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**1981 ANNUAL REPORT OF
THE BOARD OF TRUSTEES OF THE
FEDERAL HOSPITAL INSURANCE
TRUST FUND**

COMMUNICATION

From

**THE BOARD OF TRUSTEES,
FEDERAL HOSPITAL INSURANCE
TRUST FUND**

Transmitting

**THE 1981 ANNUAL REPORT OF THE BOARD,
PURSUANT TO
SECTION 1817(b) OF THE SOCIAL SECURITY ACT,
AS AMENDED**

LETTER OF TRANSMITTAL

Board of Trustees of the
Federal Hospital Insurance Trust Fund
Washington, D.C, July 2, 1981

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

SIR: We have the honor of transmitting to you the 1981 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund (the 16th such report), in compliance with the provisions of section 1817(b) of the Social Security Act.

Respectfully,

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

RAYMOND J. DONOVAN,
Secretary of Labor,
and Trustee

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

CAROLYNE K. DAVIS, Ph.D.,
Administrator of the Health Care Financing
Administration, and Secretary,
Board of Trustees

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1981 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL HOSPITAL INSURANCE TRUST FUND

THE BOARD OF TRUSTEES

The Federal Hospital Insurance Trust Fund, established on July 30, 1965, is held by the Board of Trustees under the authority of section 1817(b) of the Social Security Act, as amended. 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 Administrator of the Health Care Financing Administration is Secretary of the Board. The Board of Trustees reports to the Congress once each year in compliance with section 1817(b)(2) of the Social Security Act. This is the 1981 annual report, the sixteenth such report.

HIGHLIGHTS

- (a) Disbursements of the hospital insurance trust fund in fiscal year 1980 were \$24.3 billion, an increase of 19.4 percent over fiscal year 1979. Most of this increase was due to a substantial rise in the utilization and in the cost of hospital services. Increases in both payroll and nonpayroll expenses in hospitals were greater than comparable increases in the general economy.
- (b) Income to the trust fund amounted to \$25.4 billion, representing an increase of 16.0 percent in fiscal year 1980 over 1979. The majority of this increase was due to higher average earnings for persons in covered employment and increases in the maximum taxable amount of annual earnings.
- (c) The trust fund increased from \$13.4 billion to \$14.5 billion at the end of fiscal year 1980. The effective annual rate of interest earned by the assets of the hospital insurance trust fund for the year ending June 30, 1980, was 8.2 percent.
- (d) The Secretary of Health and Human Services promulgated an inpatient deductible of \$204 for calendar year 1981 and a monthly premium of \$89 for noninsured enrollees for the 12-month period beginning July 1981.
- (e) Approximately 24.6 million persons aged 65 and over were protected by the hospital insurance program in July 1980. This represents about 95 percent of the aged population. An additional 2.9 million disabled beneficiaries had protection in the same month.

SOCIAL SECURITY AMENDMENTS SINCE THE 1980 TRUSTEES REPORT

Public Law 96-473, which was enacted October 19, 1980, enabled persons who were eligible for Social Security benefits (under section 202 of title II), but who had not applied for entitlement, to apply separately for hospital insurance benefits. The law became effective upon enactment.

Public Law 96-499, "The Omnibus Reconciliation Act of 1980" which was enacted on December 5, 1980, contains many provisions having impact on the Federal Hospital Insurance Trust Fund. They are:

- (1) Medicare reimbursement is limited to the State Medicaid SNF rate, rather than the acute care rate, where a beneficiary requiring a lower level of care is inappropriately placed in a hospital. If occupancy is over 80 percent, hospitals will be paid the inpatient rate. Effective June 1, 1981.
- (2) Through agreement with the Secretary, rural hospitals having 50 or fewer beds can be certified to use their acute and long-term care beds as "swing beds." Such hospitals would receive payments at the statewide Medicaid SNF rate. Effective June 1, 1981.
- (3) The requirement that a beneficiary have a three-day period of hospitalization prior to becoming eligible for home health benefits under the HI program is eliminated effective July 1, 1981.
- (4) An unlimited number of home health visits is provided, and occupational therapy becomes a qualifying criterion for such services. Effective July 1, 1981.
- (5) The Medicare, Medicaid, and Maternal and Child Health Programs are required to perform common audits on providers which are reimbursed on a cost-related basis. Effective April 1, 1981.
- (6) Coverage is extended for inpatient alcohol detoxification services within certain free-standing facilities. Effective April 1, 1981.
- (7) Coverage is extended for hospital stays for certain dental services where the severity of the dental procedure warrants hospitalization. Effective July 1, 1981.
- (8) A beneficiary may transfer from a hospital to a skilled nursing facility within 30 days and qualify for post-hospital extended care benefits. (This period was previously 14 days.) Effective upon enactment.
- (9) Medicare would be the secondary payor in accident cases where care could be paid for under liability coverage or under no-fault insurance. Effective upon enactment.

(10) The Periodic Interim Payment (PIP) method of reimbursement is deferred for the last 3 weeks of September 1981.

NATURE OF THE TRUST FUND

The Federal Hospital Insurance Trust Fund was established on July 30, 1965, as a separate account in the United States Treasury. All the financial operations of the hospital insurance system are handled through this fund.

The major sources of receipts of this fund are (1) amounts appropriated to it 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 hospital insurance program and (2) amounts deposited in it representing contributions paid by workers employed by State and local governments and by such employers with respect to work covered by the program. The coverage of the hospital insurance program includes workers covered under the old-age, survivors, and disability insurance program and those covered under the railroad retirement program.

All employees, and their employers, in employment covered by the program are required to pay contributions with respect to the wages of individual workers. Cash tips, covered as wages beginning in 1966 under the 1965 amendments, are an exception. Employees pay contributions with respect to cash tips but, prior to 1978, employers did not. Beginning in 1978, under the 1977 amendments, employers are required to pay contributions on that part of the 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 self-employment income.

In general, an individual's contributions are computed on annual wages or self-employment income, or both wages and self-employment income combined, up to a specified maximum annual amount, with the contributions being determined first on the wages and then on any self-employment income up to the annual maximum amount.

The hospital insurance contribution rates applicable to taxable earnings in each of the calendar years 1966 and later are shown in table 1. For 1982 and later, the contribution rates shown are the rates scheduled in the provisions of present law. The maximum amount of annual earnings taxable in each year 1966-81 are also shown. For 1975-78, the contribution and benefit bases were determined under the automatic increase provisions in section 230 of the Social Security Act. In 1979, 1980, and 1981, the bases increased to the specified amounts as provided under the 1977 amendments. After 1981, the automatic increase provisions will again be applicable.

Except for amounts received under State agreements (to effectuate coverage under the program for State and local government employees) and deposited directly in the trust fund, all contributions are collected by the Internal Revenue Service and deposited in the general fund of the Treasury as internal revenue collections. The contributions received are immediately and automatically appropriated to the trust fund, on an estimated basis. The exact amount of contributions received is not known initially since hospital insurance contributions, old-age, survivors, and disability insurance contributions, and individual income taxes are not separately identified in collection reports received by the Treasury Department. Periodic adjustments are subsequently made to the extent that the estimates are found to differ from the amounts of contributions actually payable on the basis of reported earnings.

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

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

The income and expenditures of the trust fund 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 hospital insurance program.

Sections 217(g) and 229(b) of the Social Security Act authorize annual reimbursements from the general fund of the Treasury to the hospital insurance trust fund for any costs arising from the granting of noncontributory wage credits for military service, according to periodic determinations made by the Secretary of Health and Human Services.

Section 231 of the Social Security Act authorizes reimbursement from the general fund of the Treasury to the hospital insurance trust fund for any costs arising from the granting of noncontributory wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of persons of Japanese ancestry.

Under section 103 of the Social Security Amendments of 1965, hospital insurance benefits are provided to certain uninsured persons aged 65 and over. Such payments are made initially from the hospital insurance trust fund, with reimbursement from the general fund of the Treasury for the costs, including administrative expenses, of the payments. The reimbursements so made are on a provisional basis and

are subject to adjustment, with appropriate interest allowances, as the actual experience develops and is analyzed.

Section 1818 of the Social Security Act provides that certain persons not eligible for hospital insurance protection either on an insured basis or on the uninsured basis described in the previous paragraph may obtain protection by enrolling in the program and paying a monthly premium.

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

Expenditures for benefit payments and administrative expenses under the hospital insurance program are paid from the trust fund. All expenses incurred by the Department of Health and Human Services and by the treasury Department in carrying out the provisions of title XVIII of the Social Security Act pertaining to the hospital insurance program and of the Internal Revenue Code relating to the collection of contributions are charged to the trust fund. The Secretary of Health and Human Services certifies benefit payments to the Managing Trustee, who makes the payments from the trust fund in accordance therewith.

Hospitals, at their option, are permitted to combine their billing for both hospital and physician components of radiology and pathology services rendered hospital inpatients by hospital-based physicians. Where hospitals elect this billing procedure, payments are made initially from the hospital insurance trust fund, with reimbursement from the supplementary medical insurance trust fund. The reimbursements so made are on a provisional basis and are subject to adjustment, with appropriate interest allowance, as the actual experience develops and is analyzed.

The Social Security Amendments of 1972 provide that hospital admissions under all Federal Health Insurance programs be reviewed by Professional Standards Review Organizations. Under section 1168 of the Social Security Act, payments for the costs of such reviews are made initially from the hospital insurance trust fund, with reimbursement from the general fund of the Treasury for the costs of reviews of admissions covered under Federal programs other than the hospital insurance program.

The Social Security Amendments of 1967 and 1972 authorize the Secretary of Health and Human Services to develop and conduct a broad range of experiments and demonstration projects designed to determine various methods of increasing efficiency and economy in providing health care services, while maintaining the quality of such services, under the hospital insurance and supplementary medical insurance

programs. A sizable portion of the costs of such experiments and demonstration projects are paid from the hospital insurance and supplementary medical insurance trust funds.

Congress has authorized expenditures from the trust funds for construction, rental, and lease or purchase contracts of office buildings and related facilities for use in connection with the administration of the hospital insurance program. Both the capital costs of construction financed directly through the trust funds and the rental, lease, or purchase contract costs of acquiring facilities are included in trust fund expenditures. In 1972-75, construction of several large facilities was authorized under purchase contract authority, wherein initial capital costs were borne by the private sector. Under this method of facilities acquisition, trust fund expenditures for use and ultimate Government ownership of a facility are made over periods of from 10 to 30 years. Whatever the manner of acquisition, the net worth of facilities and other fixed capital assets is not carried in the statement of the assets of the trust fund presented in this report. This is because the value of fixed capital assets does not represent funds available for benefit or administrative expenditures and, therefore, is not viewed as being a consideration in assessing the actuarial status of the funds.

That portion of the 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 fund. The law requires that such special public-debt obligations shall bear interest at a rate based on 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 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 month.

