,497	29,019	241,112	.204	.692
1990.....	67,456	148,969	32,328	248,754	.217	.670
1995.....	65,398	154,328	34,731	254,456	.225	.649
2000.....	62,349	160,116	35,963	258,428	.225	.614
2005.....	58,644	165,324	37,259	261,227	.225	.580
2010.....	55,630	167,188	40,343	263,161	.241	.574
2015.....	53,345	164,788	45,878	264,012	.278	.602
2020.....	51,401	159,499	52,613	263,513	.330	.652
2025.....	49,329	152,274	59,949	261,552	.394	.718
2030.....	47,062	145,275	65,795	258,131	.453	.777
2035.....	44,950	140,154	68,170	253,274	.486	.807
2040.....	43,174	135,520	68,395	247,089	.505	.823
2045.....	41,624	130,294	67,963	239,881	.522	.841
2050.....	40,109	124,564	67,470	232,143	.542	.864
2055.....	38,572	119,415	66,415	224,402	.556	.879

<sup>1</sup> Population 65 and over as ratio to population 20 to 64.<sup>2</sup> Population 65 and over plus population under 20 as ratio to population 20 to 64.

Note: Alternatives I, II, and III are described in the text of this report.

Because many categories of OASDI beneficiaries depend on marital status, the projected total population by age and sex was subdivided into those married, those widowed, those divorced, and those never married for each year of the projection period. Marriage rates were based on data from the National Center for Health Statistics. An overall divorce rate consistent with recent experience was assumed to continue indefinitely.

*Covered population*

Projections of the percentages of the population who worked in covered employment at any time during the year—that is, coverage rates—were made by age and sex on the basis of the projections of unemployment rates and labor force participation rates, and the relationships existing among those rates from 1970 to 1976.

The total unemployment rate has averaged about 5.4 percent for the last 25 years and 6.0 percent for the last 10 years. Under alternatives I, II, and III, the ultimate total unemployment rate was assumed to be 4.0 percent, 5.0 percent, and 6.0 percent, respectively. Unemployment rates by age and sex were projected on the basis of their relationships with the total unemployment rate since 1966.

Labor force participation rates were projected on the basis of historical data since 1960. The ultimate age-adjusted rates reflect a decrease of 1.3 percent for men and an increase of 17.4 percent for women, relative to the 1978 level. These assumptions result in ultimate labor force participation rates for women which average 75.7 percent of those for men. The assumed ultimate rates by age and sex are attained by 2010.

Coverage rates for men are projected to increase slightly for those aged 16–39, and decrease slightly for those of other ages. Coverage rates for women are projected to increase for those under 70, as women participate more in the labor force. Under alternative II, the ultimate age-adjusted coverage rates by sex reflect a decrease of 0.3 percent for men and an increase of 17.5 percent for women relative to the 1978 rates. Under alternatives I and III, the trends in projected coverage rates are similar to those under alternative II.

Coverage rates projected for persons at the older ages reflect a significant deceleration in the recent trend toward earlier retirement. This deceleration was projected because of Public Law 95–256, which generally prohibits mandatory retirement before age 70, and because of the observed increase in labor force participation rates for those aged 65 and over in 1978. For those aged 60 and over, ultimate coverage rates, on an age-adjusted basis, are 5.0 percent lower for men and 2.2 percent higher for women than the corresponding rates in 1978. This compares with a decrease in these rates from 1970 to 1978 of 15.1 percent for men and 8.6 percent for women.

*Taxable payroll*

The taxable payroll is defined as that amount which, when multiplied by the combined employer-employee tax rate, yields the total amount of taxes paid by employers, employees, and the self-employed. Expenditures, when expressed as percent of taxable payroll, can be compared directly to the combined employer-employee tax rate to determine whether the system is operating at a surplus or deficit.

In practice, the taxable payroll was calculated as a weighted average of the earnings on which employers, employees, and the self-employed persons are taxed, where the weighting is done to take into account the lower tax rates on self-employment income, on tips, and on multiple-employer “excess wages” as compared with the combined employer-employee rate. For the period 1979–1988, the amounts of earnings for

employers, employees, and the self-employed were projected separately. After 1988, the amounts of earnings taxable for employers, employees, and the self-employed were each assumed to increase at the compounded rate of the estimated increases in covered workers and in average wages in covered employment.

### *Gross national product*

Expenditures of the OASDI System were expressed as a percent of gross national product as an additional way to measure the cost of the program. A long-range projection of the relationship between taxable payroll and GNP was developed in order to express the cost in this form.

The assumed ratios of taxable payroll to GNP for alternatives I, II, and III are given in appendix table C. These ratios were determined by applying a series of factors to the assumed ratio of total employee compensation in the economy to GNP. The ratio of total employee compensation in the economy to GNP was used as the initial point because it is a measure of the share of output going to workers. This ratio is also a convenient starting point because it has been and can be expected to remain fairly constant over time. Total employee compensation in the economy was related to taxable payroll by a series of five linkages which adjust for various differences in the two measures. The five linkages adjust total employee compensation by removing supplements to wages and salaries, removing wages and salaries earned in noncovered employment, removing wages and salaries earned above the taxable base, including covered self-employment income, and adjusting for the lower effective contribution rates on self-employment income, on tips, and on multiple-employer "excess wages."

APPENDIX TABLE C.—RATIO OF TAXABLE PAYROLL TO GROSS NATIONAL PRODUCT UNDER ALTERNATIVES I, II AND III, CALENDAR YEARS 1960-2050

Calendar year	Ratio of taxable payroll to gross national product		
	Alternative I	Alternative II	Alternative III
1960			0.396
1965			.351
1970			.412
1975			.424
1978			.422
	Alternative I	Alternative II	Alternative III
1979	0.439	0.438	0.442
1980	.444	.442	.446
1990	.443	.437	.427
2000	.430	.412	.385
2010	.417	.385	.351
2020	.405	.370	.334
2030	.393	.355	.317
2040	.381	.341	.302
2050	.370	.328	.287

Note: Alternatives I, II, and III are described in the text of this report.

