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**1986 ANNUAL REPORT OF  
THE BOARD OF TRUSTEES OF THE  
FEDERAL HOSPITAL INSURANCE  
TRUST FUND**

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**COMMUNICATION**

**From**

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

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**Transmitting**

**THE 1987 ANNUAL REPORT OF THE BOARD,  
PURSUANT TO  
SECTION 1817(b) OF THE SOCIAL SECURITY ACT,  
AS AMENDED**



LETTER OF TRANSMITTAL

Board of Trustees of the  
Federal Hospital Insurance Trust Fund  
Washington, D.C, March 31, 1986

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 1986 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund (the 21st such report), in compliance with the provisions of section 1817(b) of the Social Security Act.

Respectfully,

JAMES A. BAKER, III,  
Secretary of the Treasury, and  
Managing Trustee of the Trust Fund

WILLIAM E. BROCK,  
Secretary of Labor,  
and Trustee

OTIS R. BOWEN, M.D.,  
Secretary of Health and  
Human Services and Trustee

MARY FALVEY FULLER,  
Trustee

SUZANNE DENBO JAFFE,  
Trustee

HENRY R. DESMARAIS, M.D.,  
Acting Administrator of the Health Care Financing  
Administration, and Secretary,  
Board of Trustees



## CONTENTS

The Board of Trustees. . . . .	1
Executive Summary . . . . .	1
Social Security Amendments Since the 1985 Report . . . . .	7
Nature of the Trust Fund . . . . .	8
Summary of the Operations of the Trust Fund, Fiscal Year 1985 . . . .	14
Expected Operations and Status of the Trust Fund During the Period October 1, 1985 to December 31, 1988 . . . . .	20
Actuarial Status of the Trust Fund. . . . .	27
Conclusion. . . . .	37
Appendix A	
Actuarial Methodology and Principal Assumptions for the Hospital Insurance Cost Estimates . . . . .	39
Appendix B	
Determination and Announcement of the Inpatient Hospital Deductible for 1986 . . . . .	50
Appendix C	
Determination and Announcement of the Hospital Insurance Monthly Premium Rate for the Uninsured Aged, for the 12-Month Period Beginning January 1, 1986. . . . .	53
Appendix D	
Statement of Actuarial Opinion . . . . .	55

## TABLES

I Contribution Rates and Maximum Taxable Amount on Annual Earnings . . . . .	2
II Seventy-Five Actuarial Balance of the Hospital Insurance Program Under Alternative Sets of Assumptions . . . . .	3
III Status of the Hospital Insurance Trust Fund . . . . .	5
IV Change in the 75-Year Actuarial Balance Since the 1985 Report . .	6
1 Contribution Rates and Maximum Taxable Amount of Annual Earnings . . . . .	13
2 Statement of Operations of the HI Trust Fund During Fiscal Year 1985 . . . . .	17
3 Comparison of Actual and Estimated Operations of the HI Trust Fund, Fiscal Year 1985 . . . . .	17
4 Assets of the HI Trust Fund, by Type, at the End of Fiscal Years 1984 And 1985 . . . . .	18
5 Operations of the Hospital Insurance Trust Fund During Fiscal Years 1967-88 . . . . .	22
6 Operations of the Hospital Insurance Trust Fund During Calendar Years 1966-88 . . . . .	24
7 Ratio Of Assets in the Fund at the Beginning of the Year to Disbursements During the Year for the Hospital Insurance Trust Fund . . . . .	26
8 Cost of The Hospital Insurance Program, Expressed as a Percent of Taxable Payroll. . . . .	32
9 Cost and Tax Rates of the Hospital Insurance Program, Expressed as a Percent of Taxable Payroll. . . . .	33
10 Seventy-Five Year Actuarial Balances of the Hospital Insurance Program, Expressed as a Percent of Taxable Payroll. . . . .	34
11 Estimated Operations of the Hospital Insurance Trust Fund During Calendar Years 1985-2010, Under Alternative Sets of Assumptions . . . . .	35
12 Seventy-five Year Actuarial Balance of the Hospital Insurance Program, Under Alternative Sets of Assumptions. . . . .	36
A1 Components of Historical and Projected Increases in HI Inpatient Hospital Payments . . . . .	47
A2 Relationship Between Increases in HI Program Costs and Increases in Taxable Payroll . . . . .	48
A3 Summary of Alternative Projections for the Hospital Insurance Program . . . . .	49



## FIGURES

1 Short-Term HI Trust Fund Ratios . . . . .	4
2 Estimated HI Costs and Tax Rates . . . . .	5



# **1986 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL HOSPITAL INSURANCE TRUST FUND**

## **THE BOARD OF TRUSTEES**

The Federal Hospital Insurance Trust Fund, established on July 30, 1965, is held by the Board of Trustees under the authority of section 1817(b) of the Social Security Act, as amended. The Board has five members. Three 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. Two public members, Mary Falvey Fuller and Suzanne Denbo Jaffe, are provided for by the Social Security Amendments of 1983 (Public Law 98-21, enacted into law on April 20, 1983). The two public members were nominated by the President for a term of four years, and were confirmed 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 1986 annual report, the twenty-first such report.

## **EXECUTIVE SUMMARY**

The Hospital Insurance (HI) Program pays for inpatient hospital care and other related care of those aged 65 and over and of the long-term disabled. In calendar year 1985, over 27 million people over age 65 and about 3 million disabled people under age 65 were covered under HI, financed primarily by the contributions of 122 million workers through payroll taxes. Payroll taxes during 1985 amounted to \$47.6 billion, accounting for 92.6 percent of all HI income. Interest payments to the HI fund amounted to 6.5 percent of all HI income for 1985. The remaining 0.9 percent of calendar year 1985 income consisted primarily of transfers from the Railroad Retirement Account and the general fund of the Treasury (in accordance with provisions for the collection of taxes from railroad workers, the collection of taxes on deemed military service wage credits, and reimbursement to the fund for benefits for certain uninsured persons), and premiums paid by voluntary enrollees. Of the \$48.4 billion in HI disbursements, \$47.6 billion was for benefit payments while the remaining \$0.8 billion was spent for administrative expenses. HI administrative expenses were 1.7 percent of total disbursements. In calendar year 1985, the HI trust fund was credited with an additional \$1.8 billion, representing a partial repayment of the interfund loan made to the Federal Old-Age and Survivors Insurance Trust Fund in December 1982.

As mentioned above, the HI program is financed primarily by payroll taxes, with the taxes paid by current workers used primarily to pay benefits to current beneficiaries. However, the HI program maintains a trust fund to provide a small reserve against fluctuations and to anticipate changes in the demographic composition of the population. The trust fund holds all of the income not currently needed to pay benefits and related expenses. The assets of the fund may not be used for any other purpose; however, they are invested in certain interest-bearing obligations of the U.S. Government.

The HI contribution rates applicable to taxable earnings in each of the calendar years 1983 and later are shown in Table 1. The maximum taxable amounts of annual earnings are shown for 1983 through 1986. After 1986, the automatic increase provisions in section 230 of the Social Security Act determine the maximum taxable amount.

**TABLE I.—CONTRIBUTION RATES AND MAXIMUM TAXABLE AMOUNT ON ANNUAL EARNINGS**

Calendar years	Maximum taxable amount of annual earnings	Contribution rate (Percent of taxable earnings)	
		Employees and employers, each	Self-employed
1983	\$35,700	1.30	1.30
1984	37,800	1.30	2.60
1985	39,600	1.35	2.70
1986	42,000	1.45	2.90
Changes scheduled in present law: 1987 & later	Subject to automatic adjustment	1.45	2.90

### **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 at least equal to annual outlays of the program plus an amount to maintain a balance in the trust fund equal to a minimum of one-half year's disbursements. At the beginning of 1986, the trust fund was below this desired level. However, on January 31, 1986, the outstanding balance of the loan made to the Federal Old-Age and Survivors Insurance Trust Fund in December 1982 was repaid, creating a balance in the HI trust fund estimated to be greater than the 50 percent level.

Projections were made under four alternative sets of assumptions: optimistic, two intermediate sets (alternatives II-A and II-B), and pessimistic. Under both sets of intermediate assumptions, the trust fund ratio is projected to increase until about 1989 and then decline steadily until the fund is completely exhausted in the late 1990's. Under the more optimistic set of assumptions (alternative I), the trust fund is projected to remain solvent throughout the first 25-year projection period. Under the more pessimistic set of assumptions (alternative III), the trust fund

is projected to increase to a level of about 76 percent in 1988 and then decrease rapidly until the fund is exhausted in 1993.

Table II in this report summarizes the estimated operations of the HI trust fund under the four alternative sets of assumptions. Figure 1 shows historic trust fund ratios for recent years and projected ratios under the four sets of assumptions.

**TABLE II.—SEVENTY-FIVE ACTUARIAL BALANCE OF THE HOSPITAL INSURANCE PROGRAM UNDER ALTERNATIVE SETS OF ASSUMPTIONS**

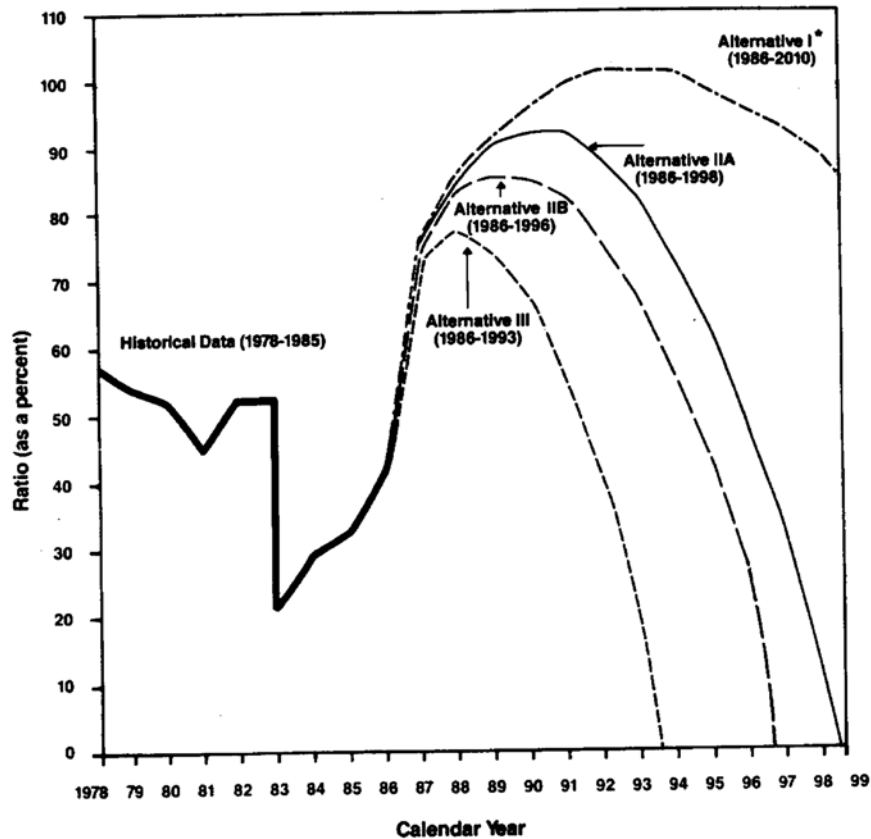
	Alternatives			
	I	II-A	II-B	III
1986-2010				
Average contribution rate <sup>1</sup>	2.90%	2.90%	2.90%	2.90%
Average cost of the program <sup>2</sup>	2.96	3.56	3.72	4.87
Actuarial balance	-0.06	-0.66	-0.82	-1.97
2011-2035				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average cost of the program <sup>2</sup>	3.34	5.76	6.18	11.85
Actuarial balance	-0.44	-2.86	-3.28	-8.95
2036-2060				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average cost of the program <sup>2</sup>	3.96	7.33	7.86	16.06
Actuarial balance	-1.06	-4.43	-4.96	-13.16
1986-2060				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average cost of the program <sup>2</sup>	3.42	5.55	5.92	10.93
Actuarial balance	-0.52	-2.65	-3.02	-8.03

