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**THE 1993 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**

**TRANSMITTING**

**THE 1993 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE  
FEDERAL HOSPITAL INSURANCE TRUST FUND, PURSUANT TO 42  
U.S.C. 401(c)(2)**



**APRIL 7, 1993.—Referred to the Committee on Ways and Means and  
ordered to be printed**

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**U.S. GOVERNMENT PRINTING OFFICE**

**WASHINGTON : 1993**



LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE  
FEDERAL HOSPITAL INSURANCE TRUST FUND  
Washington, D.C., April 6, 1993

HONORABLE THOMAS S. FOLEY  
Speaker of the House of Representatives  
Washington, D.C.

HONORABLE ALBERT GORE, JR.  
President of the Senate  
Washington, D.C.

GENTLEMEN: We have the honor of transmitting to you the 1993 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund (the 28th such report), in compliance with the provisions of section 1817(b) of the Social Security Act.

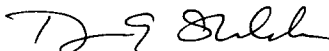
Respectfully,



LLOYD M. BENTSEN,  
*Secretary of the Treasury, and  
Managing Trustee of the Trust Fund*



ROBERT B. REICH,  
*Secretary of Labor, and Trustee*



DONNA E. SHALALA,  
*Secretary of Health and Human Services,  
and Trustee*



STANFORD G. ROSS,  
*Trustee*



DAVID M. WALKER,  
*Trustee*



WILLIAM TOBY,  
*Acting Deputy Administrator of the Health Care  
Financing Administration, and  
Secretary, Board of Trustees*



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## **I. OVERVIEW**

### ***A. SUMMARY***

#### **1. Operations of the Hospital Insurance Program**

The hospital insurance (HI) program pays for inpatient hospital care and other related care for those age 65 and over, and for the long-term disabled. In calendar year 1992, HI covered about 31 million aged and about 4 million disabled enrollees at a cost of \$85.0 billion. Of this amount, \$83.9 billion was for benefit payments and \$1.1 billion, 1.3 percent of total disbursements, was for administrative expenses.

The HI program is financed primarily by payroll taxes, with the taxes paid by current workers and their employers used mainly to pay benefits for current beneficiaries. Income not currently needed to pay benefits and related expenses is held in the HI trust fund. The assets of the fund may not be used for any other purpose. While in the fund, the assets are invested in certain interest-bearing obligations of the United States Government. These obligations are backed by the full faith and credit of the U.S. Government.

The payroll taxes of 137 million workers and their employers amounting to \$81.7 billion, or 87.1 percent of total income to the fund, were collected during calendar year 1992. Interest income to the HI trust fund amounted to 11.0 percent of total income. The remaining 1.8 percent of calendar year 1992 income consisted mostly of a transfer from the railroad retirement program, transfers to and from the general fund of the Treasury, and premiums paid by voluntary enrollees.

The HI contribution rates applicable to taxable earnings are 1.45 percent for employees and employer each and 2.90 percent for self-employed. The maximum taxable amount of annual earnings for 1992 was \$130,200. After 1992, the automatic-adjustment provisions in section 230 of the Social Security Act determine the maximum taxable amount.

The adequacy of the HI program's scheduled financing to support program costs in the future is examined under three alternative sets of assumptions: optimistic, intermediate, and pessimistic. The intermediate set of assumptions, alternative II, represents the Trustees' best estimate of the expected future economic and demographic trends that will affect the financial status of the program. Alternative I is a more optimistic set of assumptions from the standpoint of HI financing and alternative III is a more pessimistic set of

## *Overview*

assumptions. Under the intermediate set of assumptions, the trust fund ratio, defined as the ratio of assets at the beginning of the year to disbursements during the year, reached a level of 136 percent in 1992 and then is projected to decline steadily until the fund is completely exhausted in 1999. Under the more optimistic set of assumptions, the trust fund ratio is projected to decline until the fund is completely exhausted in 2000. Under the more pessimistic set of assumptions, the trust fund ratio is projected to decrease rapidly until the fund is exhausted in 1998. These projections clearly demonstrate that the HI program is severely out of financial balance using a range of plausible economic and demographic assumptions.

Table I.C.4 in this report summarizes the estimated operations of the HI trust fund that have just been described under the three alternative sets of assumptions. As can be seen from Table I.C.4, the Trustees' short-range test of financial adequacy, which is described in the "Expected Operations and Status of the Trust Fund" (section I.C.), is not met. In addition, the trust fund is projected to become insolvent within the next 5 to 7 years under all three sets of assumptions.

The adequacy of the current law financing schedule for the HI program on a long-range basis is measured by comparing on a year-by-year basis the tax rates specified by law with the corresponding incurred costs of the program, expressed as percentages of taxable payroll. However, the financial status of the program is often summarized, over a specific projection period, by a single measure known as the actuarial balance. The actuarial balance using the present value method is defined to be the difference in the sum of the present values of the tax rates for the valuation period over the sum of the present value of the cost rates (insured, incurred costs expressed as a percentage of taxable payroll) of the program for the same period, divided by the sum of the present values of the effective taxable payroll for the valuation period. The "Actuarial Status of the Trust Fund" (section I.D.) describes the method used to calculate summarized cost rates, tax rates, and actuarial balances. The HI trust fund does not meet the Trustees' long-range test of financial adequacy, as discussed in section I.D., under any of the three sets of assumptions.

Table I.A.1 presents a comparison of the projected experience contained in the 1992 and 1993 reports. As Table I.A.1 indicates, the projections in the 1993 report show that the fund will be depleted earlier than projected in the 1992 report under all three sets of assumptions. The major reasons for this change are the continued rapid growth in skilled nursing facility (SNF) and

home health agency (HHA) benefit payments, the larger estimated disabled population, and the lower estimated payroll taxes. Section I.D. discusses in more detail the reasons for the change in the actuarial balance. Compared to last years report, by the Trustees' intermediate set of assumptions, the date of exhaustion will be three years earlier and the 75-year actuarial balance will worsen by .91 percent of taxable payroll.

**Table I.A.1. – STATUS OF THE HI TRUST FUND**

Sets of assumptions	Year in which the trust fund is exhausted <u>as published in the</u>		75-year actuarial balance of the HI program <u>as published in the</u>	
	<u>1992 report</u>	<u>1993 report</u>	<u>1992 report</u>	<u>1993 report</u>
I (optimistic)	2009	2000	-1.34%	-2.04%
II (intermediate)	2002	1999	-4.20	-5.11
III (pessimistic)	2000	1998	-9.45	-10.61

## 2. Conclusion of the Board of Trustees

Under the Trustees' alternative II assumptions, the present financing schedule for the HI program is sufficient to ensure the payment of benefits only over the next 6 years. Also, the HI trust fund does not meet the Trustees' short-term test of financial solvency. Under the more pessimistic alternative III, the fund is projected to be exhausted in 1998, approximately 5 years from the present. Under the more optimistic alternative I, the trust fund is projected to be exhausted in 2000.

Currently about four covered workers support each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, only about two covered workers will support each enrollee. Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all the assumptions, the trust fund is projected to become exhausted even before the major demographic shift

## *Overview*

begins to occur. As noted above, exhaustion of the fund is projected to occur by the turn of the century under all three sets of assumptions.

The Trustees note that some steps have been taken to reduce the rate of growth in payments to hospitals, including the implementation of prospective payment and diagnosis-related groups. Initial experience under the prospective payment system for hospitals suggests that this payment mechanism may be an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Nonetheless, projected costs for the HI program far exceed projected revenues over the 75-year long-range period. As a result, the HI program is severely out of financial balance and is unsustainable in its present form.

The long-range status of the HI program has deteriorated over the years as measured by the actuarial balances reported in this report and prior years reports. In addition, this year the HI trust fund fails to meet the short-range test of financial adequacy. In view of the worsening condition of the HI trust fund and the failure of the fund to meet the short-range test of financial adequacy, the Board of Trustees is making a separate report to alert the Congress of the unfavorable financial status of the HI trust fund as required under section 709 of the Social Security Act.

The HI program is projected to increase from 1.4 percent of Gross Domestic Product (GDP) in CY 1992 to 5.1 percent of GDP in CY 2065. This rapid growth is attributable primarily to (1) increases in hospital admissions, and (2) increases in reported case mix. With the magnitude of the projected actuarial deficit in the HI program and the high probability that the HI trust fund will be exhausted by the turn of the century, the Trustees urge the Congress to take additional actions designed to control HI program costs through specific program legislation and as a part of enacting comprehensive health care reform. The Trustees believe that prompt, effective, and decisive action is necessary.

## ***B. THE BOARD OF TRUSTEES***

The Federal Hospital Insurance Trust Fund, established on July 30, 1965, is held by the Board of Trustees under the authority of section 1817(b) of the Social Security Act, as amended. The Board is composed of five members, three of whom serve in an ex officio capacity: the Secretary of the Treasury,

the Secretary of Labor, and the Secretary of Health and Human Services. The President nominated and the Senate confirmed Stanford G. Ross and David M. Walker to be the other two members, who serve as representatives of the public. Mr. Ross and Mr. Walker are serving 4-year terms that began on October 2, 1990.

By law, the Secretary of the Treasury is designated as the Board Chairperson and 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 annual report, for 1993, is the 28th such report.

### ***C. EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND***

Table I.C.1 shows the expected operations of the trust fund during fiscal years 1993 to 1995, together with the past experience of the program. The estimate shown in Table I.C.1 is based on an intermediate set of assumptions labeled "Alternative II." This set of assumptions represents the Trustees' best estimate of the expected future economic and demographic trends that will affect the financial status of the program. The assumptions underlying the alternative II projections are presented in the technical section.

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 HI contributions. Estimates of the corresponding outgo are included in the disbursement items.

Estimated income to the trust fund which is appropriated from general revenue to reimburse the program for the cost of coverage of noninsured persons is the same as the estimates of disbursements incurred for such persons, net of corrections for differences between costs and amounts transferred for previous years. Premium income for other noninsured persons who may enroll in the HI program on a voluntary basis is estimated based on projected premium rates calculated according to statute and estimated average enrollment.

## *Overview*

The transfers from general revenue for military wage credits are based on provisions of the Social Security Amendments of 1983 (Public Law 98-21), as described in the technical section.

The investment of new assets received during fiscal years 1993-95 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 5.875 percent to 6.375 percent, payable semiannually. The average effective annual rate of interest on the assets held by the HI trust fund on September 30, 1992, was 8.9 percent.

Disbursements for benefits are projected to increase in fiscal years 1993-95, 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 I.C.1 will differ from those shown in the President's proposed 1994 Federal Budget. These estimates are based on more recent demographic and economic projections, and they do not reflect the implementation of proposed changes in regulations which were included in the budget. The expenditures for benefit payments shown in this section are based on the assumption that for fiscal years 1994 and later, the prospective payment rates will be increased in accordance with Public Law 101-508, the Omnibus Budget Reconciliation Act of 1990; for fiscal year 1993, the prospective payment rates have already been determined in accordance with the same statute.

The actual operations of the HI 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 hospital deductible and other cost-sharing amounts. The projected operations of the trust fund on a calendar year basis are shown in Table I.C.2, according to the same assumptions as used in Table I.C.1. 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 I.C.3 for past years and as projected, under the same assumptions, through 1995.





**TABLE I.C.1.--OPERATIONS OF THE HI TRUST FUND DURING FISCAL YEARS 1970-95**  
(In millions)

Fiscal year <sup>1</sup>	Income							Disbursements				Trust fund	
	Payroll taxes	Transfers from railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest 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
<b>Historical Data:</b>													
1970	\$4,785	\$64	\$617	--	\$11	\$137	\$5,614	\$4,804	\$149	\$4,953	--	\$661	\$2,677
1975	11,291	132	481	\$6	48	609	12,568	10,353	259	10,612	--	1,956	9,870
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>6</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
1986	53,020	364	566	40	-714 <sup>7</sup>	3,167	56,442	49,018	667	49,685	10,613	17,370	38,648
1987	57,820	368	447	40	94	3,982	62,751	49,967	836	50,803	--	11,949	50,596
1988	61,901	364	475	42	80	5,148	68,010	52,022	707	52,730	--	15,281	65,877
1989	67,527	379	515	42	86	6,567	75,116	57,433	805	58,238	--	16,878	82,755
1990	70,655	367	413	113	107	7,908	79,563	65,912	774	66,687	--	12,876	95,631
1991	74,655	352	605	367	-1,011 <sup>8</sup>	8,969	83,938	68,705	934	69,638	--	14,299	109,930
1992	80,978	374	621	484	86	10,133	92,677	80,784	1,191	81,974	--	10,703	120,633
<b>Estimates<sup>9</sup>:</b>													
1993	82,657	395	367	575	79	12,415 <sup>10</sup>	96,488	90,118	1,122	91,240	--	5,248	125,881
1994	89,921	376	506	669	74	10,720	102,266	101,571	1,188	102,759	--	-493	125,388
1995	94,657	374	323	755	70	10,284	106,463	113,466	1,271	114,737	--	-8,274	117,114

<sup>1</sup>Fiscal years 1970 and 1975 consist of the 12 months ending on June 30 of each year; fiscal years 1980 and later consist of the 12 months ending on September 30 of each year.

<sup>2</sup>Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and a small amount of 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 negative amount is a loan to the OASI trust fund; a positive amount is a

repayment of loan principal to the HI trust fund.

<sup>6</sup>Includes the lump sum general revenue transfer of \$3,456 million, as provided for by section 151 of P.L. 98-21.

<sup>7</sup>Includes the lump sum general revenue adjustment of -\$805 million, as provided for by section 151 of P.L. 98-21.

<sup>8</sup>Includes the lump sum general revenue adjustment of -\$1,100 million, as provided for by section 151 of P.L. 98-21.

<sup>9</sup>Under alternative II.

<sup>10</sup>Includes \$1,805 million transfer from the SMI catastrophic coverage reserve fund, as provided for by P.L. 102-394.

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

**TABLE I.C.2.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1970-95**  
(In millions)

Overview

Calendar year	Income							Disbursements				Trust fund	
	Payroll taxes	Transfers from railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest 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
<b>Historical Data:</b>													
1970	\$4,881	\$66	\$863	--	\$11	\$158	\$5,979	\$5,124	\$157	\$5,281	--	\$698	\$3,202
1975	11,502	138	621	\$7	48	664	12,980	11,315	266	11,581	--	1,399	10,517
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>5</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>6</sup>	3,362	51,397	47,580	834	48,414	1,824	4,808	20,499
1986	54,583	364	566	43	91	3,619	59,267	49,758	664	50,422	10,613	19,458	39,957
1987	58,648	368	447	38	94	4,469	64,064	49,496	793	50,289	--	13,775	53,732
1988	62,449	364	475	41	80	5,830	69,239	52,517	815	53,331	--	15,908	69,640
1989	68,369	379	515	55	86	7,317	76,721	60,011	792	60,803	--	15,918	85,558
1990	72,013	367	413	122	-993 <sup>7</sup>	8,451	80,372	66,239	758	66,997	--	13,375	98,933
1991	77,851	352	605	432	89	9,510	88,839	71,549	1,021	72,570	--	16,269	115,202
1992	81,745	374	621	522	86	10,487	93,836	83,895	1,121	85,015	--	8,821	124,022
<b>Estimates<sup>8</sup>:</b>													
1993	83,521	395	367	597	79	12,620 <sup>9</sup>	97,579	92,969	1,129	94,098	--	3,481	127,503
1994	90,950	376	506	693	74	10,647	103,246	104,631	1,208	105,839	--	-2,593	124,910
1995	95,877	374	323	776	70	9,950	107,370	116,612	1,293	117,905	--	-10,535	114,375

<sup>1</sup>Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and a small amount of 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 negative amount is a loan to the OASI trust fund; a positive amount is a repayment of loan principal to the HI trust fund.

