

CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1991 was 136 percent of estimated outgo for calendar year 1991, above the minimum 100 percent level recommended by the Board of Trustees. The trust fund meets the new short-range test of financial adequacy, which is described in the previous section of this report, and 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 14 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.

Over the 75-year projection period, the tax rate necessary to provide for benefits and administrative expenses exceeds the tax rate scheduled in the law in most years. The actuarial balance, as defined in the previous section (that is, including the cost of attaining a trust fund balance at the end of the period equal to 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance), is -0.96 for the first 25-year projection period, -2.49 for the first 50-year projection period, and -3.35 over the entire 75-year projection period, under the alternative II assumptions. The actuarial balances for the 25-year subperiods, as defined in the previous section (that is, including neither the trust fund balance at the beginning of the period nor the cost of attaining a non-zero trust fund balance at the end of the subperiod), are -0.92, -4.38, and -5.94 for the first, second, and third 25-year subperiods, respectively, under the alternative II assumptions. The trust fund does not meet the new long-range test of financial adequacy, which is defined in the OASDI report, under any of the three assumption sets. In order to bring the HI program into actuarial balance even for the first 25-year projection period under the alternative II assumptions, either outlays will have to be reduced by 25 percent or income increased by 33 percent (or some combination thereof).

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 2.6 percent in 2010 to 3.7 percent in 2015 under alternative II (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 2005 under the alternative II assumptions, and could occur as early as 2001 if the pessimistic assumptions are realized.

The Board notes that promising steps to begin reducing the rate of growth in payments to hospitals have 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 can be 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.

Even though the HI trust fund is financially adequate based on the short-range test, because of the magnitude of the projected actuarial deficit in the HI program and the high probability that the HI trust fund will be exhausted shortly after the turn of the century,

the Board believes that corrective action will be needed very soon in order to avoid the need for potentially precipitous changes later.

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

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

1. ASSUMPTIONS

The alternative II economic assumptions used in the estimates can generally be characterized as assuming that economic performance will be substantially more favorable during the 75-year valuation period than during the last 25 years. Both the economic and demographic assumptions underlying the projections shown in this report are consistent with those in the 1991 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance (OASDI) Trust Funds. These assumptions are described in more detail in that report.

2. PROGRAM COST PROJECTION METHODOLOGY

The principal steps involved in projecting the future costs of the HI program are (1) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (2) projecting increases in payment amounts for inpatient hospital services under the program; (3) projecting increases in payment amounts for skilled nursing facility, home health agency, and hospice services covered under the program; and (4) projecting increases in administrative costs. The major emphasis is directed toward expenditures for inpatient hospital services, which account for approximately 90 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 of recoveries by as much as several years for some providers.

Hence, the final cost of services reimbursed on a reasonable cost basis has not been completely determined for the most recent years of the program, and some degree of uncertainty remains even for earlier years.

Even for inpatient hospital operating payments paid for on the basis of diagnosis-related groups (DRGs), most payments are initially made on an interim basis, and final payments are determined on the basis of bills containing detailed diagnostic information which are later submitted by the hospital.

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

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

b. Payments for Inpatient Hospital Costs

Beginning with hospital accounting years starting on or after October 1, 1983, the HI program began paying almost all participating hospitals a prospectively-determined amount for providing covered services to beneficiaries. With the exception of certain expenses (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. In the "Social Security Amendments Since the 1990 Report" section of this report and in other literature, the hospital input price index is called the hospital market basket percentage increase. For fiscal years through 1991, the prospective payment rates have already been determined. The projections contained in this report are based on the assumption that for fiscal years 1992 through 1995, the prospective payment rates will be increased in accordance with Public Law 101-508, the Omnibus Budget Reconciliation Act of 1990, and these legislated annual payment rate increases are indeed functions of the annual hospital input price indices. For fiscal years 1996 and later, current statute mandates that the annual increase in the payment rate per admission equal the annual hospital input price index.

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

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

- (2) Non-labor factors--the increase in the hospital input price index which is attributable to factors other than hospital workers' hourly earnings, such as the costs of energy, food, and supplies;
- (3) Unit input intensity allowance--the increase in inpatient hospital payments per admission which are in excess of those attributable to increases in the hospital input price index; and
- (4) Volume of services--the increase in total output of units of service (as measured by hospital admissions covered by the HI program).

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

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 non-labor goods and services that hospitals purchase which do not parallel increases in the Consumer Price Index (CPI), are measured as the difference between the non-labor component of the hospital input price index and the CPI. Although the level has fluctuated erratically in the past, this differential has averaged about one-half percent during 1975-1989. 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.

