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1984 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

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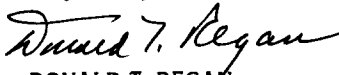
Board of Trustees of the
Federal Hospital Insurance Trust Fund
Washington, D.C., April 5, 1984

HONORABLE THOMAS P. O'NEILL, JR.
Speaker of the House of Representatives
Washington, D.C.

HONORABLE GEORGE BUSH
President of the Senate
Washington, D.C.

GENTLEMEN: We have the honor of transmitting to you the 1984 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund (the 19th such report), in compliance with the provisions of section 1817(b) of the Social Security Act.

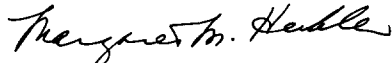
Respectfully,



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



RAYMOND J. DONOVAN
Secretary of Labor,
and Trustee



MARGARET M. HECKLER
Secretary of Health and
Human Services, and Trustee



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

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C O N T E N T S

	Page
The Board of Trustees.....	1
Highlights.....	2
Social Security Amendments Since the 1983 Trustees Report.....	3
Nature of the Trust Fund.....	4
Summary of the Operations of the Trust Fund, Fiscal Year 1983.....	13
Expected Operations and Status of the Trust Fund During the Period October 1, 1983, to December 31, 1986.....	22
Actuarial Status of the Trust Fund.....	28
Conclusion.....	37
Appendices:	
A. Actuarial Methodology and Principal Assumptions for the Hospital Insurance Cost Estimates.....	39
B. Seventy-Five Year Projections.....	56
C. Determination and Announcement of the Inpatient Hospital Deductible for 1984.....	58
D. Determination and Announcement of the Hospital Insurance Monthly Premium Rate for the Uninsured Aged, for the 12-Month Period Beginning January 1, 1984..	62
E. Statement of Actuarial Opinion.....	65

1984 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. Currently, the Board has three members who serve in an ex officio capacity. These members are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The Social Security Amendments of 1983 (Public Law 98-21, enacted into law on April 20, 1983) provide for the addition of two public members to the Board of Trustees. The two new members are to be nominated by the President for a term of four years, and are subject to confirmation by the Senate.

By law, the Secretary of the Treasury is designated as the Managing Trustee and the Administrator of the Health Care Financing Administration is designated as Secretary of the Board. The Board of Trustees reports to the Congress each year on the operation and status of the trust fund, in compliance with section 1817(b)(2) of the Social Security Act. This is the 1984 annual report, the nineteenth such report.

HIGHLIGHTS

(a) Disbursements of the hospital insurance trust fund in fiscal year 1983 were \$38.6 billion, an increase of 10.8 percent over fiscal year 1982. Most of this increase was due to a substantial rise 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 \$43.9 billion, representing an increase of 16.8 percent in fiscal year 1983 over 1982. The majority of this increase was due to an increase in the maximum amount of taxable earnings and the higher level of earnings in covered employment.

(c) The trust fund decreased from \$20.8 billion to \$13.7 billion at the end of fiscal year 1983. The effective annual rate of interest earned by the assets of the hospital insurance trust fund for the year ending June 30, 1983, was 11.2 percent.

(d) During December 1982, \$12.4 billion was loaned to the Federal Old Age and Survivor Insurance Trust Fund under the interfund borrowing provisions of Public Law 97-123. The reduction in the trust fund from \$20.8 billion to \$13.7 billion at the end of fiscal year 1983 reflects the impact of this loan.

(e) The Secretary of Health and Human Services promulgated an inpatient deductible of \$356 for calendar year 1984 and a monthly premium of \$155 for noninsured enrollees also for calendar year 1984.

(f) Approximately 26.3 million persons aged 65 and over were protected by the hospital insurance program in July 1983. An additional 2.9 million disabled and end-stage renal disease beneficiaries had protection in the same month.

SOCIAL SECURITY AMENDMENTS SINCE THE 1983 TRUSTEES REPORT

Public Law 98-90, a "Social Security Act amendment," which was enacted on August 29, 1983, amended the hospice provision of the Tax Equity and Fiscal Responsibility Act, P.L. 97-248, by setting the limit for average hospice payments per beneficiary at \$6,500 for the first year. For accounting years after October 1, 1984, this base amount is to be adjusted by the medical care expenditure category of the consumer price index (CPI). Effective upon enactment.

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 program are handled through this fund.

The major sources of receipts of the trust 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, those covered under the railroad retirement program, and Federal employees.

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. Since 1978, under the 1977 amendments, employers have been 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 maximum annual 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 1985 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 1966-84 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 are again 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 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.

Prior to May 1983, the internal revenue collections were transferred to the trust funds immediately upon receipt. In May 1983 and later, estimated total collections for each month are credited to the trust funds on the first day of the month. As the actual collections are received during the month, they are deposited in the general fund of the Treasury and remain there. The trust funds may pay interest to the general fund to reimburse it for the interest lost because of this provision.

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. These sections, as modified by the Social Security Amendments of 1983, provided for a lump sum amount in 1983 for costs arising from such wage credits. In addition, the lump sum amount included credits for the combined employer-employee HI taxes for the noncontributory wage credits for service after 1965 and before 1984. After 1983, HI taxes on military wage credits will be credited to the fund on July 1 of each year.

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(1) 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.

Prior to fiscal year 1984, hospitals, at their option, were 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 elected this billing procedure, payments were made initially from the hospital insurance trust fund. The reimbursements so made were 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. This provision was subsequently repealed.

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 is 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
1982	32,400	1.30	1.30
1983	35,700	1.30	1.30
1984	37,800	1.30	2.60
Changes scheduled in present law:			
1985	Subject to automatic	1.35	2.70
1986 & later	increase	1.45	2.90

SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1983

A statement of the incomes and disbursements of the Federal Hospital Insurance Trust Fund in fiscal year 1983, 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 1982 are also shown in the table.

The total assets of the trust fund amounted to \$20,840 million on September 30, 1982. During fiscal year 1983, total receipts amounted to \$43,940 million, and total disbursements and transfer amounts were \$51,061^{1/} million. The assets of the trust fund thus decreased \$7,121 million during the year to a total of \$13,719 million on September 30, 1983.

Included in total receipts during fiscal year 1983 were \$32,907 million representing contributions appropriated to the trust fund and \$3,563 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, \$83 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 \$36,387 million, representing an increase of 5.8 percent over the amount of \$34,390 million for the preceding 12-month period. This growth in contribution income resulted primarily from (1) the

^{1/} Includes a loan amount of \$12,437 million to the Federal Old-Age and Survivors Insurance Trust Fund.

higher level of earnings in covered employment; and (2) the two increases in the maximum annual amount of earnings taxable from \$29,700 to \$32,400 and from \$32,400 to \$35,700—that became effective on January 1, 1982, and January 1, 1983, respectively.

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 1983 amounted to about \$25.8 million.

