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**1990 ANNUAL REPORT OF THE BOARD OF TRUSTEES  
OF THE FEDERAL HOSPITAL INSURANCE TRUST  
FUND**

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**COMMUNICATION**

**FROM**

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

**TRANSMITTING**

**THE 1990 ANNUAL REPORT OF THE FEDERAL HOSPITAL  
INSURANCE TRUST FUND, PURSUANT TO 42 U.S.C. 1817(b)(2)**



**APRIL 19, 1990.—Referred to the Committee on Ways and Means and  
ordered to be printed**

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THE BOARD OF TRUSTEES OF THE  
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THE 1990 ANNUAL REPORT OF THE BOARD,  
PURSUANT TO  
SECTION 1817(b) OF THE SOCIAL SECURITY ACT,  
AS AMENDED

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LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE  
FEDERAL HOSPITAL INSURANCE TRUST FUND  
Washington, D.C., April 18, 1990

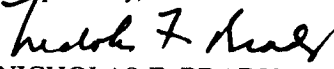
HONORABLE THOMAS S. FOLEY  
Speaker of the House of Representatives  
Washington, D.C.

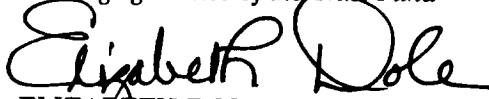
HONORABLE DAN QUAYLE  
President of the Senate  
Washington, D.C.

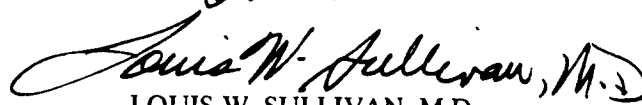
GENTLEMEN:

We have the honor of transmitting to you the 1990 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund (the 25th such report), pursuant to the provisions of section 1817(b) of the Social Security Act.

Respectfully,


  
NICHOLAS F. BRADY,  
*Secretary of the Treasury, and  
Managing Trustee of the Trust Fund*

  
ELIZABETH DOLE,  
*Secretary of Labor, and Trustee*

  
LOUIS W. SULLIVAN, M.D.,  
*Secretary of Health and  
Human Services, and Trustee*

PUBLIC TRUSTEE,  
Vacant

PUBLIC TRUSTEE,  
Vacant

  
GAIL R. WILENSKY, Ph.D.,  
*Administrator of the Health Care  
Financing Administration,  
and Secretary, Board of Trustees*

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**1990 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE  
FEDERAL HOSPITAL INSURANCE TRUST FUND**

**EXECUTIVE SUMMARY**

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 1989, HI covered 30 million aged and 3 million disabled enrollees at a cost of \$60.8 billion. Of this amount, \$60.0 billion was for benefit payments and \$0.8 billion, only 1.3 percent of total disbursements, was for administrative expenses.

The payroll taxes of 136 million workers primarily financed the HI program in calendar year 1989. Payroll taxes amounting to \$68.4 billion, or 89.1 percent of total income, were collected during the year. Interest payments to the HI trust fund amounted to 9.5 percent of total income. The remaining 1.4 percent of calendar year 1989 income consisted mostly of a transfer from the railroad retirement program, transfers from the general fund of the Treasury, and premiums paid by voluntary enrollees.

As mentioned above, the HI program is primarily financed by payroll taxes, with the taxes paid by current workers 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 U.S. Government.

The HI contribution rates applicable to taxable earnings in each of the calendar years 1986 and later are shown in Table I. The maximum taxable amounts of annual earnings are shown for 1986 through 1990. After 1990, the automatic increase provisions in section 230 of the Social Security Act determine the maximum taxable amount.

**TABLE I.--CONTRIBUTION RATES AND MAXIMUM TAXABLE AMOUNT  
OF ANNUAL EARNINGS**

<u>Calendar years</u>	<u>Maximum taxable amount of annual earnings</u>	<u>Contribution rate</u>	
		<u>(Percent of taxable earnings)</u>	
		<u>Employees and</u>	<u>Self-</u>
		<u>employers, each</u>	<u>employed</u>
1986	\$42,000	1.45	2.90
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
Changes scheduled in present law:			
1991 & later	Subject to automatic increase	1.45	2.90



### Actuarial Status of the Trust Fund

The Board of Trustees recommends that it is advisable to maintain a balance in the trust fund equal to a minimum of one-half year's disbursements, as a reserve against fluctuations in program experience and to provide time for any needed legislation to remedy unexpected imbalances. At the beginning of 1990, the trust fund was above the minimum desired level.

Projections were made under four alternative sets of assumptions: optimistic, two intermediate sets (alternatives II-A and II-B), and pessimistic. Under both sets of intermediate assumptions, the trust fund ratio, defined as the ratio of assets at the beginning of the year to disbursements during the year, is projected to increase until 1994 and then decline steadily until the fund is completely exhausted shortly after the turn of the century. Under the more optimistic set of assumptions (alternative I), the trust fund is projected to remain solvent throughout the first 25-year projection period, with trust fund exhaustion occurring in 2018. Under the more pessimistic set of assumptions (alternative III), the trust fund ratio is projected to increase to a level of about 146 percent in 1992 and then decrease rapidly until the fund is exhausted in 1999.

Table 11 in this report summarizes the estimated operations of the HI trust fund under the four alternative sets of assumptions. Figure 1 shows historical trust fund ratios for recent years and projected ratios under the four sets of assumptions.

The adequacy of the financing of the HI program on a long-range basis is measured by comparing on a year-by-year basis the actual tax rates specified by law with the corresponding 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 the actuarial balance. The actuarial balance is defined to be the excess of the average tax rate for the valuation period over the average cost of the program expressed as a percentage of taxable payroll 1/. Until this year, the average costs (expressed as a percentage of taxable payroll), average tax rates, and actuarial balances were computed on an average-cost basis. Beginning this year, however, these items are computed on a level-financing basis, for consistency with the OASDI report, which has used the level-financing method since 1988. The "Actuarial Status of the Trust Fund" section in this report contains descriptions of these two methods and their differences. Table II compares the actuarial balance under each of the four sets of assumptions for the 75-year projection period 1990-2064 2/. Figure 2 shows the year-by-year costs as a percent of taxable payroll for each of the four sets of assumptions, as well as the scheduled tax rates. As indicated in footnote 1, the cost figures in Figure 2 do not include amounts for maintaining the trust fund at the level of at least a half-year's disbursements.

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1/ In previous reports, the actuarial balance was defined to be the excess of the average tax rate for the valuation period over the average cost of the program, expressed as a percentage of taxable payroll, for the same period, where cost included (1) program expenditures and (2) a small amount to maintain the trust fund at the level of at least a half-year's outgo after accounting for the offsetting effect of interest earnings. Beginning with the 1988 report, the actuarial balance is defined to be the excess of the average tax rate for the valuation period over the average cost of the program, expressed as a percentage of taxable payroll, for the same period, where cost represents program expenditures only. This approach is the same as the reporting methods of the OASDI report.

2/ Multi-year actuarial balances in this report are computed on the level-financing basis, as described in the "Actuarial Status of the Trust Fund" section, unless otherwise indicated.

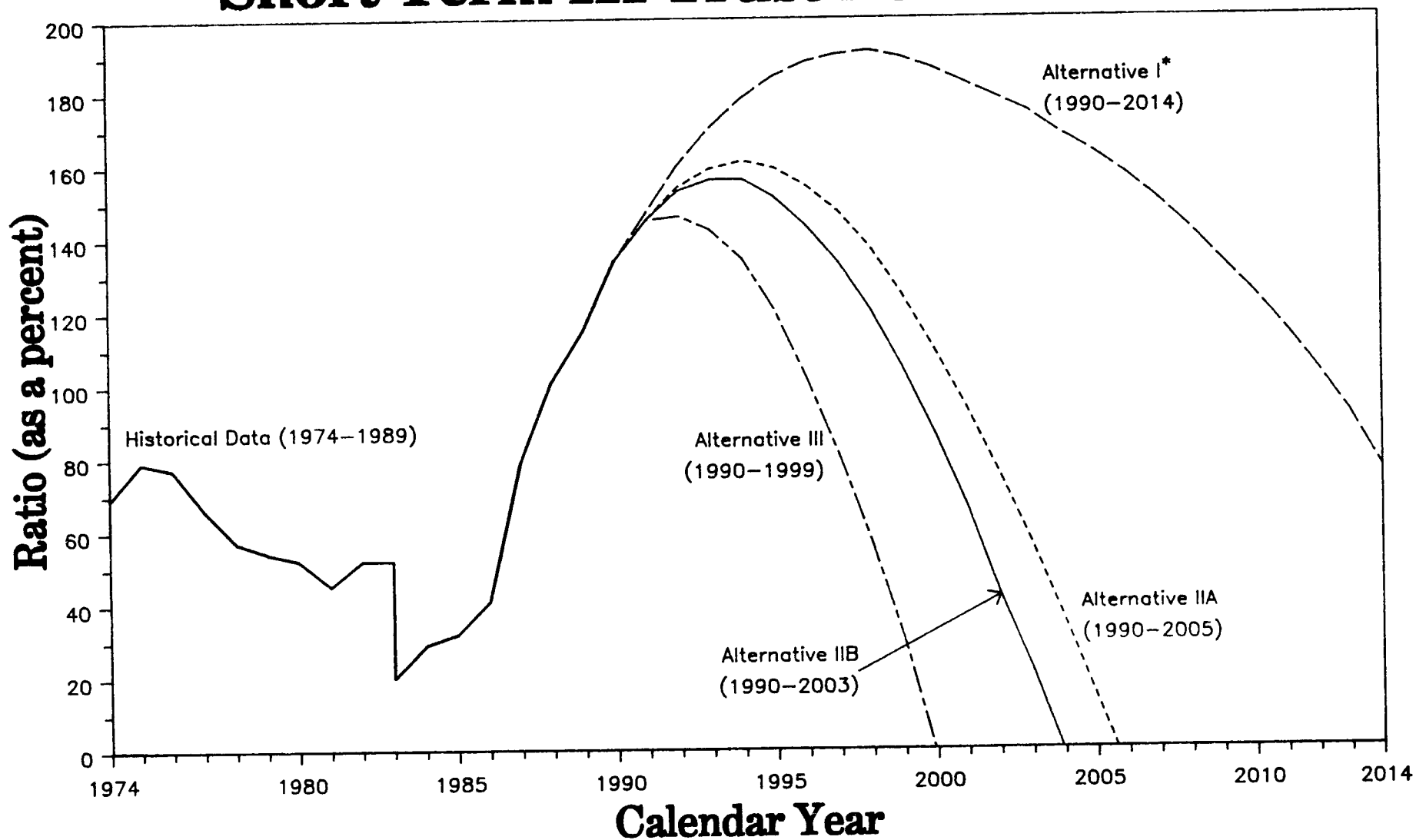
Figure 2 emphasizes the inadequacy of the financing of the HI program by illustrating the divergence of the program costs and scheduled tax rates under each set of assumptions.

Table III presents a comparison of the projected experience in the 1988 and 1990 reports 3/. As Table III indicates, the projections in the 1990 report show that the fund will be depleted a few years earlier than in the 1988 report under the intermediate assumptions, with a larger change in the year of depletion occurring under the optimistic assumptions and no change at all under the pessimistic scenario. Table IV shows the major reasons for the change in the 75-year actuarial balance of the HI program from that in the 1988 report 3/. The section of the report entitled "Actuarial Status of the Trust Fund" discusses more completely the reasons for the change in the actuarial balance.

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3/ A presentation of the long-range actuarial status of the trust fund did not appear in the 1989 report, for reasons given therein. Therefore, the projections in this report are compared to those in the 1988 report.

**Figure 1**  
**Short Term HI Trust Fund Ratios**



\*The trust fund is depleted in 2018 under alternative I.

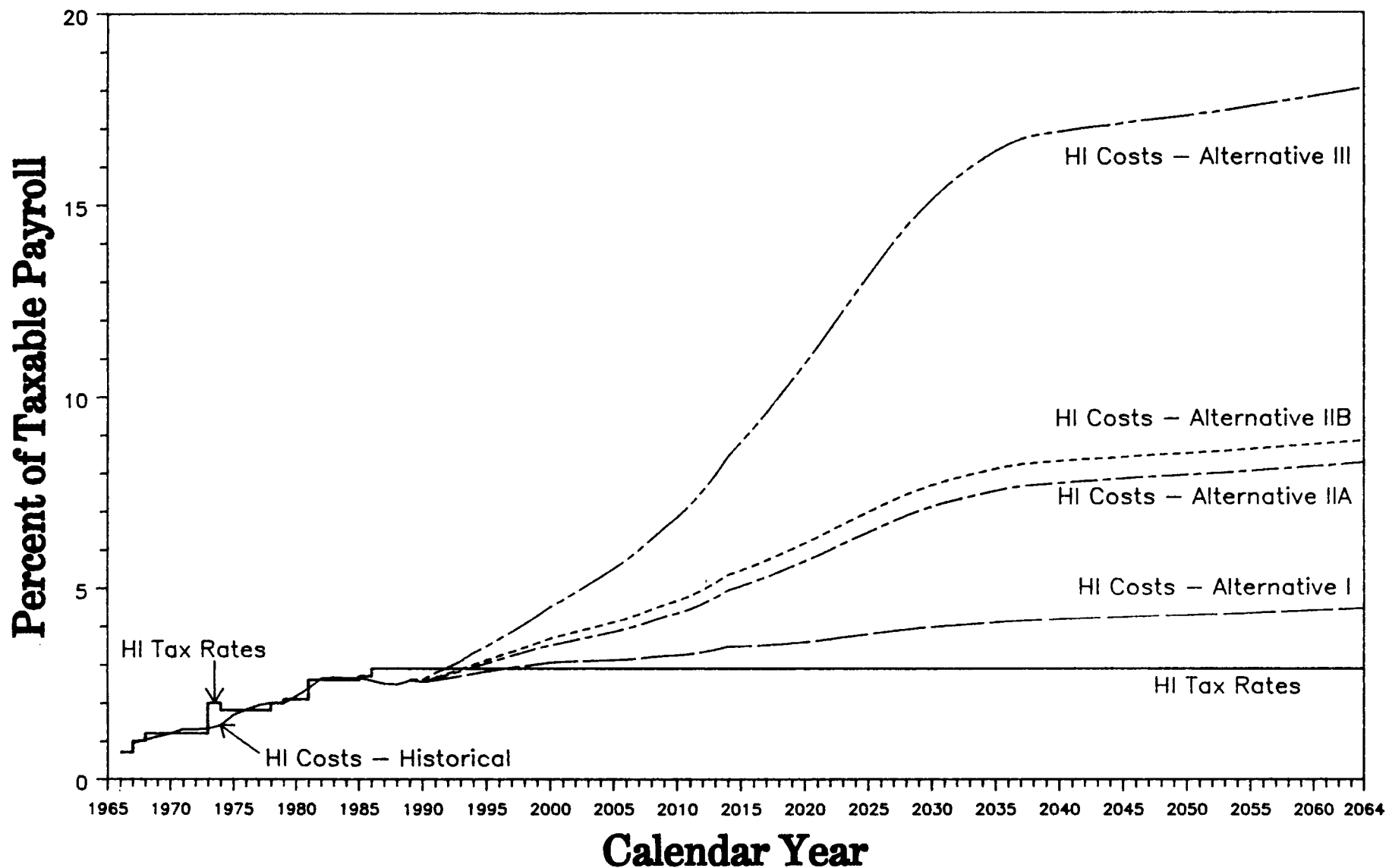
Note: The trust fund ratio is defined as the ratio of assets at the beginning of the year to disbursements during the year.