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; that is, the unit input intensity allowance is the amount added onto (or subtracted from) the input price index to yield the update factor. (It should be noted that the update factors are generally prescribed on a fiscal year basis, while table A1 is on a calendar year basis. Calculations have therefore

been performed to estimate the unit input intensity allowance on a calendar year basis.) For fiscal years 1991-1995, the allowances shown are prescribed in Public Law 101-508, as discussed in the "Social Security Amendments Since the 1990 Report" section. (Again, calculations were performed to show the unit input intensity allowance on a calendar year basis.) Beginning in fiscal year 1996, the law provides that future increases in payments to participating hospitals for covered admissions will equal the increase in the hospital input price index. Thus, the unit input intensity allowance, as indicated in table A1, is assumed to equal zero for the rest of the years in the first 25-year projection period.

Since the beginning of the prospective payment system, increases in inpatient hospital payments from other sources are primarily due to three factors: (1) the improvement in DRG coding as hospitals continue to adjust to the prospective payment system; (2) the trend toward treating less complicated (and thus, less expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission; and (3) legislation affecting the payment rates. The effects of several budget reconciliation acts, sequesters as required by the Gramm-Rudman-Hollings Act, and other legislative effects are reflected in other sources as appropriate. Some of the expansions in hospital payments due to the Medicare Catastrophic Coverage Act of 1988, and the subsequent reductions in hospital payments due to the Medicare Catastrophic Coverage Repeal Act of 1989, are reflected in other sources for 1989 to 1991. A two percent increase for fiscal years 1991 through 2000 and a one percent increase for fiscal years 2001 through 2015 reflected in other sources are attributable to a continuation of the current trend toward treating less complicated cases in outpatient settings and continued improvement in DRG coding. Additionally, part of the increase from other sources can be attributed to the increase in payments for certain costs not included in the DRG payment; these costs are generally increasing at a rate faster than the input price index. Possible other sources of both relative increases and decreases in payments include (1) a shift to more or less expensive admissions (DRGs) due to changes in the demographic characteristics of the covered population; (2) changes in medical practice patterns; and (3) adjustments in the relative payment levels for various DRGs or addition/deletion of DRGs in response to changes in technology. As experience under the prospective payment system continues to develop and is further analyzed, it may be possible to establish a predictable trend for this component.

Other factors which contribute to increases in payments for inpatient hospital services include increases in units (volume) of service as measured by increases in inpatient hospital admissions covered under the HI program. Increases in admissions are attributable both to increases in enrollment under the HI program and to increases in admission incidence (admissions per beneficiary). The historical and projected increases in enrollment reflect the more rapid increase in the population aged 65 and over than in the total population of the United States, and the coverage of certain disabled beneficiaries and persons with end-stage renal disease. Increases in the enrollment are expected to continue, reflecting a continuation of the demographic shift into categories of the population which are eligible for HI protection. In addition, increases in the average age of beneficiaries lead to higher levels of admission incidence. Admission incidence levels are also often affected by changes in the laws and regulations that define and guide the HI program's coverage of inpatient hospital care.

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

Historical experience with the number of days of care covered in SNFs under the HI program has been characterized by wide swings. The number of covered days dropped very sharply in 1970 and continued to decline through 1972. This was the result of strict

enforcement of regulations separating skilled nursing care from custodial care. Because of the small fraction of nursing home care covered under the program, this reduction primarily reflected the determination that Medicare was not liable for payment rather than reduced usage of services. The 1972 amendments extended benefits to persons who require skilled rehabilitative services regardless of their need for skilled nursing services (the former prerequisite for benefits). This change and subsequent related changes in regulations have resulted in significant increases in the number of services covered by the program. More recently, changes made in 1988 to coverage guidelines for SNF services resulted in about a 100 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 45 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 estimates 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, but adjustments to reflect regulations limiting SNF costs per day are included where appropriate. Increases in reimbursement per day reflect the changes in beneficiary cost sharing amounts, including those changes resulting from the catastrophic coverage and catastrophic coverage repeal legislation.

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

Program experience with HHA payments has shown a generally upward trend. The number of visits had increased sharply from year to year, but some decreases, albeit small in magnitude relative to past increases, were experienced in the mid-1980's; these were followed by modest increases. Recently, however, large increases in the number of visits have occurred, and this trend is projected to continue through 1991. Modest increases, based on growth and aging of the population, are projected thereafter. Reimbursement per visit is assumed to increase at about the same rate as increases in general earnings, but adjustments to reflect regulations limiting HHA reimbursement per visit are included where appropriate. The resulting increases in expenditures for HHA services are shown in table A2.

Coverage of certain hospice care for terminally ill beneficiaries is a relatively new program benefit, resulting from the enactment of the Tax Equity and Fiscal Responsibility Act of 1982, and payments for hospice care are very small relative to total program benefit payments. Detailed hospice data is, at this time, scant, but increases in hospice benefit payments are estimated based on daily payment rates and annual payment caps, as mandated by law and regulation, and modest growth in the number of covered days. Increases in hospice payments are not shown separately in table A2, due to its extremely small contribution to the weighted average increase for all HI types of service, but are included in the average.

d. Administrative Expenses

The costs of administering the HI program have remained relatively small, in comparison with benefit amounts, throughout the history of the program. The ratio of administrative expenses to benefit payments has generally fallen within the range of one to three 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.