<sup>5</sup>The lump sum general revenue transfer, as provided for by section 151 of P.L. 98-21.

<sup>6</sup>Includes the lump sum general revenue adjustment of -\$805 million, as provided for by section 151 of P.L. 98-21.

<sup>7</sup>Includes the lump sum general revenue adjustment of -\$1,100 million, as provided for by section 151 of P.L. 98-21.

<sup>8</sup>Under alternative II.

<sup>9</sup>Includes \$1,805 million transfer from the SMI catastrophic coverage reserve fund, as provided for by P.L. 102-394.

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

## Overview

**TABLE I.C.3. – RATIO OF ASSETS IN THE FUND AT THE BEGINNING OF THE YEAR  
TO DISBURSEMENTS DURING THE YEAR FOR THE HI 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
1986	41
1987	79
1988	101
1989	115
1990	128
1991	136
1992	136
Estimates <sup>1</sup> :	
1993	132
1994	120
1995	106

<sup>1</sup>Under alternative II.

Since future economic, demographic, and health care usage and cost experience may differ considerably from the intermediate assumptions on which the cost estimates were based, projections have also been prepared on the basis of two different sets of assumptions labeled "Alternative I" and "Alternative III." The assumptions used in preparing projections under alternatives I and III, as well as under alternative II, are discussed in the technical section.

The three 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 more optimistic than the alternative II assumptions, resulting in a lower average cost over the projection period and enhanced trust fund finances. The alternative III assumptions are more pessimistic than the alternative II assumptions, resulting in a higher average cost over the projection period and weaker trust fund finances. 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 assurance 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 estimated operations of the HI trust fund during calendar years 1992-2000, on a cash basis for all program income and disbursements, are summarized in Table I.C.4 for all three alternatives. Under alternative II, the trust fund as a percent of a year's disbursements (trust fund ratio) reached a level of 136 percent in 1992 and then is projected to decline steadily until it is completely exhausted in 1999. Under alternative I, the trust fund ratio is projected to decline until the fund is exhausted in 2000. Under alternative III, the trust fund ratio is projected to decrease rapidly until the fund is exhausted in 1998. There is a significant narrowing of the band due to the severity and short term nature of the financial deterioration of the HI program. These projections do not reflect any reduction in disbursements due to proposed changes in legislation or regulation which were included in the 1994 Federal Budget but which have not been enacted or implemented.

## Overview

**TABLE I.C.4. – ESTIMATED OPERATIONS OF THE HI TRUST FUND DURING  
CALENDAR YEARS 1992-2000, UNDER ALTERNATIVE SETS OF ASSUMPTIONS**  
(Dollar amounts in billions)

Calendar Year	Total Income	Total disbursements	Net Increase in fund	Fund at end of year	Ratio of assets to disbursements <sup>1</sup> (percent)
<b>ALTERNATIVE I:</b>					
1992 <sup>2</sup>	\$93.8	\$85.0	\$8.8	\$124.0	136
1993	98.4	94.1	4.3	128.3	132
1994	104.9	104.9	0.0	128.3	122
1995	110.4	116.1	-5.7	122.7	111
1996	116.1	128.4	-12.2	110.4	96
1997	120.9	139.3	-18.5	92.0	79
1998	126.0	150.5	-24.4	67.5	61
1999	130.9	162.2	-31.3	36.2	42
2000	135.6	174.6	-39.0	(3)	21
<b>ALTERNATIVE II:</b>					
1992 <sup>2</sup>	\$93.8	\$85.0	\$8.8	\$124.0	136
1993	97.6	94.1	3.5	127.5	132
1994	103.2	105.8	-2.6	124.9	120
1995	107.4	117.9	-10.5	114.4	106
1996	111.4	131.3	-19.8	94.5	87
1997	114.4	143.6	-29.2	65.3	66
1998	117.5	156.6	-39.1	26.2	42
1999	120.5	170.9	-50.4	(4)	15
<b>ALTERNATIVE III:</b>					
1992 <sup>2</sup>	\$93.8	\$85.0	\$8.8	\$124.0	136
1993	97.3	94.1	3.1	127.1	132
1994	101.7	106.5	-4.8	122.3	119
1995	104.8	120.0	-15.1	107.2	102
1996	110.4	137.3	-26.9	80.3	78
1997	111.9	152.3	-40.4	39.9	53
1998	112.7	167.5	-54.8	(5)	24

<sup>1</sup> Ratio of assets in the fund at the beginning of the year to disbursements during the year.

<sup>2</sup> Figures for 1992 represent actual experience.

<sup>3</sup> Trust fund depleted in calendar year 2000.

<sup>4</sup> Trust fund depleted in calendar year 1999.

<sup>5</sup> Trust fund depleted in calendar year 1998.

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

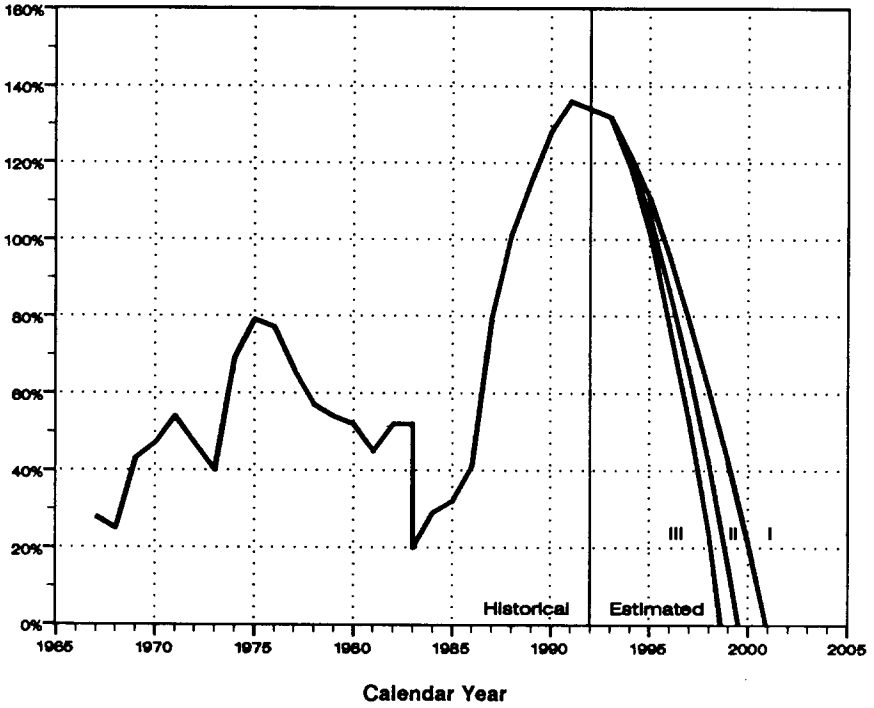
In order to meet the test of financial adequacy in the short-range projection period, the ratio of estimated assets in the trust fund at the beginning of the year to estimated disbursements during that year must either (a) be at least



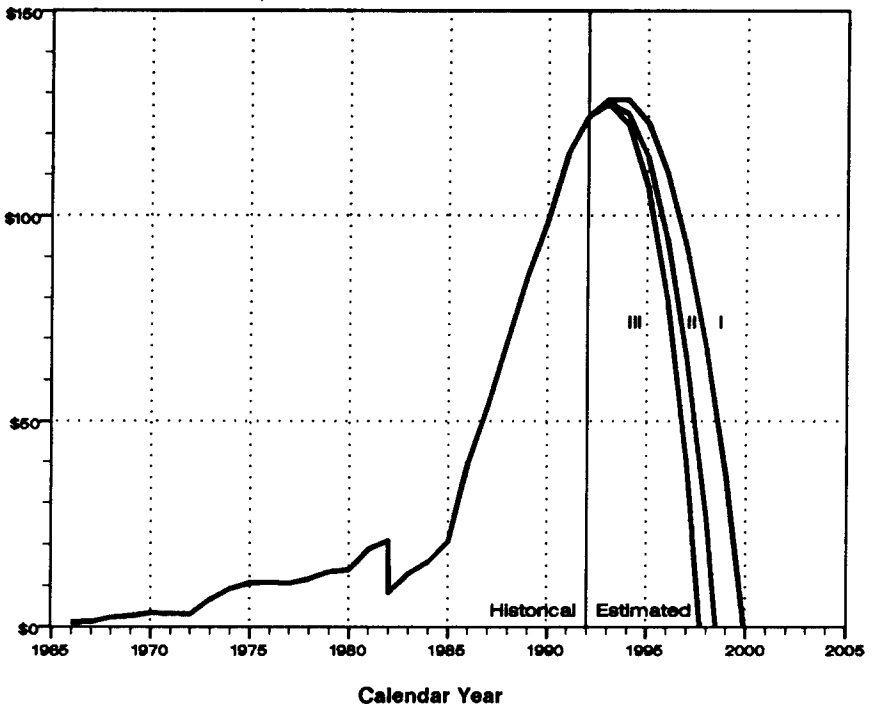
100 percent throughout the 10-year projection period, or (b) reach a level of 100 percent within 5 years and remain at or above 100 percent throughout the remainder of the 10-year period. In addition, the fund's estimated assets at the beginning of each month of the 10-year period must be sufficient to cover that month's estimated disbursements. This test is applied to the estimates under alternative II for the period 1993-2002. Failure of the trust fund to meet this test is an indication that the solvency of the program over the next 10 years is in question and that action is needed to improve the short-range financial adequacy of the program. As can be seen from Table I.C.4, this short-range test is not even close to being met. Under the alternative II assumptions, the trust fund ratio falls below the 100 percent level in 3 years and is exhausted in 6 years.

Figure 1 shows historical trust fund ratios for recent years and projected ratios under the three sets of assumptions. Figure 2 shows end-of-year trust fund balances for recent historical years and for projected years under the three sets of assumptions.

Figure 1. SHORT-TERM HI TRUST FUND RATIOS



**Figure 2. HI TRUST FUND BALANCE, END-OF-YEAR (in \$ Billions)**



#### ***D. ACTUARIAL STATUS OF THE TRUST FUND***

In the previous section, entitled "Expected Operations and Status of the Trust Fund" (I.C.), the expected operations of the HI program over the short-term period were presented. In this section, the actuarial status of the trust fund, or the adequacy of the scheduled financing to support program costs well into the future, is examined, under all three alternative assumptions. The assumptions used in preparing projections under all three alternative sets of assumptions are summarized in the technical section.

The adequacy of the current law financing schedule for the HI program on a long-range basis is measured by comparing on a year-by-year basis the tax rates specified by law with the corresponding incurred costs of the program, expressed as percentages of taxable payroll. If these two items are exactly

## Overview

equal in each year of the projection period and all projection assumptions are realized, tax revenues will be sufficient to provide for program costs. 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 financing objectives can be met by maintaining an appropriate contingency reserve. In projecting costs under the program, only incurred expenditures (benefits and administrative costs) attributable to insured beneficiaries are considered, since benefits and administrative costs for noninsured persons are expected to be financed through general revenue transfers and premium payments rather than through payroll taxes.

The historical costs of the HI program, expressed as percentages of taxable payroll, are shown in Table I.D.1. The ratio of expenditures to taxable payroll has increased from 0.94 percent in 1967 to 3.01 percent in 1992, reflecting both the higher rate of increase in program costs than in earnings subject to HI taxes and the extension of HI benefits to disabled and end-stage renal disease beneficiaries. The projected costs of the program under alternative II, expressed as percentages of taxable payroll, and the tax rates scheduled under current law for selected years over the 75-year period 1993-2067, are shown in Table I.D.2. Further increases in the ratio of expenditures to taxable payroll under alternative II result from the projection that the cost of the HI program will continue to increase at a higher rate than taxable earnings, as discussed later in this section. It can be seen from the selected years shown in Table I.D.2 that, on a year-by-year basis, the tax rates specified by current law are insufficient by a large margin to support the projected costs of the current program. As a result, the program is severely out of financial balance and prompt actions will need to be taken to increase revenues and/or reduce expenditures.

**TABLE I.D.1. – COST OF THE HI PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL**

Calendar year	Expenditures under the program <sup>1</sup>
1967	0.94%

**TABLE I.D.1. -- COST OF THE HI PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL**

Calendar year	Expenditures under the program <sup>1</sup>
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	2.01
1979	1.99
1980	2.20
1981	2.39
1982	2.65
1983	2.67 <sup>2</sup>
1984	2.64
1985	2.63
1986	2.55
1987	2.45
1988	2.43
1989	2.60
1990	2.71
1991	2.74
1992	3.01

<sup>1</sup>Estimated costs attributable to insured beneficiaries only, on an incurred basis. 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 0.18 percent of taxable payroll.

**TABLE I.D.2. -- COST AND TAX RATES OF THE HI PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL <sup>1</sup>**

Calendar Year	Expenditures under the program <sup>2</sup>	Tax rates scheduled in the law <sup>3</sup>	Difference <sup>4</sup>
1993	3.21%	2.90%	-0.31%
1994	3.41	2.90	-0.51
1995	3.60	2.90	-0.70
2000	4.32	2.90	-1.42

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**TABLE I.D.2. -- COST AND TAX RATES OF THE HI PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL <sup>1</sup>**

Calendar Year	Expenditures under the program <sup>2</sup>	Tax rates scheduled in the law <sup>3</sup>	Difference <sup>4</sup>
2005	4.99	2.90	-2.09
2010	5.57	2.90	-2.67
2015	6.44	2.90	-3.54
2020	7.31	2.90	-4.41
2025	8.30	2.90	-5.40
2030	9.31	2.90	-6.41
2035	10.10	2.90	-7.20
2040	10.61	2.90	-7.71
2045	10.93	2.90	-8.03
2050	11.17	2.90	-8.27
2055	11.45	2.90	-8.55
2060	11.81	2.90	-8.91
2065	12.24	2.90	-9.34
2067	12.43	2.90	-9.53

<sup>1</sup>Under alternative II.

<sup>2</sup>Estimated costs attributable to insured beneficiaries only, on an incurred basis, under alternative II. 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>3</sup>Rates for employees and employers combined.

