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1982 ANNUAL REPORT, FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS

COMMUNICATION

FROM

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

TRANSMITTING

THE 1982 ANNUAL REPORT OF THE BOARD, PURSUANT TO SECTION 201(c) OF THE SOCIAL SECURITY ACT

APRIL 1, 1982.—Referred to the Committee on Ways and Means and ordered to be printed

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LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE
FEDERAL OLD-AGE AND SURVIVORS INSURANCE
AND DISABILITY INSURANCE TRUST FUNDS,
Washington, D.C., April 1, 1982.

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

SIR: We have the honor to transmit to you the 1982 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund (the 42nd such report), in compliance with the provisions of section 201(c) of the Social Security Act.

Respectfully,

DONALD T. REGAN,
Secretary of the Treasury,
and Managing Trustee of the Trust Funds.

RAYMOND J. DONOVAN,
Secretary of Labor,
and Trustee.

RICHARD S. SCHWEIKER,
Secretary of Health and Human Services,
and Trustee.

JOHN A. SVAHN,
Commissioner of Social Security,
and Secretary, Board of Trustees.

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Click on a Topic Below

CONTENTS

1982 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND AND THE FEDERAL DISABILITY INSURANCE TRUST FUND

I. THE BOARD OF TRUSTEES

The Federal Old-Age and Survivors Insurance Trust Fund, established on January 1, 1940, and the Federal Disability Insurance Trust Fund, established on August 1, 1956, are held by the Board of Trustees under the authority of section 201(c) of the Social Security Act. The Board is comprised of three members, who serve in an ex officio capacity. The members of the Board are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The Secretary of the Treasury is designated by law as the Managing Trustee. The Commissioner of Social Security is Secretary of the Board. The Board of Trustees reports to the Congress once each year, in compliance with section 201(c)(2) of the Social Security Act. This report is the annual report for 1982, the 42nd such report.

II. HIGHLIGHTS

This section summarizes the more important developments since the 1981 Annual Report was issued and describes the major features of this year's report. These topics are discussed in more detail in later sections.

Financial status of the trust funds

Without corrective legislation in the very near future, the Old-Age and Survivors Insurance Trust Fund will be unable to make benefit payments on time beginning no later than July 1983. Under present law, and on the basis of any reasonable set of economic assumptions, the expenditures of the OASI program will continue to exceed income from payroll taxes and other sources through at least 1986. To date, benefit payments have been made on a timely basis by drawing down the assets of the OASI Trust Fund to cover the shortfall. This, of course, is the fund's purpose: to act as a contingency reserve during temporary periods when outgo exceeds income. At this time, however, the assets of the OASI Trust Fund have been reduced to such a low level that they will not be able to continue making up the difference between outgo and income much longer. If assets are allowed to decline to the point where their amount at the end of a particular month is less than the benefit payments falling due on the third of the following month, inability to pay some benefits on time for that month would result.

Recent amendments authorized loans (to be repaid with interest) among the OASI, DI, and Hospital Insurance (HI) Trust Funds at the discretion of the Managing Trustee. This authority expires at the end of 1982. In addition, the Conference Report on the amendments specified that "In no case shall such interfund borrowing make adjustments in the trust funds insuring benefit payments for a period more than six months beyond the date of such determination."[1] The financial projections shown in this report are based on the assumption that, in December 1982, the Managing Trustee will direct sufficient loans from the DI and HI Trust Funds to the OASI Trust Fund so that OASI benefit payments through June 3, 1983 can be made on time. Lacking further authority to continue loans, and in the absence of other legislation to increase income or reduce expenditures, the OASI Trust Fund would be unable to pay the benefits falling due on July 1, 1983.[2] If interfund loans were not made, the OASI Trust Fund would become unable to pay some benefits on time beginning late in 1982.

Four sets of financial projections are shown for the Old-Age, Survivors, and Disability Insurance program, to indicate future income and outgo under a broad range of conditions which are described in the section entitled "Economic and Demographic Assumptions." As in recent annual reports, one set of assumptions is designated as "optimistic" and another is termed "pessimistic." The particular assumptions in each set are so characterized depending on whether they have a favorable or unfavorable effect on the financial status of the trust funds. As was the case in the 1981 report, two alternative "intermediate" sets of assumptions are used: alternative II-A and alternative II-B. Alternatives

[1] *House Report No. 97-409*, 97th Congress, pp. 10-11.

[2] Under section 708(a) of the Social Security Act, benefits for June 1983 will be payable on July 1, instead of July 3, because July 3 is a Sunday.

II-A and II-B share the same demographic assumptions. However, alternative II-A assumes future economic performance resembling that of the more robust recent economic expansions; alternative II-B assumes economic performance resembling less robust economic expansions. This presentation illustrates the beneficial effect on the financial status of the trust funds of higher real growth in wages, higher employment, and lower inflation for any given set of demographic assumptions. The "pessimistic" assumptions this year are designed, in the short range, to represent a very adverse economic situation although it must be emphasized that these assumptions do not portray the worst conditions that could possibly occur.

The financial projections are described in detail for three time periods of particular interest—short range, medium range, and long range. The estimates for the various time periods can be summarized as follows:

(a) Short range (1982-86)—Under all four sets of assumptions, expenditures from the OASI Trust Fund are expected to exceed income in every year during this period. Under present law, the assets of the OASI Trust Fund would soon become insufficient to pay benefits when due. This would occur no later than July 1983 under each set of assumptions. Accordingly, changes in the law are needed so that OASI benefits will continue to be paid when due. In contrast, after 1982, the DI Trust Fund is projected to increase in every year throughout the projection period under all four sets of assumptions. Its rate of growth, however, would not be sufficient to offset the projected declines in the OASI Trust Fund, and the assets of both trust funds, if combined, would also become depleted under each set of assumptions. As noted in the concurrent 1982 Annual Report on the status of the Hospital Insurance Trust Fund, the assets of this fund are expected to begin declining within the next few years. The projections of the operations of the HI Trust Fund, and of the OASI, DI, and HI Trust Funds combined, are summarized in Appendix F. Under the optimistic and the intermediate II-A assumptions, an extension of interfund borrowing (or a reallocation of tax rates among all three trust funds) would narrowly prevent the depletion of any of the trust funds in the short term. Under the intermediate II-A assumptions, however, the margin over the minimum amount of combined assets required to prevent depletion is virtually nonexistent. If emerging economic conditions are even slightly less favorable, the funds would become depleted. Under the intermediate II-B and the pessimistic assumptions, the combined assets of all three trust funds would be depleted during the short-range projection period.

(b) Medium range (1982-2006)—Under the four alternative sets of assumptions, average annual total costs for the OASDI program range from 9.75 to 12.73 percent of taxable payroll, while payroll tax income averages 12.01 percent of taxable payroll. Thus, the projected average actuarial balance ranges from a surplus of 2.26 percent of taxable payroll to a deficit of 0.72

percent of taxable payroll, depending on assumed economic growth and other factors over the next 25 years. Although a surplus is shown under all but the pessimistic assumptions, on average for the next 25 years, this surplus reflects the short-range OASI deficits described above being more than counterbalanced by a subsequent period of significant financial surpluses.

(c) Long range (1982-2056)—Over this 75-year period, annual costs for the OASDI program are projected to average from 10.98 to 18.74 percent of taxable payroll, depending on the particular trends assumed in the key economic and demographic factors. Since scheduled payroll tax income averages 12.27 percent of taxable payroll during this period, the projected long-range average actuarial balance varies from a surplus of 1.29 percent of taxable payroll under the optimistic assumptions to a deficit of 6.47 percent of taxable payroll under the pessimistic assumptions. Under alternatives II-A and II-B, respectively, average deficits of 0.82 and 1.82 percent of taxable payroll are projected. Under both sets of intermediate assumptions, this average reflects the near-term annual deficits, the projected surpluses in the remaining portion of the first 25-year period, and substantial deficits projected for the second and third 25-year periods. Projections for such distant periods are subject to considerable uncertainty and should be interpreted, not as precise forecasts of expected program operations, but as indications of how the trust funds would operate if the assumed economic and demographic conditions actually materialize and if there were no future legislative changes in the program. Despite their inherent uncertainty, long-range projections provide a valuable measure of the long-range financial obligations of the Social Security program and information on how program costs would respond to changing conditions.

Trust fund operations during fiscal year 1981

(a) The total assets of the OASI and DI Trust Funds declined by $5.0 billion during fiscal year 1981, to $27.2 billion on September 30, 1981. Income amounted to $134.6 billion and expenditures totaled $139.6 billion. Disbursements from the OASI Trust Fund exceeded income by $0.7 billion, and the assets of the OASI Trust Fund declined to $23.8 billion by the end of the fiscal year. The assets of the DI Trust Fund decreased by $4.3 billion, to $3.4 billion on September 30, 1981, reflecting the effect of the temporary reallocation of tax rates between the OASI and DI programs (effective in 1980-81 only).

(b) The total number of persons receiving monthly benefits under the OASDI program was 35.8 million at the end of September 1981. An estimated 116 million workers had earnings in calendar year 1981 that were taxable and creditable toward benefits under the program.

(c) The trust funds earned interest amounting to $2.3 billion during fiscal year 1981. The effective annual rate of interest earned by the combined assets of the OASI and DI Trust Funds during the 12 months that ended June 30, 1981 was 9.2 percent. During this same period, the average interest rate on new securities purchased by the trust funds was 11.9 percent.

(d) Administrative expenses for the OASDI program in fiscal year 1981 were $1.7 billion, which represented 1.2 percent of total benefit payments made during the year.

Developments since the last annual report

(a) An automatic cost-of-living benefit increase of 11.2 percent became effective for June 1981. (The published statement announcing the determination of this increase is shown in Appendix C.)

(b) Effective for 1982, the contribution and benefit base was increased from $29,700 to $32,400. In accordance with the schedule in the law, the OASDI contribution rate for employees and employers, each, increased from 5.35 percent in 1981 to 5.40 percent in 1982. The corresponding rate for self-employed persons increased from 8.00 percent to 8.05 percent. The annual exempt amount under the retirement earnings test was increased from $5,500 to $6,000 for beneficiaries aged 65 through 71, and from $4,080 to $4,440 for beneficiaries under age 65. The amount of annual earnings required for a quarter of coverage was increased from $310 to $340. The published statement announcing these changes is shown in Appendix D.

III. NATIONAL COMMISSION ON SOCIAL SECURITY REFORM

On December 16, 1981, the President established the National Commission on Social Security Reform, in accordance with the provisions of the Federal Advisory Committee Act. The Commission consists of fifteen members selected by the President, the Majority Leader of the Senate, and the Speaker of the House of Representatives, each of whom selected five members. No more than three of the five members selected by each belonged to the same political party. A Chairman was designated by the President from among the members of the Commission.

The Commission is charged with the following functions:

1. Review relevant analyses of the current and long-term financial condition of the Social Security trust funds;
2. Identify problems that may threaten the long-term solvency of such funds;
3. Analyze potential solutions to such problems that will assure both the financial integrity of the Social Security system and the provision of appropriate benefits; and
4. Provide appropriate recommendations to the Secretary of Health and Human Services, the President, and the Congress.

The Commission must make its report to the President by December 31, 1982, and shall terminate 30 days after submitting its report.

IV. SOCIAL SECURITY AMENDMENTS SINCE THE 1981 REPORT

Since the 1981 Annual Report was published, several amendments affecting the OASDI program have been enacted. The legislative changes with a significant effect on the program's financial status are described below.

The Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35, signed August 13, 1981) amended several benefit provisions in the Social Security Act. The more important changes, significant from an actuarial standpoint, are:

1. Regular minimum benefits were eliminated for all beneficiaries who initially become eligible for benefits after October 1981. For such persons, benefits were to be based on a Primary Insurance Amount determined by the benefit formula and could therefore be less than the old minimum of $122. For all other beneficiaries—those eligible for benefits before November 1981—regular minimum benefits were to have been eliminated beginning with benefits for months after February 1982. (However, as noted later in this section, minimum benefits were subsequently restored for beneficiaries who initially became eligible for benefits before 1982.)
2. Child's benefits paid to students aged 18-21 are to be gradually eliminated for persons who are students at postsecondary schools, with full elimination of such benefits completed by May 1985. Child's benefits for students aged 18 who attend elementary or secondary schools will end at age 19, effective with benefits for months after July 1982. Students who began postsecondary school before May 1982, and received a child's benefit for August 1981, may continue to receive benefits as a postsecondary student. However, beginning with benefits for September 1982, the amount of the benefit will be reduced each year by 25 percent of the benefit amount payable for August 1981. No student's benefits for postsecondary students aged 18 or over will be paid after April 1985. Further, the benefits of postsecondary students will not be increased for cost-of-living benefit increases in June 1982 or later. Finally, postsecondary student's benefits will not be paid to such beneficiaries for the months of May through August, regardless of whether the student is in full-time school attendance. Students who begin postsecondary school after April 1982, or who first become entitled to child's benefits after August 1981, can receive benefits as a postsecondary student, but only for months through July 1982 (and including the cost-of-living benefit increase for June 1982).
3. Benefits paid to a disabled worker, including any benefits paid to the worker's spouse and children, will be reduced (if necessary) so that the sum of all benefits payable under certain Federal, State, and local public programs on the basis of disability will not exceed 80 percent of the worker's "average current earnings" (as defined in the law by the 1965 amendments). The provision does not apply to service-connected

benefits payable by the Veterans Administration, public-employee pensions based on employment covered under OASDI, needs-based public benefits, or private pension or insurance benefits. The provisions of the new offset are more inclusive than but otherwise similar to the workmen's compensation offset provision in prior law. The provision in prior law was also broadened by extending the workmen's compensation offset to disabled workers aged 62-64 and by making the offset effective with the month of the worker's first concurrent entitlement to disability benefits under both Social Security and some other program, instead of the month of application for Social Security disability benefits or, if later, the month in which the Secretary of Health and Human Services is notified of such other entitlement. In addition, the present restriction against the offset when a State plan calls for reducing State workmen's compensation benefits because of Social Security disability benefits will be limited to those States having such a plan in effect on February 18, 1981. The new offset provisions become effective for workers whose first month of entitlement to disability insurance benefits is after August 1981 and is based on a period of disability that begins after February 1981.

4. Mothers or fathers, of entitled children, will be eligible for mother's or father's benefits only until the youngest entitled child reaches age 16, instead of age 18 as under prior law, unless the parent is caring for a disabled entitled child aged 16 or over. Parents becoming entitled to mother's or father's benefits after August 1981 are immediately affected by this change. Parents entitled to such benefits for the month of August 1981 are not affected until after August 1983.
5. Beginning with workers or spouses who attain age 62 after August 1981, the first month of entitlement to old-age insurance benefits, or wife's or husband's benefits, can be no earlier than the first month throughout which all eligibility requirements are met. The major effect of this change is to postpone, in the vast majority of cases, the first month for which an individual can become entitled to old-age benefits, or aged wife's or husband's benefits, from the month of attainment of age 62 to the next month, with reduction for early retirement, in such cases, based on a reduction period of 35 months, instead of 36 months, before age 65.
6. Benefit amounts will be rounded to the next lower dime, instead of the next higher dime, at every step of the benefit calculation, and then to the next lower dollar (after deducting any SMI premium) at the final step, effective for initial calculations and adjustments of Primary Insurance Amounts and benefit amounts which are attributable to periods after August 1981.
7. Effective for deaths of insured workers after August 1981, the lump-sum death benefit will be payable only to a spouse living with the worker at time of death or, if there is no such spouse,

to a spouse (excluding a divorced spouse) who is eligible for widow's or widower's benefits for the month in which the worker died or, if there is no spouse eligible for the payment, to any children who are eligible for child's benefits, based on the worker's earnings, for the month of death.

8. The reduction in the age at which a beneficiary becomes exempt from the retirement test is postponed 1 year, so that the exempt age remains at age 72 through 1982 and drops to age 70 in 1983 instead of 1982 as provided under prior law.
9. Effective with respect to vocational rehabilitation services provided after September 1981, the cost of providing such services to disabled OASDI beneficiaries will be reimbursed from the trust funds only for those disabled beneficiaries who successfully engage in Substantial Gainful Activity (SGA) for 9 continuous months and for whom such services contributed to the successful return to SGA.

Public Law 97-123, signed December 29, 1981, amended the Social Security Act, the Omnibus Budget Reconciliation Act of 1981, and the Internal Revenue Code. The changes that are signficant from an actuarial standpoint are:

1. Minimum benefits, which had been eliminated under the Omnibus Budget Reconciliation Act of 1981, were restored for all persons eligible for benefits before January 1982 or whose benefits are based on the earnings of a worker who became eligible for benefits, or died, before January 1982. In addition, entitlement to minimum benefits will be retained for persons who become eligible for benefits after 1981 and before 1992 and who are members of a religious order which requires its members to take a vow of poverty and which elected to be covered under Social Security before December 29, 1981.
2. Interfund borrowing among the OASI, DI, and HI Trust Funds was authorized through December 31, 1982 with a provision for payment of interest on amounts borrowed.
3. Social Security coverage was extended to the first partial month and the subsequent 6 full months of sick pay including payments by insurance companies and payments under State temporary disability insurance laws. (Payments for non-work-related temporary disability under the Railroad Unemployment Insurance Act are similarly treated as taxable compensation under the Railroad Retirement Tax Act.) Any portion of such sickness benefits attributable to employee contributions is not covered.

Details of these amendments can be found in documents prepared by and for the Congress. In particular, estimates of the financial effects of the new provisions on the OASDI program are available in these documents. The financial projections shown in this report reflect the effects of these amendments.

92-464 O - 82 - 2

V. NATURE OF THE TRUST FUNDS

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

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

In general, an individual's contributions are computed on annual wages or self-employment income, or both wages and self-employment income combined, up to a specified maximum annual amount. The contributions are determined first on the wages and then on any self-employment income within the annual maximum amount. An employee who pays contributions on wages in excess of the annual maximum amount (because of employment with two or more employers) is eligible for a refund of the excess employee contributions on the income tax form. The amount of benefits that an individual (or his or her spouse and children) may become entitled to under the OASDI program is based on the amount of the individual's taxable earnings in each year. In computing benefits for persons who first become eligible in 1979 or later, the earnings in each year are indexed to take account of increases in average wage levels. The maximum amount of earnings taxable in a year is also the maximum amount of earnings creditable toward benefits in that year (the contribution and benefit base).

The contribution rates applicable to taxable earnings in each calendar year, and the allocation of the rates between the two trust funds, are shown in Table 1. For 1983 and later, the rates shown are those scheduled in present law. The contribution and benefit bases are also shown in Table 1. The bases for 1975-78 were determined under the automatic-increase provisions in section 230 of the Social Security Act. The bases for 1979-81 were specified in the law, as amended in 1977. The base for 1982 was determined under the automatic-increase provisions as will be the bases in 1983 and later.

TABLE 1.—CONTRIBUTION AND BENEFIT BASE AND CONTRIBUTION RATES

Calendar years	Contribution and benefit base	Contribution rates (percent of taxable earnings): Employees and employers, each OASDI	OASI	DI	Self-employed OASDI	OASI	DI
1937-49	$3,000	1.000	1.000	—	—	—	—
1950	3,000	1.500	1.500	—	—	—	—
1951-53	3,600	1.500	1.500	—	2.2500	2.2500	—
1954	3,600	2.000	2.000	—	3.0000	3.0000	—
1955-56	4,200	2.000	2.000	—	3.0000	3.0000	—
1957-58	4,200	2.250	2.000	0.250	3.3750	3.0000	0.3750
1959	4,800	2.500	2.250	.250	3.7500	3.3750	.3750
1960-61	4,800	3.000	2.750	.250	4.5000	4.1250	.3750
1962	4,800	3.125	2.875	.250	4.7000	4.3250	.3750
1963-65	4,800	3.625	3.375	.250	5.4000	5.0250	.3750
1966	6,600	3.850	3.500	.350	5.8000	5.2750	.5250
1967	6,600	3.900	3.550	.350	5.9000	5.3750	.5250
1968	7,800	3.800	3.325	.475	5.8000	5.0875	.7125
1969	7,800	4.200	3.725	.475	6.3000	5.5875	.7125
1970	7,800	4.200	3.650	.550	6.3000	5.4750	.8250
1971	7,800	4.600	4.050	.550	6.9000	6.0750	.8250
1972	9,000	4.600	4.050	.550	6.9000	6.0750	.8250
1973	10,800	4.850	4.300	.550	7.0000	6.2050	.7950
1974	13,200	4.950	4.375	.575	7.0000	6.1850	.8150
1975	14,100	4.950	4.375	.575	7.0000	6.1850	.8150
1976	15,300	4.950	4.375	.575	7.0000	6.1850	.8150
1977	16,500	4.950	4.375	.575	7.0000	6.1850	.8150
1978	17,700	5.050	4.275	.775	7.1000	6.0100	1.0900
1979	22,900	5.080	4.330	.750	7.0500	6.0100	1.0400
1980	25,900	5.080	4.520	.560	7.0500	6.2725	.7775
1981	29,700	5.350	4.700	.650	8.0000	7.0250	.9750
1982	32,400	5.400	4.575	.825	8.0500	6.8125	1.2375
Changes scheduled in present law:							
1983-84	(1)	5.400	4.575	.825	8.0500	6.8125	1.2375
1985-89	(1)	5.700	4.750	.950	8.5500	7.1250	1.4250
1990 and later	(1)	6.200	5.100	1.100	9.3000	7.6500	1.6500

[1]Subject to automatic increase.

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

Another source of income to the trust funds is interest received on investments held by the trust funds. That portion of each trust fund which, in the judgment of the Managing Trustee, is not required to meet current expenditures for benefits and administration is invested, on a daily basis, in interest-bearing obligations of the U.S. Government (including special public-debt obligations described below), in obligations guaranteed as to both principal and interest by the United States, or in certain federally sponsored agency obligations that are designated in the laws authorizing their issuance as lawful investments for fiduciary and trust funds under the control and authority of the United States or any officer of the United States. These obligations may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price.

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

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

Several other provisions in the Social Security Act also affect the income and expenditures of the trust funds. Income is affected by provisions for (1) annual reimbursements from the general fund of the Treasury to the OASI and DI Trust Funds for any cost arising from the granting of noncontributory wage credits for military service, according to periodic determinations made by the Secretary of Health and Human Services; (2) annual reimbursements from the general fund of the Treasury to the OASI Trust Fund for any costs arising from the special monthly cash payments to certain persons who reached age 72 before 1968, almost all of whom are not eligible for cash benefits under other provisions of the OASDI program; (3) the receipt of unconditional money gifts or bequests made for the benefit of the trust funds or any activity financed through the funds; and (4) amounts charged to private employee benefit plans for providing the plans with detailed earnings information. In addition to the payment of benefits from the trust funds, the following expenditures are authorized: (1) costs of vocational rehabilitation services furnished to disabled persons receiving benefits because of their disability where such services contributed to their successful rehabilitation; (2) expenses incurred by the Department of Health and Human Services and by the Department of the Treasury in carrying out the provisions of title II of the Social Security Act and the provisions of the Internal Revenue Code relating to the collection of contributions; and (3) expenditures for construction, rental and lease, or purchase contract of office buildings and related facilities for the Social Security Administration.

The net worth of facilities and other fixed capital assets is not carried in the statements of the operations of the trust funds presented in this report. This is because the value of fixed capital assets does not represent funds available for benefit or administrative expenditures, and therefore is not viewed as being a consideration in assessing the actuarial status of the trust funds.

Public Law 97-123 authorizes borrowing among the OASI, DI, and HI Trust Funds when necessary "to best meet the need for financing the benefit payments" from the three funds. The timing and amounts of the loans, the repayment procedures, and the timing of interest payments are largely at the discretion of the Managing Trustee. The law specifies that interest on a loaned amount will be paid at a rate "equal to the rate which the lending Trust Fund would earn on the amount involved if the loan were an investment." The interfund borrowing authority expires at the end of 1982 and, based on the Conference Report accompanying the amendment, at no time may amounts be borrowed in excess of the amount sufficient to ensure the timely payment of benefits for the following 6 months.

VI. SUMMARY OF THE OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1981

A. OLD-AGE AND SURVIVORS INSURANCE TRUST FUND

A statement of the income and disbursements of the Federal Old-Age and Survivors Insurance Trust Fund in fiscal year 1981, and of the assets of the fund at the beginning and end of the fiscal year, is presented in Table 2. Comparable figures for fiscal year 1980 are also shown in the table.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OASI TRUST FUND DURING FISCAL YEARS 1980 AND 1981
[In thousands]

	Fiscal year 1980	Fiscal year 1981
Total assets, beginning of year	$27,742,846	$24,565,757
Receipts:		
Contributions:		
Appropriations	86,736,410	107,659,524
Deposits arising from State agreements	11,228,740	11,736,537
Gross contributions	97,965,150	119,396,061
Less payment into the general fund of the Treasury for contributions subject to refund	357,505	379,970
Net contributions	97,607,645	119,016,091
Reimbursement from general fund of the Treasury for costs of:		
Noncontributory credits for military service	392,968	390,127
Payments to noninsured persons aged 72 and over:		
Benefit payments	140,550	126,850
Administrative expenses	1,557	1,343
Interest	21,962	21,616
Total reimbursement for payments to noninsured persons aged 72 and over	164,069	149,809
Interest:		
Interest on investments	1,885,287	2,018,614
Interest on amounts transferred from the general fund account for the Supplemental Security Income program due to adjustment in allocation of administrative expenses	46	302
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs[1]	951	-2,615
Gross interest	1,886,284	2,016,300
Less interest on amounts transferred to the DI Trust Fund due to adjustment in allocation of costs of vocational rehabilitation services	65	48
Net interest	1,886,219	2,016,252
Gifts	52	32
Total receipts	100,050,953	121,572,311
Disbursements:		
Benefit payments	100,615,304	119,413,467
Transfer to Railroad Retirement Account	1,441,988	1,584,932
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For current fiscal year	10,960	(2)
Transfers to DI Trust Fund due to adjustment in allocation of costs for prior periods	130	7,542
Total payment for costs of vocational rehabilitation services	11,090	7,542
Administrative expenses:		
Department of Health and Human Services	1,116,117	1,203,618
Department of the Treasury	36,589	71,425
Construction of facilities for Social Security Administration	21,379	10,059

TABLE 2.—STATEMENT OF OPERATIONS OF THE OASI TRUST FUND DURING FISCAL YEARS 1980 AND 1981 (Cont.)
[In thousands]

	Fiscal year 1980	Fiscal year 1981
Disbursements: (Cont.)		
Administrative expenses: (Cont.)		
Expenses of Department of Health and Human Services and Department of Education for administration of vocational rehabilitation program for disabled beneficiaries	$44	(2)
Interfund transfers due to adjustment in allocation of administrative expenses[3]	-14,135	$14,128
Interfund transfers due to adjustment in allocation of costs of construction[3]	18	-924
Gross administrative expenses	1,160,012	1,298,307
Less reimbursement from general fund of the Treasury for costs of furnishing information on deferred vested pension benefits	216	131
Less receipts from sales of supplies, materials, etc	137	69
Net administrative expenses	1,159,659	1,298,107
Total disbursements	103,228,041	122,304,048
Net increase in assets	-3,177,089	-731,737
Total assets, end of year	24,565,757	23,834,020

[1]A positive figure represents a transfer to the OASI Trust Fund from the other Social Security trust funds. A negative figure represents a transfer from the OASI Trust Fund to the other Social Security trust funds.

[2]Reimbursement for rehabilitation services provided during fiscal year 1981 (and the associated administrative expenses at the Federal level) was not requested until after the close of the fiscal year (see text for details).

[3]A positive figure represents a transfer from the OASI Trust Fund to the other Social Security trust funds. A negative figure represents a transfer to the OASI Trust Fund from the other Social Security trust funds.

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

The total assets of the OASI Trust Fund amounted to $24,566 million on September 30, 1980. During fiscal year 1981, total receipts amounted to $121,572 million and total disbursements were $122,304 million. The assets of the trust fund thus decreased $732 million during the year, to a total of $23,834 million on September 30, 1981.

Included in total receipts during fiscal year 1981 were $107,660 million representing contributions appropriated to the fund and $11,737 million representing amounts received by the Secretary of the Treasury in accordance with State agreements for coverage of State and local government employees and deposited in the trust fund. As an offset, $380 million was transferred from the trust fund into the Treasury as repayment for the estimated amount of contributions subject to refund to employees who worked for more than one employer during the course of a year and paid contributions on wages in excess of the statutory maximum earnings base.

Net contributions amounted to $119,016 million, an increase of 21.9 percent over the amount for the preceding fiscal year. Growth in contribution income resulted primarily from (1) the higher level of earnings in covered employment; (2) the two increases in the maximum annual amount of earnings taxable—from $22,900 to $25,900 and from $25,900 to $29,700—that became effective on January 1, 1980, and January 1, 1981, respectively; and (3) the increase in the OASI contribution rate for employees and employers, each, from 4.33 percent to 4.52 percent that was enacted on October 9, 1980 but which was made retroactive to January 1, 1980 and the increase from 4.52 percent to 4.70 percent that became effective January 1, 1981. Although the first increase in the maximum annual amount of earnings taxable, from $22,900 to $25,900, became effective in 1980, earnings between $22,900 and $25,900, which were taxable during all of fiscal year 1981, were taxable during only part of the preceding fiscal year. The retroactive increase in the OASI tax rate for 1980 was enacted after the close of fiscal year 1980. Thus the resulting adjustments in contribution income for the period January through September 1980 were made in fiscal year 1981 (with an associated adjustment to investment income). The retroactive OASI tax rate increase for 1980 was exactly offset by a retroactive decrease in the tax rate allocated to the DI Trust Fund (from 0.75 percent to 0.56 percent for employees and employers, each). The increase in the OASI tax rate for 1981 reflected both a reallocation from the DI program and the increase in combined OASI and DI tax rates for 1981 that was enacted in the Social Security Amendments of 1977.

Reference has been made in an earlier section to provisions of the Social Security Act under which the OASI and DI Trust Funds are to be reimbursed annually from the general fund of the Treasury for costs of granting noncontributory credits for military service and for the costs of payments to certain noninsured persons aged 72 and over.

Section 217(g) of the Social Security Act provides for reimbursement of the additional costs for military service performed before 1957 arising from benefit payments that have been made after August 1950 and those that will be made in future years, taking into account the amounts of annual appropriations in fiscal years 1966-76 that have been deposited into the trust funds. In accordance with section 217(g), the Secretary of Health, Education, and Welfare (now Health and Human Services) made a determination in 1975 of the level annual appropriations to the trust funds necessary to amortize this estimated total cost over a 39-year period, beginning in fiscal year 1977. The annual amounts resulting from this determination were $354 million for the OASI Trust Fund and $92 million for the DI Trust Fund. In accordance with section 229(b) of the Social Security Act, the Secretary of Health and Human Services has determined that the OASI Trust Fund should receive reimbursement of $36 million, and the DI Trust Fund should receive reimbursement of $38 million, for additional costs in fiscal year 1981 attributable to noncontributory credits for military service performed after 1956. Thus, reimbursements amounting to $390 million for the OASI Trust Fund and $130 million for the DI Trust Fund were received in December 1980.

A reimbursement amounting to $150 million for the costs of monthly payments to certain noninsured persons aged 72 and over was transferred from the general fund of the Treasury to the OASI Trust Fund in fiscal year 1981. This reimbursement, made under section 228 of the Social Security Act, reflected the costs of payments made in fiscal year 1979 and adjustments in the costs of payments made in prior fiscal years.

The OASI Trust Fund received $31,823 in gifts in fiscal year 1981 under the provisions authorizing the deposit of money gifts or bequests in the OASI and DI Trust Funds.

The remaining $2,016 million of receipts consisted of interest on the investments of the trust fund and net interest on amounts of interfund transfers arising out of adjustments in the allocation of administrative expenses, construction costs, and the costs of vocational rehabilitation services for prior fiscal years.

Of the $122,304 million in total disbursements, $119,413 million was for benefit payments, an increase of 18.7 percent over the corresponding amount paid in fiscal year 1980. This increase was due to (1) the automatic cost-of-living benefit increases of 14.3 percent and 11.2 percent, which became effective for June 1980 and June 1981, respectively, under the automatic provisions in section 215(i) of the Social Security Act and (2) the continuing growth in both the total number of beneficiaries and the average benefit amounts (the latter resulting from the rising level of earnings). Although the automatic benefit increase of 14.3 percent became effective in 1980, the resulting higher benefit levels (which were in effect during all of fiscal year 1981) were in effect during only part of the preceding fiscal year. The change in benefit payments from fiscal year 1980 to fiscal year 1981 also reflects the net effect of various provisions in the 1977 and later amendments.

In accordance with the provisions of the Railroad Retirement Act which coordinate the Railroad Retirement and OASI programs and which govern the financial interchanges arising from the allocation of costs between the two systems, the Railroad Retirement Board and the Secretary of Health and Human Services determined that a transfer of $1,491 million to the Railroad Retirement Account from the OASI Trust Fund would place this trust fund in the same position as of September 30, 1980, as it would have been if railroad employment had always been covered under the Social Security Act. A total amount of $1,585 million was transferred to the Railroad Retirement Account in June 1981, including interest to the date of transfer amounting to $94 million.

Expenditures of the OASI program for the costs of vocational rehabilitation services amounted to $8 million. This amount represents transfers to the DI Trust Fund resulting from adjustments to the allocation of prior years' vocational rehabilitation expenses between the two trust funds. Although trust fund expenditures for rehabilitation services were authorized in fiscal year 1981 and, in fact, such services were provided, reimbursement for the costs of these services was not requested by the Department of Education until after the close of the fiscal year. Rehabilitation services were furnished to disabled adults (children of old-age beneficiaries and survivors of deceased insured workers) who were receiving monthly benefits from the OASI Trust Fund because of their disability. Public Law 97-35 will limit the reimbursement by the trust funds for such services in the future to certain cases where a return to substantial gainful activity results (at least in part) from the rehabilitation services.

The remaining $1,298 million of disbursements from the OASI Trust Fund represents net administrative expenses. The expenses of administering the programs financed through the four trust funds (the OASI, DI, HI, and Supplementary Medical Insurance Trust Funds) are allocated and charged directly to each trust fund on the basis of provisional estimates. Similarly, the expenses of administering the Supplemental Security Income program are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are effected by interfund transfers, including transfers between the OASI Trust Fund and the general fund account for the Supplemental Security Income program, with appropriate interest allowances.

