

1980 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 1980 ANNUAL REPORT OF THE BOARD, PURSUANT TO  
SECTION 201(c) OF THE SOCIAL SECURITY ACT,  
AS AMENDED



JUNE 19, 1980.—Referred to the Committee on Ways and Means and  
ordered to be printed

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U.S. GOVERNMENT PRINTING OFFICE



## 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., June 17, 1980.*

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

SIR: We have the honor to transmit to you the 1980 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 40th such report), in compliance with the provisions of section 201(c) of the Social Security Act.

Respectfully,

G. WILLIAM MILLER,  
*Secretary of the Treasury,  
and Managing Trustee of the Trust Funds.*

RAY MARSHALL,  
*Secretary of Labor.*

PATRICIA ROBERTS HARRIS,  
*Secretary of Health and Human Services.*

WILLIAM J. DRIVER,  
*Commissioner of Social Security  
and Secretary, Board of Trustees.*



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*Washington, D.C.*

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# CONTENTS

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	<b>Page</b>
I. The Board of Trustees.....	1
II. Advisory Council on Social Security.....	1
III. Highlights.....	2
IV. Social Security Amendments Since the 1979 Report.....	4
V. Nature of the Trust Funds.....	5
VI. Summary of the Operations of the Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Fiscal Year 1979.....	8
A. Old-Age and Survivors Insurance Trust Fund.....	8
B. Disability Insurance Trust Fund.....	16
VII. Actuarial Cost Projections.....	21
A. Economic and Demographic Assumptions.....	22
B. Automatic Adjustments.....	27
C. Expected Operations and Status of the Trust Funds During the Period October 1, 1979 to December 31, 1984.....	29
D. Actuarial Analysis of Benefit Disbursements From the Fed- eral Old-Age and Survivors Insurance Trust Fund With Respect to Disabled Beneficiaries.....	44
E. Actuarial Status of the Trust Funds.....	46
1. Medium-Range Cost Estimates: 1980-2004.....	47
2. Long-Range Cost Estimates: 1980-2054.....	53
VIII. Conclusion.....	56
Appendices:	
A. Details and Sensitivity of Long-Range Cost Estimates.....	59
B. Determination and Announcement of Social Security Benefit Increases.....	76
C. Determination and Announcement of Social Security Con- tribution and Benefit Base, Quarter of Coverage Amount, Retirement Test Exempt Amounts, Average of the Total Wages, Formulas for Computing Benefits and Extended Table of Benefit Amounts for 1980.....	79
D. Automatic Adjustments Under Old-Age, Survivors and Dis- ability Insurance.....	84
E. Projections of the Combined OASI, DI and HI Trust Funds, 1980-1990.....	89

# 1980 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 and Human Services. 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 1980, the 40th such report.

## II. ADVISORY COUNCIL ON SOCIAL SECURITY

The Secretary of Health, Education and Welfare (now Health and Human Services) 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 was charged with making a comprehensive study of the status of the social security cash benefit and Medicare programs. This study, which has been completed, included 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 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. A final draft report of the Panel's findings was released before the preparation of the 1979 annual report of the Board of Trustees. As noted in the 1979 annual report, the Panel generally found the assumptions and methodology underlying 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. As indicated in the 1979 annual report, many of these recommendations were reflected in the estimates in that report. These recommendations continue to be reflected in the estimates that appear in this



report, modified, where appropriate, to reflect emerging experience after the Panel's report was prepared. The Panel's report was submitted to the Advisory Council and appears as an appendix to the Council's final reports.

The Council submitted its final reports to the Secretary of Health, Education and Welfare on December 7, 1979. After the Council's reports were transmitted by the Secretary to the Congress and to the Board of Trustees of each of the trust funds, the Council ceased to exist.

The Council made many recommendations with respect to social security financing and other broad social security program areas. While many of these recommendations go beyond the scope of the Board of Trustees in reviewing the financial status of the program, the Board shares the Advisory Council's concern about the financial integrity of the social security system. The Board notes that emerging economic conditions and the current projections of the status of the social security trust funds are generally less favorable than the corresponding conditions and projections shown in the 1979 annual report. The Board's recommendations concerning the short-range financing of the social security programs are contained in the "Conclusion" section of this report.

### III. HIGHLIGHTS

This section summarizes the more important developments since the 1979 annual report was issued and describes the major features of this year's report. Later sections discuss these topics in more detail.

#### 1. Trust fund operations during fiscal year 1979:

(a) The assets of the old-age and survivors insurance (OASI) and disability insurance (DI) trust funds, combined, declined by \$2.0 billion, to \$33.4 billion on September 30, 1979. Income amounted to \$102.1 billion, and expenditures totaled \$104.1 billion. Disbursements from the OASI trust fund exceeded income by \$3.2 billion, and the assets of the OASI trust fund declined to \$27.7 billion by the end of the fiscal year. In contrast, the assets of the DI trust fund increased by \$1.3 billion, to \$5.6 billion on September 30, 1979.

(b) The total number of people receiving monthly benefits under the OASDI program was 34.9 million at the end of September 1979. An estimated 114 million workers had earnings in calendar year 1979 that were taxable and creditable toward benefits under the program.

(c) The trust funds earned interest amounting to \$2.2 billion during fiscal year 1979. The effective annual rate of interest earned by the combined assets of the OASI and DI trust funds during the 12 months that ended June 30, 1979 was 7.4 percent. During this same period, the average interest rate on new securities purchased by the trust funds was 8.7 percent.

(d) Administrative expenses for the OASDI program in fiscal year 1979 were \$1.5 billion, which represented about 1.5 percent of total benefit payments made under the program during the year.

#### 2. Developments since the last annual report:

(a) The Social Security Disability Amendments of 1980, enacted on June 9, 1980, made a number of changes in the way

benefits are calculated for disabled workers and their families and in the administration of the DI program. The cost estimates shown in this report reflect the effects of these amendments.

(b) An automatic cost-of-living benefit increase of 9.9 percent became effective for June 1979. (The published statement announcing the determination of this increase is shown in Appendix B.) An additional increase of 14.3 percent becomes effective for June 1980, as recently determined and announced.

(c) Effective for 1980, the contribution and benefit base was increased from \$22,900 to \$25,900. In addition, the annual exempt amount under the retirement test was increased from \$4,500 to \$5,000 for beneficiaries aged 65 and over, and from \$3,480 to \$3,720 for beneficiaries under age 65. The amount of annual earnings required for a quarter of coverage was increased from \$260 to \$290. The published statement announcing these changes is shown in Appendix C.

(d) In May 1980, a separate Department of Education was established. The remainder of the organization that comprised the Department of Health, Education and Welfare was renamed the Department of Health and Human Services.

### 3. Financial status of the OASDI program:

Three sets of financial projections are shown for the OASI and DI programs, to indicate the range of future income and outgo under optimistic, intermediate and pessimistic assumptions which are described in the section entitled "Economic and Demographic Assumptions." The financial projections are described in detail for three time periods of particular interest—short-range, medium-range and long-range. The assumptions and estimates that appear in this report were necessarily prepared before the most recent changes in the economy were known. Current evidence indicates that the economy has moved into a recession and is weakening rapidly. Therefore, revised short-range projections will probably be necessary in the near future as more information becomes available about the intensity of the changes in the economy. The estimates for the various time periods can be summarized as follows:

(a) Short-range (1980–84)—Under all three sets of assumptions, expenditures from the OASI trust fund are expected to exceed income in every year during this period. Under present law, the assets of the OASI trust fund would soon become insufficient to pay benefits when due. This would occur late in 1981 under the intermediate and pessimistic sets of assumptions, and early in 1982 under the optimistic set. Accordingly, changes in the law are needed so that OASI benefits will continue to be paid when due. In contrast, the DI trust fund is projected to increase in every year throughout the projection period under all three sets of assumptions. Its rate of growth under the intermediate and pessimistic assumptions, however, would not be sufficient to offset the projected declines in the OASI fund, and the assets of both trust funds, if combined, would also become depleted under these two sets of assumptions. As noted in the concurrent 1980 annual report on the status of the hospital insurance (HI) trust fund, the assets of the HI trust fund are also expected to increase during the next several years. The projections of the operations of the HI trust fund, and the OASI, DI and HI trust funds combined, are

summarized in Appendix E. Under the intermediate assumptions, interfund borrowing, or a reallocation of tax rates, among all three trust funds—OASI, DI and HI—would prevent the depletion of any of the trust funds. However, the margin over the minimum amount of combined assets required to prevent depletion is slim. If emerging economic conditions are somewhat more unfavorable, the funds could become depleted. Under the pessimistic assumptions, for example, the combined assets of all three trust funds are depleted during the short-range projection period.

(b) Medium-range (1980–2004)—Under the intermediate assumptions, annual expenditures for the OASDI program average 10.66 percent of taxable payroll, while payroll tax income averages 11.85 percent of taxable payroll. Thus an average actuarial surplus of 1.19 percent of taxable payroll is projected for the next 25 years. Although a surplus is shown, on average, for the next 25 years, this surplus reflects the short-range OASI deficits described above and a subsequent period of significant financial surpluses. Under the optimistic set of assumptions the average surplus in the medium-range is projected to be 1.94 percent of taxable payroll, while under the pessimistic set, OASDI tax income just exceeds expenditures on average by 0.12 percent of taxable payroll.

(c) Long-range (1980–2054)—Under the intermediate set of assumptions, annual expenditures average 13.74 percent of taxable payroll while payroll tax income averages 12.22 percent of taxable payroll. This produces a projected average actuarial deficit of 1.52 percent of taxable payroll over the next 75 years. This average reflects the near-term annual deficits, the projected surpluses in the remaining portion of the first 25-year period and deficits of 1.17 percent and 4.58 percent of taxable payroll projected for the second and third 25-year periods, respectively. Projections for such distant periods are subject to substantial uncertainty and should be interpreted not as precise forecasts of expected program operations, but as indications of how the trust funds would operate under the assumed economic and demographic conditions if there were no future legislative changes in the program. The average deficit in the third 25-year period, for example, ranges from 0.19 percent of taxable payroll under the optimistic assumptions to 14.20 percent under the pessimistic set, and the overall 75-year actuarial balance is projected as a slight surplus of 0.89 percent under the optimistic set of assumptions and a substantial deficit of 6.17 percent under the pessimistic set.

#### IV. SOCIAL SECURITY AMENDMENTS SINCE THE 1979 REPORT

On June 9, 1980, Public Law 96–265, the Social Security Disability Amendments of 1980, was enacted. These amendments made a number of changes in the way benefits are calculated for disabled workers and their families and in the administration of the DI program. The legislation is designed to strengthen incentives for disabled beneficiaries to return to work and to improve accountability under the DI program. Details of the amendments can be found in documents prepared by and for the Congress. In particular, details of the financial effects of these amendments on the OASDI program will be shown

in a forthcoming Ways and Means Committee print. The cost estimates shown in this report reflect the effects of these amendments.

## V. 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. In computing benefits for persons who first become eligible for benefits in 1979 or later, the earnings in each year are indexed to take account of increases in average wage levels. 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 1981 and later, the contribution rates shown are the rates scheduled in 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 bases for 1979 and 1980, and the scheduled base for 1981, are specified in the provisions of present law as 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		2.250	2.250	
1954	3,600	2.000	2.000		3.000	3.000	
1955-56	4,200	2.000	2.000		3.000	3.000	
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
1980	25,900	5.080	4.330	.750	7.0500	6.0100	1.0400
Changes scheduled in present law:							
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 HI 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 Trustee, 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 investments 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 and Human Services; (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 and Human Services 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.

## VI. SUMMARY OF THE OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1979

### 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 1979, 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 1978 are also shown in the table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1978 AND 1979

[In thousands]

	Fiscal year 1978	Fiscal year 1979
Total assets of the trust fund, beginning of year.....	\$35,372,213	\$30,978,264
Receipts:		
Contributions:		
Appropriations.....	66,574,306	76,126,738
Deposits arising from State agreements.....	7,859,698	8,680,185
Gross contributions.....	74,434,004	84,806,923
Less payment into the Treasury for contributions subject to refund.....	387,225	449,013
Net contributions.....	74,046,779	84,357,910
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service.....	382,000	384,457
Noncontributory credits for persons interned during World War II at places operated for the internment of U.S. citizens of Japanese ancestry.....	2,724	
Payments to noninsured persons aged 72 and over:		
Benefit payments.....	176,727	199,169
Administrative expenses.....	2,205	2,192
Interest.....	49,272	29,100
Total reimbursement for payments to noninsured persons aged 72 and over.....	228,203	230,461
Interest:		
Interest on investments.....	2,153,535	1,919,705
Interest on amounts transferred from the supplemental security income general fund account due to adjustment in allocation of administrative expenses.....	-600	1,412
Gross interest.....	2,152,935	1,921,117
Less interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs.....	1,655	574
Less interest on amounts transferred to the disability insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	139	404
Net interest.....	2,151,142	1,920,140
Gifts.....	6	100
Total receipts.....	76,810,854	86,893,068
Disbursements:		
Benefit payments.....	78,524,092	87,591,968
Transfer to railroad retirement account.....	1,588,664	1,447,532

See footnotes at end of table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1978 AND 1979—CONTINUED

[in thousands]

	Fiscal year 1978	Fiscal year 1979
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year.....	\$6, 107	\$12, 330
Transfers to the disability insurance trust fund due to adjustment in allocation of costs for prior periods.....	354	4, 650
Total payment for costs of vocational rehabilitation services.....	6, 461	16, 980
Administrative expenses:		
Department of Health, Education and Welfare.....	931, 715	973, 640
Treasury Department.....	103, 973	104, 917
Construction of facilities for Social Security Administration.....	13, 332	2, 550
Expenses of the Department of Health, Education and Welfare for administration of vocational rehabilitation program for disabled beneficiaries.....	50	62
Interfund transfers due to adjustment in allocation of administrative expenses <sup>2</sup> .....	22, 327	-7, 783
Transfers to the supplemental security income general fund account due to adjustment in allocation of administrative expenses.....	14, 300	-----
Gross administrative expenses.....	1, 085, 695	1, 073, 386
Less interfund transfers due to adjustment in allocation of costs of construction.....	57	1, 013
Less reimbursement from general fund of the Treasury for costs of furnishing information on deferred vested pension benefits.....	-----	311
Less receipts from sales of supplies, materials, etc.....	53	5
Net administrative expenses.....	1, 085, 586	1, 072, 006
Total disbursements.....	81, 204, 803	90, 128, 486
Net addition to the trust fund.....	-4, 393, 949	-3, 235, 418
Total assets of the trust fund, end of year.....	30, 978, 264	27, 742, 846

<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.

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

The total assets of the OASI trust fund amounted to \$30,978 million on September 30, 1978. During fiscal year 1979, total receipts amounted to \$86,893 million and total disbursements were \$90,128 million. The assets of the trust fund thus decreased \$3,235 million during the year to a total of \$27,743 million on September 30, 1979.

Included in total receipts during fiscal year 1979 were \$76,127 million representing contributions appropriated to the fund and \$8,680 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, \$449 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 \$84,358 million, an increase of 13.9 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; (2) the two increases in the maximum annual amount of earnings taxable—from \$16,500 to \$17,700 effective on January 1, 1978 and from \$17,700 to \$22,900 effective on January 1, 1979; and (3) the increase in the OASI contribution rate for employees and employers, each from 4.275 percent to 4.330 percent that became effective on January 1, 1979. Although the first increase in the



maximum annual amount of earnings taxable, from \$16,500 to \$17,700, became effective in 1978, earnings between \$16,500 and \$17,700, which were taxable during all of fiscal year 1979, were taxable during only part of the preceding fiscal year. The increase in net contributions would have been larger had it not been for 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. Although this decrease in the contribution rate became effective in 1978, it was not in effect during all of fiscal year 1978.

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.

Section 217(g) of the Social Security Act provides for reimbursement of the 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. In accordance with section 217(g), the Secretary of Health, Education and Welfare (now Health and Human Services) made a determination in 1975 of the level annual appropriations to the trust funds necessary to amortize this estimated total cost over a 39-year period, beginning in fiscal year 1977. 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 \$30 million, and the disability insurance trust fund should receive reimbursement of \$50 million, for additional costs attributable to noncontributory credits for military service performed after 1956. Thus, reimbursements amounting to \$384 million for the OASI trust fund and \$142 million for the DI trust fund were received in December 1978.

A reimbursement amounting to \$230 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 1979. This reimbursement, made under section 228, reflected the costs of payments made from July 1976 through September 1977 and adjustments in the costs of payments made in prior fiscal years.

The OASI trust fund received \$99,609 in gifts in fiscal year 1979 under the provisions authorizing the deposit of money gifts or bequests in the OASI and DI trust funds.

The remaining \$1,920 million of receipts consisted of interest on the investments of the trust fund and net interest on amounts of interfund 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 \$90,128 million in total disbursements, \$87,592 million was for benefit payments, an increase of 11.5 percent over the corresponding amount paid in fiscal year 1978. This increase was due to (1) the automatic cost-of-living benefit increases of 6.5 percent and 9.9 percent, which became effective for June 1978 and June 1979, 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 6.5 percent became effective in 1978, the resulting higher benefit levels, which were in effect during all of fiscal year 1979, were in effect during only part of the preceding fiscal year. The increase in benefit payments from fiscal year 1978 to fiscal year 1979 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 \$1,384,300,000 to the railroad retirement account from the OASI trust fund would place this trust fund in the same position as of September 30, 1978 as it would have been if railroad employment had always been covered under the Social Security Act. A total amount of \$1,447,532,000 was transferred to the railroad retirement account in June 1979, including interest to the date of transfer amounting to \$63,232,000.

Expenditures of the OASI program for the costs of vocational rehabilitation services amounted to \$17 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 \$1,072 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, HI and supplementary medical insurance (SMI) 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.

Section 1131 of the Social Security Act authorizes annual reimbursements from the general fund of the Treasury to the OASI trust fund for additional administrative expenses incurred by the OASI trust fund as a result of furnishing information on deferred vested benefits to pension plan participants as required by the Employee Retirement Income Security Act of 1974. The first reimbursement under section 1131 occurred in fiscal year 1979 and amounted to \$311,467.

Net administrative expenses charged to the OASI trust fund and to the DI trust fund in fiscal year 1979 totaled \$1,479 million. This amount represented 1.5 percent of contribution income and 1.5 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 1975-79

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>
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
1979.....	1.5	1.5	1.3	1.2	2.8	3.0

<sup>1</sup> In determining the percentages shown, payments for the costs of vocational rehabilitation services are included with benefit payments. (In fiscal year 1979 such payments, for both OASI and DI, combined, amounted to less than 0.1 percent of total 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 1979 is compared with the estimates for fiscal year 1979 which appeared in the 1978 and 1979 annual reports. 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 1979 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions in fiscal year 1979 does not reflect adjustments to contributions for fiscal year 1979 that were to be made after September 30, 1979.

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1979

[Amounts in millions]

	Old-age and survivors insurance trust fund		Disability insurance trust fund	
	Net contributions	Benefit payments	Net contributions	Benefit payments
Actual amount.....	\$84,358	\$87,592	\$14,750	\$13,428
Estimated amount published in 1979 report.....	\$84,526	\$87,462	\$14,850	\$13,552
Actual as percentage of estimate.....	100	100	99	99
Estimated amount published in 1978 report.....	\$84,042	\$87,733	\$14,739	\$14,200
Actual as percentage of estimate.....	100	100	100	95

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

At the end of fiscal year 1979, about 34.9 million persons were receiving monthly benefits under the OASDI program. About 30.1 million of these persons were receiving monthly benefits from the OASI trust fund. The distribution of benefit payments in fiscal years

1978 and 1979, 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 1979 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 1978 AND 1979

[Amounts in millions]

	Fiscal year 1978		Fiscal year 1979	
	Amount	Percent of total	Amount	Percent of total
Total.....	\$78,524	100	\$87,592	100
Monthly benefits.....	78,192	100	87,249	100
Retired workers and their dependents.....	57,732	74	64,716	74
Retired workers.....	51,945	66	58,342	67
Wives and husbands.....	4,886	6	5,386	6
Children.....	902	1	989	1
Survivors of deceased workers.....	20,315	26	22,402	26
Aged widows and widowers.....	12,730	16	14,246	16
Disabled widows and widowers.....	261	(1)	279	(1)
Parents.....	52	(1)	52	(1)
Children.....	6,012	8	6,452	7
Widowed mothers and fathers caring for child beneficiaries.....	1,260	2	1,373	2
Noninsured persons aged 72 and over <sup>2</sup> .....	145	(1)	131	(1)
Lump-sum death payments.....	332	(1)	343	(1)

<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 \$131 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 1979 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 1979 consisted of lump-sum death payments.

The assets of the OASI trust fund at the end of fiscal year 1979 totaled \$27,743 million, consisting of \$27,317 million in the form of obligations of the U.S. Government or of federally sponsored agency obligations, and an undisbursed balance of \$426 million. Table 6 shows the total assets of the fund and their distribution at the end of fiscal years 1978 and 1979.

