

FEDERAL OLD-AGE AND SURVIVORS  
INSURANCE TRUST FUND

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LETTER

FROM THE

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

TRANSMITTING

PURSUANT TO LAW THE ELEVENTH ANNUAL REPORT  
OF THE BOARD OF TRUSTEES OF THE  
FEDERAL OLD-AGE AND SURVIVORS  
INSURANCE TRUST FUND



JUNE 13 (legislative day, MAY 17), 1951.—Referred to the Committee  
on Finance

JUNE 18 (legislative day, MAY 17), 1951.—Ordered to be printed, with  
an illustration

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UNITED STATES  
GOVERNMENT PRINTING OFFICE



## LETTER OF TRANSMITTAL

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BOARD OF TRUSTEES OF THE FEDERAL  
OLD-AGE AND SURVIVORS INSURANCE TRUST FUND,  
*Washington, D. C., March 1, 1951.*

The PRESIDENT OF THE SENATE,  
The SPEAKER OF THE HOUSE OF REPRESENTATIVES,  
*Washington, D. C.*

SIRS: We have the honor to transmit to you the Eleventh Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund, in compliance with the provisions of section 201 (b) of the Social Security Act, as amended.

Respectfully,

JOHN W. SNYDER,  
*Secretary of the Treasury,  
and Managing Trustee of the Trust Fund.*

MAURICE J. TOBIN,  
*Secretary of Labor.*

OSCAR R. EWING,  
*Federal Security Administrator.*



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

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## INTRODUCTORY STATEMENT

The Federal old-age and survivors insurance trust fund was established on January 1, 1940, under the provisions of section 201 of the Social Security Act, as amended. The fund is held by the Board of Trustees comprised of three ex officio members: the Secretary of the Treasury, who is also the managing trustee; the Secretary of Labor; and the Federal Security Administrator. Under the Social Security Act Amendments of 1950 the Commissioner for Social Security serves as secretary of the Board of Trustees. This report is submitted jointly by the three trustees.

As required by law, the report describes the operations of the trust fund during the fiscal year ended June 30, 1950, the expected receipts and disbursements during the five fiscal years following that date, and the long-range actuarial status of the fund. It also discusses the far-reaching effects of the 1950 amendments on the future operations of the trust fund.

Because the 1950 amendments were enacted after the close of the fiscal year reviewed in this report, the operations of the trust fund during the year reflect revenues and outlays for the contribution, coverage, and benefit structure of the program as provided by the Social Security Act before these amendments. As provided by amendments enacted in 1947, however, the contribution rates for employers and employees rose from 1.0 percent to 1.5 percent each on January 1, 1950—in the middle of the fiscal year under review. For this reason, and also because of a change to a method of collecting contributions on a more current basis, receipts for the last half of the fiscal year were almost 50 percent higher than those for the first half.

Although employment and earnings in fiscal year 1950 showed only slight changes from the 1949 levels on an over-all yearly basis, the economic trends ran opposite in the two fiscal years. Fiscal year 1949 started at the highest level of economic activity in the country's peacetime history, but both employment and payrolls dropped during the year. On the other hand, employment and earnings rose during fiscal 1950, and by June 1950 the economy was operating at peak levels. For the years as a whole, total civilian employment in fiscal year 1950 averaged 59.0 million, or only slightly below the all-time peak of 59.2 million reached in 1949. Average civilian employment in the last 6 months of fiscal year 1950 was slightly higher than the corresponding average for fiscal year 1949, and average nonagricultural employment for the 12 months of fiscal 1950 was about one-half

of 1 percent higher than in 1949. Unemployment, which averaged 2.6 million in 1949, averaged 3.7 million in fiscal year 1950 but the number unemployed was decreasing fairly rapidly toward the end of the year.

Payrolls in civilian employment totaled \$131.5 billion in fiscal year 1950, about \$0.6 billion below the previous all-time peak reached in 1949. In the second half of fiscal 1950, civilian payrolls were higher than in the corresponding 6 months of the preceding year by about \$1.6 billion. The total of wages taxable under old-age and survivors insurance, amounting to \$83.8 billion in fiscal year 1950, was less than 1 percent below the all-time high reached in fiscal year 1949. The number of workers receiving wage credits under old-age and survivors insurance averaged close to 38 million per quarter in 1950, a decrease of about 2 percent from fiscal year 1949.

These economic conditions directly affected both the receipts and disbursements of the trust fund in fiscal year 1950. Nevertheless, appropriations to the trust fund increased to an all-time high of \$2.1 billion, or 25 percent above 1949, as a result of the higher contribution rate that became effective on January 1, 1950, and a change to a method of collecting contributions on a more current basis. Benefit payments rose at a somewhat slower rate than revenues—by about one-fifth—to a total of \$727,266,000. The total number of monthly beneficiaries in June 1950 was 2,930,000, or 15 percent more than in June 1949. Retirement beneficiaries (including entitled wives and children of primary beneficiaries) numbered 1,839,000 in June 1950, or 17 percent more than 1 year earlier. There were 1,091,000 survivor beneficiaries in June 1950, or 11 percent more than in June 1949. During the fiscal year the trust fund received interest of \$256,778,000, and increased its assets to a total of \$12,892,612,000.

Hostilities in Korea began so late in the fiscal year under review that their economic consequences were not yet reflected in trust fund operations. These military activities and the defense preparations, however, will have far-reaching effects on the operations of the trust fund, both short-range and long-range. These effects resulting, for example, from higher money earnings in covered employment, increased employment of women, and the deferred retirement of older workers, cannot be fully appraised at this time, but as far as possible they are taken into account in this report. The report also takes full cognizance of the important changes in coverage, eligibility, and benefit amounts resulting from the enactment of the 1950 amendments, as well as the new contribution schedule under these amendments and the special provisions for veterans.

It is difficult to foresee economic developments over the next 5 years, and therefore the assumptions on which the Board has based its estimates of the expected operations of the trust fund during this period are subject to many uncertainties. In many respects developments over the much longer period covered by the discussion of the actuarial status of the trust fund are even more uncertain. The detailed report that follows, therefore, should be read with full recognition of the difficulties of estimating future trust fund income and disbursements under constantly shifting economic conditions.

## SOCIAL SECURITY ACT AMENDMENTS OF 1950

The 1950 amendments to the Social Security Act (Public Law 734, 81st Cong.), which represented the first major legislative changes in the old-age and survivors insurance program since enactment of the 1939 amendments, became law shortly after the close of the fiscal year ending June 30, 1950. These changes in the law will have far-reaching effects on the level and incidence of income and disbursements of the trust fund both in the immediate and long-term future. Coverage was extended to a number of classes of employees as well as to most nonagricultural self-employed persons hitherto excluded. The requirements necessary to qualify for receipt of benefits were relaxed greatly. Benefit amounts payable to present and future beneficiaries were increased substantially. The schedule of contribution rates was revised to yield larger amounts of future contribution income with a view not only to meeting the higher benefit outlays of the liberalized program but also to making the system self-supporting.

The more important changes significant from an actuarial standpoint will now be presented in greater detail.

1. Coverage was extended compulsorily to nearly 8 million additional persons, including regularly employed domestic and farm workers; Federal employees not covered under the civil-service retirement program; the nonfarm self-employed other than doctors, lawyers, engineers, and members of certain other professional groups; workers and the self-employed in Puerto Rico and the Virgin Islands; and a few other small occupational classes. In addition, two categories of wage earners were given the opportunity to be covered on a voluntary basis—employees of nonprofit institutions and employees of State and local governments who are not under retirement systems. Assuming that virtually all employees eligible for coverage on a voluntary basis elect such coverage, about 75 percent of the gainfully employed in this country will be covered by the old-age and survivors insurance program. Table 1 presents estimates of the number of persons in the newly covered groups.

TABLE 1.—Estimated coverage under the 1950 amendments

Category	Number covered <sup>1</sup>
Total covered.....	44, 800, 000
Former coverage.....	35, 000, 000
Increase under compulsory coverage.....	7, 750, 000
Nonfarm self-employed.....	4, 700, 000
Agricultural workers:	
Borderline employment.....	200, 000
Regularly employed on farms.....	650, 000
Domestic workers.....	1, 000, 000
Federal civilian employees not under retirement system.....	250, 000
Employees outside the United States.....	150, 000
Employment in Puerto Rico and Virgin Islands.....	400, 000
New definition of "employee".....	400, 000
Increase under voluntary coverage.....	2, 050, 000
Employees of nonprofit organizations.....	600, 000
Employees of State and local governments.....	<sup>2</sup> 1, 450, 000

<sup>1</sup> Represents average number of persons covered during a week.

<sup>2</sup> Excludes a relatively small number of transit workers who are compulsorily covered.

2. Benefits will henceforth be paid in circumstances in which no benefits would formerly have been paid.

(a) The requirements for fully insured status were liberalized by introducing a new starting date for determining such status. This "new start" enables many persons at least 65 years of age who did not meet the former requirements to become immediately eligible to receive retirement benefits. It also removes the disadvantage the newly covered groups would otherwise have faced in acquiring eligibility.

(b) Provisions defining dependency were modified to permit the payment of benefits to all unmarried children under 18 years of age whose mothers were currently insured at time of death.

(c) Several new benefits for dependents and survivors of insured persons were added. Benefits equal to 50 percent of the primary insurance amount are payable to a wife, under 65 years of age, of an old-age (primary) beneficiary as long as she has in her care a child entitled to benefits on her husband's earnings. In certain instances benefits are payable to the dependent husband, aged 65 or over, of a retired female beneficiary, and also to the aged surviving dependent widower of a deceased woman worker. Husband's and widower's benefits are equal to 50 and 75 percent, respectively, of the primary insurance amount.

(d) The provisions governing the withholding of benefits because of work in covered employment were liberalized. Eligible persons at least 75 years of age can receive benefits regardless of the amount of their earnings in covered employment. Those under 75 years of age may earn as much as \$50 a month in covered employment and still receive benefits.

(e) Lump-sum death benefits will be paid even though monthly benefits would be payable to survivors for the month in which the wage earner died.

(f) Monthly benefits will be paid retroactively for a period up to 6 months prior to the month in which an application was filed provided the beneficiary was eligible therefor.

3. Larger benefits will be paid to future beneficiaries as well as to persons on the rolls.

(a) The maximum amount of annual taxable earnings was raised to \$3,600.

(b) For persons having at least 6 quarters of coverage after 1950, the average monthly wage may be calculated over all years after 1936 or after 1950, whichever yields the larger primary insurance amount, except that in the case of individuals born after 1928, the 1950 starting date must be used.

(c) For persons whose average monthly wage is calculated on the basis of wages and self-employment income after 1950, the monthly primary insurance amount will be 50 percent of the first \$100 of average monthly wage, plus 15 percent of the next \$200. The minimum primary insurance amount ranges from \$25 for persons with average monthly wages between \$35 and \$50, down to \$20 for persons with average monthly wages below \$31.



(d) For persons already on the beneficiary rolls, benefits were increased by means of a conversion table contained in the new amendments. This table increased primary insurance benefits by 77½ percent, on the average, with a range of 100 percent for the smallest benefit to 50 percent for the largest benefit. Where the wage earner lacks 6 quarters of coverage after 1950, benefits to future beneficiaries will be based on an average monthly wage computed over all years after 1936. In all cases where the average monthly wage is computed over all years after 1936, including cases referred to in subparagraph (b) above, the old benefit formula will be used, except that no 1 percent increment will be included for years after 1950. The amounts so computed are then increased by means of the conversion table.

(e) Parent's benefits were increased to 75 percent of the primary insurance amount. Child-survivor benefits were increased to the sum of (1) 50 percent of the primary insurance amount, and (2) 25 percent of the primary insurance amount, divided equally among all child beneficiaries in the family. The amount of the lump-sum death payment was changed to three times the primary insurance amount.

(f) The maximum monthly amount of family benefits payable with respect to one wage record is the smaller of \$150 or 80 percent of the average monthly wage, provided that the latter limit may not reduce benefits below \$40.

4. Wage credits of \$160 a month are given to persons for each month of service in World War II, unless benefits (other than ordinary veteran's benefits) based on such service are payable by another Federal retirement system. No provision is made to reimburse the trust fund from the general funds of the Treasury for the additional costs arising from such wage credits. Accordingly these additional costs will be borne by the trust fund.