**TABLE II.--SEVENTY-FIVE YEAR ACTUARIAL BALANCE OF THE  
HOSPITAL INSURANCE PROGRAM, UNDER ALTERNATIVE  
SETS OF ASSUMPTIONS 1/**

	<u>Alternative</u>			
	<u>I</u>	<u>II-A</u>	<u>II-B</u>	<u>III</u>
Average contribution rate <u>2/</u>	2.90%	2.90%	2.90%	2.90%
<u>Average-cost basis:</u>				
Average program expenditures <u>3/ 4/</u>	3.74	6.09	6.52	12.01
Actuarial balance <u>5/</u>	-0.84	-3.19	-3.62	-9.11
Trust fund building and maintenance <u>3/ 6/</u>	-0.02	-0.02	-0.02	+0.02
Program cost including trust fund building and maintenance <u>3/ 7/</u>	3.72	6.07	6.50	12.03
Augmented balance <u>8/</u>	-0.82	-3.17	-3.60	-9.13
<u>Level-financing basis:</u>				
Average program expenditures <u>3/ 9/</u>	3.65	5.73	6.16	11.26
Actuarial balance <u>10/</u>	-0.75	-2.83	-3.26	-8.36

- 1/ For the 75-year period 1990-2064.  
2/ As scheduled under present law.  
3/ Expressed as a percentage of taxable payroll.  
4/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, computed on the average-cost basis.  
5/ Difference between the average contribution rate (tax rate scheduled in the law) and program expenditures (computed on the average-cost basis).  
6/ Allowance for building and maintaining the trust fund balance at the level of at least a half-year's outgo after accounting for the offsetting effect of interest earnings.  
7/ Sum of program expenditures and trust fund building and maintenance.  
8/ The augmented balance is the difference between the average contribution rate and the average cost of the program, including trust fund building and maintenance.  
9/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, computed on the level-financing basis.  
10/ Difference between the average contribution rate and program expenditures (computed on the level-financing basis).

**Figure 2**  
**Estimated HI Costs and Tax Rates**



Note: HI projected costs shown are expenditures attributable to insured beneficiaries only, on an incurred basis, without an allowance for building and maintaining the trust fund balance at the level of at least a half-year's outgo.

TABLE III.--STATUS OF THE HOSPITAL INSURANCE TRUST FUND

Alternative assumptions	Year in which the trust fund is exhausted <u>as published in the</u>		75-year actuarial balance <u>1/</u> of the HI program <u>as published in the</u>	
	<u>1988 report</u>	<u>1990 report</u>	<u>1988 report</u>	<u>1990 report</u>
I (optimistic)	2044	2018	-0.15%	-0.75%
II-A (intermediate)	2008	2005	-2.11	-2.83
II-B (intermediate)	2005	2003	-2.35	-3.26
III (pessimistic)	1999	1999	-6.63	-8.35

1/ The actuarial balance in the 1988 report was computed on an average-cost basis. In this report, for 1990, it is computed on a level-financing basis. See text for details.

**Table IV.--CHANGE IN THE 75-YEAR ACTUARIAL BALANCE  
SINCE THE 1988 REPORT**

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1. Actuarial balance, alternative II-B, 1988 report <u>1</u> /	-2.35%
2. Changes:	
a. Valuation period	-0.17
b. Legislation since the 1988 report	-0.81
c. Economic and demographic assumptions	-0.24
d. Hospital assumptions and base estimate	-0.05
e. Net effect, above changes	-1.27
3. Actuarial balance, alternative II-B, 1990 report <u>1</u> /	-3.62
4. Change due to shift to level-financing method <u>2</u> /	+0.36
5. Actuarial balance, alternative II-B, 1990 report <u>3</u> /	-3.26

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1/ As defined in the 1988 report (average-cost method); see text for details.

2/ Includes +0.05 for recognition of the beginning trust fund balance and interest earnings on the projected trust fund balances.

3/ As defined in this report (level-financing method); see text for details.



### Conclusion of the Board of Trustees

The present financing schedule for the HI program is sufficient to ensure the payment of benefits over the next 13 to 15 years if the intermediate assumptions underlying the estimates are realized, with trust fund exhaustion occurring in 2005 and 2003 under alternatives II-A and II-B, respectively. Under the more pessimistic alternative III, the fund is exhausted in 1999. Under the more optimistic alternative I, the trust fund is exhausted in 2018.

There are currently over four covered workers supporting each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, there will be only about two covered workers supporting each enrollee. Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all but the most optimistic assumptions, the trust fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion of the fund is projected to occur shortly after the turn of the century under the intermediate assumptions, and could occur as early as 1999 if the pessimistic assumptions are realized.

The Board notes that promising steps have already been taken to begin reducing 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 is an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Efforts focused on improving the efficiency and reducing the costs of the health

care delivery system need to be continued, in close combination with mechanisms that will assure that the quality of health care is not adversely affected.

Because of the magnitude of the projected actuarial deficit in the HI program and the probability that the HI trust fund will be exhausted shortly after the end of this century, the Board believes that early corrective action is essential in order to avoid the need for later, potentially precipitous changes. The Board, therefore, urges that the Congress take early remedial measures to bring future HI program costs and financing into balance, and to maintain an adequate trust fund against contingencies.

## **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 currently has three members. They serve in an ex officio capacity. These members are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The Board also includes positions for two members of the public as Trustees. The last two Public Trustees served under recess appointments which expired when the Congress adjourned on November 22, 1989.

By law, the Secretary of the Treasury is designated as the Managing Trustee, and the Administrator of the Health Care Financing Administration is designated as Secretary of the Board. The Board of Trustees reports to the Congress each year on the operation and status of the trust fund, in compliance with section 1817(b)(2) of the Social Security Act. This annual report, for 1990, is the 25th such report.

## **SOCIAL SECURITY AMENDMENTS SINCE THE 1989 REPORT**

Since the 1989 Annual Report was transmitted to Congress, two laws affecting the HI program (also known as Medicare Part A) have been enacted. The more important legislative changes, from an actuarial standpoint, are described below.

The Medicare Catastrophic Coverage Repeal Act of 1989 (the Repeal Act, Public Law 101-234) was enacted on December 13, 1989; this legislation repealed the major Medicare Part A coverage expansions which had been enacted under the Medicare Catastrophic Coverage Act of 1988 (the Catastrophic Act, Public Law 100-360). In addition, because Part A catastrophic benefits were in effect in 1989, the Repeal Act included several transition provisions that apply to beneficiaries who were receiving covered inpatient hospital or skilled nursing facility (SNF) services both at the end of 1989 and the beginning of 1990. Specifically, the Repeal Act contained the following changes (effective January 1, 1990, unless otherwise noted):

- (1) The benefit period (spell of illness) concept for hospital and SNF services is restored. One deductible is imposed for the first 60 days of inpatient hospital care, days 61 through 90 are subject to daily coinsurance charges equal to 1/4 of the deductible amount, and lifetime reserve days are again applicable according to the rules in place for 1988. The SNF coverage provisions that were in effect prior to 1989 are also reinstated; thus, coverage is provided for up to 100 days in a benefit period, with days 21 through 100 subject to daily coinsurance charges equal to the lesser of 1/8 of the inpatient hospital deductible amount or the actual total SNF charge per day, and a prior

hospitalization of at least three consecutive covered days is again required (except as provided for by the transition provisions of the Repeal Act). Detailed information regarding these changes, including the transition provisions, can be found in appendix E.

- (2) The provision in the Catastrophic Act that care by home health agencies may be provided for up to 38 consecutive days is repealed, returning to a limit of 21 consecutive days. However, the change in the definition of intermittent services, from no more than four days per week to less than seven days per week, remains in place by virtue of a Federal court ruling.
- (3) The 210-day lifetime limit on hospice care is restored.
- (4) The methodology for determining the Part A premium, for individuals who do not automatically qualify for Medicare, is unchanged; that is, the change made by the Catastrophic Act to the manner in which the premium is determined (as described in this section of last year's report and in appendix D of this report) was not repealed.
- (5) The supplemental catastrophic coverage premium provision of the Catastrophic Act, as described in this section of last year's report, is cancelled, retroactive to January 1, 1989. It is anticipated that supplemental catastrophic coverage premiums that were collected and appropriated to the HI reserve fund (also described in last year's report) will be refunded.

The Omnibus Budget Reconciliation Act of 1989 (Public Law 101-239) was enacted December 19, 1989, and contained the following changes:

- (1) Payments for services provided from October 17, 1989, through the end of fiscal year 1990 had been reduced by 2.092 percent as a result of a presidential sequester, required by the Balanced Budget and Emergency Deficit Control Act of 1985 (the Gramm-Rudman-Hollings Act). Public Law 101-239 limited the sequester payments for services provided from October 17 to December 31, 1989, and eliminated the sequester for services provided during the rest of the fiscal year.
- (2) For payments for discharges occurring on or after January 1, 1990, the hospital update factors are the market basket percentage increase plus 4.22 percentage points for prospective payment system (PPS) hospitals located in rural areas, the market basket increase plus 0.12 percentage points for PPS hospitals located in large urban areas, and the market basket increase minus 0.53 percentage points for PPS hospitals located in other urban areas. (The update factor for PPS-exempt hospitals is the market basket increase.) These update factors are applied to payment rates prior to sequester effects.
- (3) For discharges in fiscal year 1990, the diagnosis-related group (DRG) weighting factors are reduced by 1.22 percent, effectively reducing payments for discharges in fiscal year 1990 by this percentage. Future adjustments (beginning with fiscal year 1991) to the weighting factors are to be made in a manner that assures that aggregate payments are not greater or less than those that would have been made for discharges in the year without such adjustment.

- (4) Payments for capital-related costs will be reduced by 15 percent during the period January 1, 1990 through September 30, 1990.
- (5) The disproportionate share adjustment percentages, used for increasing payments to hospitals serving disproportionate shares of low-income patients (according to criteria and payment formulae that vary by type of hospital), are revised, effective for discharges occurring on or after April 1, 1990.
- (6) New sole community hospital (SCH) payment provisions are effective for cost reporting periods beginning on or after April 1, 1990. The SCH will receive the target amount or the Federal PPS rate, whichever results in greater payment.
- (7) Effective October 1, 1989, the payment for hospice care for fiscal year 1990 is raised to 120 percent of the fiscal year 1989 rates. For subsequent fiscal years the payment rates will be those of the preceding fiscal year increased by the market basket percentage increase applicable to discharges occurring in the fiscal year.
- (8) Cancer hospitals are exempt from the PPS system, effective in general for cost reporting periods beginning on or after October 1, 1989.

Detailed information regarding these changes and other less significant changes can be found in documents prepared by and for the Congress.

## 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 Federal employees.

All employees, and their employers, in employment covered by the program are required to pay contributions with respect to the wages of individual workers, including cash tips. (Prior to 1978, employees paid contributions with respect to cash tips but employers did not. From 1978 to 1987, employers paid contributions on that part of the tip income deemed to be wages under the Federal minimum wage law.) All covered self-employed persons are required to pay contributions with respect to their self-employment income.



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

The HI contribution rates applicable to taxable earnings in each of the calendar years 1966 and later are shown in table 1. For 1991 and later, the contribution rates shown are the rates scheduled in the provisions of present law. The maximum amount of annual earnings taxable in each year 1966-90 are also shown. For 1975-78, the contribution and benefit bases were determined under the automatic increase provisions in section 230 of the Social Security Act. In 1979, 1980, and 1981, the bases increased to the specified amounts as provided under the 1977 amendments. After 1981, the automatic increase provisions are again applicable.

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.

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

Another substantial source of trust fund income is interest received on investments held by the fund. The investment procedures of the fund are described later in this section.

The income and expenditures of the trust fund are also affected by the provisions of the Railroad Retirement Act which provide for a system of coordination and financial interchange between the railroad retirement program and the 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.

Under section 103 of the Social Security Amendments of 1965, HI benefits are provided to certain uninsured persons aged 65 and over. 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.

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 fiduciary and trust funds under the control and authority of the United States or any officer of the United States. These obligations may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price.

The Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the trust fund. The law requires that such special public-debt obligations shall bear interest at a rate based on the average market yield (computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue) on all marketable interest-bearing obligations of the United States forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of such month. These special issue securities are always redeemable at par value, 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.