TABLE 6.—ASSETS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1978 AND 1979

	September 30, 1978		September 30, 1979	
	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>				
2¼-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	70,153,276.15	70,170,000	70,154,300.11
3¼-percent, 1978-83.....	60,200,000	59,923,801.82	60,200,000	59,982,987.02
3¼-percent, 1985.....	25,700,000	25,127,664.47	25,700,000	25,214,601.59
3½-percent, 1980.....	449,450,000	450,358,754.22	449,450,000	449,922,552.42
3½-percent, 1990.....	556,250,000	551,440,994.91	556,250,000	551,865,319.11
3½-percent, 1998.....	552,037,000	545,837,174.77	552,037,000	546,145,879.93
4-percent, 1980.....	153,100,000	153,093,516.34	153,100,000	153,098,379.94
4½-percent, 1989-94.....	91,300,000	90,828,974.97	91,300,000	90,859,201.17
4¼-percent, 1975-85.....	78,023,000	77,884,860.86	78,023,000	77,905,844.18
4¼-percent, 1987-92.....	33,000,000	33,940,246.68	33,000,000	33,833,803.68
6½-percent, 1984.....	31,500,000	31,768,677.33	31,500,000	31,723,267.05
7-percent, 1981.....	50,000,000	49,883,333.05	50,000,000	49,923,333.01
7½-percent, 1988-93.....	99,934,000	98,749,197.44	99,934,000	98,828,625.56
7½-percent, 2002-07.....	15,000,000	14,991,617.02	15,000,000	14,991,911.98
7½-percent, 1995-2000.....	22,180,000	21,528,774.78	22,180,000	21,559,420.62
8-percent, 1996-2001.....	90,500,000	90,411,557.28	90,500,000	90,415,430.64
8¼-percent, 2000-05.....	22,450,000	22,444,447.98	22,450,000	22,444,646.82
8½-percent, 1995-2000.....	50,000,000	50,661,616.25	50,000,000	50,631,313.25
8½-percent, 1994-99.....	6,352,000	6,501,155.68	6,352,000	6,493,938.40
<b>Total investments in public issues.....</b>	<b>3,522,048,000</b>	<b>3,510,431,642.00</b>	<b>3,522,048,000</b>	<b>3,510,896,756.48</b>
<b>Obligations sold only to this fund (special issues):</b>				
<b>Certificates of indebtedness:</b>				
8¼-percent, 1979.....	4,769,492,000	4,769,492,000.00	-----	-----
8½-percent, 1979.....	1,294,723,000	1,294,723,000.00	-----	-----
8¾-percent, 1980.....	-----	-----	1,732,790,000	1,732,790,000.00
9-percent, 1980.....	-----	-----	6,941,877,000	6,941,877,000.00
<b>Bonds:</b>				
7¼-percent, 1984.....	125,846,000	125,846,000.00	-----	-----
7¼-percent, 1985.....	125,846,000	125,846,000.00	-----	-----
7¼-percent, 1986.....	125,847,000	125,847,000.00	-----	-----
7¼-percent, 1987.....	125,847,000	125,847,000.00	-----	-----
7¼-percent, 1988.....	125,847,000	125,847,000.00	-----	-----
7¼-percent, 1989.....	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7¼-percent, 1990.....	125,847,000	125,847,000.00	125,847,000	125,847,000.00
7¼-percent, 1991.....	125,848,000	125,848,000.00	125,848,000	125,848,000.00
7¼-percent, 1992.....	2,014,741,000	2,014,741,000.00	2,014,741,000	2,014,741,000.00
7½-percent, 1984.....	688,956,000	688,956,000.00	-----	-----
7½-percent, 1985.....	688,956,000	688,956,000.00	-----	-----
7½-percent, 1986.....	688,956,000	688,956,000.00	-----	-----
7½-percent, 1987.....	688,955,000	688,955,000.00	474,643,000	474,643,000.00
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, 1993.....	459,237,000	459,237,000.00	-----	-----
7½-percent, 1984.....	522,029,000	522,029,000.00	-----	-----
7½-percent, 1985.....	522,029,000	522,029,000.00	-----	-----
7½-percent, 1986.....	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, 1983.....	677,910,000	677,910,000.00	-----	-----
7½-percent, 1984.....	677,910,000	677,910,000.00	-----	-----
7½-percent, 1985.....	677,910,000	677,910,000.00	-----	-----
7½-percent, 1986.....	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	1,555,736,000	1,555,736,000.00
8¼-percent, 1994.....	-----	-----	1,272,609,000	1,272,609,000.00
<b>Total obligations sold only to this fund (special issues).....</b>	<b>26,889,767,000</b>	<b>26,889,767,000.00</b>	<b>23,251,299,000</b>	<b>23,251,299,000.00</b>

See footnote at end of table.

TABLE 6.—ASSETS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1978 AND 1979—Continued

	September 30, 1978		September 30, 1979	
	Par value	Book value <sup>1</sup>	Par value	Book value <sup>1</sup>
Investments in public-debt obligations—Continued:				
Total investments in public-debt obligations .....	\$30,411,815,000	\$30,400,198,642.00	\$26,773,347,000	\$26,767,135,756.48
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	64,886,250.64	65,000,000	64,898,438.20
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	554,886,250.64	555,000,000	554,898,438.20
Total investments .....	30,966,815,000	30,955,084,892.64	27,328,347,000	27,317,094,194.68
Undisbursed balances .....		23,179,467.85		425,751,973.22
Total assets .....		30,978,264,360.49		27,742,846,167.90

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

The net decrease in the par value of the investments owned by the fund during fiscal year 1979 amounted to \$3,638 million. New securities at a total par value of \$97,887 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 \$101,525 million. Included in these amounts are \$88,979 million in certificates of indebtedness that were acquired, and \$86,368 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, 1979 was 7.4 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 1979 was 8¾ percent, payable semiannually. The special issues purchased by the trust fund in June 1979, at the interest rate of 8¾ percent, included \$1,273 million in Treasury bonds maturing in 1994. 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 4¼ 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 \$14,577 million in special issues (bonds) at the end of September 1979 that were distributed in equal amounts of about \$2,015 million maturing in each of the years 1988-1992 and in smaller amounts maturing in 1987, 1993 and 1994 (table 6). The investment operations of the fund in fiscal years 1978 and earlier are described in the 1979 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 1979 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 1978 are also shown in the table.

TABLE 7.—STATEMENT OF OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING FISCAL YEARS 1978 AND 1979

[In thousands]

	Fiscal year 1978	Fiscal year 1979
Total assets of the trust fund, beginning of year.....	\$4,243,131	\$4,371,652
Receipts:		
Contributions:		
Appropriations.....	11,142,746	13,356,868
Deposits arising from State agreements.....	1,312,550	1,474,907
Gross contributions.....	12,455,296	14,831,775
Less payment into the Treasury for contributions subject to refund.....	50,900	82,032
Net contributions.....	12,404,396	14,749,743
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service.....	128,000	141,663
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.....	249,289	303,226
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs.....	1,959	1,027
Interest on amounts transferred from the old-age and survivors insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	139	404
Total interest.....	251,387	304,657
Total receipts <sup>1</sup> .....	12,783,786	15,196,063

See footnotes at end of table.

TABLE 7.—STATEMENT OF OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING FISCAL YEARS 1978 AND 1979—Continued

(In thousands)

	Fiscal year 1978	Fiscal year 1979
<b>Disbursements:</b>		
Benefit payments.....	\$12,213,895	\$13,428,454
Transfer to railroad retirement account.....	29,797	29,906
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year.....	84,693	83,536
Less transfer from the old-age and survivors insurance trust fund due to adjustment in allocation of costs for prior periods.....	354	4,650
Total payment for costs of vocational rehabilitation services.....	84,339	78,886
<b>Administrative expenses:</b>		
Department of Health, Education and Welfare.....	337,222	385,295
Treasury Department.....	18,588	20,123
Construction of facilities for Social Security Administration.....	1,614	235
Expenses of the Department of Health, Education and Welfare for administration of vocational rehabilitation program for disabled beneficiaries.....	550	538
Interfund transfers due to adjustment in allocation of administrative expenses <sup>1</sup> .....	-30,646	129
Interfund transfers due to adjustment in allocation of costs of construction <sup>2</sup> .....	-75	458
Gross administrative expenses.....	327,254	406,778
Less receipts from sales of supplies, materials, etc.....	20	21
Net administrative expenses.....	327,234	406,758
Total disbursements.....	12,655,265	13,944,003
Net addition to the trust fund.....	128,521	1,252,059
Total assets of the trust fund, end of year.....	4,371,652	5,623,711

<sup>1</sup> Includes gifts amounting to \$159.60 during fiscal year 1978 and \$281.10 during fiscal year 1979.

<sup>2</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 \$4,372 million on September 30, 1978. During fiscal year 1979, total receipts amounted to \$15,196 million and total disbursements were \$13,944 million. The assets of the trust fund thus increased \$1,252 million during the year to a total of \$5,624 million on September 30, 1979.

Included in total receipts were \$13,357 million representing contributions appropriated to the fund and \$1,475 million representing amounts received by the Secretary of the Treasury in accordance with State coverage agreements and deposited in the fund. As an offset, \$82 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 \$14,750 million, an increase of 18.9 percent over the amount for the preceding fiscal year. The increase is 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). Part of this growth also 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. Although such increase in the contribution rate became effective in 1978, it was not in effect during all of fiscal year 1978. The increase in net contributions would have been larger had it not been for the decrease in the contribution rate for employees and employers, each, from 0.775 percent to 0.750 percent that became effective on January 1, 1979.

In addition, the trust fund received \$142 million in December 1978 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 \$50 million was reimbursed in accordance with section 229(b), as described in the preceding section.

The remaining \$305 million of receipts consisted of interest on the investments of the fund, plus interest on amounts of interfund transfers.

Of the \$13,944 million in total disbursements, \$13,428 million was for benefit payments, an increase of 9.9 percent over the corresponding amount paid in fiscal year 1978. 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 as 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, 1978 required that a transfer of \$28,600,000 be made from the DI trust fund to the railroad retirement account. A total amount of \$29,906,000 was transferred to the railroad retirement account in June 1979, including interest to the date of transfer amounting to \$1,306,000.

The remaining disbursements amounted to \$407 million for net administrative expenses and \$79 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 1975-79 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
1975.....	\$75,434	\$5,533,493	1.36
July 1975-Sept. 1976 <sup>2</sup> .....	120,514	8,824,547	1.37
1977 <sup>3</sup> .....	87,079	8,547,410	1.02
1978.....	93,229	9,986,069	.93
1979.....	45,627	10,967,760	.42

<sup>1</sup> The amounts shown represent the expenditures incurred for a fiscal year and differ from amounts actually 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 revision.

<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 1979, some 4.8 million persons were receiving monthly benefits from the DI trust fund. The distribution of benefit payments in fiscal years 1978 and 1979, 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 1978 AND 1979

[Amounts in millions]

	Fiscal year 1978		Fiscal year 1979	
	Amount	Percent of total	Amount	Percent of total
Total.....	\$12,214	100	\$13,428	100
Disabled workers.....	10,071	82	11,090	83
Wives and husbands.....	531	4	572	4
Children.....	1,612	13	1,766	13

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

The assets of the fund at the end of fiscal year 1979 totaled \$5,624 million, consisting of \$5,581 million in the form of obligations of the U.S. Government and an undisbursed balance of \$43 million. Table 9 shows a comparison of the total assets of the fund and their distribution at the end of fiscal years 1978 and 1979.

TABLE 9.—ASSETS OF THE DISABILITY INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1978 AND 1979

	September 30, 1978		September 30, 1979	
	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	\$2,000,126.46		
<b>Treasury bonds:</b>				
3½-percent, 1990-----	10,500,000	10,186,435.55	\$10,500,000	\$10,214,103.11
3½-percent, 1998-----	5,000,000	4,790,992.55	5,000,000	4,801,399.55
4-percent, 1980-----	30,250,000	30,248,886.44	30,250,000	30,249,657.12
4½-percent, 1989-94-----	68,400,000	67,880,966.91	68,400,000	67,914,273.75
4½-percent, 1975-85-----	20,795,000	20,785,298.54	20,795,000	20,786,772.02
4½-percent, 1987-92-----	80,800,000	80,879,743.80	80,800,000	80,870,716.32
6½-percent, 1984-----	15,000,000	15,032,099.32	15,000,000	15,026,674.00
7½-percent, 1988-93-----	26,500,000	25,927,644.56	26,500,000	25,966,014.68
7½-percent, 2002-07-----	10,000,000	9,994,411.22	10,000,000	9,994,607.78
8-percent, 1996-2001-----	26,000,000	25,974,590.98	26,000,000	25,975,703.74
8¼-percent, 2000-05-----	3,750,000	3,731,717.33	3,750,000	3,732,402.89
<b>Total investments in public issues-----</b>	<b>298,995,000</b>	<b>297,432,913.66</b>	<b>296,995,000</b>	<b>295,532,324.96</b>
<b>Obligations sold only to this fund (special issues):</b>				
<b>Certificates of indebtedness:</b>				
8¼ percent, 1979-----	1,232,000,000	1,232,000,000.00		
9 percent, 1980-----			1,531,773,000	1,531,773,000.00
<b>Bonds:</b>				
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, 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, 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, 1985-----	32,529,000	32,529,000.00	32,529,000	32,529,000.00
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
8¼-percent, 1983-----	173,182,000	173,182,000.00		
8¼-percent, 1984-----	241,389,000	241,389,000.00	146,558,000	146,558,000.00
8¼-percent, 1985-----	208,860,000	208,860,000.00	208,860,000	208,860,000.00
8¼-percent, 1993-----	241,389,000	241,389,000.00	241,389,000	241,389,000.00
8¼-percent, 1983-----			21,816,000	21,816,000.00
8¼-percent, 1984-----			192,718,000	192,718,000.00
8¼-percent, 1985-----			97,887,000	97,887,000.00
8¼-percent, 1986-----			64,425,000	64,425,000.00
8¼-percent, 1987-----			64,425,000	64,425,000.00
8¼-percent, 1988-----			64,425,000	64,425,000.00
8¼-percent, 1989-----			64,425,000	64,425,000.00
8¼-percent, 1990-----			64,425,000	64,425,000.00
8¼-percent, 1991-----			64,425,000	64,425,000.00
8¼-percent, 1992-----			64,425,000	64,425,000.00
8¼-percent, 1993-----			97,887,000	97,887,000.00
8¼-percent, 1994-----			339,277,000	339,277,000.00
<b>Total obligations sold only to this fund (special issues)-----</b>	<b>4,053,306,000</b>	<b>4,053,306,000.00</b>	<b>5,285,626,000</b>	<b>5,285,626,000.00</b>
<b>Total investments in public-debt obligations-----</b>	<b>4,352,301,000</b>	<b>4,350,738,913.66</b>	<b>5,582,621,000</b>	<b>5,581,158,324.96</b>
Undisbursed balances-----		20,912,860.12		42,552,853.65
<b>Total assets-----</b>		<b>4,371,651,773.78</b>		<b>5,623,711,178.61</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 \$1,230 million. New securities at a total par value of \$17,769 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 \$16,538 million. Included in these amounts are \$15,233 million in certificates of indebtedness that were acquired, and \$14,933 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, 1979 was 7.9 percent. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1979 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.

## VII. ACTUARIAL COST PROJECTIONS

The actuarial cost projections that appear in this report are based on the assumption that the present statutory provisions and regulations affecting the OASDI program will not change during the projection period. The projections include the effect of the Disability Amendments of 1980 which were enacted in June.

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 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, 1979 is presented in the preceding section of this report. Such information for fiscal years 1980-84 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 include "a statement of the actuarial status of the trust funds." Such statements have 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 a percentage 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 disabled beneficiaries. The taxable payroll consists of the total earnings which are subject to social security taxes. These earnings are adjusted to reflect the lower effective contribution rates which apply to self-employment income, tips and 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 of the trust funds is measured by the actuarial balance, which is the difference between the average of the tax rates scheduled in the law

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Over the medium-range and long-range periods, the actuarial status of the trust funds is measured by the actuarial balance, which is the difference between the average of the tax rates scheduled in the law

and the estimated average of the future expenditures expressed as a percentage of taxable payroll. If the actuarial balance is positive, the system is said to have an actuarial surplus, and if negative, to have an actuarial deficit. Such a deficit, if it exists, is a warning that, unless the projected trends turn out to be too pessimistic, changes in the system will be needed to make it viable in the future.

Related to the concept of actuarial balance is that of "close actuarial balance." 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 between 95 and 105 percent of the estimated average expenditure as a percentage of taxable payroll.

Statements of the current actuarial status are presented later in this section. The methods used to estimate the actuarial status are described in Appendix A.

In recent years, the general philosophy of financing the OASDI program has been that the annual tax revenues should approximately equal the annual expenditures, and the trust funds have been intended only to absorb temporary excesses of expenditures over income. 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 regarding the optimum trust fund size, it should be sufficient to allow time for executive and legislative action to prevent exhaustion of the trust fund during a period of continued annual deficits. The 1979 Advisory Council on Social Security found that a trust fund balance of 75 percent of annual expenditures is sufficient for such a contingency.

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 presented in a later section.

#### A. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

The future income and expenditures of the OASDI system will depend upon many economic and demographic factors, including fertility, mortality, net immigration, labor force participation, marriage, divorce, productivity, unemployment, inflation, prevalence of retirement and prevalence of disability. The income of 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 these factors affect the size and composition of the beneficiary population and the general level of benefits. Of course, the precise forecasting of the behavior of these various factors is impossible.

The cost projections presented in this report result from using the best available knowledge of economic and demographic factors and their interrelationships to make objective assumptions about future developments. These projections are a meaningful indicator of the trend and range of future income and expenditures. Although, as with all projections, they cannot be considered exact predictions of emerging experience, they do provide insights which are essential for making informed policy decisions.

Because future income and expenditures will depend upon uncertain economic and demographic developments, three sets of projections are presented in this report—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 sometimes referred to as the optimistic and pessimistic assumptions, respectively. A set of assumptions is characterized as optimistic or pessimistic according to its effect on the status of the trust funds relative to the intermediate assumptions.

The three alternative sets of economic assumptions<sup>1</sup> are summarized in table 10. Under the intermediate assumptions (alternative II), it is assumed that the recession which began early in 1980 will continue for about a year before a period of recovery begins. Under the optimistic assumptions (alternative I), the downturn in economic activity is assumed to be shorter, with increasing economic growth beginning in the last half of 1980. Under the pessimistic assumptions (alternative III), economic activity is assumed to be substantially lower in 1980 and 1981 than under the intermediate assumptions, with a severe recession that is followed by a period of recovery beginning in the first half of 1981.

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<sup>1</sup> The economic assumptions under each of the three alternative sets differ from the assumptions underlying the March 1980 revisions of the President's 1981 budget. The assumptions in this report reflect significant changes in economic indicators and trends that have occurred since the assumptions for the March revisions of the budget were prepared.

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1960-2055

Calendar year	Average annual percentage increase in—					
	Real GNP <sup>1</sup>	Average wages in covered employment	Consumer price index	Real wage differential <sup>2</sup> (percent)	Average annual interest rate <sup>3</sup> (percent)	Average annual unemployment rate (percent)
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	6.6	9.1	-2.5	7.4	8.5
1976.....	5.9	8.4	5.8	2.5	7.1	7.7
1977.....	5.3	7.1	6.5	.4	7.1	7.0
1978.....	4.4	8.1	7.6	.5	8.2	6.0
1979.....	2.3	8.4	11.5	-3.1	9.1	5.8
Alternative I:						
1980.....	.0	10.0	14.3	-4.3	10.8	7.0
1981.....	2.2	11.3	10.4	.9	10.5	7.3
1982.....	4.8	11.0	8.6	2.4	9.4	6.6
1983.....	5.0	9.3	7.3	2.0	8.1	6.0
1984.....	4.9	8.5	6.5	2.0	7.5	5.3
1985.....	4.8	7.7	5.7	2.0	6.8	4.6
1990.....	3.4	5.8	3.0	2.8	5.6	4.0
1995.....	3.0	5.25	3.0	2.25	5.6	4.0
2000.....	2.9	5.25	3.0	2.25	5.6	4.0
2005 and later.....	4 3.4	5.25	3.0	2.25	5.6	4.0
Alternative II:						
1980.....	-4.4	9.6	14.2	-4.6	10.5	7.2
1981.....	.4	9.5	9.7	-2	9.9	7.9
1982.....	4.6	10.9	9.0	1.9	9.5	7.3
1983.....	4.6	9.9	8.6	1.3	9.2	6.6
1984.....	3.9	9.4	8.2	1.2	8.9	6.2
1985.....	3.6	9.1	7.8	1.3	8.5	5.9
1990.....	2.7	8.3	6.5	1.8	8.5	5.0
1995.....	2.4	7.3	5.5	1.8	7.6	5.0
2000.....	2.5	6.3	4.5	1.8	6.6	5.0
2005 and later.....	4 2.8	5.75	4.0	1.75	6.1	5.0
Alternative III:						
1980.....	-1.7	9.9	16.6	-6.7	10.5	7.4
1981.....	-1.0	11.7	13.7	-2.0	10.0	9.1
1982.....	5.5	11.9	11.0	.9	10.0	8.0
1983.....	3.9	10.9	10.6	.3	10.0	7.3
1984.....	3.0	10.4	10.2	.2	10.0	7.0
1985.....	3.0	10.3	9.8	.5	10.0	6.8
1990.....	2.1	9.0	8.0	1.0	9.5	6.0
1995.....	2.3	8.3	7.0	1.3	8.6	6.0
2000.....	2.2	7.25	6.0	1.25	7.6	6.0
2005 and later.....	4 2.1	7.25	6.0	1.25	7.6	6.0

<sup>1</sup> The total output of goods and services 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> The average of the interest rates determined in each of the 12 months of the year for special public-debt obligations issuable to the trust funds.