### *Insured population*

There are three types of insured statuses under the OASDI program: fully, currently, and disability insured. Fully-insured status is

required of an aged worker for his eligibility for a primary retirement benefit, and for his dependents' eligibility for secondary benefits. Fully-insured status is also required of a deceased worker, for his survivors' eligibility for benefits (with the exception of child survivors and parents of eligible child survivors, who may alternatively be eligible if the deceased worker had currently-insured status.) Disability-insured status, which is more restrictive than fully-insured status, is required of a disabled worker for his eligibility for a primary benefit, and for his dependents' eligibility for secondary benefits.

Projections of the percentage of the population who are fully insured were made by age and sex based on recent experience and projected coverage rates. Under all three sets of assumptions, the ultimate levels are projected to be 95 percent for aged men and 85 percent for aged women. Currently-insured status was disregarded in the cost projection because the number of cases in which eligibility for benefits is based solely on currently-insured status is relatively small. Projections of the percentage of the population who are disability insured were developed from the percentages fully insured on the basis of projections of historical trends relating the two. Finally, the fully-insured and disability insured populations were developed from the projected total population by applying the percentages fully-insured and disability-insured.

The fully-insured population by age and sex was further subdivided by marital status, in a manner consistent with the division of the total population by marital status. For males, it was assumed that the probability of being fully insured would not vary by marital status. For females, the probability of being fully insured was assumed to vary by marital status as follows: (1) Single and divorced women were assumed more likely to be fully-insured than married women or widowed women, but less likely to be fully-insured than men. (2) Widowed women were assumed more likely to be fully-insured than married women. The relative difference between a widowed woman's probability of being fully-insured and a married woman's probability of being fully-insured was assumed to decrease through time, reflecting the projected large increase in labor force participation among married women.

#### *Old-age and survivors insurance beneficiaries*

Several types of benefits, at different benefit levels, are payable under the OASI program. Hence, the numbers of beneficiaries have been projected by type of benefit.

The number of retired-worker beneficiaries was projected from the aged fully-insured population. The percentages, by age and sex, of the insured population who were receiving benefits at the beginning of 1979 were projected to increase gradually on the basis of past trends (after adjustment for changes in the earnings test, in the mandatory retirement age, and in the level of unemployment). The proportions of retired-worker beneficiaries to aged population show gradual increases in the implicit retirement rates.

The number of wife beneficiaries aged 62 and over of male retired-worker beneficiaries was estimated from the population projection by

marital and insured status. All uninsured wives aged 62 and over, excluding those having husbands not receiving retired-worker benefits, those withheld according to the retirement test, and those eligible for a government pension from earnings in non-covered employment, were assumed to receive benefits. The number of husband beneficiaries aged 62 and over of female retired-worker beneficiaries was estimated in a similar manner.

The number of child beneficiaries of retired-worker beneficiaries was projected by ratios to the number of retired-worker beneficiaries, by sex, as derived from recent data and projected according to the fertility assumptions.

The number of young wife beneficiaries was estimated by extrapolating the base year ratio of the number of such beneficiaries to the estimated number of child beneficiaries of male retired-worker beneficiaries. The extrapolation reflects projected fertility and female labor force participation. Young husband beneficiaries were not taken into account because of the negligible cost involved.

The number of child-survivor beneficiaries was based on the number of orphans in the United States, which was projected by multiplying the projected child population by the age-specific probability of being an orphan. These probabilities were derived by using distributions of age of parent at birth of child and death rates consistent with the population projections. The number of orphans was then adjusted to include eligible disabled orphans aged 18 and over and to eliminate orphans of uninsured deceased parents. For nondisabled children aged 18-21 a further reduction was made to exclude those not attending school.

The number of mother beneficiaries was estimated by a method similar to the one used to estimate the number of young wife beneficiaries, i.e., extrapolating the present ratio of such beneficiaries to child-survivor beneficiaries (excluding those nondisabled children aged 18-21 who were attending school). The number of father beneficiaries was estimated in a similar manner.

The number of widow beneficiaries aged 60 and over was estimated from the population by marital and insured status. All uninsured widows aged 60 and over, excluding those whose deceased husbands were not fully-insured, those withheld according to the retirement test, and those eligible for a government pension from earnings in non-covered employment, were assumed to receive benefits. In addition, some insured widows who never applied for retired-worker benefits were also assumed to receive widow benefits. The number of widower beneficiaries was estimated in a similar manner.

The number of parent beneficiaries was projected on the basis of the past trend in numbers of such beneficiaries. A decrease was assumed from 17,000 at the beginning of 1979 to an ultimate level of 7,000 in 1990.

Appendix table D shows the estimated numbers of beneficiaries under the OASI program.

APPENDIX TABLE D.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1975-2055

[In thousands]