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

Calendar years	Maximum taxable amount of annual earnings	Contribution rate (Percent of taxable earnings)	
		Employees and employers, each	Self- employed
Past experience:			
1966	\$6,600	0.35	0.35
1967	6,600	0.50	0.50
1968-71	7,800	0.60	0.60
1972	9,000	0.60	0.60
1973	10,800	1.00	1.00
1974	13,200	0.90	0.90
1975	14,100	0.90	0.90
1976	15,300	0.90	0.90
1977	16,500	0.90	0.90
1978	17,700	1.00	1.00
1979	22,900	1.05	1.05
1980	25,900	1.05	1.05
1981	29,700	1.30	1.30
1982	32,400	1.30	1.30
1983	35,700	1.30	1.30
1984	37,800	1.30	2.60
1985	39,600	1.35	2.70
1986	42,000	1.45	2.90
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
Changes scheduled in present law:			
1991 & later	Subject to automatic increase	1.45	2.90



## **SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1989**

A statement of the income and disbursements of the Federal Hospital Insurance Trust Fund in fiscal year 1989, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 2.

The total assets of the trust fund amounted to \$65,877 million on September 30, 1988. During fiscal year 1989, total receipts amounted to \$75,116 million, and total disbursements were \$58,238 million. The assets of the trust fund thus increased \$16,878 million during the year to a total of \$82,755 million on September 30, 1989.

Included in total receipts during fiscal year 1989 was \$67,742 million representing contributions appropriated to the trust fund. As an offset, \$217 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 \$3 million was transferred to the trust fund from State and local governments for underpayments from previous State agreements for coverage of State and local government employees.

Net contributions amounted to \$67,527 million, representing an increase of 9.1 percent over the amount of \$61,901 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 \$43,800 to \$45,000 and from \$45,000 to \$48,000 that became effective January 1, 1988, and January 1, 1989, respectively.

The section entitled "Nature of the Trust Fund" 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 1989 amounted to \$515 million, consisting of \$488 million for benefit payments, \$7 million for administrative expenses, and \$20 million for interest on adjustments to costs in prior fiscal years.

The section entitled "Nature of the Trust Fund" referred to provisions of the Social Security Act under which certain persons aged 65 and over but not otherwise eligible for 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 1989 amounted to about \$42 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 about \$345 million in principal and about \$13 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, 1988, 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 \$21 million, was transferred to the trust fund in June 1989.

In accordance with provisions for the appropriation to the trust fund of HI taxes on noncontributory military wage credits as discussed in the section entitled "Nature of the Trust Fund," the trust fund was credited on July 1, 1989 with \$86 million for calendar year 1989 taxes on wage credits.

The remaining \$6,567 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the \$58,238 million in total disbursements, \$57,433 million represented benefits paid directly from the trust fund for health services covered under title XVIII of the Social Security Act. Benefit payments increased 10.4 percent in fiscal year 1989 over the corresponding amount of \$52,022 million paid during the preceding 12 months.

The remaining \$805 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 3 compares the actual experience in fiscal year 1989 with the estimates presented in the 1988 and 1989 annual reports. The 1989 annual report was completed after the end of the fiscal year. Therefore, preliminary actual figures were available at that time. The estimates in the 1988 report understated tax contributions somewhat. The benefit payments estimated, also understated, were completed prior to the enactment of the Medicare Catastrophic Coverage Act of 1988. If the estimated \$1,952 million which would have been spent for catastrophic benefits in fiscal year 1989 had been known at the time, then the 1988 estimate for fiscal year 1989 benefit payments would have been \$57,835. The actual amount of benefit payments would have then been less than one percent below the estimated amount.

The assets of the HI trust fund at the end of fiscal year 1988 totaled \$65,877 million, consisting of \$66,080 million in the form of obligations of the U.S. Government or of federally-sponsored agency obligations and, as an offset, an extension of credit of \$203 million against securities to be redeemed. The assets of the HI trust fund at the end of fiscal year 1989 totaled \$82,755 million, consisting of \$82,914 million in the form of obligations and, as an offset, an extension of credit of \$159 million against securities to be redeemed. Table 4 shows the total assets of the fund and their distribution at the end of fiscal years 1988 and 1989.

New securities at a total par value of \$94,669 million were acquired during the fiscal year through the investment of receipts and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the fiscal year was \$77,833 million. Thus, the net increase in the par value of the investments held by the fund during fiscal year 1989 amounted to \$16,836 million.

The effective annual rate of interest earned by the assets of the HI trust fund during the 12 months ending on June 30, 1989, was 9.9 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 1989 was 8.75 percent, payable semiannually.

**TABLE 2.--STATEMENT OF OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND**  
**DURING FISCAL YEAR 1989**  
(In thousands of dollars)

Total assets of the trust fund, beginning of period	\$65,876,905
Receipts:	
Appropriation of employment taxes	\$67,741,556
Refunds of employment taxes	-217,350
Deposits arising from State agreements	2,505
Interest on investments	6,557,835
Amortization of premium and discount (Net)	-1,315
Premiums collected from voluntary participants	42,119
Transfer from railroad retirement account	344,600
Transitional uninsured coverage	515,000
Military service credits of 1989	85,728
Interest on reimbursements, SSA 1/	5
Interest on reimbursements, HCFA 1/	10,811
Interest on reimbursements, Railroad	34,232
Total receipts	<u>\$75,115,725</u>
Disbursements:	
Benefit payments	\$57,432,968
Administrative expenses:	
Treasury administrative expenses	46,285
Salaries and expenses, SSA	293,166
Salaries and expenses, HCFA 2/	434,649
Salaries and expenses, Office of Secretary	15,180
Construction	7,309
Professional Standards Review Organization	330
Reimbursement of SSA expenses	0
Reimbursement of HCFA expenses	0
Payment Assessment Committee	3,077
Public Health Service	4,565
Total disbursements	<u>\$58,237,528</u>
Total assets of the trust fund, end of period	<u>\$82,755,102</u>

1/ A positive figure represents a transfer to 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.

2/ Includes administrative expenses of the intermediaries.

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

**TABLE 3.--COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE  
HOSPITAL INSURANCE TRUST FUND, FISCAL YEAR 1989**  
(Dollar amounts in millions)

		Comparison of actual experience with estimates for fiscal year 1989 published in--			
		1989 report <u>1/</u>		1988 report <u>1/</u>	
Item	Actual amount	Estimated amount	Actual as percentage of estimate	Estimated amount	Actual as percentage of estimate
Net contributions	\$67,527	\$67,527	100	\$64,773	104
Benefit payments	\$57,433	\$57,433	100	\$55,883	103

1/ Alternative II-B.

**TABLE 4.--ASSETS OF THE HOSPITAL INSURANCE TRUST FUND, BY TYPE,  
AT THE END OF FISCAL YEARS 1988 AND 1989 <sup>1/</sup>**

	September 30, 1988	September 30, 1989
Investments in public-debt obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
8 3/8-percent, 1990.....	-----	\$2,484,226,000.00
9 1/4-percent, 1989.....	\$5,581,465,000.00	-----
Bonds:		
8 1/4-percent, 1993.....	622,286,000.00	622,286,000.00
8 3/8-percent, 1990.....	1,231,586,000.00	-----
8 3/8-percent, 1991-2001.....	14,066,078,000.00	14,066,078,000.00
8 5/8-percent, 1990.....	686,250,000.00	683,175,000.00
8 5/8-percent, 1991-2002.....	10,744,154,000.00	10,744,154,000.00
8 3/4-percent, 1990-1992.....	-----	3,643,052,000.00
8 3/4-percent, 1993-1994.....	972,757,000.00	3,401,457,000.00
8 3/4-percent, 1995-2004.....	-----	16,373,444,000.00
9 1/4-percent, 1990-2003.....	17,678,981,000.00	17,678,981,000.00
9 3/4-percent, 1993-1995.....	1,240,090,000.00	1,240,090,000.00
10 3/8-percent, 1989.....	427,022,000.00	-----
10 3/8-percent, 1990-2000.....	3,412,678,000.00	3,412,678,000.00
10 3/4-percent, 1989.....	588,410,000.00	-----
10 3/4-percent, 1990-1998.....	2,353,640,000.00	2,353,640,000.00
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, 1989.....	262,135,000.00	-----
13 3/4-percent, 1990-1999.....	<u>1,899,081,000.00</u>	<u>1,899,081,000.00</u>
Total public-debt obligations sold only to the trust funds (special issues).....	<u>\$66,078,248,000.00</u>	<u>\$82,913,977,000.00</u>
Investments in federally-sponsored agency obligations:		
Participation certificates:		
Federal Assets Liquidation Trust-		
Government National Mortgage Association:		
6.40-percent, 1987.....	-----	-----
6.05-percent, 1988.....	-----	-----
6.45-percent, 1988.....	-----	-----
6.20-percent, 1988.....	-----	-----
Unamortized Premium & Discount (Net).....	<u>1,315,002.00</u>	<u>-----</u>
Total investments.....	\$66,079,563,002.00	\$82,913,977,000.00
Undisbursed balance.....	<u>-202,658,416.91</u>	<u>-158,875,425.33</u>
Total assets.....	\$65,876,904,585.09	\$82,755,101,574.67

<sup>1/</sup> Certificates of indebtedness and bonds are carried at par value, which is the same as book value. Book value for participation certificates is par value plus net unamortized premium and discount.



**EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING  
THE PERIOD OCTOBER 1, 1989 TO DECEMBER 31, 1992**

The expected operations of the trust fund during fiscal years 1990-92 are shown in table 5, together with the past experience of the program. The projection shown in table 5--and the entirety of this section--is based on two intermediate sets of projection assumptions labeled "Alternative II-A" and "Alternative II-B," which are presented in detail in appendix A.

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 revenues to reimburse the program for the cost of coverage of noninsured persons is the same as the estimates of disbursements for such persons, net of corrections for differences between costs and amounts transferred for previous years. Premium income and disbursements for other noninsured persons over age 65 who may enroll in the HI program on a voluntary basis are based on an estimated enrollment of 29,000 in fiscal year 1990.

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

The investment of new assets received during fiscal years 1990-92 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 7.375 percent to 8.25 percent, payable semiannually. The average effective annual rate of interest on the assets held by the HI trust fund on September 30, 1989, was 9.5 percent.

Disbursements for benefits are projected to increase in fiscal years 1990-92, primarily as a result of the increase in hospital payment rates and hospital admissions under the program. The expenditures for benefit payments shown in table 5 differ from those shown in the 1991 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 1991 and later, the prospective payment rates will be increased in accordance with Public Law 100-203, the Omnibus Budget Reconciliation Act of 1987; for fiscal year 1990, the prospective payment rates have already been determined.

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 6, according to the same assumptions as used in table 5. A preliminary estimate of the December 1990 lump sum transfer, to be determined in the 1990 quinquennial Military Service Determination, is also included; the provisions prescribing this transfer are

described in the "Nature of the Trust Fund" section. The ratios of assets in the trust fund at the beginning of each calendar year to total disbursements during that year are shown in table 7 for past years and as projected through 1992.

TABLE 5.--OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING FISCAL YEARS 1967-92  
(In millions)

Fiscal year 1/	Payroll taxes	Income					Total income	Disbursements			Trust fund		
		Transfers from railroad retirement account	Reimburse- ment for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest on investments and other income 2/		Benefits payments 3/	Adminis- trative expenses 4/	Total disburse- ments	Interfund borrowing transfers 5/	Net increase in fund	Fund at end of year
Historical Data:													
1967	\$2,689	\$16	\$327		\$11	\$46	\$3,089	\$2,508	\$89	\$2,597		\$492	\$1,343
1968	3,514	44	273		11	61	3,902	3,736	79	3,815		88	1,431
1969	4,423	54	749		22	96	5,344	4,654	104	4,758		586	2,017
1970	4,785	64	617		11	137	5,614	4,804	149	4,953		661	2,677
1971	4,898	66	863		11	180	6,018	5,442	150	5,592		426	3,103
1972	5,226	66	503		48	188	6,031	6,108	167	6,276		-245	2,859
1973	7,663	63	381		48	196	8,352	6,648	194	6,842		1,510	4,369
1974	10,602	99	451	\$4	48	405	11,610	7,806	259	8,065		3,545	7,914
1975	11,291	132	481	6	48	609	12,568	10,353	259	10,612		1,956	9,870
1976	12,031	138	610	8	48	709	13,544	12,267	312	12,579		966	10,836
T.Q.	3,366	143	0 6/	2	0	5	3,516	3,315	89	3,404		112	10,948
1977	13,649	0 7/	803 6/	11	141	770	15,374	14,906	301	15,207		167	11,115
1978	16,677	214 7/	688	12	143 8/	809	18,543	17,411	451	17,862		681	11,796
1979	19,927	191	734	17	141	901	21,910	19,891	452	20,343		1,567	13,363
1980	23,244	244	697	17	141	1,072	25,415	23,790	497	24,288		1,127	14,490
1981	30,425	276	659	21	141	1,341	32,863	28,907	353	29,260		3,603	18,093
1982	34,390	351	808	25	207	1,829	37,611	34,343	521	34,864		2,747	20,840
1983	36,387	358	878	26	3,663 9/	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 10/	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
Projection:													
Alternative II-A													
1990	71,002	369	413	60	90	6,567	78,501	63,145	954	64,099		14,402	97,157
1991	75,759	363	605	64	-436 11/	9,170	85,525	66,783	1,019	67,802		17,723	114,881
1992	80,443	361	374	69	89	10,476	91,812	74,774	1,098	75,872		15,940	130,020
Alternative II-B													
1990	70,952	369	413	60	90	6,567	78,451	63,145	954	64,099		14,352	97,107
1991	75,252	363	605	64	-267 12/	9,167	85,184	66,773	1,016	67,789		17,395	114,503
1992	79,675	358	375	70	89	10,490	91,057	74,884	1,093	75,977		15,080	129,582

1/ Fiscal years 1976 and earlier consist of the 12 months ending on June 30 of each year; the three-month interval from July 1, 1976, through September 30, 1976, labeled "T.Q.," is the transition quarter; fiscal years 1977 and later consist of the 12 months ending on September 30 of each year.

2/ 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.