<sup>4</sup>Difference between the tax rate scheduled in the law and program expenditures.

While the year-by-year comparisons discussed are necessary to measure the adequacy of the financing of the HI program, the financial status of the program is often summarized, over a specific projection period, by a single measure known as the actuarial balance. The actuarial balance of the HI program is defined to be the difference between the summarized tax rate for the valuation period and the summarized cost rate (insured, incurred costs expressed as a percentage of taxable payroll) of the program for the same period. The present-value method is used to calculate summarized cost rates, tax rates, and actuarial balances in this report, unless otherwise indicated. This approach is the same as that used in the OASDI report. Under the present-value method, the summarized tax rates, cost rates, and actuarial balance are based upon the present values of future income attributable to taxes on an incurred basis, future insured costs on an incurred basis, and future taxable payroll. The present values are calculated by discounting the future annual amounts, at the assumed rates of interest credited to the HI

trust fund, to the beginning of the valuation period. The summarized tax and cost rates over the projection period are then obtained by dividing the present value of the taxable payroll into the present values of tax income and cost, respectively. The difference between the summarized tax rate and cost rate over the long-range projection period, after an adjustment to take into account the fund balance at the valuation date and any target trust fund at the end of the valuation period, is computed to obtain the actuarial balance. In keeping with a decision by the Board of Trustees that it is advisable to maintain a balance in the trust fund equal to a minimum of one year's expenditures, the target trust fund balance is equal to the following year's estimated costs at the end of the 75-year projection period. It should be noted that projecting an end-of-period target trust fund balance does not necessarily insure that the trust fund will maintain such a balance on a year-by-year basis.

Calculating the fund balance under the present-value method is a convenient, generally accepted way of summarizing actuarial status. The actuarial balance computed under the present-value method can be interpreted as the immediate, level, and permanent percentage that must be added to the current law tax rates and/or subtracted from the current law cost rates throughout the entire valuation period in order for the financing to support program costs and provide for the targeted trust fund balance at the end of the projection period. The tax rate increase according to this method is 5.11 percent of taxable payroll. However, if tax rates or cost rates were not changed until the year the trust fund falls below the 100 percent level recommended by the Board of Trustees, the level of the increase would have to be 5.29 percent of taxable payroll under alternative II. If no changes were made until the year the trust fund will be exhausted, the actuarial deficit would be 5.51 percent of taxable payroll. The OASDI report also employs the present-value method of summarizing the long-term financial status of the Social Security program. An alternative way of calculating actuarial status, the modified average-cost method, is presented in section III.A.

The actuarial balances under all three alternative sets of assumptions, for the first 25-year period, the first 50-year period, the entire 75-year period 1993-2067, and for each 25-year subperiod, are shown in Table I.D.3. The summarized tax rate for the entire 75-year period is 2.90 percent. The summarized cost of the program under alternative II, for the entire 75-year period, is 8.01 percent of taxable payroll. As a result, the HI program fails to meet the Trustees' long-range test of financial adequacy, which is described

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in the OASDI report and the Glossary of this report, under any of the three assumption sets.

**TABLE I.D.3. -- ACTUARIAL BALANCES OF THE HI PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS**

	Alternative		
	I	II	III
<b>Projection periods:</b>			
1993-2017:			
Summarized tax rate <sup>1</sup>	2.90%	2.90%	2.90%
Summarized cost rate <sup>2</sup>	3.99	5.01	6.36
Actuarial balance <sup>3</sup>	-1.09	-2.11	-3.46
1993-2042:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>2</sup>	4.52	6.84	10.81
Actuarial balance <sup>3</sup>	-1.62	-3.94	-7.91
1993-2067:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>2</sup>	4.94	8.01	13.51
Actuarial balance <sup>3</sup>	-2.04	-5.11	-10.61
<b>25-year subperiods:</b>			
1993-2017:			
Summarized tax rate <sup>1</sup>	2.90%	2.90%	2.90%
Summarized cost rate <sup>4</sup>	3.99	4.94	6.18
Actuarial balance <sup>3</sup>	-1.09	-2.04	-3.28
2018-2042:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>4</sup>	5.15	9.04	16.08
Actuarial balance <sup>3</sup>	-2.25	-6.14	-13.18



**TABLE I.D.3. – ACTUARIAL BALANCES OF THE HI PROGRAM, UNDER  
ALTERNATIVE SETS OF ASSUMPTIONS**

	Alternative		
	I	II	III
2043-2067:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>4</sup>	6.08	11.48	21.96
Actuarial balance <sup>3</sup>	-3.18	-8.58	-19.06

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

<sup>2</sup>Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll, computed on the present-value basis, including the cost of attaining a trust fund balance at the end of the period equal to 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance.

<sup>3</sup>Difference between the summarized tax rate (as scheduled under present law) and the summarized cost rate.

<sup>4</sup>Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll, computed on the present-value basis. Includes neither the trust fund balance at the beginning of the period nor the cost of attaining a non-zero trust fund balance at the end of the period.

The divergence in outcomes among the three alternatives is reflected both in the estimated operations of the trust fund on a cash basis (as discussed in section I.C.) and in the 75-year summarized costs. The variations in the underlying assumptions, as shown in the technical section, 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 the intermediate assumptions, program expenditures are projected to increase faster than taxable payroll, at a rate which gradually declines to about 2 percent more per year than taxable payroll by 2010. However, program expenditures are expected to grow at a rate over 3 percent more than taxable payroll for alternative II in 2017, the last year of the first 25-year projection period. This is just after the major demographic shift, as described below, begins. Under alternative I, program expenditures are also projected to increase faster than taxable payroll, but at a somewhat lower rate, which gradually declines to about 0.5 percent more per year than taxable payroll by 2010; the rate then increases, reaching about 1.5 percent more per year than taxable payroll in 2017. Similarly, alternative III follows a pattern whereby program expenditures initially increase faster than taxable payroll and at a somewhat

## Overview

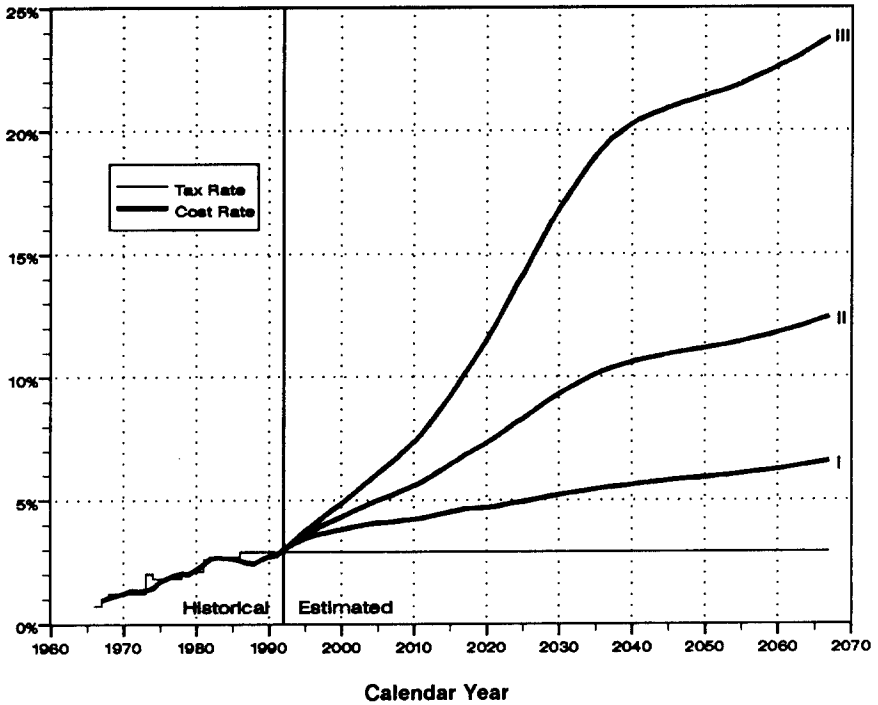
higher rate than the intermediate assumptions, gradually declining to about 4 percent more than taxable payroll by 2010, and then increasing to about 5 percent more than taxable payroll in 2017. Past experience has indicated that conditions producing results as adverse as those under alternative III 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 HI 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 to occur, 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 I.D.2 indicates, estimated expenditures under the program, expressed as percentages 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 (known as the "baby boom") 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 increases in expenditures under the program stabilize.

Costs beyond the initial 25-year projection period for alternative II are based upon the assumption that costs per unit of service will increase at the same rate as that of average hourly earnings. Thus, changes in the last fifty years of the projection period 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 the intermediate assumptions. The 2 percent differentials gradually decrease until the year 2042 when program cost increases, relative to taxable payroll, are approximately the same as under the intermediate assumptions.

Figure 3 shows the year-by-year costs as a percent of taxable payroll for each of the three sets of assumptions, as well as the scheduled tax rates. Figure 3 illustrates the magnitude of the projected financial imbalance in the HI program by displaying the divergence of the program costs and scheduled tax rates under each set of assumptions.

**Figure 3. ESTIMATED HI COSTS AND TAX RATES AS PERCENT OF TAXABLE PAYROLL**



The 75-year actuarial balance of the HI program, under alternative II, is estimated to be -5.11, as shown in Table I.D.3. The actuarial balance under alternative II as reported in the 1992 Annual Report was -4.20. The major reasons for the change in the 75-year actuarial balance are summarized in Table I.D.4. In more detail, these changes are:

- (1) Changes in valuation period: Deletion of 1992 and the addition of 2067 to the 75-year projection period substitutes a very large deficit year for a much smaller deficit year with respect to the operations of the HI trust fund. The net effect on the actuarial balance is -0.12.
- (2) Home Health Assumptions: Changes in the home health assumptions described in the technical section result in a -0.46 change in the actuarial

## Overview

balance. The primary factor contributing to the change is significantly higher recent trends in utilization which are projected to continue.

- (3) Economic and demographic assumptions: Changes in the economic and demographic assumptions described in the technical section result in a +0.09 change in the actuarial balance. Most economic assumptions are more favorable in the short range.
- (4) Updating the projection base: The cost as a percent of payroll for 1992 was more than estimated in the 1992 report. The net effect of this change on the actuarial balance is -0.52.
- (5) Hospital assumptions: Changes in the hospital assumptions described in the technical section result in a +0.10 change in the actuarial balance. The primary factor contributing to the change is the lower labor and non labor differentials.

**TABLE I.D.4. – CHANGE IN THE 75-YEAR ACTUARIAL BALANCE SINCE THE 1992 REPORT**

1. Actuarial balance, alternative II, 1992 report	-4.20%
2. Changes:	
a. Valuation period	-0.12
b. Base estimate	-0.52
c. Home health assumptions	-0.46
d. Economic and demographic assumptions	+0.09
e. Hospital assumptions	+0.10
f. Net effect, above changes	-0.91
3. Actuarial balance, alternative II, 1993 report	-5.11

## E. CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1993 was 132 percent of estimated outgo for calendar year 1993, above the minimum 100 percent level recommended by the Board of Trustees. However, the tax rates specified in the law are only sufficient, along with interest earnings and assets in the fund, to support program expenditures only over the next 6 years, under the Trustees' intermediate assumptions. Also, the trust fund does not meet the short-range test of financial adequacy, which was described in a previous section of this report. Under all of the three sets of assumptions, the HI trust fund is projected to become exhausted within the next 5 to 7 years. Any significant adverse deviation from these projections

could result in the inability of the fund to meet its obligations even sooner than projected.

Over the 75-year projection period, the tax rate necessary to provide for benefits and administrative expenses far exceeds the tax rate scheduled in the law in most years. The actuarial balance, as defined in the previous section (that is, including the cost of attaining a trust fund balance at the end of the period equal to 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance), is -2.11 for the first 25-year projection period, -3.94 for the first 50-year projection period, and -5.11 over the entire 75-year projection period, under the alternative II assumptions. The actuarial balances for the 25-year subperiods, as defined in the previous section (that is, including neither the trust fund balance at the beginning of the period nor the cost of attaining a non-zero trust fund balance at the end of the subperiod), are -2.04, -6.14, and -8.58 for the first, second, and third 25-year subperiods, respectively, under the alternative II assumptions. The trust fund does not meet the Trustees' long-range test of financial adequacy, which is defined in the OASDI report and the Glossary of this report, under any of the three assumption sets. In order to bring the HI program into actuarial balance even for the first 25-year projection period under the alternative II assumptions, either outlays will have to be reduced by 42 percent or income increased by 73 percent (or some combination thereof).

Currently about four covered workers support each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, only about two covered workers will support each enrollee. As the post-World War II "baby boomers" becomes eligible for benefits, the annual rate of increase in program costs as a percentage of taxable payroll rises substantially, from about 2 percent in 2010 to 3 percent in 2015 under alternative II. Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all the assumptions the HI trust fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion is projected to occur before the turn of the century, in 1999 under the alternative II assumptions, and could occur as early as 1998 if the pessimistic assumptions were realized.

The Trustees note that some steps have been taken to reduce the rate of growth in payments to hospitals, including the implementation of prospective payment and diagnosis-related groups. Initial experience under the

## *Overview*

prospective payment system for hospitals suggests that this payment mechanism may be an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Nonetheless, projected costs for the HI program far exceed projected revenues over the 75-year long-range period. As a result, the HI program is severely out of financial balance and the Trustees believe that Congress must take timely action to fundamentally reform the HI program and control related program costs.

The long-range status of the HI program has deteriorated over the years as measured by the actuarial balances reported in this report and prior years reports. In addition, this year the HI trust fund fails to meet the short-range test of financial adequacy. In view of the worsening condition of the HI trust fund and the failure of the fund to meet the short-range test of financial adequacy, the Board of Trustees is making a separate report to alert the Congress of the unfavorable financial status of the HI trust fund as required under section 709 of the Social Security Act.

The HI program is projected to increase from 1.4 percent of GDP in CY 1992 to 5.1 percent of GDP in CY 2065. This rapid growth is attributable primarily to (1) increases in hospital admissions, and (2) increases in reported case mix. With the magnitude of the projected actuarial deficit in the HI program and the high probability that the HI trust fund will be exhausted before the turn of the century, the Trustees urge the Congress to take additional actions designed to control HI program costs through specific program legislation and as a part of enacting comprehensive health care reform. The Trustees believe that prompt, effective, and decisive action is necessary.

## **II. TECHNICAL SECTION**

### ***A. SOCIAL SECURITY AMENDMENTS SINCE THE 1992 REPORT***

Since the 1992 Annual Report was transmitted to Congress on April 2, 1992, the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 1993 (Public Law 102-394) was enacted on October 6, 1992. A section of this law affected the HI program. It provided that funds in the Supplementary Medical Insurance catastrophic coverage reserve fund be transferred to the HI trust fund to compensate for the increased cost to that fund which occurred in 1989. As a result, on March 31, 1993, \$1.8 billion was transferred to the HI trust fund.