Calendar Year	Retired workers and dependents			Survivors				Total
	Workers	Wives and husbands	Children	Mothers and fathers	Children	Widows and widowers	Parents	
1975	16,210	2,836	633	568	2,905	3,823	22	26,998
1976	16,789	2,867	638	576	2,911	3,939	21	27,740
1977	17,380	2,899	670	573	2,843	4,042	19	28,428
1978	17,924	2,942	662	569	2,800	4,147	18	29,062
Alternative I:								
1979	18,642	2,985	664	575	2,760	4,257	17	29,900
1980	19,206	2,995	654	572	2,730	4,351	15	30,523
1985	22,005	3,027	608	562	2,614	4,811	10	33,637
1990	24,580	3,048	456	490	2,251	4,603	7	35,435
1995	26,251	2,973	351	545	2,332	4,547	7	37,006
2000	27,128	2,856	357	578	2,500	4,454	7	37,880
2005	28,581	2,760	405	580	2,603	4,312	7	39,248
2010	31,673	2,819	496	564	2,621	4,253	7	42,433
2015	36,535	2,874	628	560	2,636	4,187	7	47,427
2020	42,477	2,938	745	570	2,711	4,204	7	53,652
2025	48,242	2,968	827	594	2,835	4,501	7	59,774
2030	51,799	2,895	830	608	2,930	4,388	7	63,457
2035	52,860	2,751	795	616	2,995	4,431	7	64,455
2040	52,164	2,560	758	627	3,045	4,393	7	63,554
2045	52,098	2,504	774	646	3,128	4,349	7	63,506
2050	53,824	2,602	838	670	3,250	4,292	7	65,483
2055	56,671	2,284	902	687	3,347	4,299	7	68,697
Alternative II:								
1979	18,662	2,988	664	575	2,760	4,257	17	29,923
1980	19,266	3,004	656	572	2,729	4,351	15	30,593
1985	22,305	3,068	616	560	2,606	4,811	10	33,976
1990	25,106	3,124	466	489	2,216	4,652	7	36,060
1995	27,007	3,085	359	538	2,230	4,608	7	37,834
2000	28,136	2,992	359	568	2,308	4,538	7	38,908
2005	29,865	2,923	391	571	2,323	4,408	7	40,488
2010	33,288	3,009	463	558	2,284	4,363	7	43,972
2015	38,564	3,085	570	545	2,235	4,291	7	49,297
2020	45,035	3,180	670	539	2,239	4,315	7	55,985
2025	51,436	3,235	733	530	2,261	4,416	7	62,618
2030	55,645	3,201	740	521	2,265	4,519	7	66,898
2035	57,307	3,083	714	518	2,254	4,580	7	68,463
2040	57,092	2,915	683	519	2,236	4,564	7	68,016
2045	57,107	2,849	691	521	2,231	4,515	7	67,921
2050	58,120	2,891	724	520	2,245	4,409	7	68,916
2055	59,637	2,992	753	515	2,247	4,324	7	70,475
Alternative III:								
1979	18,682	2,990	665	575	2,760	4,257	17	29,946
1980	19,339	3,014	658	572	2,728	4,351	15	30,678
1985	22,639	3,113	623	556	2,593	4,811	10	34,345
1990	25,754	3,219	477	482	2,153	4,714	7	36,806
1995	27,948	3,227	370	527	2,078	4,705	7	38,862
2000	29,361	3,170	355	546	2,000	4,655	7	40,103
2005	31,405	3,122	361	549	1,896	4,538	7	41,878
2010	35,189	3,238	407	542	1,771	4,482	7	45,638
2015	40,904	3,339	456	529	1,667	4,419	7	51,321
2020	47,909	3,462	510	509	1,589	4,430	7	58,416
2025	54,957	3,553	545	476	1,514	4,524	7	65,576
2030	59,842	3,557	552	448	1,432	4,633	7	70,471
2035	62,122	3,466	535	424	1,349	4,723	7	72,626
2040	62,426	3,315	515	401	1,272	4,721	7	72,657
2045	62,340	3,229	512	381	1,210	4,658	7	72,337
2050	61,809	3,167	509	360	1,153	4,484	7	71,589
2055	60,886	3,093	494	339	1,095	4,288	7	70,202

Note: Alternatives I, II, and III are described in the text of this report.

In addition to the beneficiaries who receive full benefits, some persons also receive residual benefits consisting of the excess of any potential secondary benefits over their own primary benefit. Estimates of the number of such residual payments were made separately for wives, widows, husbands, and widowers. Residual payments to other beneficiaries were not taken into account because of the negligible cost involved.

*Disability insurance beneficiaries*

The number of disabled-worker beneficiaries was projected from the population exposed to disability, which was developed from the disability-insured population by removing those persons already entitled to disabled-worker benefits. The number of newly entitled beneficiaries was developed from the exposed population by applying disability incidence rates. To obtain the number of currently entitled beneficiaries, termination rates were applied to the population consisting of the newly entitled beneficiaries and those already currently entitled.

The incidence rates were projected by age, sex, and year of exposure to disability. They were based on estimated average annual rates for the period 1972-75, updated to reflect the aggregate disability benefit award experience through calendar year 1978, and adjusted to reflect the large benefit reduction for young disabled workers having onsets of disability in 1979 or later (in accordance with the 1977 amendments). Although disability awards declined by over 20 percent during 1978, age-sex specific incidence rates were assumed to increase over the period 1979-1998 to about 10 percent higher than the average for 1977-1978, and to remain constant thereafter. This represents a gradual return to 1976-1977 experience.

The termination rates were projected by age, sex, and duration of entitlement. They were based on mortality and recovery experience of disabled-worker beneficiaries during 1973-77, and were assumed to remain constant in the future. All disability benefits were assumed to terminate at age 65 (when retired-worker benefits become payable).

The number of child beneficiaries entitled under the DI program was projected as a proportion of the number of disabled-worker beneficiaries, by sex, based on recent experience and allowing for projected changes in fertility.

The number of young wife beneficiaries was projected as a proportion of the number of child beneficiaries of male disabled-worker beneficiaries, based on recent experience and allowing for projected changes in fertility and female labor force participation. The number of young husband beneficiaries was projected in a similar manner.

The number of aged wife beneficiaries was projected as a proportion of the number of male disabled-worker beneficiaries. The number of aged husband beneficiaries was projected in a similar manner.

Appendix table E shows the projected number of beneficiaries in the DI program.

APPENDIX TABLE E.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1975-2055

[In thousands]

Calendar year	Workers	Wives and husbands	Children	Total
1975.....	2,363	429	1,333	4,125
1976.....	2,602	468	1,462	4,532
1977.....	2,755	482	1,496	4,733
1978.....	2,858	491	1,512	4,861
Alternative I:				
1979.....	2,894	489	1,496	4,879
1980.....	2,936	485	1,483	4,904
1985.....	3,255	494	1,448	5,187

See footnotes at end of table.

APPENDIX TABLE E.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30  
UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1975-2055—Continued

[In thousands]