TABLE 1.—CONTRIBUTION RATES AND MAXIMUM TAXABLE AMOUNT OF ANNUAL EARNINGS

Calendar years	Maximum taxable amount of annual earnings	Contribution rate (Percent of taxable earnings)	
		Employees and employers, each	Self-employed
Past experience:			
1966	\$6,600	0.35	0.35
1967	6,600	0.50	0.50
1968-71	7,800	0.60	0.60
1972	9,000	0.60	0.60
1973	10,800	1.00	1.00
1974	13,200	0.90	0.90
1975	14,100	0.90	0.90
1976	15,300	0.90	0.90
1977	16,500	0.90	0.90
1978	17,700	1.00	1.00
1979	22,900	1.05	1.05
1980	25,900	1.05	1.05
1981	29,700	1.30	1.30
Changes scheduled in present law:			
1982-1984	Subject to	1.30	1.30
1985	automatic	1.35	1.35
1986 & later	adjustment	1.45	1.45

SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1980

A statement of the incomes and disbursements of the Federal Hospital Insurance Trust Fund in fiscal year 1980, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 2. Corresponding amounts for fiscal year 1979 are also shown in the table.

The total assets of the trust fund amounted to \$13,363 million on September 30, 1979. During fiscal year 1980, total receipts amounted to \$25,415 million, and total disbursements were \$24,288 million. The assets of the trust fund thus increased \$1,127 million during the year to a total of \$14,490 million on September 30, 1980.

Included in total receipts during fiscal year 1980 were \$20,736 million representing contributions appropriated to the trust fund at \$2,595 million representing amounts received in accordance with State agreements for coverage of state and local government employees and deposited in the trust fund. As an offset, \$87 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 \$23,244 million, representing an increase of 16.6 percent over the amount of \$19,927 million for the preceding 12-month period. This 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 \$17,700 to \$22,900 and from \$22,900 to \$25,900—that became effective on January 1, 1979, and January 1, 1980, respectively and (3) the increase in the combined tax rate from 2.0 percent to 2.1 percent—that became effective January 1, 1979.

The section entitled “Nature of the Trust Fund” referred to provisions of the Social Security Act under which certain persons aged 65 and over but not otherwise eligible for hospital insurance protection may obtain such protection by enrolling in the program and paying a monthly premium. Premiums collected from such voluntary participants in fiscal year 1980 amounted to about \$16.6 million.

In accordance with provisions for annual reimbursement from the general fund of the Treasury for the cost of granting noncontributory wage credits for military service, the Secretary of Health, Education, and Welfare determined in 1975 the level annual appropriation necessary to amortize the estimated total additional costs for military service prior to 1957. This cost is amortized over a 39-year period, which began in fiscal year 1977, with an allowance for the appropriations which were made for fiscal years 1966-76. The annual amount resulting from this determination was \$141 million.

Again, the section entitled “Nature of the Trust Fund” referred to provisions under which the hospital insurance trust fund is to be reimbursed from the general fund of the Treasury for costs of paying benefits under this program on behalf of certain uninsured persons. The reimbursement in fiscal year 1980 amounted to \$697 million, consisting of \$679 million for benefit payments, \$12 million for administrative expenses, and \$6 million due the trust fund for interest on adjustments to costs in prior fiscal years.

The section entitled “Nature of the Trust Fund” referred to provisions under which the hospital insurance trust fund is to be reimbursed from the general fund of the Treasury for the costs of reviewing hospital admissions under the Medicaid and Maternal and Child Health programs by Professional Standards Review Organizations. The reimbursement in fiscal year 1980 amounted to \$33 million.

The remaining \$1,039 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the \$24,288 million in total disbursements, \$23,796 million represented benefits paid directly from the trust fund for health services covered under title XVIII of the Social Security Act. As offsets to benefit payments, transfers were made from the supplementary medical insurance trust fund amounting to \$6 million to adjust for the loss of interest caused by the delay in transferring payments for the costs of radiology and pathology services that were paid initially from the

hospital insurance trust fund but that were liabilities of the supplementary medical insurance trust fund. Net benefit payments from the trust fund in fiscal year 1980, therefore, amounted to \$23,790 million, an increase of 19.6 percent over the corresponding amount of \$19,891 million paid during the preceding 12 months. An additional \$3 million in disbursements constituted payment for costs of experiments and demonstration projects in providing health care services.

The remaining \$494 million of disbursements was for net administrative expenses. Administrative expenses are allocated and charged directly to each of the four trust funds--old-age and survivors insurance, disability insurance, hospital insurance, and supplementary medical insurance—on the basis of provisional estimates. Similarly, the expenses of administering other programs of the Health Care Financing Administration 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 hospital insurance and supplementary medical insurance trust funds and the program management general fund account, with appropriate interest allowances.

Table 3 compares the actual experience in fiscal year 1980 with the estimates presented in the 1979 and 1980 annual reports. The section entitled “Nature of the Trust Fund” referred to the appropriation of contributions to the trust funds on an estimated basis, with subsequent periodic adjustments to account for differences from the amounts of contributions actually payable on the basis of reported earnings. In interpreting the figures in table 3, it should be noted that the “actual” amount of contributions in fiscal year 1980 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the “actual” amount of contributions in fiscal year 1980 does not reflect adjustments to contributions for fiscal year 1980 that were to be made after September 30, 1980.

The assets of the hospital insurance trust fund at the end of fiscal year 1979 totaled \$13,363 million, consisting of \$13,164 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and an undisbursed balance of \$199 million. The assets of the hospital insurance trust fund at the end of fiscal year 1980 totaled \$14,490 million, consisting of \$14,656 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and as an offset, an extension of credit of \$166 million against securities to be redeemed. This was covered by the redemption of securities early in October 1980. Table 4 shows the total assets of the fund and their distribution at the end of fiscal years 1979 and 1980.

The net increase in the par value of the investments held by the fund during fiscal year 1979 amounted to \$1,406 million. New securities at a total par value of \$24,193 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 \$22,787 million. Included in these amounts are \$21,693 million in certificates of indebtedness that were acquired and \$21,257 million in certificates of indebtedness that were redeemed during the fiscal year.

The net increase in the par value of the investments held by the fund during fiscal year 1980 amounted to \$1,493 million. New securities at a total par value of \$27,784 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 \$26,292 million. Included in these amounts are \$24,905 million in certificates of indebtedness that were acquired and \$24,803 million in certificates of indebtedness that were redeemed within the fiscal year.

The effective annual rate of interest earned by the assets of the hospital insurance trust fund during the 12 months ending on June 30, 1980, was 8.2 percent. (This period is used because interest on special issues is paid semiannually on June 30 and December 31.) The interest rate on public-debt obligations issued for purchase by the trust fund in June 1980 was 9¾ percent, payable semiannually.

**TABLE 2.—STATEMENT OF OPERATIONS OF THE HOSPITAL INSURANCE TRUST
FUND DURING FISCAL YEARS 1979 AND 1980**
(In thousands of dollars)

	Fiscal Year 1979	Fiscal Year 1980
Total assets of the trust fund, beginning of period	\$11,796,031	\$13,362,700
Receipts:		
Contributions:		
Appropriations	\$18,042,375	\$20,735,922
Deposits arising from State agreements	1,989,592	2,595,087
Gross Contributions	20,031,967	23,331,009
Less payment into the Treasury for contributions subject to refund	105,390	87,240
Net Contributions	19,926,577	23,243,769
Premiums collected from voluntary participants	16,507	16,566
Transfer from railroad retirement account	191,149	244,280
Reimbursement from the general fund of Treasury for costs of—		
Noncontributory credits for military service	141,000	141,000
Benefits for uninsured persons:		
Benefit payments	707,877	678,425
Administrative expenses	12,100	12,000
Interest on adjustments to costs in prior fiscal years	13,872	6,481
Total reimbursement for costs for benefits for uninsured persons	733,849	696,906
Review of Medicaid, and Maternal and Child Health hospital admissions	33,000	33,250
Interest:		
Interest on Investments	868,493	1,039,925
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs ¹	-884	-972
Total interest	867,609	1,038,953
Total receipts	\$21,909,691	\$25,414,724
Disbursements:		
Benefit payments:		
Paid directly from the trust fund for the costs of health services	19,896,562	23,796,365
Less transfers from the supplementary medical insurance trust fund for the reimbursement of interest loss related to transfer payments made in conjunction with the costs of radiology and pathology services ²	6,000	6,000
Net benefit payments	19,890,562	23,790,365
Costs of experiments and demonstration projects ²	7,897	3,054
Administrative expenses:		
Department of Health and Human Services ³	421,392	478,889
Treasury Department	17,354	2,813
Construction of facilities	232	2,404
Gross administrative expenses	438,979	484,106
Interfund transfers due to adjustment in allocation of:		
Administrative expenses	5,518	9,968
Costs of construction ⁴	75	46
Less receipts from sale of supplies, materials, etc.	8	29
Net administrative expenses	444,565	494,091
Total expenditures	20,343,022	24,287,511
Net addition to the trust fund	1,566,668	1,127,213
Total assets of the trust fund, end of period	\$13,362,700	\$14,489,913

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

²For explanation, see text.

³Includes administrative expenses of the intermediaries.

⁴A positive figure represents a transfer from the hospital insurance trust fund to the other trust funds. A negative figure represents a transfer to the hospital insurance trust fund from the other trust funds.

NOTE: Totals do not necessarily equal the sums of rounded components.