Section 1131 of the Social Security Act authorizes annual reimbursements from the general fund of the Treasury to the OASI Trust Fund for additional administrative expenses incurred by it as a result of furnishing information on deferred vested benefits to pension plan participants, as required by the Employee Retirement Income Security Act of 1974. This annual reimbursement in fiscal year 1981 amounted to $131,127.

Net administrative expenses charged to the OASI and DI Trust Funds in fiscal year 1981 totaled $1,703 million. This amount represented 1.3 percent of contribution income and 1.2 percent of expenditures for benefit payments. Corresponding percentages for each of the last 5 years for the OASDI system as a whole and for each trust fund separately are shown in Table 3.

TABLE 3.—RELATIONSHIP OF NET ADMINISTRATIVE EXPENSES OF THE OASDI PROGRAM TO CONTRIBUTION INCOME AND BENEFIT PAYMENTS, BY TRUST FUND, FISCAL YEARS 1977-81

	Total— Administrative expenses as a percentage of—		OASI Trust Fund— Administrative expenses as a percentage of—		DI Trust Fund— Administrative expenses as a percentage of—	
Fiscal year	Total contribution income	Total benefit payments	Contribution income	Benefit payments	Contribution income	Benefit payments
1977	1.8	1.7	1.4	1.4	4.2	3.4
1978	1.6	1.6	1.5	1.4	2.6	2.7
1979	1.5	1.5	1.3	1.2	2.8	3.0
1980	1.3	1.3	1.2	1.2	2.0	2.2
1981	1.3	1.2	1.1	1.1	3.2	2.4

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

Table 4 compares the experience with respect to actual amounts of contributions and benefit payments in fiscal year 1981 with the estimates for that year which appeared in the 1980 and 1981 Annual Reports. The actual experience for each trust fund was quite close, relatively, to the estimates in the 1981 report. The contribution estimates in the 1980 report, however, were prepared prior to the enactment of a retroactive tax rate reallocation between the OASI and DI Trust Funds (Public Law 96-403). Thus the resulting adjustment to each fund's tax income in fiscal year 1981 was not reflected in the estimates contained in the 1980 Annual Report. Actual total tax income for the two funds combined in fiscal year 1981 was 101 percent of the total amount estimated in the 1980 Annual Report. Reference was made in an earlier section to the appropriation of contributions to the trust funds on an estimated basis, with subsequent periodic adjustments to account for differences from the amounts of contributions actually payable on the basis of reported earnings. In interpreting these figures, it should be noted that the "actual" amount of contributions in fiscal year 1981 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions in fiscal year 1981 does not reflect adjustments to contributions for that year that were to be made after September 30, 1981.

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, FISCAL YEAR 1981
[Amounts in millions]

	OASI Trust Fund		DI Trust Fund	
	Net contributions	Benefit payments	Net contributions	Benefit payments
Actual amount	$119,016	$119,413	$12,589	$16,853
Estimated amount published in 1981 report	$119,111	$119,375	$12,561	$16,901
Actual as percentage of estimate	100	100	100	100
Estimated amount published in 1980 report	$110,290	$119,639	$19,846	$16,764
Actual as percentage of estimate	[1]108	100	[1]63	101

[1]See text for explanation of reallocation of tax rates since the 1980 report.

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

At the end of fiscal year 1981, about 35.8 million persons were receiving monthly benefits under the OASDI program. About 31.3 million of these persons were receiving monthly benefits from the OASI Trust Fund. The distribution of benefit payments in fiscal years 1980 and 1981, by type of beneficiary, is shown in Table 5. Approximately 75 percent of the total benefit payments from the OASI Trust Fund in fiscal year 1981 was accounted for by monthly benefits to retired workers and their spouses and children and about 17 percent by monthly benefits to aged survivors and disabled widows and widowers of deceased workers. Approximately 8 percent of the benefit payments represented monthly benefits on behalf of children of deceased workers and monthly benefits to widowed mothers and fathers who had such children in their care.

TABLE 5.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE OASI TRUST FUND, BY TYPE OF BENEFICIARY AND PAYMENT, FISCAL YEARS 1980 AND 1981
[Amounts in millions]

	Fiscal year 1980		Fiscal year 1981	
	Amount	Percent of total	Amount	Percent of total
Total	$100,615	100	$119,413	100
Monthly benefits	100,234	100	119,043	100
Retired workers and their dependents	74,513	74	89,032	75
Retired workers	67,276	67	80,466	67
Wives and husbands	6,139	6	7,280	6
Children	1,099	1	1,286	1
Survivors of deceased workers	25,600	25	29,899	25
Aged widows and widowers	16,578	16	19,666	16
Disabled widows and widowers	304	([1])	335	([1])
Parents	54	([1])	58	([1])
Children	7,141	7	8,116	7
Widowed mothers and fathers caring for child beneficiaries	1,523	2	1,724	1
Noninsured persons aged 72 and over	121	([1])	113	([1])
Lump-sum death payments	381	([1])	370	([1])

[1]Less than 0.5 percent.

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

In fiscal year 1981, special payments to noninsured persons aged 72 and over amounted to $113 million, or 0.1 percent of total benefit payments. As stated earlier, the costs of such payments to persons who have fewer than 3 quarters of coverage are reimbursable from the general fund of the Treasury. About 97 percent of the total of such payments went to persons with fewer than 3 quarters of coverage.

During fiscal year 1981, lump-sum death payments amounted to $370 million, or 0.3 percent of total benefit payments.

The assets of the OASI Trust Fund at the end of fiscal year 1981 totaled $23,834 million, consisting of $23,244 million in the form of obligations of the U.S. Government or of federally sponsored agency obligations, and an undisbursed balance of $590 million. Table 6 shows the total assets of the fund and their distribution at the end of fiscal years 1980 and 1981.

TABLE 6.—ASSETS OF THE OASI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981

	September 30, 1980		September 30, 1981	
	Par value	Book value[1]	Par value	Book value[1]
Investments in public-debt obligations:				
Public issues:				
Treasury bonds:				
3-percent, 1995	$70,170,000	$70,155,324.07	$70,170,000	$70,156,348.03
3¼-percent, 1978-83	60,200,000	60,042,172.22	60,200,000	60,101,357.42
3¼-percent, 1985	25,700,000	25,301,538.71	25,700,000	25,388,475.83
3½-percent, 1980	449,450,000	449,486,350.62	—	—
3½-percent, 1990	556,250,000	552,289,643.31	556,250,000	552,713,967.51
3½-percent, 1998	552,037,000	546,454,585.09	552,037,000	546,763,290.25
4⅛-percent, 1989-94	91,300,000	90,889,427.37	91,300,000	90,919,653.57
4¼-percent, 1975-85	78,023,000	77,926,827.50	78,023,000	77,947,810.82
4¼-percent, 1987-92	33,000,000	33,727,360.68	33,000,000	33,620,917.68
6⅜-percent, 1984	31,500,000	31,677,856.77	31,500,000	31,632,446.49
7-percent, 1981	50,000,000	49,963,332.97	—	—
7½-percent, 1988-93	99,934,000	98,908,053.68	99,934,000	98,987,481.80
7⅝-percent, 2002-07	15,000,000	14,992,205.14	15,000,000	14,992,501.90
7⅞-percent, 1995-2000	22,180,000	21,590,066.46	22,180,000	21,620,712.30
8-percent, 1996-2001	90,500,000	90,419,304.00	90,500,000	90,423,177.36
8¼-percent, 2000-05	22,450,000	22,444,845.66	22,450,000	22,445,044.50
8⅜-percent, 1995-2000	50,000,000	50,601,010.25	50,000,000	50,570,707.25
8½-percent, 1994-99	6,352,000	6,486,721.12	6,352,000	6,479,503.84
11¾-percent, 2010	153,100,000	151,998,224.32	153,100,000	152,035,784.80
Total investments in public issues	2,457,146,000	2,445,354,849.94	1,957,696,000	1,946,799,181.35
Obligations sold only to this fund (special issues):				
Certificates of indebtedness:				
10⅛-percent, 1981	406,799,000	406,799,000.00	—	—
11⅛-percent, 1981	8,464,877,000	8,464,877,000.00	—	—
14⅞-percent, 1982	—	—	7,764,737,000	7,764,737,000.00
Bonds:				
7⅛-percent, 1990	125,847,000	125,847,000.00	—	—
7⅛-percent, 1991	125,848,000	125,848,000.00	125,848,000	125,848,000.00
7⅛-percent, 1992	2,014,741,000	2,014,741,000.00	2,014,741,000	2,014,741,000.00
7⅜-percent, 1990	1,366,865,000	1,366,865,000.00	547,391,000	547,391,000.00
7½-percent, 1989	437,645,000	437,645,000.00	—	—
7½-percent, 1990	522,029,000	522,029,000.00	522,029,000	522,029,000.00
7½-percent, 1991	1,888,893,000	1,888,893,000.00	1,888,893,000	1,888,893,000.00
7⅝-percent, 1989	$677,909,000	$677,909,000.00	—	—

TABLE 6.—ASSETS OF THE OASI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981 (Cont.)

	September 30, 1980		September 30, 1981	
	Par value	Book value[1]	Par value	Book value[1]
Investments in public-debt obligations: (Cont.)				
Obligations sold only to this fund (special issues): (Cont.)				
Bonds: (Cont.)				
8¼-percent, 1993	1,555,736,000	1,555,736,000.00	$1,555,736,000	$1,555,736,000.00
8¾-percent, 1994	1,272,609,000	1,272,609,000.00	1,272,609,000	1,272,609,000.00
9¾-percent, 1994	216,450,000	216,450,000.00	216,450,000	216,450,000.00
9¾-percent, 1995	1,489,059,000	1,489,059,000.00	1,489,059,000	1,489,059,000.00
13-percent, 1989	—	—	1,442,909,000	1,442,909,000.00
13-percent, 1990	—	—	419,639,000	419,639,000.00
13-percent, 1996	—	—	1,482,268,000	1,482,268,000.00
Total obligations sold only to this fund (special issues)	20,565,307,000	20,565,307,000.00	20,742,309,000	20,742,309,000.00
Total investments in public-debt obligations	23,022,453,000	23,010,661,849.94	22,700,005,000	22,689,108,181.35
Investments in federally sponsored agency obligations:				
Participation certificates:				
Federal Assets Liquidation Trust — Government National Mortgage Association:				
5.10-percent, 1987	50,000,000	50,000,000.00	50,000,000	50,000,000.00
5.20-percent, 1982	100,000,000	100,000,000.00	100,000,000	100,000,000.00
Federal Assets Financing Trust — Government National Mortgage Association:				
6.05-percent, 1988	65,000,000	64,910,625.76	65,000,000	64,922,813.32
6.20-percent, 1988	230,000,000	230,000,000.00	230,000,000	230,000,000.00
6.40-percent, 1987	75,000,000	75,000,000.00	75,000,000	75,000,000.00
6.45-percent, 1988	35,000,000	35,000,000.00	35,000,000	35,000,000.00
Total investments in federally sponsored agency obligations	555,000,000	554,910,625.76	555,000,000	554,922,813.32
Total investments	23,577,453,000	23,565,572,475.70	23,255,005,000	23,244,030,994.67
Undisbursed balances	—	1,000,184,989.34	—	589,989,207.52
Total assets	—	24,565,757,465.04	—	23,834,020,202.19

[1]Par value, plus unamortized premium or less discount outstanding.

The net decrease in the par value of the investments owned by the fund during fiscal year 1981 amounted to $322 million. New securities at a total par value of $138,212 million were acquired during the fiscal year through the investment of receipts and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the fiscal year was $138,535 million. Included in these amounts are $124,452 million in certificates of indebtedness that were acquired, and $125,559 million in certificates of indebtedness that were redeemed, within the fiscal year.

The effective annual rate of interest earned by the assets of the OASI Trust Fund during the 12 months ending on June 30, 1981 was 9.2 percent. (This period is used because interest on special issues is paid semiannually on June 30 and December 31.) The interest rate on special issues purchased by the trust fund in June 1981 was 13 percent, payable semiannually. The special issues purchased then included $1,482 million in Treasury bonds maturing in 1996. Although the interest rate on bonds is generally limited to 4¼ percent by the provisions of 31 U.S.C. 752, subsequent amendments have authorized the issuance of bonds to the trust funds at rates of interest exceeding 4¼ percent.

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

As a result, the OASI Trust Fund held $12,978 million in special issues (bonds) at the end of September 1981 that were distributed in equal amounts of about $2,015 million maturing in each of the years 1991-92 and in smaller amounts maturing in 1989-90, and in 1993-96 (Table 6). The investment operations of the fund in fiscal years 1980 and earlier are described in earlier annual reports.

B. DISABILITY INSURANCE TRUST FUND

A statement of the income and disbursements of the Federal Disability Insurance Trust Fund during fiscal year 1981 and of the assets of the fund at the beginning and end of the fiscal year is presented in Table 7. Comparable figures for fiscal year 1980 are also shown in the table.

TABLE 7.—STATEMENT OF OPERATIONS OF THE DI TRUST FUND DURING FISCAL YEARS 1980 AND 1981
[In thousands]

	Fiscal year 1980	Fiscal year 1981
Total assets, beginning of year	$5,623,711	$7,680,173
Receipts:		
Contributions:		
Appropriations	15,014,167	11,387,656
Deposits arising from State agreements	1,853,633	1,248,844
Gross contributions	16,867,800	12,636,500
Less payment into the general fund of the Treasury for contributions subject to refund	62,545	47,010
Net contributions	16,805,255	12,589,490
Reimbursement from general fund of the Treasury for costs of noncontributory credits for military service	117,827	130,389
Interest:		
Interest on investments	451,890	268,454
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs	1,315	4,121
Interest on amounts transferred from OASI Trust Fund due to adjustment in allocation of costs of vocational rehabilitation services	65	48
Total interest	453,271	272,624
Total receipts[1]	17,376,356	12,992,509
Disbursements:		
Benefit payments	14,898,923	16,853,311
Transfer to Railroad Retirement Account[2]	-12,109	29,443
Payment for costs of vocational rehabilitation services for disabled beneficiaries:		
For the current fiscal year	99,040	([3])
Less transfer from OASI Trust Fund due to adjustment in allocation of costs for prior periods	130	7,542
Total payment for costs of vocational rehabilitation services	98,910	-7,542
Administrative expenses:		
Department of Health and Human Services	330,628	414,314
Department of the Treasury	9,814	11,758
Construction of facilities for Social Security Administration	2,546	4,243
Expenses of Department of Health and Human Services and Department of Education for administration of vocational rehabilitation program for disabled beneficiaries	316	([3])
Interfund transfers due to adjustment in allocation of costs of construction[4]	-96	791
Gross administrative expenses	343,208	431,106
Less interfund transfers due to adjustment in allocation of administrative expenses	8,990	26,047
Less receipts from sales of supplies, materials, etc.	48	22
Net administrative expenses	334,169	405,036
Total disbursements	15,319,893	17,280,249
Net increase in assets	2,056,462	-4,287,739
Total assets, end of year	7,680,173	3,392,434

[1]Includes gifts amounting to $2,989 during fiscal year 1980 and $7,005 during fiscal year 1981.

[2]A positive figure represents a transfer from the DI Trust Fund to the Railroad Retirement Account. A negative figure represents a transfer to the DI Trust Fund from the Railroad Retirement Account.

[3]Reimbursement for rehabilitation services provided during fiscal year 1981 (and the associated administrative expenses at the Federal level) was not requested until after the close of the fiscal year (see text for details).

[4]A positive figure represents a transfer from the DI Trust Fund to the other Social Security trust funds. A negative figure represents a transfer to the DI Trust Fund from the other Social Security trust funds.

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

The total assets of the DI Trust Fund amounted to $7,680 million on September 30, 1980. During fiscal year 1981, total receipts amounted to $12,993 million, and total disbursements were $17,280 million. The assets of the trust fund thus decreased by $4,288 million during the year, to a total of $3,392 million on September 30, 1981.

Included in total receipts were $11,388 million representing contributions appropriated to the fund and $1,249 million representing amounts received by the Secretary of the Treasury in accordance with State coverage agreements and deposited in the fund. As an offset, $47 million was transferred from the trust fund into the Treasury as repayment for the estimated amount of contributions subject to refund to employees who worked for more than one employer during the course of a year and paid contributions on wages in excess of the statutory maximum earnings base.

Net contributions amounted to $12,589 million, a decrease of 25.1 percent from the amount for the preceding fiscal year. This decrease is largely attributable to the reallocation of tax rates between OASI and DI that was described earlier. Because the reallocation was enacted after the close of fiscal year 1980, but was made effective retroactively to January 1, 1980, a significant part of the assets of the DI Trust Fund was transferred to the OASI Trust Fund — and was reflected in contribution income and interest on investments — in fiscal year 1981. In addition, the change reflects the same factors, insofar as they apply to contributions to the DI Trust Fund, that accounted for the change in contributions to the OASI Trust Fund (described in the preceding section).

In addition, the trust fund received $130 million in December 1980 from the general fund of the Treasury as reimbursement for the costs of noncontributory credits for military service. Of this amount, $92 million was reimbursed in accordance with section 217(g) and $38 million was reimbursed in accordance with section 229(b), as described in the preceding section.

The remaining $273 million of receipts consisted of interest on the investments of the fund, plus interest on amounts of interfund transfers.

Of the $17,280 million in total disbursements, $16,853 million was for benefit payments, an increase of 13.1 percent over the corresponding amount paid in fiscal year 1980. This increase is accounted for by the same factors that resulted in the increase in benefit payments from the OASI Trust Fund as described in the preceding section. This increase also reflects the offsetting effects of (1) a continuing decline in the number of persons receiving benefits from the DI Trust Fund and (2) reductions in outlays resulting from the Social Security Disability Amendments of 1980.

Provisions governing the financial interchanges between the Railroad Retirement Account and the DI Trust Fund are similar to those referred to in the preceding section relating to the OASI Trust Fund. The determination made as of September 30, 1980 required that a transfer of $27,700,000 be made from the DI Trust Fund to the Railroad Retirement Account. A total amount of $29,443,000 was transferred to the Railroad Retirement Account in June 1981, including interest to the date of transfer amounting to $1,743,000. The transfer made in the previous fiscal year, 1980, was in the opposite direction—to the DI Trust Fund from the Railroad Retirement Account—because, in the determination underlying the 1980 transfer, the estimate of additional contributions that would have been received by the DI Trust Fund if railroad employment had always been covered under Social Security was larger than the estimate of additional benefits and administrative expenses that would have been paid from the fund, whereas in the determination underlying the 1981 transfer, the estimated contributions were smaller than the estimated expenditures.

The remaining disbursements amounted to $405 million for net administrative expenses. No reimbursement was made in fiscal year 1981 for the current costs of vocational rehabilitation services furnished to disabled-worker beneficiaries and to those children of disabled workers who are receiving benefits on the basis of disabilities that have continued since childhood, as explained in the preceding section. Due to an adjustment in the allocation of such costs between the OASI and DI Trust Funds for prior years, the DI Trust Fund received a transfer of $8 million from the OASI Trust Fund in fiscal year 1981.

The total amount of funds that may be made available in a fiscal year for payment for the costs of vocational rehabilitation services may not exceed a specified percentage of the benefits certified for payment in the preceding fiscal year from the OASI and DI Trust Funds to disabled persons receiving benefits because of their disability. This statutory limitation on the amounts to be made available was 1½ percent in fiscal years 1974 and later. Beginning with payments for fiscal year 1977, such funds were further curtailed by limitations in the Budget of the United States for each year. As noted in an earlier section, the Omnibus Budget Reconciliation Act of 1981 contained a provision that will result in further curtailment of payments from the trust funds for such services in the future. The data presented below show the relationship between the total amount of such payments for the fiscal year transition period July 1975-September 1976 and fiscal years 1977-80 and the amount of benefits paid to disabled beneficiaries:

Fiscal year to which costs of rehabilitation services are charged	Amount of payments for costs of rehabilitation services[1] (in thousands)	Estimated amount of benefit payments in preceding fiscal year to disabled beneficiaries (in thousands)	Payments for costs of rehabilitation services as a percent of preceding year's benefit payments
July 1975-September 1976[2]	$120,716	$8,824,547	1.37
1977[3]	87,598	8,547,410	1.02
1978	94,539	9,986,069	.95
1979	97,766	10,967,760	.89
1980	40,638	12,089,653	.34

[1]The amounts shown represent the expenditures incurred for a fiscal year and differ from amounts actually expended in a fiscal year as shown in accounting statements of the trust funds on a cash basis. The amounts shown are subject to revision.

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

[3]The estimated amount of benefit payments to disabled beneficiaries represents total payments during the preceding 12-month period, October 1975 through September 1976.

At the end of fiscal year 1981, some 4.5 million persons were receiving monthly benefits from the DI Trust Fund. The distribution of benefit payments in fiscal years 1980 and 1981, by type of beneficiary, is shown in Table 8.

92-464 0 - 82 - 3

TABLE 8.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE DI TRUST FUND, BY TYPE OF BENEFICIARY, FISCAL YEARS 1980 AND 1981
[Amounts in millions]

	Fiscal year 1980		Fiscal year 1981	
	Amount	Percent of total	Amount	Percent of total
Total	$14,899	100	$16,853	100
Disabled workers	12,355	83	14,057	83
Wives and husbands	620	4	678	4
Children	1,924	13	2,118	13

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

The assets of the DI Trust Fund at the end of fiscal year 1981 totaled $3,392 million, consisting of $3,391 million in the form of obligations of the U.S. Government and an undisbursed balance of $2 million. Table 9 shows the total assets of the fund and their distribution at the end of fiscal years 1980 and 1981.

TABLE 9.—ASSETS OF THE DI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981

	September 30, 1980		September 30, 1981	
	Par value	Book value[1]	Par value	Book value[1]
Investments in public-debt obligations:				
Public issues:				
Treasury bonds:				
3½-percent, 1990	$10,500,000	$10,241,770.67	$10,500,000	$10,269,438.23
3½-percent, 1998	5,000,000	4,811,806.55	5,000,000	4,822,213.55
4⅛-percent, 1989-94	68,400,000	67,947,580.59	68,400,000	67,980,887.43
4¼-percent, 1975-85	20,795,000	20,788,245.50	20,795,000	20,789,718.98
4¼-percent, 1987-92	80,800,000	80,861,688.84	80,800,000	80,852,661.36
6⅜-percent, 1984	15,000,000	15,021,248.68	15,000,000	15,015,823.36
7½-percent, 1988-93	26,500,000	26,004,384.80	26,500,000	26,042,754.92
7⅝-percent, 2002-07	10,000,000	9,994,804.34	10,000,000	9,995,000.90
8-percent, 1996-2001	26,000,000	25,976,816.50	26,000,000	25,977,929.26
8¼-percent, 2000-05	3,750,000	3,733,088.45	3,750,000	3,733,774.01
11¾-percent, 2010	30,250,000	30,032,307.52	30,250,000	30,039,729.70
Total investments in public issues	296,995,000	295,413,742.44	296,995,000	295,519,931.70
Obligations sold only to this fund (special issues):				
Certificates of indebtedness:				
11⅛-percent, 1981	1,875,730,000	1,875,730,000.00	—	—
14⅞-percent, 1982	—	—	1,282,170,000	1,282,170,000.00
Bonds:				
7⅛-percent, 1986	5,830,000	5,830,000.00	—	—
7⅛-percent, 1987	5,831,000	5,831,000.00	—	—
7⅛-percent, 1988	5,831,000	5,831,000.00	—	—
7⅛-percent, 1989	5,831,000	5,831,000.00	—	—
7⅛-percent, 1990	5,831,000	5,831,000.00	—	—
7⅛-percent, 1991	5,831,000	5,831,000.00	—	—
7⅛-percent, 1992	274,851,000	274,851,000.00	161,560,000	161,560,000.00
7⅜-percent, 1986	84,338,000	84,338,000.00	—	—
7⅜-percent, 1987	84,338,000	84,338,000.00	—	—
7⅜-percent, 1988	84,337,000	84,337,000.00	—	—
7⅜-percent, 1989	84,337,000	84,337,000.00	—	—
7⅜-percent, 1990	206,000,000	206,000,000.00	—	—
7½-percent, 1986	63,020,000	63,020,000.00	—	—
7½-percent, 1987	63,019,000	63,019,000.00	—	—

TABLE 9.—ASSETS OF THE DI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981 (Cont.)

	September 30, 1980		September 30, 1981	
	Par value	Book value[1]	Par value	Book value[1]
Investments in public-debt obligations: (Cont.)				
Obligations sold only to this fund (special issues): (Cont.)				
Bonds: (Cont.)				
7½-percent, 1988..	$63,020,000	$63,020,000.00	—	—
7½-percent, 1989..	63,020,000	63,020,000.00	—	—
7½-percent, 1990..	63,020,000	63,020,000.00	—	—
7½-percent, 1991..	269,020,000	269,020,000.00	—	—
7⅝-percent, 1985..	32,529,000	32,529,000.00	—	—
7⅝-percent, 1986..	121,663,000	121,663,000.00	—	—
7⅝-percent, 1987..	121,663,000	121,663,000.00	—	—
7⅝-percent, 1988..	121,663,000	121,663,000.00	—	—
7⅝-percent, 1989..	121,663,000	121,663,000.00	—	—
8¼-percent, 1985..	208,860,000	208,860,000.00	—	—
8¼-percent, 1993..	241,389,000	241,389,000.00	$241,389,000	$241,389,000.00
8¾-percent, 1984..	61,511,000	61,511,000.00	—	—
8¾-percent, 1985..	97,887,000	97,887,000.00	—	—
8¾-percent, 1986..	64,425,000	64,425,000.00	—	—
8¾-percent, 1987..	64,425,000	64,425,000.00	—	—
8¾-percent, 1988..	64,425,000	64,425,000.00	—	—
8¾-percent, 1989..	64,425,000	64,425,000.00	—	—
8¾-percent, 1990..	64,425,000	64,425,000.00	—	—
8¾-percent, 1991..	64,425,000	64,425,000.00	—	—
8¾-percent, 1992..	64,425,000	64,425,000.00	64,425,000	64,425,000.00
8¾-percent, 1993..	97,887,000	97,887,000.00	97,887,000	97,887,000.00
8¾-percent, 1994..	339,277,000	339,277,000.00	339,277,000	339,277,000.00
9¾-percent, 1984..	142,338,000	142,338,000.00	—	—
9¾-percent, 1985..	142,338,000	142,338,000.00	—	—
9¾-percent, 1986..	142,338,000	142,338,000.00	—	—
9¾-percent, 1987..	142,338,000	142,338,000.00	—	—
9¾-percent, 1988..	142,338,000	142,338,000.00	—	—
9¾-percent, 1989..	142,338,000	142,338,000.00	—	—
9¾-percent, 1990..	142,337,000	142,337,000.00	—	—
9¾-percent, 1991..	142,337,000	142,337,000.00	—	—
9¾-percent, 1992..	142,337,000	142,337,000.00	142,337,000	142,337,000.00
9¾-percent, 1993..	142,337,000	142,337,000.00	142,337,000	142,337,000.00
9¾-percent, 1994..	142,336,000	142,336,000.00	142,336,000	142,336,000.00
9¾-percent, 1995..	481,613,000	481,613,000.00	481,613,000	481,613,000.00
Total obligations sold only to this fund (special issues)..........	7,377,327,000	7,377,327,000.00	3,095,331,000	3,095,331,000.00
Total investments in public-debt obligations....	7,674,322,000	7,672,740,742.44	3,392,326,000	3,390,850,931.70
Undisbursed balances...........	—	7,432,523.85	—	1,582,891.88
Total assets.....	—	7,680,173,266.29	—	3,392,433,823.58

[1]Par value, plus unamortized premium or less discount outstanding.

The net decrease in the par value of the investments owned by the trust fund during the fiscal year amounted to $4,282 million. New securities at a total par value of $18,367 million were acquired during the fiscal year through the investment of receipts and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the year was $22,649 million. Included in these amounts are $16,611 million in certificates of indebtedness that were acquired, and $17,205 million in certificates of indebtedness that were redeemed, within the fiscal year.

The effective annual rate of interest earned by the assets of the DI Trust Fund during the 12 months ending on June 30, 1981 was 9.3 percent. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1981 was 13 percent, payable semiannually.

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

VII. ACTUARIAL COST PROJECTIONS

Section 201(c) of the Social Security Act requires that the Board of Trustees report annually to the Congress on the operations and status of the OASI and DI Trust Funds during the preceding fiscal year and on the expected operations and status of those trust funds during the ensuing 5 fiscal years. Such information for the fiscal year that ended September 30, 1981 is presented in the preceding section of this report. Estimates of the operations and status of the trust funds during fiscal years 1982-86 are presented in this section. Similar estimates for calendar years 1982-86 are also presented.

Section 201(c) also requires that the report include "a statement of the actuarial status of the trust funds." Such statements have customarily been made for the medium-range period (25 years) and the long-range period (75 years), each period commencing with the year of the issuance of the report. Statements of the current actuarial status are presented in this section. The methods used to estimate the actuarial status are described in Appendix A.

Basic to the discussion of the medium-range or long-range actuarial status of either trust fund is the concept of a "cost rate"—i.e., the cost (also referred to as outgo or disbursements) of the program as a percentage of taxable payroll. The outgo includes benefit payments, administrative expenses, net transfers under the financial interchange between the OASDI Trust Funds and the Railroad Retirement Account, and payments for vocational rehabilitation services for disabled beneficiaries. The taxable payroll consists of the total earnings which are subject to Social Security taxation, adjusted to reflect the lower effective tax rates (in comparison with the combined employee-employer rate) which apply to self-employment income, tips, and multiple-employer "excess wages." With this adjustment, the cost rate can be compared directly with the combined OASDI employee-employer tax rate scheduled in the law.

Over the medium-range and long-range periods, the actuarial status of the trust funds is often summarized by the actuarial balance, which is the difference between the average of the tax rates scheduled in the law and the estimated average cost rate. If the actuarial balance is positive, the system is said to have an actuarial surplus, and if negative, an actuarial deficit. Such a deficit, if it exists, is a warning that, unless the projected trends turn out to be too pessimistic, changes in the system will be needed to make it viable in the future.

The concept of actuarial balance must, however, be used with caution. The use of a single summary measure to describe the system over a fixed time span may mask an adverse pattern (or patterns) within that time frame or problems which emerge soon thereafter. The addition or deletion of years to the time span could change a surplus into a deficit or vice versa. In addition, while early deficits followed by later surpluses could result in a positive actuarial balance, the trust fund could be depleted before the annual surpluses occur. Thus, it is also important to note the year-by-year patterns of income and outgo, i.e., of tax rates and cost rates.

Related to the concept of actuarial balance is that of "close actuarial balance". In recent years, the system has been said to be in "close actuarial balance" over the long-range period if, over that period, the average tax rate is within 5 percent of the estimated average cost rate (relatively, i.e., not 5 percentage points). This is equivalent to requiring that, over the long-range period, the average tax rate be between 95 and 105 percent of the estimated average cost rate.

There is general agreement that the OASDI system should be financed on the basis of a "current-cost" method, under which each year total income is intended to be approximately equal to total outgo plus an additional amount needed to maintain the trust funds at appropriate contingency-reserve levels. Under this financing method, the assets of the trust funds should not become too large (through continued annual surpluses), nor too small (through continued annual deficits). Although there is no general agreement regarding the appropriate size of either trust fund, the level of each fund should be large enough to allow time for legislative action to prevent its exhaustion during periods of continued annual deficits. When either trust fund is not large enough to serve this purpose, the immediate future financing of that fund—to be considered adequate—must provide for rebuilding the fund to such a level within a reasonable period of time without significant further decline in the interim.

The adequacy of either trust fund is often measured by the size of the "trust fund ratio". This ratio is defined to be the assets at the beginning of the year expressed as a percentage of the outgo during the year. If the ratio for either trust fund falls below a level of about 12-14 percent, the probable inability of the fund to pay benefits when due becomes imminent. As a minimum test of the financial viability of the trust funds in the near term, the projected trust fund ratios should not fall below such a level, even under pessimistic assumptions. And, for the assets to be considered sufficient to ensure the timely payment of benefits in the short range, substantially higher levels are necessary.

Projections of income, outgo, cost rates, actuarial balances, and trust fund ratios are presented later in this section.

A. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

The future income and outgo of the OASDI system will depend upon many economic and demographic factors, including fertility, mortality, net immigration, marriage, divorce, labor force participation, unemployment, productivity, inflation, retirement patterns, and disability incidence and duration. The income will depend upon how these factors affect the size and composition of the working population and the general level of earnings. Similarly, the outgo will depend upon how these factors affect the size and composition of the beneficiary population and the general level of benefits. Because the precise forecasting of the behavior of these various factors is impossible, projections are shown in this report on the basis of four sets of assumptions, designated as alternatives I, II-A, II-B, and III.

The two intermediate sets of assumptions, alternatives II-A and II-B share the same demographic assumptions but differ in their economic assumptions. Alternative II-A assumes future economic performance resembling that of the more robust recent economic expansions; alternative II-B assumes economic performance resembling less robust economic expansions. This type of presentation is made to illustrate the beneficial effect on the financial status of the trust funds of higher real-wage growth, higher employment, and lower inflation for any given set of demographic assumptions. In terms of the net effect on the status of the trust funds, alternative II-A is more optimistic than alternative II-B. Of all four alternatives, alternative I is the most optimistic and alternative III is the most pessimistic. Because economic performance recently has been particularly volatile and difficult to project, the range of future short-range economic performance delineated by these alternatives is wider than in previous reports. In particular, alternative III has been designed in the short range to portray very adverse economic conditions.

Although these sets of economic and demographic assumptions have been developed using the best available information currently known, the resulting cost projections should be interpreted with care. In particular, they are not intended to be exact predictions of the future status of the OASDI system (nor of the demography and economy of the country). Instead, they are intended to be indicators of the trend and range of future income and outgo. As such, they provide insights which are valuable in making OASDI policy decisions.

Economic assumptions

The economic assumptions in the four alternatives are summarized in Table 10.

