

1977 ANNUAL REPORT OF THE BOARD OF TRUSTEES
OF THE FEDERAL OLD-AGE AND SURVIVORS
INSURANCE AND DISABILITY INSURANCE
TRUST FUNDS

COMMUNICATION

FROM

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

TRANSMITTING

THE 1977 ANNUAL REPORT OF THE BOARD, PURSUANT TO
SECTION 201(c) OF THE SOCIAL SECURITY ACT,
AS AMENDED



MAY 10, 1977.—Referred to the Committee on Ways and Means and
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LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE
FEDERAL OLD-AGE AND SURVIVORS INSURANCE
AND DISABILITY INSURANCE TRUST FUNDS,
Washington, D.C., May 9, 1977.

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

SIR: We have the honor to transmit to you the 1977 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 37th such report), in compliance with the provisions of section 201(c) of the Social Security Act.

Respectfully,

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

RAY MARSHALL,
Secretary of Labor.

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

JAMES B. CARDWELL,
Commissioner of Social Security
and Secretary, Board of Trustees.

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1977 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 BOARD OF TRUSTEES

The Federal Old-Age and Survivors Insurance Trust Fund, established on January 1, 1940, and the Federal Disability Insurance Trust Fund, established on August 1, 1956, are held by the Board of Trustees under the authority of section 201(c) of the Social Security Act. The Board is comprised of three members who serve in an ex officio capacity. The members of the Board are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health, Education, and Welfare. The Secretary of the Treasury is designated by law as the Managing Trustee. The Commissioner of Social Security is Secretary of the Board. The Board of Trustees reports to the Congress once each year, in compliance with section 201(c)(2) of the Social Security Act. This report is the annual report for 1977, the 37th such report.

HIGHLIGHTS

The more important features of the 1977 annual report, discussed in greater detail in later sections, are given below:

(a) As in the 1976 annual report, the need for additional financing for the old-age and survivors insurance and disability insurance trust funds in both the short range and the long range is reflected in the 1977 annual report. Outgo from the combined trust funds exceeded income in calendar year 1975 by \$1.5 billion and in calendar year 1976 by \$3.2 billion. Estimates of the future operations and status of the trust funds are shown in later sections under three alternative sets of assumptions, in order to indicate the general range of such estimates under differing sets of assumptions. It is expected that outgo will continue to exceed income in every year after 1976 under all three sets of assumptions. In calendar year 1977, it is estimated that outgo will exceed income by \$5.6 billion under each set of assumptions. This estimate is higher than the \$3.9 billion estimate of the excess of outgo over income shown for calendar year 1977 in the 1976 annual report, because of a somewhat lower level of employment, and a higher level of benefit payments, now estimated for 1977. Unless legislation is enacted to provide additional financing, the assets of the disability insurance trust fund are expected to decline until the fund is exhausted in 1979 under each set of assumptions. The assets of the old-age and survivors insurance trust fund are also expected to decline, in the absence of additional financing, until that fund

is exhausted in the early 1980's. Under the intermediate set of assumptions, which is designated as alternative II, it is estimated that the old-age and survivors insurance trust fund will be exhausted in 1983. Under the more optimistic set of assumptions (alternative I), the estimates indicate that the fund would be exhausted in 1984, while under the more pessimistic set (alternative III), the fund would be exhausted in 1982.

(b) Medium-range cost estimates are presented separately in this report, for the first time in several years, in order to call attention to the status of the old-age and survivors insurance and disability insurance trust funds during the next 25 years, 1977-2001. Under the intermediate set of the three alternative sets of assumptions for which estimates are shown, annual outlays during the next 25 years are estimated to be, on the average, 12.24 percent of taxable earnings. Thus, average annual expenditures are estimated to exceed the scheduled tax rate of 9.9 percent by 2.34 percent of taxable earnings during the next 25 years.

(c) With regard to the long-range actuarial status of the old-age and survivors insurance and disability insurance trust funds, the projected outlays are estimated to exceed tax income, according to the scheduled tax rates and assumed future increases in the contribution and benefit base, in every calendar year in the 75-year period, 1977-2051. Under the intermediate set of assumptions, annual outlays are estimated to be, on the average, 19.19 percent of taxable earnings over the entire 75-year period, while annual tax income is estimated to be, on the average, 10.99 percent of taxable earnings over the 75-year period. Thus, the average annual deficit (i.e., the excess of outlays over tax income) over the 75-year period is estimated to be 8.20 percent of taxable earnings under the intermediate set of assumptions, as compared to the projected deficit of 7.96 percent shown under the intermediate assumptions in the 1976 annual report. The average annual deficit of 2.34 percent of taxable earnings during the next 25 years is expected to increase to 7.67 percent for the period 2002-2026, and 14.57 percent for the period 2027-2051 under the intermediate set of assumptions. Thus, most of the increase in the annual deficit over the 75-year period is expected to occur after the turn of the century.

These deficits, particularly for the period after the year 2001, should be interpreted with caution not only because the accuracy of any demographic and economic assumptions becomes less reliable the further into the future they are projected but also because they are based upon future benefit levels which are much higher, relative to preretirement earnings, than are the currently prevailing benefit levels. These higher benefit levels will not materialize if legislation is enacted to redress that part of the imbalance which is caused by the particular method in which future benefits are related to changes in wages and the Consumer Price Index under the automatic increase provisions in present law.

(d) Because of the high benefit levels projected under present law, it is believed that useful information about the possible future financial status of the program can be obtained by considering cost estimates based on a more stable system. Accordingly, estimates of income and outgo have been prepared and are presented in the report for a "modified theoretical" system which would maintain through time the

relationship between average awarded benefits and average earnings at the beginning of 1979. After retirement, disability, or death, benefits would continue to be increased, as under present law, to adjust for changes in the Consumer Price Index. Even under the modified theoretical system the projected outlays of the combined old-age and survivors insurance and disability insurance trust funds are estimated to exceed the tax income, according to the scheduled tax rates and estimated future increases in the contribution and benefit base, in every calendar year in the period 1977-2051. During the medium-range period covered by the next 25 years, 1977-2001, the average annual deficit would be reduced to 2.06 percent of taxable earnings under the intermediate set of assumptions. After 2001, the reduction in the average annual deficit would be greater. The average deficit would be 4.31 percent over the second 25 years, 2002-2026, and 6.99 percent over the third 25-year period, 2027-2051. Over the entire 75-year period, 1977-2051, the average annual deficit is estimated to be 4.46 percent of taxable payroll, under the intermediate set of assumptions.

(e) The decline in the assets of the old-age and survivors insurance and disability insurance trust funds during fiscal year 1976 was close to that predicted in the 1976 annual report. Income in fiscal year 1976 amounted to \$70.7 billion, up by 6 percent over fiscal year 1975. Outgo totaled \$73.9 billion, up by 14 percent over fiscal year 1975. The funds decreased by \$3.2 billion in fiscal year 1976, to a level of \$44.9 billion on June 30, 1976, an amount that was about equal to total outgo during the following 7 months. During fiscal year 1976, several changes affecting the operations of the trust funds occurred under the automatic increase provisions in the law. The second automatic cost-of-living benefit increase, determined to be 6.4 percent, became effective for June 1976. The published statement announcing the determination of the increase is shown in appendix B. (This increase did not affect trust fund operations in fiscal year 1976, since June was the last month of the fiscal year and benefits for a given month are not paid until the following month.)

The contribution and benefit base increased under the automatic provisions, from \$14,100 to \$15,300, effective January 1, 1976. The amount that a beneficiary may earn in a year and still receive all of his benefits under the retirement test (i.e., the annual exempt amount) also increased under the automatic provisions, from \$2,520 to \$2,760, effective January 1, 1976. The comparison of trust fund operations in fiscal year 1976 with operations in fiscal year 1975 is also affected by the first automatic cost-of-living benefit increase, an increase of 8.0 percent, that became effective for June 1975.

(f) Increases in the contribution and benefit base and in the annual exempt amount under the retirement test were determined in October 1976 under the automatic increase provisions in the law. The new amounts, effective for January 1, 1977, are \$16,500 and \$3,000, respectively. The published statement announcing the determination of these amounts is shown in appendix C.

(g) An automatic cost-of-living benefit increase effective for June 1977 was determined to be 5.9 percent.

(h) The trust funds earned interest of \$2.8 billion during the fiscal year, equivalent to an effective annual rate of 6.8 percent on the total assets of the trust funds.

(i) The number of persons receiving monthly benefits under the old-age, survivors, and disability insurance program totaled 32.5 million by the end of June 1976. An estimated 104 million workers had earnings in calendar year 1976 that were taxable and creditable toward benefits under the program.

(j) Recent decisions made by the Supreme Court have held unconstitutional the provisions in the law which (1) require that a man must have been receiving at least one-half of his support from his wife in order to become entitled to husband's or widower's benefits, but (2) do not require that a similar test of support be met by women in order to become entitled to wife's or widow's benefits. The estimates presented in this report reflect the effects of eliminating the dependency test for men as a requirement for entitlement to husband's or widower's benefits.

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 to hold the amounts accumulated under the old-age and survivors insurance program. All the financial operations which relate to the system of old-age and survivors insurance are handled through this fund. The Social Security Amendments of 1956, which became law August 1, 1956, provided for the creation of the Federal Disability Insurance Trust Fund—a fund entirely separate from the old-age and survivors insurance trust fund—through which are handled all financial operations in connection with the system of monthly disability benefits payable to disabled insured workers under age 65 and to their dependents.

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 workers employed by State and local governments and by such employers with respect to work 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. (Cash tips, covered as wages beginning in 1966 under the 1965 amendments, are an exception; employees pay contributions with respect to cash tips, but employers do not.) All covered self-employed persons are required to pay contributions with respect to their 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 necessary to make up the annual maximum amount. The amount of any benefits that an individual (or his dependents or survivors) may become entitled to under the old-age, survivors, and disability insurance program is based on the individual's taxable earnings in each year. Therefore, the maximum

amount of earnings taxable in a year is also the maximum amount of earnings creditable toward benefits in that year and is referred to as the contribution and benefit base, in the Social Security Act.

The contribution rates applicable to taxable earnings in each of the calendar years 1937 and later, and the allocation of the rates to finance expenditures from each of the two trust funds, are shown in table 1. For 1978 and later, the contribution rates shown are the rates scheduled in the provisions of present law. The contribution and benefit base for each year, 1937-77, is also shown in table 1. Beginning with 1975, the contribution and benefit base for each year is determined in the preceding year under the automatic increase provisions in section 230 of the Social Security Act, unless modified by intervening legislation.

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
Past experience:							
1937-49.....	\$3,000	1.000	1.000				
1950.....	3,000	1.500	1.500				
1951-53.....	3,600	1.500	1.500		2.2500	2.2500	
1954.....	3,600	2.000	2.000		3.0000	3.0000	
1955-56.....	4,200	2.000	2.000		3.0000	3.0000	
1957-58.....	4,200	2.250	2.000	0.250	3.3750	3.0000	0.3750
1959.....	4,800	2.500	2.250	.250	3.7500	3.3750	.3750
1960-61.....	4,800	3.000	2.750	.250	4.5000	4.1250	.3750
1962.....	4,800	3.125	2.875	.250	4.7000	4.3250	.3750
1963-65.....	4,800	3.625	3.375	.250	5.4000	5.0250	.3750
1966.....	6,600	3.850	3.500	.350	5.8000	5.2750	.5250
1967.....	6,600	3.900	3.550	.350	5.9000	5.3750	.5250
1968.....	7,800	3.800	3.325	.475	5.8000	5.0875	.7125
1969.....	7,800	4.200	3.725	.475	6.3000	5.5875	.7125
1970.....	7,800	4.200	3.650	.550	6.3000	5.4750	.8250
1971.....	7,800	4.600	4.050	.550	6.9000	6.0750	.8250
1972.....	9,000	4.600	4.050	.550	6.9000	6.0750	.8250
1973.....	10,800	4.850	4.300	.550	7.0000	6.2050	.7950
1974.....	13,200	4.950	4.375	.575	7.0000	6.1850	.8150
1975.....	14,100	4.950	4.375	.575	7.0000	6.1850	.8150
1976.....	15,300	4.950	4.375	.575	7.0000	6.1850	.8150
1977.....	16,500	4.950	4.375	.575	7.0000	6.1850	.8150
Changes scheduled in present law:							
1978-80.....	(1)	4.950	4.350	.600	7.0000	6.1500	.8500
1981-85.....	(1)	4.950	4.300	.650	7.0000	6.0800	.9200
1986-2010.....	(1)	4.950	4.250	.700	7.0000	6.0100	.9900
2011 and later.....	(1)	5.950	5.100	.850	7.0000	6.0000	1.0000

¹ Subject to automatic increase.

Except for amounts received by the Secretary of the Treasury under State agreements (to effectuate coverage under the program for State and local government employees) and deposited directly in the trust funds, all contributions are collected by the Internal Revenue Service and deposited in the general fund of the Treasury as internal revenue collections; then, on an estimated basis, the contributions received are immediately and automatically appropriated to the trust funds. The exact amount of contributions received is not known initially since old-age, survivors, disability, and hospital insurance contributions 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.

An employee who worked for more than one employer during the course of a year and paid contributions on wages in excess of the statutory maximum can receive a refund of the contributions he paid on such excess wages. The amount of contributions subject to refund for any period is a charge against each of the trust funds in the ratio in which the amount was appropriated to or deposited in such trust funds for that period.

Another source from which receipts of the trust funds are derived is interest received on investments held by the funds. The investment procedures of the funds are described later in this section.

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 old-age, survivors, and disability insurance program.

Sections 217(g) and 229(b) of the Social Security Act authorize annual reimbursements from the general fund of the Treasury to the old-age and survivors insurance and disability insurance trust funds for any costs arising from the granting of noncontributory wage credits for military service, according to periodic determinations made by the Secretary of Health, Education, and Welfare.

Section 228 of the Social Security Act provides monthly cash benefits to certain persons aged 72 and over, almost all of whom are not eligible for cash benefits under other provisions of the old-age, survivors, and disability insurance program. Under section 228, all payments are made initially from the old-age and survivors insurance trust fund, with later reimbursement, with interest, from the general fund of the Treasury for the costs, including administrative expenses, of payments to persons who have less than three quarters of coverage. The reimbursements so made are on a provisional basis and are subject to adjustment, with appropriate interest allowances, as the actual experience develops and is analyzed.

Section 231 of the Social Security Act authorizes reimbursement from the general fund of the Treasury to the old-age and survivors insurance and disability insurance trust funds for any costs arising from the granting of noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of U.S. citizens of Japanese ancestry.

Section 201(i) of the Social Security Act authorizes the Managing Trustee to accept and deposit in the trust funds unconditional money gifts or bequests made for the benefit of the trust funds or any activity financed through such funds.

Expenditures for benefit payments and administrative expenses under the old-age, survivors, and disability insurance program are paid out of the trust funds. All expenses incurred by the Department of Health, Education, and Welfare and by the Treasury Department in carrying out the provisions of title II of the Social Security Act and of the Internal Revenue Code relating to the collection of contributions

are charged to the trust funds. The Secretary of Health, Education, and Welfare certifies benefit payments to the Managing Trustee, who makes the payment from the respective trust funds in accordance therewith.

Section 222(d) of the Social Security Act provides for payments from the trust funds for the costs of vocational rehabilitation services furnished to disabled persons receiving benefits because of their disability. The total amount of funds that may be made available in a fiscal year for payments for the costs of such services, including applicable administrative expenses of State agencies, may not exceed a specified percentage of the benefits certified for payment to these types of beneficiaries in the preceding year. This limitation on the amount to be made available was 1 percent in each of the fiscal years 1966 (when such amounts were first made available) through 1972 and 1¼ percent in fiscal year 1973. Under present law, the limitation is 1½ percent in fiscal years after 1973.

Congress has authorized expenditures from the trust funds for construction, rental, and lease or purchase contract of office buildings and related facilities for the Social Security Administration. Both the capital costs of construction financed directly from the trust funds and the rental, lease, or purchase contract costs of acquiring facilities are included in trust fund expenditures. In 1972-75, construction of several large facilities was authorized under purchase contract authority, wherein initial capital costs are borne by the private sector. Under this method of facilities acquisition, trust fund expenditures for use and ultimate Government ownership of a facility are made over periods of from 10 to 30 years. Whatever the manner of acquisition, 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 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 that shall bear interest at a rate based on the average market yield (computed by the Managing Trustee 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.

SUMMARY OF THE OPERATIONS OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, FISCAL YEAR 1976

A statement of the income and disbursements of the Federal Old-Age and Survivors Insurance Trust Fund in the fiscal year which began on July 1, 1975, and ended on June 30, 1976, 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 1975 are also shown in the table.

The total assets of the old-age and survivors insurance trust fund amounted to \$39,948 million on June 30, 1975. During fiscal year 1976, total receipts amounted to \$62,327 million and total disbursements were \$64,295 million. The assets of the trust fund thus decreased \$1,968 million during the year to a total of \$37,980 million on June 30, 1976.

Included in total receipts during fiscal year 1976 were \$53,205 million representing contributions appropriated to the fund and \$6,654 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, \$305 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.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1975 AND 1976

[In thousands]

	Fiscal year 1975	Fiscal year 1976
Total assets of the trust fund, beginning of year.....	\$37, 867, 008	\$39, 947, 814
Receipts:		
Contributions:		
Appropriations.....	50, 389, 101	53, 205, 037
Deposits arising from State agreements.....	5, 897, 892	6, 654, 445
Gross contributions.....	56, 286, 993	59, 859, 482
Less payment into the Treasury for contributions subject to refund.....	269, 650	304, 792
Net contributions.....	56, 017, 343	59, 554, 690
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service.....	140, 000	157, 000
Payments to noninsured persons aged 72 and over:		
Benefit payments.....	266, 349	237, 856
Administrative expenses.....	3, 477	2, 391
Interest.....	37, 497	28, 070
Total reimbursement for payments to noninsured persons aged 72 and over.....	307, 323	268, 317
Interest:		
Interest on investments.....	2, 296, 908	2, 346, 024
Interest on amounts transferred between the old-age and survivors insurance trust fund and the supplemental security income general fund account due to adjustment in allocation of administrative expenses ¹	-2, 840	3, 056
Gross interest.....	2, 294, 068	2, 349, 080
Less interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs.....	1, 818	2, 058
Less interest on amounts transferred to disability insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	68	22
Net interest.....	2, 292, 182	2, 347, 000
Gifts.....	14	34
Total receipts.....	58, 756, 862	62, 327, 041

See footnotes at end of table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING FISCAL YEARS 1975 AND 1976—Continued
[In thousands]

	Fiscal year 1975	Fiscal year 1976
Disbursements:		
Benefit payments.....	\$54,838,818	\$62,140,449
Transfer to railroad retirement account.....	981,785	1,212,303
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year.....	6,766	7,921
Transfers between the old-age and survivors insurance trust fund and the disability insurance trust fund due to adjustment in allocation of costs for prior fiscal year ²	965	—441
Total payment for costs of vocational rehabilitation services.....	7,731	7,480
Administrative expenses:		
Department of Health, Education, and Welfare.....	723,246	829,529
Treasury Department.....	79,239	122,820
Construction of facilities for Social Security Administration.....	2,409	1,568
Expenses of the Department of Health, Education, and Welfare, for administration of vocational rehabilitation program for disabled beneficiaries.....	52	48
Interfund transfers due to adjustment in allocation of administrative expenses.....	18,536	3,974
Transfers between the old-age and survivors insurance trust fund and the supplemental security income general fund account due to adjustment in allocation of administrative expenses ³	25,506	—22,553
Gross administrative expenses.....	848,987	935,384
Less interfund transfers due to adjustment in allocation of costs of construction.....	1,149	619
Less receipts from sale of supplies, materials, etc.....	114	19
Net administrative expenses.....	847,723	934,746
Total disbursements.....	56,676,057	64,294,978
Net addition to the trust fund.....	2,080,805	—1,967,937
Total assets of the trust fund, end of year.....	39,947,814	37,979,876

¹ A positive figure represents a transfer of interest to the old-age and survivors insurance trust fund from the supplemental security income general fund account. A negative figure represents a transfer of interest from the old-age and survivors insurance trust fund to the supplemental security income general fund account.

² A positive figure represents a transfer from the old-age and survivors insurance trust fund to the disability insurance trust fund. A negative figure represents a transfer to the old-age and survivors insurance trust fund from the disability insurance trust fund.

³ A positive figure represents a transfer from the old-age and survivors insurance trust fund to the supplemental security income general fund account. A negative figure represents a transfer to the old-age and survivors insurance trust fund from the supplemental security income general fund account.

Net contributions amounted to \$59,555 million, an increase of 6.3 percent over the amount for the preceding fiscal year. Growth in contribution income resulted primarily from (1) the higher level of earnings in covered employment and (2) the two increases in the maximum annual amount of earnings taxable—from \$13,200 to \$14,100 and from \$14,100 to \$15,300—that became effective on January 1, 1975, and January 1, 1976, respectively. Although the first increase in the maximum annual amount of earnings taxable, from \$13,200 to \$14,100, became effective in 1975, the first full fiscal year during which earnings between \$13,200 and \$14,100 were taxable was 1976.

Reference has been made in an earlier section to provisions of the Social Security Act under which the old-age and survivors insurance and disability insurance trust funds are to be reimbursed annually from the general fund of the Treasury for costs of granting noncontributory credits for military service. In accordance with section 217(g), the Secretary of Health, Education, and Welfare made a determination in 1970 of the level annual appropriations to the trust

funds necessary to amortize over a 44-year period, beginning in fiscal year 1972, the estimated total additional costs, for military service performed before 1957, arising from payments that have been made after August 1950 and that will be made in future years, taking into account the amounts of annual appropriations in fiscal years 1966-71 that have been deposited into the trust funds. The annual amounts resulting from this determination were \$136 million for the old-age and survivors insurance trust fund and \$49 million for the disability insurance trust fund. In accordance with section 229(b), the Secretary determined that the old-age and survivors insurance trust fund should receive reimbursement of \$21 million, and the disability insurance trust fund should receive reimbursement of \$41 million, for additional costs attributable to noncontributory credits for military service performed after 1956. Thus, reimbursements amounting to \$157 million for the old-age and survivors insurance trust fund, and to \$90 million for the disability insurance trust fund, were received in December 1975.

Reference has also been made in an earlier section to provisions under which the old-age and survivors insurance trust fund is to be reimbursed annually from the general fund of the Treasury for costs of monthly payments to certain noninsured persons aged 72 and over who have less than three quarters of coverage. The reimbursement in fiscal year 1976 amounted to \$268 million.

Again, reference has been made in an earlier section to provisions under which money gifts or bequests may be deposited in the old-age and survivors insurance and disability insurance trust funds. In fiscal year 1976, the old-age and survivors insurance trust fund received gifts amounting to about \$33,700.

The remaining \$2,347 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 the prior fiscal year, 1975.

Of the \$64,295 million in total disbursements, \$62,140 million was for benefit payments, an increase of 13.3 percent over the corresponding amount paid in fiscal year 1975. This increase was due to (1) the automatic cost-of-living benefit increase of 8.0 percent, which became effective for June 1975 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.

Reference has been made in an earlier section to provisions of the Railroad Retirement Act which coordinate the railroad retirement and the old-age and survivors insurance programs and which govern the financial interchanges arising from the allocation of costs between the two systems. In accordance with these provisions, the Railroad Retirement Board and the Secretary of Health, Education, and Welfare determined that a transfer of \$1,144,900,000 to the railroad retirement account from the old-age and survivors insurance trust fund would

place this trust fund in the same position as of June 30, 1975, as it would have been if railroad employment had always been covered under the Social Security Act. This amount was transferred to the railroad retirement account in June 1976, together with interest to the date of transfer amounting to \$67,403,000.