### ***B. 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 HI program are handled through this fund.

The primary source of income to the trust fund is amounts appropriated to it under permanent authority on the basis of contributions paid by workers, their employers, and individuals with self-employment income, in work covered by the HI program. Beginning January 1, 1987, these appropriated amounts include contributions paid by, or on behalf of, workers employed by State and local governments and their employers, with respect to work covered by the program through State agreements. (Prior to 1987, such contributions were deposited directly into the trust fund.) The coverage of the HI program includes workers covered under the old-age, survivors, and disability insurance (OASDI) program, those covered under the railroad retirement program, and certain Federal, State, and local employees not otherwise covered under the OASDI program.

All employees and their employers in employment covered by the program are required to pay contributions with respect to the wages of individual workers, including cash tips. 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

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up to the maximum annual amount. An employee who pays contributions on wages in excess of the annual maximum amount (because of employment with two or more employers) is eligible for a refund of the excess employee contributions. The amount of contributions subject to refund for any period is a charge against the trust fund. The maximum amount of earnings on which contributions are payable in a year is called the contribution base.

The HI contribution rates applicable to taxable earnings in each of the calendar years 1966 and later are shown in Table II.B.1. For 1994 and later, the contribution rates shown are the rates scheduled in the provisions of present law. The contribution bases for calendar years 1966 to 1993 are also shown. For 1975 to 1978, the contribution bases were determined under the automatic-adjustment provisions in section 230 of the Social Security Act. The bases for 1979 to 1981 were specified in the law, as amended in 1977. For 1982 to 1990 and for 1992 and 1993, the automatic-adjustment provisions were again applicable, as they will be for 1994 and later. For calendar year 1991, the contribution base was specified in the law, as amended in 1990.

**TABLE II.B.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
<b>Past experience:</b>			
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



**TABLE II.B.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
<b>Past experience:</b>			
1987	43,800	1.45	2.90
1988	45,000	1.45	2.90
1989	48,000	1.45	2.90
1990	51,300	1.45	2.90
1991	125,000	1.45	2.90
1992	130,200	1.45	2.90
1993	135,000	1.45	2.90
<b>Changes scheduled in present law:</b>			
1994 & later	Subject to automatic adjustment	1.45	2.90

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, on an estimated basis, to the trust fund. The exact amount of contributions received is not known initially since HI contributions, OASDI 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 estimated 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.

Another substantial source of trust fund income is interest credited from investments in government securities held by the fund. The investment procedures of the fund are described later in this section.

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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 HI 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 HI 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 HI 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.

Two sections of the statute authorize HI benefits for uninsured persons aged 65 and over. Section 103 of the Social Security Amendments of 1965 provided transitional entitlement to HI benefits to those who were 65 before 1968 or who attained age 65 after 1967 and had at least three quarters of covered employment. This entitlement does not apply for those who reach 65 after 1973. Section 278 of the Tax Equity and Fiscal Responsibility Act of 1982 added similar transitional entitlement for those federal employees who would retire before having a chance to earn sufficient quarters of Medicare-qualified federal employment. This provision allows those who were employed by the Federal Government during and before January, 1983, to have the necessary quarters of federal employment counted toward their Medicare entitlement. Such payments are made initially from the HI 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 HI 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 HI 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 HI 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 to hospital inpatients by hospital-based physicians. Where hospitals elected this billing procedure, payments were made initially from the HI trust fund. The reimbursements so made were on a provisional basis and are subject to adjustment, with appropriate interest allowance.

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 HI and supplementary medical insurance (SMI) programs. A sizable portion of the costs of such experiments and demonstration projects is paid from the HI and SMI trust funds.

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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 HI program. Both the capital costs of construction financed directly through the trust funds and the rental and 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 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. These special issue securities are redeemable at par value at all times, and so are not subject to the uncertainty of price fluctuations as interest rates change.

From December 29, 1981, until January 1, 1988, the Social Security Act authorized borrowing among the OASI, DI, and HI trust funds when

necessary "to best meet the need for financing the benefit payments" from the three funds. Interfund loans under the borrowing authority were made to the OASI trust fund from the DI and HI trust funds in 1982, and were fully repaid by May 1986. In this report, the assets of the HI trust fund at the end of 1982 through 1985, inclusive, do not include the amounts owed to the trust fund. This procedure is followed because the borrowed amounts were available to the borrowing fund for the payment of benefits or other obligations, while such amounts were not readily available to the lending fund.

***C. SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1992***

A statement of the revenue and disbursements of the Federal Hospital Insurance Trust Fund in fiscal year 1992, and of the assets of the fund at the beginning and end of the fiscal year, is presented in Table II.C.1.

The total assets of the trust fund amounted to \$109,930 million on September 30, 1991. During fiscal year 1992, total revenue amounted to \$92,677 million, and total disbursements were \$81,974 million. The assets of the trust fund thus increased \$10,703 million during the year to a total of \$120,633 million on September 30, 1992.

**TABLE II.C.1. -- STATEMENT OF OPERATIONS OF THE HI TRUST FUND DURING FISCAL YEAR 1992**  
(In thousands of dollars)

Total assets of the trust fund, beginning of period .....	\$109,930,366
Revenue:	
Appropriation of employment taxes .....	\$81,027,947
Refunds of employment taxes .....	-53,650
Deposits arising from State agreements .....	3,686
Interest on investments .....	10,009,157
Premiums collected from voluntary participants .....	484,491
Transfer from railroad retirement account .....	336,800
Transitional uninsured coverage .....	621,000
Military service credits of 1992 .....	86,146
Reimbursement, program management general fund .....	116,485
Interest on reimbursements, SSA <sup>1</sup> .....	7,068
Interest on reimbursements, Railroad Retirement .....	37,655

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**TABLE II.C.1. -- STATEMENT OF OPERATIONS OF THE HI TRUST FUND DURING  
FISCAL YEAR 1992**  
(in thousands of dollars)

Other .....	259
<b>Total revenue .....</b>	<b><u>\$92,677,043</u></b>
<b>Disbursements:</b>	
Benefit payments .....	\$80,783,530
<b>Administrative expenses:</b>	
Treasury administrative expenses .....	36,224
Salaries and expenses, SSA <sup>2</sup> .....	368,103
Salaries and expenses, HCFA <sup>3</sup> .....	759,389
Salaries and expenses, Office of Secretary .....	18,656
Construction .....	948
Professional Standards Review Organization .....	238
Payment Assessment Committee .....	3,680
Policy and Research .....	3,535
<b>Total disbursements .....</b>	<b><u>\$81,974,303</u></b>
<b>Total assets of the trust fund, end of period .....</b>	<b><u>\$120,633,106</u></b>

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

<sup>2</sup>For facilities, goods, and services provided by the Social Security Administration (SSA).

<sup>3</sup>Includes administrative expenses of the intermediaries.

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

Included in total revenue during fiscal year 1992 was \$81,028 million representing contributions appropriated to the trust fund. As an offset, \$54 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, and \$4 million was transferred from State and local governments to the trust fund for underpayments from previous State agreements for coverage of State and local government employees.

Net contributions amounted to \$80,978 million, representing an increase of 8.5 percent over the amount of \$74,655 million for the preceding 12-month period. This growth in contribution income resulted primarily from (1) the higher level of earnings in covered employment and (2) the two increases in the maximum annual amount of earnings taxable from \$51,300 to \$125,000 and

from \$125,000 to \$130,200 that became effective January 1, 1991, and January 1, 1992, respectively.

Section II.B. referred to provisions under which the HI 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 1992 amounted to \$621 million (\$584 million for the non-federal uninsured and \$37 million for the federal uninsured), consisting of \$614 million for benefit payments and \$7 million for administrative expenses.

Section II.B. referred to provisions of the Social Security Act under which certain persons not otherwise eligible for HI protection may obtain such protection by enrolling in the program and paying a monthly premium. Premiums collected from such voluntary participants in fiscal year 1992 amounted to about \$484 million.

In accordance with the provisions of the Railroad Retirement Act which coordinate the railroad retirement and the HI 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 \$337 million in principal and about \$18 million in interest from the railroad retirement program's Social Security Equivalent Benefit Account to the HI trust fund would place this fund in the same position, as of September 30, 1991, 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 about \$20 million, was transferred to the trust fund in June 1992.

In accordance with provisions for the appropriation to the trust fund of HI taxes on noncontributory military wage credits as discussed in section II.B., the trust fund was credited on July 1, 1992 with \$86 million for calendar year 1992 taxes on wage credits.

The remaining \$10,133 million of revenue consisted almost entirely of interest credited from the investments held by the trust fund.

Of the \$81,974 million in total disbursements, \$80,784 million represented benefits paid directly from the trust fund for health services covered under

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title XVIII of the Social Security Act. Benefit payments increased 17.6 percent in fiscal year 1992 over the corresponding amount of \$68,705 million paid during the preceding 12 months.

The remaining \$1,191 million of disbursements was for net administrative expenses. Administrative expenses are allocated and charged directly to each of the four trust funds--OASI, DI, HI, and SMI--on the basis of provisional estimates. Similarly, the expenses of administering other programs of the Health Care Financing Administration are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are effected by interfund transfers, including transfers between the HI and SMI trust funds and the program management general fund account, with appropriate interest allowances.

Table II.C.2 compares the actual experience in fiscal year 1992 with the estimates presented in the 1991 and 1992 annual reports. Section II.B. 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 II.C.2, it should be noted that the "actual" amount of contributions in fiscal year 1992 reflects the aforementioned type of adjustments to contributions for prior fiscal years. On the other hand, the "actual" amount of contributions for fiscal year 1992 does not reflect adjustments to contributions for fiscal year 1992 that were to be made after September 30, 1992.



**TABLE II.C.2. -- COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE HI TRUST FUND, FISCAL YEAR 1992**  
(Dollar amounts in millions)

Item	Comparison of actual experience with estimates for fiscal year 1992 published in--				
	1992 report		1991 report		
	Actual amount	Estimated amount <sup>1</sup>	Actual as percentage of estimate	Estimated amount <sup>1</sup>	Actual as percentage of estimate
Net contributions	\$80,978	\$79,785	101	\$82,830	98
Benefit payments	\$80,784	\$76,560	106	\$76,010	106

<sup>1</sup> Under alternative II

The assets of the HI trust fund at the end of fiscal year 1991 totaled \$109,930 million, consisting of \$109,327 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and an undisbursed balance of \$604 million. The assets of the HI trust fund at the end of fiscal year 1992 totaled \$120,633 million, consisting of \$120,647 million in the form of U.S. government obligations and, as an offset, an extension of credit of \$13 million against securities to be redeemed. Table II.C.3 shows the total assets of the fund and their distribution at the end of fiscal years 1991 and 1992.

**TABLE II.C.3. -- ASSETS OF THE HI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1991 AND 1992<sup>1</sup>**

	September 30, 1991	September 30, 1992
Investments in public-debt obligations sold only to the trust funds (special issues):		
Certificates of Indebtedness:		
6 5/8-percent, 1993 .....	-----	\$846,655,000.00
7 7/8-percent, 1992 .....	\$1,975,955,000.00	-----
Bonds:		
7 3/8-percent, 1993-2007 .....	-----	19,468,420,000.00
8 1/8-percent, 1993 .....	901,273,000.00	-----
8 1/8-percent, 1994-2006 .....	18,132,248,000.00	18,132,248,000.00
8 1/4-percent, 1993 .....	622,286,000.00	-----
8 3/8-percent, 1993-2001 .....	11,602,906,000.00	11,020,362,000.00
8 5/8-percent, 1992 .....	415,260,000.00	-----
8 5/8-percent, 1993-2002 .....	9,371,654,000.00	9,371,654,000.00
8 3/4-percent, 1992 .....	2,185,752,000.00	-----
8 3/4-percent, 1993-2005 .....	37,847,414,000.00	37,847,414,000.00
9 1/4-percent, 1992 .....	1,034,541,000.00	-----

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**TABLE II.C.3. – ASSETS OF THE HI TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1991 AND 1992<sup>1</sup>**

9 1/4-percent, 1993-2003 .....	14,575,358,000.00	14,575,358,000.00
9 3/4-percent, 1993-1995 .....	1,240,090,000.00	1,240,090,000.00
10 3/8-percent, 1992 .....	427,023,000.00	-----
10 3/8-percent, 1998-2000 .....	2,131,610,000.00	2,131,610,000.00
10 3/4-percent, 1992 .....	588,410,000.00	-----
10 3/4-percent, 1998 .....	588,410,000.00	588,410,000.00
13 -percent, 1993-1996 .....	1,770,094,000.00	1,770,094,000.00
13 1/4-percent, 1993-1997 .....	2,541,541,000.00	2,541,541,000.00
13 3/4-percent, 1992 .....	262,134,000.00	-----
13 3/4-percent, 1998-1999 .....	1,112,678,000.00	1,112,678,000.00
Total investments .....	\$109,326,637,000.00	\$120,646,534,000.00
Undisbursed balance <sup>2</sup> .....	603,728,746.67	-13,427,565.71
Total assets .....	\$109,930,365,746.67	\$120,633,106,434.29

<sup>1</sup>Certificates of indebtedness and bonds are carried at par value, which is the same as book value.

<sup>2</sup>Negative figures represent extension of credit against securities to be redeemed within the following few days.

New securities at a total par value of \$115,385 million were acquired during the fiscal year through the investment of revenue and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the fiscal year was \$104,065 million. Thus, the net increase in the par value of the investments held by the fund during fiscal year 1992 amounted to \$11,320 million.

The effective annual rate of interest earned by the assets of the HI trust fund during the 12 months ending on June 30, 1992, was 9.26 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 1992 was 7.375 percent, payable semiannually.

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

This section describes the basic methodology and assumptions used in the estimates for the HI program under the intermediate (alternative II) assumptions. In addition, sensitivity testing of program costs under two alternative sets of assumptions is presented.

##### **1. Assumptions**

Both the economic and demographic assumptions underlying the projections shown in this report are consistent with those in the 1993 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance (OASDI) Trust Funds. These assumptions are described in more detail in that report.

##### **2. Program Cost Projection Methodology**

The principal steps involved in projecting the future costs of the HI 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 payment amounts for SNF, HHA, and hospice services covered under the program; and (4) projecting increases in administrative costs. The major emphasis is directed toward expenditures for inpatient hospital services, which account for approximately 81 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, legislation, 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 I.C.1 and I.C.2.

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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 settlements 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 operating payments paid for on the basis of diagnosis-related groups (DRGs), most payments are initially made on an 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 legislation or regulation, or 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 solutions 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 HI program began paying almost all participating hospitals a prospectively-determined amount for providing covered services to beneficiaries. With the exception of certain expenses reimbursed on a reasonable cost basis, as defined by law, 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. In other literature, the hospital input price index is also called the hospital market basket percentage increase. For fiscal years through 1993, the prospective payment rates have already been determined. The projections contained in this report are based on the assumption that for fiscal years 1994 and 1995, the prospective payment rates will be increased in accordance with Public Law 101-508, the Omnibus Budget Reconciliation Act of 1990, and these legislated annual payment rate increases are indeed functions of the annual hospital input price indices. For fiscal years 1996 and later, current statute mandates that the annual increase in the payment rate per admission equal the annual hospital input price index.