TABLE 3.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND, FISCAL YEAR 1980
(Dollar amounts in millions)

Item	Comparison of actual experience with estimates for fiscal year 1980 published in—				
	1980 report		1979 report		
	Actual amount	Estimated amount	Actual as percentage of estimate	Estimated amount	Actual as percentage of estimate
Net contributions	\$23,244	\$23,414	99	\$23,434	99
Benefit payments	\$23,790	\$23,399	102	\$23,450	101

TABLE 4.—ASSETS OF THE HOSPITAL INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981¹

	September 30, 1979	September 30, 1980
Investments In public-debt obligations sold only to the trust funds (special issues):		
Certificates of Indebtedness:		
9 -percent, 1980	\$1,173,357,000.00	—
11 1/8-percent, 1981	—	\$1,275,417,000.00
Bonds:		
7 1/8-percent, 1992	524,479,000.00	524,479,000.00
7 3/8-percent, 1981	165,760,000.00	—
7 3/8-percent, 1982	165,760,000.00	—
7 3/8-percent, 1983	165,760,000.00	165,760,000.00
7 3/8-percent, 1984	165,760,000.00	165,760,000.00
7 3/8-percent, 1985	165,759,000.00	165,759,000.00
7 3/8-percent, 1986	165,759,000.00	165,759,000.00
7 3/8-percent, 1987	165,759,000.00	165,759,000.00
7 3/8-percent, 1988	165,760,000.00	165,760,000.00
7 3/8-percent, 1989	165,760,000.00	165,760,000.00
7 3/8-percent, 1990	571,444,000.00	571,444,000.00
7 1/2-percent, 1981	109,372,000.00	—
7 1/2-percent, 1982	109,372,000.00	—
7 1/2-percent, 1983	109,372,000.00	109,372,000.00
7 1/2-percent, 1984	109,372,000.00	109,372,000.00
7 1/2-percent, 1985	109,373,000.00	109,373,000.00
7 1/2-percent, 1986	109,373,000.00	109,373,000.00
7 1/2-percent, 1987	109,373,000.00	109,373,000.00
7 1/2-percent, 1988	109,372,000.00	109,372,000.00
7 1/2-percent, 1989	109,372,000.00	109,372,000.00
7 1/2-percent, 1990	109,372,000.00	109,372,000.00
7 1/2-percent, 1991	680,816,000.00	680,816,000.00
7 5/8-percent, 1981	405,685,000.00	—
7 5/8-percent, 1982	405,685,000.00	296,097,000.00
7 5/8-percent, 1983	405,685,000.00	405,685,000.00
7 5/8-percent, 1984	405,685,000.00	405,685,000.00
7 5/8-percent, 1985	405,685,000.00	405,685,000.00
7 5/8-percent, 1986	405,685,000.00	405,685,000.00
7 5/8-percent, 1987	405,685,000.00	405,685,000.00
7 5/8-percent, 1988	405,684,000.00	405,684,000.00
7 5/8-percent, 1989	405,684,000.00	405,684,000.00
8 1/4-percent, 1981	45,347,000.00	—
8 1/4-percent, 1982	45,347,000.00	45,347,000.00
8 1/4-percent, 1983	45,347,000.00	45,347,000.00
8 1/4-percent, 1984	45,347,000.00	45,347,000.00
8 1/4-percent, 1985	45,347,000.00	45,347,000.00
8 1/4-percent, 1986	45,346,000.00	45,346,000.00
8 1/4-percent, 1987	45,346,000.00	45,346,000.00
8 1/4-percent, 1988	45,347,000.00	45,347,000.00
8 1/4-percent, 1989	45,347,000.00	45,347,000.00
8 1/4-percent, 1990	45,347,000.00	45,347,000.00
8 1/4-percent, 1991	45,347,000.00	45,347,000.00
8 1/4-percent, 1992	201,684,000.00	201,684,000.00
8 1/4-percent, 1993	726,163,000.00	726,163,000.00

TABLE 4.—ASSETS OF THE HOSPITAL INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1980 AND 1981¹

	September 30, 1979	September 30, 1980
8 3/4-percent, 1980	123,296,000.00	—
8 3/4-percent, 1981	47,739,000.00	—
8 3/4-percent, 1982	123,296,000.00	123,296,000.00
8 3/4-percent, 1983	123,297,000.00	123,297,000.00
8 3/4-percent, 1984	123,297,000.00	123,297,000.00
8 3/4-percent, 1985	123,297,000.00	123,297,000.00
8 3/4-percent, 1986	123,297,000.00	123,297,000.00
8 3/4-percent, 1987	123,297,000.00	123,297,000.00
8 3/4-percent, 1988	123,297,000.00	123,297,000.00
8 3/4-percent, 1989	123,297,000.00	123,297,000.00
8 3/4-percent, 1990	123,297,000.00	123,297,000.00
8 3/4-percent, 1991	123,297,000.00	123,297,000.00
8 3/4-percent, 1992	123,297,000.00	123,297,000.00
8 3/4-percent, 1993	123,297,000.00	123,297,000.00
8 3/4-percent, 1994	849,460,000.00	849,460,000.00
9 3/4-percent, 1982	—	130,210,000.00
9 3/4-percent, 1983	—	130,209,000.00
9 3/4-percent, 1984	—	130,209,000.00
9 3/4-percent, 1985	—	130,209,000.00
9 3/4-percent, 1986	—	130,210,000.00
9 3/4-percent, 1987	—	130,210,000.00
9 3/4-percent, 1988	—	130,210,000.00
9 3/4-percent, 1989	—	130,210,000.00
9 3/4-percent, 1990	—	130,210,000.00
9 3/4-percent, 1991	—	130,210,000.00
9 3/4-percent, 1992	—	130,210,000.00
9 3/4-percent, 1993	—	130,210,000.00
9 3/4-percent, 1994	—	130,210,000.00
9 3/4-percent, 1995	—	979,670,000.00
Total public-debt obligations sold only to the trust funds (special issues)	<u>\$13,113,539,000.00</u>	<u>\$14,606,077,000.00</u>
Investments in federally-sponsored agency obligations:		
Participation certificates:		
Federal Assets liquidation Trust-		
Government National Mortgage Association:		
5.20-percent, 1982	<u>50,000,000.00</u>	<u>50,000,000.00</u>
Total Investments	<u>\$13,163,539,000.00</u>	<u>\$14,656,077,000.00</u>
Undisbursed balance	<u>199,160,799.73</u>	<u>-166,163,900.03</u>
Total assets	<u>\$13,362,699,799.73</u>	<u>\$14,489,913,099.97</u>

¹ The assets are carried at par value, which is the same as book value.

**EXPECTED OPERATIONS AND STATUS OF THE
TRUST FUND DURING THE PERIOD OCTOBER 1, 1980 to
DECEMBER 31, 1983**

The expected operations of the trust fund during fiscal years 1981-83 are shown in table 5, together with the past experience of the program. The projection shown in table 5—and the entirety of this section—is based on two intermediate sets of projection assumptions labeled alternative II-A and alternative II-B, which are presented in detail in appendix A. The economic assumptions underlying these two alternative sets of assumptions are described in detail in the 1981 Annual Report of the Board of Trustees of the Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds.

The estimates of income from hospital insurance contributions are at a considerably higher level during the period projected than during the past. This occurs primarily as a result of the increases in the hospital insurance tax rate which took place on January 1, 1979, and on January 1, 1981, and the higher earnings bases scheduled in the law.

Income received through the financial interchange between the railroad retirement account and the trust fund under the provisions of the Railroad Retirement Act is estimated on the same basis as income from hospital insurance contributions. Estimates of the corresponding outgo are included in the disbursement items.

Estimated income to the trust fund which is appropriated from general revenues to reimburse the program for the cost of coverage of noninsured persons is the same as the estimates of disbursements for such persons, net of corrections for differences between costs and amounts transferred for previous years. Premium income and disbursements for other noninsured persons over age 65 who may enroll in the hospital insurance program on a voluntary basis are based on an estimated enrollment of 22,000 in fiscal year 1981.

Reimbursement from general revenues for military wage credits is projected at \$207 million for fiscal year 1982 and after. This is based on the determination made by the Secretary of Health and Human Services in 1980 of the level annual appropriations necessary to amortize the additional costs arising from these wage credits. Estimated reimbursement from general revenues for the cost, paid initially from the hospital insurance trust fund, of Professional Standard Review Organization (PSRO) review of hospital admissions under Federal programs other than the hospital insurance program is based on estimates of the payments for such reviews, net of corrections for differences between payments and amounts transferred in previous years.

The investment of new assets received during fiscal years 1981-83 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 12 5/8 percent, payable semiannually, in 1981 to 9 percent in 1983. The average effective annual rate of interest on the assets held by the hospital insurance trust fund on September 30, 1980 was 8.8 percent.

Disbursements for benefits are projected to increase sharply in fiscal years 1981-83, primarily as a result of the high rate of increase in hospital costs reimbursable under the program. The expenditures for benefit payments shown in table 5 differ slightly from those shown in the 1982 Federal budget. These estimates are based on more recent demographic and economic projections, and they do not reflect the implementation of proposed changes in regulations which were included in the budget.

The actual operation of the hospital insurance program is organized, in general, on a calendar year basis. Earnings subject to taxation and the applicable tax rates are established by calendar year, as are the inpatient deductible and other cost sharing amounts. The projected operations of the trust fund on a calendar year basis are shown in table 6, according to the same assumptions as used in table 5. The ratios of assets in the trust fund at the beginning of each calendar year to total disbursements during that year are shown in table 7 for past years and as projected through 1983.

TABLE 5.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING FISCAL YEARS 1967-83
(In millions)

(A) Income									Disbursements			Trust Fund	
Fiscal year ¹	Payroll taxes	Transfers from Railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Reimbursement for military wage credits	Reimbursement for PSRO review	Interest on investments	Total Income	Benefits Payments	Administrative Expenses ²	Total disbursements	Net increase in fund	Fund at end of year
Historical Data:													
1967	2,689	\$16	\$327	—	\$11	—	\$46	\$3,089	\$2,508	\$89	\$2,597	\$492	\$1,343
1968	3,514	44	273	—	11	—	61	3,902	3,736	79	3,815	88	1,431
1969	4,423	54	749	—	22	—	96	5,344	4,654	104	4,758	586	2,017
1970	4,785	64	617	—	11	—	137	5,614	4,804	149	4,953	661	2,677
1971	4,898	66	863	—	11	—	180	6,018	5,442	150	5,592	426	3,103
1972	5,226	66	503	—	48	—	188	6,031	6,108	167	6,276	-245	2,859
1973	7,663	63	381	—	48	—	196	8,352	6,648	194	6,842	1,510	4,369
1974	10,602	99	451	\$4	48	—	405	11,610	7,806	259	8,065	3,545	7,914
1975	11,291	132	481	6	48	—	609	12,568	10,353	259	10,612	1,956	9,870
1976	12,031	138	610	8	48	—	709	13,544	12,267	312	12,579	966	10,836
T.Q.	3,366	143	0 ³	2	0	—	5	3,516	3,315	89	3,404	112	10,948
1977	13,649	0 ⁴	803 ³	11	141	—	770	15,374	14,906	301	15,207	167	11,115
1978	16,677	214 ⁴	688	12	143 ⁵	\$29	780	18,543	17,411	451	17,862	681	11,796
1979	19,927	191	734	17	141	33	868	21,910	19,891	452	20,343	1,567	13,363
1980	23,244	244	697	17	141	33	1,039	25,415	23,790	497	24,288	1,127	14,490
Projection:													
Alternative II-A													
1981	30,242	276	659	21	141	31	1,362	32,732	27,656	453	28,109	4,623	19,113
1982	35,712	359	808	25	207	16	1,941	39,068	32,881	455	33,336	5,732	24,845
1983	39,940	401	740	29	207	15	2,539	43,871	37,399	505	37,904	5,967	30,812
Alternative II-B													
1981	30,242	276	659	21	141	31	1,362	32,732	27,656	453	28,109	4,623	19,113
1982	35,690	359	808	25	207	16	1,940	39,045	32,995	455	33,450	5,595	24,708
1983	40,113	401	749	29	207	15	2,548	44,062	37,847	508	38,355	5,707	30,415

¹For 1967 through 1976, fiscal years cover the interval from July 1 through June 30; the three-month interval from July 1, 1976, through September 30, 1976, is labeled "T.Q.," the transition quarter; fiscal years 1977-83 cover the interval from October 1 through September 30.