Expenditures of the old-age and survivors insurance program for the costs of vocational rehabilitation services amounted to about \$7.5 million. These services were furnished to disabled adults—dependents of old-age beneficiaries and survivors of deceased insured workers—who were receiving monthly benefits from the old-age and survivors insurance trust fund because of their disability.

The remaining \$935 million of disbursements from the old-age and survivors insurance trust fund represents net administrative expenses. The expenses of administering the programs financed through the four trust funds—the old-age and survivors insurance, disability insurance, hospital insurance, and supplementary medical insurance trust funds—are allocated and charged directly to each trust fund on the basis of provisional estimates. Similarly, the expenses of administering the supplemental security income program are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are effected by interfund transfers, including transfers between the old-age and survivors insurance trust fund and the supplemental security income general fund account, with appropriate interest allowances.

Net administrative expenses charged to the old-age and survivors insurance trust fund and to the disability insurance trust fund in fiscal year 1976 totaled \$1,200 million. This amount represented 1.8 percent of contribution income and 1.7 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 system as a whole and for each trust fund separately are shown in table 3.

In table 4, the experience with respect to actual amounts of contributions and benefit payments in fiscal year 1976 is compared with the estimates for fiscal year 1976 which appeared in the 1975 and 1976 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 1976 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions in fiscal year 1976 does not reflect adjustments to contributions for fiscal year 1976 that were to be made after June 30, 1976.

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 1972-76

Fiscal year	Total ¹ —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 ²	Contribution income	Benefit payments ²	Contribution income	Benefit payments ²
1972.....	2.0	2.1	1.6	1.7	4.4	5.2
1973.....	2.0	1.9	1.6	1.6	4.5	4.7
1974.....	1.6	1.6	1.5	1.5	2.5	2.5
1975.....	1.7	1.8	1.5	1.5	3.4	3.3
1976.....	1.8	1.7	1.6	1.5	3.4	2.9

¹ The percentages shown for fiscal years 1974 and later reflect the effect of a change in the method of allocating administrative expenses among the four trust funds, which resulted in lower proportions allocated to the disability insurance trust fund. The percentages for fiscal year 1974 also reflect the effect of applying the modified method of allocating expenses retroactively to fiscal year 1973, with a resulting larger interfund transfer to the disability insurance trust fund in fiscal year 1974, than would have otherwise occurred.

² In determining the percentage shown, payments for the costs of vocational rehabilitation services are included with benefit payments.

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

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1976

[Amounts in millions]

	Old-age and survivors insurance trust fund		Disability insurance trust fund	
	Net contributions	Benefit payments	Net contributions	Benefit payments
Actual amount.....	\$59,555	\$62,140	\$7,797	\$9,222
Estimated amount published in 1976 report.....	\$59,593	\$62,245	\$7,835	\$9,199
Actual as percentage of estimate.....	100	100	100	100
Estimated amount published in 1975 report.....	\$58,125	\$62,535	\$7,641	\$9,020
Actual as percentage of estimate.....	102	99	102	102

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

TABLE 5.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE OF BENEFICIARY AND PAYMENT, FISCAL YEARS 1975 AND 1976

[Amounts in millions]

	1975		1976	
	Amount	Percent of total	Amount	Percent of total
Total.....	\$54,838.8	100	\$62,140.4	100
Monthly benefits.....	54,495.7	99	61,803.1	99
Retired workers and their dependents.....	39,659.2	72	45,139.3	73
Retired workers.....	35,588.0	65	40,522.9	65
Wives and husbands.....	3,500.3	6	3,919.2	6
Children.....	570.8	1	697.2	1
Survivors of deceased workers.....	14,620.1	27	16,478.9	27
Aged widows and widowers.....	8,847.9	16	9,995.3	16
Disabled widows and widowers.....	157.8	(¹)	201.1	(¹)
Parents.....	49.2	(¹)	50.8	(¹)
Children.....	4,619.9	8	5,156.9	8
Widowed mothers and fathers caring for child beneficiaries.....	945.3	2	1,074.8	2
Noninsured persons aged 72 and over ²	216.5	(¹)	184.9	(¹)
Lump-sum death payments.....	343.1	1	337.3	1

¹ Less than 0.5 percent.

² 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.

At the end of fiscal year 1976, about 32.5 million persons were receiving monthly benefits under the old-age, survivors, and disability insurance program. About 27.9 million of these persons were receiving monthly benefits from the old-age and survivors insurance trust fund. The distribution of benefit payments in fiscal years 1975 and 1976, by type of beneficiary, is shown in table 5. Approximately 73 percent of the total benefit payments from the old-age and survivors insurance trust fund in fiscal year 1976 was accounted for by monthly benefits to retired workers and their dependents and about 16 percent by monthly benefits to aged survivors and disabled widows or widowers of deceased workers. Approximately 10 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.

Benefit payments to noninsured persons aged 72 and over amounted to \$185 million, or less than ½ percent of total benefit payments from the trust fund. Reference has been made in an earlier section to the legislative provisions governing reimbursement from the general fund of the Treasury for the costs of such payments to persons who have fewer than three quarters of coverage. About 98 percent of the total amount of the payments made in fiscal year 1976 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 1976 consisted of lump-sum death payments.

The assets of the old-age and survivors insurance trust fund at the end of fiscal year 1976 totaled \$37,980 million, consisting of \$37,955 million in the form of obligations of the U.S. Government or of federally sponsored agency obligations, and an undisbursed balance of \$25 million. Table 6 shows a comparison of the total assets of the fund and their distribution at the end of fiscal years 1975 and 1976.

TABLE 6.—ASSETS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1975 AND 1976

	June 30, 1975		June 30, 1976	
	Par value	Book value ¹	Par value	Book value ¹
Investments in public-debt obligations:				
Public issues:				
Treasury notes:				
6½ percent, 1976	\$5,000,000	\$4,998,958.41		
6½ percent, 1976	22,180,000	22,180,000.00		
7 percent, 1975	50,000,000	49,990,195.88		
7½ percent, 1976	90,500,000	90,415,810.90	\$90,500,000	\$90,493,524.10
8 percent, 1977	15,000,000	15,000,000.00	15,000,000	15,000,000.00
Treasury bonds:				
2¾ percent, investment series B, 1975-80	1,064,902,000	1,064,902,000.00	1,064,902,000	1,064,902,000.00
3 percent, 1995	70,170,000	70,149,948.28	70,170,000	70,150,972.24
3½ percent, 1978-83	60,200,000	59,731,448.92	60,200,000	59,790,635.12
3½ percent, 1985	25,700,000	24,845,118.83	25,700,000	24,932,055.95
3½ percent, 1980	449,450,000	451,776,410.07	449,450,000	451,340,208.27
3½ percent, 1990	556,250,000	550,061,941.26	556,250,000	550,486,265.46
3½ percent, 1998	552,037,000	544,833,883.00	552,037,000	545,142,588.16
4 percent, 1980	153,100,000	153,077,709.64	153,100,000	153,082,573.24
4½ percent, 1989-94	91,300,000	90,730,739.82	91,300,000	90,760,966.02
4½ percent, 1975-85	78,023,000	77,816,665.07	78,023,000	77,837,648.39
4½ percent, 1987-92	33,000,000	34,286,186.43	33,000,000	34,179,743.43
6¾ percent, 1984	31,500,000	31,916,260.74	31,500,000	31,870,850.46
7 percent, 1981	50,000,000	49,753,333.18	50,000,000	49,793,333.14
7½ percent, 1988-93	99,934,000	98,491,056.05	99,934,000	98,570,484.17
7½ percent, 1995-00			22,180,000	21,459,821.64
8¼ percent, 2000-05	17,450,000	17,354,556.72	22,450,000	22,444,000.59
8½ percent, 1995-00			50,000,000	50,729,798.00
8½ percent, 1994-99	6,352,000	6,524,611.84	6,352,000	6,517,394.56
Total public issues	3,522,048,000	3,508,836,836.04	3,522,048,000	3,509,484,862.94
Accrued interest purchased				441,467.39
Total investments in public issues	3,522,048,000	3,508,836,836.04	3,522,048,000	3,509,926,330.33
Obligations sold only to this fund (special issues):				
Notes:				
5¾ percent, 1979	3,102,896,000	3,102,896,000.00	3,102,896,000	3,102,896,000.00
6½ percent, 1978	3,468,850,000	3,468,850,000.00	3,468,850,000	3,468,850,000.00
6½ percent, 1976	3,844,864,000	3,844,864,000.00		
6¾ percent, 1980	4,547,285,000	4,547,285,000.00	4,547,285,000	4,547,285,000.00
7½ percent, 1977	5,033,296,000	5,033,296,000.00	1,993,693,000	1,993,693,000.00
Bonds:				
4½ percent, 1979	1,069,517,000	1,069,517,000.00		
4½ percent, 1980	1,080,011,000	1,080,011,000.00		
7½ percent, 1981	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1982	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1983	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1984	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1985	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1986	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1987	688,955,000	688,955,000.00	688,955,000	688,955,000.00
7½ percent, 1988	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1989	688,956,000	688,956,000.00	688,956,000	688,956,000.00
7½ percent, 1990	1,366,865,000	1,366,865,000.00	1,366,865,000	1,366,865,000.00
7½ percent, 1981			522,029,000	522,029,000.00
7½ percent, 1982			522,029,000	522,029,000.00
7½ percent, 1983			522,029,000	522,029,000.00
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
7½ percent, 1988			522,029,000	522,029,000.00
7½ percent, 1989			522,029,000	522,029,000.00
7½ percent, 1990			522,029,000	522,029,000.00
7½ percent, 1991			1,888,893,000	1,888,893,000.00
7½ percent, 1981	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1982	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1983	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1984	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1985	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1986	677,910,000	677,910,000.00	677,910,000	677,910,000.00
7½ percent, 1987	677,910,000	677,910,000.00	677,910,000	677,910,000.00

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 1975 AND 1976—Continued

	June 30, 1975		June 30, 1976	
	Par value	Book value ¹	Par value	Book value ¹
Investments in public-debt obligations—Continued				
Obligations sold only to this fund (special issues)—Continued				
Bonds—Continued				
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
Total obligations sold only to this fund (special issues).....	35,815,375,000	35,815,375,000.00	33,890,562,000	33,890,562,000.00
Total investments in public-debt obligations.....	39,337,423,000	39,324,211,836.04	37,412,610,000	37,400,488,330.33
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	64,846,641.07	65,000,000	64,858,828.63
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	554,846,641.07	555,000,000	554,858,828.63
Total investments.....	39,892,423,000	39,879,058,477.11	37,967,610,000	37,955,347,158.96
Undisbursed balances.....		68,755,382.70		24,529,247.24
Total assets.....		39,947,813,859.81		37,979,876,406.20

¹ 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 1976 amounted to \$1,925 million. New securities at a total par value of \$74,868 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 \$76,792 million. Included in these amounts is \$67,758 million in certificates of indebtedness that were acquired and redeemed within the fiscal year. In addition, \$50 million in 7-percent notes maturing in November 1975, \$5 million in 6¼-percent notes maturing in February 1976, and \$22 million in 6½-percent notes maturing in May 1976 were exchanged for equal amounts of 8¾-percent bonds maturing in August 2000, 8¼-percent bonds maturing in May 2005, and 7⅞-percent bonds maturing in February 2000, respectively. Although the interest rate on bonds is generally limited to 4¼ percent by the provisions of 31 U.S.C. 752, amendments to these provisions authorize the issuance of bonds at rates of interest exceeding 4¼ percent, subject to certain restrictions. Public Law 92-5, enacted March 17, 1971, amended the provisions to authorize the issuance to the public and to Government accounts of up to a total of \$10 billion in bonds at rates of interest

exceeding $4\frac{1}{4}$ percent. Public Law 93-53, enacted July 1, 1973, further amended the provisions of 31 U.S.C. 752 by (1) removing the \$10 billion limitation on the aggregate face amount of such bonds that may be issued and (2) limiting the amount of such bonds that may be held by the public at any one time to \$10 billion.

The effective annual rate of interest earned by the assets of the old-age and survivors insurance trust fund during fiscal year 1976 was 6.8 percent. The interest rate on special issues purchased by the trust fund in June 1976 was $7\frac{1}{2}$ percent, payable semiannually.

The 1956 amendments provided that the public-debt obligations issued for purchase by the old-age and survivors insurance trust fund and the disability insurance trust fund shall have maturities fixed with due regard for the needs of the funds. Under these amendments, the general practice in the past was to spread the maturity dates for the holdings of special issues as nearly as practicable in equal amounts over a 15-year period.

However, the interest rate on special issues acquired in June of each year 1966-76, as determined under section 201(d) of the Social Security Act, was higher than the maximum rate of $4\frac{1}{4}$ percent to which the interest rate on long-term issues (bonds) is generally limited. Thus, the former practice of spreading maturity dates over a 15-year period could not be followed, beginning with special issues acquired in June 1966, until the enactment of Public Law 93-53 on July 1, 1973. Accordingly, the entire amounts available for investment in June of each year 1966-73 were invested in short-term issues (notes). As a result, the old-age and survivors insurance trust fund held \$13,113 million in special issues consisting of 7-year notes that were distributed in varying amounts maturing on June 30 of each year 1977-80 (table 6).

On June 30, 1974, the investment practice in effect before 1966 was reinstated. As a result, the old-age and survivors insurance trust fund held \$20,778 million in special issues at the end of June 1976 that were acquired in 1974-76 and were distributed in virtually equal amounts of about \$1,889 million maturing in each of the years 1981-1991 (table 6). The investment operations of the fund in fiscal years 1975 and earlier are described in the 1976, and earlier, annual reports.

Under the Congressional Budget Act of 1974 (Public Law 93-344), the period of time covered during the fiscal year used by the Government was changed from the 12 months beginning on July 1 of each year and ending on June 30 of the following year to the 12 months beginning on October 1 of each year and ending on September 30 of the following year. This change became effective after the close of the fiscal year that ended on June 30, 1976. A detailed summary of the operations of the old-age and survivors insurance and disability insurance trust funds during the transition quarter, July-September 1976, will be included in the 1978 annual report, along with the summary of operations in the fiscal year ending September 30, 1977.

SUMMARY OF THE OPERATIONS OF THE FEDERAL DISABILITY INSURANCE TRUST FUND, FISCAL YEAR 1976

A statement of the income and disbursements of the Federal Disability Insurance Trust Fund during fiscal year 1976, 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 1975 are also shown in the table.

The total assets of the disability insurance trust fund amounted to \$8,191 million on June 30, 1975. During fiscal year 1976, total receipts amounted to \$8,355 million and total disbursements were \$9,606 million. The assets of the trust fund thus decreased \$1,251 million during the year to a total of \$6,939 million on June 30, 1976.

Included in total receipts were \$6,998 million representing contributions appropriated to the fund, and \$839 million representing amounts received by the Secretary of the Treasury in accordance with State coverage agreements and deposited in the fund. As an offset, \$40 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 \$7,797 million, an increase of 6.0 percent over the amount for the preceding fiscal year. This increase is accounted for by the same factors that accounted for the increase in contributions to the old-age and survivors insurance trust fund (described in the preceding section).

TABLE 7.—STATEMENT OF OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING FISCAL YEARS
1975 AND 1976
[In thousands]

	Fiscal year 1975	Fiscal year 1976
Total assets of the trust fund, beginning of year	\$8, 252, 865	\$8, 190, 507
Receipts:		
Contributions:		
Appropriations.....	6, 615, 691	6, 998, 202
Deposits arising from State agreements.....	775, 875	838, 943
Gross contributions.....	7, 391, 567	7, 837, 144
Less payment into the Treasury for contributions subject to refund.....	35, 350	40, 052
Net contributions.....	7, 356, 217	7, 797, 092
Reimbursement from general fund of the Treasury for costs of noncontributory credits for military service.....	52, 000	90, 000
Interest:		
Interest on investments.....	511, 960	467, 472
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs ¹	-372	703
Interest on amounts transferred from the old-age and survivors insurance trust fund due to adjustment in allocation of costs of vocational rehabilitation services.....	68	22
Total interest.....	511, 656	468, 197
Total receipts.....	7, 919, 873	8, 355, 290
Disbursements:		
Benefit payments.....	7, 629, 796	9, 222, 211
Transfer to railroad retirement account.....	28, 514	26, 366
Payment for costs of vocational rehabilitation services for disabled beneficiaries: For the current fiscal year.....	71, 900	91, 835
Transfers between the disability insurance trust fund and the old-age and survivors insurance trust fund due to adjustment in allocation of costs for prior fiscal year ²	-965	441
Total payment for costs of vocational rehabilitation services.....	70, 936	92, 276
Administrative expenses:		
Department of Health, Education, and Welfare.....	227, 270	258, 666
Treasury Department.....	11, 290	14, 273
Construction of facilities for Social Security Administration.....	420	210
Expenses of the Department of Health, Education, and Welfare for administration of vocational rehabilitation program for disabled beneficiaries.....	548	552
Interfund transfers due to adjustment in allocation of—		
Administrative expenses ³	13, 045	-8, 431
Costs of construction ³	412	360
Gross administrative expenses.....	252, 985	265, 629
Less receipts from sale of surplus supplies, materials, etc.....		16
Net administrative expenses.....	252, 985	265, 613
Total disbursements.....	7, 982, 231	9, 606, 467
Net addition to the trust fund.....	-62, 358	-1, 251, 177
Total assets of the trust fund, end of year.....	8, 190, 507	6, 939, 330

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

² A positive figure represents a transfer from the disability insurance trust fund to the old-age and survivors insurance trust fund. A negative figure represents a transfer to the disability insurance trust fund from the old-age and survivors insurance trust fund.

³ 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.

In addition, the trust fund received \$90 million in December from the general fund of the Treasury, as reimbursement for the costs of noncontributory credits for military service.

The remaining \$468 million of receipts consisted of interest on the investments of the fund, plus interest on amounts of interfund transfers.

Of the \$9,606 million in total disbursements, \$9,222 million was for benefit payments, an increase of 20.9 percent over the corresponding amount paid in fiscal year 1975. 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 old-age and survivors insurance trust fund (described in the preceding section).

Provisions governing the financial interchanges between the railroad retirement account and the disability insurance trust fund are similar to those referred to in the preceding section relating to the old-age and survivors insurance trust fund. The determination made as of June 30, 1975, required that a transfer of \$24,900,000 be made from the disability insurance trust fund to the railroad retirement account. This amount was transferred to the railroad retirement account in June 1976, together with interest to the date of transfer amounting to \$1,466,000.

The remaining disbursements amounted to \$266 million for net administrative expenses and \$92 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 old-age and survivors insurance and disability insurance trust funds to disabled persons receiving benefits because of their disability. This limitation on the amounts to be made available was 1 percent in each fiscal year through 1972, 1¼ percent in fiscal year 1973, and 1½ percent in fiscal years 1974 and later. The data presented below show the relationship between the total amount of payments for the costs of such rehabilitation services for each fiscal year, 1972-75, and the corresponding amount of benefits paid in the prior fiscal year from the trust funds to disabled beneficiaries. The table also shows the amount of payments for costs of rehabilitation services for the 15-month period July 1975 through September 1976 related to the amount of benefits paid to disabled beneficiaries in the corresponding earlier 15-month period July 1974 through September 1975.

Fiscal year to which costs of rehabilitation services are charged	Amount of payments for costs of rehabilitation services ¹ (in thousands)	Estimated amount of benefit payments in preceding fiscal year to disabled beneficiaries (in thousands)	Payments for costs of rehabilitation services as percent of preceding year's benefit payments
1972	\$30,029	\$3,028,695	0.99
1973	30,141	3,629,590	.83
1974	49,620	4,643,016	1.07
1975	77,502	5,533,493	1.40
July 1975-September 1976 ²	127,371	8,824,547	1.44

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

² 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.

At the end of fiscal year 1976, some 4,533,000 persons were receiving monthly benefits from the disability insurance trust fund. The distribution of benefit payments in fiscal years 1975 and 1976, 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 1975 AND 1976

[Amounts in millions]

	1975		1976	
	Amount	Percent of total	Amount	Percent of total
Total.....	\$7,629.8	100	\$9,222.2	100
Disabled workers.....	6,266.8	82	7,570.3	82
Wives and husbands.....	349.6	5	419.0	5
Children.....	1,013.4	13	1,232.9	13

The assets of this fund at the end of fiscal year 1976 totaled \$6,939 million, consisting of \$6,929 million in the form of obligations of the U.S. Government and an undisbursed balance of \$10 million. Table 9 shows a comparison of the total assets of the fund and their distribution at the end of fiscal years 1975 and 1976.

The net decrease in the par value of the investments owned by the fund during the fiscal year amounted to \$1,227 million. New securities at a total par value of \$9,630 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 \$10,857 million. Included in these amounts is \$8,657 million in certificates of indebtedness that were acquired and redeemed within the fiscal year.

The effective annual rate of interest earned by the assets of the disability insurance trust fund during fiscal year 1976 was 6.8 percent. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1976 was 7½ percent, payable semiannually.

The investment policy and practices described in the preceding section concerning the old-age and survivors insurance trust fund apply equally to investments of the assets of the disability insurance trust fund. A distribution of these investments by type of government security and date of maturity is shown in table 9.

TABLE 9.—ASSETS OF THE DISABILITY INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1975 AND 1976

	June 30, 1975		June 30, 1976	
	Par value	Book value ¹	Par value	Book value ¹
Investments in public-debt obligations:				
Public issues:				
Treasury notes:				
6 percent, 1978	\$2,000,000	\$2,002,592.04	\$2,000,000	\$2,001,833.40
6½ percent, 1978	2,000,000	2,002,641.61	2,000,000	2,001,619.09
7½ percent, 1976	26,000,000	25,979,390.53	26,000,000	25,998,414.97
7½ percent, 1977	14,000,000	13,989,457.94	14,000,000	13,994,518.22
8 percent, 1977	10,000,000	10,000,000.00	10,000,000	10,000,000.00
Treasury bonds:				
3½ percent, 1990	10,500,000	10,096,515.98	10,500,000	10,124,183.54
3½ percent, 1998	5,000,000	4,757,169.80	5,000,000	4,767,576.80
4 percent, 1980	30,250,000	30,246,176.33	30,250,000	30,247,010.21
4½ percent, 1989-94	68,400,000	67,772,719.68	68,400,000	67,806,026.52
4½ percent, 1975-85	20,795,000	20,780,509.73	20,795,000	20,781,983.21
4½ percent, 1987-92	80,800,000	80,909,083.11	80,800,000	80,900,055.63
6½ percent, 1984	15,000,000	15,049,731.61	15,000,000	15,044,306.29
7½ percent, 1988-93	26,500,000	25,802,941.67	26,500,000	25,841,311.79
8½ percent, 2000-05	3,750,000	3,729,489.26	3,750,000	3,730,174.82
Total investments in public issues	314,995,000	313,118,419.29	314,995,000	313,239,014.49
Obligations sold only to this fund (special issues):				
Notes:				
5½ percent, 1979	1,058,617,000	1,058,617,000.00	1,058,617,000	1,058,617,000.00
6½ percent, 1978	1,284,249,000	1,284,249,000.00	1,284,249,000	1,284,249,000.00
6½ percent, 1976	1,102,166,000	1,102,166,000.00	1,102,166,000	1,102,166,000.00
6½ percent, 1980	943,266,000	943,266,000.00	943,266,000	943,266,000.00
7½ percent, 1977	1,394,466,000	1,394,466,000.00	370,385,000	370,385,000.00
Bonds:				
7½ percent, 1981	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1982	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1983	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1984	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1985	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1986	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1987	84,338,000	84,338,000.00	84,338,000	84,338,000.00
7½ percent, 1988	84,337,000	84,337,000.00	84,337,000	84,337,000.00
7½ percent, 1989	84,337,000	84,337,000.00	84,337,000	84,337,000.00
7½ percent, 1990	206,000,000	206,000,000.00	206,000,000	206,000,000.00
7½ percent, 1981			63,020,000	63,020,000.00
7½ percent, 1982			63,020,000	63,020,000.00
7½ percent, 1983			63,020,000	63,020,000.00
7½ percent, 1984			63,020,000	63,020,000.00
7½ percent, 1985			63,020,000	63,020,000.00
7½ percent, 1986			63,020,000	63,020,000.00
7½ percent, 1987			63,020,000	62,020,000.00
7½ percent, 1988			63,019,000	63,019,000.00
7½ percent, 1989			63,020,000	63,020,000.00
7½ percent, 1990			63,020,000	63,020,000.00
7½ percent, 1991			269,020,000	269,020,000.00
7½ percent, 1981	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1982	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1983	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1984	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1985	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1986	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1987	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1988	121,663,000	121,663,000.00	121,663,000	121,663,000.00
7½ percent, 1989	121,663,000	121,663,000.00	121,663,000	121,663,000.00
Total obligations sold only to this fund (special issues)	7,842,771,000	7,842,771,000.00	6,615,743,000	6,615,743,000.00
Total investments in public-debt obligations	8,157,766,000	8,155,889,419.29	6,930,738,000	6,928,982,014.49
Undisbursed balances		34,617,377.99		10,347,877.81
Total assets		8,190,506,797.28		6,939,329,892.30

¹ Par value, plus unamortized premium, less discount outstanding.