<sup>1</sup>As scheduled under present law.

<sup>2</sup>Expressed as a percentage of taxable payroll. Includes amounts for trust fund building and maintenance.

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.

Figure 1.—SHORT-TERM HI TRUST FUND RATIOS



\*The trust fund remains solvent under alternative I during this 25-year projection period.  
 Note: The trust ratio is defined as the ratio of assets at the beginning of the year to disbursements during the year.

The adequacy of the financing of the HI program on a long-range basis 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. The actuarial balance is defined to be the excess of the average tax rate for the valuation period over the average cost of the program expressed as a percent of taxable payroll. Table II compares the actuarial balance under each of the four sets of assumptions for the 75-year projection period 1986-2060. Figure 2 shows the year-by-year costs as a percent of taxable payroll for each of the four sets of assumptions, as well as the scheduled tax rates. The cost figures in Table II and Figure 2 include amounts for maintaining the trust fund at the level of a half-year's disbursements as recommended by the Board of Trustees.

Figure 2 emphasizes the inadequacy of the financing of the HI program by illustrating the divergence of the program costs and scheduled tax rates under each set of assumptions.

Figure 2. ESTIMATED HI COSTS AND TAX RATES

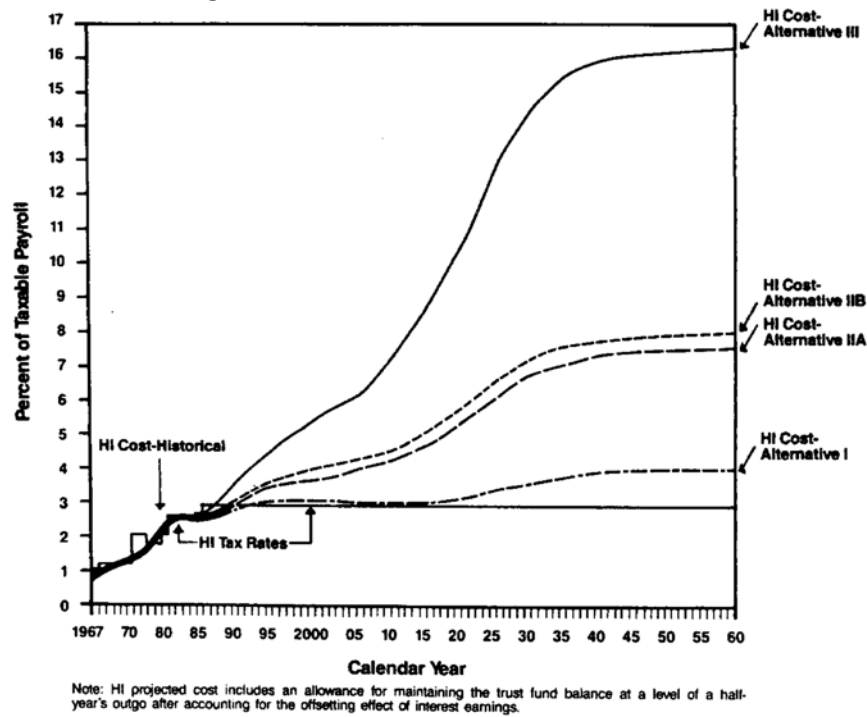


Table III presents a comparison of the projected experience in the 1985 and 1986 reports. Table IV shows the major reasons for the change in the 75-year actuarial balance of the HI program from the 1985 report.

Table III.—STATUS OF THE HOSPITAL INSURANCE TRUST FUND

Sets of assumptions	Year in which the trust fund is exhausted as published in the		75-year actuarial balance <sup>1</sup> of the HI program as published in the	
	1985 report	1986 report	1985 report	1986 report
I (optimistic)	2	2	0.38%	-0.52%
II-A (Intermediate)	2000	1998	-2.40	-2.65
II-B (Intermediate)	1998	1996	-2.79	-3.02
III (pessimistic)	1992	1993	-7.97	-8.03

<sup>1</sup>The actuarial balance of the hospital insurance program is defined to be the excess of the average tax rate for the valuation period over the average cost of the program, expressed as a percent of taxable payroll, for the same period.

<sup>2</sup>The trust fund is solvent at least through the end of the first 25-year projection period.

**TABLE IV.—CHANGE IN THE 75-YEAR ACTUARIAL BALANCE SINCE THE 1985  
REPORT**

1. Actuarial balance. Alternative II-B, 1985 report	-2.79%
2. Changes:	
a. Valuation period	-0.07
b. Base estimate	+0.14
c. Change in prospective payment rates	+0.06
d. Economic and demographic assumptions	-0.22
e. Hospital assumptions	-0.14
f. Net effect, above changes	-0.23
3. Actuarial balance, alternative II-B, 1986 report	-3.02

### **Conclusion of the Board of Trustees**

The present financing schedule for the hospital insurance program is barely sufficient to ensure the payment of benefits and maintain the fund at a level of one half year's disbursements over the next 7 to 9 years if the assumptions underlying the estimates are realized. The trust fund is exhausted in the late 1990's under both alternatives II-A and II-B. Under the more pessimistic assumptions, the fund is exhausted in 1993. Under the more optimistic alternative I, the trust fund is solvent at least through the first 25-year projection period.

There are currently over four covered workers supporting each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, there will be only slightly more than two covered workers supporting each enrollee. Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all but the most optimistic assumptions, the HI Trust Fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion is projected to occur during the late 1990's under the intermediate assumptions, and could occur as early as 1993 if the pessimistic assumptions are realized.

The Board notes that promising steps to begin reducing the rate of growth in payments to hospitals have already been taken. Initial experience under the prospective payment system for hospitals suggests that this payment mechanism is an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Efforts focused on improving the efficiency and reducing the costs of the health care delivery system need to be continued, in close combination with mechanisms that will assure that the quality of health care is not adversely affected.

Because of the magnitude of the projected actuarial deficit in the HI program and the probability that the HI Trust Fund will be exhausted before the end of the century, the Board believes that early corrective action is essential in order to avoid the need for later, potentially precipitous changes. The Board, therefore, urges that the Congress take early remedial measures to bring future HI program costs and financing into balance.



## **SOCIAL SECURITY AMENDMENTS SINCE THE 1985 REPORT**

Public Laws 99-107, 99-155, 99-181, 99-189, and 99-201 extended the freeze on hospital payment rates until November 14, 1985, December 14, 1985, December 18, 1985, December 19, 1985, and March 14, 1986, respectively. Each was effective upon enactment.

Public Law 99-177, the “Balanced Budget and Emergency Deficit Control Act of 1985,” which was enacted December 12, 1985, provided for a one percent reduction in Medicare benefit payments for fiscal year 1986, effective March 1, 1986. The reduction would be up to two percent in each ensuing fiscal year if a sequestration order is required. Certain provisions of this Act, also known as the Gramm-Rudman-Hollings initiative, have been declared unconstitutional in the United States District Court for the District of Columbia. The court, however, ruled that the provisions of the Act can go into effect while it is in the appeals process. Thus, the estimated operations of the hospital insurance trust fund that are displayed in this report are based on the assumption that the provisions of the Act are effective from March 1, 1986 until the close of fiscal year 1986 (September 30, 1986) only.

The Consolidated Omnibus Budget Reconciliation Act of 1986 has been passed by the Congress but has not yet become law. Thus, the impact of the provisions of that legislation are not reflected in this report.

## 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 1986 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 1966-85 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 and after June 1984, the internal revenue collections were transferred to the trust funds immediately upon receipt. For May 1983 through June 1984, estimated total collections for each month were credited to the trust funds on the first day of the month. As the actual collections were received during the month, they were deposited in the general fund of the Treasury and remained there. The trust funds paid 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 of trust fund income 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, prior to modification by the Social Security Amendments of 1983, authorized annual reimbursement from the general fund of the Treasury to the hospital insurance trust fund for costs arising from the granting of deemed wage credits for military service prior to 1957, according to quinquennial 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 transfer in 1983 for costs arising from such wage credits. In addition, the lump sum transfer included combined employer-employee HI taxes on the noncontributory wage credits for military service after 1965 and before 1984. After 1983, HI taxes on military wage credits are credited to the fund on July 1 of each year. The Social Security Amendments of 1983 also provided for (1) quinquennial adjustments to the lump sum amount transferred in

1983 for costs arising from pre-1957 deemed wage credits and (2) adjustments as deemed necessary to any previously transferred amounts representing HI taxes on noncontributory wage credits.

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 deemed wage credits to individuals who were interned during World War II at a place within the United States operated by the Federal Government for the internment of persons of Japanese ancestry.

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

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

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

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

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 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.

The Social Security Act authorizes borrowing among the OASE, DI, and HI trust funds when necessary “to best meet the need for financing the benefit payments” from the three funds. The timing and amounts of the loans are largely at the discretion of the Managing Trustee, although no loans can be made after 1987. Loans may not be made from a trust fund if its assets (excluding any amounts borrowed) represent less than 10 percent of its current annual rate of expenditures.