The survivorship protection provided to certain World War II veterans by the Social Security Act Amendments of 1946 has been continued by the present amendments. However, the additional costs of these benefits which formerly were met from general funds will, effective September 1, 1950, be borne by the trust fund.

5. Contribution rates for employees and employers will be 1½ percent each on taxable wages for calendar years 1951-53; 2 percent each for calendar years 1954-59; 2½ percent each for calendar years 1960-64; 3 percent each for calendar years 1965-69; and 3¼ percent each thereafter. The contribution rates on self-employment income are equal to one and one-half times the corresponding employee rates.

The provision which was added to the Social Security Act in 1943 authorizing appropriations to the trust fund from general revenues was eliminated.

Table 2 presents, on a level premium basis, an estimate of the increases in cost, expressed as a percent of payroll, arising from the major changes in the program.

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TABLE 2.—Estimated level-premium costs as percent of payroll by specified change in law<sup>1</sup>

Item	Level-premium cost (percent)
Cost of benefits under old law	4.50
Effect of changes:	
Benefit formula	+1.60
New benefit percentages <sup>2</sup>	+3.75
New average monthly wage basis	+.05
Reduction in increment	-2.00
Increase in wage base	-.20
Liberalized eligibility conditions	+.10
Liberalized work clause	+.15
Revised lump-sum death payment	-.05
Additional dependents' benefits <sup>3</sup>	+.15
Extension of coverage	-.35
Cost of benefits under amendments	6.10
Administrative costs	+.15
Interest on trust fund at end of 1950	-.20
Net level-premium cost under amendments	6.05

Source: Actuarial Cost Estimates for the Old-Age and Survivors Insurance System as Modified by the Social Security Act Amendments of 1950, prepared for the use of the Committee on Ways and Means by Robert J. Myers, actuary to the committee, dated July 27, 1950.

<sup>1</sup> Figures relate only to benefit payments after 1950 and represent an intermediate estimate that is subject to a significant range because of the possible variation in the cost factors involved in the future. Computations are based on a compound interest rate of 2 percent per annum. The order in which these various changes are considered in this table affects the amount of the increase in cost to be attributed to a specific element.

<sup>2</sup> Includes effect of minimum and maximum benefit provisions.

<sup>3</sup> Includes higher rate for the first survivor child and for parents, more liberal eligibility conditions for determining child dependency on married women workers, wife's benefits for wives under age 65 with children, and husband's and widower's benefits.

## NATURE OF THE TRUST FUND

Amounts accumulated under the old-age and survivors insurance program are held in the Federal old-age and survivors insurance trust fund, and financial operations under the program are handled through this fund. The primary source of the fund's receipts is amounts appropriated to or deposited in it under permanent appropriation on the basis of contributions paid by workers and their employers, and by individuals with self-employment income, in employments covered by the old-age and survivors insurance program. All employees and their employers in employments covered by the Federal Insurance Contributions Act or under State agreements made pursuant to section 218 of the Social Security Act, as amended, are required to pay contributions with respect to the wages of individual workers. All individuals with self-employment income covered by subchapter E of chapter 1 of the Internal Revenue Code are required to pay contributions with respect to their self-employment income. Wages or self-employment income, or their combined sum, in excess of \$3,600 in any one year are disregarded in computing the amount of an individual's contributions.

Except for amounts received by the Secretary of the Treasury under State agreements, all contributions are collected by the Bureau of Internal Revenue and are paid into the Treasury as internal-revenue collections. Sums equivalent to 100 percent of the contributions paid to or deposited into the Treasury are transferred to the trust fund from time to time on the basis of estimates made by the Secretary of the Treasury. Proper adjustments are made periodically

to the extent that the estimates are subsequently found to differ from the actual amounts of contributions payable.

Although the Social Security Act of 1935 fixed the contribution rates for employees and their employers at 1 percent each on taxable wages for the calendar years 1937-39 and provided for higher rates thereafter, subsequent acts of Congress extended the 1-percent rates through calendar year 1949. On January 1, 1950, the rates rose to 1½ percent each for employees and employers, in accordance with the provisions of the Social Security Act Amendments of 1947. The Social Security Act Amendments of 1950 provide that these 1½-percent rates shall remain in effect through calendar year 1953, and that the rates shall rise to 2 percent each on January 1, 1954, to 2½ percent each on January 1, 1960, to 3 percent each on January 1, 1965, and to 3¼ percent each on January 1, 1970. Beginning January 1, 1951—the effective date of extension of coverage to self-employed persons—the rates of tax on self-employment income are equal to one and one-half times the corresponding employee rates.

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

The Social Security Act Amendments of 1946 added section 210 to the Social Security Act. This section provided survivorship protection to certain World War II veterans for a period of 3 years following their discharge from the Armed Forces. Section 210 (d) authorized Federal appropriations to reimburse the Federal old-age and survivors insurance trust fund for such sums as were withdrawn to meet the additional cost (including administrative expenses) of the payments to survivors of World War II veterans under this section. Under the Social Security Act Amendments of 1950 this survivorship protection was continued, but the resulting additional cost was to be met from the trust fund beginning September 1, 1950.

Public Law 642, enacted June 14, 1948, which amended the definition of the term "employee" as used in the Social Security Act, resulted in the exclusion from coverage of certain services previously held covered under title II of the act. While the amended definition was made retroactive to August 14, 1935, certain wage credits established under the former definition will remain credited to the individual's account. The law authorizes an appropriation to the trust fund from general revenues equal to the estimated total amount of benefits paid and to be paid under title II of the Social Security Act that would not have been paid had the amended definition been in effect beginning August 14, 1935.

Expenditures for benefit payments and administrative expenses under the old-age and survivors insurance program are paid out of the trust fund. These expenditures for the fiscal year ended 1946 and previous years included such reimbursements to the Treasury for administrative expenses incurred under the program as were authorized by section 201 (f) of the act. Successive acts of Congress have modified the procedures in accounting for these expenses. Thus, during fiscal years 1947 and 1948 progressively increasing portions of the program's administrative expenses incurred by the Federal Security Agency were charged directly to the trust fund and not reimbursed from the fund as they had been in the preceding fiscal years. Beginning with fiscal year 1949, all expenses incurred by all offices of the Federal Security Agency in carrying out the provisions of title II of the Social

Security Act, as amended, are charged directly to the trust fund. Under the President's Reorganization Plan No. 2, effective July 16, 1946, the Federal Security Administrator certifies benefit payments to the managing trustee, who makes the payments from the trust fund in accordance therewith. Prior to July 16, 1946, certifications for payments were made by the Social Security Board. Payments are made from an uninvested balance held in the fund to the account of the disbursing officer of the Treasury.

With respect to wages paid prior to 1951, refunds to employees who worked for more than one employer during the course of a year and paid contributions on such wages in excess of the statutory maximum, were made from general revenues. With respect to wages paid after December 31, 1950, these refunds will be paid from the Treasury account for refunding internal revenue collections. The Social Security Act Amendments of 1950 direct the managing trustee to pay from time to time from the trust fund into the Treasury as repayments to the account for refunding internal revenue collections the amount estimated by him to be contributions which are subject to refund with respect to wages paid after December 31, 1950.

The managing trustee invests that portion of the trust fund which, in his judgment, is not required to meet current expenditures for benefits or administration. The Social Security Act restricts permissible investments of the trust fund to interest-bearing obligations of the United States Government or to obligations guaranteed as to both principal and interest by the United States. Regular obligations of these types may be acquired on original issue at par or by purchase of outstanding obligations at their market price. In addition, the Social Security Act authorizes the issuance of special obligations exclusively to the trust fund. Such special obligations are required to bear interest at a rate equal to the average rate of interest, computed as of the end of the calendar month next preceding the date of their issue, borne by all interest-bearing obligations of the United States forming a part of the public debt (where such average rate is not a multiple of one-eighth of 1 percent, the rate of interest on such special obligations is required to be the multiple of one-eighth of 1 percent next lower than such average rate).

Interest on regular obligations held by the trust fund is received by the fund at the time the interest becomes payable on the particular series held. Interest on special obligations is received semiannually on June 30 and December 31. Regular obligations acquired by the fund may be sold at any time by the managing trustee at their market price. Special obligations may be redeemed at par plus accrued interest. Interest receipts and proceeds from the sale or redemption of obligations held in the trust fund are available for investment in the same manner as other receipts of the fund.

Interest earned by the invested assets of the trust fund will provide income to meet a portion of the benefit disbursements, which are expected to increase markedly over a long period. Such a substantial increase is anticipated both because the number of persons aged 65 and over will be increasing for many decades, and because an increasing proportion of such aged persons will be qualifying for benefits under the old-age and survivors insurance system.

On June 30, 1950, there were about 12,400,000 persons aged 65 and over, a number equivalent to 8 percent of the total population. It is estimated that by the end of 50 years the number of persons

aged 65 and over may be 1½ to 2¼ times as large as on June 30, 1950, and represent from 10 to 16 percent of the population. The effect on the finances of the old-age and survivors insurance system of this expected change in the number of aged persons will be even greater than may at first appear because, compared with the present situation, a much larger proportion of aged persons 50 years hence is expected to be eligible to receive benefits under the program. The future financial soundness of this system, with its rising rate of disbursements, is of the utmost importance to the millions of persons who are already within its scope and to the Nation as a whole.

The trust fund, furthermore, serves in part as a reserve against short-run fluctuations in total contribution and benefit amounts, providing a margin of safety against relatively short-term contingencies to insure the payment of benefits without sharp changes in rates paid by contributors. These reserves will provide additional resources against a sudden increase in total benefit amounts or a sharp decline in contributions, both of which could occur simultaneously during any reversal in business activity.

SUMMARY OF OPERATIONS OF TRUST FUND, FISCAL YEAR 1950

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, 1949, and ended on June 30, 1950, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 3.

TABLE 3.—Statement of operations of the Federal old-age and survivors insurance trust fund during the fiscal year 1950<sup>1</sup>

Total assets of the trust fund, June 30, 1949.....		\$11,309,049,287.58
Receipts, fiscal year 1950:		
Appropriations equivalent to contributions collected.....	\$2,106,387,805.50	
Transfers from general fund.....	3,604,000.00	
Interest and profits on investments.....	256,778,439.42	
Total receipts.....	<u>2,366,770,244.92</u>	
Disbursements, fiscal year 1950:		
Benefit payments.....	727,266,479.24	
Administrative expenses.....	56,841,237.61	
Total disbursements.....	<u>784,107,716.85</u>	
Net addition to trust fund.....		<u>1,582,662,528.07</u>
Total assets of the trust fund, June 30, 1950.....		12,892,611,815.65

<sup>1</sup> On the basis of the Daily Statement of the U. S. Treasury.

The total receipts of the trust fund during the fiscal year 1950 amounted to \$2,366.8 million. Of this total, \$2,106.4 million represented the sum of the amounts equal to contributions received under the Federal Insurance Contributions Act and covered into the Treasury, which were appropriated to the trust fund during the year under the continuing appropriation in section 201 (a) of the Social Security Act, as amended. The total amount appropriated represented a 25-percent increase over appropriations in the preceding fiscal year. This large increase resulted from the combined influence of collecting a substantial proportion of contributions monthly rather than quarterly (a method instituted in January 1950) and the increase in the contribution rate. The additional \$260.4 million of receipts consisted of \$256.8 million of interest and profits on investments of the fund and \$3.6 million transferred from general funds of the Treasury in accordance with section 210 (d) of the Social Security Act, as

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amended in 1946 and in effect prior to the enactment of the Social Security Act Amendments of 1950.

Disbursements from the trust fund during the fiscal year 1950 totaled \$784.1 million, of which \$727.3 million consisted of benefit payments, and \$56.8 million for administrative expenses of the insurance program. The total amount of benefits paid during the fiscal year exceeded benefits paid in the fiscal year 1949 by 20 percent, the increase reflecting primarily the larger number of persons drawing benefits. A summary of receipts and disbursements of the old-age and survivors insurance trust fund during each of the 10 years from July 1, 1940, through June 30, 1950, is presented in table 4.

The ratio of administrative expenditures of the fund to contributions collected and benefits paid is shown in table 5.