3. FINANCING ANALYSIS METHODOLOGY

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

a. Taxable Payroll

Taxable payroll increases can be separated into a part due to increases in covered earnings and a part due to increases in the number of covered workers. The taxable payroll projection used in this report is based on economic assumptions consistent with those used in the OASDI report. Increases in taxable payroll assumed for this report are shown in table 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, given that the current tax rate applied to taxable payroll is sufficient to support program costs, continuing that tax rate over time will be adequate to support the program. However, to the extent that program costs increase more rapidly than taxable payroll, either a schedule of increasing tax rates or a reduction in program costs (or some combination thereof) will be required to finance the system in the future. Table 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 2.5 percent per year by 2010, but increase to a level of about 3.5 percent per year by 2015 for alternative II, just after the post-World War II "baby boom" population starts becoming eligible for benefits. The result of these increases is a continued increase in the year-by-year ratios of program expenditures to taxable payroll, as shown in table A3.

4. SENSITIVITY TESTING OF COSTS UNDER ALTERNATIVE ASSUMPTIONS

Over the past 20 years, aggregate inpatient hospital costs for Medicare beneficiaries have increased substantially faster than increases in average earnings and prices in the general economy. Table A1 shows the estimated experience of the HI program for 1975 to 1989. 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, for inpatient hospital services as well as the other covered types of services, due to the uncertainty of the underlying economic assumptions and utilization increases. In addition, there is uncertainty in projecting HI expenditures due to the possibility of future legislation affecting unit payment levels, particularly for inpatient hospital services. Current law statute is assumed throughout the estimates shown in this report, but legislation affecting the payment levels to hospitals has been enacted nearly annually for about the past ten years, and future legislation is probable.

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

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

By the end of the first 25-year projection period, program costs are projected to increase about 3.5 percent faster per year than increases in taxable payroll for alternative II, as discussed in the "Financing Analysis Methodology" 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 gradually decline to increase at the same rate as earnings increase. Program expenditures, which were about 2.6 percent of taxable payroll in 1990, increase to a level above five percent by the year 2015 and to over nine percent by the year 2065 under alternative II. Hence, if all of the projection assumptions are realized over time, HI tax rates provided in the present financing schedule (2.9 percent of taxable payroll) will be grossly inadequate to support the cost of the program.

During the first 25-year projection period, alternatives I and III contain assumptions which result in program costs increasing, relative to taxable payroll increases, approximately two percent less rapidly and two percent more rapidly, respectively, than the results under the intermediate assumptions. Costs beyond the first 25-year projection period assume the two percent differential gradually decreases until the year 2040 when program cost increases relative to taxable payroll are approximately the same as under the intermediate assumptions. Under alternative I, program costs increase about 1.2 percent more per year than increases in taxable payroll during the first 25-year projection period. Program expenditures under this alternative would be about 3.6 percent of taxable payroll in the year 2015, increasing to about 4.8 percent of taxable payroll by 2065. The summarized 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

4.7 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 2015 which is about 8.4 percent of taxable payroll, increasing to about 18.5 percent of taxable payroll in the year 2065.