The law also specifies that interest on borrowed amounts will be paid monthly at a rate “equal to the rate which the lending trust fund would earn on the amount involved if the loan were an investment.”

In this report, the assets of a trust fund include any amounts owed to other trust funds. The assets of a trust fund to which amounts are owed do not include such amounts. This procedure is followed because borrowed amounts are available for the payment of benefits or other obligations of the borrowing fund, while such amounts are not readily available to the lending fund.

At the end of each year through 1988, if the combined assets of the OASI and DI trust funds exceed 15 percent of the estimated outgo in the next year, such excess over 15 percent must be used to repay any amounts owed to the HI trust fund. The same rule applies to loans from the OASI and DI trust funds to the HI trust fund, although no such loans are anticipated. In any case, all interfund loans must be completely repaid before 1990.

**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
1985	39,600	1.35	2.70
1986	42,000	1.45	2.90
Changes scheduled in present law:			
1987 & later	Subject to automatic adjustment	1.45	2.90

## **SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1985**

A statement of the income and disbursements of the Federal Hospital Insurance Trust Fund in fiscal year 1985, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 2.

The total assets of the trust fund amounted to \$17,174 million on September 30, 1984. During fiscal year 1985, total receipts amounted to \$52,757 million<sup>1</sup>, and total disbursements were \$48,654 million. The assets of the trust fund thus increased \$4,103 million during the year to a total of \$21,277 million on September 30, 1985.

Included in total receipts during fiscal year 1985 were \$42,416 million representing contributions appropriated to the trust fund and \$4,202 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, \$129 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 \$46,490 million, representing an increase of 12.4 percent over the amount of \$41,364 million for the preceding 12-month period. This growth in contribution income resulted primarily from (1) the higher level of earnings in covered employment; (2) the two increases in the maximum annual amount of earnings taxable from \$35,700 to \$37,800 and from \$37,800 to \$39,600 that became effective on January 1, 1984, and January 1, 1985, respectively; and (3) the increase in the combined tax rate from 2.6 percent to 2.7 percent effective January 1, 1985.

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 1985 amounted to about \$38 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 \$346 million from the railroad retirement account to the

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<sup>1</sup> Includes a loan repayment of \$1,824 million from the Federal Old-Age and Survivors Insurance Trust Fund.



hospital insurance trust fund would place this fund in the same position, as of September 30, 1984, 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 \$25 million, was transferred to the trust fund in June 1985.

In accordance with provisions for the appropriation to the trust fund of HI taxes on noncontributory military wage credits as discussed in the section entitled "Nature of the Trust Fund," the trust fund was credited on July 1, 1985 with \$86 million for calendar year 1985 taxes on wage credits.

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 1985 amounted to \$766 million, consisting of \$754 million for benefit payments, \$8 million for administrative expenses, and \$4 million for interest on adjustments to costs in prior fiscal years.

The remaining \$3,182 million of receipts consisted almost entirely of interest on the investments of the trust fund and interest on interfund borrowing.

Of the \$48,654 million in total disbursements, \$47,841 million represented benefits paid directly from the trust fund for health services covered under Title XVIII of the Social Security Act. Benefit payments increased 15.3 percent in fiscal year 1985 over the corresponding amount of \$41,476 million paid during the preceding 12 months.

The remaining \$813 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 1985 with the estimates presented in the 1984 and 1985 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 1985 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the “actual” amount of contributions for fiscal year 1985 does not reflect adjustments to contributions for fiscal year 1985 that were to be made after September 30, 1985.

The assets of the hospital insurance trust fund at the end of fiscal year 1984 totaled \$17,174 million, consisting of \$16,919 million in the form of obligations and an undisbursed balance of \$255 million. The assets of the hospital insurance trust fund at the end of fiscal year 1985 totaled \$21,277 million, consisting of \$21,131 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and an undisbursed balance of \$146 million. Table 4 shows the total assets of the fund and their distribution at the end of fiscal years 1984 and 1985.

The net increase in the par value of the investments held by the fund during fiscal year 1985 amounted to \$4,194 million. New securities at a total par value of \$58,984 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 \$54,789 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, 1985, was 12.2 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 1985 was 10.375 percent, payable semiannually.

**TABLE 2.—STATEMENT OF OPERATIONS OF THE HI TRUST FUND DURING FISCAL YEAR 1985**

(In thousands of dollars)

Total assets of the trust fund, beginning of period	\$17,174,173
Receipts:	
Appropriation of employment taxes	\$42,416,037
Refunds of employment taxes	-128,700
Deposits arising from State agreements	4,202,470
Interest on Investments	
Collected	1,977,543
Paid to general fund-normalized tax crediting	-13,358
Amortization of premium and discount (Net)	18,267
Other	
Interest on interfund borrowing	1,206,738
Premiums collected from voluntary participants	37,754
Transfer from railroad retirement account	346,300
Transitional uninsured coverage	766,000
Military service credits	86,000
Interest on reimbursements, SSA <sup>1</sup>	-636
Interest on reimbursements, HCFA <sup>1</sup>	-6,536
Interest on reimbursements, Railroad	25,090
Total receipts	\$50,932,969
Interfund loan transfer <sup>1</sup>	1,824,000
Disbursements:	
Benefit payments	47,841,276
Administrative expenses:	
Treasury administrative expenses	27,120
Salaries and expenses, SSA	300,603
Salaries and expenses, HCFA <sup>2</sup>	416,244
Salaries and expenses, Office of Secretary	6,067
Construction	10,332
Professional Standard Review Organization	19,935
Reimbursement of SSA expenses <sup>3</sup>	0
Reimbursement of HCFA expenses <sup>3</sup>	30,283
Payment Assessment Committee	2,060
Public Health Service	0
Other	-20
Total disbursements	48,653,900
Total assets of the trust fund, end of period	\$21,277,241

<sup>1</sup>A positive figure represents a transfer to the hospital insurance trust fund from the other trust funds. A negative figure represents a transfer from the hospital insurance trust fund to the other trust funds.

<sup>2</sup>Includes administrative expenses of the intermediaries.

<sup>3</sup>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 sums of rounded components.

**TABLE 3.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND, FISCAL YEAR 1985**

(Dollar amounts in millions)

Item	Comparison of actual experience with estimates for fiscal year 1985 published in—				
	1985 report <sup>1</sup>		1984 report <sup>1</sup>		
	Actual amount	Estimated amount <sup>1</sup>	Actual as percentage of estimate	Estimated amount <sup>2</sup>	Actual as percentage of estimate
Net contributions	\$46,490	\$46,424	100	\$47,183	99
Benefit payments	\$47,841	\$48,030	100	\$51,126	94

<sup>1</sup>Alternative II-B

**TABLE 4.—ASSETS OF THE HOSPITAL INSURANCE TRUST FUND, BY TYPE, AT  
THE END OF FISCAL YEARS 1984 AND 1985 <sup>1</sup>**

	September 30, 1984	September 30, 1985
Investments in public-debt obligations sold only to the trust funds (special issues):		
Certificates of Indebtedness:		
12 3/4-percent, 1985 .....	\$1,516,618,000.00	—
10 3/8-percent, 1986 .....	—	\$822,475,000.00
10 5/8-percent, 1986 .....	—	1,248,147,000.00
Bonds:		
8 1/4-percent, 1993 .....	622,286,000.00	622,286,000.00
8 3/4-percent, 1993 .....	123,297,000.00	123,297,000.00
8 3/4-percent, 1994 .....	849,460,000.00	849,460,000.00
9 3/4-percent, 1993 .....	130,210,000.00	130,210,000.00
9 3/4-percent, 1994 .....	130,210,000.00	130,210,000.00
9 3/4-percent, 1995 .....	979,670,000.00	979,670,000.00
10 3/8-percent, 1987 .....	—	427,022,000.00
10 3/8-percent, 1988 .....	—	427,022,000.00
10 3/8-percent, 1989 .....	—	427,022,000.00
10 3/8-percent, 1990 .....	—	427,022,000.00
10 3/8-percent, 1991 .....	—	427,023,000.00
10 3/8-percent, 1992 .....	—	427,023,000.00
10 3/8-percent, 1998 .....	—	427,022,000.00
10 3/8-percent, 1999 .....	—	427,022,000.00
10 3/8-percent, 2000 .....	—	1,277,566,000.00
10 3/4-percent, 1986 .....	271,006,000.00	—
10 3/4-percent, 1987 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1988 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1989 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1990 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1991 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1992 .....	588,410,000.00	588,410,000.00
10 3/4-percent, 1998 .....	588,410,000.00	588,410,000.00
13 -percent, 1993 .....	197,606,000.00	197,606,000.00
13 -percent, 1994 .....	197,606,000.00	197,606,000.00
13 -percent, 1995 .....	197,606,000.00	197,606,000.00
13 -percent, 1996 .....	1,177,276,000.00	1,177,276,000.00
13 1/4-percent, 1993 .....	272,853,000.00	272,853,000.00
13 1/4-percent, 1994 .....	272,853,000.00	272,853,000.00
13 1/4-percent, 1995 .....	272,853,000.00	272,853,000.00
13 1/4-percent, 1996 .....	272,853,000.00	272,853,000.00
13 1/4-percent, 1997 .....	1,450,129,000.00	1,450,129,000.00
13 3/4-percent, 1985 .....	208,505,000.00	—
13 3/4-percent, 1986 .....	579,539,000.00	5,652,000.00
13 3/4-percent, 1987 .....	262,135,000.00	262,135,000.00
13 3/4-percent, 1988 .....	262,135,000.00	262,135,000.00
13 3/4-percent, 1989 .....	262,135,000.00	262,135,000.00
13 3/4-percent, 1990 .....	262,135,000.00	262,135,000.00
13 3/4-percent, 1991 .....	262,134,000.00	262,134,000.00
13 3/4-percent, 1992 .....	262,134,000.00	262,134,000.00
13 3/4-percent, 1998 .....	262,134,000.00	262,134,000.00
13 3/4-percent, 1999 .....	850,544,000.00	850,544,000.00
Total public-debt obligations sold only to the trust funds (special issues) .....	\$16,526,792,000.00	\$20,721,142,000.00

**TABLE 4.—ASSETS OF THE HOSPITAL INSURANCE TRUST FUND, BY TYPE, AT  
THE END OF FISCAL YEARS 1984 AND 1985<sup>1</sup>**

	September 30, 1984	September 30, 1985
Investments in federally-sponsored agency obligations:		
Participation certificates:		
Federal Assets liquidation Trust-		
Government National Mortgage Association:		
5.10-percent, 1987 .....	50,000,000.00	50,000,000.00
6.40-percent, 1987 .....	75,000,000.00	75,000,000.00
6.05-percent, 1988 .....	65,000,000.00	65,000,000.00
6.45-percent, 1988 .....	35,000,000.00	35,000,000.00
6.20-percent, 1988 .....	230,000,000.00	230,000,000.00
Unamortized Premium & Discount (Net) ...	-63,013,527.90	-44,746,342.50
Total Investments .....	\$16,918,778,472.10	\$21,131,395,657.50
Undisbursed balance .....	255,394,489.65	145,845,581.01
Total assets .....	\$17,174,172,961.78	\$21,277,241,238.51

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

**EXPECTED OPERATIONS AND STATUS OF THE  
TRUST FUND DURING THE PERIOD OCTOBER 1, 1985 to  
DECEMBER 31, 1988**

The expected operations of the trust fund during fiscal years 1986-88 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 1986 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 22,000 in fiscal year 1986.