EXPECTED OPERATIONS AND STATUS OF THE TRUST FUNDS DURING
THE PERIOD JULY 1, 1976, TO DECEMBER 31, 1981

In the following statement of the expected operations and status of the trust funds during the period July 1, 1976, to December 31, 1981, it is assumed that present statutory provisions affecting the old-age, survivors, and disability insurance program will remain unchanged in the period 1977-81. The income and outgo under the program are affected by general economic conditions as well as by legislative provisions. Economic conditions, of course, affect the levels of employment and taxable earnings. Under the automatic increase provisions in the law, economic conditions also directly affect benefit levels, the contribution and benefit base (i.e., the maximum annual amount of earnings taxable and creditable toward benefits), and the annual exempt amount under the retirement test (i.e., the maximum amount a beneficiary may earn in a year and still receive all of his benefits for the year).

Under the automatic provisions, benefits increase in accordance with increases in the Consumer Price Index (CPI). In the year immediately following each year in which an automatic benefit increase becomes effective, the contribution and benefit base, and the amount of earnings exempted from the withholding of benefits under the retirement test, automatically increase in proportion to the increase in average wages in covered employment. An automatic cost-of-living benefit increase of 6.4 percent, effective for June 1976, was established in May 1976, as described in appendix B. Following this benefit increase, automatic increases in the contribution and benefit base, from \$15,300 in 1976 to \$16,500 in 1977, and in the annual exempt amount under the retirement test, from \$2,760 in 1976 to \$3,000 in 1977, were established in October 1976, as described in appendix C.

Statements about expected operations of the trust funds should be read with full recognition of the difficulties of estimating future income and outgo under changing economic conditions. Due to the uncertainty of future economic developments, any projection of economic conditions over a 5-year period may be subject to substantial error. As previously suggested, estimates of future income and outgo of the trust funds are highly sensitive to assumed economic conditions. Because of this, and because of the uncertainties inherent in forecasting other events affecting trust fund income and outgo, the future operations of the trust funds, as actual experience emerges, cannot be expected to match exactly the estimates shown in this section. In order to indicate the general range of future trust fund operations under differing sets of economic assumptions, estimates based on three alternative sets of economic assumptions are presented in this section.

Under the three sets of assumptions, designated as alternatives I, II, and III, the real level of economic activity is assumed to grow at differing rates during the period 1977-81. The economic recovery from the recession that began in 1974 is assumed to continue at a moderate rate under alternative II and at a somewhat faster rate after 1977 under the more optimistic assumptions of alternative I. Under the more pessimistic assumptions of alternative III, a pronounced slow-down in economic growth is assumed to occur after 1977, with a higher rate of economic growth resuming in 1980.

The different patterns of economic conditions under the three alternatives are reflected in the assumed rates of growth in real gross national product (GNP) (see footnote 1 of table 10), and in the assumed rates of unemployment, that are shown in table 10 for calendar years 1977-81. The assumed increases in average wages in covered employment and the assumed future path of the CPI are also shown in table 10.

TABLE 10.—ASSUMED PERCENTAGE INCREASE OVER PRIOR YEAR IN AVERAGE ANNUAL REAL GNP, IN AVERAGE ANNUAL WAGES, AND IN AVERAGE ANNUAL CPI, AND ASSUMED AVERAGE ANNUAL UNEMPLOYMENT RATE, UNDER THREE ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1976-81

Calendar year	Percentage increase in average annual—			Average annual unemployment rate (percent)
	Real GNP ¹	Wages	CPI	
Alternative I:				
1976	6.2	7.5	5.8	7.7
1977	5.4	8.4	6.0	7.1
1978	5.5	8.2	5.3	6.3
1979	5.9	7.9	4.6	5.6
1980	5.4	6.6	4.1	5.0
1981	4.6	5.8	3.4	4.5
Alternative II:				
1976	6.2	7.5	5.8	7.7
1977	5.4	8.4	6.0	7.1
1978	5.4	8.1	5.4	6.3
1979	5.2	7.8	5.3	5.7
1980	5.1	7.1	4.7	5.2
1981	3.8	6.4	4.1	5.0
Alternative III:				
1976	6.2	7.5	5.8	7.7
1977	5.4	8.4	6.0	7.1
1978	5.0	7.9	5.7	6.4
1979	1.7	8.1	7.6	6.6
1980	3.4	8.2	5.9	6.6
1981	3.8	7.0	5.1	6.3

¹ Based on GNP expressed in 1972 dollars (i.e., total output of goods and services adjusted for inflation since 1972).

The foregoing assumptions result in the following changes under the automatic provisions of the law for each year 1978-81 (amounts for 1977 are also shown as a basis for comparison):

Year	General benefit increase ¹ under alternative—			Contribution and benefit base ²		Annual exempt amount under the retirement test ²	
	I	II	III	I and II	III	I and II	III
1977	5.9%	5.9%	5.9%	\$16,500	\$16,500	\$3,000	\$3,000
1978	5.5	5.5	5.5	17,700	17,700	3,240	3,240
1979	4.8	5.2	6.9	18,900	18,900	3,480	3,480
1980	4.5	5.0	6.8	20,400	20,400	3,720	3,720
1981	3.6	4.2	5.2	21,900	22,200	3,960	4,080

¹ Effective with benefits for June of the stated year.

² The amounts, which become effective on January 1 of the stated year, are the same for each year through 1980 under all three sets of assumptions, and for 1981 under alternatives I and II, because of the rounding procedures specified in the automatic increase provisions of the law.

In preparing the intermediate set of assumptions (alternative II), the economic assumptions for 1977 and 1978 that appear on page 10 of the President's 1978 Budget Revisions document were adopted with one exception. A greater increase in the average annual CPI in 1977 is assumed in this report, partly because of the severe weather conditions during the past winter, and the resulting effects on food and fuel

prices. As a result of the recent higher increases in the CPI, the automatic benefit increase for June 1977, which was determined to be 5.9 percent after the Revised Budget was completed, is higher than the 4.9-percent increase assumed for the Revised 1978 Budget. (The official government projections of economic conditions in calendar years 1977 and 1978 were revised late in April 1977—after the economic assumptions, and the resulting estimates, that are presented in this report were prepared. The use of the revised assumptions would not have a very significant effect on the results shown in this report.)

For 1979–81, the assumed rate of growth in real GNP under the intermediate assumptions remains above 5 percent until 1981, when the unemployment rate is assumed to reach the 5-percent level. It is further assumed that the rate of increase in average wages in covered employment will fall below 6½ percent by 1981, while the rate of increase in the average annual CPI will decline to about 4 percent by 1981, under the intermediate assumptions.

Under alternative I, the assumed annual percentage increases in real GNP and in average wages in covered employment during the years 1978–81 are higher than under alternative II. The assumed rate of unemployment during 1979–81 and the annual percentage increase in CPI during 1978–81 are lower under alternative I than under alternative II.

The assumptions of alternative III are presented in this report in order to show estimates of the operations of the trust funds under a set of less favorable economic conditions. As a result of the assumed slowdown in economic growth in 1978 and 1979, the rate of unemployment remains above 6 percent through 1981. Because of an assumed higher rate of inflation, gains in average real wages are lower under alternative III than under the intermediate assumptions.

Estimates of the operations and status of the old-age and survivors insurance trust fund during calendar years 1977–81 are shown in table 11 for each of the three alternative sets of assumptions. Actual data for calendar year 1976 are also shown in the table. Under each alternative, it is assumed that employment and earnings will increase in every year through 1981. The number of persons with taxable earnings under the old-age, survivors, and disability insurance program is expected to increase from 104 million with such earnings during calendar year 1976 to about 119 million during calendar year 1981 under the intermediate assumptions. Under alternatives I and III, the number of persons with taxable earnings is estimated to reach 120 million and 116 million, respectively, by 1981. The total annual amount of taxable earnings is expected to increase from \$738 billion in 1976 to \$1,214 billion in 1981 under the intermediate assumptions. Under alternatives I and III, taxable earnings in 1981 are estimated to be \$1,219 billion and \$1,203 billion, respectively. These increases are due to the projected increases in (1) employment levels, (2) average earnings in covered employment, and (3) the maximum taxable amount of annual earnings, which rises under the automatic provisions in accordance with increases in average wages.

The rise in estimated income shown in table 11 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 changes in allocation of the contribution rates between the old-age and survivors insurance and

disability insurance trust funds scheduled for January 1 of 1978 and 1981 (table 1).

TABLE II.—ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING CALENDAR YEARS 1976-81 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
Alternative I:					
1976 ¹	\$66.3	\$67.9	-\$1.6	\$35.4	54
1977.....	72.5	75.7	-3.2	32.2	47
1978.....	79.8	83.9	-4.0	28.2	38
1979.....	88.1	91.9	-3.8	24.4	31
1980.....	96.5	100.0	-3.5	20.9	24
1981.....	103.3	108.2	-4.9	16.1	19
Alternative II:					
1976 ¹	66.3	67.9	-1.6	35.4	54
1977.....	72.5	75.7	-3.2	32.2	47
1978.....	79.8	83.9	-4.1	28.2	38
1979.....	87.7	92.1	-4.4	23.8	31
1980.....	96.1	100.6	-4.5	19.3	24
1981.....	102.8	109.4	-6.7	12.7	18
Alternative III:					
1976 ¹	66.3	67.9	-1.6	35.4	54
1977.....	72.5	75.7	-3.2	32.2	47
1978.....	79.7	83.9	-4.2	28.1	38
1979.....	86.5	92.9	-6.3	21.7	30
1980.....	94.3	103.2	-8.9	12.8	21
1981.....	101.3	113.8	-12.5	0.3	11

¹ Figures for 1976 represent actual experience.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the accompanying text and in table 10.

Rising disbursements during calendar years 1977-81 reflect the effects of the assumed future automatic benefit increases previously shown, as well as the long-range upward trend in the numbers of beneficiaries and in the amounts of average monthly earnings underlying benefits payable under the program. The estimates also reflect the effects of eliminating the requirement in the law, which the Supreme Court has held to be unconstitutional, that a husband or a widower must have been receiving at least one-half of his support from his wife in order to become entitled to husband's or widower's benefits. In each calendar year during the period 1977-81, outgo from the old-age and survivors insurance trust fund is estimated to exceed income under all three alternatives.

The assets of the trust fund at the beginning of calendar year 1976 were equal to about 54 percent of expenditures during the year 1976. By the beginning of 1977, the assets of the fund had declined to 47 percent of estimated expenditures in 1977. By the beginning of 1981, the fund's assets are estimated to decrease to 19 percent, 18 percent, and 11 percent of annual expenditures under alternatives I, II, and III, respectively. Under the intermediate assumptions, it is estimated that the trust fund will be exhausted in 1983. The trust fund would be exhausted in 1984 under alternative I and in 1982 under alternative III.

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 became eligible for benefits, and (2) the amendments during the period 1950-73 liberalized the eligibility provisions and extended coverage to new 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 1950-73 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.

The expected operations and status of the disability insurance trust fund during calendar years 1977-81 under the three sets of assumptions are shown in table 12, together with figures on actual experience in 1976. Income will increase during calendar years 1977-81, under each alternative, reflecting the same factors, insofar as they apply to income to the disability insurance trust fund, that are reflected in the increase in income to the old-age and survivors insurance 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, from 1.15 percent to 1.20 percent on January 1, 1978, and from 1.20 percent to 1.30 percent on January 1, 1981, and accompanying increases in contribution rates for self-employed persons. (These increases are exactly counter-balanced by decreases in the rates allocated for old-age and survivors insurance.)

Disbursements will increase because of automatic benefit increases and because of increases in the numbers of beneficiaries and in the amounts of average monthly earnings on which benefits are based. Projected increases in the number of beneficiaries reflect assumed continued increases in disability incidence rates. Under all three sets of assumptions, disbursements are expected to exceed income in every year until the disability insurance trust fund is exhausted in 1979. Projections representing the theoretical operations of the trust fund in 1979-81 are shown in table 12 for informational purposes.

TABLE 12.—ESTIMATED OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING CALENDAR YEARS 1976-81 UNDER THREE ALTERNATIVE SETS OF ASSUMPTIONS

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
[Amounts in billions]					
Alternative I:					
1976 ¹	\$8.8	\$10.4	-\$1.6	\$5.7	71
1977	9.6	12.1	-2.5	3.3	48
1978	10.9	13.6	-2.8	0.5	24
1979 ²	11.9	15.3	-3.5	-3.0	3
1980 ²	12.8	17.2	-4.4	-7.4	(3)
1981 ²	14.7	19.2	-4.5	-11.9	(3)
Alternative II:					
1976 ¹	8.8	10.4	-1.6	5.7	71
1977	9.6	12.1	-2.5	3.3	48
1978	10.8	13.6	-2.8	0.5	24
1979 ²	11.8	15.4	-3.5	-3.1	3
1980 ²	12.7	17.4	-4.6	-7.7	(3)
1981 ²	14.6	19.5	-4.9	-12.5	(3)
Alternative III:					
1976 ¹	8.8	10.4	-1.6	5.7	71
1977	9.6	12.1	-2.5	3.3	48
1978	10.8	13.7	-2.8	0.4	24
1979 ²	11.7	15.5	-3.9	-3.4	3
1980 ²	12.5	17.9	-5.4	-8.8	(3)
1981 ²	14.4	20.3	-6.0	-14.8	(3)

¹ Figures for 1976 represent actual experience.

² Figures for 1979-81 are theoretical because it is estimated that the disability insurance trust fund will be exhausted in 1979.

³ Fund exhausted in 1979.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the accompanying text and in table 10.

The expected operations and status of the old-age and survivors insurance and disability insurance trust funds, combined, during each calendar year 1977-81, under the three alternatives, are shown in table 13, together with figures on actual experience in 1976. Although the estimates under each of the three alternatives show that the disability insurance trust fund is exhausted in 1979, figures for each year 1979-81 are shown in table 13 for informational purposes. Without legislation changing the allocation of the contribution rates to each trust fund, none of the estimated income to the old-age and survivors insurance trust fund can be allocated to the disability insurance trust fund; thus, the figures shown in table 13 for 1979-81 are theoretical, representing arithmetical addition of the figures shown in tables 11 and 12.

TABLE 13.—ESTIMATED OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING CALENDAR YEARS 1976-81 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
Alternative I:					
1976 ¹	\$75.0	\$78.2	-\$3.2	\$41.1	57
1977.....	82.1	87.7	-5.6	35.5	47
1978.....	90.7	97.5	-6.8	28.7	36
1979 ²	100.0	107.2	-7.3	21.4	27
1980 ²	109.3	117.2	-7.9	13.5	18
1981 ²	118.0	127.4	-9.4	4.1	11
Alternative II:					
1976 ¹	75.0	78.2	-3.2	41.1	57
1977.....	82.1	87.7	-5.6	35.5	47
1978.....	90.7	97.5	-6.9	28.6	36
1979 ²	99.5	107.4	-7.9	20.7	27
1980 ²	108.9	118.0	-9.1	11.6	18
1981 ²	117.4	128.9	-11.5	0.1	9
Alternative III:					
1976 ¹	75.0	78.2	-3.2	41.1	57
1977.....	82.1	87.7	-5.6	35.5	47
1978.....	90.5	97.5	-7.0	28.5	36
1979 ²	98.2	108.4	-10.2	18.3	26
1980 ²	106.7	121.1	-14.3	3.9	15
1981 ²	115.7	134.1	-18.4	-14.5	3

¹ Figures for 1976 represent actual experience.

² Because the disability insurance trust fund is exhausted in 1979 under each alternative, and because none of the estimated income to one trust fund can be allocated to the other trust fund, under present law, the figures for 1979-81 are theoretical, representing arithmetical addition of figures shown in tables 11 and 12.

Note: Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the accompanying text and in table 10.

Expenditures in calendar year 1976, from both trust funds combined, were 10.85 percent of taxable earnings for the year—0.95 percent more than the combined employee-employer contribution rate of 9.90 percent. During calendar years 1977-81, expenditures from both trust funds, combined, are estimated to fluctuate within a relatively narrow range of 10.80-10.91 percent of taxable earnings, under the intermediate set of assumptions. These percentages, as well as the percentages under alternatives I and III, are shown in table 14 for both trust funds combined and for each trust fund separately. Table 14 also shows a comparison of each of the percentages with the corresponding combined employee-employer contribution rate. Since it is estimated that the disability insurance trust fund will be exhausted in 1979, the 1979-81 figures for that trust fund and for both trust funds combined—shown in table 14 for informational purposes—are theoretical.

TABLE 14.—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 1976-81 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 ¹	Combined employee-employer contribution rate	Difference ²	Expenditures as a percentage of taxable payroll ¹	Combined employee-employer contribution rate	Difference ²	Expenditures as a percentage of taxable payroll ¹	Combined employee-employer contribution rate	Difference ²
Alternative I:									
1976 ³	9.41	8.75	-0.66	1.44	1.15	-0.29	10.85	9.90	-0.95
1977	9.40	8.75	-.65	1.50	1.15	-.35	10.91	9.90	-1.01
1978	9.36	8.70	-.66	1.53	1.20	-.33	10.89	9.90	-.99
1979	9.25	8.70	-.55	1.54	1.20	-.34	10.79	9.90	-.89
1980	9.13	8.70	-.43	1.58	1.20	-.38	10.70	9.90	-.80
1981	9.09	8.60	-.49	1.62	1.30	-.32	10.71	9.90	-.81
Alternative II:									
1976 ³	9.41	8.75	-.66	1.44	1.15	-.29	10.85	9.90	-.95
1977	9.40	8.75	-.65	1.50	1.15	-.35	10.91	9.90	-1.01
1978	9.37	8.70	-.67	1.53	1.20	-.33	10.89	9.90	-.99
1979	9.30	8.70	-.60	1.55	1.20	-.35	10.86	9.90	-.96
1980	9.21	8.70	-.51	1.59	1.20	-.39	10.80	9.90	-.90
1981	9.24	8.60	-.64	1.65	1.30	-.35	10.88	9.90	-.98
Alternative III:									
1976 ³	9.41	8.75	-.66	1.44	1.15	-.29	10.85	9.90	-.95
1977	9.40	8.75	-.65	1.50	1.15	-.35	10.91	9.90	-1.01
1978	9.38	8.70	-.68	1.53	1.20	-.33	10.91	9.90	-1.01
1979	9.52	8.70	-.82	1.59	1.20	-.39	11.11	9.90	-1.21
1980	9.62	8.70	-.92	1.67	1.20	-.47	11.28	9.90	-1.38
1981	9.68	8.60	-1.08	1.73	1.30	-.43	11.41	9.90	-1.51

¹ 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 only the employee contribution is payable on tips taxable as wages. 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.

² 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 1976-81 are shown in tables 11-13.

³ Percentages for 1976, though based on actual experience, are preliminary and subject to revision.

As stated previously, estimates of the operations of the trust funds during calendar years 1977-81 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 1977-81 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 1977-81.

Data on the actual operations of the old-age and survivors insurance trust fund for selected years during the period 1940-76, and estimates of the expected operations of the trust funds during 1977-81 under the intermediate set of assumptions, are shown in tables 15 and 16 on a fiscal year basis and a calendar year basis, respectively. Corresponding figures on the operations of the disability insurance trust fund during the period 1960-81 are shown in tables 17 and 18¹. Operations of both trust funds combined are shown in tables 19 and 20.

¹ Data relating to the operations of the two trust funds for years not shown in tables 15-18 are contained in earlier annual reports.

TABLE 15.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1940-76 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1977-81 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year ¹	Transactions during period										Fund at end of period	
	Income					Disbursements						
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of—		Interest on investments ²	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses ²	Transfers to railroad retirement account		Net increase in fund
			Noncontributory credits for military service	Payments to non-insured persons aged 72 and over								
Past experience:												
1940.....	\$592	\$550			\$42	\$28	\$16		\$12		\$564	\$1,745
1945.....	1,434	1,310			124	267	240	27			1,167	6,613
1950.....	2,367	2,106	\$4		257	784	727	57			1,583	12,893
1955.....	5,525	5,087			438	4,427	4,333	103	-\$10		1,098	21,141
1960.....	10,360	9,843			517	11,073	10,270	202	600		-713	20,829
1965.....	16,443	15,857			586	15,962	15,226	300	436		482	20,180
1966.....	18,461	17,866			595	18,769	18,071	254	444		-308	19,872
1967.....	23,371	22,567	78		726	19,728	18,886	(3)	334	508	3,643	23,515
1968.....	23,640	22,662	78		899	21,622	20,737	(3)	447	438	2,018	25,533
1969.....	27,348	25,953	156	\$226	1,014	24,690	23,732	1	465	491	2,658	28,191
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		-925	37,055
Estimated future experience ⁴:												
1977.....	71,404	68,468	378	236	2,322	73,643	71,298	8	1,056	1,281	-2,239	34,816
1978.....	78,443	75,728	385	228	2,102	81,952	79,241	7	1,165	1,539	-3,509	31,307
1979.....	86,352	83,948	378	233	1,793	90,012	87,439	8	1,141	1,424	-3,660	27,647
1980.....	94,445	92,425	381	169	1,470	98,396	95,765	8	1,200	1,423	-3,951	23,696
1981.....	101,389	99,690	385	147	1,167	107,256	104,544	8	1,262	1,442	-5,867	17,829

¹ 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.

² 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 adminis-

trative expenses is contained in the 1970 Annual Report of the Board of Trustees.

³ Less than \$500,000.

⁴ In interpreting the estimates, reference should be made to table 10 and the accompanying text which describe the underlying assumptions.

⁵ Includes \$3,000,000 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.