²Includes costs of experiments and demonstration projects

³The 1977 transfer is for benefits and administrative expenses during the

five-quarter period covering the transition quarter and fiscal year 1977

⁴The 1978 transfer is for contributions during the five-quarter period covering the transition quarter and fiscal year 1977.

⁵Includes \$2 million in reimbursement from the general revenues for costs arising from the granting of noncontributory wage credits to persons of Japanese ancestry who were interned during World War II.

TABLE 6.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1966-83
(In millions)

Calendar year	Income								Disbursements			Trust Fund	
	Payroll taxes	Transfers from Railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Reimbursement for military wage credits	Reimbursement for PSRO review	Interest on investments	Total Income	Benefits Payments	Administrative Expenses ¹	Total disbursements	Net increase in fund	Fund at end of year
Historical Data:													
1966	\$1,858	\$16	\$26	—	\$11	—	\$32	\$1,943	\$891	\$108	\$999	\$944	\$944
1967	3,152	44	301	—	11	—	51	3,559	3,353	77	3,430	129	1,073
1968	4,116	54	1,022	—	22	—	74	5,287	4,179	99	4,277	1,010	2,083
1969	4,473	64	617	—	11	—	113	5,279	4,739	118	4,857	422	2,505
1970	4,881	66	863	—	11	—	158	5,979	5,124	157	5,281	698	3,202
1971	4,921	66	503	—	48	—	193	5,732	5,751	150	5,900	-168	3,034
1972	5,731	63	381	—	48	—	180	6,403	6,318	185	6,503	-99	2,935
1973	9,944	99	451	\$2	48	—	278	10,821	7,057	232	7,289	3,532	6,467
1974	10,844	132	471	5	48	—	523	12,024	9,099	272	9,372	2,652	9,119
1975	11,502	138	621	7	48	—	664	12,980	11,315	266	11,581	1,399	10,517
1976	12,727	143	0 ²	9	141	—	746	13,766	13,340	339	13,679	88	10,605
1977	14,114	0 ³	803 ²	12	143 ⁴	—	784	15,856	15,737	283	16,019	-163	10,442
1978	17,324	214 ³	688	13	141	\$29	805	19,213	17,682	496	18,178	1,035	11,477
1979	20,768	191	734	16	141	33	942	22,825	20,623	450	21,073	1,751	13,228
1980	23,848	244	697	18	141	33	1,116	26,097	25,064	512	25,577	521	13,749
Projection:													
Alternative II-A													
1981	32,539	276	659	22	207	31	1,559	35,293	29,135	453	29,588	5,705	19,454
1982	36,641	359	808	26	207	16	2,237	40,294	33,575	470	34,045	6,249	25,703
1983	40,818	401	740	31	207	15	2,810	45,022	38,691	516	39,207	5,815	31,518
Alternative II-B													
1981	32,539	276	659	22	207	31	1,559	35,293	29,135	453	29,588	5,705	19,454
1982	36,637	359	808	26	207	16	2,241	40,294	33,732	470	34,202	6,092	25,546
1983	41,014	401	749	31	207	15	2,815	45,232	39,253	521	39,774	5,458	31,004

¹Includes costs of experiments and demonstration projects

²No transfer is made in 1976 because of the change in transfer dates from December to March. The 1977 transfer is for benefits and administrative expenses during the 15-month period beginning July 1976 and ending September 1977.

³No transfer is made in 1977 because of the change in transfer dates from August to June. The 1978 transfer is for contributions during the five-quarter period covering the transition quarter and fiscal year 1977.

⁴Includes \$2 million in reimbursement from the general revenues for costs arising from the granting of noncontributory wage credits to persons of Japanese ancestry who were interned during World War II.

**TABLE 7.—RATIO OF ASSETS IN THE FUND AT THE BEGINNING OF THE YEAR
TO DISBURSEMENTS DURING THE YEAR FOR THE HOSPITAL INSURANCE TRUST
FUND**
(In percent)

Calendar Year	Ratio
Historical Data:	
1967	28%
1968	25
1969	43
1970	47
1971	54
1972	47
1973	40
1974	69
1975	79
1976	77
1977	66
1978	57
1979	54
1980	52
Projection:	
Alternative II-A	
1981	46
1982	57
1983	66
Alternative II-B	
1981	46
1982	57
1983	64

Actuarial Status of the Trust Fund

The Board of Trustees has adopted the general financing principle that annual income to the hospital insurance program should be approximately equal to annual outlays of the program plus an amount to maintain a balance in the trust fund equal to one half year's expenditures. This principle reflects the view that a sizable fund is needed for the contingency that future income and outgo may differ substantially from projected levels, but that it is unnecessary and impractical to fund fully the future benefits of workers as they accrue the right to those future benefits.

The projected expenditures under the program, expressed as percentages of taxable payroll, are summarized for selected years over the next 25-year period in table 8. The ratio of expenditures to taxable payroll has increased from 0.95 percent in 1967 to 2.19 percent in 1980, reflecting both the higher rate of increase in hospital costs than in earnings subject to hospital insurance taxes and the extension of hospital insurance benefits to disabled beneficiaries and persons suffering from end-stage renal disease. Further increases in this ratio to 2.67 percent in 1985, and 5.04 percent by the year 2000 under alternative II-A, and 2.73 percent in 1985 and 5.44 percent by the year 2000 under alternative II-B, result from the assumption that the cost of institutional health care will continue to increase at a higher rate than taxable earnings. (See appendix A for a description of the methodology and assumptions used in these projections.)

The allowances necessary to build the trust fund to the level of a half year's disbursements and to maintain it at that level, after accounting for the offsetting effect of interest earnings, are also shown in table 8. The tax rates scheduled in the law are sufficient to build the trust fund to a level higher than a half year's disbursements and maintain it at or above the 50 percent level through most of the 1980's. However, beginning in 1988, additional financing will be required to maintain the trust fund at the desired level. For purposes of display in table 8, the allowance for trust fund building and maintenance is solely for maintaining the trust fund at the 50 percent level throughout the 25-year projection period.

The adequacy of the financing of the hospital insurance program under current law is measured by comparing on a year-by-year basis the actual tax rates specified by law with the corresponding total costs of the program, expressed as percentages of taxable payroll. If these two items are exactly equal in each year of the 25-year projection period and all projections assumptions are realized, tax revenues along with interest income will be sufficient to provide for benefits and administrative expenses for insured persons and to maintain the trust fund at the 50 percent level. In practice, however, tax rate schedules generally are

designed with rate changes occurring only at intervals of several years, rather than with continual yearly increases to match exactly with projected cost increases. To the extent that small differences between the yearly costs of the program and the corresponding tax rates occur for short periods of time and are offset by subsequent differences in the reverse direction, the substance of the financing objectives will have been met.

The projected total costs of the program under alternatives II-A and II-B expressed as percentages of taxable payroll, and the tax rates scheduled under current law are shown in table 8 for selected years over the 25-year period 1981-2005. The total cost of the program including expenditures plus trust fund building and maintenance, exceeds the tax rate in nearly every year in both projections. Furthermore, expenditures for benefits and administrative expenses alone exceed the corresponding tax rates for all future years beginning in the late 1980's. The trust fund as a percent of a year's disbursements is projected to increase to a level of about 70 percent in 1987 under alternative II-A assumptions. The trust fund is projected to decline rapidly thereafter until it is completely exhausted in about 1993. Under alternative II-B the trust fund is projected to increase to a level of about 67 percent in 1984 and then decline until it is completely exhausted in about 1991.

The actuarial balance of the hospital insurance program is defined to be the excess of the average tax rate for the 25-year valuation period over the average cost of the program, expressed as a percent of taxable payroll, for the same period. The average tax rate for the 25-year period 1981-2005 is 2.84 percent. The average cost to the program under alternative II-A is 4.02 percent of taxable payroll, composed of 3.94-percent for program expenditures and .08 percent for maintenance of the trust fund.

The average cost of the program under alternative II-B is 4.28 percent of taxable payroll, composed of 4.19 percent for program expenditures and .09 percent for maintenance of the trust fund. The resulting actuarial balances, as shown in table 9, are a deficit of 1.18 percent and 1.44 percent of taxable payroll for alternatives II-A and II-B, respectively.

Long-range cost estimates for the hospital insurance program have been made, since the beginning of the program, for the 25-year period beginning with the year of the report. A relatively long valuation period, such as 25 years, is necessary in order to depict the pattern of rising costs which will ensue if trends over the past two decades continue into the future. Even a valuation period as long as 25 years fails to present fully the future contingencies that reasonably may be expected, such as the impact of the demographic shift after the turn of the century which is discussed in the old-age, survivors, and disability insurance report. On the other hand, the degree of uncertainty concerning future hospital

costs, relative to the remainder of the economy, is sufficiently great as to limit the usefulness of projections beyond 25 years. A precise prediction of the future is not possible, even in the short range; however, both short- and long-range estimates can be made, based on reasonable assumptions, which will indicate the trend and general range of future costs.

Since future economic, demographic, and health care usage and cost experience may differ considerably from either set of intermediate assumptions on which the cost estimates were based, projections also have been prepared on the basis of two alternative sets of assumptions. The estimated operations of the hospital insurance trust fund during calendar years 1979-95 are summarized in table 10 for all four alternatives, and table 11 compares the actuarial balance under each of the four. The assumptions underlying alternatives II-A and II-B, the intermediate projections, are presented in substantial detail in appendix A. The assumptions used in preparing alternative projections I and III are also summarized in appendix A. The projections shown in the statement of expected operations and status of the trust fund through December 31, 1983, contained earlier in this report, are based on the assumptions contained in alternatives II-A and II-B.

The four alternative sets of assumptions were selected in order to indicate the general range in which the cost of the program reasonably might be expected to fall. The alternative I assumptions are somewhat more optimistic than both alternative II assumptions, resulting in a lower average cost over the 25-year period and a stronger trust fund development. Alternatives I and III provide for a fairly wide range of possible experience. Actual experience reasonably may be expected to fall within the range, but no guarantee can be made that this will be the case, particularly in light of the wide variations in experience that have occurred since the beginning of the program. The projected trust fund development under alternative III also provides a measure of the strength of the financing of the program.

An adequate financing schedule ought to be sufficiently strong to withstand, for a period of several consecutive years, conditions in the general economy and in the hospital sector which are substantially more adverse than anticipated under either alternative II-A or alternative II-B.