The transfer from general revenues for military wage credits was \$86 million in fiscal year 1985 and is projected to be \$91 million in fiscal year 1986. In addition, a transfer of \$805 million from the hospital insurance trust fund to the general fund of the Treasury was made in fiscal year 1986. This transfer is an adjustment to the lump sum transfer made in fiscal year 1983, and was determined in the 1985 quinquennial Military Service Determination. These military transfers are 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 1986-88 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 7.5 percent to 8.125 percent, payable semiannually. The average effective annual rate of interest on the assets held by the hospital insurance trust fund on September 30, 1985, was 11.5 percent.

Disbursements for benefits are projected to increase in fiscal years 1986-88, primarily as a result of the increase in hospital payment rates and hospital admissions under the program. The expenditures for

benefit payments shown in table 5 differ from those shown in the 1987 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. However, the expenditures for benefit payments shown in this section anticipate that the Secretary of Health and Human Services will exercise his discretionary authority and set the prospective payment rates to participating hospitals in fiscal year 1987 two percent higher than the rates in fiscal year 1986, thereby limiting the rate of increase in hospital payments under the program.

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. The loan, when made, was technically still considered an asset of the hospital insurance trust fund. However, since these assets were not immediately available for payment of hospital insurance benefits, they were subtracted from the fund in the year made. Repayments of principal were added back into the fund in the year each repayment was made. Interest payments on the outstanding loan balance were payable monthly and are included in the interest on investments and other income column. The outstanding loan balance was repaid in full in January 1986.

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 1988.

**TABLE 5.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING FISCAL YEARS 1967-88**  
(In millions)

Fiscal year <sup>1</sup>	Income							Disbursements				Trust Fund	
	Payroll taxes	Railroad retirement account transfers	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest on investments and other income <sup>2</sup>	Total Income	Benefits Payments <sup>3</sup>	Administrative Expenses <sup>4</sup>	Total disbursements	Interfund borrowing transfers <sup>5</sup>	Net increase in fund	Fund at end of year
Historical Data:													
1967	2,689	\$16	\$327	—	\$11	\$46	\$3,089	\$2,508	\$89	\$2,597	—	\$492	\$1,343
1968	3,514	44	273	—	11	61	3,902	3,736	79	3,815	—	88	1,431
1969	4,423	54	749	—	22	96	5,344	4,654	104	4,758	—	586	2,017
1970	4,785	64	617	—	11	137	5,614	4,804	149	4,953	—	661	2,677
1971	4,898	66	863	—	11	180	6,018	5,442	150	5,592	—	426	3,103
1972	5,226	66	503	—	48	188	6,031	6,108	167	6,276	—	-245	2,859
1973	7,663	63	381	—	48	196	8,352	6,648	194	6,842	—	1,510	4,369
1974	10,602	99	451	\$4	48	405	11,610	7,806	259	8,065	—	3,545	7,914
1975	11,291	132	481	6	48	609	12,568	10,353	259	10,612	—	1,956	9,870
1976	12,031	138	610	8	48	709	13,544	12,267	312	12,579	—	966	10,836
T.Q.	3,366	143	0 <sup>6</sup>	2	0	5	3,516	3,315	89	3,404	—	112	10,948
1977	13,649	0 <sup>7</sup>	803 <sup>6</sup>	11	141	770	15,374	14,906	301	15,207	—	167	11,115
1978	16,677	214 <sup>7</sup>	688	12	143 <sup>8</sup>	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 <sup>9</sup>	2,629	43,940	38,102	522	38,624	-\$12,437	-7,121	13,719
1984	41,364	351	752	35	250	2,812	45,563	41,476	633	42,108	—	3,455	17,174
1985	46,490	371	766	38	86	3,182	50,933	47,841	813	48,654	1,824	4,103	21,277
Projection:													
Alternative II-A													
1986	52,814	352	566	53	-714 <sup>10</sup>	3,262	56,333	48,591	756	49,347	10,613	17,599	38,876
1987	57,382	369	447	65	93	3,924	62,280	52,506	807	53,313	—	8,967	47,843
1988	61,765	379	529	73	94	4,579	67,419	58,097	866	58,963	—	8,456	56,299
Alternative II-B													
1986	52,674	352	566	53	-714 <sup>10</sup>	3,259	56,190	48,591	756	49,347	10,613	17,456	38,733
1987	56,916	368	447	65	93	3,905	61,794	52,513	807	53,320	—	8,474	47,207
1988	60,853	376	530	73	94	4,537	66,463	58,132	866	58,998	—	7,465	54,672



<sup>1</sup>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.

<sup>2</sup>Other Income Includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous Income.

<sup>3</sup>Includes costs of Peer Review Organizations (beginning with the implementation of the Prospective Payment System on October 1, 1983).

<sup>4</sup>Includes costs of experiments and demonstration projects.

<sup>5</sup>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 in the year the loan is made. A negative amount is a loan to the OASI trust fund. Repayments of principal are added back into the fund in the year repayment is made. A positive

amount is a repayment of principal to the HI trust fund.

<sup>6</sup>The 1977 transfer is for benefits and administrative expenses during the five-quarter period covering the transition quarter and fiscal year 1977.

<sup>7</sup>The 1978 transfer is for contributions during the five-quarter period covering the transition quarter and fiscal year 1977.

<sup>8</sup>Includes \$2 million in reimbursement from the general revenues for costs arising from the granting of deemed wage credits to persons of Japanese ancestry who were interned during World War II.

<sup>9</sup>Includes the lump sum general revenue transfer of \$3,456 million, as provided for by section 151 of P.L. 98-21.

<sup>10</sup>Includes the lump sum general revenue adjustment of -\$805 million, as provided for by section 151 of P.L. 98-21.

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

**TABLE 6.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1966-88**  
(In millions)

Calendar year	Income							Disbursements			Trust Fund		
	Payroll taxes	Railroad retirement account transfers	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest on investments and other income <sup>1</sup>	Total Income	Benefits Payments <sup>2</sup>	Administrative Expenses <sup>3</sup>	Total disbursements	Interfund borrowing transfers <sup>4</sup>	Net increase in fund	Fund at end of year
Historical Data:													
1966	\$1,858	\$16	\$26	—	\$11	\$32	\$1,943	\$891	\$108	\$999	—	\$944	\$944
1967	3,152	44	301	—	11	51	3,559	3,353	77	3,430	—	129	1,073
1968	4,116	54	1,022	—	22	74	5,287	4,179	99	4,277	—	1,010	2,083
1969	4,473	64	617	—	11	113	5,279	4,739	118	4,857	—	422	2,505
1970	4,881	66	863	—	11	158	5,979	5,124	157	5,281	—	698	3,202
1971	4,921	66	503	—	48	193	5,732	5,751	150	5,900	—	-168	3,034
1972	5,731	63	381	—	48	180	6,403	6,318	185	6,503	—	-99	2,935
1973	9,944	99	451	\$2	48	278	10,821	7,057	232	7,289	—	3,532	6,467
1974	10,844	132	471	5	48	523	12,024	9,099	272	9,372	—	2,652	9,119
1975	11,502	138	621	7	48	664	12,980	11,315	266	11,581	—	1,399	10,517
1976	12,727	143	0 <sup>5</sup>	9	141	746	13,766	13,340	339	13,679	—	88	10,605
1977	14,114	0 <sup>6</sup>	803 <sup>5</sup>	12	143 <sup>7</sup>	784	15,856	15,737	283	16,019	—	-163	10,442
1978	17,324	214 <sup>6</sup>	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	2,022	37,998	35,631	513	36,144	-\$12,437	-10,583	8,164
1983	37,259	358	878	27	3,456 <sup>8</sup>	2,593	44,570	39,337	540	39,877	—	4,693	12,858
1984	42,288	351	752	33	250	3,046	46,720	43,257	629	43,887	—	2,834	15,691
1985	47,576	371	766	41	-719 <sup>9</sup>	3,362	51,397	47,580	834	48,414	1,824	4,808	20,499
Projection:													
Alternative II-A													
1986	54,435	352	566	56	91	4,288	59,788	49,315	759	50,074	10,613	20,327	40,826
1987	58,380	369	447	68	93	4,214	63,571	53,643	820	54,463	—	9,108	49,934
1988	62,248	379	529	74	94	4,833	68,157	59,472	881	60,353	—	7,804	57,738
Alternative II-B													
1986	54,227	352	566	56	91	4,280	59,572	49,315	759	50,074	10,613	20,111	40,610
1987	57,782	368	447	68	93	4,180	62,938	53,656	820	54,476	—	8,462	49,072
1988	61,305	376	530	74	94	4,759	67,138	59,603	882	60,485	—	6,653	55,725

<sup>1</sup>Other Income Includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous Income.

<sup>2</sup>Includes costs of Peer Review Organizations (beginning with the implementation of the Prospective Payment System on October 1, 1983).

<sup>3</sup>Includes costs of experiments and demonstration projects.

<sup>4</sup>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 in the year the loan is made. A negative amount is a loan to the OASI trust fund. Repayments of principal are added back into the fund in the year repayment is made. A positive amount is a repayment of principal to the HI trust fund.

<sup>5</sup>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.

<sup>6</sup>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 15-month period beginning July 1976 and ending September 1977.

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

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

<sup>9</sup>Includes the lump sum general revenue adjustment of -\$805 million, as provided for by section 151 of P.L 98-21.