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

4/ Includes costs of experiments and demonstration projects.

5/ 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.

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

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

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

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

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

11/ Includes the preliminary estimate of the lump sum general revenue adjustment of -\$525 million, as provided for by section 151 of P.L. 98-21.

12/ Includes the preliminary estimate of the lump sum general revenue adjustment of -\$357 million, as provided for by section 151 of P.L. 98-21.

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

TABLE 6.--OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1966-92  
(In millions)

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 on investments and other income 1/	Total income	Benefits payments 2/	Administrative expenses 3/	Total disbursements	Interfund borrowing transfers 4/	Net increase in fund	Fund at end of year
Historical Data:													
1966	\$1,858	\$16	\$26		\$11	\$32	\$1,943	\$891	\$108	\$999		\$944	\$944
1967	3,152	44	301		11	51	3,559	3,353	77	3,430		129	1,073
1968	4,116	54	1,022		22	74	5,287	4,179	99	4,277		1,010	2,083
1969	4,473	64	617		11	113	5,279	4,739	118	4,857		422	2,505
1970	4,881	66	863		11	158	5,979	5,124	157	5,281		698	3,202
1971	4,921	66	503		48	193	5,732	5,751	150	5,900		-168	3,034
1972	5,731	63	381		48	180	6,403	6,318	185	6,503		-99	2,935
1973	9,944	99	451	\$2	48	278	10,821	7,057	232	7,289		3,532	6,467
1974	10,844	132	471	5	48	523	12,024	9,099	272	9,372		2,652	9,119
1975	11,502	138	621	7	48	664	12,980	11,315	266	11,581		1,399	10,517
1976	12,727	143	0 5/	9	141	746	13,766	13,340	339	13,679		88	10,605
1977	14,114	0 6/	803 5/	12	143 2/	784	15,856	15,737	283	16,019		-163	10,442
1978	17,324	214 6/	688	13	141	834	19,213	17,682	496	18,178		1,035	11,477
1979	20,768	191	734	16	141	975	22,825	20,623	450	21,073		1,751	13,228
1980	23,848	244	697	18	141	1,149	26,097	25,064	512	25,577		521	13,749
1981	32,959	276	659	22	207	1,603	35,725	30,342	384	30,726		4,999	18,748
1982	34,586	351	808	24	207	2,022	37,998	35,631	513	36,144	-\$12,437	-10,583	8,164
1983	37,259	358	878	27	3,456 8/	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 9/	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
Projection:													
Alternative II-A													
1990	71,637	369	413	62	-435 10/	8,529	80,575	62,843	962	63,805		16,770	102,328
1991	76,836	363	605	65	89	9,828	87,786	69,408	1,039	70,447		17,339	119,667
1992	81,877	361	374	70	89	11,054	93,825	76,547	1,117	77,664		16,161	135,828
Alternative II-B													
1990	71,429	369	413	62	-267 11/	8,520	80,526	62,844	962	63,806		16,720	102,278
1991	76,252	363	605	65	90	9,812	87,187	69,409	1,035	70,444		16,743	119,021
1992	81,041	358	375	71	89	11,034	92,968	76,706	1,112	77,818		15,150	134,171

1/ 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.

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

3/ Includes costs of experiments and demonstration projects.

4/ 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.

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

6/ No transfer is made in 1977 because of the change in transfer dates from August to June. The 1978 transfer is for contributions during the 15-month period beginning July 1976 and ending September 1977.

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

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

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

10/ Includes the preliminary estimate of the lump sum general revenue adjustment of -\$525 million, as provided for by section 151 of P.L. 98-21.

11/ Includes the preliminary estimate of the lump sum general revenue adjustment of -\$357 million, as provided for by section 151 of P.L. 98-21.

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

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

Calendar year	Ratio
<b>Historical data:</b>	
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
<b>Projection:</b>	
<b>Alternative II-A</b>	
1990	134
1991	145
1992	154
<b>Alternative II-B</b>	
1990	134
1991	145
1992	153

## ACTUARIAL STATUS OF THE TRUST FUND

The Board of Trustees recommends that it is advisable to maintain a balance in the trust fund equal to a minimum of one-half year's expenditures. This principle reflects the view that a small fund is needed for the contingency that future income and outgo may differ substantially from projected levels, and to provide time for legislative action to remedy unexpected imbalances. At the beginning of 1990, the trust fund balance was above the minimum desired level.

In previous reports, the cost of the program for projected years was defined as the sum of (1) expenditures under the program and (2) an allowance for building and maintaining the fund at the level of at least a half year's disbursements after accounting for the offsetting effect of the interest earnings of the fund. Beginning in 1988, however, the cost of the program was defined as expenditures only, without an allowance for building and maintaining the fund and without recognition of the interest earnings of the fund. In projecting expenditures under the program, only costs attributable to insured beneficiaries are considered, since benefits and administrative costs for noninsured persons are 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 8. The ratio of expenditures to taxable payroll has increased from 0.94 percent in 1967 to 2.60 percent in 1989, 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 alternatives II-A and II-B, expressed as percentages of taxable payroll, and the tax rates scheduled under current law for selected years over the 75-year period 1990-2064, are shown in table 9. Further increases in the ratio of expenditures to taxable payroll under both alternative II-A and alternative II-B result from the projection that the cost of the HI program will continue to increase at a higher rate than taxable earnings. (See appendix A for a description of the methodology and assumptions used in these projections.)

Table 9 also indicates additional amounts needed for the cost of trust fund building and maintenance over the course of the 75-year projection period. During the early years of the projection period, income exceeds expenditures and the trust fund (expressed as a percent of the following year's outlays) increases, indicating that the tax rates scheduled in the law are already sufficient for trust fund building and maintenance. Once the trust fund declines below the level of fifty percent, there is an additional cost of maintaining the fund at the minimum level of fifty percent of the following year's outlays. In the last part of the projection period, the interest earned on the fifty percent balance is more than enough to cover the increases in the balance necessary to keep the fund ratio at fifty percent. This yields a negative cost of maintaining the fund for these years.

The adequacy of the financing of the HI program under current law is measured by comparing on a year-by-year basis the actual tax rates specified by law with the



corresponding costs of the program, expressed as percentages of taxable payroll. If these two items are exactly equal in each year of the projection period and all projection assumptions are realized, tax revenues will be sufficient to provide for benefits and administrative expenses for insured persons. A small additional amount would be needed to maintain the trust fund at the level of one-half year's expenditures. In practice, however, tax rate schedules generally are designed with rate changes occurring only at intervals of several years, rather than with continual yearly increases to match exactly with projected cost increases. To the extent that small differences between the yearly costs of the program and the corresponding tax rates occur for short periods of time and are offset by subsequent differences in the reverse direction, the substance of the financing objectives will have been met.

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 excess of the average tax rate for the valuation period over the average expenditures of the program, expressed as a percentage of taxable payroll, for the same period. Until this year, the average expenditures, average tax rates, and actuarial balances were computed on an average-cost basis. Under this methodology, the difference between the arithmetic means of the annual cost rates (expenditures expressed as a percentage of taxable payroll) and the annual tax rates is defined as the actuarial balance. Thus, under the average-cost method, the cost and tax rates for each year are given equal weights when summarized into a single measure. Beginning with this report, however, another basis, known as the level-financing method,

is used to calculate average cost rates, tax rates, and actuarial balances, unless otherwise indicated. (For comparison purposes, several tables in this report display results under both methods.) This approach is the same as the reporting methods of the OASDI report. The level-financing calculations are based on the present value of future income, outgo, and taxable payroll. The present value is calculated by discounting the future annual amounts at the assumed rate of interest. The income and cost rates over the projection period are then obtained by dividing the present value of the taxable payroll into the present values of income and outgo, respectively. The difference between the income rate and cost rate over the long-range projection period, after an adjustment to take into account the fund balance at the valuation date, is computed to obtain the long-range actuarial balance. Thus, the level-financing method uses weighted averages to arrive at summary measures. In this report, the trust fund balance is targeted to be zero at the end of the 75-year projection period under this method. It should be noted that these two methods for summarizing values over the entire 75-year projection period, and subperiods thereof, are based on the same annual projections of expenditures and tax rates; their difference consists in the way in which these projected annual values are summarized into single measures. The actuarial balance in any one-year period is identical under either method. Average costs, tax rates, and actuarial balances are shown in table 9 for multi-year periods, under both the average-cost and level-financing bases, as well as for selected single years, as already discussed.

The actuarial balances under alternatives II-A and II-B, as well as those under alternatives I and III which are described later, for the 75-year period 1990-2064 are shown in table 10. The average tax rate for the period is 2.90 percent. The average cost of the

program under alternative II-A is 5.73 percent of taxable payroll. The average cost of the program under alternative II-B is 6.16 percent of taxable payroll.

Since future economic, demographic, and health care usage and cost experience may differ considerably from either set of intermediate assumptions on which the cost estimates were based, projections have also been prepared on the basis of two additional alternative sets of assumptions. The estimated operations of the HI trust fund during calendar years 1989-2014 are summarized in table 11 for all four alternatives. Table 12 compares the actuarial balances for the first 25-year period, the first 50-year period, and the whole 75-year period 1990-2064, under each of the four alternatives. The assumptions underlying alternatives II-A and II-B, the intermediate projections, are presented in substantial detail in appendix A. The assumptions used in preparing projections under alternatives I and III are also summarized in appendix A.

The four alternative sets of assumptions were selected in order to indicate the general range in which the cost of the program reasonably might be expected to fall. The alternative I assumptions are somewhat more optimistic than both alternative II assumptions, resulting in a lower average cost over the projection period and a stronger trust fund development. The alternative III assumptions are somewhat more pessimistic than both alternative II assumptions, resulting in a higher average cost over the projection period and a weaker trust fund development. Alternative III thus reflects the possible impact, in the near future, of conditions which are significantly more adverse than those assumed under either of the intermediate alternatives. Alternatives I and III provide for a fairly wide range of possible experience. Actual experience reasonably may be expected

to fall within the range, but no guarantee can be made that this will be the case, particularly in light of the wide variations in experience that have occurred since the beginning of the program. The projected trust fund development under alternative III also provides a measure of the strength of the financing of the program. An adequate financing schedule ought to be sufficiently strong to withstand, for a reasonable period of time, conditions in the general economy and in the hospital sector which are substantially more adverse than anticipated under either alternative II-A or alternative II-B.

Under both alternatives II-A and II-B, the trust fund as a percent of a year's disbursements is projected to increase until 1994 and then decline steadily until it is completely exhausted shortly after the turn of the century. Under alternative I, the trust fund is projected to remain solvent throughout the first 25-year projection period, with trust fund exhaustion occurring in 2018. Under alternative III, the trust fund as a percent of a year's disbursements is projected to increase to a level of about 146 percent in 1992 and then decrease rapidly until the fund is exhausted in 1999. These projections do not reflect any reduction in disbursements due to proposed changes in regulations which were included in the 1991 Federal Budget but which have not been implemented.

The divergence in outcomes among the four alternatives is reflected both in the estimated operations of the trust fund and in the 75-year average costs. The variations in the underlying assumptions, as shown in appendix A, can be characterized as (1) moderate in terms of magnitude of the differences on a year-by-year basis, and (2) persistent over the duration of the projection period. During the first 25-year projection period, under both sets of intermediate assumptions, program expenditures are projected to increase faster than

taxable payroll, at a rate which gradually declines to slightly above two percent more per year than taxable payroll by 2010. However, program expenditures are expected to grow about four percent more than taxable payroll for alternatives II-A and II-B in 2014, 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 one-half percent more per year than taxable payroll by 2010; the rate then increases, reaching almost two and one-half percent more per year than taxable payroll in 2014. Similarly, alternative III follows a pattern whereby program expenditures initially increase faster than taxable payroll and at a somewhat higher rate than the intermediate assumptions, gradually declining to about four percent more per year than taxable payroll by 2010, and then increasing to over six percent more than taxable payroll in 2014. 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, such as the impact of the large shift in the demographic composition of the population which occurs after the turn of the century. As table 9 indicates, estimated expenditures under the program, expressed as 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 expenditures under the program stabilize.

Costs beyond the initial 25-year projection period for alternatives II-A and II-B are based upon the assumption that costs per unit of service will increase at the same rate as earnings increase. Thus, changes in the 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 both sets of intermediate assumptions. The 2 percent differentials gradually decrease until the year 2039 when program cost increases, relative to taxable payroll, are approximately the same as under both sets of intermediate assumptions.

The 75-year actuarial balance of the HI program, under alternative II-B, is estimated to be -3.26, as shown in table 10. The actuarial balance as reported in the 1988 Annual Report was -2.35. The actuarial balance in this report is compared to that in the 1988 report because the long-range actuarial status of the trust fund was not presented in the 1989 report, for reasons given therein. The major reasons for the change in the 75-year actuarial balance are:

- (1) Changes in valuation period: Deletion of 1988 and 1989 and the addition of 2063 and 2064 to the 75-year projection period substitutes deficit years for

surplus years with respect to the operations of the HI trust fund. The net effect on the actuarial balance is -0.17.

- (2) Legislation since the 1988 report: Several major legislative changes were enacted since the 1988 report. These are described in the "Social Security Amendments Since the 1989 Report" section in this report and in the analogous section of the 1989 report. The net effect of all legislative changes is -0.81.
- (3) Economic and demographic assumptions: Changes in the economic and demographic assumptions described in appendix A result in a -0.24 change in the actuarial balance. Projections of the population covered by the program are higher than in the 1988 report, while projections of taxable payroll are lower.
- (4) Updating the projection base: The cost as a percent of payroll for 1989, excluding catastrophic expenditures, was less than estimated in the 1988 report. The net effect of this change on the actuarial balance is +0.34.
- (5) Hospital assumptions: Changes in the hospital assumptions described in appendix A result in a -0.39 change in the actuarial balance. The primary factor contributing to the change is longer continuations of the current trends toward treating less complicated (and thus expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission.
- (6) Recognition of the beginning trust fund balance and interest earnings on the projected trust fund balances: Recognizing these two items and allowing them

to cover some of the cost of the program results in a +0.05 change in the actuarial balance.