In accordance with the provisions of the Railroad Retirement Act which coordinate the railroad retirement and the hospital insurance programs and which govern the financial interchange arising from the allocation of costs between the two systems, the Railroad Retirement Board and the Secretary of Health and Human Services determined that a transfer of \$308,600,000 from the railroad retirement account to the hospital insurance trust fund would place this fund in the same position, as of September 30, 1982, in which it would have been if railroad employment had always been covered under the Social Security Act. This amount, together with interest to the date of transfer amounting to \$49,091,000, was transferred to the trust fund in June 1983.

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 and Human

Services determined in 1980 the level annual appropriation necessary to amortize the estimated total additional costs for military service prior to 1957. This cost is amortized over a 34-year period, which began in fiscal year 1982, with an allowance for the appropriations which were made for fiscal years 1966-82. The annual amount resulting from this determination was \$207 million. The Social Security Amendments of 1983 provided for the trust fund to be credited an additional sum of \$3,456 million for such future costs and for the combined employer-employee HI taxes on gratuitous military wage credits for service after 1965 and before 1984.

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 1983 amounted to \$878 million, consisting of \$843 million for benefit payments, \$14 million for administrative expenses, and \$21 million for interest on adjustments to costs in prior fiscal years.

The remaining \$2,629 million of receipts consisted almost entirely of interest on the investments of the trust fund and interest on interfund borrowing.

Of the \$38,624 million in total disbursements, \$38,102 million represented benefits paid directly from the trust fund for health services covered under title XVIII of the Social Security Act. Included in benefit payments are transfers amounting to \$6 million per year that were made from

the supplementary medical insurance trust fund 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. Benefit payments increased 10.9 percent in fiscal year 1983 over the corresponding amount of \$34,343 million paid during the preceding 12 months.

The remaining \$522 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 affected 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 1983 with the estimates presented in the 1982 and 1983 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 1983 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions in fiscal year 1983 does not reflect adjustments to contributions for fiscal year 1983 that were to be made after September 30, 1983.

The assets of the hospital insurance trust fund at the end of fiscal year 1982 totaled \$20,840 million, consisting of \$20,800 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and an undisbursed balance of \$40 million. The assets of the hospital insurance trust fund at the end of fiscal year 1983 totaled \$13,719 million, consisting of \$13,433 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and an undisbursed balance of \$286 million. Table 4 shows the total assets of the fund and their distribution at the end of fiscal years 1982 and 1983.

The net increase in the par value of the investments held by the fund during fiscal year 1982 amounted to \$2,608 million. New securities at a total par value of \$42,229 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 \$39,621 million.

The net decrease in the par value of the investments held by the fund during fiscal year 1983 amounted to \$7,285 million. New securities at a total par value of \$49,759 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 \$57,045 million.

The effective annual rate of interest earned by the assets of the hospital insurance trust fund during the 12 months ending on June 30, 1983, was 11.2 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 1983 was 10.75 percent, payable semiannually.

TABLE 2.—STATEMENT OF OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND
DURING FISCAL YEARS 1982 AND 1983
(In thousands of dollars)

	Fiscal Year 1982	Fiscal Year 1983
Total assets of the trust fund, beginning of period	\$18,092,929	\$20,839,552
Receipts:		
Appropriation of employment taxes	\$31,016,681	\$32,906,678
Less: refunds of employment taxes	70,230	83,200
Deposits arising from State agreements	3,443,728	3,563,137
Interest on investments:		
Collected	1,818,505	1,597,831
Paid to general fund-normalized tax crediting	—	(27,112)
Amortization of premium and discount net	—	18,267
Other	20	2,994
Interest on interfund borrowing	—	1,028,148
Premiums collected from voluntary participants	24,814	25,835
Transfer from railroad retirement account	308,100	308,600
Transitional uninsured coverage	808,000	878,000
Military service credits	207,000	3,663,000
Interest on reimbursements, SSA 1/	(366)	(160)
Interest on reimbursements, HCFA 1/	11,110	9,360
Interest on reimbursements, railroad	43,292	49,091
Total receipts	<u>\$37,610,654</u>	<u>\$43,940,470</u>
Expenditures:		
Benefit payments	34,343,378	38,101,524
Administrative expenses:		
Treasury administrative expenses	19,783	11,873
Salaries and expenses, SSA	221,812	241,829
Salaries and expenses, HCFA 2/	303,462	278,325
Salaries and expenses, Office of Secretary	4,383	4,564
Construction	7,663	13,235
Cost of experiments and demonstration projects	273	414
Professional Standard Review Organization	27,746	24,424
Reimbursement of SSA expenses 3/	764	736
Reimbursement of HCFA expenses 3/	(65,233)	(53,172)
Total expenditures	34,864,031	38,623,752
Transfer from FHI 3/	<u>—</u>	<u>12,437,270</u>
Total assets of the trust fund, end of period	\$20,839,552	\$13,719,000

1/ A 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.

2/ Includes administrative expenses of the intermediaries.

3/ A 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 sum of rounded components.

TABLE 3.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE
HOSPITAL INSURANCE TRUST FUND, FISCAL YEAR 1983
(Dollar amounts in millions)

Item	Actual Amount	Comparison of actual experience with estimates for fiscal year 1983 published in—			
		1983 Report		1982 Report	
		Estimated Amount	Actual as percentage of estimate	Estimated Amount	Actual as percentage of estimate
Net contributions	\$36,387	\$36,644	99	\$37,590	97
Benefit payments	\$38,102	\$38,547	99	\$39,445	97

EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING
THE PERIOD OCTOBER 1, 1983 TO DECEMBER 31, 1986

The expected operations of the trust fund during fiscal years 1984-86 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 1984 Annual Report of the Board of Trustees of the Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds.

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 21,000 in fiscal year 1984.

Reimbursement from general revenues for military wage credits was \$3,663 million in fiscal year 1983 and \$80 million in fiscal year 1984. This was based on provisions of the Social Security Amendments of 1983, as described in the "Nature of the Trust Fund" section.

The investment of new assets received during fiscal years 1984-86 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 11 1/8 percent, payable semiannually in 1984, to 9 7/8 percent in 1986. The average effective annual rate of interest on the assets held by the hospital insurance trust fund on September 30, 1983, was 11.4 percent.

Disbursements for benefits are projected to increase sharply in fiscal years 1984-86, 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 1985 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 interfund loan to the old age and survivors insurance trust fund from the hospital insurance trust fund as provided for by the interfund borrowing provisions of Public Law 97-123 is shown in table 5. A loan would technically still be considered an asset of the hospital insurance trust fund. However, since these assets would not be immediately available for payment of hospital insurance benefits, they are subtracted out of the

fund at end of year column. A negative amount is a loan to the old age and survivors insurance trust fund. A positive amount is a repayment of principal to the hospital insurance trust fund. Interest payments on the outstanding loan are payable monthly and are included in the interest on investments and other income column.

The actual operations of the hospital insurance program are 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 1986.