NOTE: Totals do not necessarily equal the sums 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)

Calendar Year	Ratio
Historical Data:	
1967	28%
1968	25
1969	43
1970	47
1971	54
1972	47
1973	40
1974	69
1975	79
1976	77
1977	66
1978	57
1979	54
1980	52
1981	45
1982	52
1983	20
1984	29
1985	32
Projection:	
Alternative II-A	
1986	41
1987	75
1988	83
Alternative II-B	
1986	41
1987	75
1988	81

## 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 at least equal to annual outlays of the program plus an amount to maintain a balance in the trust fund equal to a minimum of 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. In addition, the fund should begin to build a reserve to prepare for the shift in the demographic makeup of the population which occurs before the middle of the next century.

The historical cost of the hospital insurance program, expressed as a percent of taxable payroll, is shown in table 8. The projected expenditures under the program, expressed as percentages of taxable payroll, are summarized for selected years over the next 75-year period in table 9. The ratio of expenditures to taxable payroll has increased from 0.94 percent in 1967 to 2.61 percent in 1985, 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 changes in this ratio to 2.59 percent in 1986, increasing to 7.36 percent by the year 2060 under alternative II-A, and to 2.60 percent in 1986 and 7.89 percent by the year

2060 under alternative II-B, result from the assumption that the cost of the hospital insurance program 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 total cost of the program is the sum of expenditures under the program and an allowance for trust fund building and maintenance. The allowance necessary to build the trust fund to the level of a half year's disbursements and to maintain it at that level, after accounting for the offsetting effect of interest earnings, is also shown in table 9. At the beginning of 1986, the HI fund was below the desired level. However, on January 31, 1986, the outstanding balance of the loan made to the Federal Old-Age and Survivors Insurance Trust Fund in December 1982 was repaid, creating a balance in the HI trust fund estimated to be greater than the 50 percent level. The allowance shown in table 9 for trust fund building and maintenance is, in fact, 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 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 maintain the trust fund 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 9 for selected years over the 75-year period 1986-2060. The total cost of the program, including both expenditures and trust fund building and maintenance, exceeds the tax rate in every year after 1989 and 1988 for alternatives II-A and II-B, respectively. Furthermore, expenditures for benefits and administrative expenses alone exceed the corresponding tax rates in every year after 1989 and 1988 for alternatives II-A and II-B, respectively.

The actuarial balance of the hospital insurance program is defined to be the difference between the average tax rate for the valuation period and the average cost of the program, expressed as a percent of taxable payroll, for the same period. The average tax rate for the 75-year period 1986-2060 is 2.90 percent. The average cost to the program under alternative II-A is 5.55 percent of taxable payroll, composed of 5.52 percent for program expenditures and .03 percent for building and maintenance of the trust fund. The average cost of the program under alternative II-B is 5.92 percent of taxable payroll, composed of 5.88 percent for program expenditures and .04 percent for building and maintenance of the trust fund. The resulting actuarial balances for the 75-year period 1986-2060, as shown in table 10, are a deficit of 2.65 percent and 3.02 percent of taxable payroll for alternatives II-A and II-B, respectively.

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 additional alternative sets of assumptions. The estimated operations of the hospital insurance trust fund during calendar years 1985-2010 are summarized in table 11 for all four alternatives, and table 12 compares the actuarial balance for the 75-year period 1986-2060, as well as the first, second, and third 25-year projection periods under each of the four alternatives. 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, 1988, 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 projection period and a stronger trust fund development. The alternative III assumptions are somewhat more pessimistic than both alternative II assumptions, resulting in a higher average cost over the projection period and a weaker trust fund development. Alternative III thus reflects the possible impact, in the near future, of conditions which are significantly more adverse than those assumed under either of the intermediate alternatives. 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 increase until about 1990 and then decline steadily until it is completely exhausted in the late 1990's. Under alternative I, the trust fund is projected to remain solvent throughout the first 25-year projection period. Under alternative III, the trust fund as a percent of a year's disbursements is projected to increase to a level of about 76 percent in 1988 and then decrease rapidly until the fund is exhausted in 1993. These projections do not reflect any reduction in disbursements due to proposed changes in regulations which were included in the 1987 Federal Budget but which have not been implemented. However, the projections under each alternative, except alternative III, anticipate that the hospital prospective payment rates for fiscal year 1987 will be set two percent higher than the fiscal year 1986 rates, as mentioned earlier in this report. Alternative III assumes that the hospital prospective payment rates for fiscal year

1987 will exceed the fiscal year 1986 rates by one-quarter of one percent plus the increase in the hospital input price index.

The divergence in outcomes among the four alternatives is reflected both in the estimated operations of the trust fund and in the 75-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 projection period. During the first 25-year projection period, under both sets of intermediate assumptions, program costs are projected to grow at a rate which gradually declines to a level of one percent to 1.5 percent more than taxable payroll by 2010. Under alternative I, program costs are projected to grow at a somewhat lower rate which gradually declines to a level slightly higher than the rate for taxable payroll. Similarly, alternative III follows a pattern whereby program costs initially increase at a somewhat higher rate, gradually declining to a difference of about 3.2 percent by 2010. 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 balance be maintained in the hospital insurance trust fund as a reserve for contingencies.

A valuation period of 75 years is needed to present fully the future contingencies that reasonably may be expected, such as the impact of the large shift in the demographic composition of the population which occurs after the turn of the century. As table 9 indicates, estimated expenditures under the program, expressed as a percent of taxable payroll, increase rapidly during the second 25 years of the projection period. This rapid increase in costs occurs because the relatively large number of persons born during the period between the end of World War II and the early 1960's will reach retirement age and begin to receive benefits, while the relatively small number of persons born during later years will comprise the labor force. During the last 25 years of the projection period, the projected expenditures under the program stabilize.

Costs beyond the initial 25-year projection period for alternative II-A and II-B are based upon the assumption that costs per unit of service will increase at the same rate as earnings increase. Thus, changes in the outyears primarily reflect the impact of the changing demographic composition of the population. Costs beyond the initial 25-year projection period for alternatives I and III begin by assuming that program cost increases, relative to taxable payroll increases, are approximately 2 percent less rapid and 2 percent more rapid, respectively, than the results under both sets of intermediate assumptions. The 2 percent differential gradually decreases until the year 2035 when program cost increases, relative to taxable payroll, are approximately the same as under both sets of intermediate assumptions.

The 75-year actuarial balance of the hospital insurance program under alternative II-B, as seen in table 10, is -3.02 percent of taxable payroll. The corresponding actuarial balance as reported in the 1985



annual report was -2.79 percent of taxable payroll. The major reasons for the change in the 75-year actuarial balance are:

- (1) Change in valuation period: Deletion of 1985 and the addition of 2060 to the 75-year projection period substitutes a relatively bad year for a good year with respect to the operations of the hospital insurance trust fund. The net effect on the actuarial balance is -0.07 percent.
- (2) Updating the projection base: The cost as a percent of payroll for 1985 was less than estimated in the 1985 annual report. The net effect of this change is +0.14 percent on the actuarial balance.
- (3) Lower increase in the prospective payment rates: It is anticipated that the Secretary of Health and Human Services will exercise his discretionary authority to limit the prospective payment rates in fiscal year 1987 to a two percent increase over the level set in fiscal year 1986. The 1985 annual report anticipated that the increase in the prospective payment rates for fiscal year 1987, over the level set for fiscal year 1986, would be one-quarter of one percent plus the increase in the hospital input price index. The net effect of this change is +0.06 percent.
- (4) Economic and demographic assumptions: Changes in the economic and demographic assumptions described in Appendix A result in a -0.22 percent change on the actuarial balance.
- (5) Hospital assumptions: Changes in the hospital assumptions described in Appendix A result in a -0.14 percent change on the actuarial balance.

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

Calendar year	Expenditures under the program <sup>1</sup>
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	2.00
1979	1.99
1980	2.19
1981	2.39
1982	2.65
1983	2.66 <sup>2</sup>
1984	2.61
1985	2.51

<sup>1</sup>Costs attributable to Insured beneficiaries only. Benefits and administrative costs for noninsured persons are expected to be 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.

<sup>2</sup>Deemed credits for military service before 1984 were attributed to the year in which such service had occurred. If all such credits had been attributed in 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.—COST AND TAX RATES OF THE HOSPITAL INSURANCE PROGRAM,  
EXPRESSED AS A PERCENT OF TAXABLE PAYROLL <sup>1</sup>**

Calendar year	Expenditures under the program <sup>1</sup>	Trust fund maintenance <sup>2</sup>	Total cost of the program <sup>3</sup>	Tax rate scheduled in the law <sup>4</sup>	Difference
Alternative II-A					
1986	2.59%	0.02%	2.61%	2.90%	0.29%
1987	2.66	0.04	2.70	2.90	0.20
1988	2.77	0.03	2.80	2.90	0.10
1989	2.86	0.03	2.89	2.90	0.01
1990	2.96	0.04	3.00	2.90	-0.10
1995	3.45	0.04	3.48	2.90	-0.58
2000	3.73	0.03	3.76	2.90	-0.86
2005	3.98	0.02	4.00	2.90	-1.10
2010	4.26	0.02	4.28	2.90	-1.38
2015	4.71	0.02	4.73	2.90	-1.83
2020	5.33	0.02	5.35	2.90	-2.45
2025	6.04	0.03	6.07	2.90	-3.17
2030	6.67	0.03	6.70	2.90	-3.80
2035	7.06	0.03	7.09	2.90	-4.19
2040	7.25	0.02	7.27	2.90	-4.37
2045	7.31	0.03	7.34	2.90	-4.44
2050	7.33	0.03	7.36	2.90	-4.46
2055	7.34	0.03	7.37	2.90	-4.47
2060	7.36	0.03	7.39	2.90	-4.49
Averages:					
1986-2010	3.53	0.03	3.56	2.90	-0.66
2011-2035	5.74	0.02	5.76	2.90	-2.86
2036-2060	7.30	0.03	7.33	2.90	-4.43
1986-2060	5.52	0.03	5.55	2.90	-2.65
Alternative II-B					
1986	2.60	0.02	2.62	2.90	0.28
1987	2.69	0.04	2.73	2.90	0.17
1988	2.82	0.04	2.86	2.90	0.04
1989	2.92	0.04	2.95	2.90	-0.05
1990	3.03	0.03	3.07	2.90	-0.17
1995	3.54	0.04	3.58	2.90	-0.68
2000	3.90	0.03	3.93	2.90	-1.03
2005	4.21	0.03	4.24	2.90	-1.34
2010	4.56	0.02	4.58	2.90	-1.68
2015	5.05	0.02	5.07	2.90	-2.17
2020	5.71	0.03	5.74	2.90	-2.84
2025	6.48	0.03	6.51	2.90	-3.61
2030	7.15	0.04	7.19	2.90	-4.29
2035	7.57	0.03	7.60	2.90	-4.70
2040	7.77	0.03	7.80	2.90	-4.90
2045	7.83	0.04	7.87	2.90	-4.97
2050	7.85	0.04	7.89	2.90	-4.99
2055	7.86	0.04	7.90	2.90	-5.00
2060	7.89	0.04	7.93	2.90	-5.03
Averages:					
1986-2010	3.68	0.04	3.72	2.90	-0.82
2011-2035	6.15	0.03	6.18	2.90	-3.28
2036-2060	7.82	0.04	7.86	2.90	-4.96
1986-2060	5.88	0.04	5.92	2.90	-3.02

<sup>1</sup>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.