- (7) **Change in weights:** The change in weights associated with each year in the projection period results in a -1.67 change in the actuarial balance. Under the average-cost method, the cost and tax rates for each year are given equal weightings when summarized into a single measure. Under the level-financing method, the cost and tax rates for each year are weighted (before adjustment for interest) by the ratio of the taxable payroll in that year to total taxable payroll for the entire 75-year projection period.
- (8) **Recognition of assumed interest:** Under the level-financing method, hypothetical interest earnings (in addition to interest earnings on the projected trust fund balances) are assumed to offset about 24 percent of the long-range cost of the HI program. The effect of this change on the actuarial balance is +1.98.



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

Calendar year	Expenditures under the program <u>1/</u>
1967	0.94%
1968	1.04
1969	1.12
1970	1.20
1971	1.32
1972	1.30
1973	1.33
1974	1.42
1975	1.69
1976	1.83
1977	1.95
1978	2.01
1979	1.99
1980	2.19
1981	2.39
1982	2.65
1983	2.67 <u>2/</u>
1984	2.64
1985	2.64
1986	2.57
1987	2.49
1988	2.48
1989	2.60

- 1/ Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes. Gratuitous credits for military service after 1956 are included in taxable payroll.
- 2/ 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 .18 percent of taxable payroll.

**TABLE 9.--COST AND TAX RATES OF THE HOSPITAL INSURANCE PROGRAM,  
EXPRESSED AS A PERCENT OF TAXABLE PAYROLL**

Calendar year	Expenditures under the program <u>1/</u>	Tax rates scheduled in the law <u>2/</u>	Actuarial balance <u>3/</u>	Trust fund building and maintenance <u>4/</u>	Cost plus fund maintenance <u>5/</u>	Augmented balance <u>6/</u>
<b>Alternative II-A</b>						
1990	2.56%	2.90%	0.34%	0.34%	2.90%	0.00%
1995	3.05	2.90	-0.15	-0.15	2.90	0.00
2000	3.51	2.90	-0.61	-0.61	2.90	0.00
2005	3.87	2.90	-0.97	0.04	3.91	-1.01
2010	4.35	2.90	-1.45	0.04	4.39	-1.49
2015	5.06	2.90	-2.16	0.03	5.09	-2.19
2020	5.72	2.90	-2.82	0.04	5.76	-2.86
2025	6.47	2.90	-3.57	0.04	6.51	-3.61
2030	7.13	2.90	-4.23	0.02	7.15	-4.25
2035	7.54	2.90	-4.64	0.00	7.54	-4.64
2040	7.74	2.90	-4.84	-0.02	7.72	-4.82
2045	7.86	2.90	-4.96	-0.03	7.83	-4.93
2050	7.95	2.90	-5.05	-0.03	7.92	-5.02
2055	8.06	2.90	-5.16	-0.03	8.03	-5.13
2060	8.17	2.90	-5.27	-0.02	8.15	-5.25
<b>Average-cost basis:</b>						
1990-2014	3.67	2.90	-0.77	-0.06	3.61	-0.71
1990-2039	5.14	2.90	-2.24	-0.02	5.12	-2.22
1990-2064	6.09	2.90	-3.19	-0.02	6.07	-3.17
<b>Level-financing basis:</b>						
1990-2014	3.50	2.90	-0.60			
1990-2039	4.90	2.90	-2.00			
1990-2064	5.73	2.90	-2.83			
<b>Alternative II-B</b>						
1990	2.56%	2.90%	0.34%	0.34%	2.90%	0.00%
1995	3.13	2.90	-0.23	-0.23	2.90	0.00
2000	3.69	2.90	-0.79	-0.36	3.33	-0.43
2005	4.12	2.90	-1.22	0.04	4.16	-1.26
2010	4.68	2.90	-1.78	0.05	4.73	-1.83
2015	5.47	2.90	-2.57	0.04	5.51	-2.61
2020	6.18	2.90	-3.28	0.05	6.23	-3.33
2025	6.99	2.90	-4.09	0.05	7.04	-4.14
2030	7.69	2.90	-4.79	0.02	7.71	-4.81
2035	8.12	2.90	-5.22	0.00	8.12	-5.22
2040	8.32	2.90	-5.42	-0.03	8.29	-5.39
2045	8.42	2.90	-5.52	-0.03	8.39	-5.49
2050	8.52	2.90	-5.62	-0.03	8.49	-5.59
2055	8.63	2.90	-5.73	-0.03	8.60	-5.70
2060	8.75	2.90	-5.85	-0.03	8.72	-5.82
<b>Average-cost basis:</b>						
1990-2014	3.86	2.90	-0.96	-0.05	3.81	-0.91
1990-2039	5.50	2.90	-2.60	-0.02	5.48	-2.58
1990-2064	6.52	2.90	-3.62	-0.02	6.50	-3.60
<b>Level-financing basis:</b>						
1990-2014	3.69	2.90	-0.79			
1990-2039	5.25	2.90	-2.35			
1990-2064	6.16	2.90	-3.26			

1/ Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes. Gratuitous credits for military service after 1956 are included in taxable payroll.

2/ Rates for employees and employers combined.

3/ Difference between the tax rate scheduled in the law and program expenditures.

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

5/ Sum of program expenditures and trust fund building and maintenance. Totals do not necessarily equal the sums of rounded components.

6/ Difference between the tax rate scheduled in the law and the cost plus fund maintenance of the program.

**TABLE 10.--SEVENTY-FIVE YEAR ACTUARIAL BALANCE OF THE  
HOSPITAL INSURANCE PROGRAM, UNDER ALTERNATIVE  
SETS OF ASSUMPTIONS 1/**

	<u>Alternative</u>			
	<u>I</u>	<u>II-A</u>	<u>II-B</u>	<u>III</u>
Average contribution rate <u>2/</u>	2.90%	2.90%	2.90%	2.90%
<u>Average-cost basis:</u>				
Average program expenditures <u>3/ 4/</u>	3.74	6.09	6.52	12.01
Actuarial balance <u>5/</u>	-0.84	-3.19	-3.62	-9.11
Trust fund building and maintenance <u>3/ 6/</u>	-0.02	-0.02	-0.02	+0.02
Program cost including trust fund building and maintenance <u>3/ 7/</u>	3.72	6.07	6.50	12.03
Augmented balance <u>8/</u>	-0.82	-3.17	-3.60	-9.13
<u>Level-financing basis:</u>				
Average program expenditures <u>3/ 9/</u>	3.65	5.73	6.16	11.26
Actuarial balance <u>10/</u>	-0.75	-2.83	-3.26	-8.36

- 1/ For the 75-year period 1990-2064.  
2/ As scheduled under present law.  
3/ Expressed as a percentage of taxable payroll.  
4/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, computed on the average-cost basis.  
5/ Difference between the average contribution rate (tax rate scheduled in the law) and program expenditures (computed on the average cost-basis).  
6/ Allowance for building and maintaining the trust fund balance at the level of at least a half-year's outgo after accounting for the offsetting effect of interest earnings.  
7/ Sum of program expenditures and trust fund building and maintenance.  
8/ The augmented balance is the difference between the average contribution rate and the average cost of the program, including trust fund building and maintenance.  
9/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, computed on the level-financing basis.  
10/ Difference between the average contribution rate and program expenditures (computed on the level-financing basis).

TABLE 11.--ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND  
DURING CALENDAR YEARS 1989-2014, 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)
ALTERNATIVE I					
1989 <sup>2/</sup>	\$ 76.7	\$ 60.8	\$ 15.9	\$ 85.6	115
1990	80.2	63.7	16.5	102.0	134
1991	88.0	69.3	18.7	120.7	147
1992	94.1	75.4	18.6	139.3	160
1993	100.3	81.8	18.5	157.8	170
1994	106.4	88.5	17.9	175.7	178
1995	112.1	95.4	16.7	192.3	184
2000	142.2	132.8	9.3	256.1	186
2005	178.5	174.1	4.3	288.1	163
2010	221.3	229.3	-8.0	276.3	124
2014	256.6	291.4	-34.8	187.3	76
ALTERNATIVE II-A					
1989 <sup>2/</sup>	\$ 76.7	\$ 60.8	\$ 15.9	\$ 85.6	115
1990	80.6	63.8	16.8	102.3	134
1991	87.8	70.4	17.3	119.7	145
1992	93.8	77.7	16.2	135.8	154
1993	100.1	85.3	14.8	150.6	159
1994	106.3	93.7	12.6	163.3	161
1995	112.2	102.6	9.6	172.8	159
1996	118.2	112.0	6.2	179.0	154
1997	124.0	121.9	2.1	181.1	147
1998	129.9	132.5	-2.6	178.5	137
1999	135.8	144.2	-8.4	170.1	124
2000	142.4	156.4	-14.0	156.1	109
2001	148.2	168.2	-20.0	136.0	93
2002	153.9	181.0	-27.1	108.9	75
2003	159.5	194.6	-35.1	73.8	56
2004	165.0	209.1	-44.1	29.7	35
2005	170.5	224.6	-54.2	<sup>3/</sup>	13
ALTERNATIVE II-B					
1989 <sup>2/</sup>	\$ 76.7	\$ 60.8	\$ 15.9	\$ 85.6	115
1990	80.5	63.8	16.7	102.3	134
1991	87.2	70.4	16.7	119.0	145
1992	93.0	77.8	15.2	134.2	153
1993	99.1	85.8	13.2	147.4	156
1994	105.2	94.7	10.5	157.9	156
1995	111.3	104.5	6.7	164.6	151
1996	117.5	114.8	2.7	167.3	143
1997	123.7	126.0	-2.3	165.0	133
1998	129.8	138.0	-8.1	156.8	120
1999	135.9	151.2	-15.3	141.5	104
2000	141.6	165.5	-23.9	117.6	86
2001	147.1	179.5	-32.3	85.3	66
2002	152.6	194.5	-41.9	43.4	44
2003	157.8	210.6	-52.8	<sup>4/</sup>	21
ALTERNATIVE III					
1989 <sup>2/</sup>	\$ 76.7	\$ 60.8	\$ 15.9	\$ 85.6	115
1990	79.8	63.7	16.1	101.7	134
1991	83.4	70.0	13.3	115.0	145
1992	89.0	78.6	10.4	125.4	146
1993	95.0	88.5	6.5	131.9	142
1994	98.8	98.3	0.5	132.4	134
1995	104.6	110.7	-6.1	126.3	120
1996	110.2	124.6	-14.3	112.0	101
1997	115.0	139.7	-24.7	87.2	80
1998	119.2	156.4	-37.1	50.1	56
1999	122.6	174.8	-52.1	<sup>5/</sup>	29

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

<sup>2/</sup> Figures for 1989 represent actual experience.

<sup>3/</sup> Trust fund depleted in calendar year 2005.

<sup>4/</sup> Trust fund depleted in calendar year 2003.

<sup>5/</sup> Trust fund depleted in calendar year 1999.

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

**TABLE 12.--ACTUARIAL BALANCES OF THE HOSPITAL INSURANCE  
PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS**

	Alternative			
	I	II-A	II-B	III
1990-2014:				
Average contribution rate <u>1/</u>	2.90%	2.90%	2.90%	2.90%
Average program expenditures <u>2/</u>	2.90	3.50	3.69	4.80
Actuarial balance <u>3/</u>	0.00	-0.60	-0.79	-1.90
1990-2039:				
Average contribution rate <u>1/</u>	2.90	2.90	2.90	2.90
Average program expenditures <u>2/</u>	3.35	4.90	5.25	8.85
Actuarial balance <u>3/</u>	-0.45	-2.00	-2.35	-5.95
1990-2064:				
Average contribution rate <u>1/</u>	2.90	2.90	2.90	2.90
Average program expenditures <u>2/</u>	3.65	5.73	6.16	11.26
Actuarial balance <u>3/</u>	-0.75	-2.83	-3.26	-8.36

1/ As scheduled under present law.

2/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll, computed on the level-financing basis.

3/ Difference between the average contribution rate (tax rate scheduled in the law) and program expenditures.

## CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1990 was 134 percent of estimated outgo for calendar year 1990. This is above the minimum 50 percent level recommended by the Board of Trustees. The tax rates specified in the law are sufficient, along with interest earnings and assets in the fund, to support program expenditures over the next thirteen to fifteen years under the intermediate assumptions. However, any significant adverse deviation from these projections could result in the inability of the fund to meet its obligations much sooner than projected. In order to bring the HI program into actuarial balance even for the first 25-year projection period under the alternative II-B assumptions, either outlays will have to be reduced by 21 percent or income increased by 27 percent (or some combination thereof).

Over the 75-year projection period, the average tax rate necessary to provide for benefits and administrative expenses exceeds the average tax rate scheduled in the law. For the first 25-year projection period, the actuarial balance is -0.60 and -0.79 for alternative II-A and alternative II-B, respectively. The actuarial balance is -2.00 and -2.35 for alternatives II-A and II-B, respectively, during the first 50-year projection period, and -2.83 and -3.26 for alternatives II-A and II-B, respectively, over the entire 75-year projection period.

There are currently over four covered workers supporting each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of that century, there will be only about two covered workers supporting each enrollee. As the post-World

War II "baby boom" becomes eligible for benefits, the annual increase in program costs as a percentage of taxable payroll rises dramatically, from 2.2 percent in 2010 to 4.2 percent in 2014 under alternative II-B (see appendix A). Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all but the most optimistic assumptions, the HI trust fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion is projected to occur shortly after the turn of the century, in 2003 under the alternative II-B assumptions, and could occur as early as 1999 if the pessimistic assumptions are realized.

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

Because of the magnitude of the projected actuarial deficit in the HI program and the probability that the HI trust fund will be exhausted shortly after the turn of the century, the Board believes that early corrective action is essential in order to avoid the need for later, potentially precipitous changes. The Board, therefore, urges that the Congress take early remedial measures to bring future HI program costs and financing into balance, and to maintain an adequate trust fund against contingencies.