TABLE 4.—Operations of the old-age and survivors insurance trust fund by specified period, Jan. 1, 1940, to June 30, 1950

[In millions]

	Fiscal year ended in --										
	1940 <sup>1</sup>	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
<b>Receipts:</b>											
Appropriations equivalent to contributions collected	\$1,724	\$688	\$896	\$1,130	\$1,292	\$1,310	\$1,238	\$1,459	\$1,616	\$1,690	\$2,106
Transfers from general fund <sup>2</sup>								(0)	1	3	4
Interest on investments	12	56	71	87	102	124	148	163	191	\$ 230	\$ 257
<b>Total receipts<sup>3</sup></b>	<b>1,767</b>	<b>744</b>	<b>967</b>	<b>1,218</b>	<b>1,395</b>	<b>1,434</b>	<b>1,386</b>	<b>1,623</b>	<b>1,807</b>	<b>1,924</b>	<b>2,367</b>
<b>Disbursements:</b>											
Benefit payments	10	64	110	149	185	240	321	426	512	607	727
Administrative expenses	12	27	27	27	33	27	37	41	47	53	57
<b>Total disbursements<sup>4</sup></b>	<b>22</b>	<b>91</b>	<b>137</b>	<b>177</b>	<b>217</b>	<b>267</b>	<b>358</b>	<b>466</b>	<b>559</b>	<b>661</b>	<b>784</b>
<b>Total assets at end of period</b>	<b>1,745</b>	<b>2,398</b>	<b>3,227</b>	<b>4,268</b>	<b>5,416</b>	<b>6,613</b>	<b>7,611</b>	<b>8,798</b>	<b>10,017</b>	<b>11,310</b>	<b>12,893</b>

<sup>1</sup> January-June 1940, fund having been established in place of old-age reserve account on Jan. 1, 1940.  
<sup>2</sup> Represents assets transferred from old-age reserve account on Jan. 1, 1940; appropriations equivalent to contributions collected became effective July 1, 1940; appropriations authorized under sec. 201 (a) of the Social Security Act of 1935 were made prior to Jan. 1, 1940.  
<sup>3</sup> To meet the additional costs of benefits to survivors of certain World War II veterans as defined in title II of the Social Security Act Amendments of 1946.  
<sup>4</sup> Less than \$0.5 million.  
<sup>5</sup> Includes profits on marketable investments amounting to \$138,668 in fiscal year 1949, and \$8,934 in fiscal year 1950.  
<sup>6</sup> Totals do not necessarily represent the sum of rounded components.  
<sup>7</sup> Includes some reimbursements applicable to outlays in other fiscal years.  
<sup>8</sup> Adjusted for overreimbursements in prior years.

TABLE 5.—Relationship of administrative charges against old-age and survivors insurance trust fund to old-age and survivors insurance contributions and benefit payments

Fiscal year	Administrative charges against the OASI trust fund as a percentage of --		Fiscal year	Administrative charges against the OASI trust fund as a percentage of --	
	OASI contributions collected	Benefit payments		OASI contributions collected	Benefit payments
1941.....	3.0	41.7	1946.....	3.0	11.7
1942.....	3.0	24.3	1947.....	2.8	9.6
1943.....	2.4	18.4	1948.....	2.9	9.3
1944.....	2.5	17.7	1949.....	3.2	8.8
1945.....	2.1	11.2	1950.....	2.7	7.8

The distribution of benefit payments in fiscal years 1949 and 1950 by type of benefit is shown in table 6. Approximately 75 percent of the total benefit payments from the fund in the fiscal year 1950 were accounted for by monthly benefits to persons aged 65 or over—retired wage earners and their wives, and aged widows and parents of deceased wage earners. Approximately 20 percent of the 1950 benefit payments represented monthly benefits on behalf of children of deceased or retired workers and payments to widows—practically all of them under age 65—who had children of deceased wage earners in their care. The balance of the benefits paid in the fiscal year 1950 consisted almost entirely of lump-sum amounts in cases where no survivor of an insured wage earner dying after 1939 was immediately entitled to monthly benefits.

The total of \$727.3 million paid in benefits during fiscal year 1950 includes \$2.8 million for additional monthly benefits and \$0.2 million for additional lump sums paid under section 210 to survivors of certain deceased World War II veterans. Under the provisions of the Social Security Act Amendments of 1946, the trust fund will be reimbursed for these payments to the survivors of veterans.

At the end of the fiscal year 1950, approximately 2.9 million persons in 2.1 million families were receiving monthly benefits at an annual rate of \$728 million. At the end of the preceding fiscal year, the monthly benefit rolls included 2.6 million persons in about 1.8 million families to whom monthly benefits were being paid at an annual rate of \$618 million. The average monthly benefit in current payment status for different types of family groups as of June 30, 1950, was as follows: Retired male worker only, \$26.80; retired worker and wife, \$41.90; retired female worker only, \$20.80; widow (aged 65 and over) only, \$20.90; widowed mother and one child, \$36.70; widowed mother and two children, \$50.70; and widowed mother and three or more children, \$54.50.

TABLE 6.—Estimated distribution of Treasury disbursements for benefit payments under the old-age and survivors insurance program, by type of benefit, fiscal year 1949 and 1950

(In millions)

Type of benefit	1949		1950	
	Amount	Percent of total	Amount	Percent of total
Total.....	<sup>1</sup> \$607.0	100	<sup>1</sup> \$727.3	100
Monthly benefits.....	574.8	95	693.3	<sup>2</sup> 95
Primary (retired wage earners 65 or over).....	333.0	55	412.6	57
Wife's (wives 65 or over of primary beneficiaries).....	53.8	9	60.1	9
Widow's (widows 65 or over of wage earners).....	53.6	9	67.0	9
Parent's (parents 65 or over of deceased wage earners).....	2.1	( <sup>3</sup> )	2.3	( <sup>3</sup> )
Child's (dependents of retired wage earners).....	4.0	1	5.1	1
Child's (dependents of deceased wage earners).....	90.6	15	99.8	14
Widow's current (widows of wage earners with child beneficiary).....	37.8	6	40.4	6
Lump-sum benefits (no survivor of deceased wage earner immediately entitled to monthly benefits or wage earner died before 1940).....	32.2	5	34.0	5

<sup>1</sup> Includes additional benefits of \$3.6 million for fiscal year 1949 and \$3 million for fiscal year 1950 paid under sec. 210 to survivors of certain deceased World War II veterans. Amount is reimbursable to trust fund from the general fund of the Treasury.

<sup>2</sup> Total does not represent the sum of rounded component.

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

12 FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND

The total assets of the old-age and survivors insurance trust fund amounted to \$11,310 million on June 30, 1949. These assets increased to \$12,893 million by the end of the fiscal year 1950, as the result of an excess of receipts over disbursements amounting to \$1,583 million during the fiscal year. Table 7 shows a comparison of the total assets of the trust fund and their distribution at the end of the fiscal years 1949 and 1950. The assets of the fund at the end of the fiscal year 1950 consisted of \$12,645 million in the form of obligations of the United States Government, \$168 million to the credit of the fund account, and \$80 million to the credit of the disbursing officer.

The Government obligations held in the trust fund consist of special certificates issued directly to the fund and marketable bonds. The asset value of the special certificates is their par value. The asset value of the marketable bonds, as carried on the books of the Treasury Department prior to December 1949, was the principal cost—gross purchase price less amount paid for accrued interest—at the time of acquisition. Beginning with December 1949, the asset value of these marketable bonds, as carried on the books of the Treasury Department, is the book value—par value plus unamortized premium outstanding.

TABLE 7.—Assets of Federal old-age and survivors insurance trust fund, by type, at end of fiscal years 1949 and 1950<sup>1</sup>

	June 30, 1949		June 30, 1950	
	Par value	Principal cost <sup>2</sup>	Par value	Book value <sup>3</sup>
<b>Investments:</b>				
Treasury bonds (public issues):				
2½-percent bonds of 1959-62...	\$4,205,000	\$4,222,974.87	\$4,205,000	\$4,219,194.57
2½-percent bonds of 1962-67...	58,650,000	58,009,070.33	58,650,000	58,864,403.03
2½-percent bonds of 1963-68...	116,480,000	116,777,093.79	116,480,000	116,732,993.71
2½-percent bonds of 1964-69...	83,654,000	84,116,525.45	83,654,000	84,050,487.57
2½-percent bonds of 1965-70...	455,447,500	456,043,647.54	455,447,500	455,978,142.53
2½-percent bonds of 1966-71...	305,677,500	305,848,805.58	305,677,500	305,829,771.62
2½-percent bonds of 1967-72...	1,197,023,250	1,201,751,208.25	1,197,023,250	1,201,147,658.48
Total Treasury bonds.....	2,221,137,250	2,227,670,225.81	2,221,137,250	2,220,822,621.51
Special issues:				
Certificates of indebtedness:				
2½-percent certificates:				
Maturing June 30, 1950.....	0,003,000,000	0,003,000,000.00		
Maturing June 30, 1951.....			10,418,000,000	10,418,000,000.00
Total special issues.....	0,003,000,000	0,003,000,000.00	10,418,000,000	10,418,000,000.00
Total investments.....	11,224,137,250	11,230,670,225.81	12,639,137,250	12,644,822,621.51
<b>Uninvested balances:</b>				
To credit of fund account.....		12,409,429.90		167,861,442.30
To credit of disbursing officer.....		60,869,631.87		79,027,751.84
Total assets.....		11,309,949,287.58		12,892,611,815.65

<sup>1</sup> On basis of Daily Statement of the United States Treasury.

<sup>2</sup> Gross purchase price less amount paid for accrued interest.

<sup>3</sup> Par value plus unamortized premium outstanding.

<sup>4</sup> Includes \$6,756.42 accrued interest paid on investments.

In accordance with the provisions of section 201 (c) of the Social Security Act, as amended, the managing trustee invested during fiscal year 1950 that portion of the assets of the trust fund which, in his judgment, was not required to meet current withdrawals. This section provides that direct obligations of the United States Government as well as obligations guaranteed as to both principal and interest by the



United States may be acquired through purchase of outstanding obligations in the open market or on original issue at par. Prior to fiscal year 1948, investments made for the fund consisted only of direct obligations of the United States purchased on original issue. During each of the fiscal years 1948-50, however, investments included purchases of outstanding obligations of the United States in the open market.

The par value of the net increase in the investments owned by the fund during the fiscal year 1950 amounted to \$1,415 million. New securities whose gross purchase price totaled \$11,816 million were acquired through the investment of receipts of the fund and the reinvestment of funds made available from the sale or maturity of securities during the year. Securities, consisting entirely of 2½ percent special certificates of indebtedness, were redeemed during the year at their par value of \$10,401 million. In addition, \$300,000 of Treasury bonds were sold in the open market, providing an additional source of income to the fund in the form of a profit amounting to \$8,933.54. This profit represents the difference between the proceeds received at time of sale, after deduction for accrued interest and investment expenses, and the book value at time of sale.

Of the new securities acquired, \$11,816 million were in the form of special certificates of indebtedness, \$1,398 million of which were redeemed during the year and \$10,418 million of which mature on June 30, 1951. These certificates were acquired at par and bear an interest rate of 2½ percent, this rate being determined by the average rate of interest on the interest-bearing public debt which prevailed at the end of the month preceding the date of issue of these securities. The remaining \$300,000 of securities acquired during the fiscal year were 2½ percent Treasury bonds purchased at a premium in the open market but yielding a higher rate of return than special securities issuable to the trust fund at the time such marketable issues were acquired.

The average rate of interest on the interest-bearing public debt, which determines the interest rate at which special obligations are issued to the old-age and survivors insurance trust fund, varies with changes in the composition of the public debt and with changes in the particular rates of interest on different classes of securities. During the fiscal year 1950 the average rate of interest on the public debt declined slightly. The rate was 2.200 percent on June 30, 1950, as compared with 2.236 percent on June 30, 1949. Because the rate exceeded 2½ percent but remained less than 2¾ percent during the entire fiscal year, the interest rate on all special issues acquired during the fiscal year continued to be 2½ percent.

#### STATEMENT OF THE EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING FISCAL YEARS 1951-55

The Board of Trustees is required under the provisions of section 201 (b) of the Social Security Act, as amended, to report each year to the Congress on the expected operations and status of the trust fund during the next ensuing five fiscal years. The Board is required to include in the report estimates of both the income and the disbursements of the trust fund in each of the 5 years.