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2060

Calendar year	Average annual percentage increase in— Real GNP[1]	Average wages in covered employment	Consumer price index	Real-wage differential[2] (percent)	Average annual interest rate[3] (percent)	Average annual unemployment rate[4] (percent)
Past experience:						
1960-64	4.0	3.4	1.3	2.1	3.7	5.7
1965-69	4.4	5.4	3.4	2.0	5.2	3.8
1970	-.2	4.9	5.9	-1.0	7.3	4.9
1971	3.4	4.9	4.3	.6	6.0	5.9
1972	5.7	7.3	3.3	4.0	5.9	5.6
1973	5.8	6.9	6.2	.7	6.6	4.9
1974	-.6	7.4	11.0	-3.6	7.5	5.6
1975	-1.1	6.6	9.1	-2.5	7.4	8.5
1976	5.4	[5]8.2	5.7	[5]2.5	7.1	7.7
1977	5.5	[5]8.0	6.5	[5]1.5	7.1	7.0
1978	4.8	[5]8.2	7.6	[5].6	8.2	6.0
1979	3.2	[5]8.8	11.4	[5]-2.6	9.1	5.8
1980	-.2	[5]8.6	13.5	[5]-4.9	11.0	7.1
Alternative I:						
1981	[6]2.1	8.8	10.3	-1.5	13.3	7.6
1982	1.1	8.2	6.3	1.9	12.7	8.6
1983	5.6	7.3	5.9	1.4	10.3	7.4
1984	5.4	7.5	4.6	2.9	7.8	6.5
1985	5.1	7.0	4.2	2.8	6.6	5.8
1986	4.8	6.7	3.8	2.9	6.0	5.4
1987	4.6	6.4	3.4	3.0	5.7	5.0
1988	4.4	6.1	3.0	3.1	5.6	4.8
1989	4.2	5.7	2.6	3.1	5.4	4.6
1990	4.0	5.2	2.2	3.0	5.3	4.3
1995	3.4	4.5	2.0	2.5	5.1	4.0
2000 & later	[7]3.5	4.5	2.0	2.5	5.1	4.0
Alternative II-A[8]:						
1981	[6]1.9	8.8	10.3	-1.5	13.3	7.6
1982	.3	8.6	6.8	1.8	13.4	8.9
1983	5.2	6.3	6.0	.3	12.1	7.9
1984	5.0	5.6	4.6	1.0	10.8	7.1
1985	4.8	7.4	4.8	2.6	9.8	6.4
1986	4.4	7.3	4.6	2.7	8.2	5.8
1987	4.3	7.1	4.5	2.6	6.7	5.3
1988	4.1	7.1	4.3	2.8	6.4	5.2
1989	3.9	6.6	3.9	2.7	6.2	5.1
1990	3.7	6.0	3.5	2.5	6.0	5.0
1995	3.0	5.0	3.0	2.0	5.6	5.0
2000 & later	[7]3.1	5.0	3.0	2.0	5.6	5.0
Alternative II-B:						
1981	[6]1.8	8.6	10.3	-1.7	13.3	7.6
1982	-.8	6.6	6.9	-.3	13.0	9.1
1983	4.2	8.1	7.9	.2	11.4	8.5
1984	3.3	8.1	7.4	.7	9.3	8.0
1985	3.0	6.9	6.6	.3	8.0	7.7
1986	3.0	6.8	5.8	1.0	7.1	7.4
1987	3.0	6.6	5.5	1.1	6.8	7.1
1988	3.0	6.6	5.3	1.3	6.6	6.8
1989	3.0	6.4	4.9	1.5	6.5	6.4
1990	3.0	6.0	4.5	1.5	6.4	6.1
1995	2.5	5.5	4.0	1.5	6.1	5.0
2000 & later	[7]2.6	5.5	4.0	1.5	6.1	5.0

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2060 (Cont.)

Calendar year	Average annual percentage increase in—			Real-wage differential[2] (percent)	Average annual interest rate[3] (percent)	Average annual unemployment rate[4] (percent)
	Real GNP[1]	Average wages in covered employment	Consumer price index			
Alternative III:						
1981	[6]1.8	8.6	10.3	-1.7	13.3	7.6
1982	-1.5	6.3	7.2	-.9	13.1	9.3
1983	.6	7.3	9.6	-2.3	12.3	9.8
1984	2.5	7.8	9.6	-1.8	10.5	9.6
1985	3.8	9.2	9.2	.0	9.4	8.8
1986	2.9	9.1	8.8	.3	8.8	8.4
1987	2.7	8.7	8.4	.3	8.3	8.0
1988	2.7	8.5	8.0	.5	8.1	7.7
1989	2.7	8.3	7.6	.7	7.8	7.3
1990	2.7	8.0	7.2	.8	7.6	6.9
1995	1.8	6.2	5.2	1.0	6.7	6.0
2000 & later	[7]2.1	6.0	5.0	1.0	6.6	6.0

[1]The real GNP (Gross National Product) is the total output of goods and services expressed in constant dollars.

[2]The difference between the percentage increase in average annual wages in covered employment and the percentage increase in the average annual CPI.

[3]The average of the interest rates determined in each of the 12 months of the year for special public-debt obligations issuable to the trust funds.

[4]The ultimate rates are adjusted by age and sex based on the total labor force aged 16 and over as of July 1, 1970. Rates shown for earlier years are civilian unemployment rates for those years.

[5]Preliminary.

[6]The actual value of the 1981 increase in real GNP was 2.0 percent. This value was not available at the time the cost estimates were prepared; the cost estimates were based on the assumed increases in real GNP shown under the four alternatives.

[7]This value is for the year 2000. The annual percentage increase in real GNP is assumed to continue to change after 2000 under each alternative to reflect the dependence of labor force growth on the size and age-sex distribution of the population. The percentage increases for 2060 are 3.4, 2.5, 2.1, and 1.0 for alternatives I, II-A, II-B, and III, respectively.

[8]The economic assumptions in alternative II-A for 1981-87 are identical to or derived from the assumptions underlying the President's 1983 Budget, with the exception of the assumed 1981 increases in the nominal wage and the real wage as well as the assumed 1982 increases in the real wage and the CPI, all of which have been adjusted to reflect actual experience available since the Budget assumptions were released.

All four alternatives assume that the economic decline during the fourth quarter of 1981 (as measured by the rate of change in real GNP) continues through the first half of 1982, with an upturn beginning in the middle of the year. The more optimistic alternatives include both smaller declines and stronger recoveries and, therefore, assumptions of higher real-GNP growth. More specifically, real GNP in 1982 is assumed to increase 1.1 percent above the 1981 level in alternative I and 0.3 percent in alternative II-A, while it is assumed to decrease 0.8 percent in alternative II-B and 1.5 percent in alternative III.

In both alternatives I and II-A, a strong economy is assumed in 1983, followed by continued and steady growth. In alternative II-B, the upturn is assumed to be long and slow by historical standards. In alternative III, it is assumed that the recovery will be aborted by a recession in the middle of 1983, followed by a more complete recovery commencing in 1984.

In alternative II-A, the annual rate of growth in real GNP is assumed to rise to 5.2 percent in 1983 and then gradually slow to 3.0 percent in 1995. At the same time, the average annual unemployment rate declines from its peak of 8.9 percent in 1982 to its ultimate of 5.0 percent in 1990. The annual rate of increase in average wages in covered employment is assumed to fall from 8.6 percent in 1982 to an ultimate rate of 5.0 percent in 1994, with an accompanying decline in the annual rate of increase in the average CPI from its current level to an ultimate rate of 3.0 percent in 1992. The real-wage differential (i.e., the difference between annual rates of increase in the average wage and the average CPI) is assumed to reach a peak of 2.8 percent in 1988 before declining to its ultimate rate of 2.0 percent per year in 1994. The annual interest rate is assumed to reach its ultimate value of 5.6 percent in 1992.

In alternative II-B, the annual rate of growth in real GNP is assumed to rise to 4.2 percent in 1983 and then slow to 3.0 percent in 1985. At the same time, the average annual unemployment rate declines from its peak of 9.1 percent in 1982 to its ultimate of 5.0 percent in 1995. The annual rate of increase in average wages in covered employment is assumed to fall from 8.1 percent in 1984 to an ultimate rate of 5.5 percent in 1992, with an accompanying decline in the annual rate of increase in the average CPI from 7.9 percent in 1983 to an ultimate of 4.0 percent in 1992. The real-wage differential is assumed to reach an ultimate of 1.5 percent per year in 1992. The annual interest rate is assumed to reach its ultimate value of 6.1 percent in 1992.

It is convenient to discuss alternative I in comparison with alternative II-A, the more optimistic of the two intermediate alternatives. In each year, the assumed annual percentage increase in the real GNP in alternative I is higher. Consistent with this higher real GNP is an assumed average annual unemployment rate which in each year is lower, with the ultimate rate of 4.0 percent being 1 percentage point lower. In each year after 1984, the assumed annual percentage increase in the CPI is lower, with the ultimate of 2.0 percent being 1 percentage point lower. In each year, the assumed real-wage differential is higher, with the ultimate of 2.5 percent being 0.5 percentage points higher. The resulting ultimate annual rate of increase in average wages in covered employment is 4.5 percent, which is 0.5 percentage points lower. The ultimate interest rate of 5.1 percent is lower by 0.5 percentage points.

Similarly, it is convenient to discuss alternative III in comparison with alternative II-B, the more pessimistic of the two intermediate alternatives. In each year after 1985, the assumed annual percentage increase in the real GNP in alternative III is lower. Consistent with this lower real GNP is an average annual unemployment rate which in every year is higher, with the ultimate level of 6.0 percent being 1 percentage point higher. The assumed annual percentage increase in the CPI is higher in each year, with the ultimate of 5.0 percent being 1 percentage point higher. In every year, the assumed real-wage differential is lower, with the ultimate of 1.0 percent being 0.5 percentage points lower. The resulting ultimate annual rate of increase in average wages in covered employment is 6.0 percent, which is 0.5 percentage points higher. The ultimate interest rate of 6.6 percent is higher by 0.5 percentage points.

Demographic assumptions

The demographic assumptions in the four alternatives are shown in Table 11.

TABLE 11.—SELECTED DEMOGRAPHIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2060

Calendar year	Total fertility rate[1]	Life expectancy[2]: At birth: Male	Life expectancy[2]: At birth: Female	Life expectancy[2]: At age 65: Male	Life expectancy[2]: At age 65: Female
Past experience:					
1960	3.61	66.7	73.4	13.0	16.1
1965	2.88	66.8	74.1	13.0	16.6
1970	2.43	67.1	74.9	13.2	17.2
1975	1.77	68.7	76.5	13.7	18.1
1976	1.74	69.0	76.7	13.8	18.1
1977	1.79	69.3	77.1	13.9	18.4
1978	1.76	69.5	77.2	14.0	18.4
1979	1.81	69.8	77.7	14.3	18.7
1980	1.84	69.8	77.7	14.3	18.7
Alternative I:					
1981	1.87	70.0	77.9	14.3	18.8
1982	1.89	70.1	78.0	14.4	18.9
1983	1.91	70.2	78.1	14.4	19.0
1984	1.93	70.3	78.2	14.5	19.0
1985	1.96	70.4	78.3	14.5	19.1
1990	2.07	70.9	78.9	14.8	19.4
1995	2.18	71.2	79.2	14.9	19.7
2000	2.29	71.4	79.4	15.0	19.8
2005	2.40	71.5	79.5	15.1	19.9
2010	2.40	71.6	79.6	15.2	20.0
2020	2.40	71.8	79.9	15.3	20.2
2030	2.40	72.0	80.1	15.5	20.4
2040	2.40	72.2	80.3	15.6	20.6
2050	2.40	72.4	80.6	15.7	20.8
2060	2.40	72.6	80.8	15.9	21.0
Alternatives II-A and II-B:					
1981	1.86	70.1	78.0	14.4	18.9
1982	1.87	70.4	78.3	14.5	19.1
1983	1.88	70.6	78.5	14.6	19.3
1984	1.89	70.8	78.7	14.7	19.4
1985	1.90	71.0	78.9	14.8	19.5
1990	1.95	71.9	80.0	15.3	20.3
1995	2.00	72.6	80.8	15.6	20.8
2000	2.05	72.9	81.1	15.8	21.1
2005	2.10	73.2	81.4	16.0	21.4
2010	2.10	73.4	81.6	16.1	21.6
2020	2.10	73.8	82.1	16.4	22.0
2030	2.10	74.2	82.6	16.7	22.4
2040	2.10	74.6	83.1	17.0	22.8
2050	2.10	75.0	83.6	17.3	23.2
2060	2.10	75.4	84.1	17.6	23.6
Alternative III:					
1981	1.84	70.3	78.3	14.5	19.1
1982	1.83	70.8	78.9	14.7	19.5
1983	1.83	71.3	79.4	14.9	19.8
1984	1.82	71.7	79.8	15.1	20.1
1985	1.82	72.1	80.2	15.3	20.4
1990	1.79	74.0	82.5	16.3	22.1
1995	1.76	75.3	84.1	17.0	23.5
2000	1.73	75.9	84.9	17.4	24.2
2005	1.70	76.4	85.5	17.8	24.7
2010	1.70	76.8	86.0	18.1	25.1
2020	1.70	77.7	87.2	18.8	26.1
2030	1.70	78.5	88.3	19.5	27.2
2040	1.70	79.4	89.5	20.1	28.2
2050	1.70	80.2	90.6	20.8	29.3
2060	1.70	81.0	91.8	21.5	30.4

[1]The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire child-bearing period.

[2]The life expectancy for any year is the average number of years of life remaining to a person if that person were to experience the death rates by age assumed for the selected year.

The demographic assumptions in alternatives II-A and II-B are identical. The assumed ultimate total fertility rate is 2.1 children per woman, which is the rate that, in the absence of net migration and changes in mortality, would eventually result in a nearly constant number of people in the population. This ultimate level of fertility is fully attained in 2005, after a gradual increase from the estimated 1980 level. Mortality rates are assumed to decrease gradually during the entire 75-year projection period, with an average reduction from 1978 levels of 37 percent by the year 2060. This reduction results in life expectancies at birth in 2060 of 75.4 years for men and 84.1 years for women, compared to 69.5 and 77.2 years observed in 1978. Life expectancies at age 65 in 2060 are projected to be 17.6 years for men and 23.6 years for women, compared to 14.0 and 18.4 years observed in 1978.

In alternative I, the total fertility rate is assumed to be higher than in the other alternatives, reaching an ultimate level of 2.4 children per woman, which is fully attained in 2005. The average annual reduction in mortality rates during the 75-year projection period is assumed to be half of that in alternatives II-A and II-B. The resulting life expectancies at birth by 2060 are projected to be 72.6 years for men and 80.8 years for women, while at age 65 they are 15.9 and 21.0 years.

In alternative III, less favorable demographic conditions are assumed. The total fertility rate is assumed to be lower than in the other alternatives, decreasing from the estimated 1980 level to an ultimate level of 1.7, which is fully attained in 2005. The average annual reduction in mortality rates during the 75-year projection period is assumed to be twice that in alternatives II-A and II-B. The resulting life expectancies at birth by 2060 are projected to be 81.0 years for men and 91.8 years for women, while at age 65 they are 21.5 and 30.4 years.

The values assumed after the early years for both the economic and the demographic factors are intended to represent the average experience for those years and are not intended to be predictions of year-by-year values. Actual future values will likely exhibit fluctuations or cyclical patterns, as in the past.

In addition to the assumptions discussed above, many other assumed or derived factors (such as labor force participation rates, marriage rates, and others) are necessary to prepare the cost estimates presented in this report. Appendix A includes a discussion of some of those factors.

B. AUTOMATIC ADJUSTMENTS

Under the automatic-increase provisions of the law, benefits are adjusted to reflect increases in the CPI. For persons becoming eligible for benefits in 1979 and later, the automatic cost-of-living benefit increases begin with the year a worker reaches age 62, or becomes disabled or dies, if earlier. An automatic cost-of-living benefit increase of 11.2 percent, effective for June 1981, was established in April 1981, as described in Appendix C.

With the exception of predetermined amounts provided for each year in the period 1979-81 under the 1977 amendments, the contribution and benefit base automatically increases in the year following each year in which an automatic cost-of-living benefit increase becomes effective. Such automatic increases are proportionate to the increase in average wages. For 1982, the contribution and benefit base was automatically increased to $32,400 as described in Appendix D.

The 1977 amendments also provided specific amounts for the exempt amount under the earnings test in 1978-82 for beneficiaries aged 65 and over. As a result of these provisions, the annual exempt amount under the earnings test for beneficiaries aged 65 and over increased from $5,500 in 1981 to $6,000 in 1982.

Following the cost-of-living benefit increase that became effective for June 1981, an automatic increase in the annual exempt amount under the earnings test, from $4,080 in 1981 to $4,400 in 1982, was established in November 1981 for beneficiaries under age 65, as described in Appendix D. That appendix also describes the determinations of the following amounts for 1982:

1. The amount of earnings a worker must have to be credited with quarters of coverage in 1982;
2. The dollar amounts (or "bend points") in the formulas used to compute benefits payable on the earnings of workers who first become eligible for Old-Age or Disability Insurance benefits, or die before becoming eligible for such benefits, in 1982; and
3. The average of total wages reported for calendar year 1980, to be used for indexing earnings of workers who first become eligible for benefits, or die before first eligibility, in 1982 or later.

A historical summary of the Social Security program amounts determined under the automatic provisions, and the average-wage series used for indexing earnings, are shown in Appendix E. A projection of the corresponding amounts resulting from the two intermediate sets of assumptions, through 1987, is also shown there.

The law as amended in 1977 further provides for the determination of the contribution and benefit base that would have been in effect in each year after 1978 under the automatic provisions of the law as in effect before the enactment of the 1977 amendments. This "old-law" base is used in determining special minimum benefits for certain workers who have many years of low earnings in covered employment. It is also used for certain purposes under the Railroad Retirement program and the Employee Retirement Income Security Act of 1974. For 1981, the old-law base was $22,200. The corresponding old-law base for 1982 was determined to be $24,300.

The four alternative sets of economic assumptions described previously result in the following general benefit increases and contribution and benefit bases for each year through 1987 (actual benefit increases for 1980-81, and actual contribution and benefit bases for 1980-82, are also shown as a basis for comparison):

Calendar year	General benefit increase[1] (percent) under alternative—				Contribution and benefit base[2] under alternative-			
	I	II-A	II-B	III	I	II-A	II-B	III
1980	14.3	14.3	14.3	14.3	$25,900	$25,900	$25,900	$25,900
1981	11.2	11.2	11.2	11.2	29,700	29,700	29,700	29,700
1982	7.6	7.6	7.6	7.6	32,400	32,400	32,400	32,400
1983	6.0	6.5	7.5	8.8	35,400	35,100	35,100	35,100
1984	5.0	4.8	7.7	9.7	38,400	38,100	37,500	37,200
1985	4.3	4.8	6.9	9.4	41,100	40,500	40,500	39,900
1986	4.0	4.6	6.1	9.0	44,100	42,900	43,800	42,900
1987	3.5	4.5	5.6	8.6	47,100	46,200	46,800	46,800

[1]Effective with benefits for June of the stated year.

[2]The amounts, effective on January 1 of the stated year, are specified in the law for the years 1979-81. After 1981, the amount increases under the automatic provisions.

Under the automatic provisions of the law, the four different sets of economic assumptions result in the following annual exempt amounts under the earnings test, both for beneficiaries under age 65 and for beneficiaries aged 65 and over (the amounts for 1980-82 are also shown as a basis for comparison):

ANNUAL EXEMPT AMOUNTS UNDER THE RETIREMENT TEST[1]

Calendar year	Annual exempt amount for beneficiaries under age 65 under alternative—				Annual exempt amount for beneficiaries aged 65 and over[2] under alternative-			
	I	II-A	II-B	III	I	II-A	II-B	III
1980	$3,720	$3,720	$3,720	$3,720	$5,000	$5,000	$5,000	$5,000
1981	4,080	4,080	4,080	4,080	5,500	5,500	5,500	5,500
1982	4,440	4,440	4,440	4,440	6,000	6,000	6,000	6,000
1983	4,800	4,800	4,800	4,800	6,480	6,480	6,480	6,480
1984	5,160	5,160	5,160	5,160	6,960	7,080	6,960	6,840
1985	5,520	5,520	5,520	5,520	7,440	7,560	7,560	7,320
1986	5,880	5,880	6,000	6,000	8,040	8,040	8,160	7,920
1987	6,240	6,360	6,360	6,600	8,640	8,640	8,760	8,640

[1]Effective on January 1 of the stated year.

[2]The amounts are specified in the law for the years 1980-82. After 1982, the amount increases automatically. Through the year 1982, the earnings test does not apply to beneficiaries aged 72 and over; after 1982, it will not apply to beneficiaries aged 70 and over.

C. ESTIMATED OPERATIONS AND STATUS OF THE TRUST FUNDS DURING THE PERIOD OCTOBER 1, 1981 TO DECEMBER 31, 1986

The following statement of the estimated operations and status of the trust funds during the period October 1, 1981 to December 31, 1986 is based on the assumptions described in the preceding sections. As previously stated, it is assumed that present statutory provisions and regulations affecting the program will remain unchanged in the period. The estimates reflect the effects of (1) Public Law 97-35, the Omnibus Budget Reconciliation Act of 1981, and (2) Public Law 97-123 which, in addition to other changes, provided authority for interfund borrowing among the OASI, DI, and HI Trust Funds through December 31, 1982.

The provisions authorizing interfund borrowing are contained in section 201(l) of the Social Security Act. Under this section, the Managing Trustee is authorized to determine, prior to January 1983, if any one of the OASI, DI, and HI Trust Funds requires additional funds and to borrow appropriate amounts from the other trust funds for transfer to and deposit in the borrowing trust fund. The section further specifies that when a loan has been made, interest on the unrepaid balance will be transferred, from time to time, from the borrowing trust fund to the lending trust fund at a rate equivalent to the rate the lending trust fund would have earned on the amounts loaned if they had been normal investments. The specific loans, repayments, and the timing of interest payments are largely at the discretion of the Managing Trustee. An explanatory statement, included in the Conference Report that accompanied H.R. 4331 (subsequently signed into law as Public Law 97-123) and submitted by the managers on the part of the House and the Senate at the conference, stipulates that when a determination of interfund borrowing is made, "In no case shall such interfund borrowing make adjustments in the trust funds insuring benefit payments for a period more than six months beyond the date of such determination."

Since considerable discretion is left to the Managing Trustee in the use of the interfund borrowing authority, many approaches are possible. For example, it would be possible to borrow just the amounts needed at the beginning of each month in order to permit benefits for that month to be paid on time. After December 31, 1982, no more borrowing would be authorized and a deficient fund would be unable to make timely benefit payments shortly thereafter. On the other hand, the Managing Trustee could make large transfers to a deficient fund in December 1982, so that timely payment of benefits could continue for the following 6 months (any longer period being precluded by the legislative intent as expressed in the explanatory statement accompanying the Conference Report). The actual policy to be followed will depend on the events occurring between the present time and the time when interfund borrowing would first be required; as yet, no specific policy has been formulated and no interfund transfers have been necessary. For the purposes of the estimates shown in this report (and the corresponding annual report on the financial status of the HI Trust Fund), it has been assumed that the maximum potential use of interfund borrowing will be made in order to maximize the period during which the timely payment of benefits can be made. It was also assumed that the loans to the OASI Trust Fund would be made first from the DI Trust Fund, until the DI Trust Fund's assets were drawn down to the minimum amount necessary to pay DI benefits on a timely basis, and then from the HI Trust Fund.

Under each of the four alternative sets of assumptions described earlier, loans to the OASI Trust Fund would be necessary in the latter half of 1982. In each case, the estimated assets of the combined DI and HI Trust Funds at the end of December 1982 are sufficient to provide loans to the OASI Trust Fund in amounts that would, on an estimated basis, permit the timely payment of OASI benefits through June 1983 without endangering the timely payment of DI and HI benefits during this same period.

In the tables of estimated trust fund operations that are presented in this section, the amounts borrowed or loaned under the interfund borrowing provisions are reflected in the income estimates for calendar year 1982 (or fiscal year 1983, on a fiscal year basis). Thus estimated assets at the end of calendar years 1982 and later (or fiscal years 1983 and later), and the corresponding ratios of assets to annual expenditures, include the effect of interfund loans. The specific loan amounts are shown in the footnotes to the tables, and separately in Table 15. For purposes of preparing the estimates, it was assumed that interest payments would be made to the lending trust funds at the end of June and December each year, at the "equivalent rates" as specified in the law. This assumption is consistent with the payment of interest on normal trust fund investments. As will be described in this section, the OASI Trust Fund would (in the absence of corrective legislation) be unable to pay benefits on time for an extended period beginning no later than July 1983 and lasting at least through the late 1980's, under each of the alternative sets of assumptions. For this reason, the amounts borrowed by the OASI Trust Fund from the other trust funds in 1982 could not be repaid during the period ending December 31, 1986. For informational purposes, theoretical operations of the OASI Trust Fund subsequent to the fund's depletion in 1983 are shown.

Since the loan amounts are added to (or subtracted from, as the case may be) the income and assets of the OASI, DI, and HI Trust Funds, the total income and assets of the three trust funds, combined, are not distorted by the loans made under the interfund borrowing provisions. The combined assets of the three trust funds are shown in Appendix F, as a percentage of combined annual expenditures, to indicate the adequacy of the overall financing of these three funds. However, without some legislative remedy, the OASI Trust Fund will be unable to meet its benefit obligations beginning no later than July 1983.

OASI Trust Fund operations

Estimates of the operations and status of the OASI Trust Fund during calendar years 1982-86 are shown in Table 12 for each of the four alternative sets of assumptions that were described in the preceding sections. Actual data for calendar year 1981 are also shown in the table. Under each alternative, it is assumed that employment and earnings will increase in every year through 1986. The number of persons with taxable earnings under the OASDI program is expected to increase under alternatives I, II-A, II-B, and III, from 116 million during calendar year

1981 to about 129 million, 127 million, 125 million, and 124 million, respectively, by 1986. The total annual amount of taxable earnings is expected to increase from $1,301 billion in 1981 to $2,081 billion, $2,016 billion, $2,012 billion, and $2,021 billion, in 1986, under alternatives I, II-A, II-B, and III, respectively. (In 1981 dollars—taking account of assumed increases in the CPI from 1981 to 1986 under each alternative—the estimated amounts of taxable earnings in 1986 are $1,635 billion, $1,555 billion, $1,441 billion, and $1,321 billion, under alternatives I, II-A, II-B, and III, respectively.) These increases are due in part to the increases in the contribution and benefit base assumed to occur in 1982-86 under the automatic provisions. The increases in taxable earnings are also due to projected increases in (1) employment levels, (2) average earnings in covered employment, and (3) the coverage of sick pay resulting from Public Law 97-123.

TABLE 12.—ESTIMATED OPERATIONS OF THE OASI TRUST FUND DURING CALENDAR YEARS 1981-86 UNDER FOUR ALTERNATIVE SETS OF ASSUMPTIONS

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Fund at beginning of year as a percentage of disbursements during year
Alternative I:					
1981[1]	$125.4	$126.7	-$1.3	$21.5	18
1982	135.6	141.7	-6.1	15.4	15
1983[2]	140.8	155.1	-14.4	1.0	10
1984[2]	154.7	168.4	-13.7	-12.7	1
1985[2]	175.5	181.2	-5.7	-18.4	-7
1986[2]	191.3	193.5	-2.2	-20.6	-10
Alternative II-A:					
1981[1]	125.4	126.7	-1.3	21.5	18
1982	136.0	141.8	-5.8	15.7	15
1983[2]	139.1	155.6	-16.5	-.8	10
1984[2]	149.2	169.3	-20.1	-20.9	([3])
1985[2]	167.6	182.6	-15.0	-35.9	-11
1986[2]	182.2	196.1	-13.9	-49.8	-18
Alternative II-B:					
1981[1]	125.4	126.7	-1.3	21.5	18
1982	137.1	141.8	-4.7	16.8	15
1983[2]	137.0	156.4	-19.4	-2.6	11
1984[2]	149.1	173.2	-24.0	-26.6	-1
1985[2]	167.1	191.1	-23.9	-50.5	-14
1986[2]	180.7	208.5	-27.9	-78.4	-24
Alternative III:					
1981[1]	125.4	126.7	-1.3	21.5	18
1982	137.8	141.8	-4.0	17.5	15
1983[2]	133.7	157.6	-23.9	-6.4	11
1984[2]	142.8	177.3	-34.6	-41.0	-4
1985[2]	162.1	200.0	-37.9	-78.9	-20
1986[2]	177.0	224.1	-47.1	-126.0	-35

[1]Figures for 1981 represent actual experience. Disbursements have been adjusted to exclude the benefits for December 1981 that were paid on December 31, 1981 rather than January 3, 1982 which was a Sunday. These benefits have been included in disbursements for 1982. Thus the disbursement amounts shown in 1981 and 1982 each reflect 12 months of benefit payments and are comparable to figures for other calendar years.

[2]Under each set of assumptions, the fund is depleted in July 1983, when assets become insufficient to pay benefits on time. Figures for 1983 and later years are therefore theoretical. See text for details.

[3]Between 0.0 and -0.5 percent.

Note: Income figures for 1982, and asset figures for 1982 and later, include amounts assumed to be borrowed by the OASI Trust Fund under the interfund borrowing provisions. See text and Table 15 for details. These amounts are $7.1 billion, $7.0 billion, $11.1 billion, and $12.3 billion under alternatives I, II-A, II-B, and III, respectively. Totals do not necessarily equal the sum of rounded components. The major assumptions underlying the estimates are described in the preceding sections and are shown in Tables 10 and 11.

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

Rising disbursements during calendar years 1982-86 reflect the effects of the assumed future automatic benefit increases previously shown, as well as the long-range upward trend in the numbers of beneficiaries and in the amounts of average monthly earnings underlying benefits payable under the program. The growth in the number of beneficiaries in the past and the expected growth in the future result partly from the increase in the aged population and partly from two other factors—(1) in each succeeding year a larger proportion of the persons attaining age 62 are eligible for benefits and (2) the amendments during the period 1950-77 liberalized the eligibility provisions and extended coverage to additional categories of employment. On the other hand, this growth will be reduced somewhat by the effects of the Omnibus Budget Reconciliation Act of 1981.

There has also been a growth in the proportion of eligible persons who receive benefits. This growth is due to several factors, among which are (1) the amendments enacted during the period 1950-80 which affect the conditions governing the receipt of benefits and (2) the increasing percentage of eligible persons who are aged 72 and over and who therefore receive benefits regardless of earnings. As indicated in the previous section, the age at which eligible persons may begin to receive full benefits regardless of earnings will be reduced from 72 to 70 beginning in 1983.

Under all four sets of assumptions, the estimates shown in Table 12 indicate that disbursements are estimated to exceed income in every year 1982-86. The assets of the OASI Trust Fund at the beginning of 1981 were equal to about 18 percent of the fund's disbursements in 1981. During 1981, the fund declined to 15 percent of estimated outgo in 1982. By the beginning of 1983, this percentage is estimated to decline to 10 percent under alternatives I and II-A and to 11 percent under alternatives II-B and III.

It may appear contradictory that under *less* favorable economic conditions the OASI Trust Fund has *more* assets at the beginning of 1983. The explanation is that under adverse conditions, a greater amount must be borrowed at the end of 1982 to ensure the timely payment of benefits during January through June of 1983. These borrowed amounts are reflected in the assets of the OASI Trust Fund at the beginning of 1983.

As described previously, assuming that maximum use would be made of the interfund borrowing authority, in July 1983 the assets of the OASI Trust Fund would be insufficient to pay benefits when due in the absence of corrective legislation. This condition occurs when, at the end of any month, the assets fall to less than about 9 percent of the following 12 months of disbursements. Below this level, assets are not large enough to pay benefits when due because of the difference in the cash flow of income and outgo during a month. Almost all of the benefits for a given month are usually payable on the third day of the following month. Contribution income, on the other hand, is received more or less uniformly throughout the month, on a daily basis. For example, the benefits for June 1983, estimated to be about $13 billion under alternative II-B, are payable on July 1, 1983 before enough income can be added to the fund's estimated assets of about $12 billion at the end of June to pay the benefits due on July 1. (Benefits for June 1983 are payable on July 1 instead of July 3 because July 3 is a Sunday. In such instances, section 708(a) of the Social Security Act stipulates an earlier payment date.)

Although the OASI Trust Fund would be depleted no later than July 1983 under present law, projections representing the theoretical operations of the trust fund in 1983 and later years are shown in Table 12 for informational purposes.

DI Trust Fund operations

The estimated operations and status of the DI Trust Fund during calendar years 1982-86 under the four sets of assumptions are shown in Table 13, together with figures on actual experience in 1981. Income will increase during calendar years 1982-86, under each alternative, reflecting the same factors, insofar as they apply to income to the DI Trust Fund, that are reflected in the increase in income to the OASI Trust Fund during the same period. Income will also rise as a result of the scheduled increases in the combined employee-employer contribution rate allocated for DI, and accompanying increases in contribution rates for self-employed persons.

Disbursements will increase because of automatic benefit increases and because of projected increases in the amounts of average monthly earnings on which benefits are based. These effects are offset, somewhat, by projected decreases in the numbers of beneficiaries. Since about 1978, the number of persons receiving benefits under the DI program has been declining, primarily because of declining disability incidence rates. A continuing decline in the number of beneficiaries is projected for the next several years under all four sets of assumptions, reflecting the combined effects of (1) somewhat lower incidence rates than those of the last decade and (2) projected termination rates that are somewhat higher than recent experience. The higher termination rates are expected to result from the increased review of the continuing eligibility of disabled beneficiaries.

OASDI tax rates were temporarily reallocated for 1980 and 1981, with some tax income shifted from the DI fund to the OASI fund. The effect of this reallocation on the assets of the DI fund, as a percentage of annual expenditures, was to cause a sharp decrease—from 35 percent at the beginning of 1980 to an estimated 16 percent at the beginning of 1982. The lending of assets to the OASI Trust Fund at the end of 1982 will cause a further drop, to an estimated 8 percent, at the beginning of 1983. The increase in DI tax rates to the levels provided for 1982-84 is expected to result in a rapid increase in the assets of the DI fund after 1982. As a percentage of annual expenditures, the assets of the DI Trust Fund are projected to reach 178 percent, 169 percent, 148 percent, and 125 percent at the beginning of 1986 under alternatives I, II-A, II-B, and III, respectively.