Increases in aggregate payments for inpatient hospital care covered under the HI 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 payments 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 HI program).

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It has been possible to isolate some of these elements and to identify their roles in previous hospital payment increases. Table II.D.1 shows the estimated 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 alternative II, unless otherwise indicated.

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

Calendar year	Labor			Non-labor			Units of service			Other Sources	HI inpatient hospital payments	
	Average hourly earnings	Hospital hourly earnings level	Hospital hourly earnings	CPI	Hospital price input intensity	Non-labor hospital prices	Input price index	Unit input intensity allowance <sup>2</sup>	HI enrollment			Admission incidence
Historical Data:												
1982	5.8%	3.0%	9.0%	6.0%	-1.0%	4.9%	7.3%	1.0%	1.8%	0.0%	4.7%	15.4%
1983	4.1	2.2	6.4	3.0	0.1	3.1	5.1	1.0	1.7	0.8	2.3	11.3
1984	6.4	-0.7	5.7	3.5	0.1	3.6	4.9	1.0	1.8	-3.8	8.0	12.0
1985	5.4	-0.8	4.6	3.5	-1.0	2.5	3.8	0.0	1.6	-7.4	8.6	6.1
1986	5.3	-1.6	3.6	1.6	-0.6	1.0	2.6	-2.5	2.3	-5.6	7.4	3.8
1987	4.8	-0.9	3.9	3.6	-0.4	3.2	3.6	-2.5	1.7	-3.1	1.6	1.2
1988	4.3	0.5	4.8	4.0	1.3	5.4	5.0	-2.5	1.7	-1.1	1.4	4.5
1989	3.2	1.9	5.2	4.8	0.8	5.6	5.4	-1.4	2.0	-2.3	5.9	9.8
1990	5.5	0.0	5.5	5.2	-1.2	3.9	4.9	-0.1	2.1	0.8	2.4	10.4
1991	4.2	0.5	4.7	4.0	-1.8	2.1	3.7	-0.5	2.0	0.4	3.7	9.6
Projection <sup>3</sup> :												
1992	4.6	-0.7	3.9	2.9	-1.0	1.9	3.1	-0.5	1.8	1.9	3.0	9.6
1993	3.9	0.3	4.2	3.0	0.6	3.6	4.0	-0.7	2.1	0.3	2.0	7.9
1994	4.1	0.4	4.5	3.1	0.0	3.1	4.0	0.2	2.1	1.2	2.2	10.0
1995	4.4	0.4	4.8	3.2	0.0	3.2	4.2	0.2	2.0	1.3	2.3	10.3
2000	5.0	0.4	5.4	4.0	0.0	4.0	4.9	0.0	1.3	1.1	1.9	9.5
2005	5.3	0.4	5.7	4.0	0.0	4.0	5.1	0.0	1.5	0.5	1.7	9.0
2010	5.3	0.4	5.7	4.0	0.0	4.0	5.2	0.0	1.7	0.2	0.9	8.2
2015	5.3	0.4	5.7	4.0	0.0	4.0	5.2	0.0	2.5	-0.1	1.1	8.9
2017	5.3	0.4	5.7	4.0	0.0	4.0	5.2	0.0	2.6	-0.2	1.0	8.8

<sup>1</sup>Percent increase in year indicated over previous year, on an incurred basis.

<sup>2</sup>Reflects the allowances provided for in the prospective payment update factors.

<sup>3</sup>Under alternative II.

**Note:** Historical and projected data reflect the hospital input price index which was recalibrated to a 1987 base year in 1990.

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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 the proxy for hospital hourly earnings used in the hospital input price index. Since the beginning of the HI program, the differential between the proxy for hospital workers' hourly earnings and hourly earnings in the general economy has fluctuated widely. Since 1982, this positive differential has averaged about 0.4 percent, as hospital workers' earnings have risen faster than general earnings. 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 had historically earned less than similarly skilled workers in other industries. During the initial years of the prospective payment system, it appears that hospital hourly earnings were depressed relative to those in the general economy as hospitals adapted to the prospective payment system. This differential is assumed to increase to a level of 0.4 percent over the short term, declining to zero just after the end of the first 25-year projection period.

Increases in hospital price input intensity, which are primarily the result of price increases for non-labor 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. Although the level has fluctuated erratically in the past, this differential has averaged about -0.4 percent during 1982-1991. Over the short term, hospital price input intensity is assumed to fluctuate, leveling off to zero for most of the projection period.

For years prior to the beginning of the prospective payment system, the unit input intensity allowance has been set at 1 percent for illustrative purposes, with historical increases in excess of 1 percent allocated to other sources. For years after the beginning of the prospective payment system, the unit input intensity allowance is the allowance provided for in the prospective payment update factor; that is, the unit input intensity allowance is the amount added onto (or subtracted from) the input price index to yield the update factor. (It should be noted that the update factors are generally prescribed on a fiscal year basis, while Table II.D.1 is on a calendar year basis. Calculations have



therefore been performed to estimate the unit input intensity allowance on a calendar year basis.) For fiscal years 1991-1995, the allowances shown are prescribed in Public Law 101-508. (Again, calculations were performed to show the unit input intensity allowance on a calendar year basis.) Beginning in fiscal year 1996, the law provides that future increases in payments to participating hospitals for covered admissions will equal the increase in the hospital input price index. Thus, the unit input intensity allowance, as indicated in Table II.D.1, is assumed to equal zero for the rest of the years in the first 25-year projection period.

Since the beginning of the prospective payment system, increases in inpatient hospital payments from other sources are primarily due to three factors: (1) the improvement in DRG coding as hospitals continue to adjust to the prospective payment system; (2) the trend toward treating less complicated (and thus, less expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission; and (3) legislation affecting the payment rates. The effects of several budget reconciliation acts, sequesters as required by the Gramm-Rudman-Hollings Act, and other legislative effects are reflected in other sources, as appropriate. Some of the expansions in hospital payments due to the Medicare Catastrophic Coverage Act of 1988, and the subsequent reductions in hospital payments due to the Medicare Catastrophic Coverage Repeal Act of 1989, are reflected in other sources for 1989 to 1991. A 2 percent increase for fiscal years 1991 through 2005 and a 1 percent increase for fiscal years 2006 through 2017 reflected in other sources are attributable to a continuation of the current trend toward treating less complicated cases in outpatient settings and continued improvement in DRG coding. Additionally, part of the increase from other sources can be attributed to the increase in payments for certain costs not included in the DRG payment; these costs are generally increasing at a rate faster than the input price index. Possible other sources of both relative increases and decreases in payments include (1) a shift to more or less expensive admissions (DRGs) 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 DRGs or addition/deletion of DRGs in response to changes in technology. As experience under the prospective payment system continues to develop and is further analyzed, it may be possible to establish a predictable trend for this component.

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Other factors which contribute to increases in payments for inpatient hospital services include increases in units (volume) of service as measured by increases in inpatient hospital admissions covered under the HI program. Increases in admissions are attributable both to increases in enrollment under the HI 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 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 HI protection. In addition, increases in the average age of beneficiaries lead to higher levels of admission incidence. Admission incidence levels are also often affected by changes in the laws and regulations that define and guide the HI program's coverage of inpatient hospital care.

### ***c. Skilled Nursing Facility (SNF), Home Health Agency (HHA), and Hospice Costs***

Historical experience with the number of days of care covered in SNFs under the HI 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. More recently, changes made in 1988 to coverage guidelines for SNF services and expansions and changes due to the Medicare Catastrophic Coverage Act of 1988, effective January 1, 1989, resulted in large increases in utilization of SNF services. For 1990, the estimates contained in this report reflect a reduction in utilization consistent with the SNF transition provisions of the Medicare Catastrophic Coverage Repeal Act of 1989; for 1991, the complete repeal of the catastrophic expansions and changes are reflected. In 1991 and 1992, large increases in SNF utilization occurred. Increases are projected to slow down

in the near future resulting in modest increases in covered days, based on growth and aging of the population.

Increases in the average cost per day (where cost is defined to be the total of program reimbursement and beneficiary cost sharing) in skilled nursing facilities under the program are caused principally by increasing payroll costs for nurses and other required skilled labor. In 1991 and 1992, extremely large rates of increase in cost per day occurred due to nursing home reform regulations. Projected rates of increase in cost per day are assumed to be slightly lower than increases in general earnings throughout the projection period, but adjustments to reflect regulations limiting SNF cost per day are included where appropriate. Increases in reimbursement per day reflect the changes in beneficiary cost sharing amounts, including those changes resulting from the catastrophic coverage and catastrophic coverage repeal legislation.

The resulting increases in expenditures for SNF services are shown in Table II.D.2.

**TABLE II.D.2. -- RELATIONSHIP BETWEEN INCREASES IN HI PROGRAM  
EXPENDITURES 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>3,4</sup>	HI admin- istrative costs <sup>3,5</sup>	HI program expendi- tures <sup>3,5</sup>	HI taxable payroll	Ratio of expendi- tures to payrolls <sup>6</sup>
1993	8.0%	19.3%	42.8%	12.2%	1.7%	12.0%	5.1%	6.6%
1994	10.1	9.4	30.5	12.6	7.1	12.5	5.9	6.2
1995	10.4	5.6	20.1	11.6	7.3	11.6	5.7	5.6
2000	9.5	5.8	8.6	9.2	6.6	9.2	5.8	3.3
2005	9.0	5.4	8.3	8.8	6.1	8.7	6.0	2.6
2010	8.2	5.3	7.9	8.0	6.0	8.0	5.8	2.1

**TABLE II.D.2. -- RELATIONSHIP BETWEEN INCREASES IN HI PROGRAM EXPENDITURES 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>3,4</sup>	HI administrative costs <sup>3,5</sup>	HI program expenditures <sup>3,5</sup>	HI taxable payroll	Ratio of expenditures to payrolls <sup>6</sup>
2015	8.9	5.5	8.1	8.6	6.6	8.6	5.5	3.0
2017	8.8	5.9	8.5	8.6	6.6	8.6	5.3	3.1

<sup>1</sup>Percent increase in year indicated over previous year, under alternative II.

<sup>2</sup>This column may differ slightly from the last column of Table II.D.1, since Table II.D.1 includes all persons eligible for HI protection while this table excludes noninsured persons.

<sup>3</sup>Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are expected to be financed through general revenue transfers and premium payments, rather than through payroll taxes.

<sup>4</sup>Includes costs for hospice care.

<sup>5</sup>Includes costs of Peer Review Organizations.

<sup>6</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 multiple-employer "excess wages," as compared with the combined employer-employee rate.

Program experience with HHA payments has shown a generally upward trend. The number of visits had increased sharply from year to year, but some decreases, albeit small in magnitude relative to past increases, were experienced in the mid-1980's; these were followed by modest increases. Recently, however, extremely large increases in the number of visits have occurred, and this trend is projected to gradually decline through 1996. Modest increases, based on growth and aging of the population, are projected thereafter. Reimbursement per visit is assumed to increase at a slightly higher rate than increases in general earnings, but adjustments to reflect regulations limiting HHA reimbursement per visit are included where appropriate. The resulting increases in expenditures for HHA services are shown in Table II.D.2.

Coverage of certain hospice care for terminally ill beneficiaries is a relatively new program benefit, resulting from the enactment of the Tax Equity and Fiscal Responsibility Act of 1982, and payments for hospice care are very small relative to total program benefit payments. Detailed hospice data are, at this time, scant, but increases in hospice benefit payments are estimated based on daily payment rates and annual payment caps, as mandated by law and regulation, and modest growth in the number of covered days. Increases in hospice payments are not shown separately in Table II.D.2 due to their

extremely small contribution to the weighted average increase for all HI types of service, but are included in the average.

***d. Administrative Expenses***

The costs of administering the HI 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 II.D.1.

**3. Financing Analysis Methodology**

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 expected 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 economic assumptions consistent with those used in the OASDI report. Increases in taxable payroll assumed for this report are shown in Table II.D.2.

***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

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increases and taxable payroll increases. If the rates of increase in both series are the same, given that the current tax rate applied to taxable payroll is sufficient to support program costs, continuing that 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 (or some combination thereof) will be required to finance the system in the future. Table II.D.2 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 about 2 percent per year by 2010, but increase to a level of about 3 percent per year by 2017 for alternative II, just after the post-World War II "baby boom" population starts becoming eligible for benefits. 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 II.D.3.

**TABLE II.D.3. – SUMMARY OF ALTERNATIVE PROJECTIONS FOR THE HI PROGRAM**  
(Percent)

Calendar year	Increases in aggregate HI inpatient hospital payments <sup>1</sup>				Changes in the relationship between expenditures and payroll <sup>1</sup>			
	Average hourly earnings	CPI	Other factors <sup>2</sup>	Total <sup>3</sup>	Program expenditures <sup>3,4,5</sup>	Taxable payroll	Ratio of expenditures to payroll	Expenditures as a percent of taxable payroll <sup>3,4,5</sup>
<b>Alternative I:</b>								
1993	4.4%	2.8%	3.7%	7.6%	11.8%	5.9%	5.6%	3.17%
1994	4.4	2.8	4.8	8.8	11.6	6.8	4.5	3.32
1995	4.8	3.0	4.9	9.3	10.8	6.8	3.8	3.44
2000	4.7	3.0	3.3	7.5	7.6	5.8	1.7	3.81
2005	4.8	3.0	2.4	6.7	6.9	5.8	1.0	4.07
2010	4.8	3.0	1.5	5.8	6.1	5.5	0.6	4.21
2015	4.8	3.0	2.1	6.5	6.7	5.3	1.4	4.51
2017	4.8	3.0	2.1	6.5	6.8	5.1	1.6	4.64
<b>Alternative II:</b>								
1993	3.9%	3.0%	4.2%	7.9%	12.0%	5.1%	6.6%	3.21%
1994	4.1	3.1	6.0	10.0	12.5	5.9	6.2	3.41
1995	4.4	3.2	6.1	10.3	11.6	5.7	5.6	3.60
2000	5.0	4.0	4.6	9.5	9.2	5.8	3.3	4.32
2005	5.3	4.0	3.9	9.0	8.7	6.0	2.6	4.99
2010	5.3	4.0	3.2	8.2	8.0	5.8	2.1	5.57
2015	5.3	4.0	3.8	8.9	8.6	5.5	3.0	6.44
2017	5.3	4.0	3.7	8.8	8.6	5.3	3.1	6.83

**TABLE II.D.3. – SUMMARY OF ALTERNATIVE PROJECTIONS FOR THE HI PROGRAM**  
(Percent)

Calendar year	Increases in aggregate HI inpatient hospital payments <sup>1</sup>				Changes in the relationship between expenditures and payroll <sup>1</sup>			
	Average hourly earnings	CPI	Other factors <sup>2</sup>	Total <sup>3</sup>	Program expenditures <sup>3,4,5</sup>	Taxable payroll	Ratio of expenditures to payroll	Expenditures as a percent of taxable payroll <sup>3,4,5</sup>
<b>Alternative III:</b>								
1993	4.0%	3.7%	4.1%	8.2%	12.2%	4.9%	7.0%	3.23%
1994	3.4	4.0	7.0	10.9	13.3	4.4	8.5	3.50
1995	5.4	5.4	6.5	12.3	13.2	5.2	7.6	3.77
2000	5.8	5.0	6.7	12.6	11.7	6.8	4.6	4.87
2005	6.0	5.0	5.4	11.4	10.8	6.3	4.2	6.08
2010	6.0	5.0	4.7	10.7	10.2	6.2	3.8	7.36
2015	6.0	5.0	5.4	11.4	10.9	5.9	4.7	9.25
2017	6.0	5.0	5.2	11.2	10.8	5.7	4.9	10.15

<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, units of service as measured by admissions, and other sources.