The amount of the fund depends on the amount of taxable payrolls and self-employment income in covered industries, rates of contributions, and interest earnings of the fund. The disbursements from the fund depend on the number of persons among those eligible for benefits who apply for and receive benefits, the amounts of benefit to which they are entitled on the basis of past earnings, and the mortality rates among insured workers and beneficiaries. Consequently, both the income and the disbursements of the fund not only depend on the legislative provisions, which were amended in 1950 so as to increase substantially the number of beneficiaries and the level of benefits paid beginning in fiscal year 1951, but they are also affected by the general economic conditions.

In this as in previous reports the Board presents two sets of estimates of income and disbursements based on alternative assumptions. Alternative I shows the effect of assumptions postulating a relatively high level of economic activity; alternative II shows the effect of the assumption of a somewhat lower level of economic activity.

For both alternative I and alternative II, it is assumed that present statutory coverage of old-age and survivors insurance will remain unchanged throughout the period under consideration. The computations of tax income are based on present statutory rates of contribution which are  $1\frac{1}{2}$  percent each on employer and employee on wages paid during the calendar years 1950 through 1953 and 2 percent each during the calendar years 1954 and 1955; and  $2\frac{1}{4}$  percent on the taxable income from self-employment in calendar years 1951, 1952, and 1953 and 3 percent in calendar years 1954 and 1955. The taxable earnings limit is \$3,000 for calendar year 1950 and \$3,600 for calendar year 1951 and thereafter.

The two sets of estimates of the income and disbursements of the trust fund for each of the five fiscal years 1951 to 1955, together with the resulting assets of the fund at the beginning and the end of each year, are presented in table 8. In addition, the figures on actual experience in fiscal years 1941 to 1950 are shown.

In alternative I it is assumed that employment and earnings will be maintained at a high level through calendar year 1955. Hourly wage rates, and therefore weekly earnings and average annual taxable wages, are assumed to increase not only in accordance with long-time trends but also because of the impetus of the defense program. The earnings of the self-employed are assumed to follow a similar pattern. Unemployment is assumed to remain at a low level. Benefit disbursements are assumed to increase substantially, primarily because of the long-range upward trend in the number of beneficiaries, and partly because of the alternative method of computing benefit amounts which becomes effective in calendar year 1952.

Under alternative I, aggregate income during the period of five fiscal years ending in 1955 would amount to \$25.2 billion, including \$23.3 billion in contributions and appropriations and \$1.9 billion in interest. Aggregate disbursements for the period would be about \$11.8 billion, with the highest expected annual disbursement about \$2.8 billion. The trust fund at the beginning of the fiscal year 1951 would amount to about 4.5 times the highest expected annual disbursement during the succeeding five fiscal years.

The other set of estimates, alternative II, is based on the assumption that after 1951 employment and wages will increase less rapidly than

under alternative I. It is assumed that unemployment will be slightly higher than under alternative I. As a result, estimated taxable payrolls and earnings of the self-employed in the periods affecting tax collections during fiscal years 1953-55 and therefore estimated contributions, are lower under alternative II than under alternative I. Estimated benefit disbursements, on the other hand, increase more rapidly under alternative II than under alternative I because a larger number of older workers withdraw from or are unable to find jobs in covered employment.

The aggregate income of the fund for the five fiscal years 1951-55 under alternative II would amount to \$23.3 billion, including \$21.5 billion in contributions and appropriations and \$1.9 billion in interest. Aggregate disbursements would be \$12.5 billion, with the highest expected annual disbursement about \$3.2 billion. The trust fund at the beginning of the fiscal year 1951 would amount to about 4.1 times the highest expected annual disbursement during the period.

The 1946 amendments to the Railroad Retirement Act, contained in Public Law 572, established a system of survivors insurance and, in effect, amended the survivors insurance system contained in title II of the Social Security Act. Under both systems, eligibility for and the amount of benefits payable to survivors, in general, are based on an insured worker's combined earnings record under the two programs. As a result of this coordination, some survivors are eligible under old-age and survivors insurance who otherwise would not be eligible; on the other hand, some survivors who would be eligible under old-age and survivors insurance instead receive railroad survivors benefits. In addition, some survivors who in any event would be eligible under old-age and survivors insurance receive larger benefits. Although no specific provision is contained in these amendments for the allocation of costs between the two systems, the legislation provided that, not later than January 1, 1950, a joint report should be made setting forth the actual experience under each system and recommending such legislation as deemed advisable for the equitable distribution, between the two systems, of the financial burdens arising from awarded claims.

This report, which has been submitted jointly by the Federal Security Agency and the Railroad Retirement Board to the Congress, sets forth the experience under each system for the period January 1, 1947 (the effective date of the survivor-benefit provisions of the 1946 amendments) through June 30, 1949, and contains the following recommendations:

We are not yet ready to recommend legislative changes providing for an equitable distribution of the financial burden between the railroad retirement account and the old-age and survivors insurance trust fund on a permanent basis; but, on the basis of the results thus far obtained, we recommend the enactment of legislation directing (a) that \$1,636,292 be transferred from the old-age and survivors insurance trust fund to the railroad retirement account, with interest from March 31, 1948, to the date of the transfer, and (b) that not later than March 31, 1952, a similar special joint report be made by our two agencies to the President to be submitted to Congress.

It is believed, however, that the net additional disbursements, if any, will not constitute a serious drain on the trust fund during the five fiscal years 1951-55, and no adjustments have been made in the estimates shown in table 8.

Public Law 642, enacted June 14, 1948, which amended the definition of the term "employee" as used in the Social Security Act, resulted in the exclusion from coverage of certain services previously held covered under title II of the act. While the amended definition was made retroactive to August 14, 1935, certain wage credits established under the former definition remained credited to the individual's account. The law authorized an appropriation to the trust fund from general revenues equal to the total amount of benefits paid and to be paid under title II of the Social Security Act, as estimated by the Federal Security Agency, that would not have been paid had the amended definition been in effect beginning August 14, 1935. An estimate was accordingly prepared and submitted to Congress based on the provisions of the Social Security Act in effect prior to enactment of the 1950 amendments. A revised estimate based on the new amendments has not yet been prepared and, accordingly, income from this source is excluded from the appropriations shown in table 8.

Included in the 1950 amendments to the Social Security Act are provisions which will have a substantial immediate effect on benefit payments. These provisions provide for (1) an increase in benefits averaging about 77½ percent to beneficiaries already on the rolls as well as increased benefits to all future beneficiaries; (2) more liberal insured status requirements which made about 675,000 persons, aged 65 or more, immediately eligible for benefits; and (3) the removal of the work clause entirely for persons at least 75 years of age, making it possible immediately for about 75,000 persons to receive benefits who otherwise would not have received them because they were working in covered employment. Consequently, benefit disbursements during the five fiscal years 1951-55 will be on a much higher level than the benefit disbursements previously made.

During the next 5 years, benefit disbursements, like contributions, will be dependent to a considerable extent upon economic developments and so will have a considerable range of possible variation. The number of workers in covered employment, their distribution among different classes of workers (e. g., older workers, very young workers, women, workers not previously engaged in covered employment, etc.), and the level of wages will all have a decided effect upon the amount of benefit payments to be anticipated.

In general, the larger the volume of employment the larger will be the number of workers who are insured under the program, and therefore the larger will be the number of deaths which will give rise to valid claims for survivors' benefits. However, over the short range the amount paid out for survivors' benefits will not be affected significantly by variations in economic conditions. While favorable opportunities for employment will operate to increase the number of insured persons, and hence increase the number of new death claims, such a high employment situation will tend to have counterbalancing effects such as that of inducing many of the widows and older children eligible for survivors' benefits to forego them by working in covered employment. On balance, the amount paid out for survivors' benefits over the next few years will differ so little whether the economic conditions of alternative I or alternative II are assumed that a single set of estimates is deemed appropriate for both alternatives (table 9).

On the other hand, the lower the level of employment during the next 5 years, the larger will be the volume of benefit payments to

retired workers who have attained age 65, and to their eligible dependents. As is indicated in table 10, a considerable proportion of the workers aged 65 and over who were eligible for old-age (primary) benefits in the past remained in covered employment (or, if they left covered employment, later returned to it) and did not receive benefits. Since fiscal year 1945, however, this proportion has decreased as the volume of withdrawals of older workers from covered employment has increased more rapidly than the growth in the number eligible for primary benefits. Should the high employment conditions assumed in alternative I materialize, this trend is expected to be not only halted but reversed; a situation similar to that which was observed during the high employment period of World War II. The proportion of eligible workers receiving benefits on January 1, 1951 (table 10), is comparatively low because, for a large number of workers newly eligible as a result of the liberalized insured status provisions of the 1950 amendments, claims for benefits had been received but had not yet been completely processed.

TABLE 8.—Operations of the Federal old-age and survivors insurance trust fund, fiscal years 1941-55, subject to the assumptions and limitations stated in the text<sup>1</sup>

[In millions]

Fiscal year	Fund at beginning of year <sup>2</sup>	Transactions during year						Net increase in fund	Fund at end of year
		Income			Disbursements				
		Total	Appropriations <sup>3</sup>	Interest on investments	Total	Benefit payments	Administrative expenses		
Past experience:									
1941.....	\$1,745	\$744	\$688	\$50	\$91	\$64	\$27	\$653	\$2,398
1942.....	2,398	907	896	71	137	110	27	830	3,227
1943.....	3,227	1,218	1,130	87	177	149	27	1,041	4,268
1944.....	4,268	1,305	1,202	103	217	185	33	1,178	5,446
1945.....	5,446	1,434	1,310	124	267	240	27	1,167	6,613
1946.....	6,613	1,386	1,238	148	358	321	37	1,028	7,641
1947.....	7,641	1,623	1,460	163	466	426	41	1,157	8,798
1948.....	8,798	1,807	1,617	191	559	512	47	1,248	10,047
1949.....	10,047	1,924	1,694	230	661	607	53	1,263	11,310
1950.....	11,310	2,367	2,110	257	784	727	57	1,583	12,893
Estimated future experience:									
1951.....	12,893	3,263	2,904	299	1,674	1,600	74	1,580	14,482
1952.....	14,482	4,140	3,827	313	2,177	2,100	77	1,963	16,445
1953:									
Alternative I.....	16,445	4,828	4,458	370	2,412	2,335	77	2,416	18,861
Alternative II.....	16,445	4,574	4,208	366	2,574	2,491	83	2,000	18,445
1954:									
Alternative I.....	18,861	5,816	5,380	427	2,630	2,560	70	3,177	22,038
Alternative II.....	18,445	5,244	4,834	410	2,902	2,820	82	2,342	20,787
1955:									
Alternative I.....	22,038	7,198	6,694	504	2,849	2,767	82	4,340	26,387
Alternative II.....	20,787	6,120	5,657	463	3,167	3,084	83	2,953	23,740

<sup>1</sup> In interpreting the estimates in this table, reference should be made to the accompanying text which describes the underlying assumptions. Estimates were prepared February 1951.

<sup>2</sup> Totals shown in this and other columns do not necessarily equal the sum of rounded components.

<sup>3</sup> Include 100 percent of contributions which are automatically appropriated to the trust fund, adjusted for refunds, and reimbursements equivalent to any additional payments arising from the extension of survivors insurance protection to certain veterans of World War II (Social Security Act Amendments of 1946). Estimated contributions for fiscal years 1951-55 are based on statutory rates.

<sup>4</sup> Represent charges against trust fund in respective fiscal years; administrative expenses, after adjustment for bookkeeping transfers, were about \$30,000,000 in fiscal year 1944 and about \$20,000,000 in fiscal year 1945.