<sup>2</sup>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.

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

<sup>4</sup>Rates for employees and employers combined.

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.—SEVENTY-FIVE YEAR ACTUARIAL BALANCES 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 <sup>1</sup> . . . . .	2.90%	2.90%
Average cost of the program <sup>1</sup>		
Expenditures for benefit payments and administrative costs for insured beneficiaries . . . . .	5.52	5.88
Building and maintaining the trust fund at the level of one-half year's expenditures . . . . .	0.03	0.04
Total cost of the program <sup>2</sup> . . . . .	5.55	5.92
Actuarial balance . . . . .	-2.65	-3.02

<sup>1</sup>Average for the 75-year period 1986-2060.

<sup>2</sup>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 11.—ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST  
FUND DURING CALENDAR YEARS 1985-2010, UNDER ALTERNATIVE SETS OF  
ASSUMPTIONS**

(Dollar amounts in billions)

Calendar Year	Total Income	Total disbursements	Interfund borrowing transfers <sup>1</sup>	Net Increase In fund	Fund at end of year	Ratio of assets to disbursement <sup>2</sup> (percent)
<b>ALTERNATIVE I:</b>						
1985 <sup>3</sup>	\$51.4	\$48.4	\$1.8	\$4.8	\$20.5	32
1986	59.9	50.1	10.6	20.4	40.9	41
1987	63.4	54.4		9.0	49.9	75
1988	68.3	59.7		8.6	58.5	84
1989	73.2	64.9		8.3	66.9	90
1990	77.6	70.0		7.6	74.5	96
1991	82.5	75.6		6.9	81.4	99
1992	86.2	80.5		5.7	87.1	101
1993	90.7	85.9		4.8	91.9	101
1994	94.8	91.2		3.6	95.6	101
1995	99.7	97.2		2.5	98.1	98
2000	129.1	128.9		0.3	104.2	81
2005	165.9	165.9		0.1	103.7	62
2010	210.6	210.2		0.5	105.1	50
<b>ALTERNATIVE II-A:</b>						
1985 <sup>3</sup>	51.4	48.4	1.8	4.8	20.5	32
1986	59.8	50.1	10.6	20.3	40.8	41
1987	63.6	54.5		9.1	49.9	75
1988	68.2	60.4		7.8	57.7	83
1989	72.9	66.4		6.5	64.3	87
1990	77.7	72.9		4.8	69.1	88
1991	82.0	79.9		2.1	71.2	87
1992	86.3	87.2		-1.0	70.2	82
1993	90.3	95.0		-4.8	65.5	74
1994	94.7	103.3		-8.6	56.9	63
1995	99.0	112.1		-13.1	43.8	51
1996	103.7	120.9		-17.1	26.7	36
1997	108.4	129.9		-21.5	5.2	21
1998	113.2	139.7		-26.6	( <sup>4</sup> )	16
<b>ALTERNATIVE II-B:</b>						
1985 <sup>3</sup>	51.4	48.4	1.8	4.8	20.5	32
1986	59.6	50.1	10.6	20.1	40.6	41
1987	62.9	54.5		8.5	49.1	75
1988	67.1	60.5		6.7	55.7	81
1989	72.3	67.3		5.0	60.8	83
1990	77.6	74.8		2.8	63.6	81
1991	82.4	82.7		-0.3	63.3	77
1992	87.3	91.0		-3.7	59.5	70
1993	91.9	99.9		-8.0	51.5	60
1994	96.8	109.4		-12.6	38.9	47
1995	101.5	119.6		-18.1	20.8	33
1996	106.6	129.9		-23.2	( <sup>5</sup> )	16
<b>ALTERNATIVE III:</b>						
1985 <sup>3</sup>	51.4	48.4	1.8	4.8	20.5	32
1986	59.5	50.3	10.6	19.9	40.4	41
1987	62.7	56.0		6.8	47.1	72
1988	65.3	62.3		2.9	50.0	76
1989	70.6	70.5		0.1	50.1	71
1990	73.7	78.6		-5.0	45.1	64
1991	77.7	88.6		-10.9	34.2	51
1992	81.9	99.6		-17.7	16.5	34
1993	85.6	111.9		-26.4	( <sup>6</sup> )	15

<sup>1</sup>A loan of \$12.4 billion to the OASI trust fund was made in 1982. This loan was still an asset of the HI trust fund; however, since these assets were not immediately available for payment of HI benefits, they were subtracted from the HI fund balance. The positive amounts shown represent repayments of principal to the HI trust fund.

<sup>2</sup>Ratio of assets in the fund at the beginning of the year to disbursements during the year.

<sup>3</sup>Figures for 1985 represent actual experience.

<sup>4</sup>Trust fund depleted in calendar year 1998.

<sup>5</sup>Trust fund depleted in calendar year 1996.

<sup>6</sup>Trust fund depleted in calendar year 1993.

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

**TABLE 12.—SEVENTY-FIVE YEAR ACTUARIAL BALANCE OF THE HOSPITAL INSURANCE PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS**

	Alternative			
	I	II-A	II-B	III
1986-2010:				
Average contribution rate <sup>1</sup>	2.90%	2.90%	2.90%	2.90%
Average program expenditures <sup>2</sup>	2.96	3.56	3.72	4.87
Actuarial balance	-0.06	-0.66	-0.82	-1.97
2011-2035:				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average program expenditures <sup>2</sup>	3.34	5.76	6.18	11.85
Actuarial balance	-0.44	-2.86	-3.28	-8.95
2036-2060:				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average program expenditures <sup>2</sup>	3.96	7.33	7.86	16.06
Actuarial balance	-1.06	-4.43	-4.96	-13.16
1986-2060:				
Average contribution rate <sup>1</sup>	2.90	2.90	2.90	2.90
Average program expenditures <sup>2</sup>	3.42	5.55	5.92	10.93
Actuarial balance	-0.52	-2.62	-3.02	-8.03

<sup>1</sup>As scheduled under present law.

<sup>2</sup>Expressed as a percent of taxable payroll. Includes amounts for trust fund building and maintenance.

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.

## CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1986 was at the level of 41 percent of estimated outgo for calendar year 1986. This is below the 50 percent level recommended by the Board of Trustees. However, on January 31, 1986, the outstanding balance of the loan made to the Federal Old-Age and Survivors Insurance Trust Fund in December 1982 was repaid, creating a balance in the HI trust fund estimated to be greater than the 50 percent level.

The tax rates specified in the law are sufficient, along with interest earnings and assets in the fund to support program expenditures and maintain the trust fund at a level of at least 50 percent of one year's outgo only over the next seven to nine years under the intermediate assumptions. Even though the trust fund is expected to be able to pay benefits and administrative expenses as they become due until the late 1990's, any significant adverse deviation from these projections could result in the inability of the fund to meet its obligations much sooner than projected. In order to bring the hospital insurance program into close actuarial balance even for the first 25-year projection period under alternative II-B assumptions, either outlays will have to be reduced by 22 percent or income increased by 28 percent.

Over the 75-year projection period, the average tax rate necessary to provide for benefits and administrative expenses plus maintain the fund at a level of a half-year's disbursements exceeds the average tax rate scheduled in the law, producing an average deficit of 3.02 percent of taxable payroll under alternative II-B and 2.65 percent under alternative II-A. For the first 25-year projection period, the average deficit is 0.66 and 0.82 percent of taxable payroll for alternative II-A and alternative II-B, respectively. The average deficit grows to 2.86 and 3.28 percent of taxable payroll for alternatives II-A and II-B respectively, during the second 25-year projection period, and to 4.43 and 4.96 percent of taxable payroll for alternatives II-A and II-B respectively, during the third 25-year projection period.

There are currently over four covered workers supporting each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, there will be only slightly more than two covered workers supporting each enrollee. Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all but the most optimistic assumptions, the HI Trust Fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion is projected to occur during the late 1990's under the intermediate assumptions, and could occur as early as 1993 if the pessimistic assumptions are realized.

The Board notes that promising steps to begin reducing the rate of growth in payments to hospitals have already been taken. Initial

experience under the prospective payment system for hospitals suggests that this payment mechanism is an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Efforts focused on improving the efficiency and reducing the costs of the health care delivery system need to be continued, in close combination with mechanisms that will assure that the quality of health care is not adversely affected.

Because of the magnitude of the projected actuarial deficit in the HI program and the probability that the HI Trust Fund will be exhausted before the end of the century, the Board believes that early corrective action is essential in order to avoid the need for later, potentially precipitous changes. The Board, therefore, urges that the Congress take early remedial measures to bring future HI program costs and financing into balance.



## **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 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**

In order to establish a suitable base from which to project the future costs of the program, the incurred payments for 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.

For those expenses still reimbursed on a reasonable cost basis, the costs for covered services 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 estimates are known; however, the incomplete data available do not permit a precise determination of the exact amounts incurred during a specific period 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 of recoveries by as much as several years for some providers. Hence, the final cost of services reimbursed on a reasonable cost basis has not been completely determined for the most recent years of the program, and some degree of uncertainty remains even for earlier years.

Even for inpatient hospital services paid for on the basis of diagnostic related groups (DRG's), most payments are initially made on a periodic interim basis, and final payments are determined on the basis of bills containing detailed diagnostic information which are later submitted by the hospital.