Calendar year	Workers	Wives and husbands	Children	Total
<b>Alternative I—Continued</b>				
1990.....	3,660	611	1,425	5,696
1995.....	4,144	658	1,595	6,397
2000.....	4,793	720	1,882	7,395
2005.....	5,547	802	2,189	8,538
2010.....	6,192	887	2,456	9,535
2015.....	6,563	931	2,656	10,150
2020.....	6,660	944	2,826	10,430
2025.....	6,509	932	2,877	10,318
2030.....	6,338	918	2,821	10,077
2035.....	6,450	941	2,818	10,209
2040.....	6,845	991	2,939	10,775
2045.....	7,350	1,058	3,170	11,578
2050.....	7,706	1,107	3,368	12,181
2055.....	7,926	1,143	3,481	12,550
<b>Alternative II:</b>				
1979.....	2,895	489	1,497	4,881
1980.....	2,942	486	1,486	4,914
1985.....	3,335	496	1,484	5,315
1990.....	3,862	644	1,465	5,971
1995.....	4,457	705	1,603	6,765
2000.....	5,209	781	1,829	7,819
2005.....	6,061	874	2,070	9,005
2010.....	6,777	961	2,277	10,015
2015.....	7,180	1,001	2,425	10,606
2020.....	7,260	1,008	2,538	10,806
2025.....	7,042	987	2,540	10,569
2030.....	6,766	956	2,446	10,168
2035.....	6,744	956	2,397	10,097
2040.....	6,950	979	2,438	10,367
2045.....	7,206	1,010	2,538	10,754
2050.....	7,316	1,024	2,606	10,946
2055.....	7,325	1,030	2,619	10,974
<b>Alternative III:</b>				
1979.....	2,897	490	1,498	4,885
1980.....	2,950	487	1,490	4,927
1985.....	3,417	509	1,521	5,447
1990.....	4,067	678	1,480	6,225
1995.....	4,773	754	1,540	7,067
2000.....	5,629	844	1,630	8,103
2005.....	6,576	943	1,725	9,244
2010.....	7,361	1,029	1,814	10,204
2015.....	7,778	1,055	1,870	10,703
2020.....	7,816	1,045	1,898	10,759
2025.....	7,489	1,008	1,839	10,336
2030.....	7,039	952	1,710	9,701
2035.....	6,779	915	1,625	9,319
2040.....	6,637	889	1,584	9,110
2045.....	6,437	862	1,552	8,851
2050.....	6,124	823	1,491	8,438
2055.....	5,812	784	1,417	8,013

Note: Alternatives I, II, and III are described in the text of this report.

#### AVERAGE WAGES AND INFLATION

Future increases in the Consumer Price Index (CPI) and in average wages will directly affect the OASDI program through the automatic adjustment provisions in the law. These provisions require that benefit payments be adjusted to reflect increases in the CPI, and that the benefit formula, the taxable earnings base, and the exempt amount in the retirement test be adjusted to reflect increases in average wages.

The alternative II ultimate real-wage differential of 1.75 percent was based on projections of productivity and consideration of the factors linking productivity and the real wage differential. Since 1951, annual increases in productivity have averaged 2.4 percent, while the real wage

differential has averaged 1.7 percent. This difference of roughly 0.7 percent results from such factors as changes in the average number of hours worked, the degree to which employees share in productivity gains, and the proportion of employee compensation reflected in wages. The ultimate annual increase in productivity is assumed to be 2.4 percent, and the adjustment from the above mentioned factors is assumed to be 0.65 percent, thereby yielding an ultimate real-wage differential of 1.75 percent. The ultimate real-wage differentials for alternatives I and III were assumed to be 2.25 percent and 1.25 percent, respectively.

The ultimate real-wage differentials are not projected to be attained until the year 2000. During 1988-2000, the real-wage differentials are generally higher than the ultimate values, averaging 2.4 percent, 1.9 percent, and 1.4 percent for alternatives I, II, and III, respectively. The higher real-wage differentials reflect movement toward a more mature work force before the turn of the century, which is expected to result in productivity growth that is higher than the assumed ultimate growth.

For alternative II, the CPI was assumed to increase ultimately at an annual rate of 4 percent, which is slightly higher than the 3.4 percent average over the last 30 years. This level was selected because the trend since 1913 indicates a tendency for the rate of increase in the CPI to rise slowly with time. The current outlook does not suggest a reversal of this trend, although the recent high rates of increase in the CPI are not expected to continue over the long range. The ultimate increases in the average annual CPI under alternatives I and III of 3 percent and 6 percent, respectively, were chosen so as to include a wider range of possible values than were in previous reports.

The ultimate increases in average annual wages in covered employment were assumed to be 5.25 percent, 5.75 percent, and 7.25 percent, for alternatives I, II, and III, respectively. These were obtained by adding the corresponding percentage increases in the average annual CPI to the assumed percentage increase in real wages for each alternative.

#### *Average benefits*

The amount of the average retired-worker benefit awarded was projected by simulating the automatic benefit adjustment provisions, and calculating future benefits for workers at various earnings levels. The average retired-worker benefit in current payment status was projected on the basis of the distribution of current beneficiaries by year of award, their average awarded benefits, and the increase in their benefits since the year of award. The average benefits for all other persons receiving monthly benefits from the OASI trust fund (except young survivors benefits and residual benefits paid to wives, widows, husbands, and widowers) were projected to increase at the same rate as the average retired-worker benefit. The average benefits for young survivors and the average residual benefits were projected to increase at rates that were slightly slower and faster, respectively, than the rate of increase in the average retired-worker benefit. The average benefits for all persons receiving monthly benefits from the DI trust fund were assumed to increase at the same rate as the average disabled-worker benefit, which was projected in a manner similar to that of the average retired-worker benefit.

*Benefit payments*

Monthly benefit payments were calculated as the product of the number of beneficiaries and their corresponding average benefits. These amounts were then adjusted to include retroactive payments to newly entitled beneficiaries and residual payments to dually entitled beneficiaries. Retroactive payments result from the provision in the law which allows a beneficiary who has not elected early retirement to receive up to 12 months' benefits retroactive from the date of initial entitlement to benefits. Residual payments are those amounts paid in excess of the primary benefits to those persons who are also eligible to receive a secondary benefit.

Lump-sum death payments were calculated as the product of the number of such payments (which was projected by applying the assumed mortality rates to the projected fully-insured population) and the amount of the lump-sum death payment (\$255).

*Administrative expenses*

The projection of administrative expenses through 1988 was based on assumed increases in average wages, increases in the CPI, and increases in the number of beneficiaries. For the years after 1988, administrative expenses were assumed to increase at the compounded rate of the estimated increases in the number of beneficiaries and in average wages in covered employment.

*Railroad retirement financial interchange*

The effect of the financial interchange with the railroad retirement program was evaluated on the basis of trends similar to those used in estimating the cost of the OASDI benefits. The resulting effect was an average annual long-range loss to the OASDI system of 0.02 percent of taxable payroll.