TABLE 13.—ESTIMATED OPERATIONS OF THE DI TRUST FUND DURING CALENDAR YEARS 1981-86 UNDER FOUR ALTERNATIVE SETS OF ASSUMPTIONS
[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Fund at beginning of year as a percentage of disbursements during year
Alternative I:					
1981[1]	$17.1	$17.7	-$0.6	$3.0	21
1982	17.0	18.5	-1.5	1.5	16
1983	26.7	18.9	7.8	9.4	8
1984	30.2	19.6	10.7	20.0	48
1985	38.4	20.4	17.9	38.0	98
1986	42.9	21.4	21.5	59.5	178
Alternative II-A:					
1981[1]	17.1	17.7	-.6	3.0	21
1982	17.0	18.5	-1.5	1.6	16
1983	26.6	19.0	7.6	9.2	8
1984	29.7	19.7	10.1	10.2	47
1985	37.9	20.6	17.4	36.6	93
1986	42.9	21.6	21.3	57.9	169
Alternative II-B:					
1981[1]	17.1	17.7	-.6	3.0	21
1982	17.0	18.5	-1.5	1.6	16
1983	26.1	19.1	7.1	8.6	8
1984	29.5	20.1	9.4	18.0	43
1985	37.3	21.5	15.9	33.9	84
1986	41.8	22.9	18.9	52.8	148
Alternative III:					
1981[1]	17.1	17.7	-.6	3.0	21
1982	17.0	18.5	-1.5	1.6	16
1983	25.6	19.2	6.4	7.9	8
1984	28.6	20.6	8.0	16.0	39
1985	36.9	22.4	14.5	30.5	71
1986	42.2	24.4	17.8	48.3	125

[1] See footnote 1 of Table 12.

Note: Income figures for 1982, and asset figures for 1982 and later, reflect the amounts assumed to be loaned by the DI Trust Fund under the interfund borrowing provisions. See text and Table 15 for details. These amounts are $6.2 billion, $6.3 billion, $5.7 billion, and $5.6 billion under alternatives I, II-A, II-B, and III, respectively. Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the preceding sections and are shown in Tables 10 and 11.

Combined OASI and DI Trust Fund operations

The estimated operations and status of the OASI and DI Trust Funds, combined, during calendar years 1982-86 under the four alternatives, are shown in Table 14 together with figures on actual experience in 1981. As explained above, the OASI Trust Fund is projected to be depleted in the near future under all four alternative sets of assumptions. Since under present law none of the income to one trust fund can be allocated to the other trust fund after 1982, the projections of the combined OASI and DI Trust Fund operations for 1983-86 under each alternative are theoretical. These figures represent the arithmetical addition of the figures shown in Tables 12 and 13.

TABLE 14.—ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING CALENDAR YEARS 1981-86 UNDER FOUR ALTERNATIVE SETS OF ASSUMPTIONS
[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in funds	Funds at end of year	Funds at beginning of year as a percentage of disbursements during year
Alternative I:					
1981[1]	$142.4	$144.4	-$1.9	$24.5	18
1982	152.6	160.2	-7.6	16.9	15
1983[2]	167.5	174.0	-6.5	10.4	10
1984[2]	184.9	187.9	-3.0	7.4	6
1985[2]	213.8	201.6	12.2	19.6	4
1986[2]	234.2	214.8	19.3	38.9	9
Alternative II-A:					
1981[1]	142.4	144.4	-1.9	24.5	18
1982	153.0	160.3	-7.3	17.2	15
1983[2]	165.8	174.6	-8.9	8.3	10
1984[2]	178.9	188.9	-10.0	-1.7	4
1985[2]	205.5	203.1	2.4	.7	-1
1986[2]	225.1	217.7	7.4	8.0	([3])
Alternative II-B:					
1981[1]	142.4	144.4	-1.9	24.5	18
1982	154.1	160.3	-6.2	18.4	15
1983[2]	163.1	175.5	-12.3	6.0	10
1984[2]	178.6	193.3	-14.6	-8.6	3
1985[2]	204.5	212.5	-8.0	-16.7	-4
1986[2]	222.5	231.4	-8.9	-25.6	-7
Alternative III:					
1981[1]	142.4	144.4	-1.9	24.5	18
1982	154.8	160.4	-5.5	19.0	15
1983[2]	159.3	176.8	-17.5	1.5	11
1984[2]	171.4	197.9	-26.6	-25.0	1
1985[2]	199.0	222.4	-23.4	-48.4	-11
1986[2]	219.2	248.5	-29.3	-77.7	-19

[1]See footnote 1 of Table 12.

[2]Figures are theoretical. See accompanying text and footnote 2 in Table 12 for details.

[3]Between 0.0 and 0.5 percent.

Note: Income figures for 1982, and asset figures for 1982 and later, include amounts assumed to be borrowed from the HI Trust Fund under the interfund borrowing provisions. See text and Table 15 for details. These amounts are $0.9 billion, $0.8 billion, $5.3 billion, and $6.7 billion, respectively, under alternatives I, II-A, II-B, and III. Totals do not necessarily equal the sum of rounded components. The assumptions underlying the estimates are described in the preceding sections and are shown in Tables 10 and 11.

At the beginning of 1981, the assets of the combined OASI and DI Trust Funds were equal to 18 percent of the disbursements in 1981, as shown in Table 14. By the beginning of 1982 the assets had declined to an amount representing 15 percent of the expenditures in 1982 as estimated under each of the four alternatives. Under each of the four alternatives, the combined funds are projected to continue to decline and are depleted in the second half of 1983.

Table 15 summarizes the estimated amounts that would be borrowed or loaned by the OASI, DI, and HI Trust Funds in 1982 under the interfund borrowing provisions. Once again, the figures represent the maximum potential use of the authority; while the maximum approach is not mandated, the transfer of smaller amounts would result in depletion of the OASI Trust Fund prior to July 1983.

TABLE 15.—ESTIMATED AMOUNTS BORROWED OR LOANED BY THE OASI, DI, AND HI TRUST FUNDS DURING 1982 UNDER THE INTERFUND BORROWING AUTHORITY PROVIDED BY PUBLIC LAW 97-123 UNDER FOUR ALTERNATIVE SETS OF ASSUMPTIONS

[In billions]

Assumptions	Estimated amounts borrowed or loaned by trust fund[1]		
	OASI	DI	HI
Alternative I	$7.1	-$6.2	-$0.9
Alternative II-A	7.0	-6.3	-0.8
Alternative II-B	11.1	-5.7	-5.3
Alternative III	12.3	-5.6	-6.7

[1] A positive figure represents an amount borrowed by the trust fund; a negative figure represents an amount loaned.

Note: The above estimates assume that the Managing Trustee exercises his discretionary authority to the maximum extent by borrowing sufficient funds from the DI and HI Trust Funds in December 1982 to guarantee the timely payment of OASI benefits through June 1983. See text for details. Totals do not necessarily equal the sum of rounded components.

For purposes of preparing the cost estimates in this report, it has been assumed that the OASI Trust Fund would borrow from the DI Trust Fund first, to the maximum extent possible without endangering the timely payment of DI benefits through June 1983. Assets from the HI Trust Fund would be borrowed only to the extent that DI Trust Fund assets are inadequate to meet the needs of the OASI Trust Fund. In actual practice, the Managing Trustee may determine that other procedures would be more appropriate.

Assets as a percentage of annual expenditures for selected years prior to 1982 are shown in Table 16 for both funds combined and for each fund separately.

TABLE 16.—ASSETS AT THE BEGINNING OF THE YEAR AS A PERCENTAGE OF EXPENDITURES DURING THE YEAR, FOR THE OASDI PROGRAM, BY TRUST FUND, FOR SELECTED CALENDAR YEARS 1950-81

Calendar year	OASI and DI Trust Funds, combined	OASI Trust Fund	DI Trust Fund
1950	1,156	1,156	—
1955	405	405	—
1960	186	180	304
1965	110	109	121
1970	103	101	126
1975	66	63	92
1976	57	54	71
1977	47	47	48
1978	37	39	26
1979	30	30	30
1980	25	23	35
1981	18	18	21

Expenditures in calendar year 1981 from both trust funds, combined, were 11.27 percent of taxable payroll for the year—0.57 percent more than the combined employee-employer contribution rate of 10.70 percent. The cost rates for both trust funds, combined, are estimated to increase in 1982 under each alternative. Under alternatives I and II-A, cost rates are estimated to begin a slow decline in 1983, reaching 10.51 percent and 11.00 percent, respectively, in 1986. Under alternative II-B, cost rates would decline slightly from their level in 1983 but then return to approximately the same level by 1986. Under alternative III, cost rates are estimated to continue to climb to 12.51 percent in 1986. These percentages are shown in Table 17 for both trust funds, combined, and for each trust fund separately. Table 17 also shows a comparison of each of the percentages with the corresponding combined employee-employer contribution rate.

TABLE 17.—ESTIMATED COST RATES FOR THE OASI AND DI TRUST FUNDS COMPARED WITH COMBINED EMPLOYEE-EMPLOYER CONTRIBUTION RATES, FOR CALENDAR YEARS 1981-86 UNDER FOUR ALTERNATIVE SETS OF ASSUMPTIONS

Calendar year	OASI Trust Fund			DI Trust Fund			OASI and DI Trust Funds, combined		
	Estimated cost rate[1]	Combined employee-employer contribution rate	Difference[2]	Estimated cost rate[1]	Combined employee-employer contribution rate	Difference[2]	Estimated cost rate[1]	Combined employee-employer contribution rate	Difference[2]
1981[3]	9.89	9.40	-0.49	1.38	1.30	-0.08	11.27	10.70	-0.57
Alternative I:									
1982	10.21	9.15	-1.06	1.33	1.65	.32	11.55	10.80	-.75
1983	10.06	9.15	-.91	1.23	1.65	.42	11.29	10.80	-.49
1984	9.86	9.15	-.71	1.14	1.65	.51	11.00	10.80	-.20
1985	9.65	9.50	-.15	1.09	1.90	.81	10.74	11.40	.66
1986	9.46	9.50	.04	1.05	1.90	.85	10.51	11.40	.89
Alternative II-A:									
1982	10.18	9.15	-1.03	1.33	1.65	.32	11.51	10.80	-.71
1983	10.21	9.15	-1.06	1.25	1.65	.40	11.46	10.80	-.66
1984	10.22	9.15	-1.07	1.19	1.65	.46	11.41	10.80	-.61
1985	10.07	9.50	-.57	1.13	1.90	.77	11.20	11.40	.20
1986	9.91	9.50	-.41	1.09	1.90	.81	11.00	11.40	.40
Alternative II-B:									
1982	10.42	9.15	-1.27	1.36	1.65	.29	11.78	10.80	-.98
1983	10.38	9.15	-1.23	1.27	1.65	.38	11.65	10.80	-.85
1984	10.42	9.15	-1.27	1.21	1.65	.44	11.63	10.80	-.83
1985	10.52	9.50	-1.02	1.18	1.90	.72	11.70	11.40	-.30
1986	10.55	9.50	-1.05	1.16	1.90	.74	11.71	11.40	-.31
Alternative III:									
1982	10.47	9.15	-1.32	1.37	1.65	.28	11.83	10.80	-1.03
1983	10.72	9.15	-1.57	1.31	1.65	.34	12.02	10.80	-1.22
1984	11.04	9.15	-1.89	1.28	1.65	.37	12.32	10.80	-1.52
1985	11.15	9.50	-1.65	1.25	1.90	.65	12.40	11.40	-1.00
1986	11.28	9.50	-1.78	1.23	1.90	.67	12.51	11.40	-1.11

[1]Represents trust fund expenditures as a percentage of taxable payroll. Percentage takes into account (1) the lower contribution rate payable by the self-employed compared with combined employee-employer rate, (2) employee contributions subject to refund, and (3) that the employer contribution is payable on only a portion of tips taxable as wages. For 1981, expenditures are adjusted to exclude payments to certain noninsured persons aged 72 and over with less than 3 quarters of coverage, costs of which are financed from the general fund of the Treasury. Similar adjustments are not made in the projection period, 1982 and later, because such payments are relatively small.

[2]Represents difference between tax contribution income and total outgo, as a percentage of taxable payroll, and therefore excludes the effects of other sources of income (principally interest income). Total income and outgo during 1981-86 are shown in Tables 12-14.

[3]Percentages for 1981, though based on actual experience, are preliminary and subject to revision.

Cost rates for years prior to 1982 are shown in Table 18.

TABLE 18.—COST RATES FOR THE OASI AND DI TRUST FUNDS FOR SELECTED CALENDAR YEARS 1950-81[1]

Calendar year	OASI and DI Trust Funds, combined	OASI Trust Fund	DI Trust Fund
1950	1.17	1.17	—
1955	3.34	3.34	—
1960	5.89	5.59	0.30
1965	7.93	7.23	.70
1970	8.12	7.32	.81
1975	10.65	9.29	1.36
1976	10.86	9.42	1.44
1977	10.97	9.46	1.50
1978	10.74	9.29	1.45
1979	10.25	8.90	1.36
1980	10.72	9.34	1.38
1981	11.27	9.89	1.38

[1]See footnote 1, Table 17. For 1977-81, percentages are preliminary and subject to revision. Expenditures in 1970 and later are adjusted to exclude payments to certain noninsured persons aged 72 and over with less than 3 quarters of coverage, the costs of which are financed from the general fund of the Treasury.

As stated previously, estimates of the operations of the trust funds during calendar years 1982-86 have been presented in the preceding tables of this section under four different sets of economic assumptions because of the uncertainty of future economic developments. Under the provisions of the Social Security Act, it is required that estimates of the expected operations and status of the trust funds during the next 5 fiscal years be shown in this report. Accordingly, detailed estimates of the expected operations and status of the trust funds during each fiscal year 1982-86 are shown in the remaining tables of this section for the two intermediate sets of assumptions (alternatives II-A and II-B) only. Similar detailed estimates are also shown on a calendar-year basis for 1982-86.

Data on the actual operations of the OASI Trust Fund for selected years during 1940-81, and estimates of the expected operations of the trust fund during 1982-86 under the intermediate sets of assumptions, are shown in Tables 19 and 20 on a fiscal- and calendar-year basis, respectively. Corresponding figures on the operations of the DI Trust Fund are shown in Tables 21 and 22. Operations of both trust funds combined are shown in Tables 23 and 24.[1]

[1]Data relating to the operations of the two trust funds for years not shown in Tables 19-24 are contained in earlier annual reports.

TABLE 19.—OPERATIONS OF THE OASI TRUST FUND DURING SELECTED FISCAL YEARS 1940-81 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

	Income					Disbursements						
			Reimbursements from the general fund of Treasury for costs of—									
Fiscal year[1]	Total	Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over	Interest on investments[2]	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to Railroad Retirement Account	Net increase in fund	Fund at end of period
Past experience:												
1940	$592	$550	—	—	$42	$28	$16	—	$12	—	$564	$1,745
1945	1,434	1,310	—	—	124	267	240	—	27	—	1,167	6,613
1950	2,367	2,106	$4	—	257	784	727	—	57	—	1,583	12,893
1955	5,525	5,087	—	—	438	4,427	4,333	—	103	-$10	1,098	21,141
1960	10,360	9,843	—	—	517	11,073	10,270	—	202	600	-713	20,829
1965	16,443	15,857	—	—	586	15,962	15,226	—	300	436	482	20,180
1970	31,746	29,955	78	$364	1,350	27,321	26,267	$1	474	579	4,425	32,616
1975	58,757	56,017	140	307	2,292	56,676	54,839	8	848	982	2,081	39,948
1976	62,327	59,555	157	268	2,347	64,295	62,140	7	935	1,212	-1,968	37,980
July-Sept. 1976	16,186	16,106	—	—	80	17,111	16,876	2	234	—	-925	37,055
1977	71,796	68,895	378	236	2,287	73,479	71,271	8	993	1,208	-1,683	35,372
1978	76,811	74,047	[3]385	228	2,151	81,205	78,524	6	1,086	1,589	-4,394	30,978
1979	86,893	84,358	384	230	1,920	90,128	87,592	17	1,072	1,448	-3,235	27,743
1980	100,051	97,608	393	164	1,886	103,228	100,615	11	1,160	1,442	-3,177	24,566
1981	121,572	119,016	390	150	2,016	122,304	119,413	8	1,298	1,585	-732	23,834
Estimated future experience:[4]												
Alternative II-A:												
1982	129,373	126,991	534	140	1,707	138,266	134,986	20	1,309	1,951	-8,893	14,941
1983[5]	[6]144,478	136,310	542	139	452	152,224	148,551	3	1,473	2,197	-7,746	7,195
1984[5]	147,377	148,116	547	125	-1,411	166,092	162,187	2	1,527	2,375	-18,715	-11,520
1985[5]	163,415	166,209	551	109	-3,454	179,282	175,219	2	1,596	2,466	-15,867	-27,386
1986[5]	179,460	183,794	554	92	-4,980	192,568	188,396	1	1,694	2,477	-13,108	-40,495
Alternative II-B:												
1982	127,106	124,742	534	140	1,689	138,267	134,986	20	1,309	1,951	-11,161	12,673
1983[5]	[7]145,993	134,151	542	139	101	152,610	148,916	3	1,473	2,218	-6,618	6,056
1984[5]	147,145	148,458	547	126	-1,986	168,799	164,847	2	1,548	2,402	-21,654	-15,598
1985[5]	163,358	166,789	551	108	-4,090	186,721	182,539	2	1,654	2,526	-23,363	-38,961
1986[5]	178,142	183,476	556	92	-5,982	204,101	199,705	1	1,753	2,641	-25,958	-64,920

See following page for footnotes.

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

[2]Interest on investments includes net profits on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in interest on investments. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in calendar year 1982, and fiscal year 1983, these figures reflect payments by a borrowing trust fund and to a lending trust fund for interest on amounts borrowed under the interfund borrowing provisions.

[3]Includes $2,700,000 as a single reimbursement for the estimated total costs of granting noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of persons of Japanese ancestry.

[4]In interpreting the estimates, reference should be made to the underlying assumptions described in the preceding section and shown in Tables 10 and 11.

[5]Figures are theoretical. See text and footnote 2 in Table 12 for details.

[6]Includes $7,036 million assumed to be borrowed from the DI and HI Trust Funds under the interfund borrowing provisions.

[7]Includes $11,060 million assumed to be borrowed from the DI and HI Trust Funds under the interfund borrowing provisions.

TABLE 20.—OPERATIONS OF THE OASI TRUST FUND DURING SELECTED CALENDAR YEARS 1940-81 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

	Income					Disbursements						
			Reimbursements from the general fund of Treasury for costs of—									
Calendar year	Total	Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to Railroad Retirement Account	Net increase in fund	Fund at end of period
Past experience:												
1940	$368	$325	—	—	$43	$62	$35	—	$26	—	$306	$2,031
1945	1,420	1,285	—	—	134	304	274	—	30	—	1,116	7,121
1950	2,928	2,667	$4	—	257	1,022	961	—	61	—	1,905	13,721
1955	6,167	5,713	—	—	454	5,079	4,968	—	119	-$7	1,087	21,663
1960	11,382	10,866	—	—	516	11,198	10,677	—	203	318	184	20,324
1965	16,610	16,017	—	—	593	17,501	16,737	—	328	436	-890	18,235
1970	32,220	30,256	78	$371	1,515	29,848	28,796	$2	471	579	2,371	32,454
1975	59,605	56,816	157	268	2,364	60,395	58,509	9	896	982	-790	36,987
1976	66,276	63,362	378	236	2,301	67,876	65,699	6	959	1,212	-1,600	35,388
1977	72,412	69,572	385	228	2,227	75,309	73,113	8	981	1,208	-2,897	32,491
1978	78,094	75,471	384	230	2,008	83,064	80,352	9	1,115	1,589	-4,971	27,520
1979	90,274	87,919	393	164	1,797	93,133	90,556	18	1,113	1,448	-2,860	24,660
1980	105,841	103,456	390	150	1,845	107,678	105,074	8	1,154	1,442	-1,837	22,824
1981	125,361	122,627	534	140	2,060	126,695	[1]123,796	8	1,307	1,585	-1,334	21,490
Estimated future experience:												
Alternative II-A:												
1982	[2]135,956	126,973	542	139	1,266	141,770	138,458	22	1,339	1,951	-5,814	15,676
1983	139,130	138,872	547	125	-414	155,637	151,929	2	1,509	2,197	-16,507	-831
1984	149,173	150,967	551	109	-2,453	169,272	165,354	2	1,542	2,375	-20,099	-20,930
1985	167,606	171,246	554	92	-4,286	182,573	178,491	2	1,614	2,466	-14,967	-35,897
1986	182,173	187,285	363	78	-5,552	196,104	191,903	1	1,723	2,477	-13,931	-49,827
Alternative II-B:												
1982	[3]137,083	124,234	542	139	1,108	141,771	138,459	22	1,339	1,951	-4,688	16,802
1983	137,005	137,216	547	126	-883	156,392	152,663	2	1,509	2,218	-19,386	-2,584
1984	149,144	151,528	551	108	-3,043	173,183	169,210	2	1,569	2,402	-24,039	-26,623
1985	167,147	171,554	556	92	-5,055	191,059	186,847	2	1,684	2,526	-23,913	-50,536
1986	180,669	187,043	454	78	-6,906	208,524	204,104	1	1,777	2,641	-27,855	-78,391

See following page for footnotes.

[1]Adjusted to exclude benefits for December 1981 that were paid on December 31, 1981 rather than January 3, 1982 which was a Sunday. These benefits are included in the 1982 figure so that amounts for 1981 and 1982 each reflect 12 months of benefit payments and are comparable to figures for other calendar years.

[2]Includes $7,036 million assumed to be borrowed from the DI and HI Trust Funds under the interfund borrowing provisions.

[3]Includes $11,060 million assumed to be borrowed from the DI and HI Trust Funds under the interfund borrowing provisions.

Note: In interpreting the above, reference should be made to the footnotes in Table 19.

TABLE 21.—OPERATIONS OF THE DI TRUST FUND DURING SELECTED FISCAL YEARS 1960-81 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

Fiscal year[1]	Income: Total	Income: Contributions, less refunds	Income: Reimbursements from the general fund of Treasury for costs of noncontributory credits for military service	Income: Interest on investments[2]	Disbursements: Total	Disbursements: Benefit payments	Disbursements: Payments for vocational rehabilitation services	Disbursements: Administrative expenses	Disbursements: Transfers to Railroad Retirement Account	Net increase in fund	Fund at end of period
Past experience:[3]											
1960	$1,034	$987	—	$47	$533	$528	—	$32	-$27	$501	$2,167
1965	1,237	1,175	—	62	1,495	1,392	—	79	24	-257	2,007
1970	4,380	4,141	$16	223	2,954	2,778	$16	149	10	1,426	5,104
1975	7,920	7,356	52	512	7,982	7,630	71	253	29	-62	8,191
1976	8,355	7,797	90	468	9,606	9,222	92	266	26	-1,251	6,939
July-Sept. 1976	2,172	2,159	—	13	2,653	2,555	27	71	—	-481	6,459
1977	9,374	8,900	103	372	11,590	11,135	77	378	([4])	-2,215	4,243
1978	12,784	12,404	128	251	12,655	12,214	84	327	30	129	4,372
1979	15,196	14,750	142	305	13,944	13,428	79	407	30	1,252	5,624
1980	17,376	16,805	118	453	15,320	14,899	99	334	-12	2,056	7,680
1981	12,993	12,589	130	273	17,280	16,853	-8	405	29	-4,288	3,392
Estimated future experience:[5]											
Alternative II-A:											
1982	21,725	21,228	168	329	18,403	17,618	132	603	50	3,322	6,714
1983	[6]19,457	24,590	174	949	18,844	18,106	19	701	17	613	7,327
1984	28,710	26,714	180	1,816	19,489	18,739	13	727	9	9,222	16.549
1985	35,486	32,392	184	2,910	20,323	19,540	11	759	13	15,163	31,712
1986	41,437	36,761	189	4,487	21,352	20,559	9	806	-21	20,085	51,797
Alternative II-B:											
1982	21,318	20,826	168	324	18,397	17,612	132	603	50	2,921	6,313
1983	[7]19,453	24,200	174	826	18,877	18,137	19	701	20	576	6,889
1984	28,536	26,783	180	1,573	19,789	19,027	13	737	12	8,748	15,637
1985	35,125	32,507	185	2,433	21,108	20,295	11	787	16	14,017	29,654
1986	40,492	36,692	191	3,609	22,504	21,673	9	834	-11	17,988	47,642

[1]See footnote 1 in Table 19.

[2]See footnote 2 in Table 19.

[3]The financial operations of the DI Trust Fund began in the latter half of fiscal year 1957.

[4]Less than $500,000 was transferred from the Railroad Retirement Account to the DI Trust Fund.

[5]In interpreting the estimates, reference should be made to the underlying assumptions described in the preceding section and shown in Tables 10 and 11.

[6]Excludes $6,257 million assumed to be loaned to the OASI Trust Fund under the interfund borrowing provisions.

[7]Excludes $5,747 million assumed to be loaned to the OASI Trust Fund under the interfund borrowing provisions.

TABLE 22.—OPERATIONS OF THE DI TRUST FUND DURING SELECTED CALENDAR YEARS 1960-81 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

Calendar year	Income				Disbursements						
	Total	Contributions, less refunds	Reimbursements from the general fund of Treasury for costs of noncontributory credits for military service	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to Railroad Retirement Account	Net increase in fund	Fund at end of period
Past experience:											
1960	$1,063	$1,010	—	$53	$600	$568	—	$36	-$5	$464	$2,289
1965	1,247	1,188	—	59	1,687	1,573	—	90	24	-440	1,606
1970	4,774	4,481	$16	277	3,259	3,067	$18	164	10	1,514	5,614
1975	8,035	7,444	90	502	8,790	8,414	91	256	29	-754	7,354
1976	8,757	8,233	103	422	10,366	9,966	89	285	26	-1,609	5,745
1977	9,570	9,138	128	304	11,945	11,463	84	399	([1])	-2,375	3,370
1978	13,810	13,413	142	256	12,954	12,513	86	325	30	856	4,226
1979	15,590	15,114	118	358	14,186	13,708	78	371	30	1,404	5,630
1980	13,871	13,255	130	485	15,872	15,437	78	368	-12	-2,001	3,629
1981	17,078	16,738	168	172	17,658	[2]17,200	-8	436	29	-580	3,049
Estimated future experience:											
Alternative II-A:											
1982	[3]17,020	22,555	174	548	18,517	17,677	145	645	50	-1,497	1,552
1983	26,624	25,052	180	1,392	18,996	18,246	10	723	17	7,627	9,180
1984	29,723	27,228	184	2,311	19,670	18,914	12	735	9	10,053	19,232
1985	37,929	34,083	189	3,657	20,573	19,782	10	768	13	17,356	36,588
1986	42,926	37,459	158	5,309	21,639	20,832	8	819	-21	21,287	57,875
Alternative II-B:											
1982	[4]17,010	22,066	174	517	18,508	17,668	145	645	50	-1,498	1,551
1983	26,124	24,753	180	1,191	19,073	18,320	10	723	20	7,051	8,602
1984	29,496	27,333	185	1,978	20,099	19,327	12	748	12	9,397	17,999
1985	37,329	34,148	191	2,990	21,459	20,631	10	802	16	15,870	33,869
1986	41,799	37,406	154	4,239	22,864	22,020	9	846	-11	18,935	52,804

[1]Less than $500,000 was transferred from the Railroad Retirement Account to the DI Trust Fund.

[2]See footnote 1 in Table 20.

[3]Excludes $6,257 million assumed to be loaned to the OASI Trust Fund under the interfund borrowing provisions.

[4]Excludes $5,747 million assumed to be loaned to the OASI Trust Fund under the interfund borrowing provisions.

Note: In interpreting the above, reference should be made to the footnotes in Table 21.

TABLE 23.—OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING SELECTED FISCAL YEARS 1960-81 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

	Income					Disbursements						
			Reimbursements from the general fund of Treasury for costs of—									
Fiscal year	Total	Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to Railroad Retirement Account	Net increase in funds	Funds at end of period
Past experience:												
1960	$11,394	$10,830	—	—	$564	$11,606	$10,798	—	$234	$574	-$212	$22,996
1965	17,681	17,032	—	—	648	17,456	16,618	—	379	459	224	22,167
1970	36,127	34,096	$94	$364	1,572	30,275	29,045	$18	623	589	5,852	37,720
1975	66,677	63,374	192	307	2,804	64,658	62,469	79	1,101	1,010	2,016	48,136
1976	70,682	67,352	247	268	2,815	73,901	71,363	100	1,200	1,239	-3,219	44,919
July-Sept. 1976	18,359	18,265	—	—	94	19,764	19,431	29	304	—	-1,405	43,514
1977	61,170	77,794	481	236	2,659	65,068	82,406	65	1,370	1,208	-3,896	39,615
1978	69,595	86,451	513	228	2,403	93,660	90,738	91	1,413	1,618	-4,265	35,350
1979	102,089	99,108	526	230	2,225	104,072	101,020	96	1,479	1,477	-1,963	33,367
1980	117,427	114,413	511	164	2,339	116,548	115,514	110	1,494	1,430	-1,121	32,246
1981	134,565	131,606	521	150	2,289	139,584	136,267	(1)	1,703	1,614	-5,019	27,226
Estimated future experience:												
Alternative II-A:												
1982	151,096	148,219	703	140	2,036	156,669	152,604	152	1,912	2,001	-5,571	21,655
1983	[2]163,935	160,900	716	139	1,401	171,068	166,657	22	2,174	2,214	-7,133	14,522
1984	176,087	174,830	727	125	405	185,581	180,927	15	2,255	2,384	-9,493	5,029
1985	198,901	198,601	735	109	-544	199,605	194,759	12	2,355	2,479	-704	4,325
1986	220,897	220,555	743	92	-493	213,921	208,955	10	2,500	2,456	6,977	11,302
Alternative II-B:												
1982	148,424	145,568	703	140	2,013	156,664	152,599	152	1,912	2,001	-8,240	18,986
1983	[3]165,446	158,351	716	139	927	171,487	167,053	22	2,174	2,238	-6,042	12,945
1984	175,661	175,241	727	126	-412	188,588	183,674	15	2,285	2,414	-12,906	38
1985	198,483	199,296	736	108	-1,656	207,829	202,634	12	2,441	2,542	-9,346	-9,308
1986	218,635	220,168	747	92	-2,372	226,605	221,378	10	2,567	2,630	-7,970	-17,278

[1]Less than $500,000.

[2]Includes $779 million assumed to be borrowed from the HI Trust Fund under the interfund borrowing provisions.

[3]Includes $5,313 million assumed to be borrowed from the HI Trust Fund under the interfund borrowing provisions.

Note: In interpreting the above, reference should be made to the footnotes in Table 19.

TABLE 24.—OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING SELECTED CALENDAR YEARS 1960-81 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1982-86 UNDER THE INTERMEDIATE SETS OF ASSUMPTIONS

[In millions]

Calendar year	Income					Disbursements						
			Reimbursements from the general fund of Treasury for costs of—									
	Total	Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to Railroad Retirement Account	Net increase in funds	Funds at end of period
Past experience:												
1960	$12,445	$11,876	—	—	$569	$11,798	$11,245	—	$240	$314	$647	$22,613
1965	17,857	17,205	—	—	651	19,187	18,311	—	418	459	-1,331	19,841
1970	36,993	34,737	$94	$371	1,791	33,108	31,863	$20	635	589	3,886	38,068
1975	67,640	64,259	247	268	2,866	69,184	66,923	99	1,152	1,010	-1,544	44,342
1976	75,034	71,595	481	236	2,722	78,242	75,665	95	1,244	1,239	-3,209	41,133
1977	81,982	78,710	513	228	2,531	87,254	84,576	92	1,379	1,208	-5,272	35,861
1978	91,904	88,883	526	230	2,264	96,018	92,865	95	1,439	1,618	-4,115	31,746
1979	105,864	103,034	511	164	2,155	107,320	104,263	96	1,483	1,477	-1,456	30,291
1980	119,712	116,711	521	150	2,330	123,550	120,512	86	1,522	1,430	-3,838	26,453
1981	142,438	139,364	703	140	2,231	144,352	[1]140,996	([2])	1,742	1,614	-1,914	24,539
Estimated future experience:												
Alternative II-A:												
1982	[3]152,976	149,528	716	139	1,814	160,287	156,135	167	1,984	2,001	-7,311	17,228
1983	165,754	163,924	727	125	978	174,633	170,175	12	2,232	2,214	-8,879	8,349
1984	178,896	178,195	735	109	-143	188,942	184,268	14	2,276	2,384	-10,046	-1,697
1985	205,535	205,329	743	92	-629	203,146	198,273	12	2,383	2,479	2,389	691
1986	225,099	224,744	521	78	-243	217,743	212,735	10	2,542	2,456	7,357	8,048
Alternative II-B:												
1982	[4]154,093	146,300	716	139	1,625	160,279	156,127	167	1,984	2,001	-6,186	18,353
1983	163,129	161,969	727	126	308	175,465	170,983	12	2,232	2,238	-12,336	6,017
1984	178,640	178,861	736	108	-1,065	193,282	188,537	14	2,317	2,414	-14,642	-8,624
1985	204,476	205,702	747	92	-2,065	212,518	207,478	12	2,486	2,542	-8,042	-16,667
1986	222,467	224,449	608	78	-2,668	231,387	226,125	10	2,623	2,630	-8,920	-25,587

[1]See footnote 1 in Table 20.

[2]Less than $500,000.

[3]Includes $779 million assumed to be borrowed from the HI Trust Fund under the interfund borrowing provisions.

[4]Includes $5,313 million assumed to be borrowed from the HI Trust Fund under the interfund borrowing provisions.

Note: In interpreting the above, reference should be made to the footnotes in Table 19.