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TABLE 9.—Treasury disbursements for benefit payments, distributed by classification of beneficiaries, fiscal years 1941-55, subject to the assumptions and limitations stated in the text<sup>1</sup>

[In millions]

Fiscal year	Total benefit disbursements <sup>2</sup>	Disbursed to old-age beneficiaries <sup>3</sup>	Disbursed to dependents of old-age beneficiaries <sup>3</sup>	Disbursed to survivors of deceased insured workers			
				Monthly benefits <sup>4</sup>			Lump-sum payments
				Total <sup>2</sup>	Aged widows, widowers, and parents	Widowed mothers and children	
Past disbursements: <sup>4</sup>							
1941.....	\$64.3	\$31.4	\$5.3	\$15.3	\$1.5	\$13.8	\$12.3
1942.....	110.3	54.9	9.6	31.6	4.1	27.5	14.1
1943.....	149.3	72.4	12.7	47.5	7.9	39.6	16.7
1944.....	184.6	86.8	15.2	63.6	12.1	51.5	19.0
1945.....	239.8	109.1	19.2	85.8	17.7	68.1	25.7
1946.....	320.5	153.0	27.2	113.4	24.7	88.7	26.0
1947.....	425.6	219.2	38.4	139.4	33.8	105.6	28.5
1948.....	511.7	272.4	47.5	160.5	43.7	116.8	31.3
1949.....	607.0	333.0	57.7	184.0	55.6	128.4	32.2
1950.....	727.3	412.6	71.2	209.4	69.3	140.2	34.0
Estimated future disbursements:							
1951.....	1,600	966	160	424	141	283	40
1952.....	2,100	1,249	211	578	193	386	62
1953:							
Alternative I.....	2,335	1,369	231	658	225	433	78
Alternative II.....	2,491	1,504	251				
1954:							
Alternative I.....	2,560	1,488	251	737	266	471	84
Alternative II.....	2,820	1,714	285				
1955:							
Alternative I.....	2,767	1,597	270	815	309	507	85
Alternative II.....	3,081	1,873	311				

<sup>1</sup> In interpreting the estimates in this table, reference should be made to the accompanying text which describes the underlying assumptions. Estimates were prepared February 1951.

<sup>2</sup> Totals do not necessarily equal the sum of rounded components.

<sup>3</sup> Effective Sept. 1, 1950, under the Social Security Act Amendments of 1950 (1) husband's and widower's insurance benefits became payable, and (2) the terms "primary insurance benefit" and "widow's current insurance benefit" were changed to "old-age insurance benefit" and "mother's insurance benefit," respectively.

<sup>4</sup> Partly estimated.

If the lower employment conditions assumed in alternative II should materialize, it is expected that larger proportions of eligible workers will be obliged to leave covered employment especially at ages 65-69. Hence, despite a slightly smaller number of eligible workers, the number receiving old-age (primary) benefits under alternative II would considerably exceed that under alternative I. Moreover, it is expected that the average old-age (primary) benefit amount payable under alternative II would exceed the average under alternative I, inasmuch as many of the more steadily employed, and therefore higher-paid, older workers who would not withdraw from covered employment under the conditions of alternative I would not be employed under the conditions of alternative II. In consequence, alternative II would result in a substantially higher volume of benefit payments to old-age (primary) beneficiaries and their dependents.

Table 10 contains an analysis of workers eligible for old-age (primary) benefits by age attained as of the middle (January 1) of each of the fiscal years 1941 through 1955. The growth in the number of eligible workers aged 65-69 was gradual but uninterrupted during the years 1941-49, inclusive. This growth resulted partly from the increase in the population at these attained ages, but primarily from

the fact that each passing year a larger proportion of the persons attaining age 65 had fully insured status. In the calendar year 1940, a worker attaining age 65 would not have been fully insured if he had left covered employment more than 1½ or 2 years previous to his attainment of age 65—for example, due to a permanent disability—but in the calendar year 1949 numerous persons attaining age 65 were fully insured even though they left covered employment after reaching age 59.

TABLE 10.—*Wage earners eligible for and receiving old-age (primary) benefits by attained age of wage earners, fiscal years 1941-55, subject to the assumptions and limitations stated in the text*<sup>1</sup>

Middle of fiscal year (Jan. 1)	All wage earners aged 65 and over			Wage earners aged 65-69			Wage earners aged 70 and over		
	Number eligible for ben- efits <sup>2</sup>	Persons receiving benefits—		Number eligible for ben- efits <sup>2</sup>	Persons receiving benefits—		Number eligible for ben- efits <sup>2</sup>	Persons receiving benefits—	
		Number	Proportion of total number eligible		Number	Proportion of total number eligible		Number	Proportion of total number eligible
Actual experience:	<i>Thous.</i>	<i>Thous.</i>	<i>Pct.</i>	<i>Thous.</i>	<i>Thous.</i>	<i>Pct.</i>	<i>Thous.</i>	<i>Thous.</i>	<i>Pct.</i>
1941.....	548	112	20	376	85	23	172	28	16
1942.....	679	200	29	445	134	30	234	60	28
1943.....	831	260	31	522	153	29	309	107	35
1944.....	1,016	306	30	608	156	26	408	151	37
1945.....	1,244	378	30	708	107	24	536	211	39
1946.....	1,469	518	35	805	212	26	664	306	46
1947.....	1,637	702	43	868	271	31	709	430	55
1948.....	1,812	875	48	930	325	35	882	550	62
1949.....	1,991	1,048	53	1,000	380	38	901	668	67
1950.....	2,163	1,286	59	1,068	474	44	1,095	812	74
Estimated future ex- perience:									
1951.....	3,005	1,770	59	1,665	720	43	1,340	1,050	78
1952.....	3,325	2,130	64	1,810	885	49	1,515	1,245	82
1953:									
Alternative I...	3,755	2,360	63	2,000	935	47	1,755	1,425	81
Alternative II...	3,730	2,555	68	1,900	1,085	55	1,740	1,470	84
1954:									
Alternative I...	4,070	2,530	62	2,125	955	45	1,945	1,575	81
Alternative II...	4,015	2,900	72	2,095	1,240	59	1,920	1,660	86
1955:									
Alternative I...	4,365	2,700	62	2,230	975	44	2,135	1,725	81
Alternative II...	4,285	3,155	74	2,185	1,320	60	2,100	1,835	87

<sup>1</sup> In interpreting the estimates in this table reference should be made to the accompanying text which describes the underlying assumptions. Estimates were prepared February 1951.

<sup>2</sup> Figures for 1941-50 are partly estimated.

The marked increase in the number of workers eligible for benefits in 1951 is due to the liberalized insured-status provisions of the 1950 amendments to the Social Security Act. Prior to the passage of these amendments the number of quarters of coverage needed by persons aged 65 and over to be eligible for benefits decreased with advancing age. As a result of the 1950 amendments all persons now age 65 or over, or who will attain age 65 prior to July 1954, will be fully insured if they have the minimum number of six quarters of coverage. Consequently, the increase in the number of eligible persons on January 1, 1951, was greatest for the persons in the 65-69 age group. Although the same factors which contributed to the growth in the number of eligible persons before 1951 will continue to be operative after 1950, two new factors will have an even greater effect, namely,

the liberalized insured-status provisions and the extension of coverage to new areas of employment.

The estimates presented above result in a net increase in the trust fund during the 5-year period of about \$13.5 billion under alternative I and about \$10.8 billion under alternative II. It is entirely possible under alternative I that the amount of contribution income may be greater and benefit payments lower than has been estimated. The total result would be an even greater growth in the trust fund than is indicated under this alternative. On the other hand, lower contribution and interest income, together with higher benefit payments than shown under alternative II, would lead to smaller net increases in the trust fund.

#### ACTUARIAL STATUS OF THE TRUST FUND

Section 201 (b) of the Social Security Act requires the Board of Trustees to present each year a statement of the actuarial status of the trust fund. In the seventh annual report of the Board, new cost illustrations were presented taking into account the foreseeable effects of World War II and the brief postwar period to the date of that report. In the eighth to tenth reports no essential changes were made in these cost estimates other than to allow for the new contribution schedule introduced in the Social Security Act Amendments of 1947.

In view of the striking economic changes due to the war, many of which have been discussed in some length in previous reports, two sets of cost illustrations were prepared, one based on "high" economic assumptions (intended to represent close to full employment with average annual wages at about the level prevailing in 1944-46), and the other based on "low" economic assumptions (intended to represent, on the average, employment conditions similar to those prevailing in 1940-41, combined with the annual wage level prevailing in 1941-42). In view of the postwar level of wage and business activity and the established national policy of maintaining conditions conducive to full employment (as embodied in the Employment Act of 1946), it seemed probable that the actual future experience, on the average, would be closer to the high economic assumptions than to the low ones and very likely even above the high economic assumptions.

In 1949-50, the Congress conducted extensive consideration of social security legislation, resulting in the enactment of the Social Security Act Amendments of 1950 (Public Law 734, 81st Cong.), which was approved by the President on August 28, 1950. The various actuarial cost estimates which were made for this legislation were, in general, based on the same assumptions and methodology as the cost illustrations in the previous four reports of the Board, except that only the "high" economic assumptions were used for the reasons indicated in the previous paragraph and except that a slightly higher wage assumption was made. However, just as in the previous reports, the cost estimates were subdivided into a low cost example and a high cost example, which indicate the range present due to possible variations in such factors as mortality, fertility, retirement rates, and movement between covered and noncovered employment. Assumptions as to each of these factors were combined so as to yield cost illustrations which indicate both low and high costs possible under reason-



able assumptions. For instance, low mortality produces higher costs for the program as a whole.

If all other cost factors were maintained constant, costs expressed relative to payroll would be lower under high economic assumptions than under low economic assumptions. However, the absolute dollar cost of benefits would very likely be higher under high economic assumptions than under low economic assumptions.

In this report the long-range cost illustrations presented are the same as those finally developed for the congressional committee concerned with the legislation (see Actuarial Cost Estimates for the Old-Age and Survivors Insurance System as Modified by the Social Security Act Amendments of 1950, July 27, 1950, prepared for the use of the Committee on Ways and Means by Robert J. Myers, actuary to the committee). As mentioned previously, these estimates are on essentially the same basis as those which had been developed for the previous law over the past 5 years. Since there has been a considerable change in economic conditions and since much additional actuarial and statistical data are available, such as from operating experience and from the 1950 census, completely new long-range cost estimates are now being developed for the new program, and it is anticipated that they will be completed in time for the next report of the Board. In this report, while use is made of the cost estimates prepared in 1950 for the Committee on Ways and Means, there will be considered the general effect of assumptions based on recent experience.

There are a number of basic cost factors which must be continuously recognized in analysis of the costs of this program.

(a) *Population.*—The future trend of the population depends on the size and age distribution of the existing population, on future births and immigration, and on future deaths and emigration. As a basis for making such estimates, there are available a great quantity of census and vital statistics data. There are various types of error and bias in such data, as has been recognized by the Bureau of the Census in its many comprehensive reports on this subject. For instance, the 1940 census showed about 600,000 more persons aged 65 and over than had been indicated as likely by data in the 1930 census and the deaths and migration between the two censuses. Likewise, a tabulation of a sample from the 1950 census shows about 800,000 more persons age 65 and over than are indicated by a projection of the 1940 census.

Crude birth rates declined for many years until the middle thirties, due in part to the increasing percentages of the female population past the child-bearing ages and in the middle ages where child bearing is less frequent, and in part to a decline in the age specific birth rates. However, since 1937 the long decline of the birth rate has been reversed. During the war years quite high rates were reported, the wartime peak having been reached in 1943. Although the birth rate declined somewhat in 1944-45, it remained higher than at any time during the thirties despite the effect of the war in removing from this country many young potential fathers. Beginning in the middle of 1946, the birth rate again rose very rapidly, and for the 12-month period ending June 1947 was higher than at any time since before the beginning of the First World War. Since that time there has been some decline, but the rate has been well above the prewar level.

The increase in birth rates in recent years seems to be largely concentrated in the rates for first and second births. The increase in first births tends to increase the proportion of the insured population with dependents as well as the number of such dependents. As a result, the cost of survivor benefits is increased despite the counteracting effect of fewer large families; in regard to the latter factor there is only a limited effect upon benefits because aggregate benefits for a family are not increased for children in excess of three where the mother is also receiving benefits.

Immigration had been very heavy prior to 1915 and moderate in the early twenties, but was quite negligible thereafter. Most population forecasts have assumed that no return to high immigration rates may be expected although some refugees or displaced persons are currently being admitted.

As a basis for the cost illustrations, two population estimates were developed. These do not reflect the maximum possible range in population which might develop in the future, but rather embody factors which produce either low cost or high cost in regard to old-age and survivors insurance; for example, unfavorable mortality assumptions versus favorable ones. The 12 estimates prepared by the National Resources Planning Board in its report of August 1943, entitled "Estimates of Future Population of the United States, 1940-2000," are useful in indicating the possible range of future population, but it was considered desirable not to use any specific one of these estimates, although following closely their methodology. A revision of this 1943 report starting with a different population base and short-range demographic factors but using in general the same long-range assumptions with respect to future trends in mortality and fertility was released in 1948 by the Bureau of the Census (*Forecasts of the Population of the United States, 1945-75*). However, the results were not available at the time the cost bases for the estimates presented here were developed, and in addition data showing a range in population were needed for a longer period than 30 years.