Under alternative II-A and alternative II-B, the trust fund as a percent of a year's disbursements is projected to increase in the early 1980's and to decline rapidly thereafter until it is completely exhausted in about 1993 and 1991, respectively. Under alternative I, the trust fund is projected to grow steadily until about 1990, then to decline steadily until the fund is completely exhausted in 1998. Under alternative III, the trust fund as a percent of a year's disbursements is projected to increase in the early 1980's, then decrease rapidly with complete

exhaustion of the fund by 1989. These projections do not reflect any reduction in disbursements due to proposed changes in regulations which were included in the 1982 Federal budget but which have not yet been implemented.

The divergence in outcomes among the four alternatives is reflected both in the estimated operations of the trust fund and in the 25-year average costs. The variations in the underlying assumptions, as shown in appendix A, can be characterized as (1) moderate in terms of magnitude of the differences on a year-by-year basis and (2) persistent over the duration of the 25-year period. Under both sets of intermediate assumptions, program costs are projected to grow at a rate which gradually declines to an ultimate level of approximately 3 percent more rapidly than taxable payroll. Under alternative I, program costs are projected to grow at a somewhat lower rate which gradually declines to an ultimate difference of 1.3 percent. Similarly, alternative III follows a pattern whereby program costs initially increase at a somewhat higher rate, gradually declining to an ultimate difference of about 5.2 percent. Recent experience has indicated that economic conditions producing results as adverse as those under alternative III can occur. In view of this and because of the wide range of possible experience, it is important that a substantial balance be maintained in the hospital insurance trust fund as a reserve for contingencies.

**TABLE 8.—COST AND TAX RATES OF THE HOSPITAL INSURANCE PROGRAM,
EXPRESSED AS A PERCENT OF TAXABLE PAYROLL ¹**

Calendar year	Expenditures under the program ¹	Trust fund building and maintenance ²	Total cost of the program	Tax rate scheduled in the law ³	Difference
Historical Data:					
1967	0.95%				
1968	1.05				
1969	1.13				
1970	1.21				
1971	1.33				
1972	1.31				
1973	1.34				
1974	1.42				
1975	1.69				
1976	1.83				
1977	1.95				
1978	2.02				
1979	2.00				
1980	2.19				
Projection:					
Alternative II-A					
1981	2.27%	.08%	2.35%	2.60%	+0.25%
1982	2.35	.08	2.43	2.60	+0.17
1983	2.43	.08	2.51	2.60	+0.09
1984	2.55	.08	2.63	2.60	-0.03
1985	2.67	.08	2.75	2.70	-0.05
1990	3.39	.08	3.47	2.90	-0.57
1995	4.27	.08	4.35	2.90	-1.45
2000	5.04	.08	5.12	2.90	-2.22
2005	5.80	.08	5.88	2.90	-2.98
Average ⁴	3.94	.08	4.02	2.84	-1.18
Alternative II-B					
1981	2.27%	.09%	2.36%	2.60%	+0.24%
1982	2.36	.09	2.45	2.60	+0.15
1983	2.46	.09	2.55	2.60	+0.05
1984	2.58	.09	2.67	2.60	-0.07
1985	2.73	.09	2.82	2.70	-0.12
1990	3.55	.09	3.64	2.90	-0.74
1995	4.55	.09	4.64	2.90	-1.74
2000	5.44	.09	5.53	2.90	-2.63
2005	6.38	.09	6.49	2.90	-3.59
Average ⁴	4.19	.09	4.28	2.84	-1.44

¹Costs attributable to insured beneficiaries only. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes.

²Allowance for maintaining the trust fund balance at the level of a half-year's outgo after accounting for the offsetting effect of interest earnings.

³Rates for employees and employers combined.

⁴Average for the 25-year period 1981-2005.

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

**TABLE 9.— ACTUARIAL BALANCE OF THE HOSPITAL INSURANCE PROGRAM,
EXPRESSED AS A PERCENT OF TAXABLE PAYROLL**

	Alternative II-A	Alternative II-B
Average contribution rate, scheduled under present law ¹	2.84%	2.84%
Average cost of the program ¹		
Expenditures, for benefit payments and administrative costs for insured beneficiaries	3.94	4.19
Maintaining the trust fund at the level of one-half year's expenditures	0.08	0.09
Total cost of the program	4.02	4.28
Actuarial balance	-1.18%	-1.44%

¹Average for the 25-year period 1981-2005.

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

**TABLE 10.—ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST
FUND DURING CALENDAR YEARS 1980-95, UNDER ALTERNATIVE SETS OF
ASSUMPTIONS**

(Dollar amounts in billions)

Calendar Year	Total Income	Total disbursements	Net Increase In fund	Fund at end of year	Ratio of assets to disbursement ¹ (percent)
ALTERNATIVE I:					
1980 ²	\$26.1	\$25.6	\$0.5	\$13.7	52%
1981	35.4	29.6	5.8	19.6	46
1982	40.7	33.8	6.9	26.5	58
1983	45.8	38.6	7.2	33.7	69
1984	50.7	43.8	6.9	40.6	77
1985	57.3	49.5	7.8	48.4	82
1986	66.3	55.5	10.8	59.3	87
1987	71.7	61.6	10.1	69.4	96
1988	75.9	67.2	8.7	78.0	103
1989	81.1	73.8	7.3	85.3	106
1990	85.5	80.3	5.1	90.4	106
1991	89.6	87.5	2.1	92.5	103
1992	94.1	95.4	-1.3	91.2	97
1993	98.5	104.0	-5.5	85.7	88
1994	103.0	112.4	-9.4	76.3	76
1995	107.6	121.3	-13.7	62.6	63
ALTERNATIVE II-A:					
1980 ²	26.1	25.6	0.5	13.7	52
1981	35.3	29.6	5.7	19.5	46
1982	40.3	34.0	6.2	25.7	57
1983	45.0	39.2	5.8	31.5	66
1984	49.7	45.1	4.6	36.1	70
1985	56.1	51.6	4.5	40.6	70
1986	65.2	58.8	6.4	47.0	69
1987	70.8	66.8	4.0	51.0	70
1988	75.5	75.2	0.3	51.3	68
1989	80.1	83.5	-3.4	47.9	61
1990	84.5	93.0	-8.5	39.3	51
1991	88.4	103.4	-15.0	24.3	38
1992	92.2	114.9	-22.7	1.6	21
1993	95.8	127.6	-31.8	(³)	1
ALTERNATIVE II-B:					
1980 ²	26.1	25.6	0.5	13.7	52
1981	35.3	29.6	5.7	19.5	46
1982	40.3	34.2	6.1	25.5	57
1983	45.2	39.8	5.5	31.0	64
1984	50.1	46.1	4.0	35.0	67
1985	56.9	53.5	3.4	38.4	65
1986	66.1	61.5	4.5	42.9	62
1987	71.7	70.3	1.4	44.4	61
1988	76.9	79.7	-2.9	41.5	56
1989	81.6	89.3	-7.7	33.8	46
1990	86.2	100.3	-14.2	19.6	34
1991	90.2	112.6	-22.4	(⁴)	17
ALTERNATIVE III:					
1980 ²	26.1	25.6	0.5	13.7	52
1981	35.5	29.6	5.9	19.7	46
1982	40.7	34.8	5.9	25.6	56
1983	45.6	41.2	4.4	29.9	62
1984	51.7	49.9	1.7	31.7	60
1985	59.6	60.2	-0.6	31.1	53
1986	70.2	72.0	-1.8	29.3	43
1987	77.3	85.6	-8.3	21.0	34
1988	83.9	101.3	-17.4	3.6	21
1989	90.3	118.8	-28.5	(⁵)	3

¹Ratio of assets in the fund at the beginning of the year to disbursements during the year.

²Figures for 1980 represent actual experience.

³Trust fund depleted in calendar year 1993.

⁴Trust fund depleted in calendar year 1991.

⁵Trust fund depleted in calendar year 1989.

NOTE: Totals do not necessarily equal the sums of rounded components.

**TABLE 11.—ACTUARIAL BALANCE OF THE HOSPITAL INSURANCE PROGRAM,
UNDER ALTERNATIVE SETS OF ASSUMPTIONS**

	Alternative			
	I	II-A	II-B	III
Average contribution rate scheduled under present law ¹	2.84%	2.84%	2.84%	2.84%
Average cost of the program, for expenditures and for trust fund maintenance ²	3.26	4.02	4.28	5.67
Actuarial balance	-0.42	-1.18	-1.44	-2.80

¹Average for the 25-year period 1981-2005.

²Average for the 25-year period 1981-2005, expressed as a percent of taxable payroll.

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

Conclusion

The present financing schedule for the hospital insurance program is not adequate to provide for the expenditures anticipated over the entire 25-year valuation period if the assumptions underlying the estimates are realized. Tax rates currently specified in the law (including the scheduled increases in 1981, 1985, and 1986) are sufficient, along with interest earnings, to support program expenditures over the next 8 to 10 years. The financing for the remainder of the 25-year valuation period is not sufficient to provide for projected benefits and administrative expenses. The average percent of payroll necessary to provide for benefits and administrative expenses plus maintenance of the trust fund at the level of a half year's disbursements exceeds the average tax rate scheduled in the law, producing an average deficit of 1.18 percent of taxable payroll under alternative II-A and 1.44 percent under alternative II-B over the entire 25-year projection period. Even under the more optimistic alternative I assumptions, the present financing schedule will result in the fund being exhausted before the turn of the century.

The trust fund balance at the beginning of 1981 was 46 percent of the projected disbursements for 1981, slightly below the level of a half year's disbursements. The ratio of fund to disbursements is projected to increase to a level of about 70 and 67 percent by the mid-1980's under alternatives II-A and II-B, respectively. The trust fund is projected to decline thereafter, until it is completely exhausted in the early 1990's under both intermediate alternatives. Under the less optimistic alternative III assumptions, the decline of the trust fund is accelerated, with complete exhaustion of the fund by 1989.

The hospital insurance trust fund is not in imminent danger of being unable to provide benefits which become payable. However, the present financing schedule is not adequate for the entire 25-year projection period: and, by about 1988, disbursements exceed income, leading to

complete exhaustion of the fund in the early 1990's. The Board recommends that Congress take action to examine ways of strengthening the long-range financing of the hospital insurance system. The Board also recommends that action be taken to curtail the rapid growth in the cost of the hospital insurance program which has occurred during recent years and which is anticipated in the future.

APPENDIX A

ACTUARIAL METHODOLOGY AND PRINCIPAL ASSUMPTIONS FOR THE HOSPITAL INSURANCE COST ESTIMATES¹

The basic methodology and assumptions for alternative II-A and alternative II-B used in the estimates for the hospital insurance program are described in this appendix. These alternatives reflect different levels of expectation as to the enactment and effectiveness of the President's economic program. In addition, sensitivity testing of program costs under alternative sets of assumptions is presented.