TABLE 16.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1940-76 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1977-81 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								
Past experience:												
1940	\$368	\$325			\$43	\$62	\$35		\$26		\$306	\$2,031
1945	1,420	1,285			134	304	274	30			1,116	7,121
1950	2,928	2,667	\$4		257	1,022	961	61			1,905	13,721
1955	6,167	5,713			454	5,079	4,968	119	\$7		1,087	21,663
1960	11,382	10,866			516	11,198	10,677	203	318		184	20,324
1965	16,610	16,017			593	17,501	16,737	328	436		-890	18,235
1966	21,302	20,580	78		644	18,967	18,267	(1)	256	444	2,335	20,570
1967	24,034	23,138	78		818	20,382	19,468	(1)	406	508	3,652	24,222
1968	25,040	23,719	156	\$226	939	23,557	22,642	\$1	476	438	1,483	25,704
1969	29,554	27,947	78	364	1,165	25,176	24,209	1	474	491	4,378	30,082
1970	32,220	30,256	78	371	1,515	29,848	28,796	2	471	579	2,371	32,454
1971	35,877	33,723	137	351	1,667	34,542	33,413	2	514	613	1,335	33,789
1972	40,050	37,781	138	337	1,794	38,522	37,122	2	674	724	1,528	35,318
1973	48,344	45,975	139	303	1,928	47,175	45,741	3	647	783	1,169	36,487
1974	54,688	52,081	140	307	2,159	53,397	51,618	5	865	909	1,291	37,777
1975	59,605	56,816	157	268	2,364	60,395	58,509	9	896	982	-790	36,987
1976	66,276	63,362	378	236	2,301	67,876	65,699	6	959	1,212	-1,600	35,388
Estimated future experience:												
1977	72,501	69,671	385	228	2,217	75,652	73,262	7	1,102	1,281	-3,151	32,237
1978	79,805	77,245	378	233	1,949	83,886	81,185	7	1,155	1,539	-4,081	28,156
1979	87,728	85,547	381	169	1,631	92,089	89,505	8	1,152	1,424	-4,361	23,795
1980	96,138	94,285	385	147	1,321	100,595	97,950	8	1,214	1,423	-4,457	19,338
1981	102,767	101,308	387	128	944	109,448	106,723	8	1,275	1,442	-6,681	12,657

¹ Less than \$500,000.

Note: In interpreting the above, reference should be made to the footnotes in table 15.

TABLE 17.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1960-76 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1977-81 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year ¹	Transactions during period										
	Income				Disbursements						
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of noncontributory credits for military service	Interest on investments ²	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses ³	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
Past experience ⁴ :											
1960	\$1,034	\$987		\$47	\$533	\$528		\$32	-\$27	\$501	\$2,167
1965	1,237	1,175		62	1,495	1,392		79	24	-257	2,007
1966	1,611	1,557		54	1,931	1,721	\$1	183	25	-321	1,686
1967	2,332	2,249	\$16	67	1,997	1,861	7	99	31	335	2,022
1968	2,800	2,699	16	85	2,236	2,088	15	112	20	564	2,585
1969	3,705	3,532	32	141	2,613	2,443	15	133	21	1,092	3,678
1970	4,380	4,141	16	223	2,954	2,778	16	149	10	1,426	5,104
1971	4,911	4,569	16	325	3,606	3,381	21	190	13	1,305	6,408
1972	5,291	4,853	50	388	4,309	4,046	28	212	24	982	7,390
1973	5,947	5,461	51	435	5,467	5,162	39	247	20	479	7,869
1974	6,768	6,234	52	482	6,385	6,159	50	154	22	383	8,253
1975	7,920	7,356	52	512	7,982	7,630	71	253	29	-62	8,191
1976	8,355	7,797	90	468	9,606	9,222	92	266	26	-1,251	6,939
July-September 1976	2,172	2,159		13	2,653	2,555	27	71		-481	6,459
Estimated future experience ⁴ :											
1977	9,481	8,998	103	380	11,663	11,147	87	391	38	-2,182	4,277
1978	10,646	10,308	128	210	13,255	12,742	77	393	43	-2,609	1,668
1979 ⁵	11,699	11,581	118	0	14,882	14,356	81	406	39	-3,183	-1,515
1980 ⁵	12,635	12,747	121	-233	16,841	16,298	86	428	29	-4,206	-5,721
1981 ⁵	14,284	14,701	124	-541	18,959	18,396	90	450	23	-4,675	-10,396

¹ 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.

² 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. Negative figures for 1980 and 1981 represent theoretical payments of interest from the trust fund on amounts that are borrowed to pay expenditures.

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

⁴ In interpreting the estimates, reference should be made to table 10 and the accompanying text which describe the underlying assumptions.

⁵ Figures for 1979-81 are theoretical because the disability insurance trust fund is exhausted in fiscal year 1979.

TABLE 18.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1960-76 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1977-81 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period										
	Income				Disbursements						
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of noncontributory credits for military service	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
Past experience:											
1960	\$1,063	\$1,010		\$53	\$600	\$568		\$36	-\$5	\$464	\$2,289
1965	1,247	1,188		59	1,687	1,573		90	24	-440	1,606
1966	2,079	2,006	\$16	58	1,947	1,781		137	25	133	1,739
1967	2,379	2,286	16	78	2,089	1,939		109	31	290	2,029
1968	3,454	3,316	32	106	2,458	2,294	11	127	20	996	3,025
1969	3,792	3,599	16	177	2,716	2,542	16	138	21	1,075	4,100
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
Estimated future experience:											
1977	9,584	9,157	128	299	12,070	11,548	82	402	38	-2,486	3,259
1978	10,849	10,616	118	115	13,649	13,134	78	394	43	-2,800	459
1979 ¹	11,818	11,801	121	-104	15,354	14,822	82	411	39	-3,536	-3,077
1980 ¹	12,747	13,004	124	-381	17,366	16,817	87	433	29	-4,619	-7,696
1981 ¹	14,628	15,212	122	-706	19,482	18,914	91	454	23	-4,854	-12,550

¹ Figures for 1979-81 are theoretical because the disability insurance trust fund is exhausted in calendar year 1979.

Note: In interpreting the above, reference should be made to the footnotes in table 17.

TABLE 19.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND THE DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING SELECTED FISCAL YEARS 1960-76 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1977-81 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
Past experience:													
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
1966.....	20,071	19,423				649	20,700	19,793		437	469	-629	21,558
1967.....	25,703	24,816		\$94		793	21,725	20,747		433	539	3,979	25,537
1968.....	26,440	25,362		94		984	23,859	22,825		16	560	458	2,581
1969.....	31,054	29,485		188	\$226	1,155	27,303	26,175		17	599	513	3,750
1970.....	36,127	34,096		94	364	1,572	30,275	29,045		18	623	589	5,852
1971.....	38,893	36,485		94	371	1,943	35,874	34,482		23	742	626	3,019
1972.....	43,208	40,564		187	351	2,107	40,158	38,587		29	794	749	3,050
1973.....	49,586	46,779		189	337	2,281	49,090	47,332		42	914	802	4,285
1974.....	57,704	54,689		191	303	2,521	55,869	54,007		54	878	931	1,835
1975.....	66,677	63,374		192	307	2,804	64,658	62,469		79	1,101	1,010	2,018
1976.....	70,682	67,352		247	268	2,815	73,901	71,363		100	1,200	1,239	-3,219
July-September 1976.....	18,359	18,265				94	19,764	19,431		29	304		-1,405
Estimated future experience:													
1977.....	80,885	77,466		481	236	2,702	85,306	82,445		95	1,447	1,319	-4,421
1978.....	89,089	86,036		513	228	2,312	95,207	91,983		84	1,558	1,582	-6,118
1979 ¹	98,051	95,529		496	233	1,793	104,894	101,795		89	1,547	1,463	-6,843
1980 ¹	107,080	105,172		502	169	1,237	115,237	112,063		94	1,628	1,452	-8,157
1981 ¹	115,673	114,391		509	147	626	126,215	122,940		98	1,712	1,465	-10,542

¹ Because the disability insurance trust fund is exhausted in fiscal year 1979 under the intermediate assumptions, and because none of the estimated income to one trust fund can be allocated to the other trust fund, under present law, the figures for 1979-81 are theoretical, representing arithmetical addition of figures shown in tables 15 and 17.

Note: In interpreting the above, reference should be made to the footnotes in table 15.

TABLE 20.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND THE DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING SELECTED CALENDAR YEARS 1960-76 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1977-81 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								
Past experience:												
1960	\$12,445	\$11,876			\$569	\$11,798	\$11,245		\$240	\$314	\$647	\$22,613
1965	17,857	17,205			651	19,187	18,311		418	459	-1,331	19,841
1966	23,381	22,585	\$94		702	20,913	20,048	\$3	393	469	2,467	22,308
1967	26,413	25,424	94		896	22,471	21,406	11	515	539	3,942	26,250
1968	28,493	27,034	188	\$226	1,045	26,015	24,936	17	603	458	2,479	28,729
1969	33,346	31,546	94	364	1,342	27,892	26,751	20	612	413	5,453	34,182
1970	36,993	34,737	94	371	1,791	33,108	31,863	16	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
Estimated future experience:												
1977	82,085	78,828	513	228	2,516	87,722	84,810	89	1,504	1,319	-5,637	35,496
1978	90,654	87,861	496	233	2,064	97,535	94,319	85	1,549	1,582	-6,881	28,615
1979	99,546	97,348	502	169	1,527	107,443	104,327	90	1,563	1,463	-7,897	20,718
1980	108,885	107,289	509	147	940	117,961	114,767	95	1,647	1,452	-9,076	11,642
1981	117,395	116,520	509	128	238	128,930	125,637	99	1,729	1,465	-11,535	107

¹ Because the disability insurance trust fund is exhausted in calendar year 1979 under the intermediate assumptions, and because none of the estimated income to one trust fund can be allocated to the other trust fund, under present law, the figures for 1979-81 are theoretical, representing arithmetical addition of figures shown in tables 16 and 18.

Note: In interpreting the above, reference should be made to the footnotes in table 15.

Expenditures as a percentage of taxable earnings for years prior to 1977, as well as the estimated percentages for 1977-81 under the intermediate assumptions, are shown in table 21 for both trust funds combined and for each trust fund separately. (Although the estimated percentages for 1977-81 have been shown in table 14, they are repeated in table 21 for comparison with past experience.)

TABLE 21.—EXPENDITURES FROM THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS AS A PERCENTAGE OF TAXABLE PAYROLL FOR SELECTED CALENDAR YEARS 1950-76 AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1977-81 UNDER THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Expenditures as a percentage of taxable payroll ¹		
	Old-age and survivors insurance and disability insurance trust funds combined	Old-age and survivors insurance trust fund	Disability insurance trust fund
Past experience:			
1950.....	1.17	1.17
1955.....	3.34	3.34
1960.....	5.89	5.59	0.30
1965.....	7.93	7.23	.70
1966.....	6.88	6.24	.64
1967.....	6.92	6.27	.65
1968.....	7.03	6.35	.67
1969.....	7.08	6.38	.70
1970.....	8.12	7.32	.81
1971.....	9.23	8.27	.97
1972.....	9.14	8.13	1.01
1973.....	9.69	8.59	1.09
1974.....	9.70	8.55	1.16
1975.....	10.65	9.30	1.36
1976.....	10.85	9.41	1.44
Estimated future experience²:			
1977.....	10.91	9.40	1.50
1978.....	10.89	9.37	1.53
1979.....	10.86	9.30	1.55
1980.....	10.80	9.21	1.59
1981.....	10.88	9.24	1.65

¹ See footnote 1, table 14. For 1972-76, percentages are preliminary and subject to revision.

² In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

Assets at the beginning of the year as a percentage of expenditures during the year for both trust funds combined is estimated to be about 47 percent for calendar year 1977. The percentage will drop each year, as the assets of the trust funds decline during the period 1977-81; and by calendar year 1981, the percentage is estimated to be 9 percent under the intermediate assumptions. The estimated percentage for each of the calendar years 1977-81 under the intermediate set of assumptions, as well as the actual percentages for earlier years, are shown in table 22 for both trust funds combined and for each trust fund separately. (Although the estimated percentages for 1977-81 have been shown in earlier tables in this section, they are repeated in table 22 for comparison with past experience.)

TABLE 22.—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 1950-76, AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1977-81 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
Past experience:			
1950.....	1, 156	1, 156	-----
1955.....	405	405	-----
1960.....	186	180	304
1965.....	110	109	121
1966.....	95	96	83
1967.....	99	101	83
1968.....	101	103	83
1969.....	103	102	111
1970.....	103	101	126
1971.....	99	94	140
1972.....	93	88	140
1973.....	80	75	125
1974.....	73	68	110
1975.....	66	63	92
1976.....	57	54	71
Estimated future experience¹:			
1977.....	47	47	48
1978.....	36	38	24
1979.....	27	31	3
1980.....	18	24	(²)
1981.....	9	18	(²)

¹ In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

² The disability insurance trust fund is exhausted in 1979.

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 internment of persons of Japanese ancestry during World War II) 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.

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

number of employees becoming covered under new agreements in each year through 1976 has been larger than the number of employees for whom coverage was terminated during the year. During the last 2 years, notice has been given of the intention to terminate coverage on the part of some of the larger groups of State and local government employees. 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 1976, tax contributions received by the old-age and survivors insurance and disability insurance trust funds from workers employed by State and local governments and from such employers, under all of the coverage agreements in effect, amounted to \$7.5 billion, or about 11 percent of total tax 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.

The expected substantial decline in the assets of the trust funds during 1977-81 shown in this section was anticipated in both the 1975 and 1976 annual reports and is attributable primarily to (1) the reduction in contribution income resulting from lower levels of employment and taxable earnings due to the recession that began in 1974; (2) the sharp upward movement in the CPI in 1974 and 1975, with the result that automatic benefit increases are larger than they would have otherwise been; and (3) the increasing number of disabled workers receiving disability insurance benefits.

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 old-age and survivors insurance 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, 1976, about 457,000 persons were receiving monthly benefits from the old-age and survivors insurance trust fund with respect to disability. In addition to disabled beneficiaries, this total includes 40,000 mothers. These mothers—wives under age 65 of retired-worker beneficiaries and widows 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 \$748 million in calendar year 1976. Similar figures are presented in table 23 to show the experience in selected calendar years 1960-76. Figures relating to past experience for years not shown in table 23 are contained in the 1976 annual report.

TABLE 23.—BENEFITS PAYABLE FROM THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-81

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments ¹		
	Total	Children ²	Widows and widowers	Total	Children ²	Widows and widowers ²
Past experience:						
1960.....	117	117	-----	\$59	\$59	-----
1965.....	214	214	-----	134	134	-----
1966.....	228	228	-----	147	147	-----
1967.....	243	243	-----	163	163	-----
1968.....	275	256	19	212	198	\$14
1969.....	301	270	31	249	214	35
1970.....	320	284	36	301	260	41
1971.....	338	298	40	363	307	56
1972.....	363	317	46	409	343	66
1973.....	384	333	51	492	417	75
1974.....	410	357	53	567	479	88
1975.....	436	377	59	664	560	104
1976.....	457	395	62	748	637	111
Estimated future experience ⁴:						
1977.....	482	414	68	835	705	130
1978.....	507	434	73	929	782	147
1979.....	532	455	77	1,027	858	169
1980.....	556	475	81	1,126	936	190
1981.....	580	495	85	1,224	1,015	209

¹ Beginning in 1966, includes payments for vocational rehabilitation services.

² Reflects effect of including certain mothers. (See text.)

³ 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.

⁴ The estimates are based on the intermediate set of assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in the preceding section.

Table 23 also shows the expected future experience in calendar years 1977-81, under the intermediate set of economic assumptions described in the preceding section. Total benefit payments from the old-age and survivors insurance trust fund with respect to disabled beneficiaries are estimated to increase from \$835 million in calendar year 1977 to \$1,224 million in calendar year 1981, under the intermediate assumptions.

In calendar year 1976, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the old-age and survivors insurance trust fund and from the disability insurance trust fund (including payments from the latter fund to all dependents of disabled-worker beneficiaries) totaled \$10,803 million, of which \$748 million, or 6.9 percent, represented payments from the old-age and survivors insurance trust fund. Similar figures for selected calendar years 1960-76 and estimates for calendar years 1977-81, under the intermediate set of assumptions, are presented in table 24. Figures relating to past experience for years not shown in table 24 are contained in the 1976 annual report.

TABLE 24.—BENEFIT PAYMENTS UNDER THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960-81

(In millions)

Calendar year	Benefit payments ¹ from—			
	Total ¹	Disability insurance trust fund ²	Old-age and survivors insurance trust fund	
			Amount ³	As a percentage of total benefit payments with respect to disabled beneficiaries
Past experience:				
1960.....	\$627	\$568	\$59	9.4
1965.....	1,707	1,573	134	7.9
1966.....	1,932	1,784	147	7.6
1967.....	2,113	1,950	163	7.7
1968.....	2,523	2,311	212	8.4
1969.....	2,806	2,557	249	8.9
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
Estimated future experience⁴:				
1977.....	12,465	11,630	835	6.7
1978.....	14,141	13,212	929	6.6
1979.....	15,931	14,904	1,027	6.4
1980.....	18,030	16,904	1,126	6.2
1981.....	20,229	19,005	1,224	6.1

¹ Beginning in 1966, includes payments for vocational rehabilitation services.

² Benefit payments to disabled workers and their dependents.

³ Benefit payments to disabled children aged 18 and over, to certain mothers (see text), and to disabled widows and widowers. (See footnote 3, table 23.)

⁴ The estimates are based on the intermediate set of assumptions, and reflect the resulting assumed changes under the automatic increase provisions, as described in the preceding section.

ACTUARIAL STATUS OF THE TRUST FUNDS

SIGNIFICANCE OF LONG-RANGE COST ESTIMATES

Section 201(c) of the Social Security Act requires the Board of Trustees to report annually on the operation and status of the old-age and survivors insurance and disability insurance trust funds during the preceding fiscal year and the expected operation and status of the trust funds during the ensuing 5 fiscal years. Such information for the fiscal year that ended June 30, 1976, and for the period July 1, 1976, through December 31, 1981, is presented in earlier sections of this report.

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, that is, estimated future benefits and administrative expenses in relation to both the estimated future income to the trust funds and the assets of the trust funds. Since 1965 this comparison has been made for the 75-year period beginning with the year of the report. In accordance with this practice, the statement of the actuarial status of the trust funds discussed herein pertains to the period 1977 through 2051.

It is important to recognize that the projection of the demographic and economic factors on which income and expenditures are based becomes increasingly more difficult and uncertain as one moves further along in the 75-year projection period. Last year's report explicitly recognized this difficulty and uncertainty (as does this year's) by providing a range of estimates based on alternative demographic and economic assumptions. In addition, in further recognition thereof, this year's report includes a separate section on "medium-range" cost estimates covering the first 25 years of the long-range period. During this medium-range period, the degree of uncertainty in the estimates is considerably less than for the entire long-range period, and the probability that the range of projections will include actual future expenditures is greater.

A statement of the actuarial status of the trust funds must necessarily be made on the basis of present law. However, under present law, because of the particular method by which future benefits are related to future changes in wages and the Consumer Price Index, the benefits projected to materialize under certain assumptions regarding such changes reach extremely high levels for persons who first become entitled to benefits in the next century. It is clearly imperative that legislative changes be made too prevent such benefit levels from materializing. (This is discussed in more detail in the remainder of the report.) Consequently, the estimated future costs which result from the extremely high benefit levels that would be attained under present law should be interpreted with caution. Also because of the problem of such benefit levels under present law, useful information can be obtained by considering cost estimates based on a more stable system. Therefore, later in this report illustrative projections are presented on a "modified theoretical" old-age, survivors, and disability insurance system which maintains through time the relationship existing at the beginning of calendar year 1979 between average awarded benefits and average earnings. That system is described in more detail later in this report.

Throughout its history the old-age, survivors, and disability insurance program has been self-supporting and since the 1950's has been operated on what may be termed a current-cost financing basis. It is self-supporting in that the only source of funds to pay benefits and administrative expenses is the social security taxes collected from workers and employers covered under the program (and the interest earned on the invested balances of the trust funds).¹ Under the current-cost method of financing, the amount of taxes collected each year is intended to be approximately equal to the benefits and administrative expenses paid during the year plus a small additional amount to maintain the trust funds at an appropriate contingency reserve level. The purpose of the trust funds under current-cost financing is to reflect all financial transactions and to absorb temporary differences between income and expenditures. Thus, whatever normal ratio of trust fund assets to expenditures is established, it can be expected that the funds will vary somewhat from that level from time to time as they absorb those fluctuations.

Since the inception of the old-age, survivors, and disability insurance program, past payroll taxes together with interest on the trust funds have been adequate to provide all past benefits and administrative expenses. Specifically, with respect to the old-age, survivors, and disability insurance program from 1937 through calendar year 1976, cumulative income to the trust funds amounted to \$661 billion (\$30 billion of which is from interest earned on the trust funds) and cumulative disbursements were \$620 billion. The balance of \$41 billion was held in the trust funds at the end of calendar year 1976.

Based upon projections made under the intermediate assumptions (alternative II), it is estimated that during the calendar years 1977-81, income to the trust funds will total \$499 billion (\$7 billion of which is from interest earned on the trust funds) and disbursements will be \$540 billion (see tables 13 and 20). This is a projected decrease in the trust funds of \$41 billion during the period 1977-81, which would reduce the trust funds to less than $\$ \frac{1}{2}$ billion by the end of calendar year 1981. The preceding figures are for the old-age and survivors insurance and disability insurance trust funds, combined, although these are independent trust funds and must be considered separately. As indicated in an earlier section of the report, the disability insurance trust fund is projected to be exhausted during 1979. These figures illustrate that under current financing procedures the assets of the trust funds play a relatively minor role: it is the ongoing collection of social security taxes which is the most important factor in financing benefits under the program.

The Congress, in setting future tax rates for the old-age, survivors, and disability insurance program, has normally followed the principle that estimated future income to the trust funds (including interest earnings on invested assets) should be equal to estimated future disbursements, taking into account both present and future participants in the program.

¹ In addition to social security taxes and interest earnings, the trust funds receive annual reimbursement from the general fund of the Treasury for certain costs, described in an earlier section, that are not financed by payroll taxes. In the fiscal year ending June 30, 1976, such reimbursements amounted to \$515 million, or about $\frac{1}{4}$ of one percent of the \$70.7 billion in total income to the old-age, survivors, and disability insurance trust funds.

When estimated future disbursements and estimated future income over the 75-year valuation period are not in balance, an "actuarial deficit" or an "actuarial surplus" exists, depending upon whether disbursements are greater than income or vice versa. The old-age, survivors, and disability insurance program has been in close actuarial balance throughout most of the program's existence. When there has been an imbalance, i.e., an actuarial deficit or actuarial surplus, the Congress has acted in due course to revise either taxes, benefits, or both so as to bring the program into close actuarial balance over the valuation period. Therefore, in order to enable Congress to take such action to ensure the sound financial operation of the old-age, survivors, and disability insurance program, it is essential that periodic projections be made of the estimated future income and outgo to determine whether or not they are in balance.

Actual future income from social security taxes, and actual future expenditures for benefit payments and administrative expenses, will depend upon a large number of factors, including the following:

1. Size and composition of the active working population and their level of earnings, which depend in turn upon fertility rates, mortality rates, migration rates, labor force participation rates, unemployment rates, wage patterns, etc.

2. Size and composition of the population receiving benefits and the level of their benefits, which depend in turn on disability rates, retirement rates, remarriage rates, the Consumer Price Index, etc.

It is obviously impossible to know what the future holds with respect to these demographic and economic factors which will determine the actual income and expenditures under the old-age, survivors, and disability insurance program during the next 75-year period. The best that can be done is to make assumptions as to the future behavior of these demographic and economic factors and to prepare medium-range and long-range estimates based upon such assumptions so as to obtain a reasonable picture of the trend and general range of future income and outgo. Such estimates, and their underlying assumptions, if revised periodically in the light of developing trends, provide information which is essential for making informed policy decisions.

In reviewing estimates based upon demographic and economic conditions postulated to exist many years into the future, it would be well to keep in mind that, although the underlying assumptions for these estimates may appear to be reasonable based upon current understanding, in some cases the assumptions produce results so different from the current situation that their overall socioeconomic implications should be considered and not just their effect on the single issue of financing the old-age, survivors, and disability insurance program. For example, since the selection of particular demographic assumptions implies a certain future composition of the U.S. population, it is important to recognize that, if the population composition should change in accordance with these assumptions, it is likely to result in substantial changes in many of the nation's social and economic arrangements. Although beyond the scope of this report, it is desirable, in order to view the medium-range and long-range financing questions from a broader perspective, to analyze the possible implications of the many projections included herein on various aspects of society as we move into the 21st century.