TABLE 5.--OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING FISCAL YEARS 1967-86
(In millions)

Fiscal Year 1/	Payroll taxes	Transfers from railroad retirement account	Reimburse- ment for uninsured persons	Income			Total income	Disbursements			Trust Fund		
				Premiums from voluntary enrollees	Reimburse- ment for military wage credits	Interest on investments and other income 2/		Benefits payments	Adminis- trative expenses 3/	Total disburse- ments	Interfund borrowing transfers 4/	Net increase 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 5/	2	0	5	3,516	3,315	89	3,404		112	10,948
1977	13,649	0 6/	803 5/	11	141	770	15,374	14,906	301	15,207		167	11,115
1978	16,677	214 6/	688	12	143 7/	809	18,543	17,411	451	17,862		681	11,796
1979	19,927	191	734	17	141	901	21,910	19,891	452	20,343		1,567	13,363
1980	23,244	244	697	17	141	1,072	25,415	23,790	497	24,288		1,127	14,490
1981	30,425	276	659	21	141	1,341	32,863	28,907	353	29,260		3,603	18,093
1982	34,390	351	808	25	207	1,829	37,611	34,343	521	34,864		2,747	20,840
1983	36,387	358	878	26	3,663 8/	2,629	43,940	38,102	522	38,624	\$-12,437	-7,121	13,719
Alternative II-A													
1984	41,462	354	753	36	80	2,807	45,492	43,828	685	44,513		979	14,698
1985	47,256	359	740	44	85	2,910	51,394	51,118	868	51,986		-592	14,106
1986	54,149	370	719	50	94	2,731	58,113	55,726	931	56,657	7,000	8,456	22,562
Alternative II-B													
1984	41,407	354	753	36	80	2,805	45,435	43,828	685	44,513		922	14,641
1985	47,183	359	740	44	85	2,898	51,309	51,126	870	51,996		-687	13,954
1986	54,296	369	722	50	94	2,772	58,303	56,034	937	56,971	5,500	6,832	20,786

1/ For 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 1977-84 cover the interval from October 1 through September 30.

2/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.

3/ Includes costs of experiments, demonstration projects, and Peer Review Organizations.

4/ A loan to the OASI trust fund would still be an asset of the HI trust fund. However, since these assets are not immediately available for payment of HI benefits, they are subtracted out of the HI fund at end of year. A negative amount is a loan to the OASI trust fund. A positive amount is a repayment of principal to the HI trust fund.

5/ The 1977 transfer is for benefits and administrative expenses during the five-quarter period covering the transition quarter and fiscal year 1977.

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

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

8/ Includes the lump sum general revenue transfer of \$3,456 million as provided for by Section 151 of P.L. 98-21.

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

TABLE 6.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1966-86
(In millions)

Calendar Year	Payroll taxes	Transfers from railroad retirement account	Reimbursement for uninsured persons	Income			Total income	Disbursements			Trust Fund		
				Premiums from voluntary enrollees	Reimbursement for military wage credits	Interest on investments and other income 1/		Benefits payments	Administrative expenses 2/	Total disbursements	Interfund borrowing transfers 3/	Net increase 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 4/	9	141	746	13,766	13,340	339	13,679		88	10,605
1977	14,114	0 5/	803 4/	12	143 6/	784	15,856	15,737	283	16,019		-163	10,442
1978	17,324	214 5/	688	13	141	834	19,213	17,682	496	18,178		1,035	11,477
1979	20,768	191	734	16	141	975	22,825	20,623	450	21,073		1,751	13,228
1980	23,848	244	697	18	141	1,149	26,097	25,064	512	25,577		521	13,749
1981	32,959	276	659	22	207	1,603	35,725	30,342	384	30,726		4,999	18,748
1982	34,586	351	808	24	207	2,058	38,034	35,631	513	36,144	\$-12,437	-10,548	8,200
1983	37,259	358	878	27	3,456 7/	2,357	44,525	39,337	540	39,877		4,658	12,858
Projection:													
Alternative II-A													
1984	42,404	354	753	39	80	2,780	46,410	45,347	748	46,095		315	13,173
1985	48,483	359	740	45	85	2,802	52,514	51,765	883	52,648		-134	13,039
1986	56,040	370	719	51	94	2,813	60,087	57,281	947	58,228	7,000	8,859	21,898
Alternative II-B													
1984	42,327	354	753	39	80	2,776	46,329	45,347	748	46,095		234	13,092
1985	48,440	359	740	45	85	2,790	52,459	51,776	885	52,661		-202	12,890
1986	56,225	369	722	51	94	2,848	60,309	57,708	954	58,662	5,500	7,147	20,037

1/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.

2/ Includes costs of experiments, demonstration projects, and Peer Review Organizations.

3/ A loan to the OASI trust fund would still be an asset of the HI trust fund. However, since these assets are not immediately available for payment of HI benefits, they are subtracted out of the HI fund at end of year. A negative amount is a loan to the OASI trust fund. A positive amount is a repayment of principal to the HI trust fund.

4/ No 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.

5/ No 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.

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

7/ Includes the lump sum general revenue transfer of \$3,456 million as provided for by Section 151 of P.L. 98-21.

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

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)

<u>Calendar Year</u>	<u>Ratio</u>
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
1981	45
1982	52
1983	21
Projection:	
Alternative II-A	
1984	28
1985	25
1986	22
Alternative II-B	
1984	28
1985	25
1986	22

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 small 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 0.94 percent in 1967 to 2.72 percent in 1983, 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 2.83 percent in 1985, and 4.94 percent by the year 2005 under alternative II-A, and 2.83 percent in 1985 and 5.18 percent by the year 2005 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 account-

ing for the offsetting effect of interest earnings, are also shown in table 8. At the beginning of 1984, the HI fund was well below the desired level. Additional financing would be required immediately to begin building the trust fund to the level of a half year's disbursements. For purposes of display in table 8, the allowance for trust fund building is spread over a 10-year period and after that, the allowance is solely for maintaining the trust fund at the 50 percent level.