1. PROGRAM COSTS

The principal steps involved in projecting the future costs of the hospital insurance program are (1) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (2) projecting increases in the cost of inpatient hospital services covered under the program; (3) projecting increases in the cost of skilled nursing facility and home health agency services covered under the program; and (4) projecting increases in administrative costs. The major emphasis will be directed toward the cost of inpatient hospital services, which accounts for approximately 95 percent of benefit expenditures.

a. Projection Base

The hospital insurance program is obligated by law, to reimburse institutional providers for the reasonable cost of providing covered services to beneficiaries. In order to establish a suitable base from which to project the future costs of the program, the incurred reasonable cost of services provided must be reconstructed for the most recent period for which a reliable determination can be made. To do this, payments to providers must be attributed to dates of service, rather than to payment dates. In addition, the nonrecurring effects of any changes in regulations or administration of the program and of any items affecting only the timing and flow of payments to providers must be eliminated. As a result, the rates of increase in the incurred cost of the program differ from the increases in cash disbursements shown in tables 5 and 6.

The reasonable costs of covered services to beneficiaries are determined on the basis of provider cost reports. Payments to a provider initially are made on an "interim" basis; to adjust interim payments to the level of retroactively determined costs, a series of payments or

¹Prepared by the Division of Medicare Cost Estimates, Office of Research, Demonstrations and Statistics, Health Care Financing Administration.

recoveries is effected through the course of cost settlement with the provider. The net amounts paid to date to providers in the form of cost settlements are known; however, the incomplete data available do not permit a precise determination of the exact amounts incurred during specific periods of time. Due to the time required to obtain cost reports from providers, to verify these reports, and to perform audits (where appropriate), final settlements have lagged behind the liability for such payments or recoveries by as much as several years for some providers. Hence, the final cost of the program has not been completely determined for the most recent years of the program, and some degree of uncertainty remains even for earlier years.

Additional problems are posed by changes in administrative or reimbursement policy which have a substantial effect on either the amount or incidence of payment. The extent and timing of the incorporation of such changes into interim payment rates and cost settlement amounts cannot be determined precisely.

The process of allocating the various types of payments made under the program to the proper incurred period--using incomplete data and estimates of the impact of administrative actions--presents difficult problems, the solution to which can be only approximate. Under the circumstances, the best that can be expected is that the actual incurred cost of the program for a recent period can be estimated within a few percent. This increases the error of projection directly, by incorporating any error in estimating the base year into all future years.

b. Payments for Inpatient Hospital Costs

The hospital insurance program reimburses participating hospitals for the reasonable cost of providing covered services to beneficiaries. Because of its cost reimbursement nature, the program essentially pays for the share of aggregate inpatient hospital costs which is allocated to beneficiaries. Hence, for analysis and projection purposes, trends in program costs can be separated conceptually into (1) increases in aggregate expenditures by hospitals for all patients in producing services of the types covered by the program and (2) changes in the share of these expenditures that are for hospital insurance beneficiaries and hence will be paid by the hospital insurance program.

Increases in aggregate inpatient hospital costs can be analyzed into three broad categories:

- (1) Economic factors--the increase in unit costs that would result if hospitals' input cost increases (wage increases for hospital employees and price increases for goods and services purchased by hospitals) were the same as those for the general economy;
- (2) Volume of services--the increase in total output of units of service (as measured by hospital admissions); and

- (3) Unit input intensity--the increase in total costs due to increased labor and nonlabor input intensity (wage and price increases for hospital inputs which are more rapid than for workers and products in the general economy, plus increases in the number of hospital employees and amount of supplies and equipment used to produce a unit of service).

It has been possible to isolate some of these elements and to identify their roles in previous hospital cost increases. Table A1 shows the values of the principal components of the increases for historical periods for which data are available and the projected trends used in the estimates.

The following discussions apply to projections under both alternative II-A and alternative II-B unless otherwise indicated.

Increases in economic factors can be divided into those for payroll and those for nonpayroll expenditures. About half of hospital costs are for direct payroll expenses. This proportion has declined over the years, and a modest continuation in the decline is projected. The weighted averages of the economic factors in table A1 reflect these year-by-year proportions. Increases in average wages in the period 1966-79 generally ranged from 5½ to 7 percent per year, with the exception of somewhat higher increases in 1976, 1978, and 1979. Changes in the CPI during the same period generally varied between 2 and percent, with the exception of substantially higher rates of increases in 1974, 1975, and 1979. The increases in both average wages and CPI beyond 1979 are based on assumptions used in projecting experience under the OASDI program.

Increases in volume of services (as measured by admissions) are separated into (1) a part due to population growth and (2) a part due to changes in the average number of admissions per capita. The population projection used in this report is based on assumptions used in projecting experience under the OASDI program. Admission incidence rates increased on average 1.7 percent during the 10-year pre-Medicare period 1956-65; the trend in the period 1966-74 has been relatively consistent, with an average rate of increase of about 1 percent. Increases in admission incidence in the period 1975-79 averaged less than 1 percent. Preliminary data for 1980 show an increase in admission incidence of 2.0 percent. This level is projected to taper gradually to an ultimate rate of increase that results solely from aging in the general population (i.e., admissions per capita by age and sex ultimately are assumed to be constant, so that the increases in overall average admissions per capita are due solely to changes in the mix of age and sex).

Unit input intensity changes can be analyzed and projected in terms of payroll and nonpayroll components in a manner similar to that for economic factors. The payroll component can be divided further between unit input intensity increases related to (1) the excess of average wage increases for hospital employees over average wage increases in the

general economy and (2) increases in the average number of hospital employees per admissions.

For several years preceding the beginning of the hospital insurance program, average hospital wages and salaries (as derived from data reported by the American Hospital Association) increased at a rate of about 1 percent per year more rapidly than the rate of increase in earnings in OASDI-covered employment. During the 1966-79 period, this differential has fluctuated widely, but has averaged slightly higher than 1 percent. Several factors contributing to this differential can be identified, including (1) growth in third-party reimbursement of hospitals—through Medicare, Medicaid, and comprehensive private plans—which is likely to have weakened hospital resistance to wage demands; (2) increased proportions of highly trained and more highly paid personnel; (3) an increased degree of labor organization and activity; and (4) the fact that hospital employees historically have earned less than similarly skilled workers in other industries. Preliminary data for 1980 shows a relatively high increase in the wage differential of 2.7 percent. However, over the short term, the differential level assumed is generally consistent with experience over the last 11 years but slightly lower due to the relatively high rates of increase projected for average wages in the entire economy. The projection assumes only a modest continuation of the wage level intensity factor over the long run.

The number of hospital employees has continued to increase more rapidly than the number of admissions over the past 20 years. Increases in employee intensity averaged 2 percent per year during the 10 years preceding Medicare. The early years of the program were marked by a substantial surge in employees per admission, followed by a period of only modest increases during the imposition of economic stabilization program controls. Many of the same factors which have affected hospital wage level differentials can be identified also as contributing to the increase in employee intensity; in addition, the increased number and complexity of services provided with a given admission have been significant factors. Preliminary data for 1980 show an increase in employee intensity of about 1.6 percent. The projection assumes, in general, a continuation of this trend, gradually tapering to reflect a lower rate of industry growth than during the earlier period.

Nonlabor unit input intensity is a composite of several heterogeneous components. These include (1) price increases for goods and services that hospitals purchase which do not parallel increases in the CPI, (2) increases in the volume of medical and other supplies purchased and used per admission, and (3) increases in medical equipment and other capital assets employed in the provision of a hospital admission. Due to a lack of data, the nonlabor intensity factor cannot be separated into its component parts and must be treated as a residual. Historically, this factor has increased at a high rate and in an erratic fashion. Increases

during the 1956-65 period averaged nearly 5½ percent; these were followed by an irregular series of increases during the period 1966-72 ranging between 6 and 18½ percent. The second and third years of the controlled period 1972-74 produced increases of only 2 to 3 percent, substantially below even the increases for the 10-year pre-Medicare period. The nonlabor intensity factor declined sharply in 1979, and preliminary data for 1980 indicate that it is at about the 1979 level. The projection assumes a return to a level consistent with experience (excluding years subject to economic stabilization program controls) by 1985, followed by a gradual decline to a level consistent with experience during the decade preceding Medicare. In general, there is an inverse relationship between the level of the CPI and nonlabor intensity factor. Hence, the nonlabor intensity factor under alternative II-A, which has lower CPI projections than alternative II-B, is assumed to reach a higher level than under alternative II-B before declining to a level consistent with the pre-Medicare period.

Aggregate inpatient hospital cost—reflecting the composite of economic factors, volume of service, and unit input intensity—have exhibited a very rapid rate and irregular pattern of increases. Although the pre-Medicare period produced an average rate of increase of approximately 10½ percent, typical rates in subsequent years have tended to vary between 10 and 19 percent. Changes in the program's share of aggregate hospital costs result from (1) changes in the proportion of the population covered, including changes due to legislation; (2) changes in the relative number and value of services received by beneficiaries; and (3) the effect of administrative actions defining the services eligible for reimbursement and affecting the level of program payments. Historical and projected changes in the hospital insurance program's share of aggregate inpatient hospital costs appear in table A1, with changes in the proportion of the population covered netted from the other sources. As indicated in the table, the share of hospital costs allocated to beneficiaries has fluctuated somewhat in recent years.

The increases experienced in the proportion of the population covered reflect the more rapid rate of increase in the number of persons aged 65 and over than in the total population of the United States and, beginning in mid-1973, the coverage of certain disabled beneficiaries and persons with end-stage renal disease. Increases in the proportion of the population covered are projected to continue, reflecting a continuation of the demographic shift into categories of the population which are eligible for hospital insurance protection.

Other sources which contribute to changes in the program's share of hospital costs include changes in the relative number and value of services received by beneficiaries and the effect of administrative actions defining covered services and affecting payment levels. Data are not

available which would enable a quantitative separation between the two components for historical years. The projection assumes, over the long range, changes in these “other sources” only due to the effects of demographic shifts on the number of services received by beneficiaries as a proportion of the total number of hospital services provided for the entire population. Increases in the average age of beneficiaries and of persons not covered lead to higher expected levels of usage of hospital services by both groups, the net effect of which is reflected as changes in “other sources.”

c. Skilled Nursing Facility and Home Health Agency Costs

Historical experience with the number of days of care covered in skilled nursing facilities under the hospital insurance program has been characterized by wide swings. The number of covered days dropped very sharply in 1970 and continued to decline through 1972. This was the result of strict enforcement of regulations separating skilled nursing from custodial care. Because of the small fraction of nursing home care covered under the program, this reduction primarily reflected the determination that Medicare was not liable for payment rather than reduced usage of services. The 1972 amendments extended benefits to persons who require skilled rehabilitative services regardless of their need for skilled nursing services (the former prerequisite for benefits). This change and subsequent related changes in regulations have resulted in significant increases in the number of services covered by the program. However, recent data has indicated a decline in utilization of these services. Some continuation of this pattern is assumed for the next few years, with only modest increases projected thereafter.