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

Group voluntary coverage arrangements

Social Security coverage for employees of State and local governments is available on a group voluntary basis through agreements between the Secretary of Health and Human Services and the individual States. After coverage of the employees of a State or local government employer has been in effect for at least 5 years, the State may give notice of its intention to terminate the coverage of such employees. The termination of coverage becomes effective at the end of any specified calendar year, as long as at least 2 years have passed after such notice is given. The State may withdraw the notice of termination before it becomes effective. However, once the termination becomes effective, it is irrevocable and the same group cannot be covered under Social Security again.

In the past few years, there has been some increase in the number of terminations of coverage among State and local government employees. The total number of employees becoming covered under new agreements in each year through 1976 was larger than the number of employees for whom coverage was terminated during the year. However, in each of the last 5 years, the number of State and local government employees for whom coverage was terminated was somewhat larger than the number of employees becoming covered under new agreements. Notices have also been given of the intention to terminate coverage on the part of a larger number of State and local government employees in each of the next 2 years than the number of employees becoming covered under new agreements each year. The filing of such a notice does not necessarily mean that coverage will be terminated because, as noted above, the notice may be withdrawn during the period before the termination becomes effective.

The termination of coverage for any large number of State or local government employees would have an adverse effect on the status of the trust funds, especially in the short range. In fiscal year 1981, tax contributions received by the combined OASI and DI Trust Funds for employment by State and local governments amounted to $13.0 billion, or about 10 percent of total contributions in the year.

Employees of tax-exempt nonprofit organizations may also be covered on a group voluntary basis. Such organizations may terminate coverage under separate rules that operate in somewhat the same way as those for State and local government groups. While complete statistics are not available, it is estimated that during fiscal year 1981 nonprofit employers and their employees paid about $5 billion in taxes to the OASI and DI Trust Funds. In late 1980 a sharp upward trend began in the number of nonprofit employers, especially hospitals, filing advance notices of termination. Although some of these 2-year notices now on file will be canceled, the numbers of employees involved are such that more Social Security tax revenue may be lost from nonprofit employers than from State and local government employers because of possible terminations during 1982 and 1983.

The estimates presented in this report do not reflect the effects of (1) future terminations of coverage which may become effective as a result of such notices that have been filed and that are still pending, or that may be filed in the future, or (2) future agreements that would bring additional groups of employees under covered employment.

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

(Required by section 201(c) of the Social Security Act)

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

On December 31, 1981, about 527,000 persons were receiving monthly benefits with respect to disability from the OASI Trust Fund. In addition to disabled beneficiaries, this total includes 43,000 mothers and fathers. These mothers and fathers (wives or husbands under age 65 of retired-worker beneficiaries and widows or widowers of deceased insured workers) met all other qualifying requirements and were receiving full-rate (i.e., not reduced-for-age) benefits solely because they had at least one disabled-child beneficiary in their care. Benefits paid from this trust fund to persons receiving benefits with respect to disability totaled $1,421 million in calendar year 1981. Similar figures are presented in Table 25 to show the experience in selected calendar years during 1960-81. Figures relating to past experience for years not shown are contained in prior annual reports.

TABLE 25.—BENEFITS PAYABLE FROM THE OASI TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-86

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments[1]		
	Total	Children[2]	Widows and widowers	Total	Children[2]	Widows and widowers[3]
Past experience:						
1960	117	117	—	$59	$59	—
1965	214	214	—	134	134	—
1970	316	281	36	301	260	$41
1975	435	376	59	664	560	104
1976	457	395	62	748	637	111
1977	480	414	65	868	748	120
1978	494	430	64	950	823	127
1979	507	445	62	1,071	946	125
1980	519	460	59	1,223	1,097	126
1981	527	473	54	1,421	1,296	125
Estimated future experience:[4]						
Alternative II-A:						
1982	532	484	48	1,575	1,462	113
1983	542	496	46	1,674	1,572	102
1984	554	510	44	1,821	1,725	96
1985	565	523	42	2,078	1,989	89
1986	576	536	40	2,340	2,257	83

TABLE 25.—BENEFITS PAYABLE FROM THE OASI TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-86 (Cont.)
[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments[1]		
	Total	Children[2]	Widows and widowers	Total	Children[2]	Widows and widowers[3]
Estimated future experience:[4] (Cont.)						
Alternative II-B:						
1982	532	484	48	$1,575	$1,462	$113
1983	542	496	46	1,683	1,580	103
1984	554	510	44	1,864	1,766	98
1985	565	523	42	2,082	1,989	93
1986	576	536	40	2,291	2,203	88

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

[2]Reflects the effect of including certain mothers and fathers. (See text.)

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

[4]The estimates are based on the alternative II-A and II-B economic assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in an earlier section.

Table 25 also shows the estimated future experience in calendar years 1982-86, under the alternative II-A and II-B assumptions described in an earlier section. Total benefit payments from the OASI Trust Fund with respect to disabled beneficiaries are estimated to increase from $1,575 million in calendar year 1982 to $2,340 million in calendar year 1986, under the alternative II-A assumptions, and to $2,291 million in calendar year 1986 under the alternative II-B assumptions.

In calendar year 1981, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the OASI Trust Fund and from the DI Trust Fund (including payments from the latter fund to all children and spouses of disabled-worker beneficiaries) totaled $18,621 million, of which $1,421 million, or 7.6 percent, represented payments from the OASI Trust Fund. Similar figures for selected calendar years during 1960-81 and estimates for calendar years 1982-86, under alternative II-A and II-B economic assumptions, are presented in Table 26. Figures relating to past experience for years not shown in Table 26 are contained in prior annual reports.

TABLE 26.—BENEFIT PAYMENTS UNDER THE OASDI PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960-86

[Amounts in millions]

Calendar year	Benefit payments[1] from - Total[1]	DI Trust Fund[2]	OASI Trust Fund: Amount[3]	OASI Trust Fund: As a percentage of total benefit payments with respect to disabled beneficiaries
Past experience:				
1960	$627	$568	$59	9.4
1965	1,707	1,573	134	7.9
1970	3,386	3,085	301	8.9
1975	9,169	8,505	664	7.2
1976	10,803	10,055	748	6.9
1977	12,415	11,547	868	7.0
1978	13,549	12,599	950	7.0
1979	14,857	13,786	1,071	7.2
1980	16,738	15,515	1,223	7.3
1981	18,621	17,200	1,421	7.6
Estimated future experience:[4]				
Alternative II-A:				
1982	19,317	17,742	1,575	8.2
1983	19,970	18,296	1,674	8.4
1984	20,762	18,941	1,821	8.8
1985	21,878	19,800	2,078	9.5
1986	23,185	20,845	2,340	10.1
Alternative II-B:				
1982	19,308	17,733	1,575	8.2
1983	20,053	18,370	1,683	8.4
1984	21,218	19,354	1,864	8.8
1985	22,731	20,649	2,082	9.2
1986	24,324	22,033	2,291	9.4

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

[2]Benefit payments to disabled workers and their children and spouses.

[3]Benefit payments to disabled children aged 18 and over, to certain mothers and fathers (see text), and to disabled widows and widowers (see footnote 3, Table 25).

[4]The estimates are based on the alternative II-A and II-B assumptions and reflect the resulting assumed changes under the automatic increase provisions, as described in an earlier section.

E. ACTUARIAL STATUS OF THE TRUST FUNDS

Historically, the actuarial status of the OASDI program has been measured by the actuarial balance, as described earlier in this section. In recent reports, medium-range and long-range actuarial balances have been shown. They have been computed, respectively, over the 25-year and 75-year periods beginning with the calendar year of issuance of the report. In accordance with this practice, the statements of the medium-range and long-range actuarial statuses contained in this report pertain to the periods 1982-2006 and 1982-2056, respectively. Also presented are actuarial balances for the second and third 25-year periods within the 75-year period. As described earlier in this section, year-by-year time series or 25-year averages may reveal patterns or problems which would be masked by a single 75-year average.

In addition to the medium-range and long-range actuarial balances, two other indicators of the financial condition of the trust funds are shown in this report. One is the time series of differences between the scheduled tax rates and the projected cost rates (annual cost, or outgo, expressed as a percentage of taxable payroll), and the other is the time series of projected trust fund ratios (assets at the beginning of the year expressed as a percentage of outgo during the year). These indicators were discussed in concept earlier in this section, and estimates of their numerical values are discussed later.

The cost rates are useful in establishing tax rate schedules according to the current-cost method of financing described earlier. However, the cost rates do not reflect the cost of increasing the trust fund ratio from its current level, or even maintaining it at that level. Therefore, any consideration of alternative financing provisions must also take into account the desired level of the trust fund ratio and the time by which that level is to be attained. The tax schedule can then be designed so that the projected annual tax income not only covers the projected annual outgo, but also produces the desired trust fund ratios. For example, if it were considered appropriate to increase the combined OASI and DI Trust Funds ratio to 50 percent of the projected annual outgo by the end of the 75-year period, it would be necessary to raise the 75-year average tax rate (the combined employee-employer rate, as discussed earlier) by an additional 0.06 percentage points per year above the amount needed to cover the outgo under alternative II-A and by 0.07 percentage points under alternative II-B.

As discussed earlier, the cost estimates are sensitive to changes in many economic and demographic assumptions upon which they are based. However, the degree of sensitivity to change varies considerably among the various assumptions. For example, variations in projected fertility rates have little effect on the medium-range cost estimates, because almost all covered workers and beneficiaries projected for this period were born prior to the start of the projection period. However, variations in economic factors such as wage and price increases have significant effects on the estimates, even in the medium-range period. In general, the degree of confidence that can be placed in the assumptions and estimates is greater for the medium-range period than for the long-range period. Nonetheless, even over the medium-range period, the cost projections are only an indication of the trend and general range of the actual cost of the program. Appendix B contains a more detailed discussion of the effects on the cost estimates of varying selected economic and demographic assumptions.

Table 27 presents a comparison of the estimated cost rates under alternatives II-A and II-B with the OASDI tax rates. The table shows that, under alternative II-A, after 1984, the OASDI system is projected to have a surplus of tax income over outgo in each year of the medium-range period and then beyond to about 2015, after which the system is projected to have annual deficits. These deficits are projected to grow rapidly to a peak of 3.49 percent of taxable payroll in 2035. In the remainder of the long-range period, they decline slightly and then fluctuate over a rather narrow range, between 3.0 and 3.3 percent.

This pattern of annual surpluses and deficits produces a medium-range actuarial surplus of 1.55 percent of taxable payroll and a long-range actuarial deficit of 0.82 percent. Notwithstanding the medium-range surplus, the deficits in the early years are sufficient to exhaust the OASI Trust Fund no later than July of 1983, as shown elsewhere in this section.

TABLE 27.—ESTIMATED COST RATES OF THE OASDI SYSTEM UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH TAX RATES, CALENDAR YEARS 1982-2060

[As percent of taxable payroll]

Calendar year	Estimated cost rate			Tax rate	Difference[1]
	OASI	DI	Total		
Alternative II-A:					
1982	10.18	1.33	11.51	10.80	-0.71
1983	10.21	1.25	11.46	10.80	-.66
1984	10.22	1.19	11.41	10.80	-.61
1985	10.07	1.13	11.20	11.40	.20
1986	9.91	1.09	11.00	11.40	.40
1987	9.75	1.06	10.81	11.40	.59
1988	9.63	1.03	10.66	11.40	.74
1989	9.53	1.02	10.55	11.40	.85
1990	9.45	1.01	10.47	12.40	1.93
1991	9.38	1.01	10.39	12.40	2.01
1992	9.35	1.03	10.37	12.40	2.03
1993	9.33	1.04	10.37	12.40	2.03
1994	9.29	1.05	10.35	12.40	2.05
1995	9.25	1.07	10.32	12.40	2.08
1996	9.15	1.10	10.25	12.40	2.15
1997	9.07	1.13	10.20	12.40	2.20
1998	9.00	1.16	10.15	12.40	2.25
1999	8.92	1.18	10.10	12.40	2.30
2000	8.82	1.20	10.03	12.40	2.37
2001	8.73	1.23	9.96	12.40	2.44
2002	8.68	1.25	9.93	12.40	2.47
2003	8.66	1.28	9.94	12.40	2.46
2004	8.65	1.32	9.97	12.40	2.43
2005	8.68	1.37	10.06	12.40	2.34
2006	8.72	1.39	10.11	12.40	2.29
2010	9.17	1.52	10.69	12.40	1.71
2015	10.35	1.61	11.96	12.40	.44
2020	11.88	1.65	13.53	12.40	-1.13
2025	13.36	1.61	14.96	12.40	-2.56
2030	14.22	1.53	15.75	12.40	-3.35
2035	14.39	1.50	15.89	12.40	-3.49
2040	14.12	1.52	15.64	12.40	-3.24
2045	13.93	1.56	15.48	12.40	-3.08
2050	13.98	1.55	15.53	12.40	-3.13
2055	14.10	1.53	15.63	12.40	-3.23
2060	14.12	1.52	15.63	12.40	-3.23
25-year averages:					
1982-2006	9.31	1.16	10.46	12.01	1.55
2007-2031	11.58	1.57	13.15	12.40	-.75
2032-2056	14.11	1.54	15.65	12.40	-3.25
75-year average:					
1982-2056	11.66	1.42	13.09	12.27	-.82

TABLE 27.—ESTIMATED COST RATES OF THE OASDI SYSTEM UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH TAX RATES, CALENDAR YEARS 1982-2060 (Cont.)
[As percent of taxable payroll]

Calendar year	Estimated cost rate			Tax rate	Difference[1]
	OASI	DI	Total		
Alternative II-B:					
1982	10.42	1.36	11.78	10.80	-0.98
1983	10.38	1.27	11.65	10.80	-.85
1984	10.42	1.21	11.63	10.80	-.83
1985	10.52	1.18	11.70	11.40	-.30
1986	10.55	1.16	11.71	11.40	-.31
1987	10.57	1.14	11.71	11.40	-.31
1988	10.56	1.12	11.68	11.40	-.28
1989	10.55	1.11	11.66	11.40	-.26
1990	10.54	1.10	11.64	12.40	.76
1991	10.49	1.10	11.59	12.40	.81
1992	10.43	1.11	11.54	12.40	.86
1993	10.39	1.12	11.51	12.40	.89
1994	10.33	1.13	11.46	12.40	.94
1995	10.27	1.14	11.42	12.40	.98
1996	10.18	1.17	11.35	12.40	1.05
1997	10.07	1.20	11.27	12.40	1.13
1998	9.96	1.23	11.19	12.40	1.21
1999	9.85	1.25	11.10	12.40	1.30
2000	9.75	1.28	11.03	12.40	1.37
2001	9.66	1.30	10.96	12.40	1.44
2002	9.58	1.32	10.90	12.40	1.50
2003	9.52	1.35	10.87	12.40	1.53
2004	9.48	1.39	10.87	12.40	1.53
2005	9.50	1.44	10.95	12.40	1.45
2006	9.53	1.46	10.99	12.40	1.41
2010	9.94	1.59	11.53	12.40	.87
2015	11.12	1.69	12.82	12.40	-.42
2020	12.72	1.73	14.44	12.40	-2.04
2025	14.29	1.68	15.97	12.40	-3.57
2030	15.23	1.60	16.83	12.40	-4.43
2035	15.45	1.57	17.02	12.40	-4.62
2040	15.20	1.59	16.80	12.40	-4.40
2045	15.03	1.63	16.66	12.40	-4.26
2050	15.09	1.63	16.72	12.40	-4.32
2055	15.21	1.60	16.81	12.40	-4.41
2060	15.22	1.59	16.81	12.40	-4.41
25-year averages:					
1982-2006	10.14	1.23	11.37	12.01	.64
2007-2031	12.43	1.65	14.08	12.40	-1.68
2032-2056	15.20	1.61	16.81	12.40	-4.41
75-year average:					
1982-2056	12.59	1.50	14.09	12.27	-1.82

[1]The tax rate minus the OASDI cost rate. Positive differences are referred to as surpluses, and negative differences, as deficits.

Note: The definitions of alternatives II-A and II-B, cost rate, tax rate, and taxable payroll are presented in the text.

This table also shows that, under alternative II-B, annual OASDI surpluses are not projected until 1990. Annual surpluses are projected thereafter until about 2010, after which deficits are projected for each year. These projected deficits grow more rapidly than under alternative II-A, peaking around 2035 when the projected annual deficit is 4.62 percent of taxable payroll. Although the annual deficits in the remainder of the long-range period are significantly higher than under alternative II-A, they follow a similar pattern. First they decline slightly, and then they fluctuate over a rather narrow range, between 4.2 and 4.5 percent of taxable payroll. This pattern of annual surpluses and deficits produces a medium-range actuarial surplus of 0.64 percent of taxable payroll and a long-range actuarial deficit of 1.82 percent. As under alternative II-A, the deficits projected under alternative II-B in the early years are sufficient to exhaust the OASI Trust Fund no later than July 1983 (again, as shown elsewhere in this section).

The long-range actuarial deficits under alternatives II-A and II-B are about 6 and 13 percent of the estimated average long-range cost rates (of 13.09 and 14.09 percent of taxable payroll), respectively. Because the deficit in each case exceeds 5 percent of the estimated average cost rate (that is, exceeds 0.65 and 0.70 percent of taxable payroll, respectively), the system is not regarded as being in close actuarial balance over the long-range period under either alternative.

The reason for the rapid increase in the estimated cost rates after the medium-range period (under either alternative) is that, at that time, the projected number of beneficiaries is increasing faster than the projected number of covered workers. This occurs because the relatively large number of persons born during the period from the end of World War II through the early 1960's (when fertility rates were high) will reach retirement age, and begin to receive benefits, while the relatively small number of persons born during the recent past, current, and projected periods of low fertility rates will comprise the labor force. During the last years of the projection period, the projected OASI cost rates generally stabilize at a fairly high level, thereby reflecting, in part, a stabilization in the projected ratio of the number of beneficiaries and the number of covered workers. Such stabilization results from the relatively smooth pattern of the assumed fertility rates. A comparison of the numbers of beneficiaries and covered workers, both historically and as projected under all four alternatives, is shown in Table 28.

TABLE 28.—COMPARISON OF OASDI BENEFICIARIES AND COVERED WORKERS BY ALTERNATIVE, CALENDAR YEARS 1945-2060

Calendar year	Covered workers[1] (in thousands)	Beneficiaries[2] (in thousands)			Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
		OASI	DI	Total		
1945	46,390	1,106	—	1,106	41.9	2
1950	48,280	2,930	—	2,930	16.5	6
1955	65,200	7,563	—	7,563	8.6	12
1960	72,530	13,740	522	14,262	5.1	20
1965	80,680	18,509	1,648	20,157	4.0	25
1970	93,090	22,618	2,568	25,186	3.6	28
1975	100,200	26,998	4,125	31,123	3.2	31
1980	[3]114,300	30,384	4,734	35,118	[3]3.3	[3]31
Alternative I:						
1982	116,004	31,476	4,370	35,845	3.2	31
1985	126,557	33,028	4,047	37,075	3.4	29
1990	137,093	36,069	4,053	40,122	3.4	29
1995	141,637	37,609	4,249	41,858	3.4	30
2000	146,513	38,585	4,803	43,388	3.4	30
2005	151,749	40,066	5,506	45,572	3.3	30
2010	155,761	43,234	6,140	49,374	3.2	32
2015	158,066	48,449	6,552	55,001	2.9	35
2020	159,891	54,608	6,722	61,330	2.6	38
2025	162,842	60,782	6,612	67,394	2.4	41
2030	167,424	64,647	6,404	71,051	2.4	42
2035	173,020	66,058	6,419	72,477	2.4	42
2040	178,967	65,587	6,679	72,266	2.5	40
2045	184,936	65,452	7,045	72,497	2.6	39
2050	191,223	66,554	7,289	73,843	2.6	39
2055	198,021	68,258	7,451	75,709	2.6	38
2060	205,183	69,974	7,676	77,650	2.6	38
Alternative II-A:						
1982	115,955	31,482	4,375	35,857	3.2	31
1985	124,328	33,106	4,060	37,166	3.3	30
1990	133,921	36,431	4,126	40,557	3.3	30
1995	138,773	38,410	4,487	42,897	3.2	31
2000	144,133	39,823	5,193	45,016	3.2	31
2005	148,771	41,745	6,031	47,776	3.1	32
2010	151,577	45,376	6,753	52,129	2.9	34
2015	152,296	51,070	7,205	58,275	2.6	38
2020	152,100	57,789	7,372	65,161	2.3	43
2025	152,505	64,578	7,218	71,796	2.1	47

TABLE 28.—COMPARISON OF OASDI BENEFICIARIES AND COVERED WORKERS BY ALTERNATIVE, CALENDAR YEARS 1945-2060 (Cont.)

Calendar year	Covered workers[1] (in thousands)	Beneficiaries[2] (in thousands)			Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
		OASI	DI	Total		
Alternative II-A: (Cont.)						
2030	154,100	69,188	6,946	76,134	2.0	49
2035	156,276	71,317	6,894	78,211	2.0	50
2040	158,430	71,497	7,073	78,570	2.0	50
2045	160,219	71,893	7,316	79,209	2.0	49
2050	162,023	73,079	7,392	80,471	2.0	50
2055	164,080	74,378	7,377	81,755	2.0	50
2060	166,318	75,258	7,422	82,680	2.0	50
Alternative II-B:						
1982	115,308	31,483	4,374	35,857	3.2	31
1985	123,300	33,106	4,061	37,167	3.3	30
1990	132,410	36,428	4,138	40,566	3.3	31
1995	137,644	38,408	4,486	42,894	3.2	31
2000	142,248	39,814	5,191	45,005	3.2	32
2005	146,798	41,725	6,028	47,753	3.1	33
2010	149,515	45,359	6,748	52,107	2.9	35
2015	150,148	51,048	7,198	58,246	2.6	39
2020	149,873	57,753	7,361	65,114	2.3	43
2025	150,205	64,542	7,207	71,749	2.1	48
2030	151,750	69,138	6,934	76,072	2.0	50
2035	153,889	71,277	6,882	78,159	2.0	51
2040	156,015	71,440	7,061	78,501	2.0	50
2045	157,777	71,824	7,304	79,128	2.0	50
2050	159,545	73,034	7,380	80,414	2.0	50
2055	161,573	74,313	7,364	81,677	2.0	51
2060	163,778	75,215	7,410	82,625	2.0	50
Alternative III:						
1982	115,178	31,496	4,376	35,872	3.2	31
1985	121,330	33,255	4,079	37,334	3.2	31
1990	130,300	37,125	4,246	41,371	3.1	32
1995	135,944	40,013	4,714	44,727	3.0	33
2000	140,370	42,415	5,560	47,975	2.9	34
2005	144,254	45,360	6,510	51,870	2.8	36
2010	145,600	50,080	7,293	57,373	2.5	39
2015	144,295	56,934	7,759	64,693	2.2	45
2020	141,475	64,913	7,898	72,811	1.9	51
2025	138,631	73,154	7,683	80,837	1.7	58
2030	136,560	79,327	7,324	86,651	1.6	63
2035	134,724	83,133	7,172	90,305	1.5	67
2040	132,593	84,945	7,214	92,159	1.4	70
2045	129,844	86,866	7,252	94,118	1.4	72
2050	126,971	89,022	7,071	96,093	1.3	76
2055	124,339	90,398	6,796	97,194	1.3	78
2060	121,968	90,672	6,587	97,259	1.3	80

[1]Workers with taxable earnings at some time during the year.

[2]Beneficiaries with monthly benefits in current-payment status as of June 30.

[3]Preliminary.

Note: The definitions of alternatives I, II-A, II-B, and III are presented in the text. The numbers of beneficiaries do not include certain noninsured persons aged 72 and over with less than 3 quarters of coverage, the costs for whom are reimbursable to the OASI Trust Fund by the general fund of the Treasury. The number of such persons is estimated to be 69,500 as of June 30, 1982, and less than 1,000 by the turn of the century.

Table 28 shows that, even under alternative I, which includes high fertility rates and low mortality improvement, the number of covered workers per beneficiary declines from the current level of 3.2 to an ultimate level of 2.6. Under alternative III, which includes low fertility rates and high mortality improvement, the decline is far more dramatic, down to 1.3 workers per beneficiary. Under alternatives II-A and II-B, the decline is to 2.0 workers per beneficiary. The implication of this is that in the future there will be relatively fewer workers paying taxes and more retired persons receiving benefits. The impact that this will have on OASDI financing can be readily assessed by looking at the projected number of beneficiaries per hundred workers. Under alternatives I, II-A, II-B, and III, this rises to levels at the end of the long-range period of 38, 50, 50, and about 80, respectively. These levels are, respectively, 23, 61, 61, and about 150 percent higher than the current level of 31 beneficiaries per 100 covered workers. The implication of this result is that, in the absence of other program or financing changes, for the system to remain viable, the current OASDI tax rate would need to be increased to significantly higher levels solely because of the demographic shift.

Table 29 shows the OASDI cost rates estimated under each of the four alternatives. For ease of comparison, it also shows the scheduled tax rates. Under alternatives I and II-A, the cost rates generally decline slowly for the next 20 years. Under alternative II-B, the cost rates follow a similar pattern, except that the decline begins after 1987. In the last few years of the medium-range period, the cost rates reach their minimum values and then begin to rise slightly. Under alternative III, the cost rates rise steadily for about 15 years and decline slightly for about 5 years before beginning to rise again. After the medium-range period, under each alternative, the cost rates increase rapidly (because of the demographic shift discussed earlier). Under alternatives I, II-A, and II-B, the cost rates peak around 2035, while under alternative III, they continue to increase to the end of the long-range projection period.

The OASDI cost rates under alternatives I and III differ by more than 16 percentage points toward the end of the long-range period, although by only 4.01 percentage points at the end of the medium-range period. The highest cost rate occurring in the long-range period varies from 12.96 percent under alternative I to over 27 percent under alternative III, whereas the highest during the medium-range period varies within a much narrower band—from 11.51 (under alternative II-A) to 13.09 percent (under alternative III). The average long-range cost rate for the OASDI program varies from 10.98 percent of taxable payroll under alternative I to 18.74 percent under alternative III, while the average medium-range cost rate varies much less—from 9.75 to 12.73 percent.

TABLE 29.—TAX RATES AND ESTIMATED COST RATES OF THE OASDI SYSTEM BY ALTERNATIVE, CALENDAR YEARS 1982-2060

[As percent of taxable payroll]

Calendar year	Tax rate	Cost rate by alternative			
		I	II-A	II-B	III
1982	10.80	11.55	11.51	11.78	11.83
1983	10.80	11.29	11.46	11.65	12.02
1984	10.80	11.00	11.41	11.63	12.32
1985	11.40	10.74	11.20	11.70	12.40
1986	11.40	10.51	11.00	11.71	12.51
1987	11.40	10.30	10.81	11.71	12.62
1988	11.40	10.12	10.66	11.68	12.71
1989	11.40	9.82	10.55	11.66	12.77
1990	12.40	9.79	10.47	11.64	12.85
1991	12.40	9.61	10.39	11.59	12.86
1992	12.40	9.57	10.37	11.54	12.86
1993	12.40	9.62	10.37	11.51	12.90
1994	12.40	9.58	10.35	11.46	12.91
1995	12.40	9.52	10.32	11.42	12.97
1996	12.40	9.44	10.25	11.35	12.98
1997	12.40	9.38	10.20	11.27	12.93
1998	12.40	9.32	10.15	11.19	12.88
1999	12.40	9.25	10.10	11.10	12.82
2000	12.40	9.16	10.03	11.03	12.82
2001	12.40	9.06	9.96	10.96	12.81
2002	12.40	9.01	9.93	10.90	12.78
2003	12.40	8.99	9.94	10.87	12.80
2004	12.40	9.00	9.97	10.87	12.84
2005	12.40	9.06	10.06	10.95	12.97
2006	12.40	9.08	10.11	10.99	13.09
2010	12.40	9.49	10.69	11.53	13.92
2015	12.40	10.49	11.96	12.82	15.76

TABLE 29.—TAX RATES AND ESTIMATED COST RATES OF THE OASDI SYSTEM BY ALTERNATIVE, CALENDAR YEARS 1982-2060 (Cont.)
[As percent of taxable payroll]

Calendar year	Tax rate	Cost rate by alternative			
		I	II-A	II-B	III
2020	12.40	11.67	13.53	14.44	18.17
2025	12.40	12.64	14.96	15.97	20.70
2030	12.40	12.96	15.75	16.83	22.63
2035	12.40	12.69	15.89	17.02	23.94
2040	12.40	12.10	15.64	16.80	24.80
2045	12.40	11.61	15.48	16.66	25.80
2050	12.40	11.39	15.53	16.72	26.93
2055	12.40	11.28	15.63	16.81	27.87
2060	12.40	11.18	15.63	16.81	28.49
25-year averages:					
1982-2006	12.01	9.75	10.46	11.37	12.73
2007-2031	12.40	11.30	13.15	14.08	17.84
2032-2056	12.40	11.88	15.65	16.81	25.66
75-year average:					
1982-2056	12.27	10.98	13.09	14.09	18.74

Note: The definitions of alternatives I, II-A, II-B, and III, cost rate, tax rate, and taxable payroll are presented in the text.

It is important to recognize that actual future OASDI costs may not necessarily fall within the range resulting under alternatives I and III. Nonetheless, because alternatives I and III constitute a reasonably wide range of economic and demographic conditions, the resulting cost estimates delineate a reasonable range of possibilities for future program costs.

Table 30 shows a comparison of the cost as a percentage of Gross National Product (GNP) estimated under the four alternatives. There are various similarities between the patterns of these cost percentages and the cost rates shown in the previous table. Under alternatives I, II-A, and II-B, the percentages generally decline slowly for the next 20 years. In the last few years of the medium-range period, the percentages reach their minimum values and then begin to rise slowly. Under alternative III, the percentages generally rise slightly to a peak around 1990 and then generally decline for about 10 to 15 years before beginning to rise again. After the medium-range period, under each alternative, the percentages increase rapidly (because of the demographic shift discussed earlier) and peak around 2030 under alternatives I, II-A, and II-B, while continuing to increase to the end of the long-range projection period under alternative III.

Another similarity is that the costs as percentages of GNP projected under the four alternatives differ by a relatively large amount at the end of the long-range period (more than 4.2 percentage points), although differing by a much smaller amount at the end of the medium-range period (1.25 percentage points). Also, the highest percentage occurring in the medium-range period varies within a much narrower band (5.07 percent under alternative I versus 5.38 under alternative III) than does the highest occurring during the long-range period (5.26 versus more than 8 percent). In addition, the average long-range cost as a percentage of GNP projected under the various alternatives varies by a relatively large amount (from 4.54 percent under alternative I to 6.70 percent under alternative III), while the average medium-range cost varies by a much smaller amount (from 4.25 to 5.25 percent).

TABLE 30.—ESTIMATED COST OF THE OASDI SYSTEM AS PERCENT OF GNP BY ALTERNATIVE, CALENDAR YEARS 1982-2060

Calendar year	I	II-A	II-B	III
1982	5.07	5.08	5.16	5.19
1983	4.93	4.97	5.05	5.26
1984	4.82	4.87	5.03	5.28
1985	4.72	4.78	5.05	5.28
1986	4.63	4.69	5.04	5.31
1987	4.55	4.62	5.03	5.34
1988	4.48	4.55	5.00	5.37
1989	4.35	4.51	4.97	5.38
1990	4.31	4.47	4.94	5.38
1991	4.27	4.44	4.91	5.38
1992	4.24	4.41	4.87	5.35
1993	4.25	4.39	4.84	5.34
1994	4.21	4.36	4.80	5.32
1995	4.17	4.33	4.76	5.32
1996	4.11	4.29	4.70	5.31
1997	4.07	4.25	4.65	5.27
1998	4.04	4.21	4.59	5.22
1999	4.00	4.17	4.53	5.17
2000	3.94	4.13	4.48	5.15
2001	3.89	4.08	4.44	5.12
2002	3.86	4.06	4.40	5.08
2003	3.84	4.05	4.37	5.07
2004	3.84	4.05	4.35	5.06
2005	3.86	4.08	4.36	5.09
2006	3.86	4.09	4.37	5.11
2010	4.00	4.27	4.51	5.33
2015	4.38	4.71	4.92	5.89
2020	4.83	5.25	5.44	6.63
2025	5.18	5.73	5.90	7.37
2030	5.26	5.94	6.10	7.87
2035	5.10	5.91	6.05	8.13
2040	4.82	5.74	5.86	8.23
2045	4.58	5.60	5.70	8.36
2050	4.45	5.54	5.62	8.52
2055	4.37	5.49	5.54	8.61
2060	4.28	5.42	5.44	8.60
25-year averages:				
1982-2006	4.25	4.40	4.75	5.25
2007-2031	4.67	5.11	5.30	6.50
2032-2056	4.70	5.67	5.78	8.34
75-year average:				
1982-2056	4.54	5.06	5.28	6.70

Note: The definitions of alternatives I, II-A, II-B, and III are presented in the text.

Table 31 shows a comparison, by trust fund, of the average cost rates estimated under the four alternatives, with the average tax rates. In the medium range, actuarial surpluses are projected for the OASI program under alternatives I and II-A and a deficit under alternatives II-B and III; for the DI program, a surplus is projected under each alternative. The combined OASDI medium-range actuarial balance ranges from a surplus of 2.26 percent of taxable payroll under alternative I to a deficit of 0.72 percent under alternative III.

Although the OASI program has medium-range actuarial surpluses under alternatives I and II-A, the pattern of the projected cost rates is such that the OASI Trust Fund is exhausted no later than July of 1983 under all four alternatives (as shown elsewhere in this section).

In the long range, actuarial deficits are projected for the OASI program under alternatives II-A, II-B, and III, and a surplus under alternative I; for the DI program, surpluses are projected under all four alternatives. The combined OASDI long-range actuarial balance ranges from a surplus of 1.29 percent of taxable payroll under alternative I to a deficit of 6.47 percent under alternative III.