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 projection assumptions are realized, tax revenues along with interest income will be sufficient to provide for benefits and administrative expenses for insured persons and to build the trust fund and maintain it at the level of one-half year's expenditures. 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 1984-2008. The total cost of the program including expenditures, and trust fund building and maintenance, exceeds the tax rate in every year in both projections. Furthermore, expenditures for benefits and administrative expenses alone exceed the corresponding tax rates for all years. The trust fund, as a percent of a year's disbursements under both alternatives II-A and II-B, is projected to remain at a level between 20 and 40 percent through the remainder of this decade, reaching its peak in 1988 and then declining rapidly until it is completely exhausted in 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 1984-2008 is 2.88 percent. The average cost to the program under alternative II-A is 4.12 percent of taxable payroll, composed of 4.05 percent for program expenditures and .07 percent for building and maintenance of the trust fund. The average cost of the program under alternative II-B is 4.25 percent of taxable payroll, composed of 4.18 percent for program expenditures and .08 percent for building and maintenance of the trust fund. The resulting actuarial balances, as shown in table 9, are a deficit of 1.24 percent and 1.37 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. 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. Appendix B shows 75-year projections for HI. Appendix F of the OASDI report shows 75-year projections for the combined OASDHI system. Although a precise prediction of the future is not possible, even in the short range, both short- and long-range estimates, based on reasonable assumptions, can 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 1983-95 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, 1986, 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 both alternatives II-A and II-B, the trust fund as a percent of a year's disbursements is projected to remain between 20 and 40 percent through the late 1980s and then decline rapidly until it is completely exhausted in 1991. Under alternative I, the trust fund is projected to

grow until about 1988, then to decline steadily until the fund is completely exhausted in 1995. Under alternative III, the trust fund as a percent of a year's disbursements is projected to decrease, 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 1985 Federal Budget but which have not 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 2 percent more than taxable payroll. Under alternative I, program costs are projected to grow at a somewhat lower rate which gradually declines to a level about the same as for taxable payroll. Similarly, alternative III follows a pattern whereby program costs initially increase at a somewhat higher rate, gradually declining to an ultimate difference of about 4 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

Calendar Year	Expenditures under the program 1/	Trust fund building and maintenance 2/	Total cost of the program 3/	Tax rate scheduled in the law 4/	Difference
Historical Data:					
1967	0.94%				
1968	1.04				
1969	1.12				
1970	1.20				
1971	1.32				
1972	1.30				
1973	1.33				
1974	1.42				
1975	1.69				
1976	1.83				
1977	1.95				
1978	2.02				
1979	1.99				
1980	2.18				
1981	2.40				
1982	2.70				
1983	2.72 6/				

Projection:

Alternative II-A

1984	2.71%	0.07%	2.78%	2.60%	-0.18%
1985	2.83	0.08	2.91	2.70	-0.21
1990	3.40	0.12	3.53	2.90	-0.63
1995	4.03	0.06	4.09	2.90	-1.19
2000	4.52	0.05	4.58	2.90	-1.68
2005	4.94	0.04	4.98	2.90	-2.08
Average 5/	4.05	0.07	4.12	2.88	-1.24

Alternative II-B

1984	2.71	0.07	2.79	2.60	-0.19
1985	2.83	0.09	2.92	2.70	-0.22
1990	3.45	0.12	3.57	2.90	-0.67
1995	4.13	0.07	4.20	2.90	-1.30
2000	4.70	0.06	4.75	2.90	-1.85
2005	5.18	0.05	5.23	2.90	-2.33
Average 5/	4.18	0.08	4.25	2.88	-1.37

1/ Costs 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. Gratuitous credits for military service after 1956 are included in taxable payroll.

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

3/ Totals do not necessarily equal the sum of rounded components.

4/ Rates for employees and employers combined.

5/ Average for the 25-year period 1984-2008.

6/ Gratuitous credits for military service before 1984 were attributed to the year in which such service had occurred. If all such credits had been attributed to 1983, expenditures under the program in 1983 would have been lower by .19 percent of taxable payroll.

NOTE: Taxable payroll is adjusted to take into account the lower contribution rates on self-employment income before 1984, 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 <u>1</u> /.....	2.88%	2.88%
Average cost of the program: <u>1</u> /		
Expenditures, for benefit payments and administrative costs for insured beneficiaries.....	4.05	4.18
Building and maintaining the trust fund, at the level of one-half year's expenditures.....	.07	.08
Total cost of the program <u>2</u> /.....	4.12	4.25
Actuarial balance.....	-1.24%	-1.37%

1/ Average for the 25-year period 1984-2008.

2/ Totals do not necessarily equal sum of rounded components.

NOTE: Taxable payroll is adjusted to take into account the lower contribution rates 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 1983-95, UNDER ALTERNATIVE SETS OF ASSUMPTIONS
(Dollar amounts in billions)

Calendar Year	Total Income	Total disbursements	Interfund borrowing transfers 1/	Net increase in fund	Fund at end of year	Ratio of assets to disbursements 2/ (percent)
ALTERNATIVE I						
1983 3/	\$44.5	\$ 39.9		\$ 4.7	\$12.9	21%
1984	46.5	46.1		0.4	13.3	28
1985	52.8	51.8	\$ 0.4	1.3	14.6	26
1986	60.4	56.5	11.3	15.2	29.8	26
1987	65.2	61.7	0.7	4.2	34.1	48
1988	69.8	67.4		2.4	36.5	51
1989	74.2	73.2		1.0	37.4	50
1990	77.7	78.5		-0.8	36.6	48
1991	81.7	85.0		-3.2	33.4	43
1992	85.0	90.3		-5.3	28.1	37
1993	89.3	97.2		-7.9	20.2	29
1994	92.8	104.3		-11.5	8.8	19
1995	97.4	111.5		-14.1	4/	8
ALTERNATIVE II-A						
1983 3/	44.5	39.9		4.7	12.9	21
1984	46.4	46.1		0.3	13.2	28
1985	52.5	52.6		-0.1	13.0	25
1986	60.1	58.2	7.0	8.9	21.9	22
1987	64.6	64.5	5.4	5.6	27.5	34
1988	68.8	71.6		-2.6	24.8	38
1989	72.9	75.1		-6.2	18.6	31
1990	76.9	87.4		-10.5	8.1	21
1991	80.2	96.1		-15.9	5/	8
ALTERNATIVE II-B						
1983 3/	44.5	39.9		4.7	12.9	21
1984	46.3	46.1		0.2	13.1	28
1985	52.5	52.7		-0.2	12.9	25
1986	60.3	58.7	5.5	7.1	20.0	22
1987	65.1	65.5	6.9	6.6	26.6	31
1988	69.6	73.1		-3.5	23.1	36
1989	73.7	81.1		-7.4	15.7	28
1990	77.6	89.8		-12.2	3.5	17
1991	81.2	99.4		-18.2	5/	4
ALTERNATIVE III						
1983 3/	44.5	39.9		4.7	12.9	21
1984	45.9	46.1		-0.2	12.7	28
1985	50.8	52.4		-1.7	11.0	24
1986	57.8	59.0		-1.2	9.8	19
1987	62.0	66.9		-5.0	4.8	15
1988	65.6	76.1	12.4	2.0	6.9	6
1989	69.0	86.2		-17.3	6/	8

1/ A loan to the OASI trust fund would still be an asset of the HI trust fund. However, since these assets are not immediately available for payment of HI benefits, they are subtracted from the HI fund balance. A negative amount is a loan to the OASI trust fund; a positive amount is a repayment of principal to the HI trust fund.

2/ Ratio of assets in the trust fund at the beginning of the year to disbursements during the year.

3/ Figures for 1983 represent actual experience.

4/ Trust fund depleted in calendar year 1995.

5/ Trust fund depleted in calendar year 1991.

6/ Trust fund depleted in calendar year 1989.