One reason that the National Resources Planning Board estimates were not used is that these estimates do not reflect war deaths, civilian mortality in 1940-45, and births in 1940-45. The official estimates of the Bureau of the Census for 1945 indicate that births in 1940-45 were about 10 percent higher than the National Resources Planning Board high estimate. Another reason for developing new estimates was to use a somewhat wider range in mortality assumptions (as will be discussed later), and in fertility assumptions (allowing for somewhat higher fertility, as evidenced by the 1940-45 experience).

The population used for the low-cost assumptions is based on high mortality (level into the future at 1939-41 rates) and high fertility (approximately 10 percent above the National Resources Planning Board high rates). On the other hand, the population projection used for the high-cost assumptions is based on low mortality (same as National Resources Planning Board low rates up to age 65, but with greater improvement for the older ages) and medium fertility (same as National Resources Planning Board medium rates). Neither estimate provides for migration, either in or out.

Table 11 indicates the alternative trends of population growth resulting for the total population, for the group aged 20 to 64, and for the group aged 65 and over. The high-cost projection shows a larger aged population than the low-cost projection because of the assumed lower mortality, but a somewhat lower population in age groups under 65, because of the assumed declining fertility which more than offsets the improved mortality. Actual data for 1950 (based on a sample tabulation) indicate a somewhat larger population aged 65 and over than had been estimated in either projection and also a materially larger population under age 10 (as a result of the high birth rates in the past decade).

(b) *Mortality*.—Mortality rates by age have been improving steadily since the turn of the century for both sexes and for virtually all ages up to age 60, with relatively little change above that age, except for the past decade when there has been significant improvement. The National Resources Committee study of 1938, the National Resources Planning Board study of 1943, and the Bureau of the Census report of 1948, all make assumptions of a future improvement in mortality, as plausibly indicated by past history.

TABLE 11.—*Estimated population of the United States in selected years, 1960-2000*  
[In millions]

Calendar year	All ages			Ages 20-64			Ages 65 and over		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Sample tabulation from 1950 census									
1950.....	151	75	76	87	43	44	12.3	5.7	6.6
Projection for low-cost assumptions									
1960.....	159	79	80	89	44	45	14.0	6.5	7.5
1980.....	179	89	90	100	50	50	17.0	7.8	10.1
2000.....	199	99	100	113	57	56	19.0	8.3	10.7
Projection for high-cost assumptions									
1960.....	155	77	78	91	45	46	14.9	7.0	7.9
1980.....	170	85	85	100	50	50	22.8	10.4	12.4
2000.....	173	87	86	102	52	50	28.5	13.3	15.2

In the low-cost assumptions, as mentioned previously, no improvement in mortality rates at any age is assumed. However, in the high-cost assumptions, considerable improvement is assumed, with even more at the older ages than the most optimistic assumption of the National Resources Planning Board for the ultimate condition, the year 2000. Although both sets of assumptions are arbitrary, they may reasonably bound, for the purposes of this report, the range within which mortality rates will fall. If the range between them seems wide, it should be recalled that no allowance has been made for the effects of such diverse factors as: The application of new discoveries to the prevention of disease and to the impairments

caused by disease; the possibilities of increasing the survival of impaired lives for only temporary periods and the effects of future uses of atomic energy.

Mortality rates are of major importance for estimates of future benefits for the aged and of importance also in determining potential deaths among the younger parents which will give rise to widowed mother's and child's survivor benefits and ultimately to aged widow's benefits. Continuous study must be given to this important element.

(c) *Marital and family composition.*---Marital relationships by age have great significance for old-age and survivors insurance costs because the system provides benefits for aged wives and widows (and also for aged dependent husbands and widowers). A woman over 65 cannot draw both the old-age benefit based on her own earnings and a full wife's or widow's benefit based on her husband's earnings. Hence, it is necessary to consider both the marital status of the female covered workers and also the exits from this group because of marriage. There will be a relatively large cost offset on account of this provision which prohibits duplication of benefits. The experience to date is extremely limited in this respect, since this factor will not be of major importance until some 30 or 40 years hence when the vast bulk of the current female workers, those in their twenties and thirties, have attained the minimum retirement age.

Family composition data indicating the proportion of individuals with children and the average number of children in such cases also has great significance because the system provides benefits for orphaned children and their widowed mothers. The future birth rate has an important role in this connection since it determines not only the total number of children, but also how they are divided up into families. The actual claims experience is valuable as a guide.

There must also be considered the various factors affecting termination of married status, chiefly divorce and mortality. The distribution of ages of husbands and wives also affects the cost illustrations. Various studies have indicated that at almost all ages women have lower mortality rates than men, and that the mortality rates of married persons are lower than those for all persons combined. In the cost illustrations, differential mortality by marital status has been considered in determining costs for the various types of survivors benefits.

Insurance beneficiaries age 65 and over are composed of a number of different categories. Table 12 shows the various illustrative trends in the number of beneficiaries, distinguishing between old-age beneficiaries (retired workers), wives of old-age beneficiaries, children of beneficiaries, aged widows of deceased insured individuals, and dependent parents of deceased insured workers who left no widow or child under 18.

Although beneficiaries age 65 and over make up the bulk of the prospective recipients under the program, the young survivors, composed of orphaned children and widowed mothers, will receive a considerable amount of benefits. Table 13 lists these two groups separately.

The high-cost assumptions show, as expected, a larger number of aged beneficiaries than the low-cost assumptions (table 12); this is in part because of the lower mortality rates assumed which result in a

greater number and proportion of aged persons, and in part because of the higher retirement rates assumed and the greater proportion of the population assumed to be insured as a result of the in-and-out movement between covered and noncovered employment. On the other hand, the lower mortality, despite the somewhat higher birth rate, tends to have the opposite effect in regard to young survivors (table 13); a smaller number of child and widowed-mother beneficiaries under the high-cost assumptions than under the low-cost assumptions is indicated.

(d) *Proportion of time in covered employment prior to qualification for benefits.*—The number of persons who gain protection through becoming either “fully insured” or “currently insured” under old-age and survivors insurance depends upon the volume and pattern of their work in covered employment and upon the amount of taxable wages earned in such work. A discussion of the latter factor is presented subsequently under item (g).

TABLE 12.—*Estimated monthly benefit recipients<sup>1</sup> age 65 and over in selected years, 1960-2000*

[In thousands]

Calendar year	Old-age beneficiaries <sup>2</sup>	Wives of old-age beneficiaries <sup>3</sup>	Children of old-age beneficiaries	Aged widows <sup>4</sup>	Aged dependent parents
Actual data for December 1950					
1960.....	1,771	508	43	314	16
Low cost estimate					
1960.....	2,727	836	65	1,101	37
1980.....	5,685	1,320	115	2,709	42
2000.....	8,910	1,270	120	3,008	34
High cost estimate					
1960.....	4,404	1,257	101	1,133	69
1980.....	10,332	2,240	130	2,788	97
2000.....	17,456	2,652	86	3,083	90

<sup>1</sup> Persons qualifying, both for old-age benefits and for wife's, widow's, husband's, widower's, or parent's benefits are shown as old-age beneficiaries.

<sup>2</sup> I. e., retired insured workers.

<sup>3</sup> Including dependent husbands.

<sup>4</sup> Including dependent widowers.

TABLE 13.—*Estimated younger survivor insurance recipients of monthly benefits in selected years, 1960-2000*

[In thousands]

Calendar year	Low cost estimate		High cost estimate	
	Orphaned children	Widowed mothers	Orphaned children	Widowed mothers
1960.....	1,135	304	901	320
1980.....	1,446	385	718	280
2000.....	1,714	454	602	255

NOTE.—Actual data for December 1950: 657,000 orphaned children and 169,000 widowed mothers.

Illustrations are presented in table 14, showing for the future the percentages of the population insured by reason of current or previous work experience, subdivided by sex and by age groups above and below 65. The percentages for age 65 and over include old-age beneficiaries. Table 15 relates the old-age beneficiaries actually drawing benefits to the total aged population. It has been assumed in these cost illustrations that all persons eligible to receive old-age benefits based on their own earnings would apply for and receive such benefits even though they might be entitled to larger wife's, widow's, or parents' benefits, which instead they would receive as reduced supplementary amounts. This assumption has been made because it is always to the individual's advantage to receive old-age benefits and reduced supplementary benefits of another category, rather than to receive solely the full benefits of the other category.

TABLE 14. *Estimated proportion of the population insured under old-age and survivors insurance in selected years, 1960-2000*

[In percent]

Calendar year	Low cost estimate		High cost estimate	
	Ages 20-64	Ages 65 and over <sup>1</sup>	Ages 20-64	Ages 65 and over <sup>1</sup>
	Men			
1960	72	56	82	64
1980	77	73	87	83
2000	78	81	89	90
Women <sup>2</sup>				
1960	31	10	39	14
1980	44	20	52	27
2000	50	39	59	47

<sup>1</sup> Including old-age beneficiaries.

<sup>2</sup> Excludes wives and widows of fully insured men except such wives and widows who are insured on the basis of their own employment.

TABLE 15. *Estimated proportion of population aged 65 and over receiving primary benefits,<sup>1</sup> 1960-2000*

[In percent]

Calendar year	Low cost estimate		High cost estimate	
	Men	Women	Men	Women
	1960	34	7	50
1980	52	10	69	25
2000	61	30	79	40

<sup>1</sup> Women qualified both for old-age and for wife's, widow's, or parent's benefits are shown as primary beneficiaries.

In tables 12 to 15 only potential long-range trends have been set down, without recognition of cyclical or periodic irregularities. Bearing this in mind, certain trends may be observed in these illustrative tables of number of beneficiaries:

(1) An over-all uptrend in beneficiaries under all types of old-age benefits—except in the relatively minor category of dependent parents;

(2) After 1960, a relatively small increase under some assumptions and a decline in others in the numbers of orphan-child and widowed-mother beneficiaries;

(3) The relatively small, and increasingly smaller, proportion that younger survivor benefits are of all benefits;

(4) A relatively rapid advance in the percent of insured persons aged 65 and over (including those drawing benefits) as compared with the percent insured at ages 20 to 64; and

(5) A rapid rise in the percent of aged men drawing old-age benefits up to 1980, and a slowing down of the increase in the following 20 years.

(c) *Remarriage rates.*—Remarriage of “young widows” is a rather important cost factor. The greatest possible duration of benefits occurs among the younger widows, who can receive benefits for many years as mothers of young children and later as aged widows. These, however, are also the women with the greatest chance of remarriage. Among the older mothers with fewer prospective years of benefit receipt (their youngest child being nearer age 18), the probability of remarriage is lower.

Remarriage rates are affected both by age of widow and duration of widowhood. Recognition of the remarriage factor results in considerable reduction in the prospective cost of benefits to young widows. It also results in considerable reduction in the deferred portion of benefits otherwise payable to widows upon reaching age 65. This factor produces a tangible reduction in the volume of “life insurance” afforded by the program when such “life insurance” is interpreted as the present value, in case of the worker’s death, of prospective benefit payments to his surviving dependents. It is estimated that at the present time the program is providing about \$190 billion of “life insurance” protection for survivors.

(f) *Employment of beneficiaries.*—Since monthly benefits for all categories of beneficiaries are, in effect, suspended in any month in which the beneficiary earns more than \$50 in covered employment, assumptions as to the employment of beneficiaries rank high among the various cost elements. As of December 1950, about 60 percent of those age 65 and over who were fully insured were actually receiving benefits. This low proportion is due to the apparently abnormal work opportunities for the aged now prevailing. In the future this proportion is bound to increase, if for no other reason than the aging of the insured population.

Then, too, a large demand for labor draws into employment and away from benefit receipt many widowed mothers and older children. There is assumed to be more employment of beneficiaries, and thus savings in cost, in the low-cost assumptions than in the high-cost ones.

(g) *Income in covered employment.*—One of the most striking changes in earned income on record has taken place since 1940. Not only have there been further rises in the hourly rate of earnings since the end of the war, but also there has tended to be relatively little unemployment, including partial unemployment, so that most workers have had a full workweek.

The resulting change in wage income gives workers relatively more chance of obtaining credit for quarters of coverage (at \$50 per quarter) than had been the case in the prewar years, and as a result produces an increase in number of persons with insured status and in the average

wage used for benefit computations. This increase is assumed to be more or less permanent.