*Reimbursement for noncontributory credits*

Reimbursement from the general fund of the Treasury for non-contributory credits for military service has not been reflected in the cost estimates. The reduction of cost resulting from such reimbursement is estimated to be about 0.05 percent of taxable payroll currently, and to decrease as percent of taxable payroll until about 2015, after which it is negligible.

Reimbursement from the general fund of the Treasury for special benefits to certain persons aged 72 and over has not been reflected in the cost estimates. The reduction in cost resulting from such reimbursement is estimated to be 0.02 percent of taxable payroll currently, and to decrease to a negligible cost after 1984.

SENSITIVITY OF COST ESTIMATES TO CHANGES IN SELECTED INDIVIDUAL  
ASSUMPTIONS

*Mortality*

Appendix table F shows the projected average expenditures as percent of taxable payroll under alternative II in combination with three different assumptions as to ultimate future improvement in mortality. Those three assumptions are: improvement of approximately 17 percent from the level experienced in 1977 (as assumed for alternative I),

improvement of approximately 31 percent (as assumed for alternative II), and improvement of approximately 43 percent (as assumed for alternative III). The improvement is assumed to become fully effective by 2050, and is gradually reflected in earlier years. Mortality is assumed to continue improving after 2050.

APPENDIX TABLE F.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II WITH VARIOUS MORTALITY ASSUMPTIONS

[As percent of taxable payroll]

Calendar years	Mortality improvement <sup>1</sup>		
	17 percent	31 percent	43 percent
1979-2003.....	10.45	10.59	10.76
2004-28.....	12.81	13.26	13.79
2029-53.....	15.36	16.30	17.33
1979-2053.....	12.87	13.38	13.96

<sup>1</sup> The mortality improvement is the ratio of the age-adjusted death rate in the year 2050 to that in 1978. Mortality is assumed to continue improving after 2050.

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Over the medium-range period, the average of the estimated expenditures increases with increasing mortality improvement from 10.45 percent of taxable payroll (for 17 percent mortality improvement) to 10.76 percent of taxable payroll for (43 percent improvement). Over the long-range period, a similar but more pronounced trend exists. The estimated long-range average varies from 12.87 percent of taxable payroll (for 17 percent mortality improvement) to 13.96 percent of taxable payroll (for 43 percent improvement).

The projected average medium-range and long-range costs increase with increasing improvement in mortality because of the relationship between age and mortality. Any mortality improvement in the population over age 65, where mortality rates are the highest, causes a relative extension to the length of time that retirement benefits are paid. Between ages 50 and 65, mortality improvement results in relatively more tax contributions, but this gain in taxes is more than offset by the resulting benefits payable to the additional new retirees at age 65. At the ages of 20 through 50, mortality rates are quite low so that even substantial improvement in the rates would not result in significant gains in the number of covered workers paying social security taxes. Mortality improvement at ages under 20 has relatively little effect, in the long run, on expenditures versus income. Consequently, the net effect of mortality improvement is to increase expenditures more than tax income, thereby resulting in higher costs as a percent of taxable payroll.

#### *Total fertility rate*

Appendix table G shows the projected average expenditures under alternative II and various ultimate total fertility rate assumptions. Those assumptions are: 1.5 (as in alternative III), 2.1 (as in alternative II), and 2.5 children per woman (as in alternative I). The ultimate rates are assumed to occur initially in 2005, and are gradually reflected in earlier years.

APPENDIX TABLE G.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II WITH VARIOUS FERTILITY ASSUMPTIONS

[As percent of taxable payroll]

Calendar years	Ultimate total fertility rate <sup>1</sup>		
	1.5	2.1	2.5
1979-2003.....	10.59	10.59	10.59
2004-28.....	14.53	13.26	12.57
2029-53.....	21.59	16.30	13.91
1979-2053.....	15.57	13.38	12.35

<sup>1</sup> The total fertility rate for a given year is the number of children a woman would have during her lifetime if she were to experience the age-specific birth rates observed in that year, and were to survive the entire child-bearing period. Ultimate rates are assumed to be attained by 2005.

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Over the medium-range period, the average of the estimated expenditures is 10.59 percent of taxable payroll under all three fertility assumptions. The long-range average of the estimated expenditures varies from 15.57 percent of taxable payroll (for 1.5 children per woman) to 12.35 percent of taxable payroll (for 2.5 children per woman).

During the medium-range period, changes in fertility affect the working population only slightly, and contribute a relatively unimportant number of additional child beneficiaries. Hence the program cost is affected negligibly. Later in the 75-year period, however, under higher fertility the labor force increases more than the beneficiary population, so that the average long-range expenditures when expressed as percent of taxable payroll decreases with increasing fertility.

### Disability

Appendix table H shows the projected average expenditures as percent of taxable payroll under alternative II in combination with three different assumptions as to future increase in disability incidence. Those assumptions are: no increase over the average observed during 1977-78 (as assumed for alternative I), increase of about 10 percent (as assumed for alternative II), and increase of about 20 percent (as assumed for alternative III). The increase is assumed to become fully effective by 1998, and is gradually reflected in earlier years.

APPENDIX TABLE H.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II WITH VARIOUS DISABILITY ASSUMPTIONS

[As percent of taxable payroll]

Calendar years	Disability incidence increase <sup>1</sup>		
	Zero percent	10 percent	20 percent
1979-2003.....	10.51	10.59	10.66
2004-28.....	13.09	13.26	13.44
2029-53.....	16.13	16.30	16.48
1979-2053.....	13.24	13.38	13.53

<sup>1</sup> The disability incidence increase is the ratio of the age-adjusted incidence rate in 1998 and later to the average age-adjusted incidence rate during 1977-78.

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Over the medium-range period, the average of the estimated expenditures increases with increasing disability incidence increase from 10.51 percent of taxable payroll (for no increase) to 10.66 percent of taxable payroll (for 20 percent increase). Over the long-range period, the estimated average varies from 13.24 percent of taxable payroll (for no increase) to 13.53 percent of taxable payroll (for 20 percent increase).

### *Consumer Price Index*

Appendix table I shows the projected average expenditures under alternative II with assumed ultimate annual CPI increases of 2 percent, 3 percent (as in alternative I), 4 percent (as in alternative II), 5 percent, and 6 percent (as in alternative III). In each case the ultimate real-wage differential is assumed to be  $1\frac{3}{4}$  percent, yielding ultimate percentage increases in average annual wages of  $3\frac{3}{4}$ ,  $4\frac{3}{4}$ ,  $5\frac{3}{4}$ ,  $6\frac{3}{4}$ , and  $7\frac{3}{4}$  percent, respectively. The assumptions used in earlier years gradually reflect the ultimate values.