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 began paying participating hospitals a prospectively determined amount for providing covered services to beneficiaries. With the exception of certain expenses (such as capital-related and medical education expenses) still reimbursed on the basis of reasonable costs, the payment rate for each admission depends 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, 1986, the prospective payment rates have already been determined. For fiscal year 1987 and later, 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 appointed to study and make recommendations with regard to the level of payments to hospitals. The law specifies that the only

increase in the payment rates that can be provided without specific justification is one-quarter of one percent plus the increase in the hospital input price index. Therefore, it is anticipated that in most years the Secretary will recommend an increase in payment per admission equal to one-quarter of one percent plus the increase in the hospital input price index, although the law provides that the Secretary may select an alternative increase. The projections contained in this report are based on the assumption that for fiscal year 1987, the Secretary will determine that the prospective payment rates are to be increased two percent from the levels determined for 1986, and in fiscal year 1988 and later, program payments to participating hospitals for each covered admission will be increased by one-quarter of 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 AI 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 hourly earnings in employment in the general economy and the difference between hourly earnings increases in the general economy and in the hospital industry.

Since the beginning of the hospital insurance program, the differential between hospital workers hourly earnings and hourly earnings in the general economy has fluctuated widely, but has averaged about 1.8 percent. Since 1972, this differential has averaged 1.3 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 reach a level of one percent, declining to zero near the end of the first 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 1.4 percent during 1972-1984. Over the short term, hospital price input intensity is assumed to reach a level of one percent, and decline gradually to zero by the end of the first 25-year projection period.

It is contemplated that future increases in payments to participating hospitals for covered admissions in most years will be equal to one-quarter of 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-quarter of one percent in all years during the first 25-year projection period. After the first 25-year projection period, the input price index plus the unit input intensity allowance is assumed to increase at the same rate as average earnings increase. 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 1985 and 1986, increases in inpatient hospital payments from other sources are primarily due to three factors: (1) the requirement that prospective payment rates be set at a level which neither decreases nor increases aggregate payments to hospitals in 1985; (2) the improvement in DRG coding as hospitals continue to adjust to the prospective payment system; and (3) the decision by the Secretary of Health and Human Services to set the 1986 payment rates at the same level as for 1985. In addition, for the years 1986 and 1987, the increases in inpatient hospital payments from other sources reflects the assumption that the

Secretary will set the fiscal year 1987 prospective payment rates at a level two percent higher than the fiscal year 1986 rates. For the years 1988 through 1995, a small one-half percent increase from other sources is attributable to a continuation of the current trend toward treating less complicated (and thus, less expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission for inpatient hospital services. The long-term average increase from other sources is due to payments for certain costs not included in the DRG payment increasing at a rate faster than the input price index plus one-quarter of one percent. 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; (2) changes in medical practice patterns; and (3) 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 care 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 earnings throughout the 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 seven 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 earnings. 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 slightly less than the increases in average hourly earnings 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 earnings 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 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, either a schedule of increasing tax rates or a reduction in program costs will be required to finance the system over time. Table A2 shows the resulting increases in program costs relative to taxable payroll over the first 25-year projection period. These relative increases reduce gradually to a level of approximately 1.1 percent and 1.3 percent per year by 2010 for alternatives II-A and II-B, respectively. The result of these increases 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 earnings and prices in the general economy. Table A1 shows the experience of the HI program for 1972 to 1984. 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 hourly earnings 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 be increased or program costs curtailed to finance the system over time.

By the end of the first 25-year projection period, program costs are projected to increase about 1.1 percent and 1.3 percent faster than increases in taxable payroll for alternative II-A and II-B, respectively. Program costs beyond the first 25-year projection period are based on the assumption that costs per unit of service will increase at the same rate as earnings increase. Program expenditures, which are currently about 2.6 percent of taxable payroll, increase to a level of between 4 and 5 percent by the year 2010 under both alternatives II-A and II-B and to over 7 percent by the year 2060. Hence, if all of the projection assumptions are realized over time, hospital insurance tax rates provided in the present financing schedule (2.9 percent of taxable payroll) will be inadequate to support the cost of the program.

During the first 25-year projection period, 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. Costs beyond the first 25-year projection period assume the 2 percent differential gradually decreases until the year 2035 when program cost increases relative to taxable payroll are approximately the same as under both sets of intermediate assumptions. Under alternative I, program costs increase slightly more than increases in taxable payroll during the first 25-year projection period. Program expenditures under this alternative would be about 3.0 percent of taxable payroll in the year 2010 and increase to about 4.0 percent of taxable payroll by 2060. Hence, hospital insurance tax rates provided in the present financing schedule will be inadequate, even under the optimistic alternative I assumptions. Under alternative III, program costs ultimately increase about 3.5 percent more rapidly than increases in taxable payroll during the first 25-year projection period. The result of this differential is a level of program expenditures in the year 2010 which is about 7.2 percent of taxable payroll, increasing to about 16.0 percent of taxable payroll in the year 2060.



TABLE A1.—COMPONENTS OF HISTORICAL AND PROJECTED INCREASES IN HI INPATIENT HOSPITAL PAYMENTS <sup>1</sup>  
(Percent)

Calendar year	Labor			Non-labor			Input price index	Unit input intensity allowance <sup>2</sup>	Units of service			HI inpatient hospital payments
	Average hourly earnings	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	6.0%	0.8%	6.8%	3.3%	1.2%	4.5%	5.9%	1.0%	1.4%	-1.2%	3.1%	10.4%
1973	8.6	-2.9	5.5	6.2	1.7	8.0	6.5	1.0	6.5	7.1	-7.0	14.0
1974	6.4	1.2	7.7	11.0	2.9	14.2	10.4	1.0	6.2	-0.3	4.8	23.6
1975	7.3	2.4	9.9	9.1	2.8	12.2	10.9	1.0	3.4	0.1	5.9	22.6
1976	6.3	1.8	8.2	5.7	2.5	8.3	8.2	1.0	2.9	1.5	4.5	19.2
1977	6.9	0.2	7.1	6.5	1.3	7.9	7.4	1.0	3.0	4.6	0.3	17.1
1978	8.7	-0.3	8.4	7.6	0.3	7.9	8.2	1.0	2.7	-1.9	4.4	14.9
1979	9.4	-0.9	8.4	11.4	-0.3	11.1	9.6	1.0	2.7	3.1	-0.5	16.5
1980	8.0	2.4	10.6	13.5	-0.6	12.8	11.6	1.0	2.1	2.4	2.6	20.8
1981	8.9	3.1	12.3	10.3	0.6	11.0	11.7	1.0	1.9	2.8	1.6	19.9
1982	5.9	5.0	11.2	6.0	1.3	7.4	9.6	1.0	1.7	0.0	2.9	15.7
1983	4.0	3.2	7.3	3.0	1.7	4.8	6.3	1.0	1.7	1.0	0.5	10.8
1984	4.8	0.7	5.5	3.4	2.3	5.8	5.6	1.0	1.4	-3.7	5.7	10.0
Projection:												
Alternative II-A												
1985	5.0	0.1	5.1	3.5	0.8	4.3	4.8	0.81 <sup>2</sup>	2.3	-6.2	3.2	4.6
1986	4.7	-0.9	3.8	2.9	1.3	4.2	4.0	0.25	2.2	-3.1	2.5	5.8
1987	5.1	0.0	5.1	3.9	0.3	4.2	4.7	0.25	2.0	-0.5	2.8	9.5
1988	5.1	1.0	6.2	3.7	1.0	4.7	5.6	0.25	1.9	1.1	1.7	10.9
1989	5.1	1.0	6.2	3.3	1.0	4.3	5.4	0.25	1.9	1.8	0.5	10.1
1990	4.9	1.0	5.9	3.0	1.0	4.0	5.2	0.25	1.9	1.8	0.5	9.9
1995	4.9	1.0	5.9	3.0	1.0	4.0	5.2	0.25	1.3	1.3	0.4	8.6
2000	5.0	1.0	6.0	3.0	1.0	4.0	5.3	0.25	0.9	1.0	-0.1	7.5
2005	5.0	0.5	5.5	3.0	0.5	3.5	4.9	0.25	1.3	0.5	-0.1	6.9
2010	5.2	0.0	5.2	3.0	0.0	3.0	4.5	0.25	1.9	-0.2	0.0	6.5
Alternative II-B												
1985	4.8	0.3	5.1	3.5	0.8	4.3	4.8	0.81 <sup>2</sup>	2.3	-6.2	3.2	4.6
1986	4.5	-0.7	3.8	3.2	1.0	4.2	4.0	0.25	2.2	-3.1	2.5	5.8
1987	5.2	-0.2	5.0	4.4	0.1	4.5	4.8	0.25	2.0	-0.5	2.8	9.6
1988	5.3	1.0	6.4	4.4	1.0	5.4	6.0	0.25	1.9	1.1	1.7	11.3
1989	6.4	1.0	7.5	4.9	1.0	6.0	6.8	0.25	1.9	1.8	0.2	11.3
1990	6.1	1.0	7.2	4.6	1.0	5.6	6.5	0.25	1.9	1.8	0.4	11.2
1995	5.5	1.0	6.6	4.0	1.0	5.0	6.0	0.25	1.3	1.3	0.2	9.3
2000	5.7	1.0	6.8	4.0	1.0	5.0	6.1	0.25	0.9	1.0	-0.1	8.3
2005	5.7	0.5	6.2	4.0	0.5	4.5	5.6	0.25	1.3	0.5	-0.1	7.7
2010	5.8	0.0	5.8	4.0	0.0	4.0	5.2	0.25	1.9	-0.2	0.0	7.2

<sup>1</sup>Percent increase in year indicated over previous year.

<sup>2</sup>Reflects the effect of a one percent increase for fiscal year 1985 over 1984 and a one quarter of one percent increase for fiscal year 1986 over 1985.

**TABLE A2.—RELATIONSHIP BETWEEN INCREASES IN HI PROGRAM COSTS AND INCREASES IN TAXABLE PAYROLL <sup>1</sup>**  
(Percent)

Calendar Year	Inpatient hospital <sup>2,3</sup>	Skilled nursing facility <sup>3</sup>	Home health agency <sup>3</sup>	Weighted average <sup>4</sup>	HI administrative costs <sup>3</sup>	Total HI program costs <sup>3</sup>	HI taxable payroll	Ratio of costs to payrolls <sup>5</sup>
Alternative II-A								
1986	6.0%	3.1%	13.7%	6.4%	-5.8%	6.1%	7.0%	-0.8%
1987	9.7	5.5	12.8	9.8	9.4	9.8	7.0	2.6
1988	11.1	8.0	10.8	11.1	6.7	11.0	6.7	4.0
1989	10.2	7.5	10.8	10.2	8.6	10.2	6.7	3.3
1990	10.0	7.0	9.5	9.9	8.2	9.9	6.1	3.6
1995	8.6	7.0	7.4	8.5	6.6	8.5	5.6	2.7
2000	7.5	6.5	7.0	7.4	6.1	7.4	5.9	1.5
2005	6.9	6.1	6.7	6.9	6.0	6.9	5.6	1.2
2010	6.5	6.0	6.5	6.5	5.8	6.5	5.3	1.1
Alternative II-B								
1986	6.0%	3.1%	13.7%	6.4%	-5.8%	6.1%	6.6%	-0.4%
1987	9.7	5.5	13.3	9.8	9.4	9.8	6.4	3.2
1988	11.4	8.0	11.3	11.4	6.8	11.3	6.2	4.8
1989	11.5	10.0	12.3	11.5	10.0	11.5	7.7	3.6
1990	11.3	8.7	10.5	11.2	9.2	11.2	6.9	4.0
1995	9.4	7.4	8.0	9.3	7.1	9.3	6.1	3.0
2000	8.3	7.0	7.6	8.2	6.7	8.2	6.2	1.9
2005	7.7	6.6	7.2	7.7	6.6	7.7	6.0	1.5
2010	7.2	6.5	7.0	7.2	6.4	7.2	5.8	1.3

<sup>1</sup>Percent increase in year indicated over previous year.