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

CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1984 was at the level of 28 percent of estimated outgo for calendar year 1984. This is far below the 50 percent level recommended by the Board of Trustees. The tax rates specified in the law (including the scheduled increases in 1985 and 1986) are sufficient, along with interest earnings, assets in the fund, and anticipated loan repayments from the Federal Old Age and Survivors Insurance Trust Fund, to support program expenditures only over the next six to seven years. However, inadequate reserve levels make the hospital insurance trust fund vulnerable to even temporary deviations in actual experience from the projections. Thus, even though the trust fund is expected to be able to pay benefits and administrative expenses as they become due until 1991 under the intermediate assumptions, any significant adverse deviation from these projections could result in the inability of the fund to meet its obligations much sooner than projected.

Despite the short-term uncertainties regarding the ability of the trust fund to meet its obligations, the prospective payment system has made the outlays of the hospital insurance program potentially less vulnerable to excessive rates of growth in the hospital industry by providing the Secretary of Health and Human Services with some discretion over the level of payments to hospitals. It is difficult to anticipate the level of discretion which the Secretary of Health and Human Services

will exercise over the 25-year projection period in determining payments to hospitals. However, the projections in this report indicate that, even assuming reasonable use of this discretionary authority, the present financing schedule for the hospital insurance trust fund is inadequate to provide for the expenditures anticipated over the entire 25-year valuation period if the assumptions underlying the estimates are realized. The average tax rate necessary to provide for benefits and administrative expenses plus build the fund to a level of a half year's disbursements exceeds the average tax rate scheduled in the law, producing an average deficit of 1.37 percent of taxable payroll under alternative II-B and 1.24 percent under alternative II-A over the entire 25-year projection period. In order to bring the hospital insurance program into close actuarial balance for the 25-year projection period under alternative II-B assumptions, either outlays will have to be reduced by 32 percent or income increased by 48 percent.

The Board recommends that Congress consider further action to curtail the rapid growth in the cost of the hospital insurance program which has occurred in recent years and which is anticipated in the future.

APPENDIX A

ACTUARIAL METHODOLOGY AND PRINCIPAL ASSUMPTIONS
FOR THE HOSPITAL INSURANCE COST ESTIMATES*

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 two different levels of expectation of future performance of the economy. 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 payment amounts for inpatient hospital services admissions 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 expenditures for inpatient hospital services, which account for approximately 95 percent of total benefits.

a. Projection Base

Beginning with hospital accounting years starting on or after October 1, 1983, the hospital insurance program discontinued reimbursing

* Prepared by the Division of Medicare Cost Estimates, Bureau of Data Management and Strategy, Health Care Financing Administration

most hospitals on the basis of reasonable cost, and began making prospectively determined payments to hospitals for admissions covered under the program. The payment rate for each admission depends upon the Diagnosis Related Group (DRG) to which the admission belongs.

The transition from the cost-based system to the prospective payment system will be phased in over a period of four years. During the first two years of this period, the law requires that payments to hospitals, in the aggregate, be no more or less than they would have been under the reasonable cost reimbursement system. Thus, program costs during the first two years are estimated on the basis of the reasonable cost reimbursement system. 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 disbursement 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 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 projection error directly, by incorporating any error in estimating the base year into all future years.

b. Payments for Inpatient Hospital Costs

Beginning with hospital accounting years starting on or after October 1, 1983, the hospital insurance program will pay participating hospitals a prospectively determined amount for providing covered services to beneficiaries. The payment rate for each admission will depend upon the DRG to which the admission belongs.

The law contemplates that the annual increase in the payment rate for each admission will be related to a hospital input price index, which measures the increase in prices for goods and services purchased by hospitals for use in providing care to hospital inpatients. For hospital accounting years beginning before October 1, 1985, the increase in the prospective payment rate is specified as one percent plus the increase in the hospital input price index. For hospital accounting years beginning on or after October 1, 1985, the increase in the payment rate for each hospital admission is determined by the Secretary of Health and Human Services, with the advice of the Prospective Payment Assessment Commission, a special commission to be appointed to study and make recommendations with regard to the level of payments to hospitals. It is anticipated that in most years the Secretary will recommend an increase in payment per admission equal to one percent plus the increase in the hospital input price index, although the law provides that the Secretary may select an alternative increase. Thus, the projections contained in this report are based on the assumption that for hospital accounting periods beginning on or after October 1, 1985, program payments to participating hospitals for each covered admission will be increased by one percent plus the increase in the hospital input price index.

Increases in aggregate payments for inpatient hospital care covered under the hospital insurance program can be analyzed into four broad categories:

(1) Labor factors - the increase in the hospital input price index which is attributable to increases in hospital workers' hourly earnings;

(2) Non-labor factors - the increase in the hospital input price index which is attributable to factors other than hospital workers' hourly earnings, such as the costs of energy, food, and supplies;

(3) Unit input intensity allowance - the increase in inpatient hospital costs per admission which are in excess of those attributable to increases in the hospital input price index; and

(4) Volume of services - the increase in total output of units of service (as measured by hospital admissions covered by the hospital insurance program).

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 hospital workers' hourly earnings can be analyzed and projected in terms of the assumed increases in average wages in covered employment which underlie the projections of contribution income for the

hospital insurance trust fund. Two factors account for the difference between increases in hospital workers' hourly earnings and wages in covered employment: (1) fluctuations in the general economy in average hours worked per year, and (2) differences between hourly earnings increases in the general economy and in the hospital industry.

Increase in average wages in covered employment and average hourly earnings have generally moved together. However, the relationship has been affected by a long term trend towards fewer hours worked per year, as well as by fluctuations in the unemployment rate, with larger increases in the excess of hourly earnings over average wages generally associated with periods of high unemployment. This relationship is projected to continue. Hourly earnings and average wages in covered employment are generally projected to increase together with only slight deviations during the early years of the projection period.

For at least a decade preceding the beginning of the hospital insurance program, hospital workers' hourly earnings increased at a rate about 1.0 percent per year more rapidly than the rate of increase in the general economy. Since the beginning of the hospital insurance program, this differential has fluctuated widely, but has averaged between 1.5 and 2 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 have historically earned less than similarly skilled workers in other industries. Over the short term, this differential is assumed to taper gradually to a modest level, eventually declining to zero near the end of the twenty-five year projection period.

Increases in hospital price input intensity, which are primarily the result of price increases for goods and services that hospitals purchase which do not parallel increases in the Consumer Price Index (CPI), are measured as the difference between the non-labor component of the hospital input price index and the CPI. For the ten years preceding the beginning of the hospital insurance program, hospital price input intensity averaged slightly more than one percent annually. Although the level has fluctuated erratically since the hospital insurance program began, the long term average has remained at about the same general level as before the program began, averaging about 1.3 percent during the last ten years. Hospital price input intensity is expected to dip slightly under the average level during calendar years 1984 and 1985, remain at about one percent through the year 2000, and decline to about one-half percent during the last few years of the projection period.