APPENDIX TABLE I.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II WITH VARIOUS CONSUMER PRICE INDEX ASSUMPTIONS

[As percent of taxable payroll]

Calendar years	Ultimate percentage increase in wages—CPI <sup>1</sup>				
	3¾—2	4¾—3	5¾—4	6¾—5	7¾—6
1979-2003 .....	10.74	10.68	10.59	10.49	10.40
2004-28 .....	13.68	13.47	13.26	13.04	12.84
2029-53 .....	16.91	16.60	16.30	15.98	15.69
1979-2053 .....	13.78	13.58	13.38	13.17	12.97

<sup>1</sup> The 1st value in each pair is the assumed annual percentage increase in average wages after 1999. The 2d value is the assumed annual percentage increase in CPI after 1984. The assumptions used in earlier years gradually reflect the ultimate values.

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Over both the medium-range and long-range periods, the average of the estimated expenditures decreases with increasing rates of increase in the CPI. Over the medium-range, the average of the estimated expenditures varies from 10.74 percent of taxable payroll (assuming an ultimate rate of increase in the CPI of 2 percent) to 10.40 percent of taxable payroll (assuming an ultimate rate of 6 percent). Over the long-range, the average of the estimated expenditures varies from 13.78 percent of taxable payroll to 12.97 percent of taxable payroll.

The trend of decreasing cost with increasing rate of increases in the CPI, results from the time lag between the effect on the income to the system and the effect on benefit expenditures. When assuming a higher rate of increase in the CPI (in conjunction with a constant real-wage differential), the effect on income to the system of the implied higher rate of increase in wages is experienced immediately, while the effect on benefits of the higher rate of increase in the CPI is experienced with about a half-year lag. In addition, the effect on benefits of the higher rate of increase in wages is experienced with about a two-year lag.

*Real wage differential*

Appendix table J shows the estimated average expenditures under alternative II with assumed ultimate real-wage differentials of  $1\frac{1}{4}$  percent (as in alternative III),  $1\frac{3}{4}$  percent (as in alternative II), and  $2\frac{1}{4}$  percent (as in alternative I). In each case the ultimate annual rate of increase in the CPI is assumed to be 4 percent yielding ultimate annual increases in average wages of  $5\frac{1}{4}$  percent,  $5\frac{3}{4}$  percent, and  $6\frac{1}{4}$  percent, respectively. The assumptions used in earlier years gradually reflect the ultimate values.

APPENDIX TABLE J.—ESTIMATED AVERAGE EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II WITH VARIOUS REAL WAGE ASSUMPTIONS

[As percent of taxable payroll]

Calendar years	Ultimate percentage increase in wages-CPI <sup>1</sup>		
	$5\frac{1}{4}-4$	$5\frac{3}{4}-4$	$6\frac{1}{4}-4$
1979-2003.....	10.91	10.59	10.28
2004-28.....	13.89	13.26	12.66
2029-53.....	17.11	16.30	15.52
1979-2053.....	13.97	13.38	12.82

<sup>1</sup> The 1st value in each pair is the assumed annual percentage increase in average wages after 1999. The 2d value is the assumed annual percentage increase in CPI after 1984. The difference between the 2 values is the real wage differential. The assumptions used in earlier years gradually reflect the ultimate values.

Note: Alternative II is described in the text of this report. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

Over the medium-range period, the average of the estimated expenditures decreases from 10.91 percent of taxable payroll (assuming a  $1\frac{1}{4}$  percent real-wage differential) to 10.28 percent of taxable payroll (assuming a  $2\frac{1}{4}$  percent differential). Over the long-range period, the average decreases from 13.97 percent of taxable payroll to 12.82 percent of taxable payroll.

The average medium-range and long-range expenditures decrease with increasing real-wage differentials for two reasons. One is that there is a lag between the time when a worker makes contributions based on the assumed higher earnings and the time when he draws benefits based on those higher earnings. The other is that the benefits to those already eligible—benefits which increase according to the increases in the CPI, not wages—are smaller relative to the payrolls based on the higher real-wage differentials.

## APPENDIX B.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY BENEFIT INCREASES <sup>1</sup>

I hereby determine and announce a cost-of-living increase of 6.5 percent in benefits under the Social Security Act (the act) under title II effective with the month of June 1978 and under title XVI effective with the month of July 1978. This is pursuant to authority contained in section 215(i) of the Social Security Act (42 U.S.C. 415(i)), as amended by section 201 of Pub. L. 95-216, enacted December 20, 1977, and in section 1617 of the Social Security Act (42 U.S.C. 1382f).

The revised table of benefits following this notice is deemed to appear in section 215(a) of the act. For transitional insured persons aged 72 and over entitled under section 227 of the act (42 U.S.C. 427) and for uninsured persons aged 72 and over entitled under section 228 of the act (42 U.S.C. 428), the amounts of \$83.70 and \$41.90 per month are established and deemed to appear in sections 227 and 228. The additional amount of the supplemental security income benefit payable to essential persons for a year under section 211 of Pub. L. 93-66 is increased to \$1,137.60.

Annual income limitations under the Supplemental Security Income Program for the aged, blind, and disabled, are increased to \$2,272.80 and \$3,409.20. (The last cost-of-living increase in benefits under titles II and XVI of the Social Security Act and in income limitations for beneficiaries under the Supplemental Security Income Program herein referred to was published on May 12, 1977, at 42 FR 24209.)

### AUTOMATIC BENEFIT INCREASE DETERMINATION

Section 215(i) of the Social Security Act requires that, when certain conditions are met in the first calendar quarter of a year, the Secretary shall determine that a cost-of-living increase in benefits and income limitations is due. That section further specifies a formula which automatically determines the amount of any cost-of-living increase in benefits and income limitations, based on the Consumer Price Index reported by the Department of Labor.