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

<sup>3</sup>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.

<sup>4</sup>Includes costs for hospice care in calendar year 1986, as provided for by the Tax Equity and Fiscal Responsibility Act of 1982.

<sup>5</sup>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-employee rate.

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

Calendar Year	Increases In aggregate HI Inpatient hospital payments¹				Changes in the relationship between costs and payroll¹			Expenditures as a percent of taxable payroll
	Average hourly earnings	CPI	Other factors²	Total	Program costs³	Taxable payroll	Ratio of costs to payroll	
Alternative I:								
1986	4.7%	2.4%	2.0%	5.8%	6.1%	7.2%	-1.0%	2.58%
1987	4.8	3.2	4.9	9.2	9.5	6.2	3.1	2.66
1988	5.0	3.2	5.2	9.7	9.9	7.5	2.2	2.72
1989	5.0	2.8	4.3	8.6	8.9	6.8	1.9	2.78
1990	4.8	2.5	3.9	7.9	8.1	5.3	2.7	2.85
1995	4.2	2.0	3.0	6.5	6.6	5.7	0.8	3.03
2000	4.4	2.0	2.0	5.6	5.7	5.7	0.0	3.05
2005	4.4	2.0	1.3	4.9	5.0	5.4	-0.4	3.01
2010	4.6	2.0	0.5	4.3	4.5	5.0	-0.5	2.98
Alternative II-A:								
1986	4.7	2.9	1.8	5.8	6.1	7.0	-0.8	2.59
1987	5.1	3.9	4.7	9.5	9.8	7.0	2.6	2.66
1988	5.1	3.7	6.1	10.9	11.0	6.7	4.0	2.77
1989	5.1	3.3	5.5	10.1	10.2	6.7	3.3	2.86
1990	4.9	3.0	5.5	9.9	9.9	6.1	3.6	2.96
1995	4.9	3.0	4.2	8.6	8.5	5.6	2.7	3.45
2000	5.0	3.0	3.1	7.5	7.4	5.9	1.5	3.73
2005	5.0	3.0	2.5	6.9	6.9	5.6	1.2	3.98
2010	5.2	3.0	1.9	6.5	6.5	5.3	1.1	4.26
Alternative II-B:								
1986	4.5	3.2	1.8	5.8	6.1	6.6	-0.4	2.60
1987	5.2	4.4	4.5	9.6	9.8	6.4	3.2	2.69
1988	5.3	4.4	6.1	11.3	11.3	6.2	4.8	2.82
1989	6.4	4.9	5.2	11.3	11.5	7.7	3.6	2.92
1990	6.1	4.6	5.4	11.2	11.2	6.9	4.0	3.03
1995	5.5	4.0	4.2	9.3	9.3	6.1	3.0	3.54
2000	5.7	4.0	3.1	8.3	8.2	6.2	1.9	3.90
2005	5.7	4.0	2.5	7.7	7.7	6.0	1.5	4.21
2010	5.8	4.0	1.9	7.2	7.2	5.8	1.3	4.56
Alternative III:								
1986	4.9	4.2	1.9	6.6	6.9	6.6	0.3	2.63
1987	5.4	5.8	6.1	12.0	12.0	6.1	5.6	2.77
1988	4.4	5.1	6.9	11.9	11.9	3.8	7.8	2.99
1989	7.1	5.3	6.3	13.1	13.2	8.7	4.1	3.11
1990	4.5	5.7	6.5	11.8	11.7	4.1	7.4	3.34
1995	6.1	5.0	6.1	12.1	11.9	6.9	4.7	4.23
2000	6.4	5.0	4.5	10.6	10.5	6.4	3.8	5.11
2005	6.4	5.0	4.0	10.1	9.9	6.3	3.5	6.06
2010	6.4	5.0	3.5	9.6	9.5	6.1	3.2	7.20

<sup>1</sup>Percent increase in the year indicated over the previous year.

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

<sup>3</sup>Includes costs 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

### DETERMINATION AND ANNOUNCEMENT OF THE INPATIENT HOSPITAL DEDUCTIBLE FOR 1986<sup>2</sup>

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 1986 will be \$492.

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.

The 1986 inpatient hospital deductible and coinsurance amounts discussed below have been computed 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. The Secretary has no discretion in computing the inpatient hospital deductible and coinsurance amounts. The amount of the deductible for 1986 under the formula has been determined to be \$492.

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 1985, the daily coinsurance for the 61st through 90th days of hospitalization (1/4 of the inpatient hospital deductible) will be \$123; the daily coinsurance for lifetime reserve days (1/2 of the inpatient hospital deductible) will be \$246; 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 \$61.50.

Under the formula in the law, the deductible for calendar year 1986 must be equal to \$45 multiplied by the ratio of (1) the current average per diem rate for inpatient hospital services for calendar year 1984 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.

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<sup>2</sup> This statement was published in the *Federal Register* for September 30, 1985 (Vol. 50, No. 189, p. 39940).

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 1984 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 1984, based on tabulated interim costs, is \$430.50; the corresponding amount for 1966 is \$37.92. The averages are based on approximately 91 million days of hospitalization in 1984 and 30 million days in 1966 (last 6 months of the year). The ratio of final cost to interim cost is approximately 1.018 for 1984 and 1.055 for 1966. Thus, the inpatient hospital deductible is  $\$45 \times (430.50 \times 1.018) / (37.92 \times 1.055) = \$492.96$ , which is rounded to \$492.

The inpatient hospital deductible and coinsurance amounts for the calendar year 1986 will be 23 percent higher than the 1985 amounts. The inpatient hospital deductible increased from \$400 to \$492; the daily coinsurance for the 61st through

90th days of hospitalization increased from \$100 to \$123; the daily coinsurance for lifetime reserve days increased from \$200 to \$246; and the daily coinsurance for the 21st through 100th days of extended care services in a skilled nursing facility increased from \$50.00 to \$61.50.

The 23 percent increase in the inpatient hospital deductible is due to the increase in the average per diem hospital rate for 1984 as compared to the average per diem rate for 1983. Although the increase in the average per admission hospital payment for 1984 as compared to the average per admission hospital payment for 1983 is about 11 percent, the law specifies using the average per diem rate, not the average per admission rate. The substantial difference between the average per diem increase and the average per admission increase is due to the significant reduction in average length of stay for a hospital admission. Since 1983, the average length of stay has been declining at a much faster rate than in prior years. Thus, the fixed payment per admission is spread over fewer days, causing the average per diem increase to be higher than the average per admission increase.

We believe that the large increase in the deductible will be for this year only. We expect the reduction in the length of stay to level off. Consequently, the increase in the deductible should be substantially lower in future years.

The estimated cost to beneficiaries due to these increases is \$1.1 billion. This amount is based on an estimated 8.0 million beneficiaries who will have 9.2 million benefit periods and use 4.4 million hospital coinsurance days, 1.2 million lifetime reserve days, and 4.8 million skilled nursing facility coinsurance days in 1986.

### **Regulatory Impact Statement**

This notice merely announces amounts required by legislation. This notice is not a proposed rule or a final rule issued after a proposal, and does not alter any regulation or policy. Therefore, we have determined, and the Secretary certifies, that no analyses are required under Executive Order 12291 or the Regulatory Flexibility Act (5 U.S.C. 601 through 612).

Dated: September 20, 1985

C. McClain Haddow  
Acting Administrator  
Health Care Financing Administration

Approved: September 26, 1985

Margaret M. Heckler  
Secretary  
Department of Health and Human Services

## APPENDIX C

### **DETERMINATION AND ANNOUNCEMENT OF THE HOSPITAL INSURANCE MONTHLY PREMIUM RATE FOR THE UNINSURED AGED, FOR THE 12-MONTH PERIOD BEGINNING JANUARY 1, 1986 <sup>3</sup>**

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, 1986, is \$214.

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, 1986, the 1973 base year premium (\$33) be multiplied by the ratio of (1) the 1986 inpatient hospital deductible to (2) the 1973 inpatient hospital deductible, rounded to the nearest multiple of \$1 or, if midway between multiples of \$1, to the next higher multiple of \$1.

Under section 1813(b)(2) of the Act, the 1986 inpatient hospital deductible was determined to be \$492. (See 50 FR 39940, September 30, 1985.) 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, 1986, 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  $\$33 \times (492/76) = \$213.63$ , which is rounded to \$214.

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<sup>3</sup> This statement was published in the Federal Register for September 30, 1985 (Vol. 50, No. 189, p. 39932).

The monthly hospital insurance premium for the uninsured aged for the 12-month period beginning January 1, 1986, will increase to \$214. That amount is 23 percent higher than the \$174 monthly premium amount for the 12-month period beginning January 1, 1985.

The estimated cost of this increase to the approximately 22 thousand enrollees who do not otherwise meet the requirements for entitlement to hospital insurance will be about 11 million.

### **Regulatory Impact Statement**

This notice merely announces amounts required by legislation. This notice is not a proposed rule or a final rule issued after a proposal, and does not alter any regulation or policy. Therefore, we have determined, and the Secretary certifies, that no analyses are required under Executive Order 12291 or the Regulatory Flexibility Act (5 U.S.C. 601 through 612).

Dated: September 20, 1985

C. McClain Haddow  
Acting Administrator  
Health Care Financing Administration

Approved: September 26, 1985

Margaret M. Heckler  
Secretary  
Department of Health and Human Services



## **APPENDIX D**

### **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  
Chief Actuary,  
Health Care Financing Administration