<sup>3</sup>On an incurred basis.

<sup>4</sup>Includes expenditures attributable to insured beneficiaries only.

<sup>5</sup>Includes costs of Peer Review Organizations.

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

#### 4. 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 II.D.1 shows the estimated experience of the HI program for 1982 to 1991. As mentioned earlier, the HI program now makes payments to most participating hospitals on a prospective basis (with the exception of certain expenses). Thus, the trends in aggregate HI inpatient hospital costs prior to 1983, as shown in the historical section of Table II.D.1, have little relation to the projected HI inpatient hospital payments. The prospective payment system has made the outlays of the HI program potentially less vulnerable to excessive rates of growth in the hospital industry. However, there is some uncertainty in projecting HI expenditures, for inpatient hospital services as well as the other covered types of services, due to the uncertainty of the underlying economic assumptions and utilization increases. In addition, there is uncertainty in projecting HI expenditures due to the possibility of future legislation affecting unit payment levels, particularly

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for inpatient hospital services. Current law is assumed throughout the estimates shown in this report, but legislation affecting the payment levels to hospitals has been enacted nearly annually for about the past 10 years, and future legislation is probable.

In view of the uncertainty of future cost trends, projected costs for the HI program have been prepared under three alternative sets of assumptions. A summary of the assumptions and results is shown in Table II.D.3. The set of assumptions labeled "Alternative II" forms the basis for the detailed discussion of hospital cost trends and resulting program costs presented throughout this report. It represents intermediate 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 three alternatives are consistent with those underlying the OASDI report.

As noted earlier, the single most meaningful measure of HI 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 3 percent faster per year than increases in taxable payroll for alternative II; as discussed in the "Financing Analysis Methodology" section. Program costs beyond the first 25-year projection period are based on the assumption that costs per unit of service will gradually decline to increase at the same rate as average hourly earnings increase. Program expenditures, which were about 3 percent of taxable payroll in 1992, increase to a level of almost 7 percent by the year 2017 and to over 12 percent by the year 2067 under alternative II. Hence, if all of the projection assumptions are realized over time, HI tax rates provided in the present financing schedule (2.9 percent of taxable payroll) will be grossly 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 the intermediate assumptions. Costs beyond the first 25-year projection period assume the 2 percent differential gradually decreases until the year 2042 when program cost increases relative to taxable payroll are approximately the same as under the intermediate assumptions. Under alternative I, program costs increase about



1.7 percent more per year than increases in taxable payroll during the first 25-year projection period. Program expenditures under this alternative would be about 4.6 percent of taxable payroll in the year 2017, increasing to about 6.6 percent of taxable payroll by 2067. The summarized program cost rate for the 75-year projection period is about 4.9 percent of taxable payroll; hence, HI tax rates provided in the present financing schedule will be inadequate even under the optimistic alternative I assumptions. Under alternative III, program costs increase about 5 percent more rapidly per year 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 2017 which is about 10.2 percent of taxable payroll, increasing to about 23.8 percent of taxable payroll in the year 2067. The summarized program cost rate for the 75-year projection period is about 13.5 percent of taxable payroll.

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### III. APPENDICES

#### ***A. ACTUARIAL BALANCE UNDER ALTERNATIVE ASSUMPTIONS AND METHODS***

In section I.D., the summarized tax rates, cost rates, and actuarial balances are presented under the present-value method. The actuarial balance computed under the present-value method represents the immediate, level, and permanent percentage that must be added to the current law tax rates and/or subtracted from the current law cost rates throughout the entire valuation period in order for the financing to support program costs and provide for the targeted trust fund balance at the end of the projection period. Such an immediate and permanent tax rate increase (or cost reduction) would, initially, accumulate a substantial trust fund. Such a large trust fund would result in substantial interest credits, significantly exceeding those that would be earned under current law financing.

Thus, under the present-value method, hypothetical interest credits would finance a significant portion of the cost of the HI program. This heavy reliance on hypothetical interest credits is of particular concern because eventually the government will have to find a real source of revenue to cover the interest credited to the trust fund.

The tax rate increase according to the present-value method is 5.11 percent of taxable payroll. In this appendix III.A., the same summary measures are presented for the HI program, but under the modified average-cost method, and the modified average-cost methodology is described.

Under the modified average-cost method, which was used prior to 1988 to evaluate the actuarial status of the program, the actuarial balance is defined as the difference between the arithmetic means of the annual cost rates (as defined in section I.D.) and the annual tax rates. Thus, under this method, the cost rates and tax rates for each year are given equal weights when summarized into a single measure. The annual cost rates include an amount to maintain the trust fund at a desired target level, if the fund would otherwise drop below that level. In addition, the actuarial balances calculated under the modified average-cost method reflect the starting trust fund balance and the actual interest earned on the trust fund before it is exhausted.

The actuarial balance using the modified average-cost method can thus be characterized as being mathematically equivalent to the average tax rate increase needed to maintain the trust fund at the target level over the 75-year projection period, taking into account the beginning trust fund balance and the interest earnings of the trust fund. The implied funding pattern under the modified average-cost method is that the current law trust fund ratios are maintained until the trust fund ratio falls below the target amount (100

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percent of the following year's estimated expenditures, in this year's report). After that, the tax rate is increased each year to cover the cost of the program and to maintain the trust fund at the target level.

The results in Table III.A.1 also include the impact of an alternative intermediate assumption for real earnings. During the last quarter century, the average annual increase in real earnings has amounted to 0.2 percent. The estimates in this appendix assume an annual real earnings increase of 0.2 percent for the next 10 years (consistent with the experience of the last quarter century) changing gradually to 0.6 percent over the next 25 years and remaining level at 0.6 percent for the remainder of the 75-year period.

The results of calculating the actuarial balance using the modified average-cost method and the alternate real earnings increases are presented in Table III.A.1. Other assumptions used to calculate the results are the same as those presented throughout this report.

**TABLE III.A.1. – ACTUARIAL BALANCES OF THE HI PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS (MODIFIED AVERAGE-COST METHOD)**

	I	Alternative II	III
1993-2017:			
Summarized tax rate <sup>1</sup>	2.90%	2.90%	2.90%
Summarized cost rate <sup>2</sup>	4.19	5.31	6.83
Actuarial balance <sup>3</sup>	-1.29	-2.41	-3.93
1993-2042:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>2</sup>	4.98	7.80	12.72
Actuarial balance <sup>3</sup>	-2.08	-4.90	-9.82

**TABLE III.A.1. -- ACTUARIAL BALANCES OF THE HI PROGRAM, UNDER  
ALTERNATIVE SETS OF ASSUMPTIONS (MODIFIED AVERAGE-COST METHOD)**

	I	Alternative II	III
1993-2067:			
Summarized tax rate <sup>1</sup>	2.90	2.90	2.90
Summarized cost rate <sup>2</sup>	5.69	9.69	17.05
Actuarial balance <sup>3</sup>	-2.79	-6.79	-14.15

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

<sup>2</sup>Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll, computed with alternate real earnings increases on the modified average-cost basis, including the cost of maintaining the trust fund at a level of 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance.

<sup>3</sup>Difference between the summarized tax rate (as scheduled under present law) and the summarized cost rate.

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### ***B. ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) INPATIENT HOSPITAL DEDUCTIBLE AND HOSPITAL AND EXTENDED CARE SERVICES COINSURANCE AMOUNTS, FOR CALENDAR YEAR 1993<sup>1</sup>***

**SUMMARY:** This notice announces the inpatient hospital deductible and the hospital and extended care services coinsurance amounts for services furnished in calendar year 1993 under Medicare's hospital insurance program (Medicare Part A). The Medicare statute specifies the formulae to be used to determine these amounts.

The inpatient hospital deductible will be \$676. The daily coinsurance amounts will be: (a) \$169 for the 61st through 90th days of hospitalization in a benefit period; (b) \$338 for lifetime reserve days; and (c) \$84.50 for the 21st through 100th days of extended care services in a skilled nursing facility in a benefit period.

Effective Date: January 1, 1993.

#### **SUPPLEMENTARY INFORMATION:**

##### **1. Background**

Section 1813 of the Social Security Act (the Act) provides for an inpatient hospital deductible to be subtracted from the amount payable by Medicare for inpatient hospital services furnished to a beneficiary. It also provides for certain coinsurance amounts to be subtracted from the amounts payable by Medicare for inpatient hospital and extended care services. Section 1813(b)(2) of the Act requires the Secretary to determine and publish between September 1 and September 15 of every year the amount of the inpatient

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<sup>1</sup> Extracted from the notice entitled "Medicare Program; Inpatient Hospital Deductible and Hospital and Extended Care Services Coinsurance Amounts for 1993," which was published in the Federal Register on November 27, 1992 (Vol. 57, no. 229, pp. 56345-56346).

hospital deductible and the hospital and extended care services coinsurance amounts applicable for services furnished in the following calendar year.

## **2. Computing the Inpatient Hospital Deductible for 1993**

Section 1813(b) of the Act prescribes the method for computing the amount of the inpatient hospital deductible. The inpatient hospital deductible is an amount equal to the inpatient hospital deductible for the preceding calendar year, changed by the Secretary's best estimate of the payment-weighted average of the applicable percentage increases (as defined in section 1886(b)(3)(B) of the Act). This estimate is used for updating the payment rates to hospitals for discharges in the fiscal year (FY) that begins on October 1 of the same preceding calendar year and adjusted to reflect real case mix. The adjustment to reflect real case mix is determined on the basis of the most recent case mix data available. The amount determined under the formula is rounded to the nearest multiple of \$4 (or, if midway between two multiples of \$4, to the next higher multiple of \$4).

For FY 1993, section 1886(b)(3)(B)(i)(VIII) of the Act, as amended by section 4002 of the Omnibus Budget Reconciliation Act of 1990 (Pub. L. 101-508, enacted on November 5, 1990), provides that the applicable percentage increase for urban prospective payment system hospitals is the market basket percentage increase minus 1.55 percent, and the applicable percentage increase for rural prospective payment system hospitals is the market basket percentage increase minus 0.55 percent. Section 1886(b)(3)(B)(ii)(IV) provides that the applicable percentage increase for hospitals excluded from the prospective payment system is the market basket percentage increase. The market basket percentage increases for FY 1993 are 4.1 percent for prospective payment system hospitals and 4.2 percent for hospitals excluded from the prospective payment system, as announced in the **Federal Register** on September 1, 1992 (57 FR 39746). Therefore, the percentage increases for Medicare prospective payment rates are 2.55 percent for urban hospitals and 3.55 percent for rural hospitals; the payment percentage increase for hospitals excluded from the prospective payment system is 4.2 percent. Thus, weighting these percentages in accordance with payment volume, the Secretary's best estimate of the payment-weighted average of the increases in the payment rates for FY 1993 is 2.73 percent. We recognize that Congress has frequently revised the payment rate increase provisions found in section 1886(b)(3)(B) of the Act during the budget reconciliation process, subsequent to the determination and promulgation of the deductible. Such revisions may occur

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this year as well and may affect the FY 1993 payment rate increase. However, at the time of this determination, we must use the payment rate increase specified in current law to determine the 1993 deductible.

To develop the adjustment for real case mix, an average case mix was first calculated for each hospital that reflects the relative costliness of that hospital's mix of cases compared to that of other hospitals. We then computed the increase in average case mix for hospitals paid under the Medicare prospective payment system in FY 1992 compared to FY 1991. (Hospitals excluded from the prospective payment system were excluded from this calculation since their payments are based on reasonable costs and are affected only by real increases in case mix.) We used bills from prospective payment hospitals received in HCFA as of the end of July 1992. These bills represent a total of about 7.8 million discharges for FY 1992 and provide the most recent case mix data available at this time. Based on these bills, the increase in average case mix in FY 1992 is 1.19 percent. Based on past experience, we expect overall case mix to increase beyond 1.19 percent as the year progresses and more FY 1992 data becomes available.

Section 1813 of the Act requires that the inpatient hospital deductible be increased only by that portion of the case mix increase that is determined to be real. We estimate that the increase in real case mix is about 1 percent. Since real case mix has been increasing at about 1 percent per year over the last few years, we expect that this trend will continue. Consequently, we will continue to use our estimate of one percent for the real case mix increase.

Thus, the estimate of the payment-weighted average of the applicable percentage increases used for updating the payment rates is 2.73 percent, and the real case mix adjustment factor for the deductible is 1 percent. Therefore, under the statutory formula, the inpatient hospital deductible for services furnished in calendar year 1993 is \$676. This deductible amount is determined by multiplying \$652 (the inpatient hospital deductible for 1992) by the payment rate increase of 1.0273 multiplied by the increase in real case mix of 1.01 which equals \$676.50 and is rounded to \$676.

### **3. Computing the Inpatient Hospital and Extended Care Services Coinsurance Amounts for 1993**

The coinsurance amounts provided for in section 1813 of the Act are defined as fixed percentages of the inpatient hospital deductible for services furnished



in the same calendar year. Thus, the increase in the deductible generates increases in the coinsurance amounts. For inpatient hospital and extended care services furnished in 1993, in accordance with the fixed percentages defined in the law, the daily coinsurance for the 61st through 90th days of hospitalization in a benefit period will be \$169 (1/4 of the inpatient hospital deductible); the daily coinsurance for lifetime reserve days will be \$338 (1/2 of the inpatient hospital deductible); and the daily coinsurance for the 21st through 100th days of extended care services in a skilled nursing facility in a benefit period will be \$84.50 (1/8 of the inpatient hospital deductible).