It is contemplated that future increases in payments to participating hospitals for covered admissions will be equal to one percent plus the increase in the hospital input price index. Thus, the unit input intensity allowance, as indicated in table A1, is assumed to equal one percent in all future years. However, it should be noted that the level of the unit input intensity allowance is completely within the discretion of the Secretary

of Health and Human Services and could vary significantly from the assumed value from year to year. For historical years, the unit input intensity allowance has been set at one percent for illustrative purposes, with historical increases in excess of one percent allocated to other sources. During the projection period, increases in inpatient hospital payments in any one year from other sources are expected to be small, except during 1984 and 1985, when the requirement that prospective payment rates be set at a level which neither decreases nor increases aggregate payments to hospitals will have a substantial impact on the payment level. The long term average increase from other sources is expected to be close to zero. Under the prospective payment method, possible other sources of both relative increases and decreases in payments include (1) a shift to more or less expensive admissions (diagnosis related groups) due to changes in the demographic characteristics of the covered population, and (2) adjustments in the relative payment levels for various diagnosis related groups or addition/deletion of diagnosis related groups in response to changes in technology. As experience under the prospective payment system develops and is analyzed, it may be possible to establish a predictable trend for this component.

Other factors which contribute to increases in payments for inpatient hospital services include increases in units of service as measured by increases in inpatient hospital admissions covered under the hospital insurance program. Increases in admissions are attributable both to increases in enrollment under the hospital insurance program and to increases in admission incidence (admissions per beneficiary). The

historical and projected increases in enrollment reflect the more rapid increase in the population 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 enrollment are expected to continue, reflecting a continuation of the demographic shift into categories of the population which are eligible for hospital insurance protection. In addition, increases in the average age of beneficiaries lead to higher levels of admission incidence.

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. Recent data have indicated a decline in utilization of these services through 1981, and a slight increase in 1982. Only modest increases are projected in skilled nursing utilization, 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 four 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 cost 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 1 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 are related 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 consistent with those 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 reduce gradually to an ultimate level of approximately 2 percent per year for both 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 Medicare beneficiaries have increased substantially faster than increases in average wages and prices in the general economy. Table A1 shows the experience of the HI program over the past 11 years. As mentioned earlier, the HI program has begun making payments to hospitals on a prospective basis. The prospective payment system has made the outlays of the HI program potentially less vulnerable to excessive rates of growth in the hospital industry. Thus, the trends in aggregate HI inpatient hospital costs shown in the historical section of table A1 have little relation to the projected HI inpatient hospital payments. However, there is some uncertainty in projecting HI expenditures due to the uncertainty of the underlying economic assumptions and utilization increases. In addition, there is some uncertainty in projecting HI inpatient hospital payments due to the Secretary of Health and Human Services' discretion in setting the payment levels to hospitals.

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 about 2 percent faster than increases in taxable payroll. Program expenditures, which are currently about $2\frac{3}{4}$ percent of taxable payroll, increase to a level of about 5 percent by the year 2005 under both alternatives II-A and II-B. 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 rapidly and 2 percent more rapidly, respectively, than the results under both sets of intermediate assumptions. Under alternative I, program costs ultimately increase about the same as increases in taxable payroll. By the year 2005, program expenditures under this alternative would be about 3.5 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 about 4 percent more rapidly than increases in taxable payroll. The result of this differential is a level of program expenditures in the year 2005 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 IN HI INPATIENT HOSPITAL PAYMENTS ^{1/}
(Percent)

Calendar Year	Labor				Non-Labor			Input Price Index	Unit Input Intensity Allowance	Units of Service			HI Inpatient Hospital Costs	
	Wages in Covered Employment	Hours Worked Per Year & Other Factors	Hospital Hourly Earnings Level	Hospital Hourly Earnings	CPI	Hospital Price Input Intensity	Non-Labor Hospital Prices			HI Enrollment	Admission Incidence	Other Sources		
Historical Data:														
1972	7.3%	-0.8%	0.4%	6.8%	3.3%	1.2%	4.5%	5.9%	1.0%	1.4%	1.2%	3.6%	10.9%	
1973	6.9	-0.7	-0.7	5.5	6.2	1.7	8.0	6.5	1.0	6.5	7.1	-5.1	16.4	
1974	7.4	0.6	-0.3	7.7	11.0	2.9	14.2	10.4	1.0	6.2	0.3	4.8	23.6	
1975	6.6	1.6	1.5	9.9	9.1	2.8	12.2	10.9	1.0	3.4	0.1	5.8	22.5	
1976	8.2	-0.9	0.9	8.2	5.8	2.4	8.3	8.2	1.0	2.9	1.5	4.3	19.0	
1977	8.0	-0.5	-0.4	7.1	6.5	1.3	7.9	7.4	1.0	3.0	4.5	0.5	17.3	
1978	8.2	0.0	0.2	8.4	7.6	0.3	7.9	8.2	1.0	2.7	-1.8	4.2	14.8	
1979	8.8	-0.7	0.4	8.4	11.1	0.0	11.1	9.6	1.0	2.7	2.9	-0.4	16.4	
1980	8.6	0.4	1.5	10.6	13.5	-0.6	12.8	11.6	1.0	2.1	2.4	2.2	20.3	
1981	8.8	0.3	2.9	12.3	10.2	0.9	11.2	11.8	1.0	1.9	1.8	3.9	21.6	
1982	5.8	1.0	3.8	11.0	6.0	1.2	7.3	9.4	1.0	2.1	1.9	1.1	16.1	
1983	4.2	0.0	2.9	7.2	3.0	1.7	4.8	6.2	1.0	1.5	3.1	0.7	13.0	
Projection:														
Alternative II-A														
1984	6.0	0.0	0.4	6.4	4.4	0.8	5.2	5.9	1.0	1.8	2.0	0.7	11.8	
1985	5.7	0.6	1.3	7.7	4.6	0.5	5.1	6.6	1.0	2.1	2.0	0.4	12.5	
1986	5.7	0.6	1.3	7.7	4.5	1.0	5.5	6.8	1.0	2.0	2.0	0.0	12.1	
1987	5.6	0.6	1.3	7.6	4.2	1.0	5.2	6.6	1.0	2.0	1.5	0.0	11.4	
1988	5.6	0.6	1.3	7.6	3.9	1.0	4.9	6.5	1.0	1.9	1.5	0.0	11.2	
1989	5.5	0.5	1.2	7.3	3.6	1.0	4.6	6.2	1.0	1.8	1.5	-0.1	10.7	
1990	5.3	0.4	1.2	7.0	3.3	1.0	4.3	6.0	1.0	1.8	1.5	0.0	10.6	
1995	5.0	0.3	1.0	6.4	3.0	1.0	4.0	5.5	1.0	1.2	1.3	0.0	9.2	
2000	5.0	0.3	0.5	5.8	3.0	1.0	4.0	5.2	1.0	0.8	1.0	0.0	8.1	
2005	5.0	0.3	0.0	5.3	3.0	0.5	3.5	4.7	1.0	1.2	0.5	0.0	7.5	
Alternative II-B														
1984	5.9	0.0	0.4	6.3	4.7	0.6	5.3	5.9	1.0	1.8	2.0	0.7	11.8	
1985	6.0	0.6	1.3	8.0	5.3	0.5	5.8	7.1	1.0	2.1	2.0	-0.1	12.5	
1986	6.4	0.6	1.3	8.4	5.5	1.0	6.6	7.7	1.0	2.0	2.0	-0.1	13.0	
1987	6.2	0.6	1.3	8.2	5.2	1.0	6.3	7.4	1.0	2.0	1.5	0.1	12.3	
1988	6.0	0.6	1.3	8.0	4.7	1.0	5.7	7.1	1.0	1.9	1.5	0.0	11.8	
1989	5.7	0.5	1.2	7.5	4.3	1.0	5.3	6.6	1.0	1.8	1.5	0.0	11.2	
1990	5.5	0.4	1.2	7.2	4.0	1.0	5.0	6.3	1.0	1.8	1.5	0.0	10.9	
1995	5.5	0.3	1.0	6.9	4.0	1.0	5.0	6.2	1.0	1.2	1.3	0.0	9.9	
2000	5.5	0.3	0.5	6.3	4.0	1.0	5.0	5.8	1.0	0.8	1.0	0.0	8.7	
2005	5.5	0.3	0.0	5.8	4.0	0.5	4.5	5.4	1.0	1.2	0.5	0.0	8.2	