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

Calendar year	Labor			Non-labor			Units of service					MI inpatient hospital payments
	Average hourly earnings	Hospital hourly earnings level	Hospital hourly earnings	CPI	Hospital price input intensity	Non-labor hospital prices	Input price index	Unit input intensity allowance 2/	MI enrollment	Admission incidence	Other sources	
Historical Data:												
1975	8.3%	0.5%	8.8%	9.2%	3.4%	12.9%	10.5%	1.0%	3.4%	0.1%	6.1%	22.5%
1976	8.0	-0.4	7.6	5.7	1.7	7.5	7.6	1.0	2.9	1.5	5.1	19.2
1977	6.9	-0.1	6.8	6.5	0.6	7.1	6.9	1.0	3.0	4.6	0.8	17.2
1978	8.1	-0.4	7.7	7.6	-0.8	6.7	7.3	1.0	2.7	-1.9	5.3	14.9
1979	8.7	-0.8	7.8	11.4	-1.1	10.2	8.8	1.0	2.7	3.1	0.2	16.5
1980	7.8	1.8	9.7	13.5	0.8	14.4	11.8	1.0	2.1	2.4	2.4	20.8
1981	9.2	1.0	10.3	10.3	-0.5	9.8	10.1	1.0	1.9	2.7	3.0	19.7
1982	5.6	3.1	8.9	6.0	0.3	6.3	7.7	1.0	1.8	0.0	4.6	15.7
1983	4.1	2.1	6.3	3.0	1.2	4.2	5.4	1.0	1.7	0.8	1.9	11.2
1984	5.9	-0.5	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	8.4	5.7
1986	5.4	-1.6	3.7	1.6	0.5	2.1	3.0	-2.8	2.3	-4.2	6.7	4.8
1987	5.5	-1.3	4.1	3.6	-0.2	3.4	3.8	-2.7	1.7	-3.3	4.9	4.3
1988	5.1	-0.3	4.8	4.0	1.5	5.6	5.1	-2.6	1.7	-2.0	3.2	5.4
1989	3.1	1.7	4.9	4.8	0.6	5.4	5.1	-1.1	2.0	-1.7	2.1	6.5
Projection 3/:												
1990	4.0	0.7	4.7	5.3	-0.7	4.6	4.7	-0.1	2.0	0.1	1.5	8.4
1991	3.9	0.8	4.7	4.9	-1.0	3.9	4.4	-1.1	2.2	0.7	3.4	9.9
1992	4.8	-0.2	4.6	4.0	-0.3	3.7	4.2	-1.4	1.8	1.2	2.9	9.0
1993	5.0	0.5	5.5	4.0	0.5	4.5	5.1	-1.0	1.7	1.3	2.1	9.5
1994	5.1	0.5	5.6	4.0	0.5	4.5	5.2	0.2	1.6	1.3	2.0	10.7
1995	5.4	0.5	5.9	4.0	0.5	4.5	5.3	0.2	1.5	1.2	2.1	10.6
2000	5.4	0.5	5.9	4.0	0.5	4.5	5.4	0.0	1.1	1.0	1.6	9.4
2005	5.3	0.5	5.8	4.0	0.5	4.5	5.3	0.0	1.3	0.5	1.0	8.3
2010	5.3	0.5	5.8	4.0	0.5	4.5	5.3	0.0	1.8	0.2	1.1	8.6
2015	5.4	0.5	5.9	4.0	0.5	4.5	5.4	0.0	2.7	0.0	1.1	9.4

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.

3/ Under alternative II.

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 2/ 3/	Skilled nursing facility 3/	Home health agency 3/	Weighted average 3/ 4/	HI administrative costs 3/ 5/	HI program expenditures 3/	HI taxable payroll	Ratio of expenditures to payroll 6/
1991	9.8%	0.2%	15.4%	9.9%	42.5%	10.4%	11.9%	-1.3%
1992	9.0	8.8	8.1	9.0	7.6	9.0	6.2	2.6
1993	9.6	8.6	8.1	9.6	7.6	9.5	6.5	2.8
1994	10.8	7.7	8.0	10.6	7.4	10.6	6.2	4.1
1995	10.7	7.5	7.9	10.5	7.3	10.4	6.2	4.0
2000	9.4	7.1	7.5	9.3	6.5	9.2	6.0	3.0
2005	8.3	6.9	7.1	8.2	6.2	8.2	5.9	2.2
2010	8.6	6.8	7.0	8.4	6.4	8.4	5.6	2.6
2015	9.4	7.0	7.2	9.2	7.2	9.2	5.4	3.7

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

2/ This column may differ 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 expected to be 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 ^{1/}				Changes in the relationship between expenditures and payroll ^{1/}			Expenditures as a percent of taxable payroll ^{3/ 4/}
	Average hourly earnings	CPI	Other factors ^{2/}	Total ^{3/}	Program expenditures ^{3/ 4/}	Taxable payroll	Ratio of expenditures to payroll	
ALTERNATIVE I								
1991	3.8%	4.4%	5.0%	9.3%	9.9%	12.2%	-2.1%	2.59%
1992	4.2	2.8	3.2	6.9	7.1	6.1	0.9	2.62
1993	4.6	3.1	3.3	7.4	7.7	6.6	1.1	2.64
1994	4.7	3.0	4.6	8.8	8.9	6.4	2.3	2.71
1995	4.8	3.0	4.5	8.7	8.8	6.3	2.3	2.77
2000	4.9	3.0	3.0	7.3	7.4	6.0	1.3	2.99
2005	4.7	3.0	2.0	6.1	6.2	5.7	0.5	3.12
2010	4.7	3.0	1.9	6.1	6.2	5.3	0.9	3.28
2015	4.8	3.0	2.8	7.1	7.1	5.1	1.9	3.60
ALTERNATIVE II								
1991	3.9%	4.9%	5.3%	9.9%	10.4%	11.9%	-1.3%	2.61%
1992	4.8	4.0	4.3	9.0	9.0	6.2	2.6	2.68
1993	5.0	4.0	4.7	9.5	9.5	6.5	2.8	2.76
1994	5.1	4.0	5.8	10.7	10.6	6.2	4.1	2.87
1995	5.4	4.0	5.5	10.6	10.4	6.2	4.0	2.99
2000	5.4	4.0	4.3	9.4	9.2	6.0	3.0	3.52
2005	5.3	4.0	3.3	8.3	8.2	5.9	2.2	3.98
2010	5.3	4.0	3.6	8.6	8.4	5.6	2.6	4.56
2015	5.4	4.0	4.3	9.4	9.2	5.4	3.7	5.45
ALTERNATIVE III								
1991	3.4%	6.1%	5.3%	10.1%	10.4%	10.5%	0.0%	2.65%
1992	5.2	5.6	4.9	10.5	10.4	5.1	5.1	2.79
1993	7.2	6.4	5.3	12.5	12.4	8.3	3.9	2.90
1994	6.1	6.2	6.5	13.0	12.7	6.8	5.5	3.06
1995	4.5	4.8	6.7	11.6	11.2	3.9	7.0	3.27
2000	6.0	5.0	5.8	11.7	11.4	6.3	4.7	4.16
2005	6.0	5.0	4.9	10.8	10.5	6.2	4.0	5.14
2010	6.0	5.0	5.2	11.1	10.8	6.1	4.5	6.43
2015	6.0	5.0	5.9	11.9	11.7	5.7	5.6	8.43