Section 215(i)(2)(A) of the act provides that the Secretary shall determine each year, whether there is a cost-of-living computation quarter in such year. If he so determines, he shall, effective with June of that year, increase benefits for individuals entitled under sections 227 and 228 of the act, and shall increase the primary insurance amounts of all other individuals entitled to benefits under title II of the act (excluding, from any automatic cost-of-living benefit increases before June 1979, primary insurance amounts determined under section 215(a)(3)).

<sup>1</sup> This statement was published in the Federal Register for May 15, 1978 (Vol. 43, No. 94, pp. 20867-72).

The percentage of increase in benefits shall equal the percentage of increase by which the Consumer Price Index for the cost-of-living computation quarter exceeds the index for the most recent prior base quarter or cost-of-living computation quarter.

Section 215(i) (1) of the act defines a base quarter as a calendar quarter ending on March 31 in each year after 1974, or any other calendar quarter in which occurs the effective month of a general benefit increase. Section 215(i) (1) also defines a cost-of-living computation quarter as a base quarter in which the Consumer Price Index prepared by the Department of Labor exceeds by not less than 3 percent such index in the later of (1) the last prior cost-of-living computation quarter or, (2) the most recent calendar quarter in which a general benefit increase was effective. However, there shall be no cost-of-living computation quarter in any calendar year if, in the prior year, a general benefit increase was enacted or becomes effective. Section 215(i) (1) of the act further provides that the Consumer Price Index for a base quarter or a cost-of-living computation quarter shall be the arithmetical mean of such index for the 3 months in such quarter.

Beginning with the Consumer Price Index (CPI) for January 1978, the Department of Labor has been publishing three versions of the CPI: the unrevised CPI for urban wage earners and clerical workers, the revised CPI for urban wage earners and clerical workers, and the new CPI for all urban consumers. The revised CPI for urban wage earners and clerical workers is being used for the first quarter of 1978 in this determination because it is an improved, updated version of the CPI for urban wage earners and clerical workers.

The revised Consumer Price Index for urban wage earners and clerical workers prepared by the Department of Labor for each month in the quarter ending March 31, 1978, was: for January 1978, 187.1; for February 1978, 188.4; for March 1978, 189.7. The arithmetical mean for this calendar quarter is 188.4. This result is compared to the last cost-of-living computation quarter, which ended March 31, 1977. The Consumer Price Index for each month in that quarter was: for January 1977, 175.3; for February 1977, 177.1; for March 1977, 178.2. The arithmetical mean for that calendar quarter was 176.9. The increase for the calendar quarter ending March 31, 1978, is 6.5 percent. Thus, since the percentage of increase in the Consumer Price Index from the calendar quarter ending March 31, 1977, to the calendar quarter ending March 31, 1978, is not less than 3 percent, the quarter ending March 31, 1978, is a cost-of-living computation quarter. Consequently, a cost-of-living benefit increase of 6.5 percent is effective for benefits under title II of the act beginning June 1978.

#### TITLE II BENEFITS

Title II benefits are payable under the Federal old-age, survivors, and disability insurance program. Individuals entitled under such programs include insured workers, wives, husbands, children, widows, widowers, mothers, and parents.

In accordance with section 215(i)(2)(D)(iv) of the act, the primary insurance amounts and the maximum family benefits shown in columns IV and V, respectively, of the revised benefit table set forth below were obtained by increasing by 6.5 percent the corresponding amounts established by: (1) The last cost-of-living increase; and (2) the extension of the benefit table made under section 215(i)(2)(D)(v) and published on November 4, 1977, at 42 FR 57754.

Section 227 of the act provides limited benefits to a worker, who became age 72 before 1969 and was not insured under the usual requirements, and to his wife or widow. Section 228 of the act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amounts of \$78.50 and \$39.30 established under sections 227 and 228 of the act are increased by 6.5 percent to obtain the new amounts of \$83.70 and \$41.90.

#### TITLE XVI BENEFITS

Section 1617 of the Social Security Act provides that, whenever the benefits under title II are increased as a result of a determination made under section 215(i), the amounts in sections 1611(a)(1)(A), 1611(a)(2)(A), and 1611(b) of the Social Security Act and in section 211(a)(1)(A) of Pub. L. 93-66, shall be increased. The new amounts are effective with months after the month in which the title II increase is effective. The percentage of such increase shall be the same as the percentage of increase by which the title II benefits are increased (and rounded, when not a multiple of \$1.20, to the next higher multiple of \$1.20).

In accordance with section 1617, monthly Federal Supplemental Security Income (SSI) guarantees under the SSI program for the aged, blind, and disabled are increased effective with July 1978, by 6.5 percent. The current Federal SSI guarantees of \$2,133.60 and \$3,200.40 are increased by 6.5 percent to \$2,272.80 and \$3,409.20. The actual benefit received by the individual is the Federal SSI guarantee less any countable income. The amount of the current Federal SSI guarantee of \$1,068.00 to essential persons under section 211(a)(1)(A) of Pub. L. 93-66 is increased by 6.5 percent to obtain a new amount of \$1,137.60.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802-5, and 13.807 Social Security Programs.)

Dated: May 9, 1978.

HALE CHAMPION,  
*Acting Secretary.*

[The revised table of benefits that followed the above announcement in the Federal Register is not reproduced here because of its length.]



## APPENDIX C.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY CONTRIBUTION AND BENEFIT BASE, QUARTER OF COVERAGE AMOUNT, AND RETIREMENT TEST EXEMPT AMOUNTS FOR 1979 <sup>1</sup>

*Summary:* The Secretary has determined—

- (1) The social security contribution and benefit base to be \$22,900 for remuneration paid in 1979 and self-employment income earned in taxable years beginning in 1979;
- (2) The amount of earnings a person must have to be credited with a quarter of coverage in 1979 to be \$260; and
- (3) The monthly exempt amount under the social security retirement test for taxable years ending in calendar year 1979 to be \$375 for beneficiaries aged 65 and over and \$290 for beneficiaries under age 65.

A table reflecting the new higher average monthly wage and related benefit amounts made possible by the higher average contribution and benefit base is also published. The table will be used to primarily compute the retirement benefits of workers who reach age 62 before 1979. Benefits based on earnings of workers who reach age 62, or who die or become disabled before reaching age 62, in 1979 or later will generally be determined by a new benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216).