MEDIUM-RANGE AND LONG-RANGE COST ESTIMATES

As stated previously, the principal determinants of future income and expenditures—frequently referred to in this report as medium-range or long-range cost estimates—under the old-age, survivors, and disability insurance program are: the type and level of benefits payable; the size and composition of the population receiving the benefits; and the size and characteristics, including the earnings levels, of the population generating the taxes used to provide such benefits. For the most part, these future determinants of income and expenditures cannot be known with certainty, and assumptions must be made as to the future behavior of relevant demographic and economic factors.

Demographic and economic assumptions

The basic demographic and economic assumptions, as well as the methodology, used in determining the medium-range and long-range cost estimates presented in this report are described in appendix A.

When projections are made for many years into the future, involving social and economic forces—as well as natural forces such as mortality and fertility—it is not unlikely that actual experience will depart significantly from any particular path which may be postulated. Accordingly, cost estimates have been determined and are presented herein based upon three different sets of assumptions, designated as alternatives I, II, and III, in order to indicate the general range in which the cost estimates might reasonably be expected to fall.

Table 25 summarizes the factors which vary from one set of assumptions to another over the period 1977–2051. The factors which have been selected to be varied are the fertility rate, the unemployment rate, the changes in average wages in covered employment and in the Consumer Price Index, and the resulting real-wage changes. These factors have been selected because reasonable variations in them affect the cost estimates significantly. (One exception is the unemployment rate, which was varied even though the variation has relatively little impact on the cost estimates.) All other factors (such as mortality rates, migration rates, labor force participation rates, marriage rates, retirement rates, disability incidence and termination rates, etc.) have not been varied among the three alternative sets of assumptions.

The estimates under alternative I may be characterized as being more “optimistic” than the estimates under the “intermediate” assumptions (alternative II) while those under alternative III may be characterized as being more “pessimistic” than those under the intermediate assumptions.

While it does not seem unreasonable to assume that actual experience will fall within the range defined by alternatives I and III, particularly for the medium-range cost estimates covering the first 25 years of the projection period, there can be no guarantee that this will be the case because of the high degree of uncertainty in economic and forecasting. Estimates of future costs during the early years of the projection period are more predicatable and fall within a narrower range than estimates of costs during the later years of the period. Even though estimates for the later years are less reliable, the preparation and presentation of these cost estimates, as modified periodically in the light of developing trends, can help to prevent undesirable results from materializing without warning.

TABLE 25.—VALUES OF SELECTED ECONOMIC AND DEMOGRAPHIC FACTORS UNDER 3 ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1977-2051

Calendar year	Percentage increase in average annual			Average annual unemployment rate	Total fertility rate ²
	Wages in covered employment	CPI	Real wages ¹		
Alternative I:					
1977	8.4	6.0	2.4	7.1	1,709.9
1978	8.2	5.3	2.9	6.3	1,685.9
1979	7.9	4.6	3.3	5.6	1,662.0
1980	6.6	4.1	2.5	5.0	1,670.2
1981	5.8	3.4	2.4	4.5	1,710.5
1982	5.3	3.0	2.3	4.5	1,750.9
1983	5.25	3.0	2.25	4.5	1,791.2
1984 and later	5.25	3.0	2.25	4.5	³ 1,300.0
Alternative II:					
1977	8.4	6.0	2.4	7.1	1,709.9
1978	8.1	5.4	2.7	6.3	1,685.9
1979	7.8	5.3	2.5	5.7	1,662.0
1980	7.1	4.7	2.4	5.2	1,662.9
1981	6.4	4.1	2.3	5.0	1,688.8
1982	6.0	4.0	2.0	5.0	1,714.7
1983	5.75	4.0	1.75	5.0	1,740.5
1984 and later	5.75	4.0	1.75	5.0	³ 2,100.0
Alternative III:					
1977	8.4	6.0	2.4	7.1	1,709.9
1978	7.9	5.7	2.2	6.4	1,685.9
1979	8.1	7.6	0.5	6.6	1,662.0
1980	8.2	5.9	2.3	6.6	1,648.4
1981	7.0	5.1	1.9	6.3	1,645.2
1982	6.5	5.0	1.5	6.0	1,642.1
1983	6.25	5.0	1.25	5.6	1,638.9
1984 and later	6.25	5.0	1.25	5.5	³ 1,700.0

¹ Expressed as the difference between percentage increases in average annual wages and average annual CPI.

² Average number of children born per 1,000 women in their lifetime.

³ This ultimate total fertility rate is not attained until after 1984. See appendix A for more detailed information.

Benefit levels

Under many social insurance systems, the level of benefits payable upon the retirement, death, or disability of workers in the future is dependent upon changes in earnings levels during the working lifetime of such workers. Accordingly, although future benefit levels and costs under such systems are not readily predictable in absolute dollar amounts, they are nonetheless generally predictable in relation to earnings levels, i.e., as percentage of earnings. However, this is not the case for the old-age, survivors, and disability insurance program under present law, which provides that benefits payable at retirement, death, or disability will be related in a complicated way to increases in both wages and the Consumer Price Index. The result is that the level of benefits payable in the future under present law is highly unpredictable even in relation to earnings.

In examining this matter it is helpful to consider the concept of the "replacement ratio," which may be defined as the ratio of the benefit amount payable to a worker for his first year of retirement to his gross earnings in the year prior to retirement. The effect of various economic assumptions on replacement ratios under present law, and the resulting problems involved in estimating future benefit costs, are illustrated in table 26. Replacement ratios under various economic assumptions are shown in the table for male workers at different earnings levels, namely, a worker with maximum taxable earnings throughout his working life, a worker with earnings equal to the median earnings in covered employment for male workers in each year, and a worker with "low" earnings defined as \$4,600 in 1976 and with the

TABLE 26.—ILLUSTRATIVE REPLACEMENT RATIOS FOR RETIRED MALE WORKERS AT SELECTED EARNINGS LEVELS, UNDER VARIOUS ECONOMIC ASSUMPTIONS

Earnings level (1)	Replacement ratio ¹ based on retirement at age 65 in January of—				
	2050, under assumptions of ² —				
	1977 (2)	5-2 3/4 (3)	5-3 (4)	6-4 (5)	5 3/4-4 (6)
Worker without spouse:					
Maximum.....	0.33	0.34	0.38	0.44	0.48
Median.....	.46	.47	.54	.64	.70
Low.....	.58	.68	.79	.96	1.06
Worker with spouse aged 65:					
Maximum.....	.50	.51	.57	.67	.72
Median.....	.69	.71	.81	.95	1.04
Low.....	.88	1.02	1.19	1.44	1.59

¹ The replacement ratios are defined in the text.

² The two figures shown in each column heading represent assumed annual percentage increases in average wages in covered employment and in average CPI, respectively, during the period 1938-2050. During 1977-82, the assumed rates of increase in wages and in CPI are based on the pattern of those included in the intermediate set of assumptions (alternative II) described earlier in this report.

values for earlier years deflated according to the trend in median earnings. The \$4,600 figure is based on the assumption that the minimum Federal wage-level in 1976 or \$2.30 per hour is paid for 50 work-weeks of 40 hours each. These examples are not intended to suggest that all workers fall neatly into one of these earnings categories, but rather to illustrate the instability of the benefit formula under present law. Also the level of the replacement ratios shown is not as important as the trend and instability of these ratios. For example, the level of the replacement ratios would be substantially higher if the definition thereof were changed so as to relate benefits amounts, which are not subject to taxes, to preretirement earnings after taxes, especially in the case of workers at median or maximum earnings levels.

Column (2) of the table shows the replacement ratios for male workers retiring at age 65 in January 1977 at different earnings levels. The figures represent the ratio of the worker's benefits for calendar year 1977 to his earnings in calendar year 1976. For example the replacement ratio for a worker without a spouse retiring in January 1977 who has had maximum taxable earnings throughout his working life is 0.33, meaning that his benefits payable for 1977 are 33 percent of his earnings in 1976.

Columns (3) to (6) show replacement ratios for male workers retiring at age 65 in January 2050 at different earnings levels and under different wage-CPI assumptions. The various long-range (1983 and later) wage-CPI assumptions shown—that is, the ultimate average annual increase in wages in covered employment and the ultimate average annual increase in the Consumer Price Index—are those that have been the bases for the intermediate cost estimates presented in recent issues of this report. The short-range (1977-82) wage-CPI assumptions are based on the pattern of such assumptions in alternative II and are adjusted to attain the different ultimate values in a gradual manner.

When the automatic adjustment provisions were adopted in 1972, it was assumed, for purposes of estimating future costs that the long-range wage-CPI assumptions would be 5 percent and 2½ percent, respectively. (These were the assumptions used in the 1972 and 1973 Annual Reports of the Board of Trustees.) Based on these long-range

assumptions, the replacement ratios for male workers retiring at age 65 in January 2050 are shown in column (3) of table 26. These projections show that, except for the worker with low earnings, the replacement ratios are almost constant from 1977 to 2050.

Column (4) shows replacement ratios under the long-range economic assumptions used in the 1974 annual report, namely wage-CPI assumptions of 5 percent and 3 percent, respectively. Under these assumptions the replacement ratios do not remain essentially constant as under the prior year's assumptions.

For the 1975 annual report the long-range wage-CPI assumptions were increased to 6 percent and 4 percent, respectively. These changes significantly increased projected future replacement ratios as illustrated in column (5) of table 26. The cost of such increased replacement ratios was correspondingly higher and accounted for much of the increase in the actuarial deficit which was reported in the 1975 annual report as compared with that reported in the 1974 report.

For reasons stated earlier, the cost estimates presented in this annual report (as in last year's report) are on the basis of three alternative sets of assumptions. Under the intermediate set of assumptions (alternative II) it has been assumed that after 1982 average wages in covered employment will increase at the rate of $5\frac{1}{4}$ percent per year and that after 1981 the CPI will increase at the rate of 4 percent per year. (These are substantially the same assumptions as were used in last year's report.) Under these assumptions, the projected benefit levels will increase in the future as illustrated in column (6) of table 26. A comparison of those projected levels with the ones prevailing in 1977 (as shown in column (2)) shows that the benefit levels are expected to increase substantially in the future. In addition, a comparison of the currently projected benefit levels (as shown in column (6)) with those which would be projected today based on the wage-CPI assumptions used in the 1972-73 annual reports (as shown in column (3)) shows that the benefit levels are expected to increase to significantly higher levels than was expected only a few years ago.

Whereas table 26 shows the different levels of the replacement ratios under the various wage-CPI assumptions used in previous reports, table 27 shows the widely varying levels resulting from the range of such assumptions contained in this year's report.

A comparison of the figures for alternatives I and III shows that for a given individual the replacement ratios vary significantly under different wage-CPI assumptions. Under alternative III with its relatively high 5-percent CPI assumption and low real-wage gain assumption of $1\frac{1}{4}$ percent (as measured by the difference between the percentage increases in the average annual wage and the CPI), the ratios increase from their 1977 levels by more than 30 percent by the turn of the century, more than 65 percent by 2025, and more than 95 percent by 2050. However, under alternative I with its relatively low 3 percent CPI assumption and high real-wage gain assumption of $2\frac{1}{4}$ percent, those ratios increase by less than 25 percent over the entire 75-year period.

It is necessary that this report on the actuarial status of the trust funds be based on projected future costs under present law, even though (1) such projections, based upon the alternative II assumptions, result in future estimated replacement ratios of the magnitude

TABLE 27.—ILLUSTRATIVE REPLACEMENT RATIOS FOR RETIRED MALE WORKERS AT SELECTED EARNINGS LEVELS UNDER ALTERNATIVES I, II, AND III

Earnings level and year of retirement	Replacement ratio					
	Worker without spouse			Worker with spouse age 65		
	Alternative I	Alternative II	Alternative III	Alternative I	Alternative II	Alternative III
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Low:						
1977.....	0.58	0.58	0.58	0.88	0.88	0.88
2000.....	.67	.75	.87	1.00	1.13	1.31
2025.....	.71	.94	1.26	1.06	1.41	1.89
2050.....	.72	1.06	1.57	1.08	1.59	2.36
Median:						
1977.....	.46	.46	.46	.69	.69	.69
2000.....	.47	.53	.61	.71	.80	.92
2025.....	.49	.63	.83	.73	.95	1.25
2050.....	.49	.70	.99	.74	1.04	1.49
Maximum:						
1977.....	.33	.33	.33	.50	.50	.50
2000.....	.33	.38	.43	.50	.57	.65
2025.....	.35	.45	.56	.52	.67	.84
2050.....	.35	.48	.65	.53	.72	.98

Note: Alternatives I, II, and III and the replacement ratio are defined in the text. It is assumed the worker retires at age 65 at the beginning of the year shown in col. (1).

illustrated in table 27, (2) at the time that the automatic adjustment provisions were adopted in 1972, it was apparently not anticipated that economic experience and expectations would change so as to cause replacement ratios to rise substantially from the levels then prevailing, and (3) it is undesirable to allow projected replacement ratios such as those associated with alternative II to materialize. The projection of future costs under the present law system provides valuable information on the nature and magnitude of this long-range financial problem. Nonetheless, because of this problem, useful information can also be obtained by considering cost estimates based on a more stable system. Therefore, later in this report illustrative projections are presented on a "modified theoretical" old-age, survivors, and disability insurance system which maintains through time the relationship existing at the beginning of calendar year 1979 between average awarded benefits and average earnings. It is assumed that under this modified theoretical system, as under present law, benefits after retirement, death, or disability would be increased automatically to keep up with increases in the CPI. This modified theoretical system is assumed to apply to insured workers who retire, die, or become disabled after 1978.

Expenditures as percent of taxable payroll

Basic to the discussion of the medium-range and long-range cost estimates is the concept of expenditures as percent of taxable payroll. The expenditures include benefit payments; administrative expenses; net transfers under the financial interchange between the old-age, survivors, and disability insurance trust funds and the railroad retirement account; and payments for vocational rehabilitation services for disability beneficiaries. The taxable payroll consists of the total earnings which are subject to social security taxes, adjusted to reflect the lower contribution rates on self-employment income, tips, and multiple-employer "excess wages." This adjustment is made so that

the expenditures expressed as percent of taxable payroll—that is, the expenditures divided by the taxable payroll and expressed as a percentage—will be comparable to the combined employer-employee tax rate in the law.

Medium-range cost estimates: 1977–2001

In this section of the report medium-range cost estimates are presented in order to highlight the status of the old-age and survivors insurance and disability insurance trust funds during the first 25 years of the long-range period, namely 1977–2001. In general, estimates for the medium-range period are less sensitive to changes in demographic and economic assumptions than those for the long-range period. In particular, variations in projected fertility rates have little effect on estimated costs for the medium-range period since almost all covered workers and beneficiaries projected for this period were born prior to the start of the projection period. Furthermore, the degree of certainty that can be placed on demographic and economic assumptions is greater for the first 25 years than for the entire 75 year period. Nonetheless, the degree of sensitivity of the cost estimates to changes in economic assumptions is still significant. Economic factors such as wage and price increases are subject to such a wide range of possible variation that the projections of expenditures over the medium-range period should be considered only as an indication of the trend and the general range within which they may be expected to fall.

Table 28 presents the medium-range old-age, survivors, and disability insurance cost estimates under alternative II for present law and for the modified theoretical system. The table shows that the 25-year average cost of 12.24 percent of taxable payroll under present law is 0.28 percent of taxable payroll higher than the 25-year average cost of 11.96 percent of taxable payroll under the modified theoretical system. This illustrates the reduction in cost over the next 25 years that can be obtained by stabilizing replacement ratios at their 1979 levels. The stabilization of replacement ratios would affect only those persons first becoming eligible for benefits after 1978 and would have no effect on persons already receiving benefits at the beginning of 1979.

In projecting the expenditures under the modified theoretical system it was assumed that, during a transition period of several years beginning with 1979, new beneficiaries would be eligible to receive the higher of the benefit from the present law benefit table or the benefit under the modified theoretical system. As a result of this choice the expenditures as percent of taxable payroll projected under the modified theoretical system, as shown in table 28, are higher than under present law in the early years.

Also from table 28, a comparison of estimated expenditures in 2001 of 14.12 percent of taxable payroll under present law and 13.02 percent of taxable payroll under the modified theoretical system indicates the degree to which increasing replacement ratios affect the cost by the end of the medium-range period. Every year that passes without stabilizing the replacement ratios results in increments in such ratios which permanently affect the level of benefits for all persons first becoming eligible for benefits in the future. These increases in re-

TABLE 28.—ESTIMATED EXPENDITURES OF PRESENT LAW AND MODIFIED THEORETICAL OLD-AGE SURVIVORS, AND DISABILITY INSURANCE SYSTEMS AS PERCENT OF TAXABLE PAYROLL FOR CALENDAR YEARS 1977–2001 UNDER ALTERNATIVE II

Calendar year	[In percent]					
	Expenditures as percent of taxable payroll ¹ under—					
	Present law			Modified theoretical system		
	Old-age and survivors insurance	Disability insurance	Total	Old-age and survivors insurance	Disability insurance	Total
1977.....	9.40	1.50	10.91	9.40	1.50	10.91
1978.....	9.37	1.53	10.89	9.37	1.53	10.89
1979.....	9.30	1.55	10.86	9.31	1.55	10.86
1980.....	9.21	1.59	10.80	9.23	1.60	10.83
1981.....	9.24	1.65	10.88	9.26	1.65	10.91
1982.....	9.31	1.70	11.01	9.33	1.71	11.04
1983.....	9.40	1.77	11.17	9.42	1.77	11.19
1984.....	9.51	1.84	11.35	9.52	1.84	11.36
1985.....	9.64	1.92	11.56	9.64	1.90	11.54
1986.....	9.77	1.99	11.76	9.76	1.97	11.73
1987.....	9.86	2.06	11.92	9.83	2.02	11.85
1988.....	9.95	2.13	12.08	9.90	2.07	11.97
1989.....	10.03	2.20	12.23	9.96	2.12	12.08
1990.....	10.12	2.27	12.39	10.02	2.17	12.19
1991.....	10.20	2.34	12.54	10.07	2.22	12.29
1992.....	10.28	2.41	12.68	10.12	2.26	12.38
1993.....	10.35	2.48	12.83	10.17	2.30	12.47
1994.....	10.42	2.56	12.98	10.22	2.35	12.57
1995.....	10.50	2.64	13.14	10.26	2.39	12.65
1996.....	10.54	2.73	13.27	10.27	2.44	12.71
1997.....	10.60	2.83	13.43	10.27	2.50	12.77
1998.....	10.66	2.92	13.58	10.27	2.56	12.83
1999.....	10.72	3.02	13.74	10.28	2.61	12.89
2000.....	10.79	3.12	13.91	10.27	2.67	12.94
2001.....	10.89	3.23	14.12	10.29	2.73	13.02
25-yr average: 1977–2001.....	10.00	2.24	12.24	9.86	2.10	11.96

¹ Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) which incorporates ultimate annual increases of 5¼ percent in average wages in covered employment and 4 percent in CPI, an ultimate unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. (See the text for further detail.) Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

placement ratios result in significant additional cost over the entire 75-year long-range period. Therefore, from a long-range perspective, an immediate stabilization of replacement ratios is strongly advisable, more so than is apparent from an examination of the costs projected for the medium-range period.

A comparison of the average expenditures shown in table 28 for the next 25 years with the corresponding average tax rate of 9.9 percent in present law shows that the old-age, survivors, and disability insurance system is estimated to be underfinanced by 2.34 percent of taxable payroll under present law and by 2.06 percent of taxable payroll if the replacement ratios are stabilized as under the modified theoretical system. Thus, although the medium-range financial problem of the old-age, survivors, and disability insurance system can be alleviated by stabilizing the replacement ratios, it cannot be solved by that action alone. In fact, even if replacement ratios were to be stabilized at their levels at the beginning of 1979 (as under the modified theoretical system), the expenditures as percent of taxable payroll would continue to rise throughout the balance of the 25-year period as indicated in table 28. This is attributable in large part to the following factors:

1. The average replacement ratio for all beneficiaries on the rolls will continue to increase in future years. This results from the fact that

replacement ratios have been lower in the past and that the full effect on the average replacement ratio of the leveling of replacement ratios for new beneficiaries would be delayed until all beneficiaries on the rolls have been awarded benefits based on the modified theoretical system.

2. Recent fertility experience will result in a higher number of beneficiaries relative to the number of covered workers.

3. A higher proportion of the aged population will become eligible for benefits in the near future.

4. Recent adverse trends in disability experience are projected to continue, thereby resulting in a relatively larger number of disabled-worker beneficiaries.

The results in table 28 are based on the alternative II assumptions. Cost estimates have also been prepared under alternatives I and III, which are described earlier in this report. Table 29 presents the estimates prepared for the old-age, survivors, and disability insurance system under all three alternatives for both present law and the modified theoretical system.

Table 29 shows that the estimated average expenditures for the medium-range period vary from 11.57 to 13.14 percent of taxable payroll under present law and from 11.56 to 12.36 percent of taxable payroll under the modified theoretical system. A comparison of those estimated expenditures with the corresponding average tax rate of 9.9 percent in present law shows that the old-age, survivors, and disa-

TABLE 29.—ESTIMATED EXPENDITURES FOR PRESENT LAW AND MODIFIED THEORETICAL OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEMS AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVES I, II, AND III, FOR CALENDAR YEARS 1977-2001

Calendar year	[In percent]					
	Expenditures as percent of taxable payroll under—					
	Present law			Modified theoretical system		
	Alterna- tive I	Alterna- tive II	Alterna- tive III	Alterna- tive I	Alterna- tive II	Alterna- tive III
1977	10.91	10.91	10.91	10.91	10.91	10.91
1978	10.89	10.89	10.91	10.89	10.89	10.91
1979	10.79	10.86	11.11	10.79	10.86	11.12
1980	10.71	10.80	11.29	10.73	10.83	11.30
1981	10.71	10.88	11.41	10.74	10.91	11.43
1982	10.79	11.01	11.52	10.83	11.04	11.51
1983	10.90	11.17	11.64	10.90	11.19	11.58
1984	11.04	11.35	11.83	11.07	11.36	11.74
1985	11.16	11.56	12.10	11.18	11.54	11.94
1986	11.28	11.76	12.36	11.31	11.73	12.13
1987	11.39	11.92	12.59	11.41	11.85	12.28
1988	11.50	12.08	12.81	11.51	11.97	12.40
1989	11.61	12.23	13.03	11.63	12.08	12.53
1990	11.73	12.39	13.26	11.73	12.19	12.64
1991	11.80	12.54	13.49	11.80	12.29	12.75
1992	11.88	12.68	13.72	11.88	12.38	12.84
1993	11.95	12.83	13.94	11.95	12.47	12.93
1994	12.02	12.98	14.18	12.03	12.57	13.02
1995	12.10	13.14	14.42	12.10	12.65	13.10
1996	12.15	13.27	14.66	12.14	12.71	13.17
1997	12.23	13.43	14.92	12.20	12.77	13.23
1998	12.30	13.58	15.18	12.24	12.83	13.30
1999	12.38	13.74	15.46	12.30	12.89	13.36
2000	12.45	13.91	15.75	12.34	12.94	13.41
2001	12.55	14.12	16.10	12.40	13.02	13.51
25-yr average: 1977-2001	11.57	12.24	13.14	11.56	11.96	12.36

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

bility insurance system is estimated to be underfinanced by 1.67 to 3.24 percent of taxable payroll under present law and by 1.66 to 2.46 percent of taxable payroll under the modified theoretical system. Under both systems and under all three alternative sets of assumptions, the old-age, survivors, and disability insurance system is underfinanced over the medium-range period; hence, expenditures may be expected to exceed income for the next 25 years even if replacement ratios are stabilized and even if actual future economic experience is quite favorable. Thus, in order to resolve the medium-range financial problem of the old-age, survivors, and disability insurance system, in addition to stabilizing replacement ratios, it will be necessary to increase income or decrease outgo, or both.