#### **4. Cost to Beneficiaries**

We estimate that in 1993 there will be about 8.4 million deductibles paid at \$676 each, about 3.2 million days subject to coinsurance at \$169 per day (for hospital days 61 through 90), about 1.3 million lifetime reserve days subject to coinsurance at \$338 per day, and about 15.2 million extended care days subject to coinsurance at \$84.50 per day. Similarly, we estimate that in 1992 there will be about 8.2 million deductibles paid at \$652 each, about 3.1 million days subject to coinsurance at \$163 per day (for hospital days 61 through 90), about 1.3 million lifetime reserve days subject to coinsurance at \$326 per day, and about 14.8 million extended care days subject to coinsurance at \$81.50 per day. Therefore, the estimated total increase in cost to beneficiaries is about \$460 million (rounded to the nearest \$10 million), due to (1) the increase in the deductible and coinsurance amounts and (2) the change in the number of deductibles and daily coinsurance amounts paid.

#### **5. 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, the Regulatory Flexibility Act (5 U.S.C. 601 through 612), or section 1102(b) of the Act.

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**Dated: October 2, 1992.**

**William Toby, Jr.,  
Acting Deputy Administrator,  
Health Care Financing Administration**

**Approved: November 16, 1992.**

**Louis W. Sullivan,  
Secretary**

***C. ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) MONTHLY PREMIUM RATE FOR THE UNINSURED AGED AND FOR CERTAIN DISABLED INDIVIDUALS WHO HAVE EXHAUSTED OTHER ENTITLEMENT, FOR CALENDAR YEAR 1993<sup>1</sup>***

**SUMMARY:** This notice announces the hospital insurance premium for calendar year 1993 under Medicare's hospital insurance program (Part A) for the uninsured aged and for certain disabled individuals who have exhausted other entitlement. The monthly Medicare Part A premium for the 12 months beginning January 1, 1993 for these individuals is \$221. Section 1818(d) of the Social Security Act specifies the method to be used to determine this amount.

Effective Date: January 1, 1993.

**SUPPLEMENTARY INFORMATION:**

**1. Background**

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

Section 1818(d) of the Act requires the Secretary to estimate, on an average per capita basis, the amount to be paid from the Federal Hospital Insurance Trust Fund for services performed and for related administrative costs incurred in the following year with respect to individuals age 65 and over who will be entitled to benefits under Medicare Part A. The Secretary must then,

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<sup>1</sup>Extracted from the notice entitled "Medicare Program; Part A Premium for 1993 for the Uninsured Aged and for Certain Disabled Individuals Who Have Exhausted Other Entitlement," which was published in the Federal Register on December 1, 1992 (Vol. 57, No. 231, pp. 56918-56919).

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during September of each year, determine the monthly actuarial rate (the per capita amount estimated above divided by 12) and publish the dollar amount to be applicable for the monthly premium in the succeeding year. If the premium is not a multiple of \$1, the premium is rounded to the nearest multiple of \$1 (or, if it is a multiple of 50 cents but not of \$1, it is rounded to the next highest \$1). The 1992 premium under this method was \$192 and was effective January 1992. (See 56 FR 58067; November 15, 1991.)

Section 1818(d)(2) of the Act requires the Secretary to determine and publish, during September of each calendar year, the amount of the monthly premium for the following calendar year for persons who voluntarily enroll in Medicare Part A.

Section 1818A of the Act provides for voluntary enrollment in Medicare Part A, subject to payment of a monthly premium, of certain disabled individuals who have exhausted other entitlement. These individuals are those not now entitled but who have been entitled under section 226(b) of the Act, continue to have the disabling impairment upon which their entitlement was based, and whose entitlement ended solely because they had earnings that exceeded the substantial gainful activity amount (as defined in section 223(d)(4) of the Act).

Section 1818A(d)(2) of the Act specifies that the premium determined under section 1818(d)(2) of the Act for the aged will also apply to certain disabled individuals as described above.

### **2. Premium Amount for 1993**

Under the authority of sections 1818(d)(2) and 1818A(d)(2) of the Act (42 U.S.C. 1395i-2(d)(2) and 1395i-2a(d)(2)), the Secretary has determined that the monthly Medicare Part A hospital insurance premium for the uninsured aged and for certain disabled individuals who have exhausted other entitlement for the 12 months beginning January 1, 1993 is \$221.

### **3. Statement of Actuarial Assumptions and Bases Employed in Determining the Monthly Premium Rate**

As discussed in section 1 of this notice, the monthly Medicare Part A premium for 1993 is equal to the estimated monthly actuarial rate for 1993 rounded to the nearest multiple of \$1. The monthly actuarial rate is defined to be one-twelfth of the average per capita amount that the Secretary estimates will be paid from the Federal Hospital Insurance Trust Fund for

services performed and related administrative costs incurred in 1993 for individuals age 65 and over who will be entitled to benefits under the hospital insurance program. Thus, the number of individuals age 65 and over who will be entitled to hospital insurance benefits and the costs incurred on behalf of these beneficiaries must be projected to determine the premium rate.

The principal steps involved in projecting the future costs of the hospital insurance program are (a) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (b) projecting increases in payment amounts for each of the various service types; and (c) projecting increases in administrative costs. Establishing historical Medicare Part A enrollment and projecting future enrollment, by type of beneficiary, is part of this process.

We have completed all of the above steps, basing our projections for 1993 on (a) current historical data and (b) projection assumptions under current law from the Midsession Review of the President's Fiscal Year 1993 Budget. It is estimated that in calendar year 1993, 31.432 million people age 65 and over will be entitled to Medicare Part A benefits (without premium payment), and that these individuals will, in 1993, incur \$83.494 billion of benefits for services performed and related administrative costs. Thus, the estimated monthly average per capita amount is \$221.36 and the monthly premium is \$221.

#### **4. Costs to Beneficiaries**

The 1993 Medicare Part A premium is about 15 percent higher than the \$192 monthly premium amount for the 12-month period beginning January 1, 1992.

We estimate that there will be, in calendar year 1993, approximately 227 thousand enrollees who will voluntarily enroll in Medicare Part A by paying the premium and who do not otherwise meet the requirements for entitlement. The estimated cost of the increase in the premium to these enrollees will be about \$80 million.

#### **5. 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, the

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Regulatory Flexibility Act (5 U.S.C. 601 through 612) or section 1102(b) of the Act.

Dated: October 2, 1992.

William Toby,  
Acting Deputy Administrator,  
Health Care Financing Administration

Approved: October 27, 1992.

Louis W. Sullivan,  
Secretary

**D. GLOSSARY**

**Actuarial balance.** The difference between the summarized tax rate and the summarized cost rate over a given valuation period.

**Actuarial deficit.** A negative actuarial balance.

**Actuarial surplus.** A positive actuarial balance.

**Administrative expenses.** Expenses incurred by the Department of HHS and the Department of the Treasury in administering the HI program and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses, which are paid from the HI trust fund, include expenditures for intermediaries to determine costs of and make payments to providers as well as salaries and expenses of the HCFA.

**Advisory Council on Social Security.** Under the Social Security Act, an Advisory Council is appointed every 4 years to study and review the financial status of the OASDI and Medicare programs. The most recent Advisory Council was appointed in 1989 and issued its reports in 1991.

**Aged enrollee.** An individual, age 65 or over, who is enrolled in the HI program.

**Alternatives I, II, and III.** See "Assumptions."

**Annual balance.** The difference between the tax rate and the cost rate in a given year.

**Assets.** Treasury notes and bonds guaranteed by the Federal government and cash held by the trust fund.

**Assumptions.** Values relating to future trends in certain factors which affect growth of the trust funds. Demographic assumptions include fertility, mortality, net immigration, marriage, divorce, retirement patterns, disability incidence and termination rates, and changes in the labor force. Economic assumptions include unemployment, average earnings, inflation, interest rates, and productivity. Three sets of economic assumptions are presented in the Trustees Report:

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(1) Alternative I is characterized as an "optimistic" set, with relatively rapid economic growth, low inflation, and favorable (from the standpoint of program financing) demographic conditions.

(2) Alternative II is the "intermediate" set of assumptions, with "best estimates" of future economic and demographic conditions.

(3) Alternative III is more "pessimistic," with slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

See also "Hospital assumptions."

**Automatic adjustment provisions.** The provisions of section 230 of the Social Security Act that are used each year (except when overruled by law) to increase the annual contribution base.

**Average market yield.** A computation which is made on all marketable interest-bearing obligations of the United States. It is computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue.

**Baby boom.** The period from the end of World War II through the mid-1960s marked by unusually high birth rates.

**Base estimate.** The updated estimate of the most recent historical year.

**Beneficiary.** A person enrolled in the HI program. See also "Aged enrollee" and "Disabled enrollee."

**Benefit payments.** The amounts disbursed for covered services after the deductible and coinsurance amounts have been deducted.

**Benefit period.** An alternate name for "spell of illness."

**Board of Trustees.** A Board established by the Social Security Act to oversee the financial operations of the Federal Hospital Insurance Trust Fund. The Board is composed of five members, three of whom serve automatically by virtue of their positions in the Federal government: the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The other two members are appointed by the President as public representatives: Stanford G. Ross and David M. Walker are currently serving four-year terms that began on October 2, 1990. The Administrator of the HCFA serves as Secretary of the Board of Trustees.



**Bond.** A certificate of ownership of a specified portion of a debt due by the Federal government to holders, bearing a fixed rate of interest.

**Callable.** Subject to redemption upon notice, such as a bond.

**Case mix index.** The average DRG relative weight for all the Medicare admissions.

**Cash basis.** The costs of the service at the point payment was made rather than when the service was performed.

**Certificate of indebtedness.** A short-term certificate of ownership of 12 months or less of a specified portion of a debt due by the Federal government to individual holders, bearing a fixed rate of interest.

**Coinsurance.** See "Hospital coinsurance" and "SNF coinsurance."

**Consumer Price Index (CPI).** A measure of the average change in prices over time in a fixed group of goods and services. In this report, all references to the CPI relate to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

**Contribution base.** Annual dollar amount above which earnings in employment covered under the HI program are not taxable.

**Contribution rate.** The percentage of taxable earnings, up to the contribution base, that is paid for the HI tax. Currently, the percentages are 1.45 for employees and employers, each. The self-employed pay 2.9 percent.

**Contributions.** See "Net contributions."

**Cost rate.** The ratio of the cost (or outgo, expenditures, or disbursements) of the program on an incurred basis during a given year to the taxable payroll for the year. In this context, the outgo is defined to exclude benefit payments, and administrative costs for certain uninsured persons, for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium in order to be enrolled.

**Covered earnings.** Earnings in employment covered by the HI program.

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**Covered employment.** All employment and self-employment creditable for Social Security purposes. Almost every kind of employment and self-employment is covered under the program. In a few employment situations, for example, religious orders under a vow of poverty, foreign affiliates of American employers, or State and local governments, coverage must be elected by the employer. However, effective July 1991, coverage is mandatory for State and local employees who are not participating in a public employee retirement system. All new State and local employees have been covered since April 1986. In a few situations, for example, ministers or self-employed members of certain religious groups, workers can opt out of coverage. Covered employment for HI includes all Federal employees (whereas covered employment for OASDI includes some, but not all, Federal employees).

**Covered services.** Services for which HI pays, as defined and limited by statute. Covered services are provided by hospitals (inpatient care), skilled nursing facilities, home health agencies, and hospices.

**Covered worker.** A person who has earnings creditable for Social Security purposes on the basis of services for wages in covered employment and/or on the basis of income from covered self-employment. The number of HI covered workers is slightly larger than the number of OASDI covered workers because of different coverage status for Federal employment. See "Covered employment."

**Deductible.** See "Inpatient hospital deductible."

**Deemed wage credit.** See "Non-contributory or deemed wage credits."

**Demographic assumptions.** See "Assumptions."

**Diagnosis-related groups (DRGs).** A classification system that groups patients according to diagnosis, type of treatment, age, and other relevant criteria. Under the prospective payment system, hospitals are paid a set fee for treating patients in a single DRG category, regardless of the actual cost of care for the individual.

**Disability.** For Social Security purposes, the inability to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or to last for a continuous period of not less than 12 months. Special rules apply for workers age 55 or

older whose disability is based on blindness. The law generally requires that a person be disabled continuously for 5 months before he or she can qualify for a disabled-worker cash benefit. An additional 24 months is necessary to qualify for benefits under Medicare.

**Disability Insurance (DI).** See "Old-Age, Survivors, and Disability Insurance (OASDI)."

**Disabled enrollee.** An individual under age 65 who has been entitled to disability benefits under Title II of the Social Security Act or the railroad retirement system for at least 2 years and who is enrolled in the HI program.

**DRG Coding.** The DRG categories used by hospitals on discharge billing. See also "Diagnosis-related groups (DRGs)."

**Earnings.** Unless otherwise qualified, all wages from employment and net earnings from self-employment, whether or not taxable or covered.

**Economic assumptions.** See "Assumptions."

**End-stage renal disease (ESRD).** Permanent kidney failure.

**Excess wages.** Wages in excess of the contribution base on which a worker initially pays taxes (usually as a result of working for more than one employer during a year). Employee taxes on excess wages are refunded to affected employees, while the employer taxes are not refunded.

**Extended care services.** In the context of this report, an alternate name for "skilled nursing facility services."

**Federal Insurance Contributions Act (FICA).** Provision authorizing taxes on the wages of employed persons to provide for the OASDI and HI programs. The tax is paid in equal amounts by covered workers and their employers.

**Financial interchange.** Provisions of the Railroad Retirement Act providing for transfers between the trust funds and the Social Security Equivalent Benefit Account of the Railroad Retirement program in order to place each trust fund in the same position as if railroad employment had always been covered under Social Security.

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**Fiscal year (FY).** The accounting year of the United States Government. Since 1976, each fiscal year has begun October 1 of the prior calendar year and ended the following September 30. For example, fiscal year 1993 began October 1, 1992 and will end September 30, 1993.

**Fixed capital assets.** The net worth of facilities and other resources.

**General fund of the Treasury.** Funds held by the Treasury of the United States, other than revenue collected for a specific purpose (such as HI) and maintained in a separate account for that purpose. The majority of this fund is derived from individual and business income taxes.

**General revenue.** Income to the HI trust fund from the general fund of the Treasury. Only a very small percentage of total HI trust fund income each year is attributable to general revenue.

**Gramm-Rudman-Hollings Act.** The Balanced Budget and Emergency Deficit Control Act of 1985.

**Gross Domestic Product (GDP).** The total dollar value of all goods and services produced in a year in the United States, regardless of who supplies the labor or property.

**Home health agency (HHA).** A public agency or private organization which is primarily engaged in providing skilled nursing services, other therapeutic services, such as physical, occupational, or speech therapy, and home health aide services, in the home.

**Hospice.** A provider of care for the terminally ill; delivered services generally include home health care, nursing care, physician services, medical supplies, and short-term inpatient hospital care.

**Hospital assumptions.** These include differentials between hospital labor and non-labor indices compared to general economy labor and non-labor indices, rates of admission incidence, the trend toward treating less complicated cases in outpatient settings, and continued improvement in DRG coding, etc.