*Supplementary information:* Sections 203(f)(8), 213(d) and 230(a) of the Social Security Act (42 U.S.C. 403(f)(8), 413(d) and 430(a)) require the Secretary of Health, Education, and Welfare to publish in the FEDERAL REGISTER on or before November 1, 1978, the contribution and benefit base, the quarter of coverage amount, and the retirement test exempt amount for calendar year 1979.

### CONTRIBUTION AND BENEFIT BASE

The contribution and benefit base serves two purposes:

- (1) It is the maximum annual amount of earnings on which social security taxes are paid.
- (2) It is the maximum annual amount used in figuring a person's social security benefits.

Section 230(c) of the Social Security Act specifies that the amount of the contribution and benefit base for 1979 is \$22,900.

### QUARTER OF COVERAGE AMOUNT

*Computation.*—The 1979 amount for a quarter of coverage is \$260. A quarter of coverage is the basic unit for determining whether a worker is insured under the social security program. For years before 1978, an individual generally was credited with a quarter of coverage for each quarter in which wages of \$50 or more were paid, or for which \$100 or more of self-employment income were credited, to the

<sup>1</sup>This statement, edited for presentation here, was published in the Federal Register for Nov. 16, 1978 (Vol. 43, No. 222, pp. 53504-6). The extended benefit table which was published at the end of this announcement is not reproduced here because of its length.

individual. Beginning in 1978, wages generally are no longer reported quarterly; annual reports will be made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 amended section 213(d) of the Social Security Act to provide that a quarter of coverage would be credited for each \$250 of an individual's total wages and self-employment income for calendar year 1978 (up to a maximum of four quarters of coverage for the year). Section 213(d) also provides that this \$250 amount shall be redetermined each year and any change published in the FEDERAL REGISTER no later than November 1 of each year. Under the prescribed formula, the quarter of coverage amount for 1979 shall be equal to the 1978 amount of \$250 multiplied by the ratio of (1) the average amount, per employee, of the wages of all employees reported under the program for calendar year 1977 to (2) the average amount of those wages reported for calendar year 1976. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

*Average wages.*—Average wages for calendar years 1976 and 1977 are determined by using the average wages in reports received by the Social Security Administration for the first calendar quarter of each year. The earnings in the first quarter are considered to give the most accurate results, because many wage earners reach the ceiling for reported earnings before the end of the year while relatively few reach the ceiling in the first quarter.

For each quarter before 1978, taxable wages paid to employees by their employers were posted to the record of earnings of each individual employee. (Beginning in 1978, wages are reported on an annual basis.) These records are referred to as Summary Earnings Records. As the wages were posted to the Summary Earnings Records, the data were tabulated on a 100-percent basis to obtain the total amount of reported taxable wages and the total number of employees for whom the wages were reported. The tabulated data on taxable wages reported for the first calendar quarter of each year 1976 and 1977 were limited to those wages that were reported and posted to the Summary Earnings Records by the end of the quarterly updating operations completed in September of the same year.

About 72.8 million employees had taxable wages reported for the first calendar quarter of 1976 that were posted to the Summary Earnings Records by the end of September 1976, and the average amount of their taxable wages was \$2,306.62 per employee. The corresponding number of employees and average amount of taxable wages for the first calendar quarter of 1977 were 75.1 million and \$2,444.86 respectively. The ratio of average taxable wages reported for the first quarter of 1977 to average taxable wages reported for the first quarter of 1976 is therefore 1.0599318.

*Amount.*—Multiplying the 1978 quarter of coverage amount of \$250 by the ratio of 1.0599318 produces the amount of \$264.98, which must then be rounded to \$260. Accordingly, the quarter of coverage amount for 1979 is \$260.

#### RETIREMENT TEST EXEMPT AMOUNT

*Computation.*—The 1979 amount of \$375 for the retirement test monthly exempt amount for beneficiaries aged 65 through 71 is stated in the law. The corresponding annual retirement test exempt amount

for those individuals is \$4,500. Section 301 of the Social Security Amendments of 1977 amended section 203 of the Social Security Act to provide a higher retirement test exempt amount for beneficiaries aged 65 through 71 than for those beneficiaries under age 65.

The monthly exempt amount of \$290 for beneficiaries under age 65 is determined according to a formula specified in the law, which automatically produces a mathematical result based upon reported statistics. Section 203(f) (8) of the Social Security Act provides that the retirement test monthly exempt amount for 1979 shall be equal to the 1978 amount of \$270 multiplied by the ratio of (1) the average amount, per employee, of the wages of all employees reported under the program for calendar year 1977 to (2) the average amount of those wages reported for calendar year 1976. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

There is no limit on the amount an individual aged 72 or over may earn and still receive social security benefits. (Beginning in 1982, the age at which the retirement test no longer applies will be reduced from age 72 to age 70.)

*Average wages.*—Average wages for this purpose is determined in the same way as for a quarter of coverage. Therefore, the ratio of the average wages for 1977 compared to 1976 is 1.0599318.

*Exempt amount for persons under age 65.*—Multiplying the 1978 retirement test monthly exempt amount of \$270 by the ratio of 1.0599318 produces the amount of \$286.18. This must then be rounded to \$290. Accordingly, the retirement test monthly exempt amount for persons under age 65 is determined to be \$290 for 1979. The corresponding annual exempt amount for 1979 is \$3,480.

#### EXTENSION OF BENEFIT TABLE EFFECTIVE JANUARY 1979

The following is an extension of the table for determining primary insurance amount and maximum family benefits which appeared in section 215(a) of the Social Security Act before the Social Security Amendments of 1977. This extension reflects the higher average monthly wage and related benefit amounts now possible under the increased contribution and benefit base published by this notice effective with January 1979 in accordance with section 215(i) of the Social Security Act. The extended portion of the benefit table shown here will apply primarily to benefits based on earnings of workers who reach age 62 before 1979. Benefits based on earnings of workers who reach age 62, or who die or become disabled before age 62, in 1979 or later will generally be based on a new benefit formula specified in the Social Security Amendments of 1977.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802-5, and 13.807 Social Security Programs.)

Dated: November 6, 1978

JOSEPH A. CALIFANO, Jr.,  
Secretary.

[As previously noted, the extended benefit table which was published at the end of the above announcement in the Federal Register is not reproduced here because of its length.]