TABLE 31.—COMPARISON OF ESTIMATED AVERAGE COST RATE WITH AVERAGE TAX RATE BY ALTERNATIVE AND TRUST FUND
[As percent of taxable payroll]

Calendar years	Average tax rate	Estimated average cost rate by alternative				Difference by alternative			
		I	II-A	II-B	III	I	II-A	II-B	III
OASI:									
1982-2006.....	9.93	8.64	9.31	10.14	11.37	1.29	0.63	-0.21	-1.44
2007-31.........	10.20	9.84	11.58	12.43	15.83	.36	-1.38	-2.23	-5.63
2032-56.........	10.20	10.58	14.11	15.20	23.60	-.38	-3.91	-5.00	-13.40
1982-2056.....	10.11	9.69	11.66	12.59	16.93	.42	-1.55	-2.48	-6.82
DI:									
1982-2006.....	2.07	1.11	1.16	1.23	1.36	.97	.92	.85	.72
2007-31.........	2.20	1.45	1.57	1.65	2 00	.75	.63	.55	.20
2032-56.........	2.20	1.30	1.54	1.61	2.07	.90	.66	.59	.13
1982-2056.....	2.16	1.29	1.42	1.50	1.81	.87	.73	.66	.35
Total:									
1982-2006.....	12.01	9.75	10.46	11.37	12.73	2.26	1.55	.64	-.72
2007-31.........	12.40	11.30	13.15	14.08	17.84	1.10	-.75	-1.68	-5.44
2032-56.........	12.40	11.88	15.65	16.81	25.66	.52	-3.25	-4.41	-13.26
1982-2056.....	12.27	10.98	13.09	14.09	18.74	1.29	-.82	-1.82	-6.47

Note: The definitions of alternatives I, II-A, II-B, and III, cost rate, tax rate, and taxable payroll are presented in the text. Totals do not necessarily equal the sum of rounded components.

Table 32 shows the trust fund ratios for the OASI and DI programs under all four alternatives. As described earlier in this section, in each case, the OASI Trust Fund is projected to become exhausted no later than July of 1983. By contrast, after 1982, and after loaning funds to the OASI Trust Fund, the DI Trust Fund is projected to grow steadily throughout both the medium-range and long-range periods. It is important to note that even with the limited authority for interfund borrowing among the OASI, DI, and HI Trust Funds through 1982, additional financing or other changes will be required to avoid the cessation of benefit payments in 1983.

The fund ratios shown after a trust fund is projected to be exhausted are theoretical and are shown for informational purposes only. Under alternative I, the OASI ratio is projected to become positive in 1990 and to increase to fairly high levels, reaching 539 percent in 2015, and then steadily decreasing. Under alternative II-A, the OASI ratio is projected to become positive in 1995 and to increase to 224 percent in 2015, before decreasing rapidly so that, by 2030, the fund is again projected to be exhausted. Under alternatives II-B and III, the OASI Trust Fund does not recover at all within the projection period after becoming exhausted in 1983. By contrast, the DI Trust Fund is not projected to be exhausted at any time within the long-range projection period. Instead, it is projected to rise to levels of more than 1,800 percent under all four alternatives.

TABLE 32.—ESTIMATED TRUST FUND RATIOS BY ALTERNATIVE AND TRUST FUND, CALENDAR YEARS 1982-2060

	Alternative I			Alternative II-A			Alternative II-B			Alternative III		
Calendar year	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total
1982	15	16	15	15	16	15	15	16	15	15	16	15
1983	10	8	10	10	8	10	11	8	10	11	8	11
1984	1	48	6	(1)	47	4	(2)	43	3	(2)	39	1
1985	-7	98	4	-11	93	(1)	(2)	84	-4	(2)	71	(2)
1986	-10	178	9	-18	169	(3)	(2)	148	-7	(2)	125	(2)
1987	-10	265	17	-24	253	3	(2)	217	-10	(2)	181	(2)
1988	-9	359	27	-28	342	8	(2)	288	-13	(2)	239	(2)
1989	-6	464	40	-30	432	15	(2)	361	-16	(2)	297	(2)
1990	(3)	567	56	-32	524	22	(2)	436	-19	(2)	356	(2)
1991	15	696	82	-26	642	39	(2)	536	-13	(2)	436	(2)
1992	31	811	110	-18	753	58	(2)	631	-7	(2)	509	(2)
1993	47	934	138	-10	859	77	(2)	723	(3)	(2)	577	(2)
1994	65	1,041	167	(1)	961	97	(2)	812	7	(2)	643	(2)
1995	84	1,137	197	8	1,054	116	(2)	895	15	(2)	705	(2)
1996	104	1,208	228	18	1,122	136	(2)	959	23	(2)	755	(2)
1997	127	1,278	260	29	1,187	157	(2)	1,019	32	(2)	799	(2)
1998	150	1,345	293	41	1,247	178	(2)	1,076	42	(2)	837	(2)
1999	175	1,411	326	52	1,317	200	(2)	1,130	53	(2)	871	(2)
2000	202	1,468	362	67	1,369	223	(2)	1,178	64	(2)	900	(2)
2001	232	1,532	400	82	1,421	247	(2)	1,227	76	(2)	927	(2)
2002	262	1,589	438	99	1,467	271	(2)	1,270	89	(2)	951	(2)
2003	293	1,630	474	116	1,502	295	(2)	1,303	102	(2)	967	(2)
2004	324	1,656	510	133	1,526	317	(2)	1,327	115	(2)	977	(2)
2005	354	1,656	542	149	1,531	338	(2)	1,332	128	(2)	976	(2)
2006	384	1,702	576	165	1,568	358	(2)	1,366	140	(2)	991	(2)
2010	485	1,797	684	216	1,645	419	(2)	1,435	177	(2)	1,005	(2)
2015	539	1,967	745	224	1,779	434	(2)	1,549	177	(2)	1,033	(2)
2020	520	2,198	739	168	1,962	387	(2)	1,703	125	(2)	1,076	(2)
2025	457	2,549	698	67	2,240	300	(2)	1,938	31	(2)	1,162	(2)
2030	386	3,000	662	(2)	2,595	196	(2)	2,241	(2)	(2)	1,287	(2)
2035	332	3,410	651	(2)	2,902	89	(2)	2,504	(2)	(2)	1,390	(2)
2040	304	3,735	675	(2)	3,123	(2)	(2)	2,693	(2)	(2)	1,456	(2)
2045	298	4,031	719	(2)	3,295	(2)	(2)	2,837	(2)	(2)	1,515	(2)
2050	301	4,443	766	(2)	3,558	(2)	(2)	3,061	(2)	(2)	1,619	(2)
2055	305	4,942	811	(2)	3,873	(2)	(2)	3,330	(2)	(2)	1,758	(2)
2060	311	5,435	860	(2)	4,168	(2)	(2)	3,582	(2)	(2)	1,910	(2)
Trust fund is projected to be first exhausted in:	1983	(4)	1983	1983	(4)	1983	1983	(4)	1983	1983	(4)	1983

[1]Between -0.5 percent and zero.

[2]The fund is projected to be exhausted and not to recover before the end of the projection period.

[3]Between zero and 0.5 percent.

[4]The fund is not projected to he exhausted within the projection period.

Note: The definitions of alternatives I, II-A, II-B, and III, and trust fund ratio are presented in the text. The ratios shown after the year a given fund is projected to be exhausted are theoretical and are shown for informational purposes only; see the section on "Estimated Operations and Status of the Trust Funds during the Period October 1, 1981 to December 31, 1986" for further discussion. In addition, the ratios for the total of the OASI and DI Trust Funds after 1982 are theoretical, also because under the current law, after 1982, the assets of one fund cannot be borrowed by another fund. The money assumed to be borrowed by the OASI Trust Fund in December 1982 is assumed to be repaid in 1992 under alternative I, in 1998 under alternative II-A, and not at any time in the long-range projection period under alternatives II-B and III.

The cost estimates and actuarial balances shown in this report are different from those published in last year's report. Table 33 itemizes the reasons for the differences—together with their estimated cost effects—between the estimates under alternatives II-A and II-B in last year's report and those under the corresponding alternatives in this report.

TABLE 33.—CHANGE IN ESTIMATED AVERAGE ANNUAL COST RATE UNDER ALTERNATIVES II-A AND II-B BY TRUST FUND, PROJECTION PERIOD, AND REASON FOR CHANGE
[As percent of taxable payroll]

Item	Medium range			Long range		
	OASI	DI	Total	OASI	DI	Total
Alternative II-A:						
Shown in last year's report:[1]						
Actuarial balance	+0.47	+0.80	+1.27	-1.61	+0.68	-0.93
Average tax rate	9.90	2.04	11.94	10.10	2.15	12.25
Estimated average cost rate	9.43	1.24	10.67	11.71	1.47	13.17
Changes in estimated average cost rate due to changes in:[2]						
Social Security Act	-.14	-.04	-.18	-.13	-.04	-.18
Valuation date	-.04	-.00	-.04	+.06	+.00	+.06
Economic assumptions	+.16	+.01	+.17	+.05	+.00	+.05
Disability assumptions	-.00	-.10	-.10	-.00	-.13	-.13
All other factors	-.10	+.04	-.06	-.03	+.12	+.10
Total change in estimated average cost rate	-.12	-.08	-.21	-.05	-.05	-.09
Shown in this report:[3]						
Estimated average cost rate	9.31	1.16	10.46	11.66	1.42	13.09
Average tax rate	9.93	2.07	12.01	10.11	2.16	12.27
Actuarial balance	+.63	+.92	+1.55	-1.55	+.73	-.82
Alternative II-B:						
Shown in last year's report:[4]						
Actuarial balance	-.31	+.74	+.43	-2.44	+.62	-1.82
Average tax rate	9.90	2.04	11.94	10.10	2.15	12.25
Estimated average cost rate	10.21	1.30	11.51	12.54	1.52	14.07
Changes in estimated average cost rate due to changes in:[2]						
Social Security Act	-.15	-.04	-.19	-.14	-.05	-.19
Valuation date	-.00	+.00	-.00	+.07	+.00	+.07
Economic assumptions	+.13	+.02	+.15	+.05	+.00	+.06
Disability assumptions	-.00	-.10	-.10	-.00	-.13	-.13
All other factors	-.05	+.04	-.01	+.06	+.15	+.20
Total change in estimated average cost rate	-.07	-.07	-.15	+.05	-.02	+.02
Shown in this report:[3]						
Estimated average cost rate	10.14	1.23	11.37	12.59	1.50	14.09
Average tax rate	9.93	2.07	12.01	10.11	2.16	12.27
Actuarial balance	-.21	+.85	+.64	-2.48	+.66	-1.82

[1]Cost rates and taxable payroll are calculated under alternative II-A described in last year's report, which incorporates ultimate annual increases of 5 percent in average wages in covered employment and 3 percent in the CPI, an ultimate annual unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. The averages are computed over projection periods commencing with 1981.

[2]See the text for a discussion of the items shown.

[3]The definitions of alternatives II-A and II-B are presented in the text. The averages are computed over projection periods commencing with 1982.

[4]Cost rates and taxable payroll are calculated under alternative II-B described in last year's report, which incorporates ultimate annual increases of 5.5 percent in average wages in covered employment and 4 percent in the CPI, an ultimate annual unemployment rate of 5 percent, and an ultimate total fertility rate of 2.1 children per woman. The averages are computed over projection periods commencing with 1981.

Note: The definitions of cost rate, tax rate, taxable payroll, actuarial balance, and projection period are presented in the text. Totals do not necessarily equal the sum of rounded components.

Two amendments to the Social Security Act were enacted since the last report, as described in a preceding section. The OASDI cost effect is a net decrease in the estimated average medium-range and long-range cost rates.

In changing from the valuation periods of last year's report, which were 1981-2005 and 1981-2055 for the medium-range and long-range periods, respectively, to the valuation periods of this report, 1982-2006 and 1982-2056, the year 1981 is replaced by 2006 in the medium range and 2056 in the long range. The estimated cost rate in the replacement year is higher than that in the year being replaced (except in the OASI medium-range period), thereby increasing the estimated average cost rate, even in the absence of other changes.

The ultimate economic assumptions in both alternatives II-A and II-B are the same as in the corresponding alternatives in last year's report. However, both alternatives were revised in the short-range period to take account of the current recession. This results in a moderate increase in the average medium-range cost rate and a smaller increase in the average long-range cost rate.

Changes in the assumed disability incidence rates were made to reflect more recent experience. These changes result in decreases in both the estimated average medium-range and long-range cost rates.

Numerous changes were made in other factors and in methods used to project the costs of the OASDI program. A major change was in the projection of the percentages of persons (by age and sex) who are in covered employment. Another change was the incorporation of more recent average benefit data in the projection of the level of average benefits. A third change was in the projection of average retired-worker benefits. This year, the changing mix of the age at entitlement of retired workers is reflected more precisely in the average amount of benefit reduction for early retirement or increase for delayed retirement. For the OASI program, the net effect of these changes is generally to decrease the estimated average medium-range and long-range cost rates, except for the average long-range cost rate under alternative II-B. For the DI program, the net effect is to increase the estimated average medium-range and long-range cost rates under both intermediate alternatives.

92-464 O - 82 - 6

VIII. CONCLUSION

The cost estimates in this report are presented on the basis of four sets of economic and demographic assumptions, which are characterized as optimistic (alternative I), intermediate (alternatives II-A and II-B), and pessimistic (alternative III). Of the two intermediate sets, alternative II-A assumes future economic performance resembling that of more robust recent economic expansions which result from policies to stimulate growth and lower inflation. Alternative II-B assumes the adoption of policies which would result in an economic performance resembling less robust recent economic expansions.

The actuarial cost estimates presented in this report confirm the warning in last year's report that, without legislation, the OASI Trust Fund would be exhausted in the latter half of 1982. After last year's report was published, amendments were enacted that reduce the amount of benefits payable under the program. However, most of the reduction in benefit payments occurs after 1982, and the OASI Trust Fund would still be exhausted in the latter half of 1982 were it not for the temporary authority for interfund borrowing that was enacted in December 1981. Full use of this authority would permit the OASI Trust Fund to continue timely payment of benefits through June 1983. The timely payment of benefits past June 1983 is not assured because the authority for interfund borrowing ends on December 31, 1982, and any loans made under such authority can be no larger than the amount required to ensure timely payment of benefits for the 6-month period following the date of the loan. Thus, based on the estimates in this report, it is clear that the OASI Trust Fund will be exhausted no later than July 1983 unless remedial legislation is enacted.

The DI Trust Fund, on the other hand, is expected to increase rapidly after 1982. The expected future growth in the assets of the DI Trust Fund, however, is generally much lower than the expected decline in the assets of the OASI Trust Fund. Thus, the enactment of new legislation to reallocate tax rates from the DI Trust Fund to the OASI Trust Fund, or to permit continued interfund borrowing solely between OASI and DI (that is, excluding HI), would only postpone exhaustion of the OASI Trust Fund until sometime later than July, but before the end of 1983.

Furthermore, even if the authority for interfund borrowing among all three trust funds (including HI) were extended beyond 1982, it is very likely that the OASI Trust Fund would still become exhausted during the 1980's, when the combined assets of the three trust funds become insufficient to pay the combined expenditures on a timely basis. This is in spite of the Social Security tax rate increases that occurred in 1981 and 1982 and the increases scheduled for 1985 and 1986. As indicated by the estimates shown in Appendix F, this depletion would occur in 1984 under alternative II-B economic conditions, or as early as the end of 1983—under the more adverse alternative III assumptions. Even under the more optimistic assumptions of alternative II-A, there is virtually no margin of safety in the estimated operations of the three trust funds, combined. Thus, interfund borrowing by itself is not a satisfactory solution to the short-range financing problem.

Long-range projections are traditionally made for a 75-year period. Information is supplied for the period as a whole, for the three 25-year periods contained within the 75-year span, for each year in the first 25-year period, and for every fifth year thereafter.

The long-range projections show that if a viable solution to the immediate short-range financing crisis is enacted, it will be followed by a period of rising balances, beginning in the late 1980's or early 1990's, for the combined OASI and DI Trust Funds during the remainder of the first 25-year period under alternatives I, II-A, and II-B. For this period as a whole, the average annual income from OASDI taxes is estimated to exceed the average annual outgo by 1.55 percent of taxable payroll under alternative II-A and 0.64 percent under alternative II-B.

Although the average financial status of the OASDI program is favorable for the next 25 years under all the alternatives except alternative III, the same is not true for the 75-year period. The estimated average annual tax income for the entire 75-year projection period falls below the estimated average annual outgo for the period under all the sets of assumptions except alternative I. The resulting average deficit over the 75-year period is 0.82 percent of taxable payroll under alternative II-A and 1.82 percent under alternative II-B. This is because tax receipts fall below outgo at an increasing rate in the second and third 25-year periods, in which shortfalls average 0.75 percent of payroll and 3.25 percent of payroll, respectively, under alternative II-A, and 1.68 percent of payroll and 4.41 percent of payroll, respectively, under alternative II-B. Estimates for individual years clearly indicate the pattern of early annual surpluses followed by continual annual deficits under alternatives II-A and II-B. Under alternative III, OASDI tax income is estimated to be less than OASDI expenditures in every year of the 75-year projection period.

When the financial status of the HI program is considered in conjunction with the OASDI program, the situation for the combined OASDI and HI system over the next 25 years is worse than for the OASDI program. Under alternative II-A, the initial 25-year average surplus for the OASDI program is completely offset by the average HI deficit. Under alternative II-B, the average OASDI surplus during the first 25 years is more than offset by the average HI deficit, resulting in a net deficit of 1.32 percent of payroll in the combined system during the period. This situation emphasizes the need to do more than extend interfund borrowing in order to restore the financial strength of the combined system on both a short-run and a long-run basis.

The economic and demographic assumptions underlying the estimates traditionally have been treated as outside factors acting upon the OASDI system while being largely unaffected by it. We have continued to follow that procedure in preparing the estimates shown in this report. However, because of the size and nature of the OASDI and HI system, it is becoming increasingly apparent that interaction of this system and the economy as a whole deserves attention. As has been shown earlier in the report, higher real growth, real wages, and labor-force participation increase tax revenues, thereby reducing the relative burden on workers to support OASDI and HI benefits. The OASDI and HI system may well impact labor-force participation, savings and investment, and growth, which, in turn, affect the economy's performance. The Board therefore recommends that attention be given to the long-run interaction of the OASDI and HI system and the economy in future research and policy deliberations on the role and structure of the system.

Because the President has established the National Commission on Social Security Reform, the Board has no legislative recommendations at this time and awaits the Commission's report, which is due by December 31, 1982.

APPENDIX A.—ASSUMPTIONS AND METHODS UNDERLYING THE MEDIUM-RANGE AND LONG-RANGE COST ESTIMATES

This appendix describes the assumptions and methods which underlie the medium-range and long-range cost estimates in this report. All descriptions pertain to the estimates under each of the four alternatives unless specifically stated otherwise. The basic assumptions comprising each alternative have been summarized in an earlier section entitled "Economic and Demographic Assumptions" and thus will be discussed here only in the context of the methods used. Further details about the assumptions, methods, and cost estimates are published periodically in Actuarial Studies prepared by the Office of the Actuary, Social Security Administration.

TOTAL POPULATION

Projections were made of the U.S. population (including persons overseas covered by the OASDI program) by age, sex, and marital status for future years to 2060. The starting point was the population on July 1, 1979 as estimated by the Bureau of the Census from the 1970 Census and from births, deaths, and net immigration during 1970-79. This population estimate was adjusted for net census undercount and was increased by the estimated populations in the geographic areas covered by the OASDI program but not included in the estimate made by the Bureau of the Census. The population in future years was then projected from assumed rates of birth and death and assumed net immigration.

Historically, fertility rates in the United States have fluctuated widely. The total fertility rate (which for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in (or assumed for) the selected year and if she were to survive the entire childbearing period) decreased from 3.3 after World War I to 2.1 during the Great Depression, rose to about 3.7 in 1957 and then fell to 1.7 in 1976. Since that time, the total fertility rate has fluctuated around 1.8 children per woman.

The historical variations in fertility rates have resulted from changes in social attitudes, economic conditions, and medical knowledge. After considering the recent behavior and trends of these factors, ultimate total fertility rates of 2.4, 2.1, 2.1, and 1.7 children per woman were selected for alternatives I, II-A, II-B, and III, respectively. For each alternative, the total fertility rate was projected from its estimated level in 1980 to its ultimate level in 2005 by linear interpolation. These ultimate values can be compared with those used by the Bureau of the Census in its latest series of population projections.[1] The Bureau of the Census used a range of 1.7 to 2.7, with an intermediate assumption of 2.1, as is used in alternatives II-A and II-B. This rate of 2.1 is the rate which would result in a constant population if there were no net migration and if mortality were constant at levels close to current U.S. levels.

Historically, mortality rates in the United States have improved steadily. The age-adjusted death rate—which for any year is the crude rate that would occur in the enumerated total population as of April 1,

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

1970, if that population were to experience the death rates by age for the selected year—has been improving an average of 1.2 percent per year since 1900. The historical improvement in mortality rates has resulted from many factors, including increased medical knowledge, increased availability of health-care services, and improvements in personal health-care practices such as diet and exercise. The mortality assumptions in alternatives II-A and II-B (which are identical) were developed after taking these factors into consideration. First, ultimate percentage improvements in death rates by sex and cause of death were selected. Then the annual percentage improvements by age, sex, and cause of death were projected by a logarithmic formula from their average values during 1968-78 to their ultimate values in 2005. The resulting average annual improvement in the age-adjusted death rate during 1978-2060 is 0.57 percent, or about 48 percent of the observed average annual improvement during 1900-78. The mortality assumptions in alternative I reflect average annual improvements in the death rates by age and sex of half as much as those in alternatives II-A and II-B, while in alternative III they are twice as much.

Net immigration was assumed to be 400,000 persons per year in all four alternatives. The assumed net immigration does not include aliens entering the United States illegally, largely because no reliable estimate of their number exists. However, illegal aliens as enumerated in the 1970 Census were included in the starting population.

Table A1 shows the projected population by broad age groups under all four alternatives. Because many categories of OASDI benefits depend upon marital status, the population was also projected by marital status in addition to age and sex. Marriage rates and divorce rates were based on recent data from the National Center for Health Statistics.

TABLE A1.—SOCIAL SECURITY AREA POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS BY ALTERNATIVE AND BROAD AGE GROUP, CALENDAR YEARS 1960-2060

Calendar year	Population (in thousands)				Dependency ratio	
	Under 20	20-64	65 and over	Total	Aged[1]	Total[2]
1960	73,116	98,687	17,146	188,949	0.174	0.915
1965	79,931	104,112	18,963	203,006	.182	.950
1970	80,637	112,500	20,655	213,792	.184	.900
1975	77,947	122,036	23,092	223,075	.189	.828
1976	77,039	124,145	23,635	224,818	.190	.811
1977	76,420	126,200	24,166	226,787	.191	.797
1978	75,545	128,416	24,724	228,685	.193	.781
1979	74,734	130,579	25,328	230,640	.194	.766
1980	74,045	132,731	25,892	232,668	.195	.753
Alternative I:						
1985	72,544	142,471	28,638	243,653	.201	.710
1990	74,692	148,834	31,599	255,125	.212	.714
1995	78,055	154,233	33,712	266,001	.219	.725
2000	81,414	160,063	34,651	276,127	.216	.725
2005	83,580	167,312	35,578	286,470	.213	.712
2010	86,178	173,139	38,171	297,488	.220	.718
2015	89,789	175,977	42,975	308,741	.244	.754
2020	94,000	176,948	48,767	319,715	.276	.807
2025	97,720	177,582	54,917	330,220	.309	.860
2030	100,879	180,157	59,479	340,514	.330	.890
2035	104,208	185,911	60,772	350,891	.327	.887
2040	108,086	193,160	60,211	361,457	.312	.871
2045	112,347	200,747	59,218	372,312	.295	.855
2050	116,557	207,264	59,915	383,735	.289	.851
2055	120,567	214,037	61,497	396,101	.287	.851
2060	124,619	221,831	63,166	409,616	.285	.847

TABLE A1.—SOCIAL SECURITY AREA POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS BY ALTERNATIVE AND BROAD AGE GROUP, CALENDAR YEARS 1960-2060 (Cont.)

Calendar year	Population (in thousands)				Dependency ratio	
	Under 20	20-64	65 and over	Total	Aged[1]	Total[2]
Alternatives II-A and II-B:						
1985	72,252	142,531	28,773	243,556	.202	.709
1990	73,529	149,044	32,106	254,678	.215	.709
1995	75,506	154,640	34,745	264,891	.225	.713
2000	77,001	160,695	36,251	273,947	.226	.705
2005	76,957	167,890	37,719	282,566	.225	.683
2010	77,273	173,062	40,846	291,182	.236	.683
2015	78,570	174,678	46,225	299,473	.265	.714
2020	80,376	173,902	52,653	306,931	.303	.765
2025	81,720	172,107	59,539	313,366	.346	.821
2030	82,453	171,598	64,925	318,977	.378	.859
2035	83,151	173,803	67,044	323,997	.386	.864
2040	84,235	177,012	67,257	328,504	.380	.856
2045	85,604	180,037	66,922	332,562	.372	.847
2050	86,889	181,582	67,942	336,412	.374	.853
2055	87,921	183,192	69,293	340,406	.378	.858
2060	88,862	185,627	70,327	344,816	.379	.858
Alternative III:						
1985	71,868	142,644	29,033	243,545	.204	.707
1990	71,993	149,425	33,080	254,498	.221	.703
1995	72,129	155,355	36,747	264,231	.237	.701
2000	71,141	161,776	39,409	272,327	.244	.683
2005	68,182	168,966	42,034	279,181	.249	.652
2010	65,598	173,318	46,337	285,252	.267	.646
2015	64,138	173,331	52,970	290,439	.306	.676
2020	63,283	170,229	60,755	294,268	.357	.729
2025	62,211	165,202	69,170	296,584	.419	.795
2030	60,641	160,684	76,250	297,575	.475	.852
2035	58,922	158,429	80,126	297,477	.506	.878
2040	57,538	156,715	82,119	296,372	.524	.891
2045	56,488	154,324	83,473	294,285	.541	.907
2050	55,486	150,147	85,728	291,361	.571	.941
2055	54,347	146,106	87,430	287,883	.598	.970
2060	53,134	142,999	88,048	284,181	.616	.987

[1]Population aged 65 and over as ratio to population aged 20-64.

[2]Population aged 65 and over plus population under age 20 as ratio to population aged 20-64.

Note: The definitions of alternatives I, II-A, II-B, and III are presented in the text.

A more thorough discussion of the population projections is shown in an Actuarial Study published by the Social Security Administration.[1]

COVERED POPULATION

The number of persons who work in covered employment at any time during a calendar year is referred to as the number of covered workers for that year. Projections of the number of covered workers were made by applying projected coverage rates by age and sex to the corresponding number of people in the total population. The coverage rates—i.e., the percentages of the total population who work in covered employment during the year—were projected by age and sex from projected labor force participation rates and unemployment rates, based on the relationships that existed among those rates from the 1950's through 1977.

Labor force participation rates were projected by age and sex. The procedure takes into account projections of the percentage of the population that is married or disabled, the number of children in the population, and the state of the economy. In addition, recent trends in the labor force participation rates, which cannot be fully explained by the above factors (such as the increases in the rate for women), were

[1]Joseph F. Faber and John C. Wilkin, F.S.A., *Social Security Area Population Projections, 1981,* Actuarial Study No. 85 (U.S. Department of Health and Human Services, SSA Publication No. 11-11532, July 1981).

assumed to continue for several more years before tapering off to zero by the year 2000. All of these factors vary by alternative. For men, the resulting age-adjusted labor force participation rates projected under alternatives I and II-A for 2060 are, respectively, 1.9 and 0.3 percentage points higher than the 1981 level of 77.7 percent, while those for alternatives II-B and III are 0.3 and 2.1 percentage points lower. For women, the age-adjusted labor force participation rates were projected to increase under all of the alternatives. The resulting rates for 2060 are 9.4, 8.9, 7.7, and 7.4 percentage points above the 1981 level of 52.0 percent.

The total age-sex-adjusted unemployment rate has averaged 5.2 percent over the last 30 years and 6.2 percent over the last 10 years. The ultimate total age-sex-adjusted unemployment rates were assumed to be 4.0, 5.0, 5.0, and 6.0 percent in alternatives I, II-A, II-B, and III, respectively. In each alternative the unemployment rates are assumed to decline gradually, reaching their ultimate levels by the mid-1990's.

The resulting age-adjusted coverage rate for men was projected to change from its 1981 level of 74.8 percent to 77.0, 75.1, 74.5, and 72.5 percent in 2060 under alternatives I, II-A, II-B, and III, respectively. Correspondingly, for women, it was projected to increase from its 1981 level of 54.3 percent to 66.0, 64.8, 63.6, and 62.6 percent.

TAXABLE PAYROLL

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

In practice, the taxable payroll is calculated as a weighted average of the earnings on which employees, employers, and self-employed persons are taxed. The weighting takes into account the lower tax rates on self-employment income, on tips, and on multiple-employer "excess wages," as compared with the combined employee-employer rate. For 1982-91, the amounts of earnings for employees, employers, and the self-employed were projected separately. After 1991, the amounts of earnings taxable for employees, employers, and the self-employed were each assumed to increase at the compounded rate of the estimated increases in covered workers and in average wages in covered employment.

Another way to measure the cost of the program is as a percentage of the Gross National Product (GNP). Such percentages (which are shown in Table 30) are based on the estimated cost rates and on the assumed ratios of taxable payroll to GNP which are presented in Table A2. The GNP series was determined by applying a series of factors to the assumed ratio of total employee compensation in the economy to GNP. The ratio of total employee compensation in the economy to GNP was used as the initial point because it is a measure of the share of output going to workers. This ratio is also a convenient starting point because it has changed slowly over time and can be expected to remain fairly constant. Total employee compensation in the economy was related to taxable payroll by means of factors which adjust for various differences in the two measures. The factors adjust total employee compensation by removing supplements to wages and salaries; removing wages and salaries earned in noncovered employment; removing wages, salaries, and self-employment income earned above the taxable base; and adjusting for the lower tax rates on self-employment income, on tips, and on multiple-employer "excess wages."

The ratio of taxable payroll to GNP has risen since 1960, in part because of the increases made in the contribution and benefit base. The long-range trend, however, is more likely to be downward because of increases in forms of employee compensation other than wages that are, therefore, not included in taxable payroll. These forms of compensation, which the government encourages by affording them favorable tax treatment, include many forms of fringe benefits, both public and private. The ratio of wages to total employee compensation is assumed to decline ultimately by 0.2, 0.3, 0.4, and 0.5 percent per year under alternatives I, II-A, II-B, and III, respectively. This ratio has declined at an average annual rate of 0.42 percent over the last 30 years and 0.65 percent over the last 10 years.

TABLE A2.—RATIO OF TAXABLE PAYROLL TO GNP BY ALTERNATIVE, CALENDAR YEARS 1960-2060

Calendar year	Past experience			
1960	0.330			
1965	.350			
1970	.407			
1975	.419			
1980	.436			
	Projected, by alternative			
	I	II-A	II-B	III
1982	0.439	0.442	0.439	0.439
1985	.439	.427	.432	.426
1990	.440	.427	.425	.419
1995	.438	.420	.417	.410
2000	.431	.412	.406	.402
2005	.426	.405	.399	.392
2010	.422	.400	.391	.383
2015	.418	.394	.384	.374
2020	.414	.388	.376	.365
2025	.410	.383	.369	.356
2030	.406	.377	.362	.348
2035	.402	.372	.356	.340
2040	.398	.367	.349	.332
2045	.394	.362	.342	.324
2050	.391	.356	.336	.316
2055	.387	.351	.330	.309
2060	.383	.346	.323	.302

Note: The definitions of alternatives I, II-A, II-B, and III and taxable payroll are presented in the text.

INSURED POPULATION

There are three types of insured statuses under the OASDI program: fully, currently, and disability insured. Fully insured status is required of an aged worker for eligibility for a primary retirement benefit and for the eligibility of other persons to auxiliary benefits based on the worker's earnings. Fully insured status is also required of a deceased worker for survivors' eligibility for benefits (with the exception of child survivors and parents of eligible child survivors, who may alternatively be eligible if the deceased worker had currently insured status). Disability insured status, which is more restrictive than fully insured status, is required of a disabled worker for eligibility for a primary benefit and for the eligibility of other persons to auxiliary benefits based on the worker's earnings.

Projections of the percentage of the population which is fully insured were made by age and sex based on past and projected coverage rates, the requirement for fully insured status, and the historical relationship between these factors. Currently insured status was disregarded in the cost projection, because the number of cases in which eligibility for benefits is based solely on currently insured status is relatively small. Projections of the percentage of the population that is disability insured were developed from the percentages of those who are fully insured by using projections of historical trends relating the two. Finally, the fully insured and disability insured populations were developed from the projected total population by applying the percentages fully insured and disability insured.

The fully insured population by age and sex was further subdivided by marital status, in a manner consistent with the division of the total population by marital status. Married men were assumed to be more likely to be fully insured than widowers who were, in turn, assumed more likely than single and divorced men. By contrast, single and divorced women were assumed to be more likely to be fully insured than widows who were, in turn, assumed more likely than married women. The relative difference between a widowed woman's probability of being fully insured and a married woman's was assumed to decrease through time, reflecting the projected large increase in labor force participation among married women.

OLD-AGE AND SURVIVORS INSURANCE BENEFICIARIES

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

The projected numbers of retired-worker beneficiaries were based on the projected aged fully insured population. The percentages, by age and sex, of the insured population which were receiving benefits at the beginning of 1982 were projected to increase slightly on the basis of past trends with adjustments for changes in the earnings test, the mandatory retirement age, unemployment levels, and benefit replacement rates.

The number of wife beneficiaries aged 62 and over of retired-worker beneficiaries was estimated from the population projection by marital and insured status. All uninsured wives aged 62 and over—excluding those whose husbands do not receive retired-worker benefits, those whose benefits are withheld according to the earnings test, and those affected by eligibility for a government pension from earnings in noncovered employment—were assumed to receive benefits. The number of husband beneficiaries aged 62 and over of retired-worker beneficiaries was estimated in an analogous manner.

The projected numbers of child beneficiaries of retired-worker beneficiaries were based on projected ratios of the number of such child beneficiaries to the number of retired workers by sex of worker, adjusted to reflect the fertility assumptions.

The number of young-wife beneficiaries was estimated by extrapolating the base-year ratio of the number of such beneficiaries to the estimated number of child beneficiaries who are children of male retired-worker beneficiaries, and are either under age 16 or disabled with onset of disability before age 16. The estimating procedure takes into account projected changes in fertility and female labor force participation. The number of young-husband beneficiaries was not projected because of the negligible cost attributable to them.