<sup>4</sup> The annual percentage increase in real GNP is projected to continue to change after the year 2005 under each alternative. The value for the year 2055 is 3.4, 2.3 and 0.9 for alternatives I, II and III, respectively.

Table 11 presents the demographic assumptions under the three alternatives. Under the intermediate assumptions, the ultimate total fertility rate is assumed to be which, in the absence of net migration and changes in mortality, would approximately maintain a constant population. 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 rates are projected to decrease through time, but the rate of decline 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 a level slightly below the average observed during 1978-79 after increasing from the lower level observed



during 1979. Under both the intermediate and pessimistic assumptions, disability incidence rates are assumed to increase above the level observed during 1978-79 before becoming constant. The amount of increase is larger under the pessimistic assumptions than under the intermediate assumptions.

TABLE 11.—SELECTED DEMOGRAPHIC ASSUMPTIONS UNDER ALTERNATIVES I, II, AND III, CALENDAR YEARS 1960-2055

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
1960	3,608	11.19	9.16	4.73	3.37
1965	2,885	11.09	8.68	4.99	3.56
1970	2,434	10.78	8.00	5.10	3.63
1975	1,770	9.87	7.13	7.59	6.11
1976	1,745	9.73	7.07	7.02	5.49
1977	1,795	9.51	6.85	7.18	5.47
1978	1,775	9.35	6.70	5.70	4.34
1979	1,789	9.19	6.56	5.02	3.82
Alternative I:					
1980	1,833	9.12	6.49	4.95	3.77
1981	1,866	9.05	6.42	4.92	3.75
1982	1,900	8.98	6.36	4.92	3.75
1983	1,934	8.92	6.30	4.93	3.76
1984	1,968	8.85	6.23	4.95	3.77
1985	2,001	8.78	6.17	5.01	3.81
1990	2,171	8.61	6.01	5.21	3.97
1995	2,346	8.45	5.85	5.33	4.05
2000	2,464	8.30	5.71	5.35	4.07
2005 and later	2,500	† 8.22	† 5.65	5.35	4.07
Alternative II:					
1980	1,803	9.04	6.42	4.97	3.79
1981	1,816	8.91	6.29	5.00	3.81
1982	1,830	8.78	6.16	5.11	3.89
1983	1,844	8.65	6.04	5.22	3.97
1984	1,858	8.52	5.92	5.40	4.12
1985	1,872	8.39	5.80	5.56	4.24
1990	1,942	8.07	5.50	5.98	4.55
1995	2,026	7.77	5.22	6.22	4.73
2000	2,086	7.50	4.97	6.28	4.78
2005 and later	2,100	† 7.36	† 4.87	6.28	4.78
Alternative III:					
1980	1,758	8.90	6.28	5.02	3.82
1981	1,742	8.64	6.03	5.09	3.88
1982	1,726	8.38	5.79	5.28	4.03
1983	1,709	8.14	5.56	5.53	4.21
1984	1,693	7.90	5.33	5.86	4.46
1985	1,677	7.66	5.12	6.12	4.66
1990	1,598	7.09	4.60	6.75	5.14
1995	1,546	6.58	4.15	7.10	5.41
2000	1,519	6.13	3.76	7.21	5.48
2005 and later	1,500	† 5.90	† 3.61	7.21	5.48

<sup>1</sup> The number of children who 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.

<sup>2</sup> The annual number of deaths per 1,000 persons in the enumerated male or female population, respectively, as of Apr. 1, 1970.

<sup>3</sup> The number of awards per 1,000 persons exposed to disability, adjusted for changes from the 1977 age distribution.

<sup>4</sup> This value is for the year 2005. Mortality rates are assumed to continue declining during 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 com-

position 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 alternative II, the annual rate of growth in real GNP rises to 4.6 percent during the assumed recovery period in 1982 and 1983, then slows to 2.7 percent by 1990. At the same time, the average annual unemployment rate declines to an assumed ultimate rate of 5.0 percent by 1990. The annual rate of increase in average wages in covered employment is assumed to fall to an ultimate rate of  $5\frac{1}{4}$  percent by 2005, with an accompanying decline in the annual rate of increase in the average CPI to an ultimate rate of 4.0 percent by 2005. The real wage differential, i.e., the difference between annual rates of increase in the average wage and the average CPI, is assumed to reach an ultimate rate of  $1\frac{1}{4}$  percent per year. The annual interest rate is assumed to reach its ultimate value of 6.1 percent by 2005. The assumed ultimate real interest rate, i.e., the interest rate after adjusting for inflation, is 2 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 2005. Mortality rates are expected to decrease gradually during the entire 75-year projection period, with an overall reduction from 1979 levels of about one-third by the year 2050. Disability incidence rates, which declined in 1978 and 1979, are projected to rise again by 1981 and continue to increase gradually through 1999, when they reach an ultimate level that is 16 percent higher than the average incidence rate for 1978 and 1979. This ultimate level is slightly less than the average disability incidence rate experienced during 1970-79.

Under alternative I, the assumed annual percentage increase in real GNP is higher than under alternative II, and the average annual unemployment rate is lower in each year. The assumed annual percentage increase in the CPI is lower in each year after 1981, declining to an ultimate rate of 3 percent per year by 1990. The assumed real wage differential is higher in each year than under alternative II, reaching an ultimate rate of  $2\frac{1}{4}$  percent per year by the year 1995. The resulting ultimate annual rate of increase in average wages in covered employment is  $5\frac{1}{4}$  percent under alternative I. Although the ultimate interest rate of 5.6 percent is lower under alternative I than under alternative II, the ultimate real interest rate of  $2\frac{1}{2}$  percent is higher. The total fertility rate is projected to be higher under alternative I than under alternative II, reaching its ultimate level of 2.5 children per woman in the year 2005. The average annual reduction in mortality rates during the 75-year projection period is assumed to be one-half the annual reduction assumed under alternative II. Disability incidence rates are assumed to increase from their 1979 level to a level near the higher average for 1978-79.

The projections under alternative III presume less favorable economic and demographic conditions. As a result of the assumed economic recession in 1980-81 and the following period of recovery, the average annual unemployment rate is assumed to rise to 9.1 percent in 1981, decline to 7.3 percent by 1983 and reach its ultimate level of 6 percent by 1990. Increases in average real wages are assumed to be lower than the increases assumed under alternative II, with an ultimate rate of  $1\frac{1}{4}$  percent attained by the year 2000. Although the

ultimate interest rate of 7.6 percent is higher under alternative III than under alternative II, the real interest rate of  $1\frac{1}{2}$  percent is lower. The total fertility rate is projected to be lower under alternative III than under alternative II, reaching its ultimate level of 1.5 children per woman in the year 2005. The average annual reduction in mortality rates during the 75-year projection is assumed to be twice that of alternative II. Disability incidence rates are assumed to increase during the next 20 years to a level about 34 percent above the average 1978-79 incidence rate.

## B. AUTOMATIC ADJUSTMENTS

Under the automatic increase provisions of the law, benefits are adjusted to reflect increases in the CPI. For people becoming eligible for benefits in 1979 and later, the automatic cost-of-living benefit increases begin with the year a worker reaches age 62, becomes disabled, or dies. An automatic cost-of-living benefit increase of 9.9 percent effective for June 1979, was established in April 1979, as described in Appendix B. Another automatic benefit increase, effective for June 1980, has been determined to be 14.3 percent.

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 in 1978-82, for beneficiaries aged 65 and over. As a result of these provisions, the contribution and benefit base increased from \$22,900 in 1979 to \$25,900 in 1980. Similarly, the annual exempt amount under the retirement test, for beneficiaries aged 65 and over, increased from \$4,500 in 1979 to \$5,000 in 1980.

Following the cost-of-living benefit increase that became effective for June 1979, an automatic increase in the annual exempt amount under the retirement test from \$3,480 in 1979 to \$3,720 in 1980 was established in November 1979 for beneficiaries under age 65, as described in Appendix C. Appendix C also describes the determinations of several other social security program amounts for 1980. These amounts are:

1. The amount of earnings a worker must have to be credited with quarters of coverage in 1980;
2. The dollar amounts (or bend points) in the formulas used to compute benefits payable on the earnings of workers who first become eligible for old-age or disability insurance benefits, or die before becoming eligible for such benefits, in 1980; and
3. The average of total wages reported for calendar year 1978, to be used for indexing earnings of workers who first become eligible for benefits, or die before first eligibility, in 1980 or later.

An historical summary of the social security program amounts determined under the automatic provisions, and the average-wage

series used for indexing earnings, is shown in Appendix D. A projection of the corresponding amounts resulting from the intermediate set of assumptions, through 1985, is also shown in Appendix D.

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 automatic provisions of 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. For 1979 the old-law base was \$18,900. The corresponding old-law base for 1980 was determined to be \$20,400.

The three different sets of economic assumptions described previously result in the following general benefit increases in each year 1981 through 1985 and the following contribution and benefit bases for each year 1982 through 1985 (amounts for 1979 and 1980, and the contribution and benefit base scheduled for 1981 under present law, are also shown as a basis for comparison):

Year	General benefit increase <sup>1</sup> (percent) under alternative—			Contribution and benefit base <sup>2</sup> under alternative—		
	I	II	III	I	II	III
1979	9.9	9.9	9.9	\$22,900	\$22,900	\$22,900
1980	14.3	14.3	14.3	25,900	25,900	25,900
1981	11.8	11.3	16.8	29,700	29,700	29,700
1982	9.4	9.0	11.1	32,700	32,700	32,700
1983	7.5	8.8	10.7	36,300	35,700	36,600
1984	6.8	8.3	10.3	40,800	39,600	40,800
1985	6.0	7.9	9.9	45,300	43,500	45,300

<sup>1</sup> Effective with benefits for June of the stated year. General benefit increases are assumed to continue to decline gradually after 1985, reaching ultimate values by the year 2005 of 3 percent, 4 percent and 6 percent, respectively, under alternatives I, II and III.

<sup>2</sup> The amounts, effective on January 1 of the stated year, are specified in the law for the years 1979–81. 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 aged 65 and over (the amounts for 1979 and 1980, and the amounts scheduled for 1981 and 1982 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	III	I	II	III
1979	\$3,480	\$3,480	\$3,480	\$4,500	\$4,500	\$4,500
1980	3,720	3,720	3,720	5,000	5,000	5,000
1981	4,080	4,080	4,080	5,500	5,500	5,500
1982	4,440	4,440	4,440	6,000	6,000	6,000
1983	4,920	4,920	4,920	6,720	6,600	6,720
1984	5,520	5,400	5,520	7,440	7,320	7,560
1985	6,000	5,880	6,120	8,160	8,040	8,400

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

<sup>2</sup> The amounts are specified in the law for the years 1979–82. 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, 1979 TO DECEMBER 31, 1984

The following statement of the expected operations and status of the trust funds during the period October 1, 1979 to December 31, 1984 is based on the assumptions described in the preceding sections. 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 1980–84. Thus, the estimates reflect the effects of (1) the recently enacted Social Security Disability Amendments of 1980 and (2) recent changes in the regulations governing the frequency and timing of payments of employer and employee contributions from private employers, which will become effective in two stages on January 1, 1981 and January 1, 1982.

Estimates of the operations and status of the OASI trust fund during calendar years 1980–84 are shown in table 12 for each of the three alternative sets of assumptions that were described in the preceding sections. Actual data for calendar year 1979 are also shown in the table. Under each alternative, it is assumed that employment and earnings will increase in every year through 1984, except that employment is assumed to decline in 1981 under alternative III. The number of persons with taxable earnings under the OASDI program is expected to increase from 114 million with such earnings during calendar year 1979 to about 124 million during calendar year 1984 under the intermediate assumptions. Under alternatives I and III, the number of persons with taxable earnings is estimated to reach 126 million and 122 million, respectively, by 1984. The total annual amount of taxable earnings is expected to increase from \$1,066 billion in 1979 to \$1,867 billion in 1984 under the intermediate assumptions. Under alternatives I and III, taxable earnings in 1984 are estimated to be \$1,913 billion and \$1,929 billion, respectively. (In 1979 dollars—taking account of assumed increases in the CPI from 1979 to 1984 under each alternative—the estimated amounts of taxable earnings in 1984 are \$1,221 billion, \$1,163 billion and \$1,076 billion under alternatives I, II and III, respectively.) These increases are due in part to the remaining ad hoc increases in the contribution and benefit base scheduled for 1980 and 1981 under present law, and the increases in the base assumed to occur in 1982–84 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 1979-84 UNDER THREE 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>					
1979 <sup>1</sup> .....	\$90.3	\$93.1	-\$2.9	\$24.7	30
1980.....	103.2	108.6	-5.3	19.3	23
1981.....	119.2	127.1	-7.9	11.4	15
1982 <sup>2</sup> .....	136.4	145.1	-8.7	2.7	8
1983 <sup>2</sup> .....	152.2	161.7	-9.5	-6.8	2
1984 <sup>2</sup> .....	169.7	177.9	-8.1	-14.9	-4
<b>Alternative II:</b>					
1979 <sup>1</sup> .....	90.3	93.1	-2.9	24.7	30
1980.....	102.8	108.6	-5.8	18.9	23
1981 <sup>2</sup> .....	116.5	126.9	-10.4	8.5	15
1982 <sup>2</sup> .....	132.0	144.4	-12.4	-3.9	6
1983 <sup>2</sup> .....	147.5	161.8	-14.2	-18.2	-2
1984 <sup>2</sup> .....	164.1	180.3	-16.2	-34.4	-10
<b>Alternative III:</b>					
1979 <sup>1</sup> .....	90.3	93.1	-2.9	24.7	30
1980.....	102.7	108.6	-5.9	18.7	23
1981 <sup>2</sup> .....	116.2	130.3	-14.1	4.7	14
1982 <sup>2</sup> .....	132.7	153.1	-20.3	-15.7	3
1983 <sup>2</sup> .....	149.4	174.7	-25.3	-41.0	-9
1984 <sup>2</sup> .....	165.9	198.4	-32.4	-73.4	-21

<sup>1</sup> Figures for 1979 represent actual experience.

<sup>2</sup> Under alternative I, the fund is depleted early in 1982 when assets become insufficient to pay benefits when due. Under both alternatives II and III, the fund is depleted late in 1981. Figures for these and later years are therefore theoretical. See text for details.

Note: Totals do not necessarily equal the sum of rounded components. The major assumptions underlying the estimates are described in the preceding sections 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 1980-84 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 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.

Under all three sets of assumptions, disbursements are projected to exceed income in every year until the OASI trust fund is reduced to the level where assets are insufficient to pay benefits when due.

This condition becomes imminent if, at the end of any month, the trust fund falls to less than about 9 percent of the following 12 months of disbursements. Below this level, assets are not large enough to pay benefits when due because of the difference in the cash flow of income and outgo during a month. Almost all of the benefits for a given month are usually payable on the third day of the following month. Contribution income, on the other hand, is received more or less uniformly through the month, on a daily basis. For example, the benefits for November 1981—estimated to be about \$11 billion under alternative II—are payable on December 3, 1981, before enough income can be added to the fund's estimated assets of about \$10 billion at the end of November to pay the benefits due on December 3.

This point is first reached early in 1982 under alternative I and late in 1981 under alternatives II and III. Projections representing the theoretical operations of the trust fund in these and later years are shown in table 12 for informational purposes. In order to calculate the figures representing these theoretical trust fund operations, it was assumed that the OASI trust fund could borrow money, to be repaid with interest, on the same terms that it normally would invest positive trust fund balances.

The assets of the OASI trust fund at the beginning of 1979 were equal to about 30 percent of the disbursements in 1979. By the beginning of 1980, the fund had declined to 23 percent of estimated disbursements in 1980. Under all three alternative sets of assumptions, the fund is expected to continue to decline, reaching 15 percent of disbursements under alternatives I and II and 14 percent under alternative III, by the beginning of 1981. By the beginning of 1982, the percentage is 8 percent under alternative I. All of the other percentages for 1982 and later that are shown in table 12 are theoretical, for the reasons discussed in the preceding paragraph.

The expected operations and status of the disability insurance trust fund during calendar years 1980–84 under the three sets of assumptions are shown in table 13, together with figures on actual experience in 1979. Income will increase during calendar years 1980–84, 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 projected increases in the numbers of beneficiaries and in the amounts of average monthly earnings on which benefits are based. Projected increases in the numbers of beneficiaries reflect the effects of the assumed increases in disability incidence rates under each set of assumptions, as previously described. Increases in annual disbursements also reflect the effects of estimated net reductions in outlays resulting from the Social Security Disability Amendments of 1980.

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 30 percent at the beginning of 1979 to 126 percent, 111 percent and 88 percent at the beginning of 1984 under alternatives I, II and III, respectively.

TABLE 13.—ESTIMATED OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING CALENDAR YEARS 1979-84 UNDER THREE 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>					
1979 <sup>1</sup> .....	\$15.6	\$14.2	\$1.4	\$5.6	30
1980.....	18.2	15.9	2.3	8.0	36
1981.....	22.4	17.8	4.7	12.6	45
1982.....	26.1	19.5	6.6	19.2	65
1983.....	29.7	20.9	8.9	28.1	92
1984.....	33.8	22.2	11.6	39.7	126
<b>Alternative II:</b>					
1979.....	15.6	14.2	1.4	5.6	30
1980.....	18.1	15.9	2.2	7.9	35
1981.....	21.9	17.8	4.1	12.0	44
1982.....	25.3	19.5	5.7	17.7	61
1983.....	28.9	21.1	7.8	25.5	84
1984.....	33.0	23.0	10.0	35.5	111
<b>Alternative III:</b>					
1979.....	15.6	14.2	1.4	5.6	30
1980.....	18.1	15.9	2.2	7.8	35
1981.....	21.8	18.3	3.5	11.4	43
1982.....	25.5	20.8	4.7	16.1	55
1983.....	29.5	23.0	6.5	22.6	70
1984.....	33.8	25.5	8.2	30.8	88

<sup>1</sup> Figures for 1979 represent actual experience.

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

The expected operations and status of the OASI and DI trust funds, combined, during calendar years 1980-84, under the three alternatives, are shown in table 14, together with figures on actual experience in 1979. As explained above, the OASI trust fund is projected to be depleted in the near future under all three alternative sets of assumptions. Since under present law, none of the income to one trust fund can be allocated to the other trust fund, the projections of the combined OASI and DI trust fund operations for 1982-84 under alternative I, and 1981-84 under alternatives II and III, are theoretical. These figures represent the arithmetical addition of the figures shown in tables 12 and 13.



TABLE 14.—ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING CALENDAR YEARS 1979-84 UNDER THREE 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>					
1979 <sup>1</sup> .....	\$105.9	\$107.3	-\$1.5	\$30.3	30
1980.....	121.4	124.4	-3.0	27.3	24
1981.....	141.6	144.9	-3.3	24.0	19
1982 <sup>2</sup> .....	162.5	164.6	-2.1	21.9	15
1983 <sup>2</sup> .....	182.0	182.6	-.6	21.3	12
1984 <sup>2</sup> .....	203.6	200.1	3.5	24.8	11
<b>Alternative II:</b>					
1979 <sup>1</sup> .....	105.9	107.3	-1.5	30.3	30
1980.....	120.9	124.4	-3.5	26.8	24
1981 <sup>2</sup> .....	138.4	144.7	-6.3	20.4	18
1982 <sup>2</sup> .....	157.3	163.9	-6.6	13.8	12
1983 <sup>2</sup> .....	176.4	182.9	-6.5	7.3	8
1984 <sup>2</sup> .....	197.1	203.3	-6.2	1.1	4
<b>Alternative III:</b>					
1979 <sup>1</sup> .....	105.9	107.3	-1.5	30.3	30
1980.....	120.8	124.5	-3.7	26.6	24
1981 <sup>2</sup> .....	138.0	148.6	-10.5	16.0	18
1982 <sup>2</sup> .....	158.2	173.8	-15.6	.4	9
1983 <sup>2</sup> .....	178.8	197.7	-18.8	-18.4	(*)
1984 <sup>2</sup> .....	199.7	223.9	-24.2	-42.6	-8

<sup>1</sup> Figures for 1979 represent actual experience.