The medium-range cost estimates shown throughout this report do not refer to any particular size of the trust funds nor to any possible increase or decrease in that size. Consequently, at the time of developing any financing provisions, it will be necessary to determine the desired level of the trust funds and the point in time at which such level is to be attained, so that the tax schedule can be designed to meet the expenditures and, in addition, to provide for the desired change in the size of the trust fund. For example, if it were considered appropriate to provide for increasing the old-age and survivors and the disability insurance trust funds to the level of the next year's expenditures by the end of the 25-year period, the trust funds would require, under alternative II, an additional amount of income equivalent to about 0.39 percent of taxable payroll per year over the 25-year period. This is an estimate of the amount of income required in excess of the amount needed to meet expenditures and in excess of interest income (which is assumed to accrue at the rate of 6.6 percent per year.)

Long-range cost estimates under present law: 1977-2051

In this section of the report, in accordance with the customary presentation of previous reports, long-range cost estimates are shown for the 75-year period beginning with the year of the report (1977-2051). Table 30 contains the projected expenditures and tax rates of the old-age, survivors, and disability insurance system under present law based on the intermediate set of assumptions (alternative II) for the long-range period. Projected expenditures are shown under all three alternative sets of assumptions in table 33.

Under the intermediate set of assumptions (alternative II) the cost of the old-age and survivors insurance program is projected to increase slowly during the remainder of this century. After the turn of the century, expenditures are expected to increase very rapidly for two reasons. One is that the replacement ratios increase sharply. The second is that the number of beneficiaries will be increasing faster than the number of covered workers, since the large number of persons born during the period from the post-World-War-II years through the late 1950's and into the 1960's (when fertility rates were high) will reach retirement age and begin to receive benefits while the relatively small number of persons born during the period of current and projected low fertility rates will comprise the labor force.

During the last years of the projection period, expenditures continue to increase but at a much slower rate, thereby reflecting both the low

TABLE 30.—ESTIMATED EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL FOR SELECTED YEARS, 1977-2055 UNDER ALTERNATIVE II

[In percent]

Calendar year	Expenditures as percent of taxable payroll ¹			Tax rate in law	Difference
	Old-age and survivors insurance	Disability insurance	Total		
1977	9.40	1.50	10.91	9.90	-1.01
1980	9.21	1.59	10.80	9.90	-0.90
1985	9.64	1.92	11.56	9.90	-1.66
1990	10.12	2.27	12.39	9.90	-2.49
1995	10.50	2.64	13.14	9.90	-3.24
2000	10.79	3.12	13.91	9.90	-4.01
2005	11.30	3.66	14.96	9.90	-5.06
2010	12.46	4.11	16.57	9.90	-6.67
2015	14.47	4.42	18.89	11.90	-6.99
2020	17.05	4.59	21.64	11.90	-9.74
2025	19.75	4.55	24.30	11.90	-12.40
2030	21.57	4.45	26.02	11.90	-14.12
2035	22.26	4.43	26.69	11.90	-14.79
2040	22.12	4.55	26.67	11.90	-14.77
2045	21.83	4.76	26.59	11.90	-14.69
2050	22.02	4.91	26.93	11.90	-15.03
2055	22.53	4.98	27.51	11.90	-15.61
25-yr averages:					
1977-2001	10.00	2.24	12.24	9.90	-2.34
2002-26	14.65	4.20	18.85	11.18	-7.67
2027-51	21.86	4.61	26.47	11.90	-14.57
75-yr average: 1977-2051	15.51	3.68	19.19	10.99	-8.20

¹ Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) which incorporates ultimate annual increases of 5½ percent in average wages in covered employment and 4 percent in CPI, an ultimate unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. (See the text for further detail.) Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

birth rates experienced during the 1970's and projected through the 1980's and the slower increases in replacement ratios.

Table 31 compares the average tax rates in present law with the average expenditures as percent of taxable payroll of the old-age, survivors, and disability insurance system as projected under the intermediate set of assumptions (alternative II). The comparisons are for three successive 25-year periods beginning with 1977 as well as for the entire 75-year period (1977-2051). According to these calculations the system is estimated to be underfinanced over the customary long-range 75-year period by an average annual amount equivalent to 8.20 percent of taxable payroll.

Over the first 25-year period the expenditures would exceed taxes by an average annual amount equivalent to 2.34 percent of taxable payroll, over the second 25-year period by 7.67 percent, and over the third by 14.57 percent. In all cases the underfinancing is more pronounced for the disability insurance program than for the old-age and survivors insurance program when measured as a proportion of the cost of each program.

As stated earlier in the report, the high cost of the old-age, survivors, and disability insurance program projected to occur after the turn of the century, indicated in tables 30 and 31, is due partially to unintended results from the present law method of computing benefits. This method, together with the economic assumptions currently underlying the projections, cause future projected benefits to increase substantially faster than wages and therefore result in extremely high benefits for persons first becoming eligible for benefits in the next

TABLE 31.—COMPARISON OF AVERAGE EXPENDITURES AND TAXES FOR OLD-AGE, SURVIVORS AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVE II

[In percent]			
Item	Old-age and survivors insurance	Disability insurance	Total
1st 25-yr period (1977-2001):			
Expenditures as percent of taxable payroll ¹	10.00	2.24	12.24
Tax rate in law.....	8.55	1.35	9.90
Difference.....	-1.45	-.89	-2.34
2d 25-yr period (2002-26):			
Expenditures as percent of taxable payroll ¹	14.65	4.20	18.85
Tax rate in law.....	9.59	1.59	11.18
Difference.....	-5.06	-2.61	-7.67
3d 25-yr period (2027-51):			
Expenditures as percent of taxable payroll ¹	21.86	4.61	26.47
Tax rate in law.....	10.20	1.70	11.90
Difference.....	-11.66	-2.91	-14.57
Total 75-yr period (1977-2051):			
Expenditures as percent of taxable payroll ¹	15.51	3.68	19.19
Tax rate in law.....	9.45	1.54	10.99
Difference.....	-6.06	-2.14	-8.20

¹ Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) which incorporates ultimate annual increases of 5 3/4 percent in average wages in covered employment and 4 percent in CPI, an ultimate unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. (See the text, for further detail.) Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

century. The portion of the projected program costs presented in tables 30 and 31 which is related to the increases in replacement ratios is expected to materialize only if the present law benefit adjustment procedure is retained. (See the later section on "Long-range Cost Estimates under a Modified Theoretical System: 1977-2051" for cost estimates that exclude the effect of increases in replacement ratios.)

The ultimate values assumed in the intermediate set of assumptions (alternative II) for the selected economic and demographic factors, which are summarized in table 27 and which underlie the results in tables 30 and 31, are basically the same as those used in last year's report. One exception is that the assumed ultimate total fertility rate in this year's report is 2.1 children per woman instead of 1.9 as in last year's report. In addition, changes have been made in other assumptions. Table 32 summarizes the effect of such changes on the estimated 75-year average long-range cost.

The major factors underlying the cost estimates shown herein under alternative II that differ from those underlying the cost estimates under alternative II in last year's report are summarized below.

As mentioned in the Highlights section, the dependency requirements for husbands and widowers were changed due to Supreme Court decisions early in 1977.

In changing from the valuation period of last year's report, 1976-2050, to the valuation period of this year's report, 1977-2051, the year 1976, a year of relatively low cost, is replaced by 2051, a year of relatively high cost, thereby increasing the estimated average expenditures even in the absence of any other changes. (In previous reports, this item was included under "All other factors.")

TABLE 32.—CHANGES IN LONG-RANGE EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM AS PERCENT OF TAXABLE PAYROLL, BY REASON FOR CHANGE

(In percent)

Item	Old-age and survivors insurance	Disability insurance	Total
Estimated average expenditures as percent of taxable payroll in last year's report ¹	15.42	3.51	18.93
Changes in estimated expenditures due to changes in:			
Dependency requirements for husbands and widowers ²	+0.12	0	+0.12
Valuation date.....	+ .19	+ .05	+ .24
Economic assumptions.....	- .10	- .02	- .12
Mortality assumptions.....	+ .62	+ .02	+ .64
Fertility assumptions.....	- .59	- .07	- .66
Disability assumptions.....	0	+ .26	+ .26
All other factors.....	- .15	- .07	- .22
Total change in estimated expenditures.....	+ .09	+ .17	+ .26
New estimated average expenditures as percent of taxable payroll ³	15.51	3.68	19.19

¹ 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 CPI, an ultimate unemployment rate of 5 percent, and an ultimate total fertility rate of 1.9 children per woman.

² See sec. (j) of Highlights for further detail on Supreme Court decisions that produced this change.

³ Expenditures and taxable payroll are calculated under the intermediate set of assumptions (alternative II) described in the text of this report. The ultimate values for annual increases in average wages in covered employment, for annual increases in CPI, and for the unemployment rate, are the same as those included in the intermediate set of assumptions described in last year's report. The ultimate total fertility rate is assumed to be 2.1 children per woman.

Note: All figures are expressed as percent of taxable payroll which is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

The ultimate economic assumptions as to wage-CPI increases are the same as in last year's report. The decrease in cost due to economic assumptions is primarily due to projected increases in the proportion of the population in covered employment.

In the demographic area, both the mortality assumptions and the fertility assumptions have been changed. The ultimate mortality level assumed in this year's report is about 12 percent lower than in last year's report. The difference in mortality levels assumed for the two reports results from incorporating in this year's projection not only the additional year of experience in determining the trends but also preliminary data for two additional years in determining the level at the beginning of the projection period. Both factors reflect more improvement in mortality than was previously assumed.

The assumptions regarding the total fertility rate in this year's report differ from those in last year's in several ways. The present decline in fertility is assumed to continue until the 12-month period ending June 30, 1980, whereas in last year's report it was assumed to reach its minimum level in the 12-month period ending June 30, 1977. In addition, the assumed minimum level is lower in this year's report than in last year's. (1.65 children per woman as compared with 1.75). Also, the ultimate total fertility rate is assumed to be 2.1 children per woman instead of 1.9 as in last year's report. The effect of assuming lower total fertility rates in the short range is to increase the 75-year average cost by 0.18 percent of taxable payroll. The effect of assuming an ultimate fertility rate of 2.1 instead of 1.9 is to decrease the 75-year average cost by 0.84 percent of taxable payroll. The net effect of these

two changes in assumptions is a decrease in the 75-year average cost of 0.66 percent of taxable payroll.

The largest increase in the cost of the disability insurance program is due to changes in assumptions regarding disability incidences and terminations. The principal factor is that the termination rates based on the experience of 1968-74, which were used in last year's report without adjustment, have been adjusted this year to reflect more recent termination experience.

The overall result of the changes described above is to increase the estimated average expenditures as percent of taxable payroll over the 75-year period from 18.93 percent to 19.19 percent. A more detailed description of the assumptions used for this year's cost estimates and the rationale for their selection are included in appendix A of this report.

The long-range cost estimates shown throughout this report do not refer to any particular size of the trust funds nor to any possible increase or decrease in that size. Consequently, at the time of developing any financing provisions, it will be necessary to determine the desired level of the trust funds and the point in time at which such level is to be attained, so that the tax schedule can be designed to meet the expenditures and in addition to provide for the desired change in the size of the trust fund. For example, if it were considered appropriate to provide for increasing the old-age and survivors and the disability insurance trust funds to the level of the next year's expenditures by the end of the 75-year valuation period the trust funds would require an additional amount of income equivalent to about 0.24 percent of taxable payroll. This is an estimate of the amount of income required in excess of the amount needed to meet expenditures and in excess of interest income (which is assumed to accrue at the rate of 6.6 percent per year).

The results in tables 30-32 should be read with full recognition of the uncertainties involved in the projection of economic and demographic factors over long-range periods as discussed above. In addition, due to the sensitivity of future benefit levels under present law to changes in the long-range economic conditions these results are subject to wide variation. An indication of the degree of variation possible is shown in table 33 which presents cost estimates under alternatives I, II, and III.

Table 34 shows that in the first 25-year period (1977-2001) the difference between expenditures and taxes varies from 1.67 to 3.24 percent of taxable payroll. In the second (2002-26) the difference varies from 3.94 to 13.33 percent of taxable payroll, and in the final 25 years (2027-51) it varies from 6.03 to 31.71 percent of taxable payroll. For the 75-year period the difference varies from 3.88 to 16.09 percent of taxable payroll.

In both tables 33 and 34, it can be seen that the largest variations in expenditures and in the difference between expenditures and taxes materialize in the latter part of the 75-year projection period. To a large extent this characteristic results from the automatic benefit-adjustment provisions in present law and to the shift in the age composition of the population, both of which were described previously.

TABLE 33.—ESTIMATED EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVES I, II, AND III, FOR SELECTED YEARS, 1977-2055

(In percent)

Calendar year	Expenditures as percent of taxable payroll		
	Alternative I	Alternative II	Alternative III
1977.....	10.91	10.91	10.91
1980.....	10.71	10.80	11.29
1985.....	11.16	11.56	12.10
1990.....	11.73	12.39	13.26
1995.....	12.10	13.14	14.42
2000.....	12.45	13.91	15.75
2005.....	12.94	14.96	17.60
2010.....	13.83	16.57	20.42
2015.....	15.14	18.89	24.40
2020.....	16.72	21.64	29.32
2025.....	18.10	24.30	34.55
2030.....	18.67	26.02	41.08
2035.....	18.46	26.69	42.03
2040.....	17.86	26.67	44.09
2045.....	17.32	26.59	45.85
2050.....	17.17	26.93	47.85
2055.....	17.25	27.51	49.77
25-yr averages:			
1977-2001.....	11.57	12.24	13.14
2002-2026.....	15.12	18.85	24.51
2027-2051.....	17.93	26.47	43.61
75-yr average: 1977-2051.....	14.87	19.19	27.08

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

TABLE 34.—COMPARISON OF AVERAGE EXPENDITURES AND TAXES FOR OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM UNDER PRESENT LAW AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVES I, II, AND III

(In percent)

Item	Alternative I	Alternative II	Alternative III
1st 25-yr period (1977-2001):			
Expenditures as percent of taxable payroll.....	11.57	12.24	13.14
Tax rate in law.....	9.90	9.90	9.90
Difference.....	-1.67	-2.34	-3.24
2d 25-yr period (2002-26):			
Expenditures as percent of taxable payroll.....	15.12	18.85	24.51
Tax rate in law.....	11.18	11.18	11.18
Difference.....	-3.94	-7.67	-13.33
3d 25-yr period (2027-51):			
Expenditures as percent of taxable payroll.....	17.93	26.47	43.61
Tax rate in law.....	11.90	11.90	11.90
Difference.....	-6.03	-14.57	-31.71
Total 75-yr period (1977-2051):			
Expenditures as percent of taxable payroll.....	14.87	19.19	27.08
Tax rate in law.....	10.99	10.99	10.99
Difference.....	-3.88	-8.20	-16.09

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

Long-range cost estimates under a modified theoretical system: 1977-2051

Because of the problems with the present law system which are demonstrated in the earlier discussion of replacement ratios, it is useful for long-range financial planning to illustrate the general

trends in expenditures for a system under which benefits would be stable with respect to earnings. Consequently, cost projections have been prepared on the basis of the modified theoretical old-age, survivors, and disability insurance system described earlier. This system maintains through time the relationship existing at the beginning of calendar year 1979 between average awarded benefits and average earnings. The estimated expenditures for this system are presented under all three alternative sets of assumptions in table 35.

It may be observed from table 35 that the long-range cost of the modified theoretical old-age, survivors, and disability insurance system would be much less sensitive than the present law system to changes in the basic economic assumptions. Much of the variation of the long-range costs shown in table 35 is due to the different fertility assumptions used in the three alternative projections (as described earlier). This is demonstrated by the various sensitivity tests presented in appendix A. It can also be noted from the table that the overall level of estimated expenditures is reduced as a result of stabilizing the replacement ratios.

Table 36 compares the estimated cost under the modified theoretical system with the average tax rate for successive 25-year periods and for the entire 75-year valuation period. Under alternatives I, II, and III, the actuarial imbalance over the customary 75-year period would be reduced to a range of about 3.26 to 6.52 percent of taxable payroll. This table illustrates that the variation in the estimated program deficit is substantially reduced under the modified theoretical system. Nonetheless, it also illustrates that, since even under such a system a substantial deficit is still projected, the long-range financial difficulties cannot be resolved by only stabilizing the replacement ratios.

TABLE 35.—ESTIMATED EXPENDITURES FOR MODIFIED THEORETICAL OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVES I, II, AND III FOR SELECTED YEARS, 1977-2055

Calendar year	Expenditures as percent of taxable payroll		
	Alternative I	Alternative II	Alternative III
1977.....	10.91	10.91	10.91
1980.....	10.73	10.83	11.30
1985.....	11.18	11.54	11.94
1990.....	11.73	12.19	12.64
1995.....	12.10	12.65	13.10
2000.....	12.34	12.94	13.41
2005.....	12.62	13.29	13.91
2010.....	13.29	14.11	15.02
2015.....	14.42	15.46	16.76
2020.....	15.82	17.10	18.94
2025.....	17.04	18.62	21.12
2030.....	17.52	19.40	23.76
2035.....	17.28	19.40	23.27
2040.....	16.65	18.91	23.34
2045.....	16.10	18.45	23.32
2050.....	15.90	18.29	23.42
2055.....	15.92	18.34	23.53
25-yr averages:			
1977-2001.....	11.56	11.96	12.36
2002-2026.....	14.45	15.49	16.85
2027-2051.....	16.73	18.89	23.31
75-yr average: 1977-2051.....	14.25	15.45	17.51

Notes: See text for description of modified theoretical system. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate. Alternatives I, II, and III are defined in the text.

TABLE 36.—COMPARISON OF AVERAGE EXPENDITURES AND TAXES FOR MODIFIED THEORETICAL OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL UNDER ALTERNATIVES I, II, AND III

[In percent]

Item	Alternative I	Alternative II	Alternative III
1st 25-yr period (1977-2001):			
Expenditures as percent of taxable payroll.....	11.56	11.96	12.36
Tax rate in law.....	9.90	9.90	9.90
Difference.....	-1.66	-2.06	-2.46
2d 25-yr period (2002-26):			
Expenditures as percent of taxable payroll.....	14.45	15.49	16.85
Tax rate in law.....	11.18	11.18	11.18
Difference.....	-3.27	-4.31	-5.67
3d 25-yr period (2027-51):			
Expenditures as percent of taxable payroll.....	16.73	18.89	23.31
Tax rate in law.....	11.90	11.90	11.90
Difference.....	-4.83	-6.99	-11.41
Total 75-yr period (1977-2051):			
Expenditures as percent of taxable payroll.....	14.25	15.45	17.51
Tax rate in law.....	10.99	10.99	10.99
Difference.....	-3.26	-4.46	-6.52

Notes: See text for description of modified theoretical system. Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate. Alternatives I, II, and III are defined in the text.

CONCLUSION

The actuarial cost estimates presented in this report indicate that the declines in the assets of the old-age and survivors insurance and disability insurance trust funds which began in 1975 will continue. Without legislation to improve the financial status of the program, the assets of the disability insurance trust fund will be exhausted in 1979 under all three of the alternative sets of economic assumptions for which estimates have been presented in this report. Similarly, the assets of the old-age and survivors insurance trust fund will be exhausted in 1982 under the most pessimistic set of assumptions, in 1983 under the intermediate set, and in 1984 under the most optimistic set of assumptions.

The Board recommends that action be taken to strengthen the actuarial status of the old-age, survivors, and disability insurance system over the near term beginning in calendar year 1978, if feasible, and certainly no later than calendar year 1979. In view of the rapid rate of decline projected for the assets of the disability insurance trust fund, and the low level which that fund is expected to reach by the end of 1978, the Board strongly recommends action to strengthen the disability insurance trust fund beginning January 1, 1978. If no additional income is provided for the old-age, survivors, and disability insurance system until 1979, the Board recommends that the total contribution rate for both trust funds, of 4.95 percent for employees and employers, each, be reallocated to give a larger share to the disability insurance trust fund starting in calendar year 1978.

The medium-range actuarial cost estimates of the program indicate that, for each of the next 25 years, the estimated expenditures under present law will exceed the estimated income from taxes. This excess

increases with time, and is estimated to average about 2.3 percent of taxable payroll over the 25-year period (1977-2001) based upon the intermediate cost estimates. Under more optimistic assumptions this excess of expenditures over income is projected to average 1.7 percent of taxable payroll, and under more pessimistic assumptions this excess is projected to average 3.2 percent of taxable payroll. Therefore, all alternative medium-range cost estimates presented in this report indicate that over the remainder of this century the present old-age, survivors, and disability insurance program will require either additional revenues or a restructuring of future benefits, or both. The reduction in cost resulting from the restructuring of benefits so as to stabilize replacement ratios will not be sufficient to bring the system into actuarial balance over the medium-range period. In addition, it will be necessary to increase revenues or restructure benefits beyond the stabilization of replacement ratios.

The Board recommends that high priority be given to the development of plans to strengthen the actuarial status of the old-age, survivors, and disability insurance program over the next 25 years.

The long-range cost of the present program projected to occur after the turn of the century will substantially exceed the taxes scheduled in present law. Although those projected costs are highly sensitive to variations in the demographic and economic assumptions, all reasonable assumptions indicate that there will be significant excesses of expenditures over income. Estimates have been presented in this report under three alternative sets of assumptions indicating a broad range within which actual future experience may fall; however, no assurance can be given that these estimates define the broadest possible range of variation in the long-range cost estimates.

The Board recognizes, as it has done in the last two reports, that the high cost projected to occur after the turn of the century results in part from the method of computing benefits which is included in present law. This method, together with the economic assumptions currently underlying the projections, causes future projected benefits to increase substantially faster than wages and therefore results in extremely high benefit levels for persons first becoming eligible for benefits in the next century. The Board is in full concurrence with the intent of the 1975 Advisory Council on Social Security that the benefit structure be revised in a responsible manner. The Board recommends the adoption of a specific plan as soon as possible in order to prevent the high benefit levels projected for the future from materializing, to improve the predictability of future benefit levels, and to reduce the long-range cost of the system.

APPENDIX A—STATEMENT OF ASSUMPTIONS, METHODOLOGY, AND DETAILS OF LONG-RANGE COST ESTIMATES

The basic assumptions and methodology used in preparing the long-range cost estimates of the old-age, survivors, and disability insurance system are described in this appendix. The first part of this appendix covers the assumptions and methodology underlying the cost estimates, as well as the results themselves. The second part deals with the sensitivity of the estimates to changes in particular assumptions.

The cost estimates were prepared under three different sets of basic assumptions, designated as alternatives I, II, and III. The assumptions comprising each alternative have been summarized in an earlier section entitled "Demographic and Economic Assumptions." They will not be resummarized here but will be discussed within the context of the discussion of methodology. Within that discussion all comments pertain to the cost estimates under each of the three alternatives unless specifically stated otherwise.

ASSUMPTIONS, METHODOLOGY, AND RESULTS

Population

Projections were made of the United States population (including persons overseas covered by the old-age, survivors, and disability insurance program) by age and sex for future years to 2055. The starting point was the population on July 1, 1975, as estimated by the Bureau of the Census from the 1970 census and from births, deaths, and migration in 1970-75. This population estimate (which included an adjustment for net census undercount) was augmented by the population in the geographical areas covered by the old-age, survivors, and disability insurance system but not included in the estimate of the Bureau of the Census.