**Hospital coinsurance.** For the 61st through 90th day of hospitalization in a benefit period, a daily amount for which the beneficiary is responsible, equal to one-fourth of the inpatient hospital deductible; for lifetime reserve days, a

daily amount for which the beneficiary is responsible, equal to one-half of the inpatient hospital deductible (see "Lifetime reserve days").

**Hospital input price index.** An alternate name for "hospital market basket."

**Hospital Insurance (HI).** The Medicare program which pays for specified inpatient hospital services, posthospital skilled nursing care, home health services, and hospice care for aged and disabled individuals who meet the eligibility requirements. Also known as Medicare Part A.

**Hospital market basket.** The cost of the mix of goods and services (including personnel costs but excluding nonoperating costs) comprising routine, ancillary, and special care unit inpatient hospital services.

**Incurred basis.** The costs based on when the service was performed rather than when the payment was made.

**Inpatient hospital deductible.** An amount of money which is deducted from the amount payable by Medicare Part A for inpatient hospital services furnished to a beneficiary during a spell of illness.

**Inpatient hospital services.** These services include bed and board, nursing services, diagnostic or therapeutic services, and medical or surgical services.

**Interest.** A payment for the use of money during a specified period.

**Interfund borrowing.** The borrowing of assets by a trust fund (OASI, DI, HI or SMI) from another of the trust funds when one of the funds is in danger of exhaustion.

**Intermediary.** A private or public organization, under contract to the HCFA, to determine costs of and make payments to providers for HI and certain SMI services.

**Intermediate assumptions.** See "Assumptions."

**Lifetime reserve days.** Under HI, there are 60 lifetime reserve days per beneficiary which the beneficiary may opt to use when regular inpatient hospital benefits are exhausted. The beneficiary pays one-half of the inpatient hospital deductible for each lifetime reserve day used.

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**Long-range.** The next 75 years.

**Maximum taxable amount of annual earnings.** See "Contribution base."

**Medicare.** A nationwide, federally administered health insurance program authorized in 1965 to cover the cost of hospitalization, medical care, and some related services for most people over age 65. In 1972 coverage was extended to people receiving Social Security Disability Insurance payments for 2 years, and people with ESRD. Medicare consists of two separate but coordinated programs -- Part A (Hospital Insurance, HI) and Part B (Supplementary Medical Insurance, SMI). Almost all persons aged 65 and over or disabled entitled to HI are eligible to enroll in the SMI program on a voluntary basis by paying a monthly premium. Health insurance protection is available to Medicare beneficiaries without regard to income.

**Military service wage credits.** Credits recognizing that military personnel receive other cash payments and wages in kind (such as food and shelter) in addition to their basic pay. Noncontributory wage credits of \$160 are provided for each month of active military service from September 16, 1940, through December 31, 1956. For years after 1956, the basic pay of military personnel is covered under the Social Security program on a contributory basis. Noncontributory wage credits of \$300 for each calendar quarter in which a person receives pay for military service from January 1957 through December 1977 are granted in addition to contributory credits for basic pay. Deemed wage credits of \$100 are granted for each \$300 of military wages in years after 1977. (The maximum credits allowed in any calendar year are \$1,200.) See also "Quinquennial military service determinations and adjustments.")

**Modified average-cost method.** Under this system of calculating summary measures, the actuarial balance is defined as the difference between the arithmetic means of the annual cost rates and the annual tax rates, with an adjustment included to account for the offsets to cost that are due to (1) the starting trust fund balance and (2) interest earned on the trust fund.

**Net contributions.** The appropriation of employment taxes, less refunds of employment taxes, and deposits arising from State agreements.

**Non-contributory or deemed wage credits.** Wages and wages in kind that were not subject to the HI tax but that are deemed as having been. This is done for the purposes of (1) determining HI program eligibility for individuals

who might not be eligible for HI coverage without payment of premium were it not for the deemed wage credits and (2) calculating reimbursement due the HI trust fund from the general fund of the Treasury. The first purpose applies in the case of providing coverage to persons during the transitional periods when the HI program began and when it was expanded to cover Federal employees; both purposes apply in the cases of military service wage credits (see "Military service wage credits" and "Quinquennial military service determinations and adjustments") and deemed wage credits granted for the internment of persons of Japanese ancestry during World War II.

**Old-Age, Survivors, and Disability Insurance (OASDI).** The Social Security programs which pay for (1) monthly cash benefits to retired-worker (old-age) beneficiaries and their spouses and children and to survivors of deceased insured workers (OASI) and (2) monthly cash benefits to disabled-worker beneficiaries and their spouses and children and for providing rehabilitation services to the disabled (DI).

**Optimistic assumptions.** See "Assumptions."

**Part A.** The Medicare Hospital Insurance program.

**Part A premium.** A monthly premium paid by individuals who wish for and are entitled to voluntary enrollment in the Medicare HI program. These individuals are those who are age 65 and older who are uninsured for social security or railroad retirement and do not otherwise meet the requirements for entitlement to Part A. In addition, disabled individuals who have exhausted other entitlement are qualified. These individuals are those not now entitled but who have been entitled under section 226(b) of the Act, continue to have the disabling impairment upon which their entitlement was based, and whose entitlement ended solely because the individuals had earnings that exceeded the substantial gainful activity amount (as defined in section 223(d)(4) of the Act).

**Part B.** The Medicare Supplementary Medical Insurance program.

**Participating hospitals.** Those hospitals who participate in the Medicare program.

**Pay-as-you-go financing.** A financing scheme where taxes are scheduled to produce just as much income as required to pay current benefits, with trust

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fund assets built up only to the extent needed to prevent exhaustion of the fund by random economic fluctuations.

**Payroll taxes.** Taxes levied on the gross wages of workers.

**Peer Review Organization (PRO).** A group of practicing physicians and other health care professionals, paid by the federal government, to review the care given to Medicare patients.

**Pessimistic assumptions.** See "Assumptions."

**Present value.** The present value of a future stream of payments is the lump-sum amount that, if invested today, together with interest earnings would be just enough to meet each of the payments as they fell due. At the time of the last payment, the invested fund would be exactly zero.

**Professional Standards Review Organization (PSRO).** The predecessor of the Peer Review Organization.

**Projection error.** Degree of variation between estimated and actual amounts.

**Prospective Payment Assessment Commission (ProPAC).** A commission established by the Social Security Amendments of 1983 to review and recommend the appropriate percentage changes which should be effected for payments for inpatient hospital discharges each fiscal year beginning with fiscal year 1986. Furthermore, the ProPAC is expected to study and make recommendations regarding existing reimbursement policy for each fiscal year.

**Prospective payment system (PPS).** A method of reimbursement for hospitals which was implemented effective with hospital cost reporting periods beginning on or after October 1, 1983. Under this system, Medicare payment is made at a predetermined, specific rate for each discharge. All discharges are classified according to a list of diagnosis-related groups (DRGs).

**Provider.** Any organization, institution, or individual who provides health care services to Medicare beneficiaries. Hospitals (inpatient services), skilled nursing facilities, home health agencies, and hospices are the providers of services covered under Medicare Part A.



**Proxy.** An index of known values that likely approximates an index for which values are unavailable. The proxy is used as a "stand-in" for the unavailable index.

**Quinquennial military service determination and adjustments.** Prior to the Social Security Amendments of 1983, quinquennial determinations (i.e., estimates made once every 5 years) were made of the costs arising from the granting of deemed wage credits for military service prior to 1957; annual reimbursements were made from the general fund of the Treasury to the HI trust fund for these costs. The Social Security Amendments of 1983 provided for (1) a lump-sum transfer in 1983 for (a) the costs arising from the pre-1957 wage credits and (b) the HI taxes on the deemed wage credits for military service for 1966 through 1983, inclusive; (2) quinquennial adjustments to the pre-1957 portion of the 1983 lump-sum transfer; (3) HI taxes on military deemed wage credits for 1984 and later to be credited to the fund on July 1 of each year; and (4) adjustments as deemed necessary to any previously transferred amounts representing HI taxes on military deemed wage credits.

**Railroad retirement.** A federal insurance program similar to Social Security designed for workers in the railroad industry. The provisions of the Railroad Retirement Act provide for a system of coordination and financial interchange between the Railroad Retirement program and the Social Security program.

**Real-wage differential.** The difference between the percentage increases, before rounding, in (1) the average annual wage in covered employment, and (2) the average annual Consumer Price Index.

**Reasonable cost basis.** The calculation to determine the reasonable cost incurred by individual providers when furnishing covered services to beneficiaries. The reasonable cost is based on the actual cost of providing such services, including direct and indirect costs of providers, and excluding any costs which are unnecessary in the efficient delivery of services covered by a health insurance program.

**Self-employment.** Operation of a trade or business by an individual or by a partnership in which an individual is a member.

**Self-Employment Contributions Act (SECA).** Provision authorizing taxes on the net income of most self-employed persons to provide for the OASDI and HI programs.

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**Sequester.** The reduction of funds to be used for benefits or administrative costs from a Federal account based on the requirements specified in the Gramm-Rudmann-Hollings Act.

**Short-range.** The next 10 years.

**Skilled nursing facility (SNF).** An institution which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care, or engaged in rehabilitation of injured, disabled, or sick persons.

**SNF coinsurance.** For the 21st through 100th day of extended care services in a benefit period, a daily amount for which the beneficiary is responsible, equal to 1/8 of the inpatient hospital deductible.

**Social Security Act.** Public Law 74-271, enacted August 14, 1935, with subsequent amendments. The Social Security Act consists of 20 titles, of which four have been repealed. The HI and SMI programs are authorized by Title XVIII of the Social Security Act.

**Special public-debt obligation.** Securities of the United States Government issued exclusively to the OASI, DI, HI, and SMI trust funds and other Federal trust funds. Section 1817(c) of the Social Security Act provides that the public-debt obligations issued for purchase by the HI trust fund shall have maturities fixed with due regard for the needs of the funds. The usual practice in the past has been to spread the holdings of special issues, as of each June 30, so that the amounts maturing in each of the next 15 years are approximately equal. Special public-debt obligations are redeemable at par at any time.

**Spell of illness.** A period of consecutive days beginning with the first day on which a beneficiary is furnished inpatient hospital or extended care services and ending with the close of the first period of 60 consecutive days thereafter in which the beneficiary is in neither a hospital or skilled nursing facility.

**Summarized cost rate.** The ratio of the present value of expenditures to the present value of the taxable payroll for the years in a given period. In this context, the expenditures are on an incurred basis and exclude costs for certain uninsured persons, for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium in order to be enrolled. The summarized cost rate includes the cost of

reaching and maintaining a "target" trust fund level, or contingency fund ratio. Because a trust fund level of about one year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted contingency fund ratio used in determining summarized cost rates is 100 percent of annual expenditures. Accordingly, the summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of the targeted ending trust fund level plus the beginning trust fund level, to (b) the present value of the taxable payroll during the period.

**Summarized tax rate.** The ratio of (a) the present value of the tax revenues incurred during a given period, to (b) the present value of the taxable payroll for the years in the period.

**Supplementary Medical Insurance (SMI).** The Medicare program which pays for a portion of the costs of physician's services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals. Also known as Medicare Part B.

**Taxable earnings.** Taxable wages and/or self-employment income under the prevailing annual maximum taxable limit.

**Taxable payroll.** A weighted average of taxable wages and taxable self-employment income. When multiplied by the combined employee-employer tax rate, it yields the total amount of taxes incurred by employees, employers, and the self-employed for work during the period.

**Taxable self-employment income.** Net earnings from self-employment, generally above \$400 and below the annual maximum taxable amount for a calendar or other taxable year, less any taxable wages in the same taxable year.

**Taxable wages.** Wages paid for services rendered in covered employment up to the annual maximum taxable amount. In some cases, wages must also be above a specified amount to be taxed and credited (for example, \$50 or more in a calendar quarter from one employer for domestic employment, \$100 or more in a calendar year for employment in a nonprofit organization or for services not in the course of an employer's trade or business).

**Taxes.** See "Contributions."

## *Appendices*

**Test of Actuarial Status.** The overall test of actuarial status for the HI program, which includes a test of Short-Range Financial Adequacy, and a test of Long-Range Close Actuarial Balance.

**Test of Long-Range Close Actuarial Balance.** Summarized tax rates and cost rates are calculated for each of the 65 valuation periods in the full 75-year long-range projection period. The first of these periods consists of the next 11 years. Each succeeding period becomes longer by 1 year, culminating with the period consisting of the next 75 years. The long-range test is met if, for each of the 65 time periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 5 percent for the full 75-year period and is reduced uniformly for shorter periods, approaching zero as the duration of the time periods approaches the first 10 years. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years.

**Test of Short-Range Financial Adequacy.** The conditions required to meet this test are as follows: If the trust fund ratio for a fund exceeds 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period; alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and not be depleted at any time during this period) and then remain at or above 100 percent throughout the remainder of the 10-year period. This test is applied to trust fund projections made under the intermediate (alternative II) assumptions.

**Trust fund.** Separate accounts in the United States Treasury mandated by Congress whose assets may only be used for a specified purpose. For the HI trust fund, monies not withdrawn for current benefit payments and administrative expenses are invested in interest-bearing Federal securities, as required by law; the interest earned is also deposited in the trust fund.

**Trust fund ratio.** A short-range measure of the adequacy of the trust fund level; defined as the assets at the beginning of the year expressed as a percentage of the outgo during the year.

**Unit input intensity allowance.** The amount added to or subtracted from the hospital input price index to yield the PPS update factor.

**Valuation period.** A period of years which is considered as a unit for purposes of calculating the status of a trust fund.

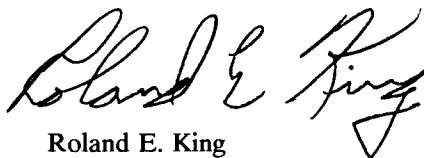
**Voluntary enrollee.** Certain individuals aged 65 or older or disabled, who are not otherwise entitled to Medicare who opt to obtain coverage under Part A by paying a monthly premium.

**Year of exhaustion.** The first year in which a trust fund is unable to pay benefits when due because the assets of the fund are exhausted.

***E. STATEMENT OF ACTUARIAL OPINION***

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

In my opinion, it would be preferable to use the modified average cost method rather than the present-value method to summarize the projections of the HI program. In addition, I have some concern regarding the real earnings assumptions chosen by the Board of Trustees in view of the real earnings growth rates of the last 25 years. As a result, Appendix III.A. has been included in the report to provide supplemental information which may be of interest to readers of the report.

A handwritten signature in black ink, appearing to read "Roland E. King". The signature is fluid and cursive, with the first name "Roland" and last name "King" being the most prominent parts.

Roland E. King  
Fellow of the Society of Actuaries  
Member of the American Academy of Actuaries  
Chief Actuary,  
Health Care Financing Administration