<sup>2</sup> Figures are theoretical. See accompanying text and footnote 2 in table 12 for details.

<sup>3</sup> Less than 0.5 percent.

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

At the beginning of 1979 the assets of the combined OASI and DI trust funds were equal to 30 percent of the disbursements in 1979, as shown in table 14. By the beginning of 1980 the assets had declined to 24 percent of the estimated expenditures in 1980 under each of the three alternatives. Under alternative I, the combined funds are projected to continue to decline reaching a low point of 11 percent of annual expenditures at the beginning of 1984. On the basis of the intermediate assumptions the combined funds decline more rapidly and are depleted early in 1983 when the assets of the combined funds would be insufficient to pay combined benefits when due. Under alternative III, the assets of the combined funds drop sharply and are depleted in the latter half of 1982.

Assets as a percentage of annual expenditures for selected years prior to 1980 are shown in table 15 for both funds combined and for each fund separately. The corresponding figures projected for 1980-84 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 1950-79, AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1980-84 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
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
1979.....	30	30	30
<b>Estimated future experience:<sup>1</sup></b>			
1980.....	24	23	35
1981.....	18	15	44
1982 <sup>2</sup> .....	12	6	61
1983 <sup>2</sup> .....	8	-2	84
1984 <sup>2</sup> .....	4	-10	111

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

<sup>2</sup> The OASI trust fund is depleted in late 1981 when assets become insufficient to pay benefits when due under alternative II. Since none of the income to one trust fund can be allocated to the other trust fund under present law, the figures for 1982-84 for the OASI trust fund and for the combined OASI and DI trust funds are theoretical.

Expenditures in calendar year 1979 from both trust funds, combined, were 10.32 percent of taxable earnings for the year—0.16 percent more than the combined employee-employer contribution rate of 10.16 percent. Expenditures from both trust funds, combined, are estimated to increase in 1980 and 1981, reaching 11.33 percent of taxable earnings in 1981 and declining slowly thereafter to 11.11 percent of taxable earnings in 1984, 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 1979-84 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>									
1979 <sup>3</sup>	8.96	8.66	-0.30	1.36	1.50	0.14	10.32	10.16	-0.16
1980	9.43	8.66	-.77	1.38	1.50	.12	10.81	10.16	-.65
1981	9.71	9.05	-.66	1.36	1.65	.29	11.07	10.70	-.37
1982	9.74	9.15	-.59	1.31	1.65	.34	11.05	10.80	-.25
1983	9.65	9.15	-.50	1.25	1.65	.40	10.90	10.80	-.10
1984	9.49	9.15	-.34	1.19	1.65	.46	10.68	10.80	.12
<b>Alternative II:</b>									
1979 <sup>3</sup>	8.96	8.66	-.30	1.36	1.50	.14	10.32	10.16	-.16
1980	9.48	8.66	-.82	1.39	1.50	.11	10.87	10.16	-.71
1981	9.94	9.05	-.89	1.39	1.65	.26	11.33	10.70	-.63
1982	9.97	9.15	-.82	1.35	1.65	.30	11.32	10.80	-.52
1983	9.91	9.15	-.76	1.29	1.65	.36	11.21	10.80	-.41
1984	9.86	9.15	-.71	1.26	1.65	.39	11.11	10.80	-.31
<b>Alternative III:</b>									
1979 <sup>3</sup>	8.96	8.66	-.30	1.36	1.50	.14	10.32	10.16	-.16
1980	9.50	8.66	-.84	1.39	1.50	.11	10.89	10.16	-.73
1981	10.22	9.05	-1.17	1.44	1.65	.21	11.65	10.70	-.95
1982	10.44	9.15	-1.29	1.42	1.65	.23	11.86	10.80	-1.06
1983	10.43	9.15	-1.28	1.37	1.65	.28	11.80	10.80	-1.00
1984	10.49	9.15	-1.34	1.35	1.65	.30	11.84	10.80	-1.04

<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 1979, 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, 1980 and later, because such payments 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 1979-84 are shown in tables 12-14.

<sup>3</sup> Percentages for 1979, though based on actual experience, are preliminary and subject to revision.

Expenditures as a percentage of taxable earnings for years prior to 1980 are shown in table 17. Corresponding estimates for 1980-84 under the intermediate assumptions, which were shown in table 16, are repeated in 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 1950-79 AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1980-84 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
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.....	9.73	8.57	1.16
1975.....	10.65	9.29	1.36
1976.....	10.86	9.42	1.44
1977.....	10.97	9.47	1.50
1978.....	10.75	9.30	1.45
1979.....	10.31	8.95	1.36
Estimated future experience: <sup>3</sup>			
1980.....	10.87	9.48	1.39
1981.....	11.33	9.94	1.39
1982.....	11.32	9.97	1.35
1983.....	11.21	9.91	1.29
1984.....	11.11	9.86	1.26

<sup>1</sup> See footnote 1, table 16. For 1975-79, percentages are preliminary and subject to revision.

<sup>2</sup> Expenditures in each year 1970-79 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 1980-84 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 1980-84 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 1980-84.

Data on the actual operations of the OASI trust fund for selected years during the period 1940-79, and estimates of the expected operations of the trust fund during 1980-84 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 1960-84 are shown in tables 20 and 21. Operations of both trust funds combined are shown in tables 22 and 23.<sup>2</sup>

<sup>2</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 1940-79 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1980-84 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

(In millions)

Fiscal year <sup>1</sup>	Transactions during period										Net increase in fund	Fund at end of 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			
		Contributions, less refunds	Noncontributory credits for military service	Payments to non-insured 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
1970	31,746	29,955	78	\$364	1,350	27,321	26,267	\$1	474	579		4,425	32,616
1971	33,982	31,915	78	371	1,618	32,268	31,101	2	552	613		1,714	34,331
1972	37,917	35,711	137	351	1,719	35,849	34,541	2	582	724		2,068	36,399
1973	43,639	41,318	138	337	1,847	43,623	42,170	2	667	783		17	36,416
1974	50,936	48,455	139	303	2,039	49,485	47,849	4	723	909		1,451	37,867
1975	58,757	56,017	140	307	2,292	56,676	54,839	8	848	982		2,081	39,948
1976	62,327	59,555	157	268	2,347	64,295	62,140	7	935	1,212		1,968	37,980
July-September 1976	16,186	16,106			80	17,111	16,876	2	234			17	37,055
1977	71,796	68,895	378	236	2,287	73,479	71,271	8	993	1,208		1,683	35,372
1978	76,811	74,047	385	228	2,151	81,205	78,524	6	1,086	1,589		4,394	30,978
1979	86,893	84,358	384	230	1,920	90,128	87,592	17	1,072	1,448		3,235	27,743
<b>Estimated future experience:<sup>4</sup></b>													
1980	100,580	98,274	393	164	1,749	103,866	101,208	17	1,199	1,442		3,286	24,457
1981	112,216	110,290	390	150	1,386	122,478	119,639	15	1,264	1,560		10,262	14,195
1982 <sup>5</sup>	128,879	127,838	606	142	293	140,232	137,038	16	1,429	1,749		11,353	2,842
1983 <sup>5</sup>	144,695	145,036	611	133	-1,085	157,295	153,833	18	1,544	1,900		12,600	-9,758
1984 <sup>5</sup>	160,735	162,468	615	120	-2,468	175,680	171,864	19	1,756	2,041		14,945	-24,703

<sup>1</sup> Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consists of the 12 months 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> Includes \$2,700,000 as a single reimbursement for the estimated total costs of granting non-contributory 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>4</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.

<sup>5</sup> Figures are theoretical. See text and footnote 2 in table 12 for details.

TABLE 19.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1940-79 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1980-84 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 non-insured persons aged 72 and over									
<b>Past experience:</b>													
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		1,087	21,663	
1960	11,382	10,866			516	11,198	10,677		203	\$17	184	20,324	
1965	16,610	16,017			593	17,501	16,737		328	436	-890	18,235	
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
1979	90,274	87,919		393	164	1,797	93,133	90,556	18	1,113	1,448	-2,860	24,660
<b>Estimated future experience:</b>													
1980	102,809	100,654		390	150	1,615	108,577	105,884	17	1,234	1,442	-5,768	18,892
1981	116,504	114,717		606	142	1,039	126,932	124,057	15	1,300	1,560	-10,428	8,464
1982	132,019	131,729		611	133	-454	144,396	141,160	17	1,470	1,749	-12,377	-3,913
1983	147,526	148,545		615	120	-1,754	161,772	158,265	18	1,589	1,900	-14,246	-18,159
1984	164,127	166,612		620	107	-3,212	180,344	176,562	19	1,722	2,041	-16,217	-34,376

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 1960-79 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1980-84 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 non-contributory 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
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	( <sup>4</sup> )	-2,215	4,243
1978	12,784	12,404	128	251	12,655	12,214	84	327	30	129	4,372
1979	15,196	14,750	142	305	13,944	13,428	79	407	30	1,252	5,624
<b>Estimated future experience: <sup>5</sup></b>											
1980	17,501	16,932	118	451	15,358	14,864	95	411	-12	2,143	7,767
1981	20,670	19,846	130	694	17,310	16,764	72	483	-9	3,360	11,127
1982	24,379	23,129	176	1,074	19,131	18,527	80	542	-18	5,248	16,375
1983	27,957	26,164	182	1,611	20,708	20,070	88	574	-24	7,249	23,624
1984	31,806	29,307	188	2,311	22,480	21,822	95	584	-21	9,326	32,950

<sup>1</sup> Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 months 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 1960-79 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1980-84  
UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

(In millions)

Calendar year	Transactions during period										
	Income				Disbursements						
	Total	Contributions, less refunds	Reimburse- ments from general fund of Treasury for costs of non- contributory credits for military service	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Adminis- trative expenses	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
<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
1970 .....	4,774	4,481	\$16	277	3,259	3,067	\$18	164	10	1,514	5,614
1971 .....	5,031	4,620	50	361	4,000	3,758	24	205	13	1,031	6,645
1972 .....	5,572	5,107	51	414	4,759	4,473	29	233	24	813	7,457
1973 .....	6,443	5,932	52	458	5,973	5,718	46	190	20	470	7,927
1974 .....	7,378	6,826	52	500	7,196	6,903	54	217	22	182	8,109
1975 .....	8,035	7,444	90	502	8,790	8,414	91	256	29	-754	7,354
1976 .....	8,757	8,233	103	422	10,366	9,966	89	285	26	-1,609	5,745
1977 .....	9,570	9,138	128	304	11,945	11,463	84	399	( <sup>1</sup> )	-2,375	3,370
1978 .....	13,810	13,413	142	256	12,954	12,513	86	325	30	856	4,226
1979 .....	15,590	15,114	118	358	14,186	13,708	78	371	30	1,404	5,630
<b>Estimated future experience:</b>											
1980 .....	18,123	17,427	130	566	15,873	15,379	89	417	-12	2,250	7,880
1981 .....	21,893	20,854	176	863	17,800	17,227	74	508	-9	4,093	11,973
1982 .....	25,283	23,778	182	1,323	19,537	18,916	82	557	-18	5,746	17,719
1983 .....	28,921	26,795	188	1,938	21,135	20,486	90	583	-24	7,786	25,505
1984 .....	32,969	30,055	195	2,719	23,000	22,295	97	629	-21	9,969	35,474

<sup>1</sup> 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 1960-79 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1980-84 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year	Transactions during period										Funds at end of period		
	Income					Disbursements							
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of—	Noncontributory credits for military service	Payments to non-insured 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
<b>Past experience:</b>													
1960	\$11,394	\$10,830			\$564	\$11,606	\$10,798		\$234	\$574	-\$212	\$22,996	
1965	17,681	17,032			648	17,456	16,618		379	459	224	22,187	
1970	36,127	34,096			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	93,860	90,738	91	1,413	1,618	-4,265	35,350	
1979	102,089	99,108	526	230	2,225	104,072	101,020	96	1,479	1,477	-1,983	33,367	
<b>Estimated future experience:</b>													
1980	118,081	115,206	511	164	2,200	119,224	116,072	112	1,610	1,430	-1,143	32,224	
1981	132,886	130,136	520	150	2,080	139,788	136,403	87	1,747	1,551	-6,902	25,322	
1982	153,258	150,967	782	142	1,367	159,363	155,565	96	1,971	1,731	-6,105	19,217	
1983	172,652	171,200	793	133	526	178,003	173,903	106	2,118	1,876	-5,351	13,866	
1984	192,541	191,775	803	120	-157	198,160	193,686	114	2,340	2,020	-5,619	8,247	

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 1960-79 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1980-84 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period										Funds 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 funds
		Contributions, less refunds	Noncontributory credits for military service	Payments to non-insured persons aged 72 and over									
<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	
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	2,660	60,593	58,521	59	1,082	931	1,472	45,886	
1975	67,640	64,259	247	268	2,866	69,184	66,923	99	1,152	1,010	-1,544	44,342	
1976	75,034	71,595	481	236	2,722	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	
1979	105,864	103,034	511	164	2,155	107,320	104,263	96	1,483	1,477	-1,456	30,291	
<b>Estimated future experience:</b>													
1980	120,932	118,081	520	150	2,181	124,450	121,263	106	1,651	1,430	-3,518	26,772	
1981	138,397	135,571	782	142	1,902	144,732	141,284	89	1,808	1,551	-6,335	20,437	
1982	157,302	155,507	793	133	869	163,933	160,076	99	2,027	1,731	-6,631	13,806	
1983	176,447	175,340	803	120	184	182,907	178,751	108	2,172	1,876	-6,460	7,346	
1984	197,096	196,667	815	107	-493	203,344	198,857	116	2,351	2,020	-6,248	1,098	

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 noncontributory 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 and Human Services 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 3 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 1979, 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 \$10.2 billion, or about 10 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 directed the Secretary of Health and Human Services to undertake a study of the feasibility and desirability of covering Federal employees, State and local government employees and employees of

nonprofit organizations under the OASDI and HI programs on a mandatory basis. The study was conducted in consultation with the Secretary of the Treasury, the Director of the Office of Management and Budget and the Director of the Office of Personnel Management. The results of the study were contained in a report released in March 1980. The report describes and evaluates various policy options concerning universal coverage, but does not advocate a particular alternative.

**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, 1979, about 507,000 persons were receiving monthly benefits with respect to disability from the OASI trust fund. In addition to disabled beneficiaries, this total includes 42,000 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 \$1,071 million in calendar year 1979. Similar figures are presented in table 24 to show the experience in selected calendar years 1960-79. 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 1960-84

[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
1979.....	507	445	62	1,071	946	125
<b>Estimated future experience: <sup>4</sup></b>						
1980.....	523	458	64	1,249	1,117	132
1981.....	535	471	64	1,461	1,314	147
1982.....	546	482	63	1,656	1,504	152
1983.....	555	492	62	1,849	1,695	154
1984.....	562	500	62	2,046	1,892	154

<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 1980-84, 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 \$1,249 million in calendar year 1980 to \$2,046 million in calendar year 1984, under the intermediate assumptions.

In calendar year 1979, 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 \$14,857 million, of which \$1,071 million, or 7.2 percent, represented payments from the OASI trust fund. Similar figures for selected calendar years 1960-79 and estimates for calendar years 1980-84, 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 1960-84

[Amounts in millions]

Calendar year	Benefit payments <sup>1</sup> from—			
	Total <sup>1</sup>	Disability insurance trust fund <sup>2</sup>	Old-age and survivors insurance trust fund	
			Amount <sup>3</sup>	As a percentage of total benefit payments with respect to disabled beneficiaries
<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
1979.....	14,857	13,786	1,071	7.2
<b>Estimated future experience:<sup>4</sup></b>				
1980.....	16,717	15,468	1,249	7.5
1981.....	18,762	17,301	1,461	7.8
1982.....	20,654	18,998	1,656	8.0
1983.....	22,425	20,576	1,849	8.2
1984.....	24,438	22,392	2,046	8.4

<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 financial status of the OASDI program over the medium range and long range has been measured by the actuarial balance, 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 statements of the medium-range and long-range actuarial status contained in this report pertain to the periods 1980-2004 and 1980-2054, 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 projected trust fund ratios (assets at the beginning of the year expressed as a percentage of expenditures during the year), and the other is the time series of projected 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 of financing described earlier. However, these cost estimates

TABLE 25.—BENEFIT PAYMENTS UNDER THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960-84

[Amounts in millions]

Calendar year	Benefit payments <sup>1</sup> from—			
	Total <sup>1</sup>	Disability insurance trust fund <sup>2</sup>	Old-age and survivors insurance trust fund	
			Amount <sup>3</sup>	As a percentage of total benefit payments with respect to disabled beneficiaries
<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
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<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 financial status of the OASDI program over the medium range and long range has been measured by the actuarial balance, 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 statements of the medium-range and long-range actuarial status contained in this report pertain to the periods 1980-2004 and 1980-2054, 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 projected trust fund ratios (assets at the beginning of the year expressed as a percentage of expenditures during the year), and the other is the time series of projected 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 of financing described earlier. However, these cost estimates

do not reflect the cost of increasing the trust fund ratio from its current level or even maintaining it at that level. Therefore, any consideration of alternative financing provisions must also include consideration of the desired level of the trust fund in relation to outgo and the time by which that level is to be attained. In this way, the tax schedule can be designed so that the projected annual tax revenues not only meet the projected annual expenditures but also produce the desired trust fund ratios. 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, under alternative II it would be necessary to raise the combined employer-employee tax rate by an additional 0.19 percent of taxable payroll per year above the amount needed to meet expenditures. Similarly, if it were considered appropriate to increase that ratio to 75 percent, an additional 0.13 percent of taxable payroll would be needed.

#### MEDIUM RANGE COST ESTIMATES: 1980-2004

The medium-range cost estimates are summarized in the tables shown below. For convenience of reference, these tables also summarize the long-range (1980-2054) projections discussed later in this section.

The medium-range cost estimates are sensitive to changes in many economic and demographic assumptions upon which they are based, but the degree of sensitivity to change varies considerably among the various 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. However, variations in economic factors such as wage and price increases have significant effects on the estimates. 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, even over the medium-range period the projections of expenditures are only an indication of the trend and general range of the actual expenditures. Appendix A contains a more detailed discussion of the effects of varying selected economic and demographic assumptions on the estimated average medium-range expenditure.

Table 26 presents a comparison of the estimated expenditures under alternative II with the scheduled OASDI tax rates. After the first 5 years, the OASDI system is projected to have a surplus of tax revenues over expenditures in each year of the medium-range period. These annual surpluses produce a medium-range actuarial surplus of 1.19 percent of taxable payroll. However, the first 5 years of deficit are sufficient to exhaust the OASI trust fund (as described earlier in this report).



TABLE 26.—ESTIMATED EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVE II AND COMPARISON WITH SCHEDULED TAX RATES, CALENDAR YEARS 1980-2055

[As percent of taxable payroll]

Calendar year	Estimated expenditure			Scheduled tax rate <sup>1</sup>	Difference
	OASI	DI	Total		
1980	9.48	1.39	10.87	10.16	-.71
1981	9.94	1.39	11.33	10.70	-.63
1982	9.97	1.35	11.32	10.80	-.52
1983	9.91	1.29	11.21	10.80	-.41
1984	9.86	1.26	11.11	10.80	-.31
1985	9.79	1.22	11.02	11.40	.38
1986	9.74	1.20	10.94	11.40	.46
1987	9.68	1.17	10.85	11.40	.55
1988	9.60	1.16	10.75	11.40	.65
1989	9.48	1.14	10.63	11.40	.77
1990	9.39	1.13	10.52	12.40	1.88
1991	9.38	1.13	10.51	12.40	1.89
1992	9.37	1.13	10.50	12.40	1.90
1993	9.36	1.13	10.49	12.40	1.91
1994	9.35	1.14	10.49	12.40	1.91
1995	9.35	1.14	10.49	12.40	1.91
1996	9.28	1.17	10.45	12.40	1.95
1997	9.22	1.20	10.41	12.40	1.99
1998	9.16	1.23	10.39	12.40	2.01
1999	9.12	1.26	10.38	12.40	2.02
2000	9.08	1.29	10.37	12.40	2.03
2001	9.03	1.33	10.36	12.40	2.04
2002	8.98	1.36	10.34	12.40	2.06
2003	8.96	1.39	10.36	12.40	2.04
2004	8.99	1.43	10.42	12.40	1.98
2005	9.02	1.46	10.48	12.40	1.92
2010	9.75	1.62	11.36	12.40	1.04
2015	11.09	1.70	12.79	12.40	-.39
2020	12.82	1.73	14.55	12.40	-2.15
2025	14.40	1.68	16.08	12.40	-3.68
2030	15.37	1.60	16.98	12.40	-4.58
2035	15.59	1.57	17.16	12.40	-4.76
2040	15.31	1.59	16.90	12.40	-4.50
2045	15.23	1.63	16.86	12.40	-4.46
2050	15.33	1.63	16.96	12.40	-4.56
2055	15.45	1.61	17.07	12.40	-4.67
25-yr averages:					
1980-2004	9.42	1.24	10.66	11.85	1.19
2005-29	11.92	1.65	13.57	12.40	-1.17
2030-54	15.37	1.61	16.98	12.40	-4.58
75-yr average:					
1980-2054	12.24	1.50	13.74	12.22	-1.52

<sup>1</sup> OASDI combined employer-employee tax rate.