^{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**ACTUARIAL BALANCE UNDER THE MODIFIED AVERAGE-COST METHOD**

The section of this report entitled "Actuarial Status of the Trust Fund" presented the summarized tax rates, cost rates, and actuarial balances under the present-value method, and the present-value methodology was described. In this appendix, the same summary measures for the HI program, but under the modified average-cost method, are presented, and the modified average-cost methodology is described. The Health Technical Panel to the 1991 Advisory Council on Social Security concluded that both the present-value method and the modified average-cost method have value and should be reported.

Under the modified average-cost method which was used, prior to 1988, to evaluate the actuarial status of the program, the actuarial balance is defined as the difference between the arithmetic means of the annual cost rates (as defined in the "Actuarial Status of the Trust Fund" section) and the annual tax rates. Thus, under this method, the cost rates and tax rates for each year are given equal weights when summarized into a single measure. The annual cost rates include an amount to maintain the trust fund at a desired target level, if the fund would otherwise drop below that level. In years where the fund is at or exceeds the desired target level, no adjustment is made to lower the fund balance to the target level. In addition, the actuarial balances calculated under the modified average-cost method include the offset to cost due to the starting trust fund balance, and reflect the actual interest earned on the trust fund before it is exhausted.

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

The results of calculating the actuarial balance using the modified average-cost method are presented in Table B1. The assumptions used to calculate the results are the same as those presented throughout this report.

**TABLE B1.--ACTUARIAL BALANCES OF THE HOSPITAL INSURANCE
PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS
(MODIFIED AVERAGE-COST METHOD)**

	Alternative		
	I	II	III
1991-2015:			
Summarized tax rate ^{1/}	2.90%	2.90%	2.90%
Summarized cost rate ^{2/}	3.04	3.90	5.15
Actuarial balance ^{3/}	-0.14	-1.00	-2.25
1991-2040:			
Summarized tax rate ^{1/}	2.90	2.90	2.90
Summarized cost rate ^{2/}	3.54	5.65	9.49
Actuarial balance ^{3/}	-0.64	-2.75	-6.59
1991-2065:			
Summarized tax rate ^{1/}	2.90	2.90	2.90
Summarized cost rate ^{2/}	3.87	6.69	12.11
Actuarial balance ^{3/}	-0.97	-3.79	-9.21

^{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 modified average-cost basis, including the cost of maintaining the trust fund at a level of 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance.

^{3/} Difference between the summarized tax rate (as scheduled under present law) and the summarized cost rate.

APPENDIX C

**ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE)
INPATIENT HOSPITAL DEDUCTIBLE AND HOSPITAL AND SKILLED NURSING
FACILITY COINSURANCE AMOUNTS, FOR CALENDAR YEAR 1991 1/**

SUMMARY: This notice announces the inpatient hospital deductible and the hospital and skilled nursing facility coinsurance amounts for services furnished in calendar year 1991 under Medicare's hospital insurance program (Part A). The Medicare statute specifies the formulae to be used to determine these amounts.

The inpatient hospital deductible will be \$628. The daily coinsurance amounts will be: (a) \$157 for the 61st through 90th days of hospitalization in a benefit period; (b) \$314 for lifetime reserve days; and (c) \$78.50 for the 21st through 100th days of extended care services in a skilled nursing facility in a benefit period.

Effective Date: January 1, 1991.