Assumptions as to future covered wages are essential in developing illustrative actuarial projections. The trend of wages in the past has been unquestionably of an upward character. The level of earnings at the end of the reconversion period and their movement thereafter, of course, affect contributions and benefits under the program, since both are geared to covered earnings.

The data derived from old-age and survivors insurance records are not yet fully useful for long-range cost purposes. Average reported wages were much lower in the early years of the system than they are currently. The increase which has occurred is indicated in table 16.

The cost assumptions for the 1950 amendments use an average annual creditable wage (here and subsequently, the term "wage" includes self-employment income) throughout the period up to 2000 of \$2,550 for men working in four quarters of a year and, correspondingly, \$1,625 for women. For both men and women the average wage used for three-quarter workers is about 50 percent of that for four-quarter workers (i. e., at a lower rate per quarter), while the corresponding proportions for two and one-quarter workers are about 20 and 10 percent, respectively. As used here, the reference to four-quarter workers, three-quarter workers, etc., relates only to the status in a particular year; the estimates allow for the fact that over the course of a working lifetime an individual would be in covered employment all four quarters of some years, three quarters of other years, etc. (and, in fact, not in covered employment at all in some years). These ratios of the part-time average covered wage to the four-quarter average parallel very closely the actual ratios observed in the old-age and survivors insurance wage data. The four-quarter wage assumptions may be compared with the actual experience for such workers in the past years as shown by the last two columns of table 16 but allowance must be made for the change in wage base. The wage assumptions are, on the whole, about 10 percent below the experience in 1950 and are on about the level prevailing in 1947. This seems to indicate a need for revision of the basic wage assumptions which were made when the postwar trend was not at all clear.

In determining the number of covered persons, percentages by age were developed through analysis of wage data for the previous coverage modified by census and other data in regard to the newly covered groups. The level of employment assumed was roughly that of 1947, which is somewhat below that prevailing in 1950. It was assumed that in the future the proportion of women who would be in covered employment would gradually rise for each age group, since in recent years they have been participating more and more in the covered labor force.

Because the coverage of the system excludes several large categories of employment (all railroad employment, considerable portions of agricultural, domestic, nonprofit, and public employment, and agricultural and most professional self-employment), there is a flow of workers between covered and noncovered employments in addition to that between covered employment and unemployment. The restricted coverage necessarily will result in large numbers of workers who have not had sufficient contact with the program to establish or



maintain the insured status necessary for benefit qualification. The extent of contact is a function both of stability of covered jobs and of age; older persons are somewhat more settled in their work than younger persons.

TABLE 16.—Average wage credits of workers under old-age and survivors insurance by year, 1937-50

Calendar year	Workers with any wages in year			Workers with wages in all 4 calendar quarters		
	Total	Male	Female	Total	Male	Female
	Actual, for \$3,000 maximum wage base					
1937.....	\$899	\$1,037	\$539	(1)	(1)	(1)
1938.....	832	958	508	\$1,211	\$1,359	\$783
1939.....	881	1,014	536	1,246	1,400	800
1940.....	926	1,070	553	1,305	1,465	831
1941.....	1,014	1,188	574	1,466	1,646	910
1942.....	1,127	1,364	609	1,703	1,930	1,017
1943.....	1,289	1,581	787	1,913	2,205	1,271
1944.....	1,369	1,681	887	1,996	2,300	1,402
1945.....	1,328	1,591	895	1,982	2,293	1,384
1946.....	1,394	1,635	929	2,031	2,269	1,481
1947.....	1,571	1,831	1,044	2,173	2,393	1,611
1948 <sup>2</sup> .....	1,676	1,939	1,137	2,283	2,494	1,739
1949 <sup>2</sup> .....	1,701	1,950	1,178	2,298	2,513	1,747
1950 <sup>2</sup> .....	1,780	2,030	1,250	2,390	2,630	1,800
	Estimate, for \$3,600 maximum wage base					
1950 <sup>2</sup> .....	\$1,010	\$2,210	\$1,260	\$2,580	\$2,880	\$1,820

<sup>1</sup> Data not available.

<sup>2</sup> Preliminary.

The carrying through of the prospective cost progress of the program using the various elements discussed above furnishes reasonable illustrations of future beneficiaries and costs, though neither the lowest nor the highest conceivable, the values derived being within the outside boundaries of possibility. Experience to date is limited, the payment of monthly benefits having begun only in 1940 and these were revised drastically in 1950. As payments got under way, the limitations of coverage and the insured-status requirement excluded large numbers of potential beneficiaries. Payments were further delayed by the lag with which any new program commences. In recent years, as the lag has lessened, payments among the relatively small number eligible to receive them have been limited by postponements in the claiming of benefits occasioned by the war and immediate postwar conditions. The long-range illustrations look beyond these various limitations and furnish some indication of the trend in the costs of the old-age and survivors insurance program.

An important element affecting old-age and survivors insurance costs arose through amendments made to the Railroad Retirement Act in 1946, which provide for a coordination of railroad retirement and old-age and survivors insurance covered wages in determining survivor benefits. In some instances such survivor benefits based on the combined wage credits will be paid by the railroad retirement system, whereas in other cases the benefits will be paid by the old-age and survivors insurance system regardless of the fact that each specific individual worker contributed in part under one system and in part

under the other. In the long-range cost illustrations developed here it is assumed that eventually the impact of the costs of the coordinated benefits between the two systems will be properly allocated, and that there will be such a small net effect on the long-range costs that this coordination provision does not have to be taken into account for cost purposes here. Even if it were desirable to consider this element, there are no available data for making any reasonable long-run estimates at this time.

Table 17 summarizes the previous discussion by showing illustrative numbers of beneficiaries. The category "younger survivors" comprises orphaned children and their widowed mothers. Widows, widowers, and parents aged 65 and over are included under the old-age category, as are also spouses and dependent children of old-age beneficiaries.

TABLE 17.—*Estimated old-age and survivors insurance beneficiaries in receipt of benefits as of middle of selected years, 1960-2000*

[In thousands]

Calendar year	Low cost estimate			High cost estimate		
	Aged beneficiaries	Younger survivors	Lump sum <sup>1</sup>	Aged beneficiaries	Younger survivors	Lump sum <sup>1</sup>
1960	4,800	1,450	690	7,000	1,200	630
1980	9,930	1,850	1,090	15,600	1,000	1,000
2000	13,400	2,150	1,470	23,400	850	1,470

<sup>1</sup> Number of deaths during the year resulting in lump-sum payments.

NOTE.—Actual data for December 1950: 2,651,000 old-age beneficiaries and 826,000 younger survivors.

It is to be noted that in addition to the assumptions already discussed, the long-range cost illustrations include assumptions relating to retirement rates, interest rate, and various miscellaneous administrative factors. Since the earlier cost illustrations were developed, sufficient actual experience under the operation of the program is available to permit various modifications to be introduced to allow for such factors as the minimum and maximum provisions as to benefits, and the provision that the lump-sum death payment, in certain instances, may not exceed the actual burial expenses. Also taken into account in the cost illustrations here presented are such miscellaneous factors as differential retirement rates by marital status and the effect on the size of survivor benefits of lowered earning capacity during last illness.

#### *Illustrative long-range costs*

There now follows a presentation of the illustrative cost results of combining values for the various elements discussed earlier in this section. The long-range cost illustrations, which are subject to continual testing, refinement, and readjustment, are presented in table 18.

In addition to the figures for the low cost and high cost estimates, there have been developed intermediate cost estimates which are merely an average of the low cost and high cost estimates and are not intended to represent "most probable" figures. Rather, they have been set down as a convenient and readily available single set of figures to be used for comparative purposes.

TABLE 18.—*Illustrations of benefit payments, contribution income, and size of the old-age and survivors insurance trust fund in selected years, 1960–2000*

Calendar year	Benefit payments (in billions)	Contribution income (in billions)	Trust fund at end of year (in billions)	Benefits as percent of payroll
Actual data <sup>1</sup>				
1950.....	\$0.96	\$2.67	\$13.7	1.1
Low-cost estimate				
1960.....	\$3.2	\$5.4	\$32	2.8
1970.....	5.0	7.8	64	4.0
1980.....	6.6	8.5	103	4.0
1990.....	8.1	9.0	133	5.7
2000.....	8.8	9.6	175	5.8
Level premium in perpetuity <sup>2</sup> .....				4.8
High-cost estimate				
1960.....	\$4.3	\$5.4	\$25	3.7
1970.....	6.7	7.9	40	5.3
1980.....	9.3	8.3	48	7.1
1990.....	12.1	8.4	29	9.0
2000.....	13.7	8.5	(3)	10.2
Level premium in perpetuity <sup>2</sup> .....				7.5
Intermediate cost estimate <sup>4</sup>				
1960.....	\$3.8	\$5.4	\$29	3.3
1970.....	5.9	7.9	52	4.7
1980.....	8.0	8.4	75	6.0
1990.....	10.1	8.7	83	7.3
2000.....	11.3	9.1	78	7.9
Level premium in perpetuity <sup>2</sup> .....				6.1

<sup>1</sup> Based on Daily Statement of the U. S. Treasury and on benefit payments of old law for 9 months and contribution income of old law for entire year.

<sup>2</sup> Level premium contribution rate (based on 2 percent interest) for benefit payments after 1950 and into perpetuity, not taking into account the accumulated funds at the end of 1950 or administrative expenses.

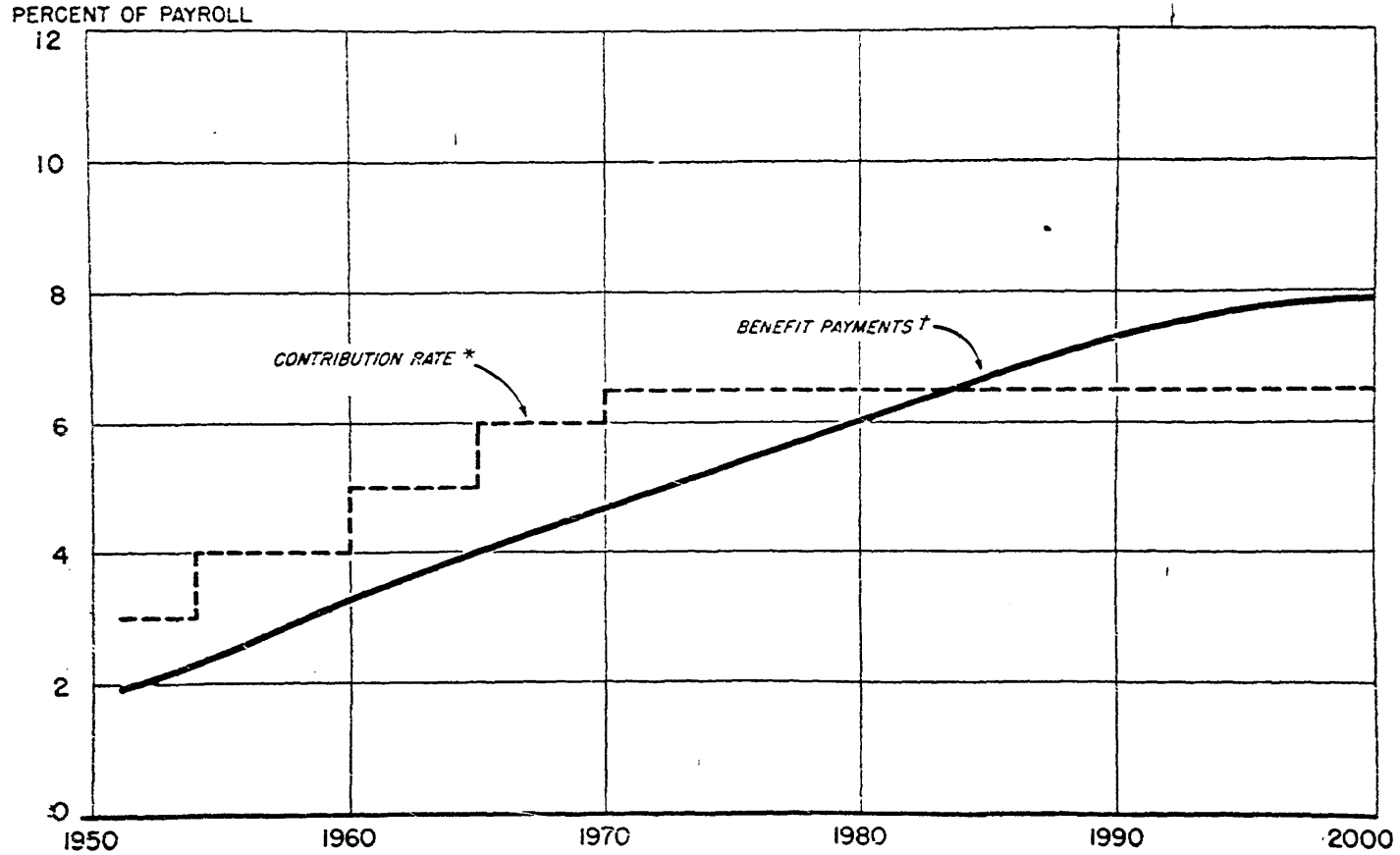
<sup>3</sup> Fund exhausted in 1997.