Note: Alternative II and taxable payroll are described in the text of this report.

Table 27 presents a comparison of 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 expenditure varies from 9.91 percent under alternative I to 11.73 percent under alternative III. Under each alternative, the expenditures are fairly level throughout the medium-range period, ranging from 9.29 to 11.07 percent under alternative I and from 10.89 to 11.86 percent under alternative III. The annual expenditures near the end of the medium-range period under alternatives I and III differ by about 2½ percentage points. In comparison with the estimated expenditure for the year 1979 of 10.32 percent, the highest level attained during the medium-range period varies from 11.07 percent under alternative I to 11.86 percent under alternative III. As a percentage of gross national product the estimated average medium-range expenditure is fairly constant, varying from 4.37 percent under alternative I to 4.83 percent under alternative III.

The actual OASDI income and expenditures in the future may not necessarily fall within the range defined by alternatives I and III; however, the projections represent the operations of the OASDI program under several economic and demographic scenarios, spanning a reasonable range of possibilities.

TABLE 27.—ESTIMATED EXPENDITURES OF OASDI SYSTEM UNDER ALTERNATIVES I, II AND III, CALENDAR YEARS 1980-2055

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
1980	10.81	10.87	10.89	4.77	4.79	4.83
1981	11.07	11.33	11.65	4.91	5.05	5.16
1982	11.05	11.32	11.86	4.91	5.02	5.17
1983	10.90	11.21	11.80	4.83	4.93	5.11
1984	10.68	11.11	11.84	4.74	4.88	5.10
1985	10.46	11.02	11.85	4.65	4.83	5.07
1986	10.27	10.94	11.85	4.58	4.78	5.03
1987	10.17	10.85	11.84	4.55	4.72	5.00
1988	10.06	10.75	11.83	4.51	4.66	4.96
1989	9.91	10.63	11.78	4.45	4.60	4.93
1990	9.73	10.52	11.74	4.37	4.55	4.91
1991	9.67	10.51	11.77	4.33	4.54	4.88
1992	9.63	10.50	11.78	4.30	4.53	4.85
1993	9.61	10.49	11.78	4.27	4.51	4.81
1994	9.60	10.49	11.78	4.25	4.50	4.78
1995	9.60	10.49	11.78	4.23	4.49	4.75
1996	9.54	10.45	11.74	4.19	4.45	4.71
1997	9.49	10.41	11.71	4.16	4.42	4.67
1998	9.46	10.39	11.69	4.13	4.39	4.64
1999	9.43	10.38	11.68	4.10	4.37	4.62
2000	9.40	10.37	11.69	4.08	4.35	4.60
2001	9.35	10.36	11.70	4.04	4.33	4.58
2002	9.30	10.34	11.69	4.01	4.31	4.56
2003	9.29	10.36	11.75	3.99	4.30	4.56
2004	9.31	10.42	11.86	3.99	4.31	4.58
2005	9.33	10.48	11.98	3.99	4.32	4.61
2010	9.95	11.36	13.32	4.18	4.59	5.00
2015	10.98	12.79	15.42	4.55	5.07	5.65
2020	12.25	14.55	18.13	4.99	5.66	6.49
2025	13.22	16.08	20.89	5.30	6.14	7.30
2030	13.56	16.98	23.22	5.36	6.36	7.93
2035	13.24	17.16	24.88	5.15	6.31	8.30
2040	12.57	16.90	26.05	4.81	6.09	8.49
2045	12.18	16.86	27.43	4.59	5.97	8.73
2050	12.03	16.96	28.80	4.46	5.89	8.95
2055	11.97	17.07	29.83	4.37	5.82	9.05
25-yr averages:						
1980-2004	9.91	10.66	11.73	4.37	4.58	4.83
2005-29	11.48	13.57	16.84	4.71	5.32	6.08
2030-54	12.59	16.98	26.60	4.80	6.08	8.57
75-yr average:						
1980-2054	11.33	13.74	18.39	4.63	5.33	6.49

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

Table 28 presents a comparison of the average annual expenditure by trust fund estimated under the three alternative sets of assumptions with the average of the scheduled tax rates. Under alternative II, the OASI and DI programs are estimated to have medium-range actuarial surpluses of 0.41 percent and 0.78 percent, respectively. Under alternative I, both programs are also estimated to have medium-range actuarial surpluses, but under alternative III, the OASI program has a medium-range actuarial deficit of 0.52 percent. Although the OASI program has a medium-range actuarial surplus under alternatives I and II, the pattern of estimated expenditures is such that the OASI trust fund is exhausted in 1981 or 1982 under all three alternatives (as described earlier in this report). Throughout the medium-range period, the scheduled financing for the DI program appears to be more than adequate under all three alternatives.

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

[As percent of taxable payroll]							
Calendar years	Average scheduled tax rate	Estimated average expenditure by alternative			Difference by alternative		
		I	II	III	I	II	III
<b>OASI:</b>							
1980-2004 .....	9.83	8.81	9.42	10.35	1.02	.41	-.52
2005-29 .....	10.20	10.16	11.92	14.83	.04	-1.72	-4.63
2030-54 .....	10.20	11.36	15.37	24.50	-1.16	-5.17	-14.30
1980-54 .....	10.08	10.11	12.24	16.56	-.03	-2.16	-6.48
<b>DI:</b>							
1980-2004 .....	2.02	1.10	1.24	1.38	.92	.78	.64
2005-29 .....	2.20	1.32	1.65	2.00	.88	.55	.20
2030-54 .....	2.20	1.23	1.61	2.10	.97	.59	.10
1980-54 .....	2.14	1.22	1.50	1.83	.92	.64	.31
<b>Total:</b>							
1980-2004 .....	11.85	9.91	10.66	11.73	1.94	1.19	.12
2005-29 .....	12.40	11.48	13.57	16.84	.92	-1.17	-4.44
2030-54 .....	12.40	12.59	16.98	26.60	-.19	-4.58	-14.20
1980-54 .....	12.22	11.33	13.74	18.39	.89	-1.52	-6.17

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

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 in the DI program are reflected in the high levels attained by the trust fund ratios at the end of that period. Under alternative II, the DI ratio is estimated to increase to 1,314 percent. Under alternatives I and III, it is estimated to increase to 1,757 and 935 percent, respectively. Because the OASI trust fund is projected to become exhausted in 1981 or 1982 (as described earlier), the trust fund ratios shown thereafter are theoretical in that they are calculated on the assumption that the exhaustion of the fund can be prevented by allowing it to borrow money although no such borrowing authority exists in present law. The theoretical ratios are derived by assuming that money is borrowed and repaid as necessary in a manner analogous to that in which positive trust fund balances are invested. Under alternatives I and II, the OASI ratio is projected (on a theoretical basis) to become positive by the end of the medium-range period, reaching a value of 292 percent under alternative I. However, under alternative III the OASI trust fund does not recover within the projection period after becoming exhausted in 1981. The deficits under alternatives II and III in the OASI program are sufficient to exhaust the combined OASI and DI funds in 1982 or 1983 (as described earlier).

TABLE 29.—ESTIMATED TRUST FUND RATIOS<sup>1</sup> OF OASDI SYSTEM UNDER ALTERNATIVES I, II AND III, CALENDAR YEARS 1980-2055

Calendar year	Alternative I			Alternative II			Alternative III		
	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total
1980	23	36	24	23	35	24	23	35	24
1981	15	45	19	15	44	18	14	43	18
1982	8	65	15	6	61	12	3	55	9
1983	2	92	12	-2	84	8	(?)	70	(?)
1984	-4	126	11	-10	111	4	(?)	88	-8
1985	-8	169	11	-17	142	(?)	(?)	109	-17
1986	-7	239	19	-21	196	3	(?)	149	-21
1987	-4	320	30	-23	254	7	(?)	192	-25
1988	(?)	406	42	-26	315	11	(?)	236	-30
1989	5	498	55	-27	378	16	(?)	283	-34
1990	11	594	70	-28	442	23	(?)	332	-38
1991	27	717	97	-21	533	39	(?)	401	-34
1992	44	837	124	-13	627	56	(?)	471	-30
1993	61	956	152	-4	721	74	(?)	539	-25
1994	78	1,072	180	4	813	91	(?)	605	-21
1995	96	1,186	208	12	902	109	(?)	667	-16
1996	115	1,275	238	21	971	127	(?)	718	-11
1997	135	1,359	268	31	1,035	146	(?)	763	-6
1998	155	1,436	298	41	1,093	165	(?)	804	(?)
1999	177	1,507	329	52	1,145	185	(?)	840	5
2000	199	1,573	360	64	1,193	204	(?)	872	10
2001	222	1,625	391	76	1,230	224	(?)	896	16
2002	245	1,673	422	89	1,263	243	(?)	914	22
2003	269	1,717	451	102	1,291	262	(?)	926	27
2004	292	1,757	480	115	1,314	279	(?)	935	32
2005	315	1,792	507	127	1,330	295	(?)	941	35
2010	393	1,957	601	159	1,393	335	(?)	954	27
2015	407	2,160	626	135	1,482	315	(?)	970	(?)
2020	360	2,428	593	57	1,613	242	(?)	1,001	(?)
2025	281	2,822	535	(?)	1,820	137	(?)	1,071	(?)
2030	192	3,317	477	(?)	2,093	13	(?)	1,177	(?)
2035	111	3,730	438	(?)	2,324	(?)	(?)	1,265	(?)
2040	47	3,995	426	(?)	2,483	(?)	(?)	1,327	(?)
2045	2	4,169	426	(?)	2,610	(?)	(?)	1,395	(?)
2050	(?)	4,303	430	(?)	2,780	(?)	(?)	1,503	(?)
2055	(?)	4,703	435	(?)	2,995	(?)	(?)	1,644	(?)
Trust fund is projected to be first exhausted in the year	1982	(?)	(?)	1981	(?)	1983	1981	(?)	1982

<sup>1</sup> 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 the year.

<sup>2</sup> The fund is projected to be exhausted and not to recover before the end of the projection period.

<sup>3</sup> The trust fund ratio is less than 0.5 percent.

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

Notes: Alternatives I, II and III are described in the text of this report. The OASI and Total ratios for 1983 and later under alternative I, and for 1982 and later under alternatives II and III, are theoretical because they are calculated on the assumption that the exhaustion of the OASI trust fund (see text) can be resolved by allowing the fund to borrow money.

The patterns of the trust fund ratios indicate imbalances in the financing of the OASI and DI programs over the medium-range period. For example, under alternative II, while, after the early years, the financing over the medium-range period is adequate for the combined OASI and DI programs, it is inadequate for the OASI program and more than adequate for the DI program.

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

TABLE 30.—CHANGE IN ESTIMATED AVERAGE ANNUAL EXPENDITURE 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 1979 report: <sup>1</sup>						
Actuarial balance.....	+ .69	+ .48	+1.17	-1.41	+ .21	-1.20
Average scheduled tax rate.....	9.76	2.00	11.76	10.05	2.13	12.19
Estimated average expenditure.....	9.07	1.52	10.59	11.47	1.92	13.38
Changes in estimated average expenditure due to changes in: <sup>2</sup>						
Social Security Act (Disability Amendments of 1980)						
Valuation date.....	-.00	-.12	-.12	-.01	-.19	-.20
Economic assumptions.....	-.01	+ .01	+ .00	+ .06	+ .01	+ .07
Fertility assumptions.....	+ .42	+ .05	+ .47	+ .15	+ .02	+ .17
Mortality assumptions.....	+ .00	+ .00	+ .00	+ .09	+ .00	+ .09
Disability assumptions.....	+ .15	+ .00	+ .15	+ .46	+ .00	+ .46
Methods.....	+ .00	-.16	-.16	+ .00	-.22	-.22
All other factors.....	-.16	-.02	-.18	-.12	-.03	-.15
Total change in estimated average expenditure.....	-.05	-.04	-.09	+ .14	-.01	+ .13
Shown in this report: <sup>3</sup>						
Estimated average expenditure.....	+ .35	-.28	+ .07	+ .77	-.42	+ .35
Actuarial balance.....	9.42	1.24	10.66	12.24	1.50	13.74
Average scheduled tax rate.....	9.83	2.02	11.85	10.08	2.14	12.22
Actuarial balance.....	+ .41	+ .78	+1.19	-2.16	+ .64	-1.52

<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 1979.

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

<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 averages are computed over projection periods commencing with 1980.

Note: Taxable payroll is described in the text of this report.

The Disability Amendments of 1980 changed the Social Security Act in several ways. Certain administrative changes are expected to reduce the numbers of future beneficiaries from those projected in the 1979 Trustees Report. Changes in the methods of calculating workers' benefits and maximum family benefits are expected to reduce the average amounts for future DI beneficiaries as compared to the amounts projected in the 1979 Trustees Report. The total effect of the changes is to substantially decrease the estimated cost of the disability insurance program over both the medium-range and the long-range periods.

In changing from the valuation periods of last year's report, which were 1979–2003 and 1979–2053 for the medium-range and long-range periods, respectively, to the valuation periods of this report, 1980–2004 and 1980–2054, the year 1979 is replaced by 2004 in the medium-range and 2054 in the long-range. Except for the OASI medium-range projection, the replacement year is a year of higher cost than the year being replaced, thereby increasing the estimated average expenditures even in the absence of any other changes.

The increase in estimated cost because of changes in economic assumptions results from the larger CPI increases assumed in the early years in comparison with the assumed wage increases. The ultimate wage and CPI increases (5.75 and 4 percent, respectively) are the same as those in last year's report.

In the demographic area, although the ultimate fertility assumption has not been changed, lower fertility rates have been assumed during the rest of this century. As a result, higher estimated costs develop after the turn of the century because of the smaller proportion of the population at the working ages. The mortality level assumed in this report is about 6 percent lower by the year 2050 than the level in last

year's report. This difference in assumed mortality levels results from giving more recognition to the rapid improvement in mortality experienced over the past decade when determining long-range trends for mortality.

Changes in the assumed disability incidence and termination rates were made to reflect more recent experience. These changes result in large decreases in the estimated cost of the disability insurance program over both the medium-range and long-range periods. These changes in cost are in addition to those resulting from the Disability Admndments of 1980.

Numerous changes were made in the methods used to project the costs of the OASDI program. The net result of these changes is to decrease the OASI and DI estimated medium-range and long-range costs. The major change in method was the revision of the procedure for projecting the average benefits for aged beneficiaries. This year, to reflect more fully the increasing average length of time beneficiaries are expected to receive benefits, the procedure was refined to allow for more detailed age-specific estimates. A number of other changes in method had only minor effects on the projected costs.

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

## 2. LONG-RANGE COST ESTIMATES: 1980-2054

As mentioned earlier in this section, the degree of confidence that can be placed in demographic and economic assumptions and in the consequent cost estimates decreases as the length of the projection period increases. Thus, less confidence can be placed in the estimates for the long-range 75-year period than for the medium-range 25-year period. The long-range projections, although sensitive to variations in the assumptions, provide insights which are essential for making informed policy decisions. The tables summarizing those estimates appear earlier in this section. Appendix A contains a more detailed discussion of the effect of differences in selected economic and demographic assumptions on the estimated average annual expenditure over the long-range period.

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 this increase is that the number of beneficiaries will be increasing faster than the number of covered workers. This occurs because the relatively large number of persons born during the period from the end of World War II through the early 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 expenditures as a percentage of payroll are projected to decrease slightly because of the relatively small numbers of beneficiaries projected to result from the low birth rates experienced during the 1970's and assumed for the 1980's. Table 31 presents a comparison of the projected numbers of beneficiaries and 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 <sup>1</sup> (in thousands)	Beneficiaries <sup>2</sup> (in thousands)			Covered workers per OASDI beneficiary	Benefi- ciaries 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		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	100,200	27,244	4,125	31,369	3.2	31
1979	114,000	29,911	4,826	34,737	3.3	30
Alternative I:						
1980	114,500	30,606	4,748	35,354	3.2	31
1985	128,900	33,708	4,576	38,284	3.4	30
1990	136,700	36,664	4,686	41,350	3.3	30
1995	139,400	38,311	4,975	43,286	3.2	31
2000	142,200	39,460	5,617	45,077	3.2	32
2005	149,000	41,117	6,444	47,561	3.1	32
2010	154,500	44,561	7,216	51,777	3.0	34
2015	158,700	49,939	7,717	57,656	2.8	36
2020	162,100	56,435	7,931	64,366	2.5	40
2025	166,100	62,715	7,807	70,522	2.4	42
2030	171,500	66,533	7,553	74,086	2.3	43
2035	178,200	67,655	7,592	75,247	2.4	42
2040	185,900	66,926	7,957	74,883	2.5	40
2045	193,800	66,852	8,507	75,359	2.6	39
2050	202,000	68,474	8,930	77,404	2.6	38
2055	210,600	71,052	9,216	80,268	2.6	38
Alternative II:						
1980	114,300	30,609	4,750	35,359	3.2	31
1985	126,600	33,848	4,721	38,569	3.3	30
1990	134,800	37,053	5,131	42,184	3.2	31
1995	137,800	39,166	5,498	44,664	3.1	32
2000	140,700	40,675	6,288	46,963	3.0	33
2005	145,900	42,721	7,241	49,962	2.9	34
2010	149,500	46,596	8,093	54,689	2.7	37
2015	151,300	52,422	8,617	61,039	2.5	40
2020	151,800	59,456	8,799	68,255	2.2	45
2025	152,400	66,352	8,591	74,943	2.0	49
2030	153,500	70,841	8,216	79,057	1.9	52
2035	155,300	72,652	8,123	80,775	1.9	52
2040	157,500	72,471	8,323	80,794	1.9	51
2045	159,600	72,643	8,627	81,270	2.0	51
2050	161,700	73,759	8,757	82,516	2.0	51
2055	163,700	75,146	8,759	83,905	2.0	51
Alternative III:						
1980	113,900	30,613	4,753	35,366	3.2	31
1985	124,800	34,098	4,873	38,971	3.2	31
1990	132,800	37,818	5,588	43,406	3.1	33
1995	136,400	40,835	5,988	46,823	2.9	34
2000	140,000	43,158	6,872	50,030	2.8	36
2005	143,100	46,104	7,887	53,991	2.7	38
2010	143,900	50,948	8,750	59,698	2.4	41
2015	142,000	57,817	9,230	67,047	2.1	47
2020	138,300	66,049	9,328	75,377	1.8	55
2025	134,000	74,310	8,980	83,290	1.6	62
2030	129,500	80,257	8,432	88,689	1.5	68
2035	125,300	83,544	8,125	91,669	1.4	73
2040	121,200	84,825	8,011	92,836	1.3	77
2045	116,800	85,983	7,852	93,835	1.2	80
2050	112,200	86,849	7,486	94,335	1.2	84
2055	107,800	86,671	7,051	93,722	1.2	87

<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 projected to decrease somewhat 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 many of the same demographic factors that affect the pattern of the estimated OASI expenditures and, in addition, by the assumptions about future disability experience. In particular, the projected increase in DI costs results in part from assumed disability incidence rates that are higher than current rates. (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 slightly to about 4½ percent of taxable payroll during the last fifteen years of the long-range projection period. The net result of this pattern of annual surpluses and deficits is a long-range actuarial deficit of 1.52 percent of taxable payroll. This deficit is about 11 percent of the estimated 75-year average expenditure (which is 13.74 percent of taxable payroll). Because the deficit exceeds 5 percent of the estimated average expenditure (that is, exceeds 0.69 percent of taxable payroll), the system is not regarded as being in close actuarial balance over the long-range period. Once the OASI financing problems expected in the 1980's are overcome, there will be ample time to study the system and to make well-considered changes to improve its long-range financial status.

Table 27 shows that under each alternative the estimated expenditures as a percentage of taxable payroll increase rapidly after the turn of the century because of the previously discussed change in the demographic structure of the United States. 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. As a percentage of GNP, the estimated average long-range expenditure varies from 4.63 percent under alternative I to 6.49 percent under alternative III, with the average under alternative II being 5.33 percent.

Table 28 shows that under each alternative a long-range deficit is projected for the OASI program, while a long-range surplus is projected for the DI program. The combined OASDI long-range actuarial balance ranges from a surplus of 0.89 percent under alternative I to a deficit of 6.17 percent under alternative III.