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. It also provides for certain coinsurance amounts to be subtracted from the amounts payable by Medicare for inpatient hospital and extended care services. Section 1813(b)(2) of the Act requires the Secretary to determine and publish between September 1 and September 15 of each year the amount of the inpatient hospital deductible and the hospital and skilled nursing facility (SNF) coinsurance amounts applicable for services furnished in the following calendar year.

II. Computing the Inpatient Hospital Deductible for 1991

Section 1813(b) of the Act stipulates the method for computing the amount of the inpatient hospital deductible for any year, beginning with the deductible for 1989. The inpatient hospital deductible is an amount equal to the inpatient hospital deductible for the preceding calendar year, changed by the Secretary's best estimate of the payment-weighted average of the applicable percentage increases (as defined in section 1886(b)(3)(B) of the Act) used for updating the payment rates to hospitals for discharges in the fiscal year (FY) that begins on October 1 of the same preceding calendar year, and adjusted to reflect real case mix. The adjustment to reflect real case mix is determined on the basis of the most recent case mix data available. The amount determined under the formula is rounded to the nearest multiple of \$4 (or, if midway between two multiples of \$4, to the next higher multiple of \$4).

1/ Extracted from the notice entitled "Medicare Program; Inpatient Hospital Deductible and Hospital and Skilled Nursing Facility Coinsurance Amounts for 1991," which was published in the Federal Register on November 1, 1990 (Vol. 55, No. 212, pp. 46104-46105).

For FY 1991, section 1886(b)(3)(B) of the Act provides that the applicable percentage increase for all hospitals is the market basket percentage increase. This increase, for FY 1991, is 5.2 percent, as announced in the *Federal Register* on September 4, 1990 (55 FR 35990). Thus, the Secretary's best estimate of the payment-weighted average of the increases in the payment rates for FY 1991 is also 5.2 percent. We recognize that Congress has frequently revised the payment rate increase provisions found in section 1886(b)(3)(B) of the Act during the budget reconciliation process, subsequent to the determination and promulgation of the deductible. Such revisions may occur this year as well and may affect the FY 1991 payment rate increase. However, at the time of this determination, we must use the payment rate increase specified in current law to determine the 1991 deductible.

To develop the adjustment for real case mix, an average case mix was first calculated for each hospital that reflects the relative costliness of that hospital's mix of cases compared to that of other hospitals. We then computed the increase in average case mix for hospitals paid under the Medicare prospective payment system in FY 1990 compared to FY 1989. (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 1990. These bills represent a total of about 7.0 million discharges for FY 1990 and provide the most recent case mix data available at this time. Based on these bills, the increase in average case mix in FY 1990 is 0.33 percent. However, since the diagnosis-related group (DRG) relative weights were reduced by 1.22 percent for FY 1990, the 0.33 percent increase in average case mix must be adjusted upward by 1.22 percent, yielding the effective average case mix increase of 1.55 percent for FY 1990.

Although average case mix has increased by 1.55 percent in FY 1990, section 1813 of the Act requires that the inpatient hospital deductible be increased only by that portion of the case mix increase that is determined to be real. We estimate that the increase in real case mix is about 1 percent. This is based on a study performed by the RAND Corporation which disaggregated the case mix increase in FY 1987 into its components. The RAND study found that about two-thirds of the increase in case mix in FY 1987 was for real changes in case mix severity. Consequently, we estimate that 1 percent of the increase, which is about two-thirds of the 1.55 percent increase for FY 1990, is due to real case mix changes.

Thus, the estimate of the payment-weighted average of the applicable percentage increases used for updating the payment rates is 5.2 percent, and the real case mix adjustment factor for the deductible is 1.0 percent. Therefore, under the statutory formula, the inpatient hospital deductible for services furnished in calendar year 1991 is \$628. This deductible amount is determined by multiplying \$592 (the inpatient hospital deductible for 1990) by the payment rate increase of 1.052 multiplied by the increase in average real case mix of 1.01, which equals \$629.01 and is rounded to \$628.

III. Computing the Inpatient Hospital and Skilled Nursing Facility Coinsurance Amounts for 1991

The coinsurance amounts provided for in section 1813 of the Act are defined as fixed percentages of the inpatient hospital deductible for services furnished in the same calendar year. Thus, the increase in the deductible generates increases in the coinsurance amounts. For inpatient hospital and extended care services furnished in 1991, in accordance

with the fixed percentages defined in the law, the daily coinsurance for the 61st through 90th days of hospitalization in a benefit period will be \$157 (1/4 of the inpatient hospital deductible); the daily coinsurance for lifetime reserve days will be \$314 (1/2 of the inpatient hospital deductible); and the daily coinsurance for the 21st through 100th days of extended care services in a SNF in a benefit period will be \$78.50 (1/8 of the inpatient hospital deductible).