<sup>4</sup> Based on an average of the dollar costs under the low-cost and high-cost estimates.

Furthermore, since Congress adopted the principle of establishing in the law a contribution schedule designed to make the system self-supporting, it was necessary to select a single set of estimates as a basis for this contribution schedule. The intermediate estimate was used for this purpose. Quite obviously any specific schedule may require modification in the light of experience but the establishment of the schedule in the law does make clear the congressional intent that the system be self-supporting. Further, exact self-support cannot be obtained from a specific set of integral or rounded fractional rates, but rather this principle of self-support was aimed at as closely as possible by the Congress when it developed the tax schedule in the law.

Chart 1 shows the year-by-year cost of the benefit payments relative to payroll according to the intermediate cost estimate, along with the applicable contribution rates. Table 18 shows the steady rise in benefit payments under the widely different sets of conditions discussed earlier in this section, and demonstrates the larger increases, relatively and in absolute quantities, which would occur even after 1980, particularly within the framework of the high cost assumptions.

CHART I  
COST OF 1950 AMENDMENTS



\* COMBINED RATE FOR EMPLOYEE AND EMPLOYER. SELF-EMPLOYED PAY THREE-FOURTHS OF THIS RATE.  
† AVERAGE OF LOW AND HIGH COST ESTIMATES. THIS IS NOT NECESSARILY THE "MOST PROBABLE" ESTIMATE.

Because of the nature of the assumptions, the chart shows only smooth curves and hence does not show the irregularities and periodic cyclical variations which may develop. These irregularities are expected to be far more pronounced in the curves pertaining to contributions than in those representing benefits, because the dollar amount of the benefit roll, after the system is well established, will contain a large proportion of fixed payments to permanently retired persons. However, the payroll of covered workers from which the contribution income is derived is quite sensitive to current fluctuations, through increases or decreases in job opportunities, changes in the length of the workweek, and changes in unit rates of pay. Thus, the chart indicates more smoothness of income and disbursements, especially the former, and more stability in the percentage relationship of the two than actually is likely to occur. In fact, for demographic reasons alone, as discussed earlier in this section, it is unlikely that the system even eventually would level out to a completely fixed relationship between contributions and benefits.

In the low cost estimate, contribution income exceeds benefit disbursements in all years over the next half-century; accordingly, the trust fund builds up quite rapidly and even some 50 years hence is growing at a rate of \$4 billion per year (and at that time is about \$175 billion in magnitude). On the other hand, under the high cost estimate, the benefit disbursements exceed contribution income after 1975, and the trust fund after building up to a maximum of nearly \$50 billion shortly before 1980 decreases thereafter until being exhausted shortly before the year 2000.

These results are consistent and reasonable since the system on an intermediate cost estimate is intended to be approximately self-supporting. Accordingly, a low cost estimate should show that the system is more than self-supporting and a high cost estimate should show that a deficiency will arise in later years. In actual practice under the financing basis established by the Congress, the tax schedule undoubtedly would be adjusted in future years so that neither of the developments of the trust fund under the low cost and high cost estimates shown in table 18 would ever eventuate. Thus, if actual experience followed the low cost estimate, the contribution rates would probably be adjusted downward, or perhaps would not be increased as scheduled. On the other hand, if the experience followed the high cost estimate, the contribution rates would have to be raised above those scheduled. At any rate, considering the high cost estimate, it appears likely that under any reasonable circumstances there will be ample funds for several decades even under relatively unfavorable experience.

According to the intermediate cost estimate, contribution income exceeds benefit disbursements until somewhat after 1980. Accordingly, the trust fund grows steadily, reaching a maximum of \$83 billion in 1990, and then declines slowly. This decrease indicates that the tax schedule in the law is not quite self-supporting according to this intermediate cost estimate, but it is sufficiently close for all practical purposes considering the uncertainties and variations possible in the cost estimates.

Previously, it was mentioned that current wage levels are about 10 percent in excess of those used in the cost estimates. While this

factor will be taken into account in the new cost estimates now being prepared, its general effect may be briefly considered. Because of the weighted nature of the benefit formula, an increase in wage assumption raises the absolute dollar amount of contribution income more than benefit disbursements. Accordingly, under these circumstances, the cost of the program relative to payroll is decreased. Roughly, if the assumed wage level were 10 percent higher, this would result in a reduction in cost of about one-fourth of 1 percent of payroll on a level premium basis according to the intermediate-cost estimate. On the basis of such a lower cost, the system would be just about self-supporting under the intermediate cost estimate, rather than being not quite self-supporting, as indicated in table 18.

Another factor mentioned earlier, but not used in the actuarial projections is the trend, exhibited in the past, of an irregular but upward movement in earnings, both on a dollar basis and in the form of real wages. If this secular trend continues, then—other things being equal—the curves of benefits and contributions would both be more steeply ascending than shown. The upward changes in the contribution curves, however, would be far more accentuated than would be such change in the benefit curves. There are several reasons for this, the important one being that the benefit increase would be dampened because—

(1) The benefits are determined by the average monthly wage up to the maximum of \$300; 50 percent is applied to the first \$100 thereof and 15 percent to that part above \$100. As average wages increase and as more persons approach or reach the \$300 maximum, a larger portion of such wages falls in that portion of the benefit formula to which the 15-percent rather than the 50-percent rate applies. Thus benefits are smaller in relation to wages, and consequently in relation to contributions.

(2) Any year's contributions are substantially based on the covered wages of that year, while any year's benefits in force are based on weighted composite wages of all previous years in which the insured persons on whose account the benefits are paid worked in covered employment, thus including—in far-distant future years—wages of as much as 60, 70, or more years previously.

Under the assumptions of a 1-percent compound annual rate of increase in wage level and of a static benefit formula unchanging from the present provisions, benefit disbursements in the year 2000 would be only about 10 percent higher than under a level-wage assumption as in table 16 and chart 1). At the same time, contributions would be increased by about 30 percent under the high-employment assumptions. On this basis, the annual benefits related to annual payroll for the year 2000 would be as follows:

	Rising wage	Level wage
	Percent	Percent
Low-cost assumptions.....	4.7	5.8
High-cost assumptions.....	8.3	10.2

Thus, the cost of benefits relative to contributions in a year half a century hence would be decreased by about 20 percent under an increasing wage, static benefit, formula assumption. Under such a

wage assumption, the cost expressed as a level premium into perpetuity, taking into account discounting at 2 percent interest, would show a range of from 4½ to 6½ percent, as contrasted with the range of from 5 to 7½ percent as shown in table 16. Quite obviously, if the increase assumed had been 2 percent rather than 1 percent—which some economists feel would be a rather conservative assumption over the long-range future—the differences indicated above would be almost doubled.

The assumption of steadily rising average wages in conjunction with an unamended benefit formula has an important bearing in consideration of the long-range cost of the program. With such an assumption, the future rise in wages would seem to offer significant financial help in the financing of benefits because payroll contributions at a fixed percentage rate would increase steadily relative to benefit disbursements; but the benefits paid to beneficiaries would steadily diminish in relation to current wage levels. In such a case, offsetting this apparent savings in cost, it is likely that the present benefit formula would not be maintained; rather, revisions would probably be adopted by Congress (perhaps with some delay) which would make average benefits as adequate relative to the then-existing wage level as average benefits under the present formula are in relation to the 1949-50 level. In revising the benefit schedule to conform with the altered wage level, the changed cost and contribution picture would have to be considered, especially as to changes resulting from the fact that benefits would be based on wages prevailing at the time of such change, while contributions and the interest accumulated thereon would be based on the lower wages prevailing during the past and as to the normal time lag between a rise in wage levels and the amendment of the benefits.

In addition to the excluding the assumption of increasing wages in the future, the cost examples given have avoided dealing with various other important secular trends with diverse effects on costs which cannot now be adequately extrapolated into the future. One illustration is the lengthening of the period of childhood or preparation for work. Another possibility is a drastic change in the average age of retirement either to a considerably lower effective age so that practically all persons would retire at the minimum age of 65, or conversely to a higher effective age under circumstances of greatly improved health conditions combined with good employment opportunities, such that few would retire before age 70 or even 75.

#### SUMMARY AND CONCLUSIONS

The period covered by this report ended just before enactment of the 1950 amendments to the Social Security Act which made major changes in the coverage, eligibility, and benefit provisions of the old-age and survivors insurance program. The Board of Trustees in its tenth annual report expressed the hope that the comprehensive reexamination of the program which Congress began in 1949 would lead to the development of a program in all respects more nearly in accord with current and prospective conditions. The Board of Trustees believes that the 1950 amendments, which were the result of this broad congressional review, are an important advance in social security protection.

The new amendments did not affect the operations of the trust fund during the fiscal year 1950, but they will have significant effects on the fund's income and disbursements in both the immediate and more distant future. During the first year of the expanded program—fiscal year 1951—benefit disbursements are expected to be about \$1.6 billion, or about twice the amount in fiscal 1950. In the last of the five fiscal years ahead, annual payments are expected to total between \$2.8 and \$3.1 billion. The trend of benefit payments will be upward throughout the remainder of the century; by 1970 benefit disbursements are expected to increase to  $3\frac{1}{2}$  to  $4\frac{1}{2}$  times their level in fiscal year 1951.

Despite the large increase in benefit disbursements, contributions paid by employers, employees, and self-employed persons in each of the five fiscal years immediately ahead are expected to be wholly sufficient to meet the disbursements of the old-age and survivors insurance program in each of those years.

The Nation's commitment to a long-range military and economic defense program has far-reaching implications for the old-age and survivors insurance program; some of them are immediately apparent while others relate to the long-run financing of the program and are more difficult to assess. For example, the transfer of large numbers of persons from civilian employment to the armed services again raises the question as to the extent and type of old-age and survivors insurance protection to be provided to veterans and how such protection should be financed. The benefits provided to survivors of World War II veterans under the 1946 amendments were financed by special appropriations and not charged to the trust fund. The 1950 amendments, which provided additional benefits for World War II veterans, charged to the trust fund not only these additional benefits but also those payable under the 1946 amendments. In any consideration of legislative proposals to provide similar benefits for members of the Armed Forces called into service on account of the present emergency, Congress will need to consider again whether the cost of these benefits are a proper charge against the trust fund or whether they should be met by funds specially provided for this purpose.

Another problem aggravated by recent developments is how to maintain an adequate level of benefits in the face of a changing price level. The recent upturn in prices may prove, of course, to be temporary. As pointed out by the Board in previous reports, however, the evidence from historical experience and from the past development of our economic system indicates that, aside from any temporary fluctuations, there is likely to be a long-time rise in the level of income and earnings in the Nation. This upward trend, affecting real wages as well as money wages, has been somewhat uneven in the past, but it has been persistent. If the benefit formula provided by the present act were to remain unchanged, the effect of an increased level of wages would be a lower level-premium cost in terms of percentage of payroll as compared with the figures shown in table 18 of this report. The estimates in this table are based on the assumption that the benefit formula will be adjusted upward to reflect the rise in wage rates, national income, and living standards.

With the substantial changes in the insurance program brought about by the 1950 amendments and the economic adjustments result-



ing from the preparedness program, study of the financial aspects of old-age and survivors insurance remains an urgent need. This fact was recognized in the Eighty-first Congress by the adoption of Senate Resolution 300 which provides, among other things, for a study of the financing of the program. The Board is convinced that, in the future as in the past, prudent management of the finances of the old-age and survivors insurance trust fund will require that special emphasis be given to the long-range relationships between the income and disbursements of the fund.