The long-range projections of the trust funds are shown in table 29. The OASI trust fund is exhausted in 1981 under the intermediate and pessimistic assumptions, and in 1982 under the optimistic assumptions (as described earlier). Under alternative II, assuming that the OASI financing problems expected in the 1980's are overcome, the OASI



trust fund ratio is projected to rise to over 150 percent around 2010 before decreasing rapidly until 2022, the year in which the OASI trust fund would again be exhausted. The DI trust fund ratio is projected to rise steadily throughout the projection period to almost 3,000 percent by the end of the long-range projection period. Under alternative I, the theoretical OASI ratio peaks around 2015 at about 400 percent before decreasing until 2045, when the OASI trust fund would again be exhausted; the DI ratio increases to about 4,700 percent by the end of the projection period. The combined OASDI trust fund at the end of the long-range period represents about 19 percent of the projected gross national product under alternative I. Under alternative III, the OASI trust fund does not recover from its exhaustion in 1981 before the end of the projection period; the DI trust fund ratio increases to over 1,600 percent by the end of the projection period. The combined OASDI trust fund is exhausted in 1982, but on a theoretical basis would become positive again in 1997 and increase to about 35 percent of annual expenditures before again becoming exhausted in 2012.

### VIII. CONCLUSION

The actuarial estimates presented in this report are based upon economic and demographic assumptions which are inevitably subject to considerable uncertainty. The assumptions and estimates that appear in this report were necessarily prepared before the most recent changes in the economy were known. Current evidence indicates that the economy has moved into a recession and is weakening rapidly. Therefore, revised short-range projections will probably be necessary in the near future as more information becomes available about the intensity of the changes in the economy. Over the longer term, uncertainty is of course an even more difficult factor. However, the Board believes that the long-range estimates presented in this report will remain useful for a longer period of time because they are less sensitive to changes in the short-range economic conditions.

Over the short term the OASI trust fund will face financial strains requiring policy actions. Without such actions, the OASI fund would be depleted in late 1981 or early 1982, depending on the course of the economy. Reallocation of the tax rates between OASI and DI would postpone depletion until the latter half of 1982 or early in 1983.

In contrast to the depletion of the OASI trust fund in late 1981 or early 1982, the growth of the DI trust fund that began in 1978 is projected to continue throughout the next 75 years under all three sets of assumptions. The growth which has occurred since 1978 has resulted primarily from the reallocation of tax rates provided under the 1977 amendments and from declining disability incidence rates. While the incidence rates are assumed to increase for some time into the future, the DI trust fund is nonetheless projected to continue increasing indefinitely.

Due in part to tax increases in 1985 and 1990, the combined assets of the OASI and DI trust funds should begin rising in 1985 and continue increasing into the 21st century based on the intermediate assumptions. However, largely because of demographic factors, estimated revenues are inadequate to meet demands on the OASI trust fund in the 21st century.

The medium-range and long-range actuarial soundness of the OASDI program is usually measured in terms of the difference between expenditures and tax revenues. For the next 25 years, the average annual tax income exceeds the average annual expenditure by 1.19 percent of taxable payroll under the intermediate assumptions, by 1.94 percent under the optimistic assumptions and by 0.12 percent under the pessimistic assumptions.

For the entire 75-year projection period, however, the average annual tax income falls below the average annual expenditure by 1.52 percent of taxable payroll under the intermediate assumptions. Under the optimistic assumptions, the average annual tax income exceeds the average annual expenditure by 0.89 percent of taxable payroll over the entire 75-year period, while under the pessimistic assumptions, the average annual tax income falls below the average annual expenditure by 6.17 percent.

The members of the Board of Trustees of the old-age and survivors insurance and the disability insurance trust funds are also members of the Board of Trustees of the hospital insurance (HI) trust fund. A concurrent annual report contains estimates of the status of the HI trust fund under the same sets of assumptions that are presented in this report.

Last January, the Administration proposed legislation which would allow any of these three trust funds to borrow from another of the funds, with any such loans to be repaid with interest. If this legislation is enacted, the assets in each of the three funds will be available to meet the benefit obligations of any of the funds.

Appendix E shows estimates of the combined assets of the three trust funds as a percentage of combined expenditures of the funds under each of the three sets of assumptions. These estimates can be used to evaluate the adequacy of projected assets if the Board is granted interfund borrowing authority.

The Board notes that throughout the decade of the 1980's assets in the three funds combined are projected to be sufficient to meet the obligations of all three funds under the optimistic and intermediate sets of assumptions. However, under the intermediate assumptions, the margin between projected assets and the minimum amount required to meet projected benefit obligations is uncomfortably small for several years. Under the pessimistic assumptions, assets in the three funds combined are sufficient to meet all benefit obligations through 1982, but are insufficient beginning late in 1983.

The Board emphasizes that the projected depletion of the OASI trust fund is an immediate problem which requires early attention by the Congress. Therefore, the Board recommends that the problem be addressed in part by the adoption of the Administration's interfund borrowing proposal. In addition, because the tax rates scheduled under present law result in significant overfinancing of the DI program, the Board recommends that the OASDI tax rates be reallocated between the OASI and DI trust funds to more closely reflect the projected future costs of each program. The provision of interfund borrowing authority may be sufficient to adequately finance all three programs throughout the 1980's, thus avoiding the need to provide additional financing. At the very least, it will give the Administration and the Congress sufficient time to assess economic conditions and

to address any further measures which may be necessary in order to strengthen the financing of the social security programs.

The Board also notes, as it did last year, that even under optimistic assumptions the balance between aggregate revenues and aggregate expenditures of the three trust funds is quite fragile in the immediate future. Under the pessimistic assumptions, the trust funds require revenues in addition to what is provided under present law. Thus, the Board repeats its recommendation of last year that no reduction be made in the present law payroll tax schedule of the trust funds without a general restructuring of social security financing to assure the integrity of the trust funds over the short-range and medium-range period.

The long-range financial difficulties are not projected to occur for several decades into the future. However, the Board recommends that extensive studies continue to be conducted so that possible long-range solutions may be implemented in an orderly manner.

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

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

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

### DETAILS OF THE COST ESTIMATES

#### *General population*

Projections were made of the U.S. population (including persons overseas covered by the OASDI program) by age and sex for future years to 2055. The starting point is 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 was adjusted for net census undercount and 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 age-sex specific mortality by cause of death for the period 1969-77 was projected to continue until 1985. Lower average annual improvements were projected after 1985. For the period 1979-2050, the average annual improvement was projected to be about 44 percent of the average annual improvement observed during 1900-77. As shown in appendix table A, projected mortality for 2050 under alternative II is 34.2 percent below that estimated for 1979. The average annual improvement for women is generally more than that for men, although this difference is projected to be less than experienced during 1900-77. Separate mortality projections were developed for alternatives I and III. For alternative I, the projected average annual improvement is 50 percent lower than under alternative II. For alternative III, the projected average annual improvement is twice that for alternative II.

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)		Overall mortality improvement (percent)	Average annual mortality improvement (percent)
	1979	2050		
<b>Men:</b>				
Under 20.....	140.4	102.3	27.2	.45
20 to 64.....	627.7	379.1	39.6	.71
65 and over.....	6,340.6	4,636.3	26.9	.44
Total.....	919.2	630.4	31.4	.53
<b>Women:</b>				
Under 20.....	92.3	60.9	34.0	.58
20-64.....	324.6	202.8	37.5	.66
65 and over.....	4,045.0	2,501.1	38.2	.67
Total.....	655.8	408.0	37.8	.67
<b>Total:</b>				
Under 20.....	116.8	82.0	29.8	.50
20 to 64.....	471.3	289.1	38.9	.69
65 and over.....	5,005.6	3,394.6	32.2	.55
Total.....	784.0	516.3	34.2	.59

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

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

Historically, fertility rates in the United States have fluctuated much more than 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 3.3 after World War I to 2.1 during the Great Depression, rose to about 3.7 in 1957 and then fell to 1.7 in 1976. Preliminary data indicate a slight upturn to 1.8 since 1976.

The historical variations in fertility rates are believed to be a result of changes in social attitudes, economic conditions and medical knowledge. After consideration of the recent behavior and trends 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. 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> compared to the 1.5 to 2.5 range used in this report. Both the Census report and this report used an intermediate assumption of 2.1 children per woman, which is the theoretical population replacement rate, i.e., 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. The assumed net immigration excluded aliens entering the United States illegally, largely because no reliable estimate of their number exists. However, illegal aliens were included in the starting population.

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

Because a specific marital status is required for many categories of OASDI benefits, the projected total population by age and sex was subdivided into those married, widowed, divorced and 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 through the projection period.

<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.—SOCIAL SECURITY AREA POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS BY BROAD AGE GROUP UNDER ALTERNATIVES I, II AND III, 1960-2055

Year	Population (in thousands)			Total	Dependency ratio	
	Under 20	20-64	65 and over		Aged <sup>1</sup>	Total <sup>2</sup>
1960	73,116	98,687	17,146	188,949	.174	.915
1965	79,931	104,112	18,963	203,006	.182	.950
1970	80,637	112,500	20,655	213,792	.184	.900
1975	77,947	122,036	23,092	223,075	.189	.828
1976	77,038	124,145	23,635	224,818	.190	.811
1977	76,110	126,405	24,280	226,795	.192	.794
1978	75,195	128,582	24,828	228,605	.193	.778
1979	74,382	130,743	25,376	230,501	.194	.763
Alternative I:						
1980	73,707	132,864	25,935	232,506	.195	.760
1985	72,417	142,629	28,679	243,724	.201	.709
1990	75,389	148,891	31,573	255,852	.212	.718
1995	80,039	154,080	33,573	267,692	.218	.737
2000	84,737	159,851	34,436	279,024	.215	.746
2005	87,804	167,324	35,336	290,464	.211	.736
2010	90,967	173,892	37,918	302,776	.218	.741
2015	95,296	177,812	42,787	315,894	.241	.777
2020	100,387	180,081	48,615	329,083	.270	.827
2025	105,315	181,809	54,786	341,910	.301	.881
2030	109,657	185,662	59,292	354,611	.319	.910
2035	113,962	193,316	60,416	367,695	.313	.902
2040	118,929	202,852	59,668	381,449	.294	.880
2045	124,517	212,719	58,691	395,927	.276	.861
2050	130,185	221,380	59,707	411,271	.270	.858
2055	135,620	230,169	62,026	427,815	.269	.859
Alternative II:						
1980	73,668	132,867	25,941	232,476	.195	.750
1985	71,579	142,720	28,865	243,164	.202	.704
1990	72,801	149,131	32,126	254,059	.215	.704
1995	74,923	154,487	34,597	264,007	.224	.709
2000	76,568	160,419	35,998	272,985	.224	.702
2005	76,734	167,329	37,435	281,497	.224	.682
2010	77,074	172,384	40,541	290,000	.235	.682
2015	78,334	173,979	45,986	298,299	.264	.715
2020	80,016	173,323	52,469	305,807	.303	.764
2025	81,365	171,473	59,407	312,245	.346	.821
2030	82,136	170,888	64,752	317,776	.379	.860
2035	82,825	173,186	66,670	322,680	.385	.863
2040	83,904	176,575	66,625	327,104	.377	.852
2045	85,276	179,679	66,198	331,152	.368	.843
2050	86,546	181,438	67,091	335,074	.370	.847
2055	87,535	183,150	68,535	339,220	.374	.852
Alternative III:						
1980	73,609	132,873	25,952	232,434	.195	.749
1985	70,327	142,892	29,222	242,440	.205	.697
1990	68,921	149,571	33,192	251,685	.222	.683
1995	67,238	155,212	36,583	259,033	.236	.669
2000	64,294	161,416	39,056	264,766	.242	.640
2005	60,235	167,507	41,605	269,346	.248	.608
2010	56,864	170,293	45,824	272,981	.269	.603
2015	54,591	168,369	52,469	275,428	.312	.636
2020	52,751	163,277	60,280	276,308	.369	.692
2025	50,677	156,129	68,734	275,540	.440	.765
2030	48,256	149,306	75,720	273,282	.507	.830
2035	45,957	144,486	79,247	269,691	.548	.867
2040	44,093	140,031	80,727	264,851	.576	.891
2045	42,525	134,771	81,622	258,917	.606	.921
2050	40,974	128,524	82,714	252,211	.644	.962
2055	39,346	122,787	82,980	245,114	.676	.956

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

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

*Covered population*

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

The total unemployment rate has averaged about 5.4 percent for the last 25 years and 6.2 percent for the last 10 years. Under alternatives I, II and III, the ultimate total unemployment rate was assumed to

be 4 percent, 5 percent and 6 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. Under alternative II, the ultimate age-adjusted rates reflect a slight decrease for men of 0.6 percent from the 1979 level of 78.4 percent, while the rates for women reflect an 8 percent increase from the 1979 level of 51 percent. These assumptions result in ultimate labor force participation rates for women which average about 75 percent of those for men. The assumed ultimate rates are attained by 2020.

Under alternative I, each age-specific labor force participation rate was raised initially from its alternative II level by one percentage point for women and by one-half point for men. However, to be consistent with the fact that the assumed fertility rates for alternative I are higher than for alternative II, the labor force participation rates for women of child-bearing age were then reduced, each age separately, by the percentage point increase in the age-specific fertility rate. This resulted in an overall increase in the ultimate age-sex adjusted labor force participation rate for alternative I of 0.3 percentage points above that for alternative II. A similar procedure was used in deriving the assumed labor force participation rates under alternative III, resulting in an ultimate age-sex adjusted rate which was essentially unchanged from that projected for alternative II.

Under all three alternatives, coverage rates for women are projected to increase substantially for all ages over 15, thereby reflecting the projected increase in labor force participation of women. Under alternative II, coverage rates for men are projected to increase slightly for most age groups, except that small decreases are projected for ages 50-59 and for ages 70 and over. Under alternative I, coverage rates for men increase for all age groups except that very small decreases are projected for ages 50-54 and for ages 70 and over. The greatest increases are projected for men under 35. Under alternative III, coverage rates for men increase slightly for all age groups except that no change or small decreases are projected for ages 40-44, 50-59 and 70 and over. The aggregate ultimate coverage rate under alternative I is projected to be one percentage point higher than the aggregate rate under alternative II, while the corresponding rate under alternative III is projected to be one percentage point lower than the rate under alternative II.

Under all three alternatives, ultimate coverage rates for persons aged 60-69 are projected to increase over present coverage rates. This represents a reversal of the historical trend toward earlier retirement. This reversal was projected because of an expected preference of more older workers to stay on the job, since mandatory retirement for persons under age 70 is now prohibited (Public Law 95-256) and because the health of older persons is expected to continue to improve.

For men aged 60-69, the ultimate coverage rates are projected to increase by 3 percent, 2 percent and 1 percent under alternatives I, II and III, respectively. The corresponding increases for women are 11 percent, 9 percent and 9 percent.

### *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 a percentage 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 is 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 1980-1990, the amounts of earnings for employers, employees and the self-employed were projected separately. After 1990, the amounts of earnings taxable for employers, employees and the self-employed were each assumed to increase at the compound rate of the estimated increases in covered workers and in average wages in covered employment.

Expenditures of the OASDI system are expressed as a percentage 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 presented 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 changed slowly over time and can be expected to remain fairly constant. 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."

The ratio of taxable payroll to GNP has risen since 1960 due in part to the increases made to the contribution and benefit base. The long-range trend, however, is more likely to be downward due to an increase in fringe benefits, both public and private, which are not included in taxable payroll.



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		
	Past experience		
1960.....			.396
1965.....			.351
1970.....			.412
1975.....			.424
1979.....			.439
	Estimated future experience, by alternative		
	I	II	III
1980.....	.441	.441	.444
1990.....	.450	.433	.418
2000.....	.434	.420	.394
2010.....	.421	.404	.375
2020.....	.408	.389	.358
2030.....	.395	.374	.341
2040.....	.383	.361	.326
2050.....	.371	.347	.311

Note: Alternatives I, II and III and taxable payroll 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 that is 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 using 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 to be more likely to be fully insured than married women or widowed women, but less likely to be fully insured than men, and (2) widowed women were assumed to be 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 were projected by type of benefit.

The projected numbers of retired-worker beneficiaries were based on the projected aged fully insured population. The percentages, by age and sex, of the insured population that were receiving benefits at the beginning of 1980 were projected to increase gradually on the basis of past trends (after adjustments 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 noncovered employment, were assumed to receive benefits. The number of husband beneficiaries aged 62 and over of female retired-worker beneficiaries was estimated in an analogous manner.

The projected numbers of child beneficiaries of retired-worker beneficiaries were based on projected ratios of the number of such child beneficiaries to the number of retired workers by sex of worker. The method of projecting these ratios reflected 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 numbers of paternal, maternal and full orphans under age 22 in the United States were estimated from the projected population at those ages by applying age-specific probabilities 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 child-survivor beneficiaries was estimated from the number of orphans by adjusting 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 an analogous 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 had not applied for retired-worker benefits were assumed to receive widow benefits. The number of widower beneficiaries was estimated in an analogous manner.

The number of parent beneficiaries was projected on the basis of the past trend in the number of such beneficiaries. A decrease was assumed from 15,000 at the beginning of 1980 to an ultimate level of 7,000 in 1995.

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

Included among the beneficiaries who receive retired-worker benefits are some persons who also receive residual benefits consisting of the excess of any potential secondary benefits over their own retired-worker 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.

APPENDIX TABLE D.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 UNDER ALTERNATIVES I, II AND III, 1960-2055

[In thousands]

Year	Retired workers and dependents, by type of benefit			Survivors, by type of benefit				Total
	Worker	Wife-husband	Child	Mother-father	Child	Widow-widower	Parent	
1960.....	7,813	2,224	260	388	1,549	1,471	35	13,740
1965.....	10,843	2,601	429	472	1,900	2,228	36	18,509
1970.....	13,066	2,651	535	514	2,673	3,151	29	22,618
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
1979.....	18,590	2,966	651	567	2,739	4,260	17	29,789
Alternative I:								
1980.....	19,293	2,993	638	566	2,645	4,354	15	30,504
1985.....	22,406	3,089	610	534	2,354	4,668	10	33,671
1990.....	25,420	3,133	604	514	2,198	4,776	8	36,653
1995.....	26,929	3,157	595	587	2,313	4,723	7	38,311
2000.....	28,056	3,065	622	632	2,461	4,617	7	39,460
2005.....	29,736	2,999	684	639	2,551	4,501	7	41,117
2010.....	33,013	3,045	818	634	2,591	4,453	7	44,561
2015.....	38,048	3,155	985	639	2,653	4,452	7	49,939
2020.....	44,165	3,227	1,137	647	2,761	4,491	7	56,435
2025.....	50,128	3,259	1,245	651	2,888	4,537	7	62,715
2030.....	53,874	3,179	1,252	661	3,008	4,552	7	66,533
2035.....	55,113	3,012	1,213	683	3,100	4,527	7	67,655
2040.....	54,577	2,817	1,162	713	3,201	4,449	7	66,926
2045.....	54,421	2,756	1,187	746	3,336	4,339	7	66,852
2050.....	55,773	2,832	1,269	773	3,474	4,346	7	68,474
2055.....	57,990	2,972	1,351	798	3,619	4,315	7	71,052
Alternative II:								
1980.....	19,295	2,993	638	566	2,645	4,355	15	30,507
1985.....	22,504	3,104	610	529	2,333	4,721	10	33,811
1990.....	25,714	3,176	603	494	2,113	4,934	8	37,042
1995.....	27,777	3,270	602	548	2,139	4,823	7	39,166
2000.....	29,333	3,219	615	567	2,173	4,761	7	40,675
2005.....	31,472	3,196	662	556	2,157	4,671	7	42,721
2010.....	35,235	3,281	771	541	2,112	4,649	7	46,596
2015.....	40,814	3,422	909	535	2,085	4,650	7	52,422
2020.....	47,566	3,528	1,043	527	2,098	4,687	7	59,456
2025.....	54,263	3,595	1,137	516	2,121	4,713	7	66,352
2030.....	58,773	3,546	1,148	510	2,131	4,726	7	70,841
2035.....	60,735	3,411	1,115	509	2,129	4,746	7	72,652
2040.....	60,847	3,222	1,073	514	2,124	4,684	7	72,471
2045.....	61,100	3,147	1,087	518	2,139	4,645	7	72,643
2050.....	62,218	3,172	1,137	519	2,157	4,547	7	73,757
2055.....	63,550	3,254	1,171	517	2,169	4,478	7	75,146
Alternative III:								
1980.....	19,299	2,994	638	566	2,644	4,355	15	30,511
1985.....	22,659	3,130	610	520	2,295	4,837	10	34,061
1990.....	26,256	3,256	602	462	1,973	5,250	8	37,807
1995.....	29,338	3,495	614	487	1,879	5,015	7	40,835
2000.....	31,733	3,536	606	469	1,763	5,044	7	43,158
2005.....	34,806	3,585	622	437	1,618	5,029	7	46,104
2010.....	39,547	3,743	687	415	1,484	5,065	7	50,948
2015.....	46,189	3,953	778	399	1,377	5,114	7	57,817
2020.....	54,177	4,143	872	382	1,309	5,159	7	66,049
2025.....	62,301	4,264	943	360	1,251	5,184	7	74,310
2030.....	68,310	4,280	950	336	1,184	5,190	7	80,257
2035.....	71,757	4,199	922	316	1,110	5,233	7	83,544
2040.....	73,296	4,038	891	303	1,049	5,241	7	84,825
2045.....	74,594	3,965	893	287	998	5,239	7	85,983
2050.....	75,635	3,902	897	270	952	5,186	7	86,849
2055.....	75,688	3,836	879	254	908	5,099	7	86,671

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

*Disability insurance beneficiaries*

The number of disabled-worker beneficiaries was projected from the exposed population, 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 average annual rates for the period 1970-78, updated to reflect the aggregate disability benefit award experience through calendar year 1979. The projected rates were adjusted to reflect changes in the methods of calculating benefits as required by the 1977 amendments and by the Disability Amendments of 1980. Although disability awards declined by more than 10 percent during 1979, age-sex specific incidence rates were assumed to increase over the period 1980-1999 to a level about 16 percent higher than the average for 1978-79 and to remain constant thereafter. This represents a gradual increase to a level about 3 percent below the average disability incidence rate experienced during the 1970's.