The number of widow beneficiaries aged 60 and over was estimated from the population by marital and insured status. All uninsured widows aged 60 and over, excluding those whose deceased husbands were not fully insured, those withheld according to the earnings test, and those affected by eligibility for a government pension from earnings in noncovered employment, were assumed to receive benefits. In addition, some insured widows who had not applied for retired-worker benefits were assumed to receive widow benefits. The number of widower beneficiaries was estimated in an analogous manner.

The numbers of paternal, maternal, and full orphans under age 22 in the United States were estimated from the projected population at those ages by applying age-specific probabilities of being an orphan. These probabilities were derived by using distributions of age of parent at birth of child and death rates consistent with the population projections. To estimate the number of child-survivor beneficiaries, the number of orphans was adjusted to include eligible disabled orphans aged 18 and over and to eliminate orphans of uninsured deceased parents. For nondisabled children aged 18-21, a further reduction was made to exclude those not attending school.

The number of mother beneficiaries was estimated by a method similar to the one used to estimate the number of young-wife beneficiaries—i.e., extrapolating the present ratio of such beneficiaries to child-survivor beneficiaries who are either under age 16 or disabled with onset of disability before age 16. The number of father beneficiaries was estimated in an analogous manner.

The number of parent beneficiaries was projected on the basis of the past trend in the number of such beneficiaries. A decrease was assumed from 14,000 in the middle of 1981 to an ultimate level of 7,000 in 1995.

Table A3 shows the estimated numbers of beneficiaries under the OASI program. Included among the beneficiaries who receive retired-worker benefits are some persons who also receive residual benefits consisting of the excess of any potential auxiliary benefits over their own retired-worker benefit. Estimates of the number of such residual payments were made separately for wives, widows, husbands, and widowers. Residual payments to other beneficiaries were not taken into account, because of the negligible cost involved.

TABLE A3.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 BY ALTERNATIVE, CALENDAR YEARS 1960-2060

[In thousands]

	Retired workers and auxiliaries			Survivors				
Calendar year	Worker	Wife-husband	Child	Widow-widower	Mother-father	Child	Parent	Total
1960	7,813	2,224	260	1,471	388	1,549	35	13,740
1965	10,843	2,601	429	2,228	472	1,900	36	18,509
1970	13,066	2,651	535	3,151	514	2,673	29	22,618
1975	16,210	2,836	633	3,823	568	2,905	22	26,998
1976	16,789	2,867	638	3,939	576	2,911	21	27,740
1977	17,380	2,899	670	4,042	573	2,843	19	28,428
1978	17,924	2,942	662	4,147	569	2,800	18	29,062
1979	18,590	2,966	651	4,260	567	2,739	17	29,789
1980	19,167	2,987	633	4,354	560	2,668	15	30,384
1981	19,792	3,010	639	4,446	549	2,624	14	31,074
Alternative I:								
1982	20,325	2,999	623	4,538	497	2,482	13	31,476
1985	22,200	3,058	538	4,747	412	2,062	10	33,028
1990	24,954	3,155	542	5,079	426	1,905	8	36,069
1995	26,646	3,173	483	4,829	467	2,004	7	37,609
2000	27,750	3,077	484	4,701	488	2,078	7	38,585
2005	29,357	3,025	509	4,579	486	2,104	7	40,066
2010	32,506	3,063	576	4,468	482	2,132	7	43,234
2015	37,446	3,200	673	4,437	488	2,198	7	48,449
2020	43,221	3,347	769	4,473	494	2,297	7	54,608
2025	49,019	3,446	844	4,593	491	2,382	7	60,782
2030	52,796	3,381	856	4,672	492	2,443	7	64,647
2035	54,298	3,202	833	4,709	506	2,503	7	66,058
2040	53,983	3,006	800	4,679	528	2,584	7	65,587
2045	53,892	2,895	807	4,616	549	2,686	7	65,452
2050	54,913	2,912	848	4,526	566	2,782	7	66,554
2055	56,410	3,017	886	4,493	580	2,865	7	68,258
2060	57,897	3,109	906	4,506	600	2,949	7	69,974
Alternative II-A:								
1982	20,328	3,000	623	4,542	497	2,480	13	31,482
1985	22,248	3,065	537	4,786	410	2,049	10	33,106
1990	25,243	3,192	540	5,188	414	1,847	8	36,431
1995	27,394	3,306	493	4,918	438	1,854	7	38,410
2000	28,930	3,275	503	4,831	443	1,834	7	39,823
2005	30,958	3,271	532	4,750	435	1,792	7	41,745
2010	34,534	3,369	602	4,674	430	1,762	7	45,376
2015	39,946	3,565	708	4,645	433	1,766	7	51,070
2020	46,267	3,774	811	4,702	434	1,794	7	57,789
2025	52,720	3,916	892	4,804	424	1,815	7	64,578
2030	57,226	3,898	912	4,906	419	1,820	7	69,188
2035	59,466	3,742	893	4,976	420	1,813	7	71,317
2040	59,848	3,537	862	4,993	428	1,822	7	71,497
2045	60,354	3,414	874	4,966	433	1,845	7	71,893
2050	61,566	3,403	910	4,895	434	1,864	7	73,079
2055	62,821	3,462	937	4,839	436	1,876	7	74,378
2060	63,690	3,501	940	4,798	439	1,883	7	75,258
Alternative II-B:								
1982	20,328	3,000	623	4,542	497	2,480	13	31,483
1985	22,248	3,065	537	4,786	410	2,049	10	33,106
1990	25,240	3,191	540	5,188	414	1,847	8	36,428
1995	27,382	3,314	493	4,920	438	1,854	7	38,408
2000	28,904	3,285	503	4,839	443	1,833	7	39,814
2005	30,915	3,288	532	4,757	435	1,791	7	41,725
2010	34,478	3,393	602	4,689	430	1,760	7	45,359
2015	39,882	3,594	708	4,662	433	1,762	7	51,048
2020	46,187	3,803	808	4,722	433	1,793	7	57,753
2025	52,603	3,972	892	4,831	424	1,813	7	64,542
2030	57,102	3,948	912	4,936	418	1,815	7	69,138
2035	59,319	3,801	893	5,024	420	1,813	7	71,277
2040	59,692	3,597	860	5,034	428	1,822	7	71,440
2045	60,188	3,468	872	5,018	432	1,839	7	71,824
2050	61,394	3,375	910	4,951	434	1,863	7	73,034
2055	62,637	3,526	936	4,898	435	1,874	7	74,313
2060	63,521	3,570	940	4,858	438	1,881	7	75,215

TABLE A3.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 BY ALTERNATIVE, CALENDAR YEARS 1960-2060 (Cont.)
[In thousands]

Calendar year	Retired workers and auxiliaries			Survivors				Total
	Worker	Wife-husband	Child	Widow-widower	Mother-father	Child	Parent	
Alternative III:								
1982	20,336	3,001	623	4,551	496	2,476	13	31,496
1985	22,338	3,079	537	4,861	405	2,025	10	33,255
1990	25,782	3,261	539	5,400	392	1,744	8	37,125
1995	28,851	3,559	513	5,082	388	1,613	7	40,013
2000	31,270	3,653	534	5,095	375	1,481	7	42,415
2005	34,188	3,761	569	5,114	360	1,361	7	45,360
2010	38,713	3,963	655	5,113	352	1,277	7	50,080
2015	45,144	4,272	773	5,155	353	1,230	7	56,934
2020	52,610	4,597	891	5,256	349	1,203	7	64,913
2025	60,385	4,859	986	5,408	337	1,172	7	73,154
2030	66,371	4,915	1,018	5,562	323	1,131	7	79,327
2035	70,191	4,811	1,008	5,711	316	1,089	7	83,133
2040	72,170	4,610	983	5,812	311	1,052	7	84,945
2045	74,166	4,455	998	5,917	301	1,022	7	86,866
2050	76,346	4,376	1,032	5,977	291	993	7	89,022
2055	77,792	4,303	1,040	6,011	281	964	7	90,398
2060	78,237	4,173	1,025	6,027	271	932	7	90,672

Note: The definitions of alternatives I, II-A, II-B, and III are presented in the text. The numbers of beneficiaries do not include certain uninsured persons aged 72 and over with less than 3 quarters of coverage, the costs for whom are reimbursable to the OASI Trust Fund by the general fund of the Treasury. The number of such persons is estimated to be 69,500 as of June 30, 1982, and less than 1,000 by the turn of the century. Totals do not necessarily equal the sum of the rounded components.

DISABILITY INSURANCE BENEFICIARIES

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

In alternatives II-A and II-B, disability incidence rates, which declined during 1978-81, are assumed to reach a minimum in 1982 and then to increase steadily through 2001, when they reach an ultimate level which is about 15 percent higher than the average incidence rate for 1979-81. In alternatives I and III, the disability incidence rates follow patterns similar to the one in alternatives II-A and II-B except that the ultimate levels are different. In alternatives I and III, the rates reach ultimate values that are the same as the average for 1979-81 and 30 percent higher, respectively.

The termination rates were estimated by age, sex, and duration of entitlement. The mortality rates used throughout the projection period were assumed to be the same as those experienced by disabled-worker beneficiaries during 1976-79. The recovery rates were assumed to be 20 percent higher than those of the same period, thereby allowing for the assumed effect of the Disability Amendments of 1980. All disabled-worker benefits terminate at age 65, when retired-worker benefits become payable.

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

The number of young-wife beneficiaries was estimated by extrapolating the base-year ratio of the number of such beneficiaries to the estimated number of child beneficiaries who are children of male disabled-worker beneficiaries and are either under age 16 or disabled with onset of disability before age 16. The estimating procedure takes into account projected changes in fertility and female labor force participation. The number of young-husband beneficiaries was projected in an analogous manner.

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

Table A4 shows the projected number of beneficiaries in the DI program.

TABLE A4.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 BY ALTERNATIVE, CALENDAR YEARS 1960-2060
[In thousands]

Calendar year	Disabled workers	Dependents of disabled workers: Wives and husbands	Dependents of disabled workers: Children	Total
1960	371	56	94	522
1965	944	187	518	1,648
1970	1,436	271	861	2,568
1975	2,363	429	1,333	4,125
1976	2,602	468	1,462	4,533
1977	2,755	482	1,496	4,733
1978	2,858	491	1,512	4,861
1979	2,877	483	1,466	4,826
1980	2,863	468	1,403	4,734
1981	2,835	450	1,350	4,636
Alternative I:				
1982	2,721	417	1,231	4,370
1985	2,583	363	1,100	4,047
1990	2,690	338	1,025	4,053
1995	2,820	353	1,076	4,249
2000	3,197	393	1,213	4,803
2005	3,695	447	1,364	5,506
2010	4,134	494	1,511	6,140
2015	4,393	521	1,639	6,552
2020	4,465	527	1,730	6,722
2025	4,355	512	1,745	6,612
2030	4,201	492	1,710	6,404
2035	4,211	493	1,715	6,419
2040	4,384	513	1,782	6,679
2045	4,623	541	1,880	7,045
2050	4,777	559	1,952	7,289
2055	4,881	571	1,998	7,451
2060	5,033	589	2,054	7,676
Alternative II-A:				
1982	2,724	418	1,233	4,375
1985	2,592	364	1,104	4,060
1990	2,739	344	1,043	4,126
1995	3,004	376	1,107	4,487
2000	3,507	431	1,255	5,193
2005	4,131	499	1,401	6,031
2010	4,664	557	1,531	6,753
2015	4,976	590	1,639	7,205
2020	5,065	597	1,709	7,372
2025	4,932	580	1,706	7,218
2030	4,735	555	1,656	6,946
2035	4,706	551	1,637	6,894
2040	4,834	566	1,673	7,073
2045	5,001	585	1,730	7,316
2050	5,046	591	1,756	7,392
2055	5,032	589	1,757	7,377
2060	5,066	595	1,764	7,422
Alternative II-B:				
1982	2,723	418	1,232	4,374
1985	2,592	364	1,104	4,061
1990	2,746	345	1,046	4,138
1995	3,003	376	1,107	4,486
2000	3,506	431	1,255	5,191
2005	4,128	499	1,401	6,028
2010	4,660	557	1,530	6,748

TABLE A4.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF JUNE 30 BY ALTERNATIVE, CALENDAR YEARS 1960-2060 (Cont.)
[In thousands]

Calendar year	Disabled workers	Dependents of disabled workers: Wives and husbands	Dependents of disabled workers: Children	Total
Alternative II-B: (Cont.)				
2015	4,970	590	1,637	7,198
2020	5,057	597	1,707	7,361
2025	4,923	579	1,704	7,207
2030	4,726	554	1,654	6,934
2035	4,696	550	1,635	6,882
2040	4,825	565	1,671	7,061
2045	4,992	585	1,727	7,304
2050	5,036	590	1,754	7,380
2055	5,022	588	1,754	7,364
2060	5,056	592	1,761	7,410
Alternative III:				
1982	2,725	418	1,233	4,376
1985	2,603	366	1,109	4,079
1990	2,818	354	1,074	4,246
1995	3,194	400	1,120	4,714
2000	3,830	471	1,259	5,560
2005	4,585	554	1,371	6,510
2010	5,216	623	1,451	7,293
2015	5,583	662	1,514	7,759
2020	5,683	670	1,545	7,898
2025	5,518	648	1,517	7,683
2030	5,261	616	1,447	7,324
2035	5,168	605	1,400	7,172
2040	5,211	609	1,393	7,214
2045	5,241	613	1,397	7,252
2050	5,101	597	1,373	7,071
2055	4,897	573	1,327	6,796
2060	4,747	555	1,285	6,587

Note: The definitions of alternatives I, II-A, II-B, and III are presented in the text.

AVERAGE WAGES AND INFLATION

Future increases in the Consumer Price Index and in average wages will directly affect the OASDI program. In addition to the direct effect of higher wages on taxable payroll and on benefits subsequently based on that higher payroll, the automatic adjustment provisions in the law require that the benefit formula, the taxable earnings base, the exempt amount in the earnings test, and the amount of earnings required for a quarter of coverage be adjusted to reflect increases in average wages, and that benefit payments be adjusted to reflect increases in the CPI.

The ultimate real-wage differentials were based primarily on projections of historical trends. Both the analysis of these trends and the projections took into account productivity gains and the factors linking productivity gains with the real-wage differential. Over the last 30 years, annual increases in productivity have averaged 2.2 percent, the result of average increases of 1.2, 2.9, and 2.6 percent in each of the last, second-last, and third-last 10-year period, respectively. Meanwhile, the real-wage differential has averaged 1.2 percent over the last 30 years, the result of average increases of -0.5, 1.8, and 2.5 percent in each of the previously mentioned periods. The linkage between annual increases in productivity and the real-wage differential has averaged 1.0 percent over the last 30 years and 1.7 percent over the last 10 years. The linkage reflects changes in such factors as the average number of hours worked per year, the extent to which employees share in the returns of production, and the proportion of employee compensation paid as wages.

The ultimate annual increases in productivity are assumed to be 2.8, 2.5, 2.2, and 1.9 percent for alternatives I, II-A, II-B, and III, respectively. The corresponding ultimate annual improvements in the linkage were assumed to be 0.3, 0.5, 0.7, and 0.9 percent. The resulting ultimate real-wage differentials were 2.5, 2.0, 1.5, and 1.0 percent.

In alternative II-A, the CPI was assumed to increase ultimately at an annual rate of 3 percent. In alternative II-B, the CPI was assumed to increase ultimately at an annual rate of 4 percent, which is slightly lower than the average of 4.3 percent experienced over the last 30 years. The ultimate increases in the average annual CPI under alternatives I and III of 2 percent and 5 percent, respectively, were chosen to include a reasonable range of possible values.

The ultimate increases in average annual wages in covered employment were assumed to be 4.5, 5.0, 5.5, and 6.0 percent, for alternatives I, II-A, II-B, and III, respectively. These were obtained by adding the corresponding annual percentage increases in the CPI to the assumed real-wage differentials for each alternative.

AVERAGE BENEFITS

Future increases in the amount of the average retired-worker benefit awarded were projected by simulating the automatic benefit adjustment provisions and calculating future benefits for workers, by sex, at various earnings levels. Future increases in the average male and female retired-worker benefits in current-payment status were projected on the basis of the distribution of current beneficiaries by year of award, their average awarded benefits, and the increase in their benefits since the year of award. The average male and female disabled-worker benefits were projected similarly.

The average benefits for all persons receiving OASI or DI monthly benefits based on the earnings records of male workers (except recipients of residual payments to wives, widows, husbands, and widowers) were projected to increase at the same rate as the average male retired-worker or disabled-worker benefit, respectively. Similarly, the average benefits for all persons receiving OASI or DI monthly benefits based on the earnings records of female workers were assumed to increase at the same rate as the average female retired-worker or disabled-worker benefit, respectively.

BENEFIT PAYMENTS

For each category of beneficiary, monthly benefit payments were calculated as the product of the number of beneficiaries and the corresponding average benefit. These amounts were then adjusted to include retroactive payments to newly awarded beneficiaries. Retroactive payments are made for months of entitlement between the date of filing for benefits and the date of first payment as well as for up to 6 months (or 12 months for disabled widows and widowers and for all DI beneficiaries) prior to the date of filing during which eligibility requirements are satisfied, but only if benefits are not thereby permanently reduced for early entitlement. Average retired-worker benefits were further adjusted to account for projected variations in the age distribution of retired-worker beneficiaries at initial entitlement.

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

ADMINISTRATIVE EXPENSES

The projection of administrative expenses through 1991 was based on assumed increases in average wages, increases in the CPI, and increases in the number of beneficiaries. For years after 1991, administrative expenses were assumed to increase at approximately the compounded rate of the estimated increases in the number of beneficiaries and in average wages in covered employment.

RAILROAD RETIREMENT FINANCIAL INTERCHANGE

The effect of the financial interchange with the Railroad Retirement program was evaluated on the basis of trends similar to those used in estimating the cost of the OASDI benefits. The resulting effect was an average annual long-range cost to the OASDI system of 0.01 percent of taxable payroll.

REIMBURSEMENT FOR NONCONTRIBUTORY CREDITS

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

Reimbursement from the general fund of the Treasury for special benefits paid to certain persons aged 72 and over has not been reflected in the cost estimates. The reduction in cost resulting from such reimbursement is estimated to be 0.01 percent of taxable payroll currently, and to decrease to a negligible amount after 1984.

92-464 O - 82 - 7

APPENDIX B.—SENSITIVITY ANALYSIS

This appendix illustrates the sensitivity of the medium-range and long-range cost estimates to changes in selected individual assumptions. Although the estimates under the four alternatives illustrate the variations in the projected OASDI cost resulting from different combinations of assumptions, they do not show the variations resulting from changes in any single assumption. In the sensitivity analysis, one of the alternatives (II-B) is selected to be the starting set of assumptions. For each sensitivity test, only one assumption within that alternative is varied, and the resulting range of cost rates is estimated. Similar variations in the selected assumptions within the other alternatives would result in similar variations in cost rates (when expressed as percentage variations in those rates).

TOTAL FERTILITY RATE

Table B1 shows the estimated average annual OASDI cost rate under alternative II-B with various assumed ultimate total fertility rates. Those rates are 1.7 children per woman (as in alternative III), 2.0, 2.1 (as in alternatives II-A and II-B), and 2.4 (as in alternative I). The rates are assumed to change gradually from their current levels and to reach their ultimate values in 2005.

TABLE B1.—ESTIMATED AVERAGE ANNUAL OASDI COST RATE UNDER ALTERNATIVE II-B WITH VARIOUS FERTILITY ASSUMPTIONS
[As percent of taxable payroll]

Calendar years	Ultimate total fertility rate[1]			
	1.7	2.0	2.1	2.4
1982-2006	11.37	11.37	11.37	11.37
2007-2031	14.78	14.25	14.08	13.62
2032-2056	19.81	17.46	16.81	15.04
1982-2056	15.32	14.36	14.09	13.34

[1] The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire child-bearing period. Ultimate rates are assumed to be attained by 2005.

Note: The definitions of alternative II-B, cost rate, and taxable payroll are presented in the text.

Over the medium-range period, the average cost rate is 11.37 percent of taxable payroll under the four fertility assumptions. By contrast, the average long-range cost rate varies over a wide range, from 13.34 to 15.32 percent.

During the medium-range period, changes in fertility affect the working population only slightly and result in relatively minor changes in the number of child beneficiaries. Hence, the program cost is affected only slightly. Later in the 75-year period, however, under higher fertility, the labor force increases faster than the beneficiary population, so that the average long-range cost rate decreases with increasing fertility.

MORTALITY

Table B2 shows the estimated average annual OASDI cost rate under alternative II-B with various assumptions about future mortality improvement, as measured by the percentage decrease from 1978 to 2060 in the age-sex-adjusted death rate. Those assumptions are that mortality will improve by about 22 percent (as in alternative I), 37 percent (as in alternatives II-A and II-B), and 59 percent (as in alternative III).

TABLE B2.—ESTIMATED AVERAGE ANNUAL OASDI COST RATE UNDER ALTERNATIVE II-B WITH VARIOUS MORTALITY ASSUMPTIONS
[As percent of taxable payroll]

Calendar years	Mortality improvement[1] 22 percent	37 percent	59 percent
1982-2006	11.20	11.37	11.70
2007-2031	13.44	14.08	15.42
2032-2056	15.54	16.81	19.53
1982-2056	13.40	14.09	15.55

[1]The mortality improvement is the percentage decrease from 1978 to 2060 in the age-sex-adjusted death rate.

Note: The definitions of alternative II-B, cost rate, and taxable payroll are presented in the text.

Over the medium-range period, the average cost rate increases with increasing mortality improvement from 11.20 percent of taxable payroll (for 22 percent mortality improvement) to 11.70 percent (for 59 percent improvement). Over the long-range period, a similar but more pronounced trend exists. The average long-range cost rate increases from 13.40 to 15.55 percent.

The average cost rate increases with increasing improvement in mortality because of the relationship between age and mortality. Any mortality improvement in the population over age 65, where mortality rates are the highest, extends the length of time that retirement benefits are paid. At ages 50-64, mortality improvement results in an increase in tax income, but this is more than offset by the resulting increase in benefits payable to the additional retirees at age 65. At ages 20-49, mortality rates are so low that even substantial improvement in the rates would not result in significant increases in the number of covered workers. Mortality improvement at ages under 20 has relatively little long-term effect on the relationship between income and outgo. Consequently, the net effect of mortality improvement is to increase outgo more than taxable income, thereby resulting in higher cost rates.

DISABILITY INCIDENCE RATES

Table B3 shows the estimated average annual OASDI cost rate under alternative II-B with various disability incidence rate assumptions. Those assumptions are that the ultimate disability incidence rates by age and sex will differ from the average rates by age and sex experienced in 1979-81 as follows: they will be about the same (as in alternative I), about 15 percent higher (as in alternatives II-A and II-B), and about 30 percent higher (as in alternative III). The rates are assumed to change gradually from their current levels and to reach their ultimate values in 2001.

TABLE B3.—ESTIMATED AVERAGE ANNUAL OASDI COST RATE UNDER ALTERNATIVE II-B WITH VARIOUS DISABILITY INCIDENCE ASSUMPTIONS
[As percent of taxable payroll]

Calendar years	Disability incidence rate increase[1]		
	None	15 percent	30 percent
1982-2006	11.30	11.37	11.44
2007-2031	13.89	14.08	14.26
2032-2056	16.62	16.81	16.99
1982-2056	13.94	14.09	14.23

[1]The disability incidence rate increase is based on the ratio of the age-sex-adjusted incidence rate in 2001 and later to such rate during 1979-81.

Note: The definitions of alternative II-B, cost rate, and taxable payroll are presented in the text.

Over the medium-range period, the average cost rate varies with changing disability incidence from 11.30 percent of taxable payroll (for no increase) to 11.44 percent (for 30 percent increase). Over the long-range period, it varies from 13.94 percent to 14.23 percent.

CONSUMER PRICE INDEX

Table B4 shows the estimated average annual OASDI cost rate under alternative II-B with various CPI assumptions. These assumptions are that the ultimate annual CPI increase will be 2 percent (as in alternative I), 3 percent (as in alternative II-A), 4 percent (as in alternative II-B), 5 percent (as in alternative III), and 6 percent. In each case the ultimate real-wage differential is assumed to be 1.5 percent, yielding ultimate percentage increases in average annual wages of 3.5, 4.5, 5.5, 6.5, and 7.5 percent, respectively. The annual CPI increase is assumed to change gradually from its current level and to reach its ultimate value in 1992.

TABLE B4.—ESTIMATED AVERAGE ANNUAL OASDI COST RATE UNDER ALTERNATIVE II-B WITH VARIOUS CONSUMER PRICE INDEX ASSUMPTIONS
[As percent of taxable payroll]

Calendar years	Ultimate percentage increase in wages-CPI[1]				
	3.5-2	4.5-3	5.5-4	6.5-5	7.5-6
1982-2006	11.52	11.44	11.37	11.29	11.22
2007-2031	14.41	14.25	14.08	13.92	13.77
2032-2056	17.22	17.02	16.81	16.61	16.43
1982-2056	14.38	14.24	14.09	13.94	13.81

[1]The first value in each pair is the assumed annual percentage increase in average wages in 1992 and later years. The second value is the assumed annual percentage increase in CPI in 1992 and later years. The assumptions used in earlier years gradually merge into the ultimate values.

Note: The definitions of alternative II-B, cost rate, and taxable payroll are presented in the text.

Over both the medium-range and long-range periods, the average cost rate varies as the assumed rate of change in the CPI increases. Over the medium range, the average cost rate decreases from 11.52 percent of taxable payroll (for CPI increases of 2 percent) to 11.22 percent (for CPI increases of 6 percent). Over the long range, it varies from 14.38 percent to 13.81 percent.

The relationship described above results primarily from the time lag between the effect on income and on benefit outgo. When assuming a higher rate of increase in the CPI (in conjunction with a constant real-wage differential), the effect on income of the implied higher rate of increase in wages is experienced immediately, while the effect on benefits of the higher rate of increase in the CPI is experienced with about a half-year lag. In addition, the earliest effect on benefits of the higher rate of increase in wages is experienced with about a 2-year lag.

REAL-WAGE DIFFERENTIAL

Table B5 shows the estimated average annual OASDI cost rate under alternative II-B with various real-wage assumptions. These assumptions are that the ultimate real-wage differential will be 1 percent (as in alternative III), 1.5 percent (as in alternative II-B), 2 percent (as in alternative II-A), and 2.5 percent (as in alternative I). In each case the ultimate annual CPI increase is assumed to be 4 percent, yielding ultimate percentage increases in average annual wages of 5, 5.5, 6, and 6.5 percent, respectively. The real-wage differential is assumed to change gradually from its current level and to reach its ultimate value in 1992.

TABLE B5.—ESTIMATED AVERAGE ANNUAL OASDI COST RATE UNDER ALTERNATIVE II-B WITH VARIOUS REAL-WAGE ASSUMPTIONS
[As percent of taxable payroll]

Calendar years	Ultimate percentage increase in wages-CPI[1] 5-4	5.5-4	6-4	6.5-4
1982-2006	11.78	11.37	10.98	10.62
2007-2031	14.98	14.08	13.26	12.50
2032-2056	18.03	16.81	15.73	14.72
1982-2056	14.93	14.09	13.32	12.62

[1]The first value in each pair is the assumed annual percentage increase in average wages in 1992 and later years. The second value is the assumed annual percentage increase in CPI in 1992 and later years. The difference between the two values is the real-wage differential. The assumptions used in earlier years gradually merge into the ultimate values.

Note: The definitions of alternative II-B, cost rate, and taxable payroll are presented in the text.

Over the medium-range period, the average cost rate varies from 11.78 percent of taxable payroll (for real-wage differentials of 1 percent) to 10.62 percent (for differentials of 2.5 percent). Over the long-range period, it varies from 14.93 percent to 12.62 percent.

The average cost rate decreases with increasing real-wage differentials for two reasons. One is that there is a lag between the time when workers pay taxes based on the higher earnings and the time when they draw benefits based on those earnings. The other is that the benefits to those already eligible—benefits which increase according to the increase in the CPI, not wages—are smaller relative to the payrolls based on the higher real-wage differentials.

APPENDIX C.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY BENEFIT INCREASES[1]

I hereby determine and announce a cost-of-living increase of 11.2 percent in benefits under titles II and XVI of the Social Security Act.

Under title II, Old-Age, Survivors, and Disability Insurance benefits will increase by 11.2 percent beginning with the June 1981 benefits which are payable on July 3, 1981. This increase is based on the authority contained in section 215(i) of the Social Security Act (42 U.S.C. 415(i)), as amended by section 201 of Pub. L. 95-216 enacted December 20, 1977.

Under title XVI, supplemental security income payment levels will increase by 11.2 percent effective for payments made on July 1, 1981. This is based on the authority contained in section 1617 of the Social Security Act (42 U.S.C. 1382f).

TITLE II BENEFITS

Title II benefits are payable under the Federal Old-Age, Survivors, and Disability Insurance program. Individuals entitled under this program include insured workers, wives, husbands, children, widows, widowers, mothers, fathers, and parents.

In accordance with section 215(i)(4) of the Social Security Act (the Act), the primary insurance amounts and the maximum family benefits shown in columns IV and V of the revised benefit table (table 1) set forth below were obtained by increasing by 11.2 percent the corresponding amounts established by: (1) The last cost-of-living increase; and (2) the extension of the benefit table made under section 215(i)(4) and published on November 18, 1980 at 45 FR 76252. The table applies only to those persons who attained age 62, became disabled or died before January 1979 and is deemed to appear in section 215(a) of the Act. Note that this table does not apply to those individuals who reach age 62, become disabled, or die after 1978; their benefits will generally be determined by a new benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216). For such persons first eligible for benefits in the period 1979-1981, the 11.2 percent increase will apply beginning June 1981; but the 11.2 percent increase will not apply for persons first becoming eligible for benefits after 1981.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines a cost-of-living increase in Social Security benefits, the Secretary shall publish in the Federal Register a revision of the range of the primary insurance amounts and corresponding maximum family benefits based on the dollar amount and other provisions described in section 215(a)(1)(C)(i)(II). These benefits are referred to as "special minimum benefits" and are payable to certain individuals with long periods of relatively low earnings. In accordance with section 215(a)(1)(C)(i)(II), the attached table 2 shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 11.2 percent benefit increase.

Section 227 of the Act provides limited benefits to a worker who became age 72 before 1969 and was not insured under the usual

[1]This statement, edited for presentation here, was published in the Federal Register for May 15, 1981 (Vol. 46, No. 94, pp. 27076-77).

requirements, and to his wife or widow. Section 228 of the Act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amounts of $105.20 for an individual and $52.70 for a wife established under sections 227 and 228 of the Act are increased by 11.2 percent to obtain the new amounts of $117.00 and $58.70.

TITLE XVI BENEFITS

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

In accordance with section 1617, Federal Supplemental Security Income (SSI) guarantees for the aged, blind, and disabled are increased effective with July 1981 by 11.2 percent. The current yearly Federal SSI guarantees of $2,856.00 for an eligible individual and $4,284.00 for an eligible individual with an eligible spouse are thereby increased to $3,176.40 and $4,764.00 respectively. The monthly payment is determined by dividing the yearly guarantee by 4, subtracting quarterly countable income, and dividing the remainder by 3. In the case of an eligible individual with an eligible spouse, the amount payable is further divided equally between the two spouses. The amount by which the Federal SSI guarantee amount is increased because of the presence of an essential person in the home, currently $1,430.40 per year for each essential person under section 211(a)(1)(A) of Pub. L. 93-66, is also increased by 11.2 percent to obtain a new amount of $1,591.20.

AUTOMATIC BENEFIT INCREASE DETERMINATION

Section 215(i) of the Act requires that when certain conditions are met in the first calendar quarter of a year, the Secretary shall determine that a cost-of-living increase in benefits is due. Section 215(i) of the Act also specifies the formula for determining the amount of any cost-of-living increase in benefits. This formula utilizes the Consumer Price Index for urban wage earners and clerical workers reported by the Department of Labor.

Section 215(i)(2)(A) of the Act requires the Secretary to determine each year whether there is a cost-of-living computation quarter in that year. If the Secretary so determines, the Secretary shall, effective with June of that year, increase benefits for individuals entitled under section 227 or 228 of the Act, shall increase the primary insurance amounts of all other individuals entitled under title II of the Act, and shall also increase the maximum benefits payable to a family. Section 1617 of the Act requires that SSI benefits be increased by the same percentage increase as title II benefits, whenever title II benefits are increased under section 215(i). The percentage increase is equal to the percentage increase in the Consumer Price Index for the cost-of-living computation quarter over the index for the most recent cost-of-living computation quarter.

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

The Department of Labor's revised Consumer Price Index for urban wage earners and clerical workers for each month in the quarter ending March 31, 1980 was: For January 1980, 233.3; for February 1980, 236.5; and for March 1980, 239.9. The arithmetical mean for the calendar quarter was 236.6. The corresponding Consumer Price Index for each month in the quarter ending March 31, 1981 was: For January 1981, 260.7; for February 1981, 263.5; and for March 1981, 265.2. The arithmetical mean for this calendar quarter is 263.1. The increase for the calendar quarter ending March 31, 1981 is 11.2 percent. Thus, since the percentage of increase in the Consumer Price Index from the calendar quarter ending March 31, 1980 to the calendar quarter ending March 31, 1981 is not less than 3 percent, the quarter ending March 31, 1981 is a cost-of-living computation quarter. Consequently, a cost-of-living benefit increase of 11.2 percent is effective for benefits under title II of the Act beginning June 1981.

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

Dated: May 13, 1981.

Richard S. Schweiker,
Secretary of Health and Human Services

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

APPENDIX D.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY CONTRIBUTION AND BENEFIT BASE, QUARTER OF COVERAGE AMOUNT, RETIREMENT TEST EXEMPT AMOUNTS, AVERAGE OF THE TOTAL WAGES, FORMULAS FOR COMPUTING BENEFITS, AND EXTENDED TABLE OF BENEFIT AMOUNTS FOR 1982[1]

Summary

The Secretary has determined—

(1) The average of the total wages for 1980 to be $12,513.46;

(2) The Social Security contribution and benefit base to be $32,400 for remuneration paid in 1982 and self-employment income earned in taxable years beginning in 1982;

(3) The amount of earnings a person must have to be credited with a quarter of coverage in 1982 to be $340; and

(4) The monthly exempt amount under the Social Security retirement test for taxable years ending in calendar year 1982 to be $500 for beneficiaries age 65 and over and $370 for beneficiaries under age 65.