^{1/} Percent increase in year indicated over previous year.

TABLE A2.—RELATIONSHIP BETWEEN INCREASES IN TOTAL HI PROGRAM COSTS AND INCREASES IN TAXABLE PAYROLL ^{1/}
(Percent)

<u>Calendar year</u>	<u>Inpatient hospital 2/</u>	<u>Skilled nursing facility 3/</u>	<u>Home health agency 3/</u>	<u>Weighted average 4/</u>	<u>HI administrative costs 3/</u>	<u>Total HI program costs 3/</u>	<u>HI taxable payroll</u>	<u>Ratio of costs to payroll 5/</u>
Alternative II-A								
1984	12.1%	0.8%	18.0%	12.4%	32.9%	12.7%	13.5%	-0.7%
1985	12.7	10.9	14.7	12.8	16.0	12.8	8.0	4.5
1990	10.7	8.7	8.3	10.6	8.0	10.5	6.2	4.1
1995	9.2	7.1	7.4	9.1	6.7	9.1	5.9	3.0
2000	8.1	6.7	6.9	8.1	5.9	8.1	6.0	1.9
2005	7.5	6.5	6.6	7.4	5.7	7.4	5.8	1.6
Alternative II-B								
1984	12.1%	1.1%	18.1%	12.4%	32.9%	12.7%	13.3%	-0.5%
1985	12.7	10.8	14.6	12.8	16.2	12.9	8.2	4.4
1990	11.0	8.5	8.3	10.9	8.1	10.8	6.4	4.2
1995	10.0	7.7	7.8	9.9	7.2	9.8	6.3	3.3
2000	8.8	7.3	7.4	8.7	6.4	8.7	6.4	2.2
2005	8.2	7.0	7.2	8.1	6.2	8.1	6.3	1.8

^{1/} Percent increase in year indicated over previous year.

^{2/} This 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.

^{3/} Costs 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.

^{4/} Includes costs for hospice care in calendar years 1984 and 1985, as provided for by the Tax Equity and Fiscal Responsibility Act of 1982.

^{5/} Percent 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 tips and on multiple-employer "excess wages," as compared with the combined employer-e

TABLE A3.—SUMMARY OF ALTERNATIVE COST 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 1/			Expenditures as a percent of taxable payroll
	Average wages	CPI	Other factors 2/	Total	Program costs 3/	Taxable payroll	Ratio of costs to payroll	
ALTERNATIVE I								
1984	6.1%	3.9%	6.3%	11.8%	12.7%	13.9%	-1.0%	2.70%
1985	5.4	3.8	5.5	10.5	10.9	8.2	2.5	2.77
1990	4.7	2.6	3.0	7.0	7.1	4.6	2.5	3.09
1995	4.4	2.0	3.3	6.9	7.0	5.5	1.4	3.37
2000	4.4	2.0	2.3	5.9	5.9	5.6	0.3	3.49
2005	4.4	2.0	1.5	5.1	5.2	5.3	- .1	3.52
ALTERNATIVE II-A								
1984	6.0	4.4	6.1	11.8	12.7	13.5	-0.7	2.71
1985	5.7	4.6	6.9	12.5	12.8	8.0	4.5	2.83
1990	5.3	3.3	5.8	10.6	10.5	6.2	4.1	3.40
1995	5.0	3.0	4.7	9.2	9.1	5.9	3.0	4.03
2000	5.0	3.0	3.6	8.1	8.1	6.0	1.9	4.52
2005	5.0	3.0	3.0	7.5	7.4	5.8	1.6	4.94
ALTERNATIVE II-B								
1984	5.9	4.7	6.1	11.8	12.7	13.3	-0.5	2.71
1985	6.0	5.3	6.4	12.5	12.9	8.2	4.4	2.83
1990	5.5	4.0	5.7	10.9	10.8	6.4	4.2	3.45
1995	5.5	4.0	9.7	9.9	9.8	6.3	3.3	4.13
2000	5.5	4.0	3.5	8.7	8.7	6.4	2.2	4.70
2005	5.5	4.0	3.1	8.2	8.1	6.3	1.8	5.18
ALTERNATIVE III								
1984	5.2	5.2	6.3	11.8	12.7	12.2	0.5	2.74
1985	4.9	5.7	6.4	12.0	12.3	5.6	6.3	2.91
1990	6.2	5.0	7.6	13.8	13.6	7.1	6.1	3.88
1995	6.0	5.0	6.5	12.5	12.3	6.7	5.2	5.10
2000	6.0	5.0	5.3	11.3	11.1	6.7	4.2	6.36
2005	6.0	5.0	4.8	10.7	10.6	6.6	3.8	7.71

1/ Percent increase in the year indicated over the previous year.

2/ Other factors include hospital hourly earnings, hospital price input intensity, unit input intensity allowance and units of service as measured by admission.

3/ Includes cost attributable to insured beneficiaries only.

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

APPENDIX B
SEVENTY-FIVE YEAR PROJECTIONS

Long-range cost estimates for the hospital insurance program have been made, since the beginning of the program, for a 25-year period. The degree of uncertainty concerning future HI program costs, relative to the remainder of the economy, is sufficiently great as to limit the usefulness of projections beyond 25 years. However, 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 OASDI report. The 75-year projections presented here give a general indication of the magnitude of the cost of financing the HI program under alternative II-B assumptions during the next 75 years. Costs beyond the 25-year projection period are based upon the assumption that costs per unit of service will increase at the same rate as wages increase. Thus, changes in the outyears primarily reflect the impact of the demographic shift.