In the projection of the population the general trend in mortality during 1950-74 was assumed to continue to 2050. Projected mortality resulted from applying that trend to the preliminary mortality data for 1976. As shown in appendix table A the projected mortality level in 2050 is 81.8 percent of the estimated 1976 level, or about 18 percent lower. This projected improvement by age and sex ranges from a low of about 12 percent for men aged 20-64 to a high of about 39 percent for women under 20. The mortality rates for the period after 2050 are assumed to remain at the 2050 level.

Reviewing the historic trends in the total fertility rate in this country provides little assistance in estimating its future course. That rate had decreased from a post-World War I level of about 3.3 children per woman to a Great Depression level of about 2.1, only to rise again to about 3.7 in 1957 and then fall to the current level of about 1.7 estimated for calendar year 1976.

APPENDIX TABLE A.—PROJECTED MORTALITY IMPROVEMENT FROM 1976 TO 2050

Sex and age	Age-adjusted death rate ¹ by calendar year—		Projected rate in 2050 as percent of rate in 1976
	1976	2050	
Men:			
Under 20.....	161.3	118.1	73.2
20 to 64.....	685.4	60.21	87.8
65 and over.....	6,994.4	5,812.8	86.8
Total.....	987.4	852.3	86.3
Women:			
Under 20.....	107.7	66.11	61.4
20 to 64.....	356.9	284.2	79.6
65 and over.....	4,556.3	3,449.5	75.7
Total.....	735.5	558.6	75.9
Total: ²			
Under 20.....	133.8	91.4	68.3
20 to 64.....	516.8	438.9	84.9
65 and over.....	5,597.0	4,599.8	82.2
Total.....	858.1	701.6	81.8

¹ Deaths per 100,000 persons in the population.

² The rates for men and women combined are based on the sex distribution of the enumerated population of the United States as of Apr. 1, 1970.

History has shown that fertility rates are highly dependent on such changeable and unpredictable factors as social attitudes and economic conditions. Since this dependence precludes forecasting long-range fertility rates with any great degree of certainty, a range of assumptions is preferable to a single assumption. With due consideration given to recent social attitudes and developments, a range of 1.7 to 2.3 children per woman was chosen. By way of comparison it may be noted that the Bureau of the Census used an ultimate total fertility rate range of 1.7 to 2.7 children per woman in their latest series of population projections.¹ Included in both ranges is the theoretical population replacement rate of 2.1 children per woman—that is, the total fertility rate which in the absence of migration would eventually result in just enough births in a year to replace the deaths in that year—which is the assumption used in the intermediate set of assumptions in this report. (In last year's report the assumed ultimate total fertility rate was 1.9 children per woman.)

Alternatives I, II, and III specify ultimate total fertility rates of 2.3, 2.1, and 1.7 children per woman, respectively. In each projection, the total fertility rate was initially assumed to decrease from its estimated 1977 level of 1.71 to a level of 1.65 children per woman in fiscal year 1980. The rate was then projected by the cohort method to reach its ultimate value in a gradual manner by the year 2005.

Included in all three alternative sets of assumptions is the assumption that annual net immigration will be 400,000 persons.

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

Employment

Projections of the percentage of the population covered under the old-age, survivors, and disability insurance program were based on projections of unemployment rates and labor force participation rates. Under alternatives I, II, and III, the total annual unemployment rate

¹ U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 601, "Projections of the Population of the United States: 1975-2050," U.S. Government Printing Office, Washington, D.C., 1975.

APPENDIX TABLE B.—PROJECTIONS OF THE U.S. POPULATION BY BROAD AGE GROUPS

Year	Population (in thousands) as of July 1				Dependency ratio	
	Under 20	20-64	65 and over	Total	Aged ¹	Total ²
Alternative I—2.3 ultimate fertility:						
1975	77,913	121,807	23,007	222,727	0.189	0.829
1980	72,837	132,397	25,394	230,629	.192	.742
1985	69,992	141,938	27,657	239,587	.195	.688
1990	71,835	147,986	30,044	249,865	.203	.688
1995	75,686	152,925	31,578	260,188	.206	.701
2000	79,776	157,580	32,021	269,378	.203	.709
2005	81,842	163,246	32,591	277,679	.200	.701
2010	82,906	168,518	34,898	286,321	.207	.699
2015	84,740	171,538	39,461	295,739	.230	.724
2020	87,908	172,335	44,977	305,221	.261	.771
2025	91,465	171,635	50,805	313,904	.296	.829
2030	94,210	172,426	55,050	321,686	.319	.866
2035	96,257	176,866	56,055	329,178	.317	.861
2040	98,572	183,155	55,259	336,986	.302	.840
2045	101,649	189,970	53,654	345,273	.282	.818
2050	105,070	195,336	53,590	353,996	.274	.812
2055	108,176	199,748	55,228	363,151	.276	.818
Alternative II—2.1 ultimate fertility:						
1975	77,913	121,807	23,007	222,727	.189	.829
1980	72,837	132,397	25,394	230,629	.192	.742
1985	69,550	141,938	27,657	239,144	.195	.685
1990	70,274	147,985	30,044	248,304	.203	.678
1995	72,591	152,925	31,578	257,093	.206	.681
2000	75,005	157,580	32,021	264,607	.203	.679
2005	75,679	162,809	32,591	271,080	.200	.665
2010	75,583	166,980	34,898	277,461	.209	.662
2015	76,059	168,494	39,461	284,014	.234	.686
2020	77,528	167,654	44,977	290,160	.268	.731
2025	79,264	165,176	50,805	295,245	.308	.827
2030	80,353	163,774	55,050	299,177	.336	.877
2035	80,894	165,446	56,055	302,395	.339	.828
2040	81,591	168,538	55,259	305,388	.328	.812
2045	82,791	171,953	53,654	308,398	.312	.794
2050	84,203	174,079	53,254	311,536	.306	.790
2055	85,368	175,402	54,089	314,860	.308	.795
Alternative III—1.7 ultimate fertility:						
1975	77,913	121,807	23,007	222,727	.189	.829
1980	72,837	132,397	25,394	230,629	.192	.742
1985	68,663	141,938	27,657	238,258	.195	.679
1990	67,150	147,986	30,044	245,181	.203	.657
1995	66,398	152,925	31,578	250,900	.206	.641
2000	65,466	157,580	32,021	255,068	.203	.619
2005	63,430	161,935	32,591	257,955	.201	.593
2010	61,280	163,903	34,898	260,081	.213	.587
2015	59,582	162,405	39,461	261,448	.243	.610
2020	58,428	158,296	44,977	261,701	.284	.653
2025	57,399	152,331	50,805	260,534	.334	.710
2030	56,069	146,804	55,050	257,923	.375	.757
2035	54,575	143,475	56,055	254,105	.391	.771
2040	53,242	140,938	55,259	249,439	.392	.770
2045	52,169	138,475	53,654	244,298	.387	.764
2050	51,206	135,251	52,582	239,039	.389	.767
2055	50,176	131,866	51,809	233,851	.393	.773

¹ Population 65 and over as ratio to population 20-64.² Population 65 and over plus those under 20 as ratio to population 20-64.

Note: Alternatives I, II, and III are defined in the text.

was assumed to be 4.5 percent after 1980, 5.0 percent after 1980, and 5.5 percent after 1983, respectively. For each alternative the rates were assumed to be somewhat higher in the earlier years. Unemployment rates by age and sex were projected on the basis of the relationship between such rates and the total unemployment rate existing since 1966.

Labor force participation rates were projected on the basis of historical data since 1960. During this period the unemployment rate averaged about 5 percent, which is the assumed rate under alternative

II. The ultimate labor force participation rates by sex, computed on an age-adjusted basis, reflect a decrease from the 1976 level of 1.6 percent for men and an increase of 12.6 percent for women. On the average, the assumed ultimate labor force participation rates for women are about 72 percent of those for men.

Coverage rates—that is, the percentage of the population in covered employment—were projected by age and sex on the basis of the projected unemployment rates and labor force participation rates in accordance with the relationship existing among those rates during 1970–74.

Under alternative II the ultimate average coverage rates by sex, computed on an age-adjusted basis, reflect increases of 0.6 percent for men and 9.1 percent for women from the corresponding 1976 rates. For men the projected coverage rates increase slightly for those aged 25–39 and decrease for those of other ages (although only slightly for those aged 16–24). For women the projected coverage rates continue the recent historical patterns of increases for those aged 16–59 (thereby reflecting increased labor force participation by women). In the important retirement age groups of 60 and over, the assumed ultimate coverage rates are 14 percent lower (on an age-adjusted basis) than the 1976 rates for both men and women. This assumption represents a significant deceleration in the recent trends toward earlier retirement. To illustrate, over only the last six years (1970–76), the decrease in the actual coverage rates for men aged 60 and over was 18 percent, and the decrease for women of those ages was 10 percent.

Under alternatives I and III, the trends in projected coverage rates are similar to those under alternative II.

Insured Population

The term “insured” as used herein means fully-insured; the number of persons who are currently-insured only is relatively small and has been disregarded for long-range cost analysis purposes. The number of insured persons as a percent of population was projected by age and sex based on both recent experience and the projected covered employment rates. Under each alternative the ultimate percentage is estimated to be 95 percent for aged men and 85 percent for aged women. This difference by sex reflects an analogous difference in the assumed labor force participation rates. The variations in the unemployment rate among the three alternative assumptions have only a negligible effect on these percentages although they do result in minor differences at the lower ages.

The estimated number of persons insured for disability benefits is lower than the number insured for old-age and survivor benefits because of the more restrictive insured status provisions for disability benefits. As with the fully insured, the number insured for disability was also projected on the basis of both recent experience and the projected covered-employment rates.

Old-age and survivors insurance beneficiaries

Since several types of benefits at different levels are payable under the old-age and survivors insurance program, the numbers of beneficiaries have been projected by type of benefit received.

Old-age beneficiaries were projected on the basis of the aged insured population. The proportions, by age and sex, of the insured population

who were receiving benefits at the beginning of 1977 were projected to increase gradually on the basis of past trends (after adjustment for changes in the earnings test and in the level of unemployment). The resulting proportions thereby imply gradual increases in the implicit retirement rates.

Wives aged 62 and over of male old-age beneficiaries were estimated by using insured population projections and census data on marital status. The potential wife beneficiaries, after the exclusion of those eligible for their own old-age benefits, were assumed to claim benefits as soon as they became eligible, even if this occurred at ages 62-64, when they would have to take reduced benefits. The experience to date indicates that, in the vast majority of the cases, such immediate claiming of wife's benefits does occur.

Children of retired workers were projected by means of ratios to male old-age beneficiaries, as derived from recent actual data and projected according to the fertility assumptions.

Young wife beneficiaries were estimated by extrapolating the base year ratio of such beneficiaries to the estimated number of beneficiaries who are children of retired-worker beneficiaries. The extrapolation reflects projected fertility and female labor force participation rates.

Child-survivor beneficiaries were obtained from estimates of orphans in the country in future years. The projected child population, by age group, was multiplied by the probability of being an orphan. These probabilities were derived by using distributions of age of parent at birth of child and death rates consistent with the population projections. The number of orphans was then adjusted to include eligible disabled orphans aged 18 and over and to eliminate orphans of uninsured deceased parents. For nondisabled children aged 18-21 a further reduction was made to exclude those not attending school.

Mother-survivor beneficiaries were estimated by a method similar to the one used to estimate 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. Benefits payable to father-survivor beneficiaries were estimated in a similar manner.

To estimate widow beneficiaries the proportions of widows in the female aged population were projected according to mortality assumptions and adjusted for both eligibility for their own old-age benefits and the insured status of their deceased husbands. For ages 50-59, the disabled-widow beneficiaries were estimated from the eligible widows by using disability prevalence rates.

It may be observed that the assumed wife and widow beneficiaries thus far described consist of the uninsured potential beneficiaries. In actual practice, some of the insured potential beneficiaries also receive a residual benefit consisting of the excess of the potential wife's or widow's benefit over their own old-age benefit. Estimates of such residual benefits were incorporated into the projections of both the wife's and widows' benefits.

Several minor categories of beneficiaries were projected on the basis of past trends in their gross numbers. Parents were projected by assuming a decrease from a level of 20,000 at the beginning of 1977 to an ultimate level of 7,000 in 1986 under the intermediate set of

assumptions. Similarly, dependent husband beneficiaries were projected to decrease from their level of 7,000 at the beginning of 1977 to an ultimate level of 5,000 in 1995. Dependent widower beneficiaries were projected to remain at their current level of about 3,000.

In addition to dependent husband and widower beneficiaries, it was necessary in this report to estimate the cost of paying benefits to non-dependent husbands and widowers. Decisions of the Supreme Court in early 1977 found it to be unconstitutional to have a test of dependency in the law for men while presuming dependency for women. To reflect these decisions it has been assumed that all present distinctions between men and women as to dependency requirements will be eliminated by liberalizing the requirements for men. A simplified method has been used to estimate the cost effect of these decisions. Census data on married couples were used to estimate for 1977 the number of newly eligible husbands of retired female workers by age, from which the estimated number of men receiving their own social security retirement benefit was subtracted. Such estimate was based on program data for retired couples, assuming that newly entitled husbands would have the same earnings relative to their wives as dependent husband beneficiaries. For 1978 and later years, it was assumed that the number of husband beneficiaries will increase as the population of male retired worker beneficiaries increases. In addition, an estimate was made of the additional residual benefits payable to retired male beneficiaries whose husbands' benefits exceed their own old-age benefits. Widowers who were not dependent on their deceased wives at the time of death are estimated in a manner similar to that for nondependent husbands.

Appendix table C shows the estimated number of beneficiaries in the old-age and survivors insurance program.

Lump-sum death payments

The number of lump-sum death payments was projected by multiplying the projected insured population by the death rates used in the population projections.

Disability insurance beneficiaries

The future number of persons receiving monthly disability benefits based on their own earnings was estimated as follows. The population insured for disability (by sex and age) was multiplied by disability incidence rates to arrive at the number of newly entitled disabled workers. To obtain the number of disabled-worker beneficiaries, these newly entitled disabled workers, along with those currently entitled, were projected through the use of termination rates based on the mortality and recovery experience of the system during 1968-74, adjusted to reflect more recent experience.

The incidence rates were projected on the basis of age, sex, and the year of exposure to disability. They were based on estimated rates for 1973 (after adjustment for the effect of the 1973 change in the waiting period), smoothed to reflect the relative age-sex distributions experienced over the six-year period 1969-74 and updated to reflect the increases in awarded disability benefits through calendar year 1976. Although there was a slight decline in award rates in 1976, the upward trend in incidence rates experienced over the past decade was assumed to continue. Age-sex specific incidence rates were assumed to increase

APPENDIX TABLE C.—OLD-AGE SURVIVORS INSURANCE BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS UNDER ALTERNATIVES I, II, AND III

[In thousands]

Calendar year	Retired workers and dependents			Survivors of deceased workers ¹				Total
	Old-age	Wives ²	Children	Mothers ³	Children	Widows ⁴	Parents	
Actual data (as of June 30):								
1970.....	13,066	2,651	535	514	2,673	3,151	29	22,619
1971.....	13,604	2,673	556	523	2,745	3,287	28	23,416
1972.....	14,181	2,706	578	536	2,847	3,433	27	24,308
1973.....	14,880	2,756	602	548	2,887	3,575	25	25,273
1974.....	15,589	2,806	619	565	2,908	3,706	24	26,217
1975.....	16,210	2,836	633	568	2,905	3,823	22	26,997
1976.....	16,789	2,867	674	576	2,876	3,938	21	27,741
ALTERNATIVE I								
Projection (as of June 30):								
1985.....	21,853	3,331	600	533	2,461	4,069	8	32,855
1990.....	24,265	3,429	484	526	2,377	4,050	7	35,138
1995.....	25,864	3,468	366	587	2,458	4,000	7	36,750
2000.....	26,662	3,343	354	662	2,657	4,015	7	37,700
2005.....	27,981	3,105	401	692	2,809	4,026	7	39,021
2010.....	30,954	2,966	493	686	2,854	4,078	7	42,038
2015.....	35,780	2,968	606	675	2,866	4,087	7	46,989
2020.....	41,669	3,000	722	679	2,925	4,087	7	53,089
2025.....	47,400	3,059	802	693	3,050	4,087	7	59,098
2030.....	51,020	3,047	805	706	3,171	4,108	7	62,864
2035.....	52,184	2,918	770	717	3,245	4,037	7	63,878
2040.....	51,480	2,746	729	736	3,295	3,986	7	62,979
2045.....	50,516	2,594	714	765	3,378	3,926	7	61,900
2050.....	50,966	2,541	752	790	3,487	3,865	7	62,408
2055.....	52,553	2,628	804	810	3,608	3,887	7	64,297
ALTERNATIVE II								
Projection (as of June 30):								
1985.....	21,949	3,365	607	532	2,458	4,069	8	32,988
1990.....	24,366	3,464	490	523	2,358	4,050	7	35,258
1995.....	25,965	3,503	370	580	2,401	4,000	7	36,826
2000.....	26,761	3,375	357	641	2,536	4,015	7	37,682
2005.....	28,086	3,130	387	663	2,624	4,026	7	38,923
2010.....	31,076	2,991	467	656	2,628	4,078	7	41,903
2015.....	35,926	2,997	575	642	2,605	4,087	7	46,839
2020.....	41,835	3,024	671	637	2,618	4,087	7	52,879
2025.....	47,578	3,077	732	641	2,678	4,087	7	58,800
2030.....	51,195	3,063	734	643	2,736	4,108	7	62,486
2035.....	52,348	2,931	702	643	2,754	4,036	7	63,421
2040.....	51,630	2,757	664	650	2,763	3,984	7	62,455
2045.....	50,605	2,603	648	665	2,786	3,898	7	61,212
2050.....	50,638	2,540	673	675	2,829	3,803	7	61,165
2055.....	51,451	2,591	703	680	2,878	3,787	7	62,097
ALTERNATIVE III								
Projection (as of June 30):								
1985.....	22,017	3,386	613	530	2,451	4,069	8	33,074
1990.....	24,477	3,498	497	519	2,320	4,050	7	35,368
1995.....	26,032	3,523	373	567	2,288	4,000	7	36,790
2000.....	26,827	3,395	352	597	2,293	4,015	7	37,486
2005.....	28,158	3,151	371	604	2,251	4,026	7	38,568
2010.....	31,165	3,010	427	591	2,177	4,078	7	41,455
2015.....	36,030	3,005	490	574	2,099	4,087	7	46,292
2020.....	41,952	3,032	560	557	2,038	4,087	7	52,233
2025.....	47,701	3,078	594	539	2,000	4,087	7	58,066
2030.....	51,309	3,062	595	523	1,960	4,108	7	61,564
2035.....	52,454	2,929	569	507	1,905	4,035	7	62,406
2040.....	51,729	2,755	539	497	1,852	3,979	7	61,358
2045.....	50,581	2,599	523	488	1,807	3,845	7	59,850
2050.....	49,764	2,508	524	479	1,772	3,680	7	58,734
2055.....	49,000	2,487	521	466	1,739	3,583	7	57,803

¹ Excludes the effect of the railroad financial interchange.² Includes husband beneficiaries.³ Includes father beneficiaries.⁴ Includes widower beneficiaries.

Note: Alternatives I, II, and III are defined in the text.

over the period 1977-86 to a level about 33 percent higher than that estimated for 1977, and to remain at that level thereafter. Due to the changing age-sex distribution of the insured population, the gross incidence rate (ratio of new entitlements to insured exposure for the population as a whole) resulting from the above assumptions increases by only 19 percent over the period 1977-86. This level of extrapolated incidence rates appears reasonable at this time.

The number of child beneficiaries entitled under the disability insurance program was projected as a proportion of the disabled male beneficiaries, based on recent experience and allowing for future projected changes in fertility.

The number of wife beneficiaries under this program was projected as a proportion of child beneficiaries based on recent experience and allowing for projected future changes in fertility and female labor force participation rates.

The number of husband beneficiaries—both dependent and non-dependent—entitled to disability benefits was projected as a proportion of disabled female beneficiaries.

Appendix table D shows the projected number of beneficiaries in the disability insurance program.

Annual increases in average wages in covered employment and in the Consumer Price Index

As indicated in the section entitled "Long-Range Cost Estimates—Benefit Levels" the importance of the assumptions as to future increases in average wages and in the Consumer Price Index (CPI) results from the automatic adjustment provisions in the present law which require that the benefit table be adjusted to reflect increases in the CPI and that the taxable earnings base, as well as the exempt amount in the retirement test, be adjusted to reflect increases in average wages. These provisions result in future benefit levels that are highly dependent on the changes in wages, in the CPI and, in particular, in the relationship between wage and CPI increases. (This sensitivity is demonstrated later in this report.)

The assumed ultimate percentage increases in average annual wages in covered employment under alternatives I, II, and III are $5\frac{1}{4}$ percent, $5\frac{3}{4}$ percent, and $6\frac{1}{4}$ percent, respectively. The corresponding increases in the average annual CPI are assumed at 3 percent, 4 percent, and 5 percent, respectively. The resulting differences of $2\frac{1}{4}$ percent, $1\frac{3}{4}$ percent, and $1\frac{1}{4}$ percent represent a measure of the increase in average annual real wages and is referred to herein as the percentage increase in average annual real wages or, more briefly, as the real-wage differential. These interrelated assumptions were developed as stated below.

For alternative II, the CPI was assumed to increase at an annual rate of 4 percent, which is slightly higher (by almost one-half of 1 percent) than the average over the last 30 years. This level was selected because the trends over the last 60 years indicate a tendency for the rate of increase in the CPI to increase slowly with time. Moreover, the current outlook does not support a cessation or reversal of these trends. Although the long-term average of the annual CPI increases is highly speculative, 4 percent is considered a reasonable choice in view of the trends since 1913 and of current expectations. The assumed real-wage differential was based on the average value over the last 25

APPENDIX TABLE D.—DISABILITY INSURANCE BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS UNDER ALTERNATIVES I, II, AND III

[In thousands]

Calendar year	Workers	Wives ¹	Children	Total
Actual data (as of June 30):				
1970.....	1,436	271	861	2,568
1971.....	1,561	293	934	2,788
1972.....	1,737	327	1,028	3,092
1973.....	1,925	364	1,127	3,416
1974.....	2,098	391	1,203	3,692
1975.....	2,363	429	1,333	4,125
1976.....	2,602	468	1,462	4,532
ALTERNATIVE I				
Projection (as of June 30):				
1985.....	4,347	696	1,862	6,905
1990.....	5,157	802	1,981	7,940
1995.....	5,940	916	2,068	8,924
2000.....	6,926	1,053	2,240	10,219
2005.....	8,012	1,195	2,504	11,711
2010.....	8,887	1,299	2,791	12,977
2015.....	9,336	1,325	3,068	13,729
2020.....	9,354	1,322	3,279	13,955
2025.....	9,014	1,302	3,303	13,619
2030.....	8,664	1,273	3,182	13,119
2035.....	8,658	1,287	3,142	13,087
2040.....	8,969	1,321	3,216	13,506
2045.....	9,482	1,379	3,407	14,268
2050.....	9,869	1,433	3,582	14,884
2055.....	10,038	1,469	3,659	15,166
ALTERNATIVE II				
Projection (as of June 30):				
1985.....	4,346	696	1,851	6,893
1990.....	5,152	802	1,939	7,893
1995.....	5,932	910	1,983	8,825
2000.....	6,917	1,042	2,106	10,065
2005.....	8,000	1,175	2,315	11,490
2010.....	8,869	1,273	2,541	12,683
2015.....	9,307	1,298	2,749	13,354
2020.....	9,301	1,287	2,892	13,480
2025.....	8,927	1,263	2,887	13,077
2030.....	8,520	1,222	2,759	12,501
2035.....	8,422	1,220	2,697	12,339
2040.....	8,593	1,233	2,718	12,544
2045.....	8,910	1,266	2,830	13,006
2050.....	9,107	1,292	2,917	13,316
2055.....	9,132	1,304	2,935	13,371
ALTERNATIVE III				
Projection (as of June 30):				
1985.....	4,339	696	1,827	6,862
1990.....	5,142	802	1,851	7,795
1995.....	5,919	903	1,812	8,634
2000.....	6,904	1,018	1,837	9,759
2005.....	7,986	1,135	1,938	11,059
2010.....	8,845	1,220	2,054	12,119
2015.....	9,259	1,241	2,143	12,643
2020.....	9,209	1,222	2,178	12,609
2025.....	8,763	1,181	2,120	12,064
2030.....	8,245	1,122	1,992	11,359
2035.....	7,977	1,089	1,907	10,973
2040.....	7,880	1,066	1,870	10,816
2045.....	7,819	1,054	1,866	10,739
2050.....	7,657	1,032	1,842	10,531
2055.....	7,422	1,006	1,792	10,220

¹ Includes husband beneficiaries.