IV. Cost to Beneficiaries

We estimate that in 1991 there will be about 8.1 million deductibles paid at \$628 each, about 3.1 million days subject to coinsurance at \$157 per day (for hospital days 61 through 90), about 1.2 million lifetime reserve days subject to coinsurance at \$314 per day, and about 6.7 million extended care days subject to coinsurance at \$78.50 per day. Similarly, we estimate that in 1990 there will be about 7.8 million deductibles paid at \$592 each, about 3.0 million days subject to coinsurance at \$148 per day (for hospital days 61 through 90), about 1.2 million lifetime reserve days subject to coinsurance at \$296 per day, and about 8.9 million extended care days subject to coinsurance at \$74 per day. (The number of extended care days subject to coinsurance is expected to be higher in 1990 than in 1991 due to the "catastrophic transition" provisions of Public Law 101-234, which are in effect for 1990 but not for 1991.) Therefore, the estimated total increase in cost to beneficiaries is about \$400 million (rounded to the nearest \$10 million), due to (1) the increase in the deductible and coinsurance amounts and (2) the change in the number of deductibles and daily coinsurance amounts paid.

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 28, 1990.

Gail R. Wilensky,
Administrator,
Health Care Financing Administration

Approved: October 15, 1990.

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 1991 1/

SUMMARY: This notice announces the hospital insurance premium for the uninsured aged for calendar year 1991 under Medicare's hospital insurance program (Part A). The monthly Medicare Part A premium for the 12 months beginning January 1, 1991 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 \$177. Section 1818(d) of the Social Security Act specifies the method to be used to determine this amount.

Effective Date: January 1, 1991.

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 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 Coverage Act of 1988 (Pub. L. 100-360, enacted on July 1, 1988), 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 1990 premium under this method was \$175 and was effective January 1990. (See 54 FR 48322; November 22, 1989.)

1/ Extracted from the notice entitled "Medicare Program; Part A Premium for the Uninsured Aged for 1991," which was published in the Federal Register on October 12, 1990, (Vol. 55, No. 198, pp. 41603-41604).

II. Premium Amount for 1991

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, 1991 is \$177.

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 1991 is equal to the estimated monthly actuarial rate for 1991 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 1991 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 1991 on (a) current historical data and (b) projection assumptions under current law from the Midsession Review of the President's Fiscal Year 1991 Budget. It is estimated that in calendar year 1991, 30.586 million people age 65 and over will be entitled to Part A benefits (without premium payment), and that these individuals will, in 1991, incur \$65.048 billion of benefits for services performed and related administrative costs. Thus, the estimated monthly average per capita amount is \$177.23 and the monthly premium is \$177.

IV. Costs to Beneficiaries

The 1991 Part A premium is about 1 percent higher than the \$175 monthly premium amount for the 12-month period beginning January 1, 1990. This increase results from the recalculation of the monthly actuarial rate described in section III of this notice. The increase is small because the premium for 1990 included estimated costs expected to be incurred in 1990 under Public Law 100-360, while the premium for 1991 does not include such costs. (The premium amount for each year is set prospectively, in the manner required by law, based on the law in place at the time of its determination. Although the Medicare Catastrophic Coverage Repeal Act of 1989 (Pub. L. 101-234, enacted on December 13, 1989), which repealed most of the cost-producing provisions of Public Law 100-360, was enacted before the start of calendar year 1990, Public Law 100-360 was in place when the 1990 premium was determined and promulgated.)

We estimate that there are, as of July 1, 1990, approximately 63 thousand enrollees who are voluntarily enrolled in Medicare's hospital insurance program (Part A) by paying the premium, who do not otherwise meet the requirements for entitlement. The estimated cost of the increase in the premium to these enrollees will be about \$1.5 million. However,

as a result of section 6013 of the Omnibus Budget Reconciliation Act of 1989 (Pub. L. 101-239, enacted on December 19, 1989), "Buy-In Under Part A for Qualified Medicare Beneficiaries," we expect, based on preliminary data, that approximately 200 thousand individuals who do not otherwise meet the requirements for entitlement and who are not currently enrolled will be enrolling in Medicare's hospital insurance program by premium payment (with payment of the premium being made by the States).

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 24, 1990.

Gail R. Wilensky,
Administrator,
Health Care Financing Administration

Approved: September 27, 1990.

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

APPENDIX E

STATEMENT OF ACTUARIAL OPINION

Subject to the comments 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.

Appendix B summarizes the long-range actuarial status of the HI program using the modified average-cost method. Because this method is consistent with the trust fund projections, particularly with regard to the recognition of interest credited to the trust fund, I consider it to be the appropriate method for summarizing the long-range actuarial status of the program.

There has been virtually no net increase in real earnings during the last 22 years. In my opinion, projected real earnings assumptions that are more consistent with historical experience would be more appropriate than the assumptions adopted by the Trustees.