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

The basic methodology and assumptions for alternative II-A and alternative II-B used in the estimates for the HI program are described in this appendix. These alternatives reflect two different levels of expectation of future performance of the economy. In addition, sensitivity testing of program costs under alternative sets of assumptions is presented.

The economic and demographic assumptions underlying the alternative projections are described in detail in the 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.

**1. PROGRAM COSTS**

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 skilled nursing facility (SNF) and home health agency services covered under the program; and (4) projecting increases in administrative costs. The major emphasis will be directed toward expenditures for inpatient hospital services, which account for approximately 93 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 5 and 6.

For those expenses still reimbursed on a reasonable cost basis, the costs for covered services are determined on the basis of provider cost reports. Payments to a provider initially are made on an interim basis; to adjust interim payments to the level of retroactively determined costs, a series of payments or recoveries is effected through the course of cost settlement with the provider. The net amounts paid to date to providers in the form of cost 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 or 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 (such as capital related and medical education expenses) reimbursed on a reasonable cost or per resident 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. For fiscal years through 1990, the prospective payment rates have already been determined. The projections contained in this report are based on the assumption that for fiscal years 1991 and later, the prospective payment rates will be increased in accordance with Public Law 100-203, the Omnibus Budget Reconciliation Act of 1987.

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).

It has been possible to isolate some of these elements and to identify their roles in previous hospital cost increases. Table A1 shows the values of the principal components of the increases for historical periods for which data are available and the projected trends used in the estimates. The following discussions apply to projections under both alternative II-A and alternative II-B, unless otherwise indicated.

Increases in hospital workers' hourly earnings can be analyzed and projected in terms of the assumed increases in 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 1975, this positive differential has averaged about 0.3 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 grow to a level of one-half 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 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 one-half percent during 1975-1988. Over the short term, hospital price input intensity is assumed to remain at a level of one-half percent, declining to zero just after the end of the first 25-year period.

Public Law 100-203 prescribes that future increases in payments to participating hospitals for covered admissions in most years will equal the increase in the hospital input price index. Thus, the unit input intensity allowance, as indicated in table A1, is assumed to equal zero in most years during the first 25-year projection period. After the first 25-year projection period, the input price index plus the unit input intensity allowance is assumed to increase at the same rate as average earnings increase. For years prior to the beginning of the prospective payment system, the unit input intensity allowance has been

set at one percent for illustrative purposes, with historical increases in excess of one percent allocated to other sources. 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.

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 two percent increase for fiscal years 1991 through 2000 and a one percent increase for fiscal years 2001 through 2014 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 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.

Other factors which contribute to increases in payments for inpatient hospital services include increases in units of service as measured by increases in inpatient hospital admissions covered under the 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 and Home Health Agency 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 resulted in about a 50 percent increase in utilization, and expansions and changes due to the Medicare Catastrophic Coverage Act of 1988, effective January 1, 1989, resulted in about another 250 percent increase in utilization of SNF services. The projections contained in this report reflect, for 1990, a reduction in utilization consistent with the SNF transition provisions of the Medicare Catastrophic Coverage Repeal Act of 1989 and, for 1991, the complete repeal of the catastrophic expansions and changes, as also mandated by the Act. Modest increases in covered days, based on growth and aging of the population, are projected for 1992 and later, and are included in the 1990 and 1991 projections as well.

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. Projected rates of increase in cost per day are assumed to be about the same as increases in general earnings throughout the projection period. Increases in reimbursement per day reflect the changes in beneficiary cost sharing mandated by the catastrophic coverage and catastrophic coverage repeal legislation.



The resulting increases in expenditures for SNF services are shown in table A2.

Program experience with home health agency 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 recently by modest increases. Continued modest increases, based on growth and aging of the population, are projected. Reimbursement per visit is assumed to increase at about the same rate as increases in general earnings. The resulting increases in expenditures for home health agency services are shown in table A2.

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 A1.

## 2. FINANCING

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

### a. Taxable Payroll

Taxable payroll increases can be separated into a part due to increases in covered earnings and a part due to increases in the number of covered workers. The taxable payroll projection used in this report is based on economic assumptions consistent with those used in the OASDI report. Increases in taxable payroll assumed for this report are shown in table A2.

### b. Relationship Between Program Costs and Taxable Payroll

The single most meaningful measure of program cost increases, with reference to the financing of the system, is the relationship between program cost increases and taxable payroll increases. If the rates of increase in both series are the same, a level tax rate over time will be adequate to support the program. However, to the extent that program costs increase more rapidly than taxable payroll, either a schedule of increasing tax rates or a

reduction in program costs will be required to finance the system over time. Table A2 shows the resulting increases in program costs relative to taxable payroll over the first 25-year projection period. These relative increases reduce gradually to a level of slightly above two percent per year by 2010, but increase to a level of about four percent per year by 2014 for alternatives II-A and II-B, just after the post-World War II "baby boom" start 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 A3.

### 3. SENSITIVITY TESTING OF COSTS UNDER ALTERNATIVE ASSUMPTIONS

Over the past 20 years, aggregate inpatient hospital costs for Medicare beneficiaries have increased substantially faster than increases in average earnings and prices in the general economy. Table A1 shows the experience of the HI program for 1975 to 1988. 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 A1, 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 due to the uncertainty of the underlying economic assumptions and utilization increases. In addition, there is some uncertainty in projecting HI inpatient hospital payments due to the possibility of future legislation affecting the payment levels to hospitals.

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

As noted earlier, the single most meaningful measure of 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 4 percent faster per year than increases in taxable payroll for alternatives II-A and II-B, as discussed in the "Financing" section of this appendix. Program costs beyond the first 25-year projection period are based on the assumption that costs per unit of service will increase at the same rate as earnings increase. Program expenditures, which were about 2.6 percent of taxable payroll in 1989, increase to a level of about 5 percent by the year 2014 under both alternatives II-A and II-B and to between 8 and 9 percent by the year 2064. 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 inadequate to support the cost of the program.

During the first 25-year projection period, alternatives I and III contain assumptions which result in program costs increasing, relative to taxable payroll increases, approximately 2 percent less rapidly and 2 percent more rapidly, respectively, than the results under both sets of intermediate assumptions. Costs beyond the first 25-year projection period assume the 2 percent differential gradually decreases until the year 2039 when program cost increases relative to taxable payroll are approximately the same as under both sets of intermediate assumptions. Under alternative I, program costs increase about 1.2 percent more per year than increases in taxable payroll during the first 25-year projection period. Program expenditures under this alternative would be about 3.5 percent of taxable payroll in the year 2014, increasing to about 4.5 percent of taxable payroll by 2064. The average program costs for the 75-year projection period are about 3.7 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 4.8 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 2014 which is about 8.5 percent of taxable payroll, increasing to about 18.0 percent of taxable payroll in the year 2064.

TABLE A1.--COMPONENTS OF HISTORICAL AND PROJECTED INCREASES IN HI INPATIENT HOSPITAL PAYMENTS 1/  
(Percent)

Calendar year	Labor			Non-Labor			Input price index	Unit input intensity allowance 2/	Units of service			HI inpatient hospital payments
	Average hourly earnings	Hospital hourly earnings level	Hospital hourly earnings	CPI	Hospital price input intensity	Non-labor hospital prices			HI enrollment	Admission incidence	Other sources	
Historical Data:												
1975	8.2%	0.6%	8.8%	9.2%	3.4%	12.9%	10.5%	1.0%	3.4%	0.1%	6.1%	22.5%
1976	7.8	-0.2	7.6	5.7	1.7	7.5	7.6	1.0	2.9	1.5	5.1	19.2
1977	6.8	0.0	6.8	6.5	0.6	7.1	6.9	1.0	3.0	4.6	0.8	17.2
1978	8.0	-0.3	7.7	7.6	-0.8	6.7	7.3	1.0	2.7	-1.9	5.3	14.9
1979	8.5	-0.6	7.8	11.4	-1.1	10.2	8.8	1.0	2.7	3.1	0.2	16.5
1980	7.7	1.9	9.7	13.5	0.8	14.4	11.8	1.0	2.1	2.4	2.4	20.8
1981	9.0	1.2	10.3	10.3	-0.5	9.8	10.1	1.0	1.9	2.7	3.0	19.7
1982	5.9	2.8	8.9	6.0	0.3	6.3	7.7	1.0	1.8	0.0	4.6	15.7
1983	4.4	1.8	6.3	3.0	1.2	4.2	5.4	1.0	1.7	0.8	1.9	11.2
1984	5.8	-0.4	5.4	3.4	0.5	3.9	4.7	1.0	1.8	-3.8	7.6	11.4
1985	5.3	-0.9	4.4	3.5	-0.9	2.6	3.6	0.0	1.6	-7.4	8.8	6.0
1986	5.1	-1.3	3.7	1.6	0.5	2.1	3.0	-2.8	2.3	-4.9	6.8	4.1
1987	5.0	-0.9	4.1	3.6	0.2	3.8	4.0	-2.9	1.7	-4.3	5.0	3.3
1988	4.0	0.8	4.8	4.0	1.5	5.6	5.1	-2.7	2.0	-0.8	1.9	5.6
Projection:												
Alternative II-A												
1989	5.8	-0.8	5.0	4.8	1.2	6.1	5.5	-1.6	2.1	-1.9	3.6	7.8
1990	5.2	0.7	5.9	4.0	0.2	4.2	5.2	0.2	1.9	0.4	0.2	8.1
1991	5.5	0.3	5.8	4.0	0.8	4.8	5.4	0.0	1.7	1.2	2.7	11.4
1992	5.4	0.5	5.9	3.9	0.5	4.4	5.3	0.0	1.6	1.2	1.8	10.2
1993	5.3	0.5	5.8	3.6	0.5	4.1	5.1	0.0	1.5	1.3	1.8	10.0
1994	5.1	0.5	5.6	3.3	0.5	3.8	4.9	0.0	1.5	1.3	1.9	9.9
1995	4.9	0.5	5.4	3.1	0.5	3.6	4.7	0.0	1.4	1.3	1.9	9.6
2000	4.6	0.5	5.1	3.0	0.5	3.5	4.5	0.0	1.0	1.0	1.8	8.5
2005	4.8	0.5	5.3	3.0	0.5	3.5	4.7	0.0	1.2	0.5	1.0	7.5
2010	4.8	0.5	5.3	3.0	0.5	3.5	4.7	0.0	1.7	-0.2	1.0	7.3
2014	4.9	0.5	5.4	3.0	0.5	3.5	4.8	0.0	3.5	-0.5	1.1	9.1
Alternative II-B												
1989	5.8	-0.8	5.0	4.8	1.2	6.1	5.5	-1.6	2.1	-1.9	3.6	7.8
1990	5.3	0.6	5.9	4.4	-0.2	4.2	5.2	0.2	1.9	0.4	0.2	8.1
1991	5.3	0.5	5.8	4.5	0.3	4.8	5.4	0.0	1.7	1.2	2.8	11.5
1992	5.5	0.5	6.0	4.5	0.5	5.0	5.6	0.0	1.6	1.2	1.8	10.5
1993	5.5	0.5	6.0	4.3	0.5	4.8	5.5	0.0	1.5	1.3	2.0	10.6
1994	5.6	0.5	6.1	4.2	0.5	4.7	5.5	0.0	1.5	1.3	1.9	10.5
1995	5.6	0.5	6.1	4.0	0.5	4.5	5.5	0.0	1.4	1.3	2.0	10.5
2000	5.6	0.5	6.1	4.0	0.5	4.5	5.5	0.0	1.0	1.0	1.7	9.4
2005	5.5	0.5	6.0	4.0	0.5	4.5	5.5	0.0	1.2	0.5	1.0	8.4
2010	5.5	0.5	6.0	4.0	0.5	4.5	5.5	0.0	1.7	-0.2	1.0	8.1
2014	5.6	0.5	6.1	4.0	0.5	4.5	5.6	0.0	3.5	-0.5	1.1	9.9

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

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

NOTE: Historical and projected data reflect a recalibration of the hospital input price index which occurred in 1986.

**TABLE A2.--RELATIONSHIP BETWEEN INCREASES IN HI PROGRAM EXPENDITURES  
AND INCREASES IN TAXABLE PAYROLL 1/  
(Percent)**

Calendar year	Inpatient hospital <u>2/</u> <u>3/</u>	Skilled nursing facility <u>3/</u>	Home health agency <u>3/</u>	Weighted average <u>3/</u> <u>4/</u>	HI administrative costs <u>3/</u> <u>5/</u>	HI program expenditures <u>3/</u>	HI taxable payroll	Ratio of expenditures to payrolls <u>6/</u>
Alternative II-A								
1990	8.2%	-59.2%	9.0%	4.4%	19.9%	4.6%	6.1%	-1.4%
1995	9.6	7.2	7.5	9.5	6.7	9.5	5.8	3.5
2000	8.5	6.7	7.1	8.4	5.9	8.4	6.2	2.0
2005	7.5	6.4	6.6	7.5	5.5	7.5	5.5	1.9
2010	7.3	6.0	6.1	7.3	5.4	7.2	5.1	2.1
2014	9.1	7.7	7.6	9.0	6.9	9.0	4.8	4.0
Alternative II-B								
1990	8.2%	-59.2%	9.0%	4.4%	19.9%	4.6%	6.1%	-1.4%
1995	10.5	7.8	8.0	10.4	7.2	10.4	6.1	4.0
2000	9.4	7.1	7.6	9.3	6.4	9.3	5.8	3.3
2005	8.4	6.8	7.1	8.4	6.1	8.3	6.1	2.1
2010	8.1	6.4	6.7	8.1	5.9	8.0	5.7	2.2
2014	9.9	8.1	8.1	9.8	7.4	9.8	5.4	4.2

1/ Percent increase in year indicated over previous year.

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

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

4/ Includes costs for hospice care.

5/ Includes costs of Peer Review Organizations.

6/ 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.