Notes: Alternatives I, II, and III are defined in the text. The effect of the railroad financial interchange is excluded.

years. The sum of this differential and the percentage increase in the average annual CPI yielded the assumed annual percentage increase in the average wage of $5\frac{3}{4}$ percent.

For alternatives I and III the ultimate real-wage differentials of $2\frac{1}{4}$ percent and $1\frac{1}{4}$ percent were chosen so as to be one-half of 1 per-

cent higher and lower, respectively, than the $1\frac{3}{4}$ percent real-wage differential utilized in alternative II. Similarly, the ultimate percentage increases in the average annual CPI of 3 percent under alternative I and 5 percent under alternative III were chosen so as to be 1 percent lower and higher, respectively, than the 4 percent assumption utilized in alternative II. These assumptions yielded assumed ultimate percentage increases in average annual wages of $5\frac{1}{4}$ percent and $6\frac{1}{4}$ percent for alternatives I and III, respectively, as compared with the $5\frac{3}{4}$ percent assumptions utilized in alternative II.

The short-range wage-CPI assumptions for all three alternatives are described in the section of this report dealing with the expected operations of the trust funds through 1981.

Average benefits

The average benefit for new old-age beneficiaries—that is, the average awarded old-age benefit—was projected by simulating the present law automatic adjustment provisions for workers at various earnings levels. The average benefit for all old-age beneficiaries—that is, the total of new beneficiaries cited above and those earlier retirees who are still receiving benefits—was projected on the basis of the distribution of those beneficiaries by year of award, their average awarded benefit, and the increases in benefit since the year of award. The average benefit for all other persons receiving monthly benefits from the old-age and survivors insurance trust fund was projected to increase at the same rate as the average old-age benefit. The average benefit for persons receiving monthly benefits from the disability insurance trust fund was similarly developed based on the average disabled-worker benefit which, in turn, was projected in a manner similar to that of the average old-age benefit.

Benefit payments

Total benefit payments were calculated as the product of the number of beneficiaries and their corresponding average benefits. These values were adjusted to reflect the retroactivity of payments made to newly entitled beneficiaries.

Administrative expenses

Through 1987, part of the administrative expenses was assumed to increase in proportion to increases in average wages and part was assumed to increase in proportion to increases in the CPI, with some additional increase due to increases in the number of beneficiaries. For the years after 1987, administrative expenses were assumed to increase at the combined rate of the estimated increases in the number of beneficiaries and in average earnings.

Railroad retirement financial interchange

The effect of the financial interchange was evaluated on the basis of trends similar to those used for estimating the other old-age, survivors, and disability insurance costs. The resulting effect is a small long-range loss to the old-age, survivors, and disability insurance system.

Military service reimbursement

Although the effect of noncontributory credits for military service is implicit in the calculation of expenditures, the reimbursement from

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

SENSITIVITY OF COST ESTIMATES TO CHANGES IN SELECTED ASSUMPTIONS

While the estimates under alternatives I, II, and III provide an indication of the variation that would result from different combinations of assumptions, they cannot be used to determine the effect on the long-range cost of changes in a single assumption, due to the complex interrelationships among the assumed variables themselves. For this reason, this section of appendix A is devoted to an analysis of the sensitivity of the long-range cost estimates to changes in selected assumptions. The intermediate assumptions underlie all of the sensitivity analyses shown herein; only the factor being tested is varied from its counterpart in the intermediate set of assumptions.

Sensitivity to mortality improvement assumptions

Appendix table E shows the average expenditures under both present law and the modified theoretical system in combination with three distinct assumptions as to the improvement in mortality. Those three are: no improvement in mortality rates from the level experienced in 1976; improvement of approximately 18 percent as assumed in alternatives I, II, and III; and improvement of approximately 33 percent.

Under both present law and the modified theoretical system there is a similar variation in cost associated with identical changes in levels of mortality. Under either system, over the next 25, 50, and 75 years the expenditures shown in the table reflect increases of about 1 percent, 2 percent, and 4½ percent, respectively, for similar percentage improvement in the ultimate mortality rates.

APPENDIX TABLE E.—ESTIMATED LONG-RANGE EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM AS PERCENT OF TAXABLE PAYROLL, UNDER ALTERNATIVE II AND UNDER VARIOUS MORTALITY IMPROVEMENT ASSUMPTIONS

System ¹	[In percent]		
	Zero percent	18 percent	33 percent
Average expenditures as percent of taxable payroll ¹ under ultimate mortality improvement of— ²			
25-yr period:			
Present law	12.15	12.24	12.33
Modified theoretical	11.87	11.96	12.05
50-yr period:			
Present law	15.18	15.54	15.90
Modified theoretical	13.42	13.72	14.02
75-yr period:			
Present law	18.26	19.19	20.00
Modified theoretical	14.75	15.45	16.06

¹ Taxable payroll is adjusted to take into account the lower contribution rate on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

² The rate of mortality improvement refers to the ratio of the age-adjusted death rate in the year 2050 to that in 1976. The 18-percent improvement in mortality was used in alternatives I, II, and III.

³ See text for discussion of the present law and modified theoretical systems.

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

Sensitivity to ultimate total fertility rate assumptions

Appendix table F shows average expenditures over periods of 25, 50, and 75 years based on ultimate total fertility rates of 1.7, 1.9, 2.1, 2.3, and 2.5 children per woman; all other assumptions are the same as those included in the intermediate set. The table shows the cost under present law as well as under the modified theoretical system previously discussed.

As shown in appendix table F, over a 75-year period average expenditures as percent of taxable payroll of the old-age, survivors, and disability insurance system are highly sensitive to changes in fertility assumptions under both the present law and the modified theoretical systems.

Over the first 25-year period the average expenditures under either system would be lower if based on lower fertility and higher if based on higher fertility; however, the opposite effect exists over the entire 75-year period. The reason for this reversal of effect is that, under lower fertility, for example, the lower number of child's benefits that would be payable during the 25-year period is not offset by a lower

APPENDIX TABLE F.—ESTIMATED LONG-RANGE EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM AS PERCENT OF TAXABLE PAYROLL, UNDER ALTERNATIVE II AND UNDER VARIOUS FERTILITY ASSUMPTIONS

System ¹	Average expenditures as percent of taxable payroll ¹ assuming ultimate total fertility rate of ² —				
	1.7	1.9	2.1	2.3	2.5
25-yr period:					
Present law	12.22	12.24	12.24	12.26	12.26
Modified theoretical	11.94	11.94	11.96	11.96	11.98
50-yr period:					
Present law	15.96	15.75	15.54	15.36	15.19
Modified theoretical	14.06	13.88	13.72	13.58	13.45
75-yr period:					
Present law	21.00	20.03	19.19	18.45	17.80
Modified theoretical	16.76	16.06	15.45	14.91	14.44

¹ Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

² The total fertility rate is expressed in terms of children per woman. See text for further details of fertility projection. All other assumptions are given by alternative II.

³ See text for discussion of the present law and modified theoretical systems.

number of workers, since the workers in that period are affected by earlier fertility and not by the fertility assumptions of the early years of the projection period. Later in the projection period, however, the size of the working population is affected relatively more than the beneficiary population so that the lower number of workers results in a decrease in the size of the taxable payroll and hence an increase in the expenditures expressed as a percentage of taxable payroll.

It is significant to note from this table that, for the next 25-year period regardless of future fertility, the average expenditures of the old-age, survivors, and disability insurance system will be significantly higher than the tax rate of 9.9 percent of taxable payroll scheduled in present law. The excess of the expenditures over the tax rate ranges from 2.32 to 2.36 percentage points under present law and from 2.04 to 2.08 percentage points under the modified theoretical system.

Sensitivity to Consumer Price Index assumptions

Appendix table G shows the average expenditures over periods of 25, 50, and 75 years under assumptions of annual CPI increases of 2 percent, 4 percent, and 6 percent. In each case the ultimate real-wage differential is assumed to be 1¼ percent, yielding percentage increases in average annual wages of 3¼ percent, 5¼ percent and 7¼ percent respectively. The table indicates the expenditures under both present law and the modified theoretical system.

As shown in appendix table G the average expenditures of the old-age, survivors, and disability insurance system over the 75-year projection period under present law are highly sensitive to changes in CPI assumptions. However, under the modified theoretical system, those expenditures would be significantly less sensitive to CPI assumptions.

A significant element in appendix table G is that, for the next 25-year period, the average expenditures of the old-age, survivors, and disability insurance system will be similar (11.86 through 12.34

APPENDIX TABLE G.—ESTIMATED LONG-RANGE EXPENDITURES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM AS PERCENT OF TAXABLE PAYROLL, UNDER ALTERNATIVE II AND UNDER VARIOUS CONSUMER PRICE INDEX ASSUMPTIONS

[In percent]

System ^a	Average expenditures as percent of taxable payroll ¹ assuming ultimate wage-CPI increases of— ²		
	3¼—2	5¼—4	7¼—6
25-yr period:			
Present law	12.16	12.24	12.34
Modified theoretical	12.06	11.96	11.86
50-yr period:			
Present law	14.48	15.54	16.72
Modified theoretical	13.84	13.72	13.62
75-yr period:			
Present law	16.58	19.19	21.96
Modified theoretical	15.58	15.45	15.33

¹ Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

² The initial value in each pair refers to the assumed annual percentage increases in average wages after 1982. The second value refers to the assumed annual percentage increases in CPI after 1982. The assumptions used in the 1977-81 period were adjusted so as to gradually reflect the ultimate change. All other assumptions are given by alternative II.

³ See text for discussion of the present law and modified theoretical systems.

percent of taxable payroll) regardless of the CPI assumption or of a possible modification in the procedure for computing benefits.

Sensitivity to average real wage assumptions

Appendix table H shows the average expenditures over periods of 25, 50, and 75 years under assumptions of real-wage differentials of 1 percent, 1¼ percent and 2½ percent. In each case, the annual increases in the CPI are assumed to be 4 percent, thereby yielding annual increases in average wages of 5 percent, 5¾ percent, and 6½ percent, respectively. The table shows the expenditures under present law as well as under the modified theoretical system.

As shown in appendix table H, over the 75-year projection period the average expenditures of the old-age, survivors, and disability insurance system under present law are highly sensitive to changes in the real-wage differential, whereas under the modified theoretical system they are significantly less sensitive to such changes. Over the 75-year period under present law the average expenditures would vary by about 2 to 3 percent of taxable payroll for every 1 percent change in the real-wage differential. However, under the modified theoretical system those expenditures would only vary by about 0.5 to 0.6 percent of taxable payroll for every 1 percent change in the real-wage differential.

In all cases, the average expenditures over the next 25 years are higher than the tax rate of 9.9 percent of taxable payroll that is scheduled in present law for the period. The excess of the expenditures over the tax rate ranges from 1.52 to 3.29 percentage points under present law and from 1.57 to 2.61 percentage points under the modified theoretical system.

APPENDIX TABLE H.—ESTIMATED LONG-RANGE EXPENDITURES OF OLD-AGE, SURVIVORS AND DISABILITY INSURANCE PROGRAM AS PERCENT OF TAXABLE PAYROLL, UNDER ALTERNATIVE II AND UNDER VARIOUS REAL EARNINGS ASSUMPTIONS

(In percent)

System ¹	Average expenditures as percent of taxable payroll ¹ under ultimate earnings—CPI increases of ² —		
	5-4	5¾-4	6½-4
25 yr period:			
Present law	13.19	12.24	11.42
Modified theoretical	12.51	11.96	11.47
50 yr period:			
Present law	18.26	15.54	13.44
Modified theoretical	14.53	13.72	13.02
75 yr period:			
Present law	24.20	19.19	15.64
Modified theoretical	16.42	15.45	14.60

¹ Taxable payroll is adjusted to take into account the lower contribution rate on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

² The initial value in each pair refers to the assumed annual percentage increases in average earnings after 1982. The 2d value refers to the assumed annual percentage increases in CPI after 1982. The difference in the 2 values is approximately the annual increase in real earnings. The assumptions used in the 1977-82 period were adjusted appropriately. All other assumptions are given by alternative II.

³ See text for discussion of the present law and modified theoretical systems.

APPENDIX B.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY BENEFIT INCREASES¹

Pursuant to authority contained in section 215(i) of the Social Security Act (42 U.S.C. 415(i)), as amended by section 3 of Public Law 93-233, enacted December 31, 1973, and in section 1617 of the Social Security Act (42 U.S.C. 1382f), I hereby determine and announce a cost-of-living increase of 6.4 percent in benefits under the Social Security Act, title II effective June 1976 and title XVI effective July 1976; that the following revised table of benefits is deemed to appear in section 215(a) of the Act; that, with respect to benefits for transitional insured persons aged 72 and over entitled under section 227 of the Act (42 U.S.C. 427) and for uninsured persons aged 72 and over entitled under section 228 of the Act (42 U.S.C. 428), the amounts \$74.10 and \$37.10 are established and deemed to appear in sections 227 and 228, in lieu of the respective amounts of \$69.60 and \$34.80 that were established by the last cost-of-living increase; that, regarding the additional amount of the supplemental security income benefit with respect to essential persons payable under section 211 of Public Law 93-66, the amount of \$1,008.00 is established in lieu of the amount of \$946.80 that was in effect under section 211(a)(1)(A) of that law as a result of the last cost-of-living increase; and that, with respect to income limitations under the program of supplemental security income for the aged, blind, and disabled, the amounts of \$2,013.60 and \$3,021.60 are established in lieu of the respective amounts of \$1,892.40 and \$2,839.20 that were in effect under sections 1611(a)(1)(A), 1611(a)(2)(A), 1611(b)(1), and 1611(b)(2) of the Act, as a result of the last cost-of-living increase. (The last cost-of-living increase in benefits under titles II and XVI of the Social Security Act and in income limitations for beneficiaries under the Supplemental Security Income Program herein referred to was published on May 22, 1975, at 40 FR 22289.)

AUTOMATIC BENEFIT INCREASE DETERMINATION

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

Section 215(i)(2)(A) of the Act provides that the Secretary shall determine each year, beginning with 1975, whether there is a cost-of-living computation quarter in such year. If he so determines, such sub-

¹ This statement was published in the Federal Register for May 14, 1976 (Vol. 41, No. 95, pp. 19999-20001).

section also provides that he shall, effective with June of that year, increase benefits for individuals entitled under sections 227 and 228 of the Act, and that he shall increase the primary insurance amounts of all other individuals entitled to benefits under title II of the Act (excluding primary insurance amounts determined under section 215(a)(3)). The subsection further provides that the percentage of increase in benefits shall be equal to the percentage of increase by which the Consumer Price Index for the cost-of-living computation quarter exceeds the Index for the most recent prior base quarter or cost-of-living computation quarter.

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

The Consumer Price Index prepared by the Department of Labor for each month in the quarter ending March 31, 1976 was: For January 1976, 166.7; for February 1976, 167.1, for March 1976, 167.5. The arithmetical mean for the calendar quarter ending March 31, 1976, is thus 167.1. This result is to be compared to the last prior cost-of-living computation quarter, which was the quarter ending March 31, 1975. The Consumer Price Index prepared by the Department of Labor for each month in that quarter was: For January 1975, 156.1; for February 1975, 157.2, for March 1975, 157.8. The arithmetical mean for the calendar quarter ending March 31, 1975, is thus 157.0. Comparing this result to the arithmetical mean for the calendar quarter ending March 31, 1976, yields an increase of 6.4 percent. Thus, since the percentage of increase in the Consumer Price Index from the calendar quarter ending March 31, 1975, to the calendar quarter ending March 31, 1976, is not less than 3 percent, the quarter ending March 31, 1976, is a cost-of-living computation quarter. Consequently, a cost-of-living benefit increase of 6.4 percent is effective for benefits under title II of the Act for June 1976.

TITLE II BENEFITS

In accordance with section 215(i)(2)(D)(iv) of the Act, the primary insurance amounts and the maximum family benefits shown in columns IV and V, respectively, of the revised benefit table set forth in this announcement were obtained by increasing by 6.4 percent the corresponding amounts shown in the benefit table heretofore established by the last cost-of-living increase and further extended, by the operation

of section 215(i)(2)(D)(v), as a result of the increase in the contribution and benefit base determined in 1975 under section 230 of the Act and published on October 30, 1975, at 40 FR 50556. With respect to benefits for persons entitled under sections 227 and 228 of the Act, the amounts of \$69.60 and \$34.80 heretofore established, were increased by 6.4 percent to obtain the new amounts of \$74.10 and \$37.10, respectively.

TITLE XVI BENEFITS

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

In accordance with section 1617, benefit amounts under the program of supplemental security income for the aged, blind, and disabled and the maximum amounts of income, other than income excluded under section 1612(b), under the program of supplemental security income for the aged, blind, and disabled, of \$1,892.40 and \$2,839.20 heretofore established are increased effective July 1976, by 6.4 percent to obtain the new amounts of \$2,013.60 and \$3,021.60, respectively. With respect to the amount of the additional supplemental security income benefit with respect to essential persons payable under section 211(a)(1)(A) of Pub. Law 93-66, the amount of \$946.80 heretofore established is increased by 6.4 percent to obtain the new amount of \$1008.00. (Catalog of Federal Domestic Assistance Programs Nos. 13.802-5, and 13.807 Social Security Programs.)

Dated: May 7, 1976.

MARJORIE LYNCH,
Acting Secretary.

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

APPENDIX C.—DETERMINATION AND ANNOUNCEMENT
OF SOCIAL SECURITY CONTRIBUTION AND BENEFIT
BASE AND RETIREMENT TEST EXEMPT AMOUNT
FOR 1977 ¹

Pursuant to authority contained in sections 203(f)(8) and 230 of the Social Security Act (42 U.S.C. 403(f)(8) and 430), as amended by section 8 (h) and (i) of Public Law 94-202, enacted January 2, 1976, I hereby determine and announce that the contribution and benefit base with respect to remuneration paid in, and taxable years beginning in 1977 shall be \$16,500 and the monthly exempt amount under the retirement test shall be \$250 with respect to taxable years ending in calendar year 1977.

There follows a statement of the actuarial bases employed in arriving at the amounts of \$250 and \$16,500 for the retirement test monthly exempt amount and the contribution and benefit base, respectively, for the calendar year 1977.

In determining each of the 1977 amounts, the law specifies a formula 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 1977 shall be equal to the 1976 amount of \$230 multiplied by the ratio of (1) the average amount, per employee, of the taxable wages of all employees reported under the program for the first calendar quarter of 1975 to (2) the average amount of such wages reported for the first calendar quarter of 1974. 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.

Similarly, section 230 of the Social Security Act provides that the contribution and benefit base for 1977 shall be equal to the 1976 amount of \$15,300 multiplied by the ratio of (1) the average amount, per employee, of the taxable wages of all employees reported under the program for the first calendar quarter of 1975 to (2) the average amount of such wages reported for the first calendar quarter of 1974. The section further provides that if the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

The data used to make the necessary computations of such average taxable wages were derived from reports submitted to the Social Security Administration of taxable wages paid to employees by their employers. Each quarter, taxable wages are posted to the record of earnings of each individual employee for whom wages were reported. These records are referred to hereinafter as Summary Earnings Records. As the wages were posted to the Summary Earnings Records, the data were tabulated on a 100-percent basis to obtain the total amount of reported taxable wages and the total number of employees for whom such wages were reported. The tabulated data on taxable wages reported for the first calendar quarter of each year 1974 and 1975 were limited to those wages that were reported and posted to the

¹ This statement was published in the Federal Register for Oct. 13, 1976 (Vol. 41, No. 199, pp. 44878-9).

Summary Earnings Records by the end of the quarterly updating operations completed in September of the same year.

About 71.1 million employees had taxable wages reported for the first calendar quarter of 1974 that were posted to the Summary Earnings Records by the end of September 1974, and the average amount of their taxable wages was \$2,007.69 per employee. The corresponding number of employees and average amount of taxable wages for the first calendar quarter of 1975 were 70.6 million and \$2,157.73, respectively. The ratio of average taxable wages reported for the first quarter of 1975 to average taxable wages reported for the first quarter of 1974 is therefore 1.074733.

Multiplying the 1976 retirement test monthly exempt amount of \$230 by the ratio of 1.074733 produces the amount of \$247.19, which must then be rounded to \$250. Accordingly, the retirement test exempt amount for taxable years ending in calendar year 1977 is \$250 on a monthly basis, or \$3,000 on an annual basis.

Multiplying the 1976 contribution and benefit base of \$15,300 by the ratio of 1.074733 produces the amount of \$16,443.41, which must then be rounded to \$16,500. Accordingly, the contribution and benefit base for remuneration paid in, and taxable years beginning in, calendar year 1977 is \$16,500.

The following is an extension of the Table for Determining Primary Insurance Amount and Maximum Family Benefits provided in section 215(a) of the Social Security Act. This extension reflects the new higher average monthly wage and related benefit amounts now possible under the increased contribution and benefit amounts promulgated herein effective January 1977 in accordance with section 215(i) of the Social Security Act.

TABLE FOR DETERMINING PRIMARY INSURANCE AMOUNT AND MAXIMUM FAMILY BENEFITS BEGINNING JANUARY 1977

I	II	III	IV	V	
(Primary insurance benefit under 1939 Act, as modified)	(Primary insurance amount effective for June 1975)	(Average monthly wage)	(Primary insurance amount)	(Maximum family benefits)	
If an individual's primary insurance benefit (as determined under subsec. (d)) is—	Or his primary insurance amount (as determined under subsec. (c)) is—	Or his average monthly wage (as determined under subsec. (b)) is—	The amount referred to in the preceding paragraphs of this subsection shall be—	And the maximum amount of benefits payable (as provided in sec. 203(a)) on the basis of his wages and self-employment income shall be—	
But not more than—	But not more than—	But not more than—			
At least—	At least—	At least—			
		\$1, 276	\$1, 280	\$578. 60	\$1, 012. 60
		1, 281	1, 285	579. 60	1, 014. 30
		1, 286	1, 290	580. 60	1, 016. 10
		1, 291	1, 295	581. 60	1, 017. 80
		1, 296	1, 300	582. 60	1, 019. 60
		1, 301	1, 305	583. 60	1, 021. 30
		1, 306	1, 310	584. 60	1, 023. 10
		1, 311	1, 315	585. 60	1, 024. 80
		1, 316	1, 320	586. 60	1, 026. 60
		1, 321	1, 325	587. 60	1, 028. 30
		1, 326	1, 330	588. 60	1, 030. 10
		1, 331	1, 335	589. 60	1, 031. 80
		1, 336	1, 340	590. 60	1, 033. 60
		1, 341	1, 345	591. 60	1, 035. 30
		1, 346	1, 350	592. 60	1, 037. 10
		1, 351	1, 355	593. 60	1, 038. 80
		1, 356	1, 360	594. 60	1, 040. 60
		1, 361	1, 365	595. 60	1, 042. 30
		1, 366	1, 370	596. 60	1, 044. 10
		1, 371	1, 375	597. 60	1, 045. 80

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

Dated: October 7, 1976.

DAVID MATHEWS,
Secretary.