The termination rates were projected by age, sex and duration of entitlement. The mortality rates used in the projection were those experienced by disabled-worker beneficiaries during 1975-78. The recovery rates were those of the same period increased by 20 percent to include the effect of the Disability Amendments of 1980. The termination rates 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 children entitled to benefits 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 an analogous 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 an analogous 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, 1960-2055

[In thousands]

Year	Dependents of disabled workers			
	Disabled workers	Wives and husbands	Children	Total
1960.....	371	56	94	522
1965.....	944	187	518	1,648
1970.....	1,436	271	861	2,568
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
1979.....	2,877	483	1,466	4,826
Alternative I:				
1980.....	2,865	471	1,412	4,748
1985.....	2,899	421	1,256	4,576
1990.....	3,025	421	1,240	4,686
1995.....	3,240	507	1,228	4,975
2000.....	3,666	547	1,404	5,617
2005.....	4,214	605	1,625	6,444
2010.....	4,703	667	1,846	7,216
2015.....	4,987	702	2,028	7,717
2020.....	5,056	710	2,165	7,931
2025.....	4,914	700	2,193	7,807
2030.....	4,738	683	2,132	7,553
2035.....	4,775	693	2,124	7,592
2040.....	5,024	725	2,208	7,957
2045.....	5,367	771	2,369	8,507
2050.....	5,620	807	2,503	8,930
2055.....	5,795	835	2,586	9,216
Alternative II:				
1980.....	2,866	471	1,413	4,750
1985.....	2,991	435	1,295	4,721
1990.....	3,313	460	1,358	5,131
1995.....	3,622	567	1,309	5,498
2000.....	4,192	625	1,471	6,288
2005.....	4,881	699	1,661	7,241
2010.....	5,479	771	1,843	8,093
2015.....	5,824	807	1,986	8,617
2020.....	5,899	812	2,088	8,799
2025.....	5,708	796	2,087	8,591
2030.....	5,454	766	1,996	8,216
2035.....	5,410	763	1,950	8,123
2040.....	5,560	779	1,984	8,323
2045.....	5,756	804	2,067	8,627
2050.....	5,829	815	2,113	8,757
2055.....	5,828	817	2,114	8,759
Alternative III:				
1980.....	2,868	471	1,414	4,753
1985.....	3,087	449	1,337	4,873
1990.....	3,607	502	1,479	5,588
1995.....	4,017	626	1,345	5,988
2000.....	4,736	703	1,433	6,872
2005.....	5,571	795	1,521	7,887
2010.....	6,282	876	1,592	8,750
2015.....	6,684	905	1,641	9,230
2020.....	6,752	900	1,676	9,328
2025.....	6,483	870	1,627	8,980
2030.....	6,101	822	1,509	8,432
2035.....	5,904	793	1,428	8,125
2040.....	5,833	776	1,402	8,011
2045.....	5,705	758	1,389	7,852
2050.....	5,421	725	1,340	7,486
2055.....	5,103	685	1,263	7,051

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, the exempt amount in the retirement test and the amount required for a quarter of coverage 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 gains and consideration of the factors linking productivity gains and the real wage differential. Since 1951, annual increases in productivity have averaged 2.3 percent, while the real wage differential has averaged 1.5 percent. This difference of roughly 0.8 percent results from changes in such factors as the average number of hours worked per year, 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 0.75 percent, thereby yielding an ultimate real-wage differential of 1.75 percent (to the nearest  $\frac{1}{4}$  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 projected to be essentially attained by the year 1995.

For alternative II, the CPI was assumed to increase ultimately at an annual rate of 4 percent, which is slightly higher than the 3.8 percent average over the last 30 years. This level was selected because the historical trend 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 reasonable range of possible values.

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 annual percentage increases in the CPI to the assumed percentage increase in real wages for each alternative.

*Average benefits*

Future increases in the amount of the average retired-worker benefit awarded were projected by simulating the automatic benefit adjustment provisions and calculating future benefits for workers at various earnings levels. Future increases in the average male retired-worker benefit in current-payment status were 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, female retired workers and recipients of residual payments to wives, widows, husbands and widowers) were projected to increase at the same rate as the average male retired-worker

benefit. The average benefits for young survivors were projected to increase at a slightly slower rate than the rate of increase in the average male retired-worker benefit. The average retired-worker benefit for women was projected to increase at a faster rate than for men, while the average residual benefit for women was projected to increase at a slower rate. 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 male retired-worker benefit.

#### *Benefit payments*

For each category of beneficiary, monthly benefit payments were calculated as the product of the number of beneficiaries and the corresponding average benefit. These amounts were then adjusted to include retroactive payments to newly awarded beneficiaries. Retroactive payments result from delays between the date of filing for benefits and the date of first payment as well as from a provision in the law which allows a beneficiary to receive up to 12 months' benefits retroactively from the date of initial entitlement to benefits, on the condition that benefits are not thereby permanently reduced for early retirement.

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 1990 was based on assumed increases in average wages, increases in the CPI and increases in the number of beneficiaries. For the years after 1990, 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 cost to the OASDI system of 0.01 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 a percentage 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 0.01 percent of taxable payroll currently, and to decrease to a negligible amount after 1984.



SENSITIVITY OF COST ESTIMATES TO CHANGES IN SELECTED INDIVIDUAL  
ASSUMPTIONS

*Mortality*

Appendix table F shows the estimated average expenditure under alternative II with various assumptions about the future improvement in mortality. Those assumptions are that mortality will improve during the period 1979–2050 from the level experienced in 1979 by about 19 percent (as in alternative I), 34 percent (as in alternative II) and 56 percent (as in alternative III). Mortality is assumed to continue improving after 2050.

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

[As percent of taxable payroll]

Calendar years	Mortality improvement <sup>1</sup>		
	19 percent	34 percent	56 percent
1980–2004.....	10.50	10.66	10.97
2005–29.....	12.94	13.57	14.70
2030–54.....	15.73	16.98	19.49
1980–2054.....	13.05	13.74	15.05

<sup>1</sup> The mortality improvement is the ratio of the age-adjusted death rate in the year 2050 to that in 1979. Mortality is assumed to continue improving after 2050.

Note: Alternative II and taxable payroll are described in the text of this report.

Over the medium-range period, the estimated average expenditure increases with increasing mortality improvement from 10.57 percent of taxable payroll (for 19 percent mortality improvement) to 10.95 percent of taxable payroll (for 56 percent improvement). Over the long-range period, a similar but more pronounced trend exists. The estimated long-range average varies from 13.08 percent of taxable payroll (for 19 percent mortality improvement) to 15.05 percent of taxable payroll (for 56 percent improvement).

The estimated average expenditure increases 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, extends 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 revenues to the system is more than offset by the resulting increase in benefits payable to the additional new retirees at age 65. At ages 20 through 50, mortality rates are so low that even substantial improvement in the rates would not result in significant increases in the number of covered workers paying social security taxes. Mortality improvement at ages under 20 has relatively little long term effect on the relationship between expenditures and income. Consequently, the net effect of mortality improvement is to increase expenditures more than taxable income, thereby resulting in higher costs as percent of taxable payroll.

*Total fertility rate*

Appendix table G shows the estimated average expenditure under alternative II with 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 rates are assumed to change gradually from their current levels and to reach their ultimate values in 2005.

APPENDIX TABLE G.—ESTIMATED AVERAGE EXPENDITURE 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
1980-2004.....	10.67	10.66	10.65
2005-29.....	14.78	13.57	12.89
2030-54.....	22.25	16.98	14.54
1980-2054.....	15.90	13.74	12.70

<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 and taxable payroll are described in the text of this report.

Over the medium-range period, the estimated average expenditure is nearly identical under the three fertility assumptions, varying only from 10.67 percent of taxable payroll (for 1.5 children per woman) to 10.65 percent of taxable payroll (for 2.5 children per woman). The long-range estimated average expenditure varies from 15.90 percent of taxable payroll (for 1.5 children per woman) to 12.70 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 only slightly. Later in the 75-year period, however, under higher fertility the labor force increases more than the beneficiary population, so that the estimated average long-range expenditure as a percentage of taxable payroll decreases with increasing fertility.

### Disability

Appendix table H shows the estimated average expenditure under alternative II with various disability incidence assumptions. Those assumptions are that the ultimate disability incidence rates by age and sex will differ from the corresponding average rates of 1978-79 as follows: they will be about 1 percent lower (as in alternative I), 16 percent higher (as in alternative II) and 34 percent higher (as in alternative III). The rates are assumed to change gradually from their current levels and to reach their ultimate values initially in 1999.

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

[As percent of taxable payroll]

Calendar years	Disability incidence increase <sup>1</sup>		
	-1 percent	16 percent	34 percent
1980-2004.....	10.56	10.66	10.76
2005-29.....	13.34	13.57	13.80
2030-54.....	16.76	16.98	17.20
1980-2054.....	13.55	13.74	13.92

<sup>1</sup> The disability incidence increase is based on the ratio of the age-sex adjusted incidence rate in 1999 and later to the average age-sex adjusted incidence rate during 1978-79.

Note: Alternative II and taxable payroll are described in the text of this report.

Over the medium-range period, the estimated average expenditure varies with changing disability incidence from 10.56 percent of taxable payroll (for 1 percent decrease) to 10.76 percent of taxable payroll (for 34 percent increase). Over the long-range period, it varies from 13.55 percent of taxable payroll (for 1 percent decrease) to 13.92 percent of taxable payroll (for 34 percent increase).

### *Consumer Price Index*

Appendix table I shows the estimated average expenditure under alternative II with various CPI assumptions. These assumptions are that the ultimate annual CPI increase will be 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 1¼ percent, yielding ultimate percentage increases in average annual wages of ¾, 4¾, 5¾, 6¾ and 7¾ percent, respectively. The annual CPI increase is assumed to change gradually from its current level and to reach its ultimate value in 2003.

APPENDIX TABLE I.—ESTIMATED AVERAGE EXPENDITURE 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>				
	¾-2	4¾-3	5¾-4	6¾-5	7¾-6
1980-2004 .....	10.82	10.75	10.66	10.57	10.48
2005-29 .....	13.98	13.78	13.57	13.37	13.16
2030-54 .....	17.60	17.29	16.98	16.68	16.36
1980-2054 .....	14.13	13.94	13.74	13.54	13.34

<sup>1</sup> The first value in each pair is the assumed annual percentage increase in average wages after 2002. The second value is the assumed annual percentage increase in CPI after 2002. The assumptions used in earlier years gradually reflect the ultimate values.

Note: Alternative II and taxable payroll are described in the text of this report.

Over both the medium-range and long-range periods, the estimated average expenditure as a percentage of taxable payroll decreases as the assumed rate of change in the CPI increases. Over the medium-range, the estimated average expenditure varies from 10.82 percent of taxable payroll (assuming an ultimate rate of increase in the CPI of 2 percent) to 10.48 percent of taxable payroll (assuming an ultimate rate of 6 percent). Over the long-range, it varies from 14.13 percent of taxable payroll to 13.34 percent of taxable payroll.

The relationship described above results primarily from the time lag between the effect on income and 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 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 earliest effect on benefits of the higher rate of increase in wages is experienced with about a 2-year lag.

### *Real wage differential*

Appendix table J shows the estimated average expenditure under alternative II with various real-wage assumptions. These assumptions are that the ultimate real-wage differential will be 1¼ 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 CPI increase is assumed to be 4 percent, yielding ultimate percentage increases in average annual wages of  $5\frac{1}{4}$  percent,  $5\frac{3}{4}$  percent and  $6\frac{1}{4}$  percent, respectively. The real-wage differential is assumed to change gradually from its current level and to reach its ultimate value in 2003.

APPENDIX TABLE J.—ESTIMATED AVERAGE EXPENDITURE 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
1980-2004 .....	10.99	10.66	10.35
2005-29 .....	14.24	13.57	12.94
2030-54 .....	17.93	16.98	16.09
1980-2054 .....	14.38	13.74	13.13

<sup>1</sup> The first value in each pair is the assumed annual percentage increase in average wages after 2002. The second value is the assumed annual percentage increase in CPI after 2002. The difference between the two values is the real wage differential. The assumptions used in earlier years gradually reflect the ultimate values.

Note: Alternative II and taxable payroll are described in the text of this report.

Over the medium-range period, the estimated average expenditure decreases from 10.99 percent of taxable payroll (assuming a  $1\frac{1}{4}$  percent real-wage differential) to 10.35 percent of taxable payroll (assuming a  $2\frac{1}{4}$  percent differential). Over the long-range period, it decreases from 14.38 percent of taxable payroll to 13.13 percent of taxable payroll.

The average expenditure decreases 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 increase 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 9.9 percent in benefits under titles II and XVI of the Social Security Act.

Under title II, old-age, survivors and disability insurance benefits will increase by 9.9 percent beginning with the June 1979 benefits which are payable on July 3, 1979. This increase is based on the 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.

Under title XVI, supplemental security income payment levels will increase by 9.9 percent effective for payments made on June 29, 1979. This is based on the authority contained in section 1617 of the Social Security Act (42 U.S.C. 1382f).

### TITLE II BENEFITS

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

In accordance with section 215(i)(4) of the Social Security Act (the Act), the primary insurance amounts and the maximum family benefits shown in columns IV and V of the revised benefit table (table 1) set forth below were obtained by increasing by 9.9 percent of 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)(4) and published on November 16, 1978 at FR 53504. The table applies only to those persons who attained age 62, became disabled, or died before January 1979 and is deemed to appear in section 215(a) of the Act. Note that this table does not apply to those individuals who become eligible for retirement benefits, become disabled, or die after 1978; for persons first becoming eligible for benefits in 1979, benefits will generally be determined by a new benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216), and will also be increased by 9.9 percent beginning with the June 1979 benefits.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines a cost-of-living increase in social security benefits, he shall publish in the Federal Register a revision of the range of the primary insurance amounts, and corresponding maximum family benefits, based on the dollar amount and other provisions described in section 215(a)(1)(C)(i)(II). These benefits are referred to as "special minimum benefits;" and are payable to certain individuals with long periods of relatively low earnings. In accordance with section 215(a)(1)(C)(i)(II), the attached table 2 shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 9.9 percent benefit increase.

<sup>1</sup> This statement, edited for presentation here, was published in the Federal Register for May 15, 1979 (Vol. 44, No. 95, pp. 28423-29).

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 \$83.70 and \$41.90 established under sections 227 and 228, respectively, of the Act are increased by 9.9 percent to obtain the new amounts of \$92.00 and \$46.10.

#### TITLE XVI BENEFITS

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

In accordance with section 1617, Federal Supplemental Security Income (SSI) guarantees for the aged, blind and disabled are increased effective with July 1979 by 9.9 percent. The current Federal SSI guarantees of \$2,272.80 and \$3,409.20 per year are thereby increased to \$2,498.40 and \$3,747.60 respectively. The actual monthly payment received by the individual is the Federal SSI guarantee less any countable income. The actual monthly payment received by the individual is one-twelfth of the annual SSI guarantee, less any countable income assigned to that month. The current Federal SSI guarantee amount of \$1,137.60 per year to essential persons under section 211(a)(1)(A) of Pub. L. 93-66 is also increased by 9.9 percent to obtain a new amount of \$1,250.40.

#### AUTOMATIC BENEFIT INCREASE DETERMINATION

Section 215(i) of the 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 is due. Section 215(i) of the Act also specifies the formula for determining the amount of any cost-of-living increase in benefits. This formula utilizes the Consumer Price Index for urban wage earners and clerical workers reported by the Department of Labor.

Section 215(i)(2)(A) of the Act requires the Secretary to determine each year, whether there is a cost-of-living computation quarter in that year. If he so determines, he shall, effective with June of that year, increase benefits for individuals entitled under section 227 and 228 of the Act, and shall increase the primary insurance amounts of all other individuals entitled under title II of the Act, subject to the limitations provided in section 215(i)(2)(A) of the Act. The percentage increase is equal to the percentage increase in the Consumer Price Index for the cost-of-living computation quarter over the index for the most recent 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 the 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. It is specified, however, that 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 also provides that the Consumer Price Index for a cost-for-living computation quarter shall be the arithmetical mean of such index for the 3 months in that quarter.

The Department of Labor's revised Consumer Price Index for urban wage earners and clerical workers 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 that calendar quarter was 188.4. The corresponding Consumer Price Index for each month in the quarter ending March 31, 1979, was: for January 1979, 204.7; for February 1979, 207.1; for March 1979, 209.3. The arithmetical mean for this calendar quarter is 207.0. The increase for the calendar quarter ending March 31, 1979, is 9.9 percent. Thus, since the percentage of increase in the Consumer Price Index from the calendar quarter ending March 31, 1978, to the calendar quarter ending March 31, 1979, is not less than 3 percent, the quarter ending March 31, 1979, is a cost-of-living computation quarter. Consequently, a cost-of-living benefit increase of 9.9 percent is effective for benefits under title II of the Act beginning June 1979.

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

Dated: May 8, 1979.

HALE CHAMPION,  
*Acting Secretary of Health, Education, and Welfare.*

(The revised tables of benefits which were published at the end of the above announcement in the Federal Register are not reproduced here because of their length.)

APPENDIX C.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY CONTRIBUTION AND BENEFIT BASE, QUARTER OF COVERAGE AMOUNT, RETIREMENT TEST EXEMPT AMOUNTS, AVERAGE OF THE TOTAL WAGES, FORMULAS FOR COMPUTING BENEFITS AND EXTENDED TABLE OF BENEFIT AMOUNTS FOR 1980<sup>1</sup>

*Summary*

The Secretary has determined—

(1) The social security contribution and benefit base to be \$25,900 for remuneration paid in 1980 and self-employment income earned in taxable years beginning in 1980;

(2) The amount of earnings a person must have to be credited with a quarter of coverage in 1980 to be \$290;

(3) The monthly exempt amount under the social security retirement test for taxable years ending in calendar year 1980 to be \$416.66⅔ for beneficiaries aged 65 and over and \$310 for beneficiaries under age 65; and

(4) The average of the total wages for 1978 to be \$10,556.03.

The formulas we use to compute the benefits for a worker and his or her family who first becomes eligible for benefits in 1980 are also described below.

Finally, 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 primarily to compute the retirement benefits of workers who reached age 62 before 1979.

*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, 1979, the contribution and benefit base, the amount of earnings required for a quarter of coverage and the retirement test exempt amount for calendar year 1980. In addition, section 215(a)(1)(D) requires that we publish the formula for computing a primary insurance amount for 1980, and section 203(a)(2)(c) requires that we publish the formula for computing a family's maximum benefits for 1980, by November 1, 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 1980 is \$25,900.

<sup>1</sup> This statement, edited for presentation here, was published in the Federal Register for November 1, 1979 (Vol. 44, No. 213, pp. 62956-60).



## AVERAGE OF THE TOTAL WAGES FOR 1978

The determination of the average wage figure for 1978 is based on the 1977 average wage figure of \$9,779.44 announced in the Federal Register on December 29, 1978 (43 FR 61016) along with the percentage increase in average wages from 1977 to 1978 measured by annual wage data tabulated by the Internal Revenue Service (IRS). This was done because beginning in 1978, wages are reported to the Social Security Administration on an annual basis. Section 232 of the Social Security Act authorizes the Social Security Administration to obtain this information from the Internal Revenue Service. The average amounts of wages calculated directly from IRS data were \$10,043.15 and \$10,840.68 for 1977 and 1978, respectively. To determine an average wage figure for 1978 at a level that is consistent with the series of average wages for 1951-1977 (published December 29, 1978 at 43 FR 61016), we multiplied the 1977 average wage figure of \$9,779.44 by the percentage increase in average wages from 1977 to 1978 (based on IRS data) as follows (with the result rounded to the nearest cent):

$$\begin{aligned} \text{Average wage for 1978} &= \$9,779.44 \times (\$10,840.68/\$10,043.15) \\ &= \$10,556.03. \end{aligned}$$

Therefore, the average wage for 1978 is determined to be \$10,556.03.