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

Calendar year	Increases in aggregate HI inpatient hospital payments <u>1/</u>				Changes in the relationship between expenditures and payroll <u>1/</u>			Expenditures as a percent of taxable payroll <u>3/ 4/</u>
	Average hourly earnings	CPI	Other factors <u>2/</u>	Total <u>3/</u>	Program expenditures <u>3/ 4/</u>	Taxable payroll	Ratio of expenditures to payroll	
ALTERNATIVE I								
1990	4.7%	3.4%	3.3%	7.6%	4.2%	6.1%	-1.7%	2.54%
1995	4.3	2.1	4.2	7.8	7.8	5.5	2.2	2.83
2000	3.4	2.0	3.5	6.5	6.6	5.1	1.5	3.06
2005	4.2	2.0	1.8	5.3	5.4	5.0	0.4	3.13
2010	4.2	2.0	1.6	5.1	5.2	4.7	0.5	3.26
2014	4.2	2.0	3.3	6.9	6.9	4.4	2.4	3.48
ALTERNATIVE II-A								
1990	5.2%	4.0%	3.3%	8.1%	4.6%	6.1%	-1.4%	2.56%
1995	4.9	3.1	5.2	9.6	9.5	5.8	3.5	3.05
2000	4.6	3.0	4.3	8.5	8.4	6.2	2.0	3.51
2005	4.8	3.0	3.2	7.5	7.5	5.5	1.9	3.87
2010	4.8	3.0	3.0	7.3	7.2	5.1	2.1	4.35
2014	4.9	3.0	4.6	9.1	9.0	4.8	4.0	4.95
ALTERNATIVE II-B								
1990	5.3%	4.4%	3.0%	8.1%	4.6%	6.1%	-1.4%	2.56%
1995	5.6	4.0	5.3	10.5	10.4	6.1	4.0	3.13
2000	5.6	4.0	4.2	9.4	9.3	5.8	3.3	3.69
2005	5.5	4.0	3.3	8.4	8.3	6.1	2.1	4.12
2010	5.5	4.0	3.0	8.1	8.0	5.7	2.2	4.68
2014	5.6	4.0	4.6	9.9	9.8	5.4	4.2	5.36
ALTERNATIVE III								
1990	4.0%	4.8%	3.4%	7.9%	4.3%	4.1%	0.3%	2.61%
1995	7.2	5.3	6.2	13.0	12.8	7.3	5.1	3.50
2000	6.5	5.0	5.0	11.2	11.0	5.2	5.5	4.52
2005	6.2	5.0	4.9	10.9	10.8	6.5	4.0	5.51
2010	6.2	5.0	4.6	10.6	10.4	6.1	4.1	6.85
2014	6.2	5.0	6.3	12.4	12.2	5.7	6.1	8.46

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

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

3/ On an incurred basis.

4/ Includes expenditures attributable to insured beneficiaries only.

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.



**APPENDIX B****ORIGINAL ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE)  
INPATIENT HOSPITAL DEDUCTIBLE, FOR CALENDAR YEAR 1990 1/**

**SUMMARY:** This notice announces that the inpatient hospital deductible for calendar year 1990 under Medicare's hospital insurance program (Part A) is \$592. The Medicare statute specifies the formula to be used to determine this amount.

Effective Date: January 1, 1990.

**SUPPLEMENTARY INFORMATION:****I. 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. Section 1813(b)(2) of the Act requires the Secretary to determine and publish between September 1 and September 15 of each year the amount of the inpatient hospital deductible applicable for the following calendar year. Section

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1/ Extracted from the notice entitled "Medicare Program; Inpatient Hospital Deductible for 1990," which was published in the Federal Register on September 29, 1989 (Vol. 54, No. 188, pp. 40205-40206). The Medicare Catastrophic Coverage Repeal Act of 1989, enacted December 13, 1989, did not affect the deductible amount for 1990 (\$592) that is announced here. However, the Repeal Act restored the benefit period and inpatient hospital coinsurance provisions that existed prior to 1989; as a result, there is inpatient hospital coinsurance in 1990, benefit periods are reinstated, and there are higher estimated costs to beneficiaries than those shown in this notice. See appendix E for further information.

9301 of the Omnibus Budget Reconciliation Act of 1986 (Pub. L. 99-509) amended section 1813(b) of the Act to establish for the years after 1987 the method for computing the amount of the inpatient hospital deductible. The deductible specified for 1987 was \$520 and, under the formula specified in the law, the deductible for subsequent calendar years is the deductible for the preceding year multiplied by the same percentage increase (that is, the update factor) used for updating the prospective payment rates for inpatient hospital services effective October 1 of the same preceding year and adjusted to reflect real case mix. The amount so determined is rounded to the nearest multiple of \$4. The deductible for 1988 calculated in this manner is \$540.

Section 1813(b) of the Act was further amended by section 4002(f) of the Omnibus Budget Reconciliation Act of 1987 (Pub. L. 100-203), as amended by section 411(b)(1)(H)(ii) of the Medicare Catastrophic Coverage Act of 1988 (Pub. L. 100-360), to require that, beginning with the deductible for 1989, the deductible be changed each year by the Secretary's best estimate of the payment-weighted average of the applicable percentage increases used for updating the payment rates for hospitals (according to whether they are prospective payment system hospitals in rural, large urban, or other urban areas or are hospitals excluded from the prospective payment system) and adjusted to reflect real case mix. (For discharges occurring during Federal fiscal year (FY) 1989 (that is, discharges occurring on or after October 1, 1988 and before October 1, 1989), section 1886(b)(3)(B) of the Act provides for separate percentage increases for hospitals in rural, large urban, and other urban areas as well as for hospitals excluded from the prospective payment system. Therefore, without the amendment made by Pub. L. 100-360, we would have been required to assess four different deductibles, according to the status or location

of the hospital to which a beneficiary was admitted when a deductible is applicable.) The deductible for 1989 calculated in this manner was \$560.

Section 1886(b)(3)(B) of the Act provides that, for FY 1990, the applicable percentage increase for hospitals in all areas and hospitals excluded from the prospective payment system shall be the market basket percentage increase which for 1990 is 5.5 percent. Thus, using the methodology required by section 1813(b)(1) of the Act, the payment-weighted average of these increases in the payment rates is also 5.5 percent.

An average case mix is calculated for each hospital that reflects the relative costliness of that hospital's mix of cases. We computed the increase in average case mix for hospitals paid under the prospective payment system in FY 1989 compared to FY 1988. (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 1989. This is a total of about 6.2 million discharges for FY 1989. The increase in average case mix in FY 1989 is computed to be 1.91 percent.

Although the average case mix has increased by 1.91 percent in FY 1989, 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. The long-term trend in real case-mix increase was determined to be approximately 0.5 percent. During the first few years of the prospective payment system, estimated real case-mix increases exceeded that level, primarily because of the shift of many lower-cost treatments out of the inpatient

hospital setting. This shift out of the inpatient hospital setting resulted in declining Medicare hospital admissions. However, during 1988 and 1989, hospital admission patterns have returned to levels consistent with long-term trends. Therefore, we believe that real case-mix increase has also returned to the long-term trend level of 0.5 percent. As a consequence, we believe that the case-mix increase associated with coding changes totals 1.41 percent and, for purposes of determining the 1990 inpatient hospital deductible, we are estimating the real case-mix increase at 0.5 percent.

Thus, the estimate of the payment-weighted average of the applicable percentage increases used for updating the payment rates is 5.5 percent, and the case-mix adjustment factor for the deductible is 0.5 percent.

## II. Inpatient Hospital Deductible for 1990

The inpatient hospital deductible for calendar year 1990 is \$560 times the payment rate increase of 1.055 times the increase in average real case mix of 1.005 which equals \$593.75 and is rounded to \$592.

## III. Costs to Beneficiaries

We estimate that in 1990 there will be 6.6 million deductibles paid at \$592 each, compared to 6.4 million deductibles paid at \$560 each in 1989. The estimated total increase in cost to beneficiaries is \$320 million (rounded to the nearest \$10 million), due to the deductible increase and the increase in the number of deductibles.

#### IV. Regulatory Impact Statement

This notice merely announces an amount 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.

Dated: September 11, 1989.

Louis B. Hays,  
Acting Administrator,  
Health Care Financing Administration

Approved: September 25, 1989.

Louis W. Sullivan,  
Secretary,  
Department of Health and Human Services

## APPENDIX C

**ORIGINAL ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) SKILLED NURSING FACILITY COINSURANCE AMOUNT, FOR CALENDAR YEAR 1990 1/**

SUMMARY: This notice announces that the skilled nursing facility (SNF) coinsurance amount for calendar year 1990 for the 1st through 8th days of extended care services in a SNF under Medicare's hospital insurance program (Part A) is \$26.50. The Medicare statute specifies the method to be used to determine this amount.

Effective Date: January 1, 1990.

## SUPPLEMENTARY INFORMATION:

I. Background

Section 1813(a)(3) of the Social Security Act (the Act) required, until January 1, 1989, that the amount payable for extended care services in a skilled nursing facility (SNF) during a spell of illness was to be reduced by an amount equal to one-eighth of the hospital deductible, per day, for the 21st through 100th day of covered extended care services.

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1/ Extracted from the notice entitled "Medicare Program; SNF Coinsurance Amount for 1990," which was published in the Federal Register on October 26, 1989 (Vol. 54, No. 206, pp. 43619-43620). The Medicare Catastrophic Coverage Repeal Act of 1989, enacted December 13, 1989, changed the skilled nursing facility (SNF) coinsurance amount for 1990 from \$26.50 for the first eight days of covered care in a year, as announced here, to \$74 for the 21st to 100th days of covered care in a benefit period. The Repeal Act changed the SNF benefit in other ways as well. As a result of the Repeal Act, the amount announced here was superseded, and there are higher estimated costs to beneficiaries than those shown in this notice. See appendix E for further information.

Section 102 of the Medicare Catastrophic Coverage Act of 1988 (Pub. L. 100-360), enacted on July 1, 1988, amended section 1813(a)(3) and repealed section 1813(b)(3) of the Act to change the method of determining coinsurance for SNF care and to change the days subject to coinsurance. Beginning January 1, 1989, beneficiaries are liable for coinsurance for days one through eight of covered days spent in a SNF in a calendar year (rather than days 21 through 100 in a spell of illness), and the coinsurance amount per day is determined as discussed in Section II of this notice (rather than equalling one-eighth of the hospital deductible). The SNF coinsurance amount for 1989, the year the change in the statutory coinsurance formula went into effect, was \$25.50 (53 FR 41242). Notice of the coinsurance amount applicable to extended care services in the succeeding year must be published in September.

As required by section 1813(a)(3) of the Act, we have determined this amount based on the law in effect at the time we were required to make the determination. We recognize that Congress is considering amendments to the Medicare provisions and that some of these amendments may affect the method of computation, estimated costs, or other amounts on which the determination was made. Unless Congress specifically mandates a change in the method of computation for this coinsurance amount, the coinsurance amount itself will not change. However, the estimate costs related to the SNF benefit could change.

## II. Skilled Nursing Facility Coinsurance Amount for 1990

Before September 1 of each year, HCFA will estimate the national average per diem cost for extended care services furnished in the succeeding year. The SNF coinsurance for those extended care services is 20 percent of that estimated national average per diem cost. The amount is rounded to the nearest multiple of \$.50. (If it is a multiple of \$.25 but not of \$.50, the amount is rounded to the next highest multiple of \$.50.) The SNF coinsurance amount for calendar year 1990 is \$26.50.

## III. Statement of Actuarial Assumptions and Bases Employed in Determining the SNF Coinsurance Rate

As discussed in section II of this notice, the SNF coinsurance rate for 1990 is equal to 20 percent of the estimated national average per diem cost for Medicare extended care services for 1990. The national average per diem cost is determined on a reasonable cost basis and includes any cost sharing costs paid by the beneficiary.

The principal steps involved in projecting the future cost per day of skilled nursing care are (a) determining the present cost per day to serve as a projection base, using a 100 percent sample of SNF bills, actual beneficiary billing experience (to identify coinsurance), and a review of SNF cost reports; and (b) projecting increases in cost per day amounts.

We have completed the above steps, basing our projections for 1990 on (a) current historical data from 1988 and (b) projection assumptions from the Midsession Review of the President's Fiscal Year 1990 Budget. It is estimated that in calendar year 1990 the



national average per diem cost for Medicare extended care services is \$132.70. Thus, 20 percent of this cost is \$26.54, and the coinsurance rate is \$26.50.

#### IV. Costs to Beneficiaries

The coinsurance amount for 1990 represents a \$1 increase from coinsurance for 1989. We estimate that in 1990 there will be about 3.35 million days subject to coinsurance at \$26.50 per day versus about 3.27 million days subject to coinsurance at \$25.50 per day in 1989. The increased cost to beneficiaries is about \$5.39 million.

#### V. Regulatory Impact Statement

This notice merely announces an amount 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.

Dated: September 28, 1989.

Louis B. Hays,  
Acting Administrator,  
Health Care Financing Administration

Approved: October 23, 1989.

Louis W. Sullivan,  
Secretary,  
Department of Health and Human  
Services

**APPENDIX D****ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) MONTHLY PREMIUM RATE FOR THE UNINSURED AGED, FOR CALENDAR YEAR 1990 1/**

**SUMMARY:** This notice announces the hospital insurance premium for the uninsured aged for calendar year 1990 under Medicare's hospital insurance program (Part A). The monthly Medicare Part A premium for the 12 months beginning January 1, 1990 for individuals who are not insured under the Social Security or Railroad Retirement Acts and do not otherwise meet the requirements for entitlement to Part A is \$175. Section 1818(d) of the Social Security Act specifies the method to be used to determine this amount.

Effective Date: January 1, 1990.

**SUPPLEMENTARY INFORMATION:****I. 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 age 65 and older who are uninsured for social security

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1/ Extracted from the notice entitled "Medicare Program; Part A Premium for the Uninsured Aged for 1990," which was published in the Federal Register on November 22, 1989 (Vol. 54, No. 224, pp. 48322-48323).

or railroad retirement benefits and do not otherwise meet the requirements for entitlement to Part A. (Persons insured under the Social Security or Railroad Retirement Acts need not pay premiums for hospital insurance.)