The formulas we use to compute the benefits for a worker and his or her family who first become eligible for benefits in 1982 are also described below.

Finally, a table reflecting the new higher average monthly wage and related benefit amounts made possible by the higher contribution and benefit base is also published. The table will be used primarily to compute the retirement benefits of workers who reached age 62 before 1979.

Supplementary information

Sections 203(f)(8), 213(d) and 230(a) of the Social Security Act (42 U.S.C. 403(f)(8), 413(d) and 430(a)) require the Secretary of Health and Human Services to publish in the Federal Register on or before November 1, 1981, the contribution and benefit base, the amount of earnings required for a quarter of coverage, and the retirement test exempt amounts, for calendar year 1982. In addition, section 215(a)(1)(D) requires that we publish by November 1, 1981 the formula for computing a primary insurance amount for workers who first become eligible for benefits or die in 1982, and section 203(a)(2)(C) requires that we publish by November 1, 1981 the formula for computing a family's maximum benefits for families of workers who first become eligible for old-age benefits or die in 1982.

AVERAGE OF THE TOTAL WAGES FOR 1980

The determination of the average wage figure for 1980 is based on the 1979 average wage figure of $11,479.46 announced in the Federal Register on November 18, 1980 (45 FR 76252) along with the percentage increase in average wages from 1979 to 1980 measured by annual wage data tabulated by the Internal Revenue Service (IRS). The average amounts of wages calculated directly from IRS data were $11,789.01 and $12,850.89 for 1979 and 1980, respectively. To determine an average wage figure for 1980 at a level that is consistent with the series of average wages for 1951-1977 (published December 29, 1978 at 43 FR

[1]This statement, edited for presentation here, was published in the Federal Register for October 30, 1981 (Vol. 46, No. 210, pp. 53791-94).

61016), we multiplied the 1979 average wage figure of $11,479.46 by the percentage increase in average wages from 1979 to 1980 (based on IRS data) as follows (with the result rounded to the nearest cent):

Average wage for 1980 = $11,479.46 x ($12,850.89/$11,789.01) = $12,513.46.

Therefore, the average wage for 1980 is determined to be $12,513.46.

CONTRIBUTION AND BENEFIT BASE

Computation

The 1982 contribution and benefit base is $32,400.

The contribution and benefit base serves two purposes:

(1) It is the maximum annual amount of earnings on which Social Security taxes are paid.

(2) It is the maximum annual amount used in figuring a person's Social Security benefits.

Section 230(c) of the Social Security Act provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Social Security Act contains a formula for determining the contribution and benefit base. Under the prescribed formula, the contribution and benefit base for 1982 shall be equal to the 1981 base of $29,700 multiplied by the ratio of (1) the average amount, per employee, of total wages for the calendar year 1980 to (2) the average amount of those wages for the calendar year 1979. Section 230(b) further provides that if the amount so determined is not a multiple of $300, it shall be rounded to the nearest multiple of $300.

Average wages

The average for calendar year 1979 was previously determined to be $11,479.46. The average wage for calendar year 1980 has been determined to be $12,513.46, as stated herein.

Amount

The ratio of the average wage for 1980, $12,513.46, compared to that for 1979, $11,479.46, is 1.090074. Multiplying the 1981 contribution and benefit base of $29,700 by the ratio 1.090074 produces the amount of $32,375.20 which must then be rounded to $32,400. Accordingly, the contribution and benefit base for 1982 is $32,400.

QUARTER OF COVERAGE AMOUNT

Computation

The 1982 amount of earnings required for a quarter of coverage is $340. A quarter of coverage is the basic unit for determining whether a worker is insured under the Social Security program. For years before 1978, an individual generally was credited with a quarter of coverage for each quarter in which wages of $50 or more were paid, or for which $100 or more of self-employment income were credited, to the individual. Beginning in 1978, wages generally are no longer reported quarterly; annual reports are made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 (Pub. L. 95-216) amended section 213(d) of the Social Security Act to provide that a quarter of coverage would be credited for each $250 of an individual's total wages and self-employment income for calendar year 1978 (up to a maximum of 4 quarters of coverage for the year). Section 213(d) also provides that this amount shall be redetermined each year and any change published in the Federal Register no later than November 1 of the year preceding the year for which the change is effective. Under the prescribed formula, the quarter of coverage amount for 1982 shall be equal to the 1978 amount of $250 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1980 to (2) the average amount of those wages reported for calendar year 1976. The section further provides that if the amount so determined is not a multiple of $10, it shall be rounded to the nearest multiple of $10.

Average wages

The average wage for calendar year 1976 was previously determined to be $9,226.48. This was published in the Federal Register on December 29, 1978, at 43 FR 61016. The average wage for calendar year 1980 has been determined to be $12,513.46 as stated herein.

Amount

The ratio of the average wage for 1980, $12,513.46, compared to that for 1976, $9,226.48, is 1.356255. Multiplying the 1978 quarter of coverage amount of $250 by the ratio of 1.356255 produces the amount of $339.06 which must then be rounded to $340. Accordingly, the quarter of coverage amount for 1982 is $340.

RETIREMENT TEST EXEMPT AMOUNTS

Computation

The 1982 amount of $500 for the retirement test monthly exempt amount for beneficiaries aged 65 through 71 is stated in the law. The corresponding annual retirement test exempt amount for those individuals is $6,000. Section 301 of the Social Security Amendments of 1977 amended section 203 of the Social Security Act to provide a higher retirement test exempt amount for beneficiaries aged 65 through 71 than for those beneficiaries under age 65.

The monthly exempt amount of $370 for beneficiaries under age 65 is determined according to a formula specified in the law, which automatically produced a mathematical result based upon reported statistics. Section 203(f)(8) of the Social Security Act provides that the retirement test monthly exempt amount for 1982 shall be equal to the 1981 amount of $340 multiplied by the ratio of (1) the average amount, per employee, of the wages of all employees reported under the program for calendar year 1980 to (2) the average amount of those wages reported for calendar year 1979. The section further provides that if the amount so determined is not a multiple of $10, it shall be rounded to the nearest multiple of $10.

There is no limit on the amount an individual aged 72 or over may earn and still receive Social Security benefits. (Beginning in 1983, the age at which the retirement test no longer applies will be reduced from age 72 to age 70.)

Average wages

Average wages for this purpose are determined in the same way as for the contribution and benefit base. Therefore, the ratio of the average wages for 1980, $12,513.46 compared to that for 1979, $11,479.46 is 1.090074.

Exempt amount for persons under age 65

Multiplying the 1981 retirement test monthly exempt amount of $340 by the ratio of 1.090074 produces the amount of $370.63. This must then be rounded to $370. Accordingly, the retirement test monthly exempt amount for persons under age 65 is determined to be $370 for 1982. The corresponding annual exempt amount for 1982 is $4,440.

COMPUTING BENEFITS AFTER 1978

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

Average indexed monthly earnings

To assure that a worker's future benefits reflect the general rise in the standard of living that occurs during their working lifetime, we adjust or "index" the worker's past earnings to take into account the change in general wage levels that has occurred during the worker's years of employment. These adjusted earnings are then used to compute the worker's primary insurance amount.

For example, to compute the average indexed monthly earnings for a worker attaining age 62, becoming disabled, or dying before attaining age 62, in 1982, we divide the average of the total wages for 1980, $12,513.46, by the average of the total wages for each year prior to 1980 in which the worker had earnings. We then multiply the actual wages and self-employment income credited for those years by this ratio to obtain the worker's adjusted earnings for that year. After determining the number of years we must use to compute the primary insurance amount, we pick those years with highest indexed earnings, total those indexed earnings and divide by the total number of months in those years. This figure is rounded down to the next lower dollar amount, and becomes the average indexed monthly earnings figure to be used in computing the worker's primary insurance amount for 1982.

Computing the primary insurance amount

The primary insurance amount is the sum of three separate percentages of portions of the average indexed monthly earnings. In 1979 (the first year the formula was in effect), these portions were the first $180, the amount between $180 and $1,085, and the amount over $1,085. The amounts for 1982 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1980, $12,513.46, and for 1977, $9,779.44. These results are then rounded to the nearest dollar. For 1982 the ratio is 1.279568. Multiplying the 1979 amounts of $180 and $1,085 by 1.279568 produces the amounts of $230.32 and $1,388.33. These must then be rounded to $230 and $1,388. Accordingly, the portions of the average indexed monthly earnings to be used in 1982 are determined to be the first $230, the amount between $230 and $1,388, and the amount over $1,388.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1982 or who die in 1982 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

(a) 90 percent of the first $230 of their average indexed monthly earnings, plus

(b) 32 percent of the average indexed monthly earnings over $230 and through $1,388, plus

(c) 15 percent of the average indexed monthly earnings over $1,388.

This amount is then rounded to the next lower multiple of $.10 if it is not already a multiple of $.10. This formula and the adjustments we have described are contained in section 215(a) of the Social Security Act (42 U.S.C. 415(a)) as amended by Pub. L. 97-35.

MAXIMUM BENEFITS PAYABLE TO A FAMILY

The 1977 Amendments continued the long established policy of limiting the total monthly benefits which a worker's family may receive based on his or her primary insurance amount. Those amendments also continued the then existing relationship between maximum family benefits and primary insurance amounts but did change the method of computing the maximum amount of benefits which may be paid to a worker's family. The 1980 Amendments (Pub. L. 96-265) established a new formula for computing the maximum benefits payable to the family of a disabled worker. This new formula is applied to the family benefits of workers who first become entitled to disability insurance benefits after June 30, 1980 and who first become eligible for these after 1978. The new formula was explained in a Final Rule published in the Federal Register on May 8, 1981 at 46 FR 25601. For disabled workers initially entitled to disability benefits before July 1980, or whose disability began before 1979, the family maximum payable is computed the same as the old-age and survivor family maximum.

Computing the old-age and survivor family maximum

The formula used to compute the family maximum is similar to that used to compute the primary insurance amount. It involves computing the sum of four separate percentages of portions of the worker's primary insurance amount. In 1979, these portions were the first $230, the amount between $230 and $332, the amount between $332 and $433, and the amount over $433. The amounts for 1982 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1980, $12,513.46, and for 1977, $9,779.44. This amount is then rounded to the nearest dollar. For 1982, the ratio is 1.279568. Multiplying the amounts of $230, $332, and $433 by 1.279568 produces the amounts of $294.30, $424.82, and $554.05. These amounts are then rounded to $294, $425, and $554. Accordingly, the portions of the primary insurance amounts to be used in 1982 are determined to be the first $294, the amount between $294 and $425, the amount between $425 and $554, and the amount over $554.

Consequently, for the family of a worker who becomes age 62 or dies in 1982, the total amount of benefits payable to them will be computed so that it does not exceed:

(a) 150 percent of the first $294 of the worker's primary insurance amount, plus

(b) 272 percent of the worker's primary insurance amount over $294 through $425, plus

(c) 134 percent of the worker's primary insurance amount over $425 through $554, plus

(d) 175 percent of the worker's primary insurance amount over $554.

This amount is then rounded to the next lower multiple of $.10 if it is not already a multiple of $.10. This formula and the adjustments we have described are contained in section 203(a) of the Social Security Act (42 U.S.C. 403(a)) as amended by Pub.L. 97-35.

EXTENSION OF BENEFIT TABLE EFFECTIVE JANUARY 1982

The following is an extension of the Table for Determining Primary Insurance Amount and Maximum Family Benefits provided in section 215(a)(5) of the Social Security Act. This extension reflects the higher average monthly wage and related benefit amounts now possible under the increased contribution and benefit base published by this Notice effective January 1982 in accordance with section 215(i) of the Social Security Act. The extended portion of the benefit table shown here will apply primarily to benefits based on earnings of workers who reached age 62 before 1979.

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

Dated: October 27, 1981.

Richard S. Schweiker,
Secretary of Health and Human Services

(The extended benefit table which was published at the end of the above announcement in the Federal Register is not reproduced here because of its length.)

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

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

In this appendix, values are shown for the program amounts that are subject to automatic adjustment from the time that such adjustments became effective through the present time. Projected values for future years through 1987, based on the two intermediate sets of assumptions (alternatives II-A and II-B), are also shown. These assumptions are summarized earlier in this report in the section entitled "Economic and Demographic Assumptions" and were shown in Tables 10 and 11. The section entitled "Automatic Adjustments," and Appendices C and D, should be referred to for a more complete description of the program amounts affected by the automatic adjustment procedures.

Under section 215(b)(3) of the Social Security Act, the average amount of total wages for each year after 1950 is used to index the earnings of persons newly eligible for benefits in 1979 or later. This procedure converts a worker's past earnings to approximately their equivalent values near the time of the worker's retirement or other eligibility, and these values are used to calculate the worker's Average Indexed Monthly Earnings (AIME). The average amount of total wages for each year is also used to adjust most of the program amounts that are subject to the automatic provisions. The announcement of the average wage determination for 1980, including a brief description of its derivation, is shown in Appendix D. Appendix D also describes the determinations of other program amounts that are in effect for 1982. Table E1 shows the average amount of total wages as announced for 1951 through 1980, together with projected values for 1981 through 1987 based on the two intermediate sets of assumptions.

TABLE E1.—AVERAGE AMOUNT OF TOTAL WAGES, 1951-80, AND PROJECTED FUTURE AMOUNTS FOR 1981-87 UNDER THE TWO INTERMEDIATE SETS OF ASSUMPTIONS

Calendar year	Actual amounts	
1951	$2,799.16	
1952	2,973.32	
1953	3,139.44	
1954	3,155.64	
1955	3,301.44	
1956	3,532.36	
1957	3,641.72	
1958	3,673.80	
1959	3,855.80	
1960	4,007.12	
1961	4,086.76	
1962	4,291.40	
1963	4,396.64	
1964	4,576.32	
1965	4,658.72	
1966	4,938.36	
1967	5,213.44	
1968	5,571.76	
1969	5,893.76	
1970	6,186.24	
1971	6,497.08	
1972	7,133.80	
1973	7,580.16	
1974	8,030.76	
1975	8,630.92	
1976	9,226.48	
1977	9,779.44	
1978	10,556.03	
1979	11,479.46	
1980	12,513.46	
	Projected future amounts by alternative—	
	II-A	II-B
1981	$13,609.77	$13,594.27
1982	14,782.49	14,495.68
1983	15,717.12	15,663.97
1984	16,603.03	16,926.39
1985	17,824.48	18,099.11
1986	19,117.91	19,329.42
1987	20,479.99	20,609.56

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

The provisions for automatic cost-of-living increases in OASDI benefits were enacted in 1972 and first became effective with the benefit increase for June 1975. The notice announcing the June 1981 benefit increase is shown in Appendix C. Table E2 shows the automatic benefit increases determined for each year 1975-81 and the benefit increases for each year 1982-87 projected on the basis of the two intermediate sets of assumptions.

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TABLE E2.—BENEFIT INCREASE AND OTHER OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC PROVISIONS, 1975-82, AND ESTIMATED FUTURE AMOUNTS FOR 1983-87, UNDER THE TWO INTERMEDIATE SETS OF ASSUMPTIONS

Calendar year	Benefit increase[1] (percent)	Contribution and benefit base	"Old-law" contribution and benefit base[2]	Retirement test exempt amount		Amount of earnings required for quarter of coverage[3]	AIME "bend points" in PIA formula		PIA "bend points" in maximum family benefit formula		
				Under age 65	Age 65 and over		First	Second	First	Second	Third
Actual experience:											
1975	8.0	$14,100	(4)	$2,520	$2,520	(5)	(4)	(4)	(4)	(4)	(4)
1976	6.4	15,300	(4)	2,760	2,760	(5)	(4)	(4)	(4)	(4)	(4)
1977	5.9	16,500	(4)	3,000	3,000	(5)	(4)	(4)	(4)	(4)	(4)
1978	6.5	17,700	(4)	3,240	[6]4,000	[7]$250	(4)	(4)	(4)	(4)	(4)
1979	9.9	[6]22,900	$18,900	3,480	[6]4,500	260	[7]$180	[7]$1,085	[7]$230	[7]$332	[7]$433
1980	14.3	[6]25,900	20,400	3,720	[6]5,000	290	194	1,171	248	358	467
1981	11.2	[6]29,700	22,200	4,080	[6]5,500	310	211	1,274	270	390	508
1982	[8]7.6	32,400	24,300	4,440	[6]6,000	340	230	1,388	294	425	554
Projected future experience:											
Alternative II-A:											
1983	6.5	35,100	26,400	4,800	6,480	370	251	1,510	320	462	603
1984	4.8	38,100	28,800	5,160	7,080	400	272	1,640	348	502	655
1985	4.8	40,500	30,600	5,520	7,560	430	289	1,744	370	534	696
1986	4.6	42,900	32,400	5,880	8,040	450	306	1,842	390	564	735
1987	4.5	46,200	34,800	6,360	8,640	480	328	1,978	419	605	789
Alternative II-B:											
1983	7.5	35,100	26,400	4,800	6,480	370	250	1,508	320	462	602
1984	7.7	37,500	28,200	5,160	6,960	390	267	1,608	341	492	642
1985	6.9	40,500	30,600	5,520	7,560	420	288	1,738	368	532	694
1986	6.1	43,800	33,000	6,000	8,160	460	312	1,878	398	575	749
1987	5.6	46,800	35,400	6,360	8,760	490	333	2,008	426	614	801

[1]Effective with benefits payable for the month of June in each year shown.

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

[3]See Appendix D for a description of quarter-of-coverage requirements prior to 1978.

[4]No provision in law for this amount in this year.

[5]Amount not subject to automatic provisions in this year.

[6]Amount represents ad hoc increase specified by Social Security Amendments of 1977.

[7]Amount specified for first year by Social Security Amendments of 1977; amounts for subsequent years subject to automatic provisions.

[8]Estimated.

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

The law provides for an automatic increase in the contribution and benefit base for the year following a year in which an automatic benefit increase became effective. The base for 1975 was the first one determined on this basis. (Amendments enacted in December 1973 provided that the 11-percent general benefit increase that became effective in 1974 would be considered an automatic cost-of-living benefit increase for purposes of the automatic provisions.) The bases for 1979-81 were set by the 1977 amendments at levels above those which were expected to occur under the automatic provisions (and which, in fact, as the experience developed, were above such levels). Starting again in 1982, the bases are determined automatically on the basis of increases in average wages. Table E2 shows past and estimated future amounts for the contribution and benefit base.

As mentioned in the section "Automatic Adjustments," the Social Security Act also provides for the determination of the contribution and benefit base that would have been in effect in each year after 1978 under the law as in effect prior to the enactment of the 1977 amendments. Table E2 presents such amounts as determined for 1979-82, together with projections for 1983-87 under the two intermediate sets of assumptions.

The 1972 amendments also specified that the amount of earnings exempted from the withholding of benefits under the earnings retirement test would increase automatically in the year following a year in which an automatic cost-of-living benefit increase became effective. The 1977 amendments modified this procedure by establishing different exempt amounts for those under age 65 and those aged 65 and over. The former amounts continue to increase automatically, while the latter amounts are set at specific levels for 1978-82, after which time they will again increase automatically. The announcement of the exempt amounts for 1982 is shown in Appendix D, and Table E2 shows both sets for 1975-87.

The 1977 amendments provided for an amount of earnings to be used in 1978 to credit a "quarter of coverage," and for automatic adjustment of this amount for future years. Appendix D describes the determination of the amount for 1982. Table E2 shows the amounts for 1978-87.

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

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

The amounts separating the individual's AIME into intervals are called "bend points." They are adjusted automatically by the changes in average wages as specified in section 215(a)(1)(B) of the Social Security Act. (A minimum benefit of $122 and a "special minimum benefit" varying by "years of coverage" are also provided although for most persons first becoming eligible for benefits in 1982 and later, the regular minimum benefit of $122 has been eliminated.) The determination of the bend points for the 1982 PIA formula is described in Appendix D. The bend points for 1979-82, and the amounts estimated for 1983-87, are shown in Table E2.

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

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

These PIA-interval bend points are adjusted automatically in accordance with section 203(a)(2). Appendix D contains the announcement of the 1982 family maximum formula bend points. The past and projected amounts are shown in Table E2.

APPENDIX F.—ACTUARIAL COST PROJECTIONS OF THE OASI, DI, AND HI PROGRAMS, COMBINED

In this appendix, cost projections for the OASI, DI, and Hospital Insurance Trust Funds are summarized to facilitate analysis of the adequacy of the combined income and assets of these three trust funds relative to their combined expenditures. These projections represent the combination of projections shown in this report and in the similar report for the HI Trust Fund. Table F1 shows estimated assets of the combined funds as a percentage of combined annual expenditures for calendar years 1982-91, based on the four alternative sets of assumptions used in this report.

As described previously in this report, Public Law 97-123 granted limited authority for interfund borrowing to the Managing Trustee. The authority expires at the end of 1982 and the amount that can be borrowed at any time is limited to that necessary to ensure the timely payment of benefits during the subsequent 6 months. Throughout this report, and the associated HI Annual Report, the effects of this limited interfund borrowing authority are included in the estimated trust fund operations. The projections shown in this appendix for the combined trust funds are theoretical since, under present law, no provision exists beyond 1982 for transferring income or assets from one trust fund to another. Thus the emphasis in this appendix on combined operations should not obscure the financial status of the individual trust funds.

As shown in column 1, the assets of the OASI Trust Fund are projected to be insufficient to pay benefits when due in about 1 year under all four sets of assumptions. Column 2 indicates that, after 1982, the DI Trust Fund is expected to experience rapid growth for the remainder of this decade under all four sets of assumptions. Combined OASI and DI assets (shown in column 3) would be insufficient to pay combined benefits when due in the near future under each of the alternatives. Column 4 shows that the assets of the HI Trust Fund would decline steadily during the 1980's under all four sets of assumptions. As described in the HI Annual Report, the HI Trust Fund is estimated to be exhausted as early as 1986 under alternative III. Exhaustion is also projected under alternatives II-B, II-A, and I, with this estimated to occur in 1987, 1989, and 1991, respectively.

Assets of the combined OASI, DI, and HI Trust Funds as a percentage of combined annual expenditures (shown in the last column) are estimated under alternatives I and II-A to continue to decline through the beginning of 1985, reaching a low point of 12 and 8 percent, respectively, before beginning to increase. Under alternatives II-B and III, the fund ratios for the three trust funds combined decline throughout the period shown and would be insufficient to pay combined benefits when due within a few years.

The question has frequently been raised concerning whether realloca-tion of tax rates among the OASI, DI, and HI programs, or the extension of authority for interfund borrowing, would be sufficient to prevent the OASI Trust Fund's imminent financing problems. As indicated by the projections in Table F1, under the optimistic and intermediate II-A sets of assumptions, projected OASDI and HI tax income under present law would be barely sufficient to allow timely payment of projected OASDI and HI benefits in the aggregate for the remainder of this decade. Under these assumptions the margin for safety is virtually nonexistent. In other words, if actual future economic and demographic conditions are even slightly less favorable than those assumed in alternative II-A, scheduled OASDI and HI tax income would be insufficient and tax rate reallocation or extended interfund borrowing could only postpone temporarily the need for additional income or reduced benefits. In particular, under alternative II-B, the assets of the combined funds are insufficient to pay benefits when due beginning in about 1984. Under alternative III, depletion of the combined funds would occur late in 1983 or early in 1984. Thus tax rate reallocation or extended interfund borrowing alone cannot be prudently relied upon to prevent the depletion of the OASI Trust Fund within the relatively near future.

TABLE F1.—PROJECTED ASSETS OF THE OASI, DI, AND HI TRUST FUNDS, SEPARATE AND COMBINED, AT BEGINNING OF YEAR AS A PERCENTAGE OF ANNUAL EXPENDITURES DURING YEAR UNDER THE FOUR ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1982-91

Calendar year	OASI	DI	OASDI	HI	Total OASDI and HI
Alternative I:					
1982	15	16	15	53	22
1983	[1]10	8	[2]10	51	18
1984	[1]1	48	[2]6	49	14
1985	[1]-7	98	[2]4	44	12
1986	[1]-10	178	9	40	16
1987	[1]-10	265	17	39	22
1988	[1]-9	359	27	35	29
1989	[1]-6	464	40	29	37
1990	([3])	567	56	20	47
1991	15	696	82	[1]9	63
Alternative II-A:					
1982	15	16	15	53	22
1983	[1]10	8	[2]10	52	18
1984	([4])	47	[2]4	49	13
1985	[1]-11	93	[2]-1	42	8
1986	[1]-18	169	([3])	35	8
1987	[1]-24	253	[2]3	30	9
1988	[1]-28	342	8	21	11
1989	[1]-30	432	15	[1]9	13
1990	[1]-32	524	22	([5])	15
1991	[1]-26	642	39	([5])	23
Alternative II-B:					
1982	15	16	15	53	22
1983	[1]11	8	[2]10	38	16
1984	([5])	43	[2]3	34	[2]9
1985	([5])	84	[2]-4	26	[2]2
1986	([5])	148	[2]-7	16	([5])
1987	([5])	217	[2]-10	[1]9	([5])
1988	([5])	288	[2]-13	([5])	([5])
1989	([5])	361	[2]-16	([5])	([5])
1990	([5])	436	[2]-19	([5])	([5])
1991	([5])	536	[2]-13	([5])	([5])

TABLE F1.—PROJECTED ASSETS OF THE OASI, DI, AND HI TRUST FUNDS, SEPARATE AND COMBINED, AT BEGINNING OF YEAR AS A PERCENTAGE OF ANNUAL EXPENDITURES DURING YEAR UNDER THE FOUR ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1982-91 (Cont.)

Calendar year	OASI	DI	OASDI	HI	Total OASDI and HI
Alternative III:					
1982	15	16	15	53	22
1983	[1]11	8	[2]11	35	15
1984	([5])	39	[2]1	29	[3]6
1985	([5])	71	([5])	17	([5])
1986	([5])	125	([5])	[1]3	([5])
1987	([5])	181	([5])	([5])	([5])
1988	([5])	239	([5])	([5])	([5])
1989	([5])	297	([5])	([5])	([5])
1990	([5])	356	([5])	([5])	([5])
1991	([5])	436	([5])	([5])	([5])

[1]Assets of fund would be insufficient to pay benefits when due during part or all of this year.

[2]Assets of combined trust funds would be insufficient to pay combined benefits when due during part or all of this year.

[3]Between 0.0 percent and 0.5 percent.

[4]Between 0.0 percent and -0.5 percent.

[5]Assets are projected to be negative, and are projected not to recover before the end of the long-range projection period.

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" of this report and in Appendix A of the HI Annual Report. The OASI, OASDI, and combined OASDI and HI Trust Fund ratios in 1983 and later under each alternative are theoretical, because the OASI Trust Fund is projected to be depleted, and no provision for additional income exists in present law. See text for details. See text for estimated depletion years for the HI Trust Fund.

Table F2 shows projected cost rates for the OASI, DI, and HI programs during the period 1982-2006 under alternatives II-A and II-B. HI cost projections for years after 2006 are not shown in the HI Annual Report. The program's expenditures as a percentage of taxable payroll would, nonetheless, be subject to the same demographic effects that will cause OASDI costs to increase rapidly after the year 2010. Total cost rates for the three trust funds combined are shown in column 4 of Table F2 and are compared to total employee-employer tax rates in column 5. The resulting surplus or deficiency is presented in column 6. As previously explained, cost rates represent program expenditures as a percentage of effective taxable payroll. The definition of effective taxable payroll is slightly different for OASDI compared to HI, due to the different tax treatment of self-employment earnings. This difference does not materially affect the comparisons. It should also be noted that the cost rates shown exclude any cost associated with rebuilding the trust funds to a level suitable as a contingency reserve, or the cost of maintaining such a level once reached. The text of this report and Table 8 of the HI Annual Report present these additional costs.

TABLE F2.—ESTIMATED COST RATES OF THE OASI, DI, AND HI PROGRAMS UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH TAX RATES, CALENDAR YEARS 1982-2006

[As percent of taxable payroll[1]]

Calendar year	Estimated cost rate[2] OASI	DI	HI	Total	Total tax rate	Difference[3]
Alternative II-A:						
1982	10.18	1.33	[4]2.54	14.05	13.40	-0.65
1983	10.21	1.25	2.68	14.13	13.40	-.73
1984	10.22	1.19	2.80	14.21	13.40	-.81
1985	10.07	1.13	2.94	14.14	14.10	-.04
1986	9.91	1.09	3.08	14.08	14.30	.22
1987	9.75	1.06	3.21	14.02	14.30	.28
1988	9.63	1.03	3.37	14.03	14.30	.27
1989	9.53	1.02	3.52	14.07	14.30	.23
1990	9.45	1.01	3.68	14.15	15.30	1.15
1991	9.38	1.01	3.84	14.23	15.30	1.07
1992	9.35	1.03	4.03	14.40	15.30	.90

TABLE F2.—ESTIMATED COST RATES OF THE OASI, DI, AND HI PROGRAMS UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH TAX RATES, CALENDAR YEARS 1982-2006 (Cont.)
[As percent of taxable payroll[1]]

Calendar year	Estimated cost rate[2]				Total tax rate	Difference[3]
	OASI	DI	HI	Total		
Alternative II-A: (Cont.)						
1993	9.33	1.04	4.23	14.60	15.30	.70
1994	9.29	1.05	4.41	14.75	15.30	.55
1995	9.25	1.07	4.59	14.90	15.30	.40
1996	9.15	1.10	4.76	15.02	15.30	.28
1997	9.07	1.13	4.94	15.14	15.30	.16
1998	9.00	1.16	5.11	15.26	15.30	.04
1999	8.92	1.18	5.26	15.35	15.30	-.05
2000	8.82	1.20	5.40	15.43	15.30	-.13
2001	8.73	1.23	5.54	15.50	15.30	-.20
2002	8.68	1.25	5.69	15.63	15.30	-.33
2003	8.66	1.28	5.84	15.78	15.30	-.48
2004	8.65	1.32	6.00	15.97	15.30	-.67
2005	8.68	1.37	6.18	16.23	15.30	-.93
2006	8.72	1.39	6.36	16.47	15.30	-1.17
25-year average (1982-2006)	9.31	1.16	4.40	14.86	14.86	([5])
Alternative II-B:						
1982	10.42	1.36	[4]2.60	14.38	13.40	-.98
1983	10.38	1.27	2.75	14.40	13.40	-1.00
1984	10.42	1.21	2.90	14.53	13.40	-1.13
1985	10.52	1.18	3.06	14.76	14.10	-.66
1986	10.55	1.16	3.22	14.92	14.30	-.62
1987	10.57	1.14	3.38	15.09	14.30	-.79
1988	10.56	1.12	3.55	15.24	14.30	-.94
1989	10.55	1.11	3.74	15.39	14.30	-1.09
1990	10.54	1.10	3.93	15.57	15.30	-.27
1991	10.49	1.10	4.12	15.71	15.30	-.41
1992	10.43	1.11	4.33	15.87	15.30	-.57
1993	10.39	1.12	4.57	16.08	15.30	-.78
1994	10.33	1.13	4.78	16.24	15.30	-.94
1995	10.27	1.14	5.00	16.41	15.30	-1.11
1996	10.18	1.17	5.21	16.56	15.30	-1.26
1997	10.07	1.20	5.42	16.69	15.30	-1.39
1998	9.96	1.23	5.64	16.83	15.30	-1.53
1999	9.85	1.25	5.82	16.93	15.30	-1.63
2000	9.75	1.28	6.01	17.04	15.30	-1.74
2001	9.66	1.30	6.20	17.16	15.30	-1.86
2002	9.58	1.32	6.40	17.29	15.30	-1.99
2003	9.52	1.35	6.60	17.47	15.30	-2.17
2004	9.48	1.39	6.80	17.68	15.30	-2.38
2005	9.50	1.44	7.03	17.97	15.30	-2.67
2006	9.53	1.46	7.26	18.26	15.30	-2.96
25-year average (1982-2006)	10.14	1.23	[4]4.81	16.18	14.86	-1.32

[1]Effective taxable payroll is slightly different for OASDI compared to HI, due to the different tax treatment of self-employment earnings. The difference does not materially affect the comparisons.

[2]Cost rates exclude amounts required for trust fund building and maintenance.

[3]The difference is the tax rate minus the OASDHI cost rate. Positive differences are referred to as surpluses, and negative differences as deficits.

[4]Differs from corresponding figure shown in HI Annual Report due to exclusion of adjustment for interfund loan in 1982. See HI Annual Report for details of adjustment.

[5]Between 0.000 percent and 0.005 percent.

Note: The definitions of alternatives II-A and II-B, cost rate, tax rate, and taxable payroll are presented in the text.

The pattern of projected OASI and DI cost rates for the balance of this century has already been discussed in this report. The HI costs as a percentage of taxable payroll are projected to continue increasing throughout this period under both alternatives II-A and II-B, for reasons described in the HI Annual Report. Total OASDI and HI costs would also increase from their current level of about 14 percent of taxable payroll, reaching 16.47 percent by the year 2006 under alternative II-A and 18.26 percent under alternative II-B.

Under alternative II-A, projected total cost rates for OASDI and HI combined exceed the combined employee-employer tax rates until 1986. Tax income would then exceed expenditures until about the year 2000, when annual shortfalls would recur, with annual expenditures exceeding total payroll tax income by increasingly larger amounts in each year. On average, over the 25-year period, scheduled OASDHI tax income equals OASDHI costs under alternative II-A. Under the less favorable economic conditions assumed in alternative II-B, however, combined program costs are projected to exceed total payroll tax income in every year 1982-2006, with the shortfalls increasing in magnitude over time. On average during this period, an actuarial deficit of 1.32 percent of taxable payroll is projected under alternative II-B.

APPENDIX G.—STATEMENT OF ACTUARIAL OPINION

It is my opinion (1) that the techniques and methodology used herein in evaluating the actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting cost estimates are, in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the experience and expectations of the program.

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