Increases in the average cost per day in skilled nursing facilities under the program are caused principally by increasing payroll costs for nurses and other skilled labor required. Projected rates of increase are assumed to be about the same as increases in general wages throughout the 25-year projection period. The resulting increases in the cost of skilled nursing facility services are shown in table A2.

Program experience with home health agency costs has shown a generally upward trend. The number of visits has fluctuated somewhat from year to year, with very sharp increases appearing in the last three years. Relatively large increases are assumed for the next few years, followed by a projected pattern of increases similar to that for skilled nursing facilities. Cost per service is assumed to increase at about the same rate as increases in general wages. The resulting home health agency cost increases are shown in table A2.

d. Administrative Expenses

The costs of administering the hospital insurance program have remained relatively small, in comparison with benefit amounts,

throughout the history of the program. The ratio of administrative expenses to benefit payments has generally fallen within the range of 1 to 3 percent. The short-range projection of administrative costs is based on estimates of workloads and approved budgets for intermediaries and the Health Care Financing Administration. In the long range, administrative cost increases are based on assumed increases in workloads, primarily due to growth and aging of the population, and on assumed unit cost increases of 2 percent less than the increases in average wages shown in table A1.

2. FINANCING

In order to analyze costs and to evaluate the financing of a program supported by payroll taxes, program costs must be compared on a year-by-year basis with the taxable payroll which provides the source of income for these costs. Since the vast majority of total program costs relates to insured beneficiaries and since general revenue appropriations and premium payments are available to support the uninsured segments, the remainder of this report will focus on the financing for insured beneficiaries.

a. Taxable Payroll

Taxable payroll increases can be separated into a part due to increases in covered wages and a part due to increases in the number of covered workers. The taxable payroll projection used in this report is based on assumptions used in projecting experience under the OASDI program. Increases in taxable payroll assumed for this report are shown in table A2.

b. Relationship Between Program Costs and Taxable Payroll

The single most meaningful measure of program cost increases, with reference to the financing of the system, is the relationship between program cost increases and taxable payroll increases. If the rates of increase in both series are the same, a level tax rate over time will be adequate to support the program. However, to the extent that program costs increase more rapidly than taxable payroll, a schedule of increasing tax rates will be required to finance the system over time. Table A2 shows the resulting increases in program costs relative to taxable payroll over the 25-year projection period. These relative increases fluctuate somewhat during the 1979-81 period, due to the ad hoc increases in the maximum earnings subject to taxes. After 1981, the relative increases reduce gradually to an ultimate level of approximately 2.9 and 3.2 percent per year for alternatives II-A and II-B, respectively. The result of these increases over the duration of the projection period is a continued increase in the year-by-year ratios of program expenditures to taxable payroll, as shown in table A3.

3. SENSITIVITY TESTING OF COSTS UNDER ALTERNATIVE ASSUMPTIONS

Over the past 20 years, aggregate inpatient hospital costs for all patients have increased substantially faster than increases in average wages and prices in the general economy. As indicated in table A1, the 10-year period preceding Medicare was characterized by an average 10.4 percent increase in hospital costs, nearly 7 percent higher than the increase attributable to general wage and price increases. The 1966-71 period experienced substantially higher increases in total hospital costs, averaging 16 percent per year. Of this increase, general economic factors accounted for only 5 percent; the remaining 11 percent reflected increases in the volume of services provided and in unit input intensity. Even during the 1972-74 period of economic stabilization program controls, hospital costs increased at an average rate of about 12½ percent, over 5½ percent higher than the amount attributable to increases in average wages and in the CPI. Experience for the fully decontrolled years 1975-79 shows an average annual increase in hospital costs of almost 15 percent, of which about 10 percent is in excess of increases in general economic factors. Preliminary indications for 1980 show hospital cost increases about 5 percent higher than wages and prices in the general economy.

The sustained, high rates of hospital cost increases in the past raise serious questions concerning future cost increases which might be anticipated. Under conventional economic wisdom, the hospital industry would not be expected to sustain indefinitely the same rate of growth, relative to the general economy, experienced during the last 20 years. The growth pattern has diminished slightly in recent years, but shows no indication of halting. The most reasonable pattern of cost increase assumptions for the future, then, would fall between the two extremes of (1) an indefinite continuation of the past levels of excess of hospital cost increases over general economic factors and (2) a decline in the near term to hospital cost increase levels approaching those for the economy as a whole.

In view of the uncertainty of future cost trends, projected costs for the hospital insurance program have been prepared under four alternative sets of assumptions. A summary of the assumptions and results is shown in table A3. The sets of assumptions labeled "Alternative II-A and Alternative II-B" form the basis for the detailed discussion of hospital cost trends and resulting program costs presented throughout this report. They represent intermediate sets of cost increase assumptions, compared with the lower cost and more optimistic alternative I and the higher cost and less optimistic alternative III. Increases in the economic factors (average wages and CPI) for the four alternatives are consistent with those underlying the OASDI report.

As noted earlier, the single most meaningful measure of hospital insurance program cost increases, with reference to the financing of the system, is the relationship between program cost increases and taxable payroll increases. The extent to which program cost increases exceed increases in taxable payroll will determine how steeply tax rates must increase to finance the system over time.

Under both sets of intermediate assumptions, program costs are projected ultimately to increase approximately 3 percent faster than increases in taxable payroll. Program expenditures, which are currently about 2 percent of taxable payroll, increase to a level of about 5 and 5½ percent by the year 2000 under alternatives II-A and II-B, respectively. Hence, if all of the projection assumptions are realized over time, hospital insurance tax rates by the end of the 25-year period will have to be substantially higher than those provided in the present financing schedule (2.9 percent of taxable payroll, for 1986 and later).

Alternatives I and III contain assumptions, which result in program costs increasing, relative to taxable payroll increases, approximately 2 percent less and 2 percent more rapidly, respectively, than the results under both sets of intermediate assumptions. Under alternative I, program costs ultimately increase 1.3 percent more rapidly than increases in taxable payroll. By the year 2000, program expenditures under this alternative would be about 3.8 percent of taxable payroll. Hence, hospital insurance tax rates required by the end of the valuation period would be greater than those currently scheduled, even under the optimistic alternative I assumptions. Under alternative III, program costs ultimately increase 5.2 percent more rapidly than increases in taxable payroll. The result of this differential is a level of program expenditures in the year 2000 which is 7.7 percent of taxable payroll, about 4.8 percent higher than the 2.9 percent tax rate currently scheduled.

TABLE A1.—COMPONENTS OF HISTORICAL AND PROJECTED INCREASES HOSPITAL COSTS¹

(Percent)													
Economic Factors				Volume of Services ²		Unit Input Intensity ²				Aggregate inpatient hosp. costs ⁴	HI Share		HI Inpatient Hospital Payments
Calendar year	Average wages	CPI	Weighted average ³	Total population	Admission incidence	Wage level	Employee intensity	Nonlabor intensity	Weighted average ³		Proportion of population	Other Sources	
Historical Data:													
1956-65	3.7%	1.6%	3.0%	1.6%	1.7%	1.0%	2.0%	5.3%	4.1%	10.4%			
1966	5.5	3.0	4.6	1.1	0.5	-4.6	8.2	8.4	5.5	11.7			
1967	5.7	2.8	4.7	1.1	-0.7	3.4	6.2	18.4	13.5	18.6			
1968	6.4	4.2	5.7	1.0	0.1	3.3	4.4	11.6	9.7	16.5	0.6%	7.5%	24.6%
1969	6.6	5.4	6.6	1.0	2.6	2.6	3.5	9.9	8.2	18.4	0.5	-3.7	15.2
1970	5.4	5.9	6.0	1.1	2.4	4.5	1.3	8.3	7.3	16.8	0.5	-5.3	12.0
1971	6.6	4.3	5.9	1.0	2.0	3.5	-0.1	6.1	4.8	13.7	0.6	-0.8	13.5
1972	7.0	3.3	5.6	0.9	1.2	1.1	0.2	11.3	5.8	13.5	0.7	-3.3	10.9
1973	6.5	6.2	6.6	0.7	2.4	-1.8	0.0	3.1	0.4	10.1	5.3	1.0	16.4
1974	6.6	11.0	9.0	0.7	3.0	-0.8	2.3	2.0	1.8	14.5	6.0	3.1	23.6
1975	6.3	9.1	8.0	0.7	1.0	4.2	2.5	10.5	9.0	18.7	2.2	1.6	22.5
1976	8.8	5.8	7.5	0.7	0.9	0.6	1.5	10.9	6.6	15.7	2.2	1.1	19.0
1977	7.1	6.5	7.1	0.8	0.0	-0.1	2.9	8.5	5.8	13.6	2.2	2.2	18.1
1978	8.1	7.6	8.1	0.8	-0.1	-0.1	2.3	5.4	3.9	12.7	1.6	0.1	14.7
1979	8.4	11.1	10.0	0.9	0.8	0.1	1.3	0.5	1.0	12.7	1.6	1.9	16.2
Projection:													
Alternative II-A													
1980	8.5	13.5	11.5	0.9	2.0	2.7	1.6	0.3	2.4	16.8	1.1	2.8	20.7
1985	7.1	4.7	6.0	0.9	0.7	0.5	1.0	8.0	5.3	12.9	1.5	0.3	14.7
1990	5.1	3.0	4.0	0.8	0.4	0.5	1.0	7.0	4.8	10.0	1.3	0.3	11.6
1995	5.0	3.0	3.9	0.7	0.3	0.5	0.5	6.0	4.2	9.1	1.0	0.2	10.3
2000	5.0	3.0	3.8	0.6	0.3	0.5	0.5	5.0	3.7	8.4	0.5	0.0	8.9
2005	5.0	3.0	3.8	0.6	0.3	0.5	0.5	5.0	3.7	8.4	0.6	-0.2	8.8
Alternative II-B													
1980	8.5	13.5	11.5	0.9	2.0	2.7	1.6	0.3	2.4	16.8	1.1	2.8	20.7
1985	8.1	7.4	8.1	0.9	0.7	0.5	1.0	7.0	4.7	14.4	1.5	0.3	16.2
1990	5.4	4.0	4.7	0.8	0.4	0.5	1.0	7.0	5.0	10.9	1.3	0.4	12.6
1995	5.5	4.0	4.7	0.7	0.3	0.5	0.5	6.0	4.3	10.0	1.0	0.2	11.2
2000	5.5	4.0	4.6	0.6	0.3	0.5	0.5	5.0	3.8	9.3	0.5	0.0	9.8
2005	5.5	4.0	4.6	0.6	0.3	0.5	0.5	5.0	3.8	9.3	0.6	-0.2	9.7

¹Percent increase in year indicated over previous year.

²Based on data from the American Hospital Association through 1979.

³Weighted average of individual components, with adjustments for the effects of compounding. The weightings are based on the proportions of aggregate inpatient

hospital costs which are for payroll and for nonpayroll expenses. The adjustments for the effects of compounding are necessary to compensate fact that the various components actually are multiplicative, rather than additive as illustrated in this table.