Section 1818(d)(2) of the Act, as amended by section 103 of the Medicare Catastrophic Act of 1988 (Pub. L. 100-360), 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 1818(d) of the Act, as amended by section 103 of Public Law 100-360, 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 Part A. The Secretary must then, 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 \$1.00, the premium is rounded to the nearest multiple of \$1.00 (or if it is a multiple of 50 cents but not of \$1.00, it is rounded to the next highest \$1.00). The first premium under this new method was \$156 and was effective January 1989. (See 53 FR 45161; November 8, 1988.)

## II. Premium Amount for 1990

Under the authority of section 1818(d)(2) of the Act (42 U.S.C. 1395i-2(d)(2)), the Secretary has determined that the monthly Medicare Part A hospital insurance premium for the uninsured aged for the 12 months beginning January 1, 1990 is \$175. This premium amount is based on the law in effect at the time we were required to make this determination. We recognize that Congress is considering amendments to the Medicare provisions in the law and that, if enacted, these amendments may affect the method of computation, estimated costs, or other amounts upon which this premium determination was made.

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

As discussed in section I of this notice, the monthly premium for the uninsured aged for 1990 is equal to the estimated monthly actuarial rate for 1990 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 1990 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 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 1990 on (a) current historical data and (b) projection assumptions from the Midsession Review of the President's Fiscal Year 1990 Budget. It is estimated that in calendar year 1990, 30.081 million people age 65 and over will be entitled to Part A benefits (without premium payment), and that these individuals will, in 1990, incur \$63.278 billion of benefits for services performed and related administrative costs. Thus, the estimated monthly average per capita amount is \$175.30, and the monthly premium is \$175.

#### IV. Costs to Beneficiaries

The 1990 Part A premium is 12 percent higher than the \$156 monthly premium amount for the 12-month period beginning January 1, 1989. This increase results from the recalculation of the monthly actuarial rate described above.

The estimated cost of this increase to the approximately 19 thousand enrollees who do not otherwise meet the requirements for entitlement to hospital insurance will be about \$4.33 million.

V. 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.

Dated: September 26, 1989.

Louis B. Hays,  
Acting Administrator,  
Health Care Financing Administration

Approved: October 26, 1989.

Louis W. Sullivan,  
Secretary,  
Department of Health and Human  
Services

**APPENDIX E****ANNOUNCEMENT OF THE REVISED MEDICARE PART A (HOSPITAL INSURANCE)  
INPATIENT HOSPITAL DEDUCTIBLE AND COINSURANCE, AND  
SKILLED NURSING FACILITY COINSURANCE, FOR CALENDAR YEAR 1990 1/**

**SUMMARY:** This notice announces that the inpatient hospital deductible for calendar year 1990 under Medicare's hospital insurance program (Part A) remains the same as announced on September 29, 1989 at 54 FR 40205. However, the repeal of the Medicare Catastrophic Coverage Act of 1988 by the Medicare Catastrophic Coverage Repeal Act of 1989 restored 1988 Part A coverage and cost-sharing rules, including the benefit period provisions, coinsurance charges, and the three-day prior hospitalization requirement for skilled nursing facility (SNF) care.

Because the Part A catastrophic benefits under the Medicare Catastrophic Coverage Act of 1988 were in effect in 1989, the Medicare Catastrophic Coverage Repeal Act of 1989 included several provisions that apply to beneficiaries who were inpatients of hospitals or SNFs both at the end of 1989 and the beginning of 1990.

**Effective Date:** [30 days after publication in the Federal Register].

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1/ Preliminary version of a notice entitled "Medicare Program; Inpatient Hospital Deductible and Coinsurance and Skilled Nursing Facility Coinsurance for 1990 Medicare," which will soon be published in the Federal Register. The announced amounts and other information in this notice, which supersede amounts and information displayed in appendices B and C, are a direct result of the Medicare Catastrophic Coverage Repeal Act of 1989, enacted December 13, 1989.



## SUPPLEMENTARY INFORMATION:

### I. 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. The amount and methodology for the determination of the inpatient hospital deductible were published on September 29, 1989 at 54 FR 40205, and neither was affected by the Medicare Catastrophic Coverage Act of 1988 (Pub. L. 100-360) or its repeal by the Medicare Catastrophic Coverage Repeal Act of 1989 (Pub. L. 101-234). However, Pub. L. 101-234 restored the requirements in effect before enactment of Pub. L. 100-360 concerning the frequency of the application of the inpatient hospital deductible, the number of covered days, and the coinsurance provisions. The inpatient hospital deductible amount remains the same.

Pub. L. 101-234 also restored the limitations on extended care services; that is, the coinsurance structure (the applicable days and the methodology for determining the coinsurance amount), the number of covered days, and the prior hospitalization requirement that were in effect before enactment of Pub. L. 100-360 are restored.

### II. Inpatient Hospital Provisions

Before the Part A provisions in Pub. L. 100-360 became effective on January 1, 1989, the inpatient hospital deductible was linked to a benefit period. A benefit period began

when a beneficiary entered a hospital and ended when he or she had not been an inpatient in a hospital or in a skilled nursing facility (SNF) for 60 days. For each benefit period, one deductible was imposed for the first 60 days of inpatient care. Days in excess of 60, and up through 90, were subject to a daily coinsurance charge in an amount equal to 1/4 of the hospital deductible. After 90 days, for hospitals excluded from the prospective payment system, the inpatient hospital coverage ended, unless the beneficiary elected to use lifetime reserve days. For hospitals paid under the prospective payment system, lifetime reserve days need not have been elected to continue inpatient hospital coverage if the beneficiary had one or more regular (that is, not lifetime reserve) benefit days available at the time of admission and the length of stay did not exceed the day outlier threshold. Each beneficiary was entitled to sixty lifetime reserve days with a daily coinsurance charge equal to 1/2 the deductible amount.

Under Section 102 of Pub. L. 100-360, a beneficiary was only responsible for one deductible per calendar year, all inpatient hospital coinsurance was abolished, and there was no limitation on the number of covered inpatient hospital days (other than the inpatient psychiatric hospital days limitations, which were not changed by Pub. L. 100-360). These provisions remained in effect only for calendar year 1989, because they were repealed by Section 101(a) of Pub. L. 101-234. Effective January 1, 1990, provisions in sections 1812, 1813, and 1861 of the Act, prior to the enactment of Pub. L. 100-360, were restored by sections 101(a) and (d) of Pub. L. 101-234, to provide that a beneficiary is no longer allowed hospital days subject to only one annual deductible, and coverage is once again linked to a benefit period. For each benefit period, one deductible is imposed for the first 60 days of care, days 61 through 90 are subject to daily coinsurance charges equal to 1/4

of the current Part A deductible amount, and lifetime reserve days as previously described in this section are again applicable.

Section 101(b)(1) of Pub. L. 101-234 prohibits days spent in a hospital or SNF before January 1, 1990, from being counted in determining the beginning date of a benefit period. Also, days spent in a hospital in 1989 are not counted in determining the amount of lifetime reserve days used, although lifetime reserve days used before 1989 are counted toward the 60-day lifetime reserve. In addition, a new inpatient hospital deductible will not apply to a beneficiary who is receiving inpatient hospital services during a continuous period beginning before (and including) January 1, 1990, if a deductible was imposed in 1989. If a beneficiary begins a benefit period during January 1990, a new deductible will not apply if a deductible was imposed during December 1989.

### III. Extended Care Services

Prior to 1989, provisions in sections 1812, 1813, and 1861 of the Act provided up to 100 days of extended care services in an SNF in a benefit period but only after the beneficiary had spent at least three consecutive covered days in a hospital. The first 20 days were paid in full and the remaining 80 days were subject to a daily coinsurance charge equal to 1/8 of the inpatient hospital deductible amount.

Effective January 1, 1989, sections 101 and 102 of Pub. L. 100-360 changed the number of SNF covered days to 150 per calendar year, eliminated the prior hospitalization requirement, and changed the coinsurance amount to 1/5 of the estimated national average

per diem reasonable cost for extended care services in calendar year 1989 for each of the first eight days of care, with the remaining days covered in full.

Effective January 1, 1990, section 101(a) of Pub. L. 101-234 repealed the SNF benefit expansions enacted by Pub. L. 100-360, and reinstated the SNF coverage provisions that were in effect prior to 1989. Thus, section 1812(a)(2) of the Act currently provides coverage for up to 100 days in a benefit period; the first 20 days are for full coverage followed by 80 coinsurance days. The coinsurance charge for each day is equal to the lesser of 1/8 of the inpatient hospital deductible amount or the actual total SNF charge per day.

Under section 101(b)(1)(c) of Pub. L. 101-234, the requirement for hospitalization prior to covered SNF services does not apply to an individual receiving covered SNF services during a continuous period that began before (and includes) January 1, 1990, until the end of the period of 30 consecutive days in which the individual is not provided inpatient hospital services or extended care services.

This means that a beneficiary whose stay in a SNF (or at the SNF level of care in a swing-bed hospital) continues from 1989 into 1990 is initially exempt from the post-hospital requirement that is reinstated effective January 1, 1990, if all other requirements for Medicare payment for extended care services are met for a continuous period that includes at least December 31, 1989 and January 1, 1990. If Medicare payment cannot be made for extended care services furnished on both December 31, 1989 and January 1, 1990, this transition exemption does not apply. The exemption from the prior hospitalization requirement ceases at the end of a period of 30 consecutive days for which

no Medicare payment is made for either inpatient hospital services or extended care services.

For SNF benefit purposes, a beneficiary who is in a hospital or SNF on January 1, 1990, is considered to begin a new benefit period on that date, regardless of whether he or she used SNF benefit days prior to 1990. Consequently, a beneficiary whose stay in an SNF (or at the SNF level of care in a swing-bed hospital) began in 1989 and included more than 20 days in 1990, is required to pay the 1990 coinsurance charges even if the 1989 coinsurance charges were paid, because Pub. L. 101-234 made no transition exception for this situation.

#### IV. Deductible and Coinsurance Amounts

The inpatient hospital deductible for calendar year 1990 is \$592 and the coinsurance amounts are \$148 for the 61st through the 90th days of hospitalization and \$296 for the lifetime reserve days.

The daily coinsurance amount for extended care services in a skilled nursing facility is \$74 per day for the 21st to the 100th day of covered confinement.

#### V. Cost to Beneficiaries

For inpatient hospital services, we estimate that in 1990 there will be about 7.7 million deductibles paid at \$592 each, compared to about 6.0 million deductibles paid at

\$560 each in 1989. In addition, we estimate that there will be about 3.0 million coinsurance charges of \$148 each (for hospital days, 60 through 90), and about 1.1 million coinsurance charges of \$296 for lifetime reserve days. The estimated total increase in cost to beneficiaries is about \$1,970 million (rounded to the nearest \$10 million) due to the increase in the amount of the deductible, the increase in the number of deductibles paid, and the coinsurance charges.

We estimate that in 1990 there will be about 8.9 million extended care days subject to coinsurance at \$74.00 per day compared with about 4.5 million days subject to coinsurance charges of \$25.50 per day in 1989. The coinsurance amount for 1990 extended care services represents a \$48.50 increase from the coinsurance charge for 1989. The estimated total increase in cost to beneficiaries is about \$540 million (rounded to the nearest \$10 million).

These increased costs to beneficiaries are direct results of the Medicare Catastrophic Coverage Repeal Act of 1989. This Act, while eliminating benefit extensions such as lower beneficiary coinsurance, also discarded the income-based supplemental premium that was to be paid by beneficiaries and that was intended to finance the benefit extensions.

## VI. Regulatory Impact Statement

This notice merely announces changes enacted by legislation. This notice is neither a proposed rule nor a final rule issued after a proposal. 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.

Dated:

Louis B. Hays,  
Acting Administrator,  
Health Care Financing Administration

Approved:

Louis W. Sullivan,  
Secretary,  
Department of Health and Human Services

**APPENDIX F****STATEMENT OF ACTUARIAL OPINION**

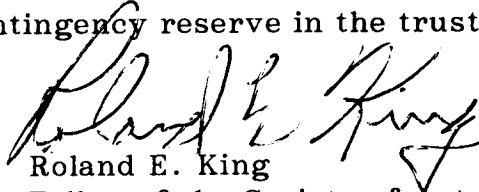
Subject to the exceptions noted below, it is my opinion that (1) the methodology used herein is based upon sound principles of actuarial practice and (2) the assumptions used and the resulting cost estimates are in the aggregate reasonable for the purpose of evaluating the actuarial and financial status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

The real earnings assumption is not consistent with reasonable expectations regarding future experience. There is a large discrepancy between past real earnings experience and the assumptions used in the projections, with no plausible explanation for the significant improvement which is assumed to occur in the future. During the first ten years of the projection period, the Trustees have assumed that real earnings in covered employment will increase at the rate of nearly 1.3 percent per year. This assumption is significantly different from actual experience during the ten-year period ending in 1988, when real earnings in the U.S. economy actually declined. During the 30-year period ending with 1988, real earnings increases averaged only 0.9 percent annually, but the Trustees' long-range intermediate assumption (Alternative II-B) is 1.28 percent, nearly 40 percent higher than the experience of the last 30 years.

The level-financing method used to express the long-range actuarial balance of the program is not appropriate because the Trustees have not endorsed advanced funding of the long-range deficit. In this context, the level-financing method understates the actuarial



deficit in the program by incorporating significant amounts of interest in excess of those projected to be earned. Although the hospital insurance trust fund is projected (under the Alternative II-B assumptions) to earn \$144 billion in interest before it is depleted, the actuarial balance determined using the level-financing method incorporates over \$50 trillion in assumed interest earnings. In addition, the actuarial balance does not provide for the cost of maintaining a minimum contingency reserve in the trust fund.

A handwritten signature in black ink, appearing to read "Roland E. King", is positioned above the printed name.

Roland E. King

Fellow of the Society of Actuaries

Member of the American Academy of Actuaries

Chief Actuary,

Health Care Financing Administration