TABLE B1.--COST AND TAX RATES OF THE
HOSPITAL INSURANCE PROGRAM, EXPRESSED AS
A PERCENT OF TAXABLE PAYROLL

Calendar Year	Expenditures Under the Program 1/	Tax Rate Scheduled in the Law 2/	Difference
1984	2.71%	2.60%	-0.11%
1985	2.83	2.70	-0.13
1990	3.45	2.90	-0.55
1995	4.13	2.90	-1.23
2000	4.70	2.90	-1.80
2005	5.18	2.90	-2.28
2010	5.65	2.90	-2.75
2015	6.23	2.90	-3.33
2020	6.99	2.90	-4.09
2025	7.87	2.90	-4.97
2030	8.65	2.90	-5.75
2035	9.14	2.90	-6.24
2040	9.37	2.90	-6.47
2045	9.42	2.90	-6.52
2050	9.45	2.90	-6.55
2055	9.46	2.90	-6.56

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

2/ Rates for employers and employees combined.

APPENDIX C
DETERMINATION AND ANNOUNCEMENT
OF THE INPATIENT HOSPITAL DEDUCTIBLE FOR 1984*

Under the authority in section 1813(b)(2) of the Social Security Act (42 U.S.C. 1395e(b)(2)), the Secretary has determined that the Medicare inpatient hospital deductible for 1984 will be \$356.

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 extended care services furnished an individual. Section 1813(b)(2) requires the Secretary of HHS to determine and publish, between July 1 and October 1 of each year, the amount of the inpatient hospital deductible applicable for 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 calendar year, the increase in the deductible has the effect of also increasing the amount of coinsurance the Medicare beneficiary must pay. Thus, for inpatient hospital services or extended care services furnished in 1984, the daily coinsurance for the 61st through 90th days of hospitalization ($1/4$ of the inpatient hospital deductible) will be \$89; the daily coinsurance for lifetime reserve days ($1/2$ of the inpatient hospital deductible) will be \$178; and the daily coinsurance for the 21st through the 100th days of extended care services in a skilled nursing facility ($1/8$ of the inpatient hospital deductible) will be \$44.50.

* This statement was published in the Federal Register for September 30, 1983 (Vol. 48, No. 191, p. 44912).

Under the formula in the law, the deductible for calendar year 1984 must be equal to \$45 multiplied by the ratio of (1) the current average per diem rate for inpatient hospital services for calendar year 1982 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.

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 1982 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 1982, based on tabulated interim costs, is \$302.59; the corresponding amount for 1966 is \$37.92. The averages are based on approximately 111 million days of hospitalization in 1982 and 30 million days in 1966 (last 6 months of the year). The ratio of final cost to interim cost is approximately 1.047 for 1982 and 1.055 for 1966. Thus, the inpatient hospital deductible is $\$45 \times (302.59 \times 1.047) / (37.92 \times 1.055) = \356.36 , which is rounded to \$356.

IMPACT ANALYSIS

The inpatient hospital deductible and coinsurance amounts for the calendar year 1984 will be 17 percent higher than the 1983 amounts. The inpatient hospital deductible increased from \$304 to \$356; the daily coinsurance for the 61st through 90th days of hospitalization increased from \$76 to \$89; the daily coinsurance for lifetime reserve days increased from \$152 to \$178; and the daily coinsurance for the 21st through 100th days of extended care services in a skilled nursing facility increased from \$38 to \$44.50.

The estimated cost to beneficiaries due to these increases is \$550 million. This amount is based on an estimated 7.6 million beneficiaries who will have 8.7 million benefit periods and use 5.0 million coinsurance days and 1.2 million lifetime reserve days in 1984.

HCFA computed the 1984 inpatient hospital deductible and coinsurance amounts in the same manner as in previous years as required by section 1813 of the Act. The costs associated with this notice are the result of legislative requirements implemented by this notice. Since this notice merely announces amounts required by legislation and is not a proposed rule or final rule issued after a proposal, no analysis is required under Executive Order 12291 or the Regulatory Flexibility Act.

Dated: September 16, 1983

Carolyn K. Davis
Administrator
Health Care Financing Administration

Approved: September 27, 1983

Margaret M. Heckler
Secretary
Department of Health and Human Services

APPENDIX D

DETERMINATION AND ANNOUNCEMENT OF
THE HOSPITAL INSURANCE MONTHLY PREMIUM RATE FOR THE UNINSURED AGED,
FOR THE 12-MONTH PERIOD BEGINNING January 1, 1984*

Under the authority in section 1818(d)(2) of the Social Security Act (42 U.S.C. 1395i2(d)(2)), I have determined that the monthly Medicare hospital insurance premium for the uninsured aged for the 12 months beginning January 1, 1984, is \$155.

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, as amended by section 606(b) of the Social Security Amendments of 1983 (Pub. L. 98-21) requires the Secretary to determine and publish, during the next to last quarter of each calendar year, the amount of the monthly Part A premium for voluntary enrollment for the following calendar year. The formula specified in this section requires that, for the period beginning January 1, 1984, the 1973 base year premium (\$33) be multiplied by the ratio of (1) the 1984 inpatient hospital deductible to (2) the 1973 inpatient hospital deductible, rounded

* This statement was published in the Federal Register for September 30, 1983 (Vol. 48, No. 191, p. 44913).

to the nearer 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, the 1984 inpatient hospital deductible was determined to be \$356. (See 48 FR 44913, September 30, 1983.) 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 January 1, 1984, 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 (356/76) = \155 .

IMPACT ANALYSES

The monthly hospital insurance premium for the uninsured aged for the 12-month period beginning January 1, 1984, will increase to \$155. That amount is 37 percent higher than the \$113 monthly premium amount for the period July 1982 to December 1983.

The estimated cost of this increase to the approximately 21 thousand enrollees who do not otherwise meet the requirements for entitlement to hospital insurance will be about \$11 million.

Because this notice merely announces an amount required by the formula specified in section 1818(d)(2) of the Act, and does not alter any regulation or policy, no analyses under Executive Order 12291 or the Regulatory Flexibility Act, Public Law 96-354, are required.

Dated: September 16, 1983

Carolyn K. Davis
Administrator
Health Care Financing Administration

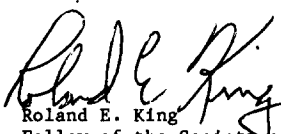
Approved: September 27, 1983

Margaret M. Heckler
Secretary
Department of Health and Human Services

APPENDIX E

STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the methodology used herein is based upon sound principles of actuarial practice, and (2) all the assumptions used and the resulting cost estimates are in the aggregate reasonable for the purpose of evaluating the actuarial and financial status of the Federal Hospital Insurance Trust Fund, taking into account the experience and expectations of the program.



Roland E. King
Fellow of the Society of Actuaries
Member of the American Academy of
Actuaries
Director, Office of Financial and
Actuarial Analysis
Health Care Financing Administration

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