## QUARTER OF COVERAGE AMOUNT

*Computation*

The 1980 amount of earnings required for a quarter of coverage is \$290. 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 individual. Beginning in 1978, wages generally are no longer reported quarterly; annual reports are made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 (Pub. L. 95-216) 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 4 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 the year preceding the year for which the change is effective. Under the prescribed formula, the quarter of coverage amount for 1980 shall be equal to the 1978 amount of \$250 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1978 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*

The average wage for calendar year 1976 was previously determined to be \$9,226.48. This was published in the Federal Register on December 29, 1978, at 43 FR 61016. The average wage for calendar year 1978 has been determined to be \$10,556.03 as stated in a previous section.

*Amount*

The ratio of the average wage for 1978, \$10,556.03, compared to 1976, \$9,226.48, is 1.144102. Multiplying the 1978 quarter of coverage amount of \$250 by the ratio of 1.144102 produces the amount of \$286.03, which must then be rounded to \$290. Accordingly, the quarter of coverage amount for 1980 is \$290.

## RETIREMENT TEST EXEMPT AMOUNT

*Computation*

The 1980 amount of \$416.66% 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 \$5,000. 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 \$310 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 1980 shall be equal to the 1979 amount of \$290 multiplied by the ratio of (1) the average amount, per employee, of the wages of all employees reported under the program for calendar year 1978 to (2) the average amount of those wages reported for calendar year 1977. 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 are determined in the same way as for a quarter of coverage. Therefore, the ratio of the average wages for 1978, \$10,556.03, compared to 1977, \$9,779.44, is 1.079410.

*Exempt amount for persons under age 65*

Multiplying the 1979 retirement test monthly exempt amount of \$290 by the ratio of 1.079410 produces the amount of \$313.03. This must then be rounded to \$310. Accordingly, the retirement test monthly exempt amount for persons under age 65 is determined to be \$310 for 1980. The corresponding annual exempt amount for 1980 is \$3,720.

## COMPUTING BENEFITS AFTER 1978

The Social Security Amendments of 1977 changed the formula for determining an individual's primary insurance amount after 1978. This basic new formula is based on "wage indexing," and was fully explained with interim regulations published in the Federal Register on December 29, 1978 at 43 FR 60877. It generally applies when a worker after 1978 attains age 62, becomes disabled, or dies before age 62. This formula uses the worker's earnings after they have been adjusted, or "indexed," in proportion to the increase in average wages of all workers. Using this method, we determine the worker's "average

indexed monthly earnings." We then compute the primary insurance amount, using the worker's "average indexed monthly earnings" and also adjust the computation formula to reflect changes in general wage levels.

*Average indexed monthly earnings*

To protect a worker's future benefits against inflation we adjust or "index" the worker's past earnings to take into account the change in general wage levels that has occurred during the worker's years of employment. These adjusted earnings are then used to compute the worker's primary insurance amount.

For example, to compute the average wage indexed monthly earnings for a worker attaining age 62, becoming disabled, or dying before attaining age 62, in 1980, we divide the average of the total wages for 1978, \$10,556.03, by the average of the total wages for each year prior to 1978 in which the worker had earnings. We then multiply the actual wages and self-employment income credited for those years by this ratio to obtain the worker's adjusted earnings for that year. After determining the number of years we must use to compute the primary insurance amount, we pick those years with highest earnings, total those earnings and divide by the total number of months in those years. This figure is rounded down to the next lower dollar amount, and becomes the average indexed monthly earnings figure to be used in computing the worker's primary insurance amount for 1980.

*Computing the primary insurance amount*

The primary insurance amount is the sum of three separate percentages of portions of the average indexed monthly earnings. These portions were \$180 and \$1,085 in 1979. These amounts are adjusted for 1980 by multiplying them by the ratio between the average of the total wages for 1978, \$10,556.03, and for 1977, \$9,779.44. These amounts are then rounded to the nearer dollar. For 1980 the ratio is 1.079410. Multiplying the amounts of \$180 and \$1,085 by 1.079410 produces the amounts of \$194.29 and \$1,171.16. These must then be rounded to \$194 and \$1,171. Accordingly, the portions of the average indexed monthly earnings to be used in 1980 are determined to be \$194 and \$1,171.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1980 or who die in 1980 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

- (a) 90 percent of the first \$194 of their average indexed monthly earnings, plus
- (b) 32 percent of the average indexed monthly earnings over \$194 and through \$1,171, plus
- (c) 15 percent of the average indexed monthly earnings over \$1,171.

This amount is then rounded to the next higher multiple of \$.10 if it is not already a multiple of \$.10. This formula and the adjustments we have described are contained in section 215(a) of the Social Security Act (42 U.S.C. 415(a)).

MAXIMUM BENEFITS PAYABLE TO A FAMILY

The 1977 Amendments continued the long established policy of limiting the total monthly benefits which a worker's family may receive based on his or her primary insurance amount. Those amend-

ments also continued the then existing relationship between maximum family benefits and primary insurance amounts but did change the method of computing the maximum amount of benefits which may be paid to a worker's family.

*Computing the family maximum*

The formula used to compute the family maximum is similar to that used to compute the primary insurance amount. It involves computing the sum of four separate percentages of portions of the worker's primary insurance amount. These portions were \$230, \$332 and \$433 in 1979. These amounts are adjusted for 1980 by multiplying them by the ratio between the average of the total wages for 1978, \$10,556.03, and for 1977, \$9,779.44. This amount is then rounded to the nearer dollar. For 1980, the ratio is 1.079410. Multiplying the amounts of \$230, \$332 and \$433 by 1.079410 produces the amounts of \$248.26, \$358.36 and \$467.38. These amounts are then rounded to \$248, \$358 and \$467. Accordingly, the portions of the primary insurance amounts to be used in 1980 are determined to be \$248, \$358 and \$467.

Consequently, for the family of a worker who becomes age 62, becomes disabled, or dies in 1980, the total amount of benefits payable to them will be computed so that it does not exceed:

- (a) 150 percent of the first \$248 of the worker's primary insurance amount, plus
- (b) 272 percent of the worker's primary insurance amount over \$248 through \$358, plus
- (c) 134 percent of the worker's primary insurance amount over \$358 through \$467, plus
- (d) 175 percent of the worker's primary insurance amount over \$467.

This amount is then rounded to the next higher multiple of \$.10 if it is not already a multiple of \$.10. This formula and the adjustments we have described are contained in section 203(a) of the Social Security Act (42 U.S.C. 403(a)).

**EXTENSION OF BENEFIT TABLE EFFECTIVE JANUARY 1980**

The following is an extension of the Table for Determining Primary Insurance Amount and Maximum Family Benefits provided in section 215(a)(5) of the Social Security Act. 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 January 1980 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 reached age 62 before 1979.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802-13.805, and 13.807 Social Security Programs.)

Dated: October 29, 1979.

**PATRICIA ROBERTS HARRIS,**  
*Secretary of Health, Education and Welfare.*

(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.)

APPENDIX D.—AUTOMATIC ADJUSTMENTS UNDER OLD-AGE,  
SURVIVORS AND DISABILITY INSURANCE

The Social Security Act specifies that certain program amounts affecting the determination of OASDI benefits are to be adjusted annually to reflect changes in the general economy. Specific formulas are prescribed by the law which, when applied to reported statistics, produce "automatic" revisions in these program amounts and hence in the benefit computation procedures.

In this appendix, values are shown for the program amounts that are subject to automatic adjustment from the time that such adjustments became effective through the present time. Projected values for future years through 1985, based on the intermediate (alternative II) set of assumptions, are also shown. These assumptions are summarized earlier in this report in the section entitled "Economic and Demographic Assumptions" and were shown in tables 10 and 11. The section entitled "Automatic Adjustments," and Appendices B and C, should be referred to for a more complete description of the program amounts affected by the automatic adjustment procedures.

Under section 215(b)(3) of the Social Security Act, the average amount of total wages for each year 1951 and later is used to index the earnings of persons newly eligible for benefits in 1979 or later. This procedure converts a worker's past earnings to approximately their equivalent values near the time of the worker's retirement or other eligibility, and these values are used to calculate the worker's average indexed monthly earnings (AIME). The average amount of total wages for each year is also used to adjust most of the program amounts that are subject to the automatic provisions. The announcement of the average wage determination for 1978, including a brief description of its derivation, is shown in Appendix C. Appendix C also describes the determinations of other program amounts that are in effect for 1980. Appendix table K below shows the average amount of total wages as announced for 1951 through 1978, together with projected values for 1979 through 1985 based on the intermediate set of assumptions.

APPENDIX TABLE K.—AVERAGE AMOUNT OF TOTAL WAGES, 1951-78, AND PROJECTED FUTURE AMOUNTS FOR 1979-85 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Average amount of total wages	Calendar year	Average amount of total wages
<b>Actual amounts:</b>		<b>Actual amounts—Continued</b>	
1951	\$2,799.16	1969	\$5,893.76
1952	2,973.32	1970	6,186.24
1953	3,139.44	1971	6,497.08
1954	3,155.64	1972	7,133.80
1955	3,301.44	1973	7,580.16
1956	3,532.36	1974	8,030.76
1957	3,641.72	1975	8,630.92
1958	3,673.80	1976	9,226.48
1959	3,855.80	1977	9,779.44
1960	4,007.12	1978	10,556.03
1961	4,086.76	<b>Projected future amounts:</b>	
1962	4,291.40	1979	11,442.00
1963	4,396.64	1980	12,545.00
1964	4,576.32	1981	13,738.00
1965	4,658.72	1982	15,233.00
1966	4,938.36	1983	16,742.00
1967	5,213.44	1984	18,313.00
1968	5,571.76	1985	19,972.00

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" and are shown in table 10.

The provisions for automatic cost-of-living increases in OASDI benefits were enacted in 1972 and first became effective with the benefit increase for June 1975. The notice announcing the June 1979 benefit increase is shown in Appendix B. Appendix table L shows the automatic benefit increases determined for each year 1975-80 and the benefit increases for each year 1981-85 projected on the basis of the intermediate set of assumptions.

APPENDIX TABLE L.—BENEFIT INCREASE AND OTHER OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC PROVISIONS, 1975–80, AND ESTIMATED FUTURE AMOUNTS FOR 1981–85, UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Benefit increase <sup>1</sup> (percent)	Contribution and benefit base	"Old-law" contribution and benefit base <sup>2</sup>	Retirement test exempt amount		Amount of earnings required for quarter of coverage <sup>3</sup>	AIME "bend points" in PIA formula		PIA "bend points" in maximum family benefit formula		
				Under age 65	Age 65 and over		First	Second	First	Second	Third
<b>Actual experience:</b>											
1975.....	8.0	\$14,100	( <sup>4</sup> )	\$2,520	\$2,520	( <sup>5</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
1976.....	6.4	15,300	( <sup>4</sup> )	2,760	2,760	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
1977.....	5.9	16,500	( <sup>4</sup> )	3,000	3,000	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
1978.....	6.4	17,700	( <sup>4</sup> )	3,240	\$4,000	7 \$250	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
1979.....	9.9	\$22,900	\$18,900	3,480	\$4,500	260	7 \$180	7 \$1,085	7 \$230	7 \$332	7 \$433
1980.....	14.3	\$25,900	20,400	3,720	\$5,000	290	194	1,171	248	358	467
<b>Projected future experience:</b>											
1981.....	11.3	\$29,700	22,200	4,080	\$5,500	310	211	1,269	269	388	507
1982.....	9.0	32,700	24,300	4,440	\$6,000	340	231	1,392	295	426	555
1983.....	8.8	35,700	26,700	4,920	6,600	370	253	1,524	323	466	608
1984.....	8.3	39,600	29,700	5,400	7,320	410	280	1,690	358	517	674
1985.....	7.9	43,500	32,700	5,880	8,040	450	308	1,857	394	568	741

<sup>1</sup> Effective with benefits payable for the month of June in each year shown.

<sup>2</sup> Contribution and benefit base that would have been determined automatically under the law in effect prior to the Social Security Amendments of 1977.

<sup>3</sup> See Appendix C for a description of quarter-of-coverage requirements prior to 1978.

<sup>4</sup> No provision in law for this amount in this year.

<sup>5</sup> Amount not subject to automatic provisions in this year.

<sup>6</sup> Amount represents ad hoc increase specified by Social Security Amendments of 1977.

<sup>7</sup> Amount specified for first year by Social Security Amendments of 1977; amounts for subsequent years subject to automatic provisions.

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" and are shown in table 10.

The law provides for an automatic increase in the contribution and benefit base for the year following a year in which an automatic benefit increase became effective. The base for 1975 was the first one determined on this basis. (Amendments enacted in December 1973 provided that the 11-percent general benefit increase that became effective in 1974 be considered an automatic cost-of-living benefit increase for purposes of the automatic provisions.) The bases for 1979–81 were set by the 1977 amendments at levels above those that would have occurred under the automatic provisions. Starting again in 1982, the bases will be determined automatically on the basis of increases in average wages. Appendix table L shows past and projected future amounts for the contribution and benefit base.

As mentioned in the section entitled “Automatic Adjustments,” the Social Security Act also 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 prior to the enactment of the 1977 amendments. Appendix table L presents such amounts as determined for 1979 and 1980, together with projections for 1981–85 under the intermediate assumptions.

The 1972 amendments also specified that the amount of earnings exempted from the withholding of benefits under the retirement test would increase automatically in the year following a year in which an automatic cost-of-living benefit increase became effective. The 1977 amendments modified this procedure by establishing different exempt amounts for those under age 65 and those aged 65 and over. The former amounts continue to increase automatically while the latter amounts are set at specific levels for each year 1978–82, after which time they will revert to increasing automatically. The announcement of the exempt amounts for 1980 is shown in Appendix C, and Appendix table L shows both sets for 1975–85.

The 1977 amendments provided for an annual measure of the amount of earnings to be used in 1978 to credit “quarters of coverage,” and for automatic adjustment of this amount for future years. Appendix C describes the determination of the amount for 1980, and Appendix table L shows the amounts for 1978–85.

As mentioned previously, the 1977 amendments substantially revised the method of computing benefits for people first becoming eligible for benefits in 1979 and later. The formula used to compute an individual’s primary insurance amount (PIA) for persons newly eligible in 1979 is:

90 percent of the first \$180 of AIME, plus  
 32 percent of AIME in excess of \$180  
     but not in excess of \$1,085, plus  
 15 percent of AIME in excess of \$1,085.

The amounts separating the individual’s AIME into intervals are generally called “bend points” and are adjusted automatically by the changes in average wages as specified in section 215(a)(1)(B) of the Social Security Act. (A minimum benefit of \$122, and a “special minimum benefit” varying by years of participation, are also provided for.) The determination of the bend points for the 1980 PIA formula is described in Appendix C, and the bend points for 1979 and 1980, and the amounts projected for 1981–85, are listed in Appendix table L.



A similar formula is used to compute the maximum amount of total monthly benefits payable on the basis of the earnings of an individual. This formula is a function of the individual's PIA, and is shown below for persons newly eligible in 1979:

150 percent of the first \$230 of PIA, plus  
272 percent of the PIA in excess of \$230  
but not in excess of \$332, plus  
134 percent of the PIA in excess of \$332  
but not in excess of \$433, plus  
175 percent of the PIA in excess of \$433.

These PIA interval bend points are also adjusted automatically under section 203(a)(2) of the law. Appendix C contains the announcement of the 1980 family maximum formula bend points. The past and projected amounts are shown in Appendix table L.

## APPENDIX E.—PROJECTIONS OF THE COMBINED OASI, DI AND HI TRUST FUNDS, 1980–1990

In this appendix, projected operations of the old-age and survivors insurance (OASI), disability insurance (DI) and hospital insurance (HI) trust funds are summarized to facilitate analysis of the Administration's proposal for interfund borrowing. These projections represent the combination of projections shown in the 1980 annual report of the Board of Trustees of the OASI and DI trust funds, and the similar annual report for the HI trust fund. Estimated assets of the combined funds as a percentage of combined annual expenditures are shown, based on the optimistic, intermediate and pessimistic sets of assumptions, for calendar years 1980–1990.

As shown in column 1 of Appendix table M, the assets of the OASI trust fund are projected to be insufficient to pay benefits when due within about one and one-half years under all three sets of assumptions. Column 2 indicates that the DI trust fund is expected to experience rapid growth for the remainder of this decade under all three sets of assumptions. Combined OASI and DI assets (shown in column 3) would still be insufficient to pay combined benefits when due within a few years under alternatives II and III, and the problem is only narrowly avoided under alternative I. Column 4 shows that the assets of the HI trust fund are projected to increase steadily only under the optimistic assumptions; under the intermediate and pessimistic sets, projected assets increase during the early part of the decade but begin to decline rapidly by the end of the decade. As described in the HI annual report, the HI trust fund is exhausted in 1994 under the intermediate assumptions and in 1990 under the pessimistic assumptions.

Assets of the combined OASI, DI and HI trust funds as a percentage of combined annual expenditures (shown in the last column) are projected under the optimistic assumptions to decline somewhat in 1980, and to remain level at about 24 percent for several years before beginning to increase. Based on the intermediate assumptions, combined assets continue to decline, reaching a minimum level of 16 percent of annual expenditures at the start of 1985 before beginning to increase. Under the pessimistic assumptions, the assets of the three trust funds, if combined, would be insufficient to pay combined benefits when due beginning late in 1983.

To ameliorate the OASI trust fund's imminent financing problems, the Administration has recommended that authority be granted to allow loans from one trust fund to another. A fund with assets nearing depletion could borrow from the assets of another, better endowed, trust fund with the loan to be repaid with interest when the deficient fund's assets recover sufficiently. Interest would be determined at the rate the lending fund would have received if it had invested the loan amount in the normal manner. The Administration's proposal encompasses the OASI, DI and HI trust funds, these being the three funds financed by the social security payroll tax.

As indicated by the projections in Appendix table M, under the optimistic and intermediate sets of assumptions, projected OASDI and HI tax income under present law would be sufficient to allow timely payment of projected OASDI and HI benefits in the aggregate for the remainder of this decade. Interfund borrowing would permit funds to be allocated as necessary to ensure that each program's commitments could be met. The OASI trust fund would need to borrow heavily from the DI and HI trust funds initially, but would subsequently pay back the amount borrowed with interest. It should be noted that, under the intermediate assumptions, for the next few years a wide margin of safety would not exist. In other words, if actual future economic and demographic conditions are somewhat more adverse than those assumed in alternative II, scheduled OASDI and HI tax income could be insufficient and interfund borrowing could only postpone temporarily the need for additional income. In particular, under the pessimistic assumptions, the assets of the combined funds are insufficient to pay benefits when due beginning in 1983.

APPENDIX TABLE M.—PROJECTED ASSETS OF THE OASI, DI AND HI TRUST FUNDS (SEPARATE AND COMBINED) AS A PERCENTAGE OF ANNUAL EXPENDITURES UNDER ALTERNATIVES I, II AND III, CALENDAR YEARS 1980-1990

Calendar year	Assets at the beginning of the year as a percentage of expenditures during year				Total OASDI and HI
	OASI	DI	OASDI	HI	
<b>Alternative I:</b>					
1980.....	23	36	24	53	29
1981.....	15	45	19	53	24
1982.....	18	65	15	69	24
1983.....	12	92	12	84	24
1984.....	1-4	126	11	95	26
1985.....	1-8	169	11	104	29
1986.....	1-7	239	19	113	37
1987.....	1-4	320	30	127	49
1988.....	10	406	42	138	61
1989.....	15	498	55	147	75
1990.....	11	594	70	152	88
<b>Alternative II:</b>					
1980.....	23	35	24	53	29
1981.....	15	44	18	52	24
1982.....	16	61	12	65	21
1983.....	1-2	84	28	76	19
1984.....	1-10	111	24	82	18
1985.....	1-17	142	20	84	16
1986.....	1-21	196	23	85	19
1987.....	1-23	254	27	88	23
1988.....	1-26	315	11	87	27
1989.....	1-27	378	16	82	31
1990.....	1-28	442	23	73	35
<b>Alternative III:</b>					
1980.....	23	35	24	53	29
1981.....	14	43	18	51	23
1982.....	13	55	29	60	18
1983.....	(1)	70	20	65	21
1984.....	(1)	88	2-8	65	25
1985.....	(1)	109	2-17	61	(1)
1986.....	(1)	149	2-21	54	(1)
1987.....	(1)	192	2-25	48	(1)
1988.....	(1)	236	2-30	37	(1)
1989.....	(1)	283	2-34	22	(1)
1990.....	(1)	332	2-38	33	(1)

<sup>1</sup> Assets of OASI fund projected to be insufficient to pay benefits when due.

<sup>2</sup> Assets of combined trust funds projected to be insufficient to pay combined benefits when due.

<sup>3</sup> Assets of HI fund projected to be insufficient to pay benefits when due.

<sup>4</sup> Assets at end of year are projected to be negative, and are projected not to recover before the end of the projection period.

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" of this report and in Appendix A of the HI annual report. The OASI, OASDI and combined OASDI and HI trust fund ratios in 1982 and later under alternative I, and 1981 and later under alternatives II and III, are theoretical since the OASI trust fund is projected to be depleted and no provision for additional income exists in present law. See text of this report for details.