⁴Includes hospital costs for all patients.

**TABLE A2.—RELATIONSHIP BETWEEN INCREASES IN TOTAL HI PROGRAM COSTS
AND INCREASES IN TAXABLE PAYROLL ¹**
(Percent)

Calendar year	Inpatient hospital ²	Skilled nursing facility ³	Home health agency ³	Alcoholic detoxifi- cation facility ³	Weighted average	HI admin- istrative costs ³	Total HI program costs ³	HI taxable payroll	Ratio of costs to payrolls ⁴
Alternative II-A									
1980	21.3%	8.6%	24.9%	—	21.2%	13.8%	21.0%	9.5%	10.5%
1985	15.0	10.3	11.5	8.9%	14.8	8.8	14.8	9.4	4.9
1990	11.7	7.8	8.1	11.1	11.6	6.7	11.5	6.3	4.9
1995	10.4	7.4	7.6	10.2	10.3	6.0	10.2	5.9	4.1
2000	8.9	6.6	6.9	8.7	8.8	5.4	8.8	5.9	2.8
2005	8.8	6.3	6.6	9.0	8.8	5.4	8.7	5.7	2.9
Alternative II-B									
1980	21.3	8.6	24.9	—	21.2	13.8	21.0	9.5	10.5
1985	16.6	11.5	12.5	9.8	16.4	9.9	16.3	10.2	5.5
1990	12.7	8.1	8.4	12.4	12.6	7.1	12.5	6.8	5.3
1995	11.3	7.9	8.0	10.4	11.2	6.5	11.1	6.4	4.4
2000	9.8	7.2	7.5	9.8	9.7	5.9	9.7	6.4	3.2
2005	9.7	6.8	7.1	9.8	9.7	6.0	9.7	6.2	3.2

¹Percent increase in year indicated over previous year.

²This column differs slightly from the last column of table A1, since table A1 includes all persons eligible for HI protection while this table excludes noninsured persons.

³Costs attributable to insured beneficiaries only. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes.

⁴Percent increase in the ratio of program expenditures to taxable payroll. This is equivalent to the differential between the increase in program costs and the increase in taxable payroll.

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

**TABLE A3.—SUMMARY OF ALTERNATIVE PROJECTIONS FOR THE HOSPITAL
INSURANCE PROGRAM**
(Percent)

Calendar Year	Increases In aggregate HI Inpatient hospital payments ¹				Changes in the relationship between costs and payroll ²			Expenditures as a percent of taxable payroll
	Average wages	CPI	Volume & intensity	Total	Program costs ³	Taxable payroll	Ratio of costs to payroll	
Alternative I:								
1980	8.5%	13.5%	5.3%	16.8%	21.0%	9.5%	10.5%	2.19%
1985	6.8	4.1	5.7	11.4	13.2	9.4	3.5	2.52
1990	4.6	2.0	3.9	7.1	8.7	5.2	3.4	2.97
1995	4.5	2.0	3.7	6.8	8.0	5.4	2.5	3.47
2000	4.5	2.0	3.3	6.2	6.7	5.4	1.3	3.80
2005	4.5	2.0	3.4	6.3	6.7	5.3	1.3	4.05
Alternative II-A:								
1980	8.5	13.5	5.3	16.8	21.0	9.5	10.5	2.19
1985	7.1	4.7	6.9	12.9	14.8	9.4	4.9	2.67
1990	5.1	3.0	6.0	10.0	11.5	6.3	4.9	3.39
1995	5.0	3.0	5.2	9.1	10.2	5.9	4.1	4.27
2000	5.0	3.0	4.6	8.4	8.8	5.9	2.8	5.04
2005	5.0	3.0	4.6	8.4	8.7	5.7	2.9	5.80
Alternative II-B:								
1980	8.5	13.5	5.3	16.8	21.0	9.5	10.5	2.19
1985	8.1	7.4	6.3	14.4	16.3	10.2	5.5	2.73
1990	5.4	4.0	6.2	10.9	12.5	6.8	5.3	3.55
1995	5.5	4.0	5.3	10.0	11.1	6.4	4.4	4.55
2000	5.5	4.0	4.7	9.3	9.7	6.4	3.2	5.44
2005	5.5	4.0	4.7	9.3	9.7	6.2	3.2	6.38
Alternative III:								
1980	8.5	13.5	5.3	16.8	21.0	9.5	10.5	2.19
1985	10.1	9.7	8.5	18.8	20.7	12.3	7.5	2.92
1990	8.2	7.4	7.9	15.8	17.5	9.6	7.3	4.16
1995	6.4	5.4	7.0	12.9	14.0	7.3	6.3	5.86
2000	6.0	5.0	6.5	11.9	12.3	6.9	5.1	7.70
2005	6.0	5.0	6.5	11.9	12.2	6.7	5.2	9.90

¹Percent increase in the year Indicated over the previous year. Includes hospital costs for all patients.

² Percent increase in the year Indicated over the previous year.

³Includes costs attributable to insured beneficiaries only.

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

APPENDIX B

DETERMINATION AND ANNOUNCEMENT OF THE INPATIENT HOSPITAL DEDUCTIBLE FOR 1981²

Under the authority in Section 1813(b)(2) of the Social Security Act (42 U.S.C. 1395e(b)(2)), I have determined that the Medicare inpatient hospital deductible for 1981 shall be \$204.

Section 1813 provides for an inpatient hospital deductible and certain coinsurance amounts to be deducted from the amount payable by Medicare for inpatient hospital services and post-hospital extended care services furnished an individual during a spell of illness. Section 1813(b)(2) requires the Secretary of HHS to publish, between July 1 and October 1 of each year, the amount of the inpatient hospital deductible applicable to spells of illness beginning in the following calendar year.

Because the coinsurance amounts in Section 1813 are fixed percentages of the inpatient hospital deductible for services furnished in the same spell of illness, the increase in the deductible has the effect of also increasing the amount of coinsurance the Medicare beneficiary must pay. Thus, for spells of illness beginning in 1981, the daily coinsurance for the 61st through 90th days of hospitalization (1/4 of the inpatient hospital deductible) will be \$51; the daily coinsurance for lifetime reserve days (1/2 of the inpatient hospital deductible) will be \$102; and the daily coinsurance for the 21st through the 100th days of post-hospital extended care services in a skilled nursing facility (1/8 of the inpatient hospital deductible) will be \$25.50.

Under the formula in the law, the deductible for calendar year 1981 must be equal to \$40 multiplied by the ratio of (1) the current average per diem rate for inpatient hospital services for calendar year 1979 to (2) the average per diem rate for such services in 1966. The amount so determined is rounded to the nearest multiple of \$4. The average per diem rates are based on the amounts paid to participating hospitals by Medicare for inpatient services to insured individuals, plus the deductible and coinsurance amounts.

The average per diem rate for a calendar year is computed from the inpatient hospital bills for all beneficiaries. Each bill shows the number of inpatient days of care and the interim cost (the sum of interim reimbursement, deductible, and coinsurance). The data are summarized for each year, and an average interim per diem rate computed that accurately reflects interim costs on an accrual basis.

² This statement was published in the *Federal Register* for October 1, 1980 (Vol. 45, No. 192, p.65042).

In order to reflect the change in the average per diem hospital cost under the program properly, the average interim cost must be adjusted to show the effect of final cost settlements made with each participating hospital after the end of its accounting year. The final settlements adjust the interim payment to the hospital to the actual full cost of providing covered services to beneficiaries. To the extent that the ratio of final cost to interim cost for 1979 differs from the ratio of final cost to interim cost for 1966, the increase in average interim per diem costs will not coincide with the increase in actual cost that has occurred.

The current average interim per diem rate for inpatient hospital services for calendar year 1979, based on tabulated interim costs, is \$195.63; the corresponding amount for 1966 is \$37.92. The averages are based on approximately 96 million days of hospitalization in 1979 and 30 million days in 1966 (last 6 months of the year). The ratio of final cost to interim cost is approximately 1.035 for 1979 and 1.055 for 1966. Thus, the inpatient hospital deductible is $\$40 \times (195.63 \times 1.035) / (37.92 \times 1.055) = \202.45 , which is rounded to \$204.

Dated: September 26, 1980

Patricia Roberts Harris,
Secretary

APPENDIX C

DETERMINATION AND ANNOUNCEMENT OF THE HOSPITAL INSURANCE MONTHLY PREMIUM RATE FOR THE UNINSURED AGED, FOR THE 12-MONTH PERIOD BEGINNING JULY 1, 1981 ³

Under the authority in Section 1818(d)(2) of the Social Security Act (42 U.S.C. 1395i-2(d)(2)), I have determined that the monthly Medicare hospital insurance premium for the uninsured aged for the 12 months beginning July 1, 1981, is \$89.

Section 1818 of the Social Security Act provides for voluntary enrollment in the hospital insurance program (Part A of Medicare), subject to payment of a monthly premium, of certain persons age 65 and older who are uninsured for social security or railroad retirement benefits and do not otherwise meet the requirements for entitlement to hospital insurance. (Persons insured under the Social Security or Railroad Retirement Acts need not pay premiums for hospital insurance.)

Section 1818(d)(2) of the Act requires the Secretary to determine and publish, during the last quarter of each calendar year, the amount of the monthly Part A premium for voluntary enrollment for the 12-month period beginning with the following July 1. The formula specified in this section also requires that, for the period beginning July 1, 1981, the premium must be \$33 multiplied by the ratio of (1) the 1981 inpatient hospital deductible to (2) the 1973 inpatient hospital deductible, rounded to the nearest multiple of \$1 or, if midway between multiples of \$1, to the next higher multiple of \$1.

Under Section 1813(b)(2) of the Act, 1981 inpatient hospital deductible was determined to be \$204. (See 45 FR 65042, October 1, 1980.) The 1973 deductible was actuarially determined to be \$76, although the 1973 deductible was actually promulgated to be only \$72, to comply with a ruling of the Cost of Living Council. (See 37 FR 21452, October 11, 1972.) The monthly premium for the 12-month period beginning July 1, 1981, has been calculated using the \$76 deductible for 1973, since this more closely satisfies the intent of the law. Thus, the monthly hospital insurance premium is $\$33 \times (204/76) = \88.58 , which is rounded to \$89.

Dated: December 19, 1980.

Patricia Roberts Harris,
Secretary

³ This statement was published in the *Federal Register* for December 24, 1980 (Vol. 45, No. 249, p.85160).

APPENDIX D

STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the methodology used herein in evaluating the actuarial status of the Federal Hospital Insurance Trust Fund is generally accepted within the actuarial profession, and (2) the assumptions used and the resulting cost estimates are in the aggregate reasonable for the purpose for which they were intended, taking into account the experience and expectations of the program.

Roland E. King
Acting Director, Office of Financial
and Actuarial Analysis Health Care
Financing Administration