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

APPENDIX F

**STATEMENT OF PUBLIC TRUSTEES ON QUALIFIED ACTUARIAL OPINION
IN THE HOSPITAL INSURANCE (HI) REPORT**

The Social Security Act requires that the annual report of the Board of Trustees on the operation and status of the Federal Hospital Insurance (HI) Trust Fund include "an actuarial opinion by the Chief Actuarial Officer of the Health Care Financing Administration (HCFA) certifying that the techniques and methodologies used are generally accepted within the actuarial profession and that the assumptions and cost estimates used are reasonable." The HCFA Chief Actuary has qualified his actuarial opinion in this year's HI report as a result of (1) an aspect of the methodology; and (2) the real-wage gain assumptions approved and used by the Board of Trustees in this year's report.

This year's actuarial opinion suggests that the present-value method of measuring the financial condition of the HI trust fund approved by the Board of Trustees produces inaccurate and inappropriate results. The HCFA Chief Actuary apparently believes that the modified average-cost method is the only method that produces accurate results for the HI program.

After extensive examination and consultation on this issue, we believe that at the present time the present-value method is generally accepted within the actuarial profession, and thus meets the requirements of the law for actuarial certification. Further, we understand that the present-value method is generally preferred over the modified average-cost method for presenting long-range figures such as those used in the HI report for the 75-year valuation period.

We note that the SSA Chief Actuary based his opinion in this year's Old-Age, Survivors, and Disability Insurance (OASDI) annual report on the same underlying economic, including real-wage gain, and demographic assumptions, and on the same present-value method, that are used in the HI report. We also note that the Health Technical Panel Report to the 1991 Advisory Council on Social Security stated that the use of "present value calculations based on projected interest rates to summarize cash flows over an extended period of time is well established within the actuarial, economics, and finance literature." This comment specifically refers to use of the present-value method in the HI annual report and serves as a clear indication that the present-value method is generally accepted within the actuarial profession.

In addition, a recommendation made by the Social Security Technical Panel Report to the 1991 Advisory Council on Social Security stated that the summary measure of actuarial balance should continue to be used and should continue "to be based on the present-value method of summarizing income and cost rates..." Further, an expert Working Group concerned with trust fund measurement convened by the two former public trustees "concluded that the present-value method used to calculate the actuarial balance in the OASDI programs is appropriate and should be used for evaluating the HI program." Accordingly, we believe the opinion qualification based on methodology by the HCFA Chief Actuary represents an expression of a professional preference outside of the bounds of the legally required actuarial opinion.

The HI actuarial opinion also includes a qualification regarding the real-wage gain assumptions used in this year's HI report. The HCFA Chief Actuary included this qualification based on his belief that the real-wage growth assumptions are more optimistic than is warranted based on his analysis of certain historical data. We recognize that there is room for reasonable people to disagree over the individual assumptions used for calculating the actuarial status of the trust fund. We also believe that individual assumptions should be adjusted periodically to reflect more recent information and changing conditions. In this regard, we note that the real-wage gain assumptions used in this year's report are lower than those used in last year's report.

We believe that the purpose of the actuarial certification is not to indicate whether the individual assumptions used are those preferred by any one participant in the process (i.e., the HCFA Chief Actuary), but rather to indicate whether all of the required assumptions when considered as a whole are reasonable in the aggregate. The HCFA Chief Actuary asserts in the actuarial opinion that lower real-wage gain assumptions would be more appropriate but does not make a persuasive case that the assumptions approved by the Trustees are not reasonable in the aggregate.

We believe the assumptions used in the HI report meet the statutory test for actuarial certification. Accordingly, we believe that the comment on real-wage gains by the HCFA Chief Actuary also represent an expression of a preference outside the bounds of the legally required actuarial opinion.

We are not actuaries and do not presume to speak as actuarial experts. Rather, as public trustees, our role is to review the methodology, assumptions, data, estimates, and all other information contained in the HI report as representatives of the public to determine if it clearly, fully, fairly, and accurately presents the current and projected financial condition of the HI trust fund.

We have taken great care to review this year's HI annual report. We have closely examined and seriously considered the comments noted in the actuarial opinion and concluded that they are not persuasive and should not have resulted in a qualified actuarial opinion, based on the applicable statutory requirement. We respect the right of the HCFA Chief Actuary to express his professional views regarding any significant actuarial matters but regret that he, in our view, has improperly qualified his actuarial opinion. As a result, we are compelled to address the issues he has raised in order to avoid contributing to possible confusion or concern in the public about the fairness or accuracy of the HI report. We have, along with the other trustees and their expert staffs, studied and discussed all of the methodologies and assumptions used in arriving at the estimates, and we have concluded that they are reasonable under present circumstances. Accordingly, we have endorsed the HI report and signed it with the other trustees for transmission to the Congress and the public whom we represent.

Stanford G. Ross
Trustee

David M. Walker
Trustee

