VII. ACTUARIAL COST PROJECTIONS

Section 201(c) of the Social Security Act requires that the Board of Trustees report annually to the Congress on the operations and status of the OASI and DI Trust Funds during the preceding fiscal year and on the expected operations and status of those trust funds during the ensuing 5 fiscal years. Such information for the fiscal year that ended September 30, 1981 is presented in the preceding section of this report. Estimates of the operations and status of the trust funds during fiscal years 1982-86 are presented in this section. Similar estimates for calendar years 1982-86 are also presented.

. Section 201(c) also requires that the report include "a statement of the actuarial status of the trust funds." Such statements have customarily been made for the medium-range period (25 years) and the long-range period (75 years), each period commencing with the year of the issuance of the report. Statements of the current actuarial status are presented in this section. The methods used to estimate the actuarial status are described in Appendix A.

Basic to the discussion of the medium-range or long-range actuarial status of either trust fund is the concept of a "cost rate"—i.e., the cost (also referred to as outgo or disbursements) of the program as a percentage of taxable payroll. The outgo includes benefit payments, administrative expenses, net transfers under the financial interchange between the OASDI Trust Funds and the Railroad Retirement Account, and payments for vocational rehabilitation services for disabled beneficiaries. The taxable payroll consists of the total earnings which are subject to Social Security taxation, adjusted to reflect the lower effective tax rates (in comparison with the combined employee-employer rate) which apply to self-employment income, tips, and multiple-employer "excess wages." With this adjustment, the cost rate can be compared directly with the combined OASDI employee-employer tax rate scheduled in the law.

Over the medium-range and long-range periods, the actuarial status of the trust funds is often summarized by the actuarial balance, which is the difference between the average of the tax rates scheduled in the law and the estimated average cost rate. If the actuarial balance is positive, the system is said to have an actuarial surplus, and if negative, an actuarial deficit. Such a deficit, if it exists, is a warning that, unless the projected trends turn out to be too pessimistic, changes in the system will be needed to make it viable in the future.

The concept of actuarial balance must, however, be used with caution. The use of a single summary measure to describe the system over a fixed time span may mask an adverse pattern (or patterns) within that time frame or problems which emerge soon thereafter. The addition or deletion of years to the time span could change a surplus into a deficit or vice versa. In addition, while early deficits followed by later surpluses could result in a positive actuarial balance, the trust fund could be depleted before the annual surpluses occur. Thus, it is also important to note the year-by-year patterns of income and outgo, i.e., of tax rates and cost rates.

APPENDIX A

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

The basic methodology and assumptions for alternative II-A and alternative

II-B used in the estimates for the hospital insurance program are described in

this appendix. These alternatives reflect two different levels of expectation

of future performance of the economy. In addition, sensitivity testing of

program costs under alternative sets of assumptions is presented.

1. PROGRAM COSTS

The principal steps involved in projecting the future costs of the hospital

insurance program are (1) establishing the present cost of services provided to

beneficiaries, by type of service, to serve as a projection base; (2) projecting

increases in the cost of inpatient hospital services covered under the program;

(3) projecting increases in the cost of skilled nursing facility and home

health agency services covered under the program; and (4) projecting increases

in administrative costs. The major emphasis will be directed toward the cost

of inpatient hospital services, which accounts for approximately 95 percent

of benefit expenditures.

a. Projection Base

The hospital insurance program is obligated by law, to reimburse

institutional providers for the reasonable cost of providing covered

services to beneficiaries. In order to establish a suitable base from

which to project the future costs of the program, the incurred reasonable

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cost of services provided must be reconstructed for the most recent period
for which a reliable determination can be made. To do this, payments to
providers must be attributed to dates of service, rather than to payment
dates. In addition, the nonrecurring effects of any changes in regulations
or administration of the program and of any items affecting only the timing
and flow of payments to providers must be eliminated. As a result, the
rates of increase in the incurred cost of the program differ from the
increases in cash disbursement shown in tables 5 and 6.

The reasonable costs of covered services to beneficiaries are determined
on the basis of provider cost reports. Payments to a provider initially are
made on an "interim" basis; to adjust interim payments to the level of
retroactively determined costs, a series of payments or recoveries is
effected through the course of cost settlement with the provider. The
net amounts paid to date to providers in the form of cost settlements are
known; however, the incomplete data available do not permit a precise
determination of the exact amounts incurred during specific periods of
time. Due to the time required to obtain cost reports from providers, to
verify these reports, and to perform audits (where appropriate), final
settlements have lagged behind the liability for such payments or recoveries
by as much as several years for some providers. Hence, the final cost of
the program has not been completely determined for the most recent years
of the program, and some degree of uncertainty remains even for earlier
years.

Additional problems are posed by changes in administrative or reim-
bursement policy which have a substantial effect on either the amount or

incidence of payment. The extent and timing of the incorporation of such changes into interim payment rates and cost settlement amounts cannot be determined precisely.

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

b. Hospital Costs

The hospital insurance program reimburses participating hospitals for the reasonable cost of providing covered services to beneficiaries. Because of its cost reimbursement nature, the program essentially pays for the share of aggregate inpatient hospital costs which is allocated to beneficiaries. Hence, for analysis and projection purposes, trends in program costs can be separated conceptually into (1) increases in aggregate expenditures by hospitals for all patients in producing services of the types covered by the program and (2) changes in the share of these expenditures that are for hospital insurance beneficiaries and hence will be paid by the hospital insurance program.

Increases in aggregate inpatient hospital costs can be analyzed into three broad categories:

(1) Economic factors--the increase in unit costs that would result
if hospitals' input cost increases (wage increases for hospital employees
and price increases for goods and services purchased by hospitals) were
the same as those for the general economy;

(2) Volume of services--the increase in total output of units of
service (as measured by hospital admissions); and

(3) Unit input intensity--the increase in total costs due to
increased labor and nonlabor input intensity (wage and price increases
for hospital inputs which are more rapid than for workers and products
in the general economy, plus increases in the number of hospital
employees and amount of supplies and equipment used to produce a unit
of service).

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 economic factors can be divided into those for payroll
and those for nonpayroll expenditures. About half of hospital costs are
for direct payroll expenses. This proportion has declined over the years,
and a modest continuation in the decline is projected. The weighted
averages of the economic factors in table A1 reflect these year-by-year
proportions. Increases in average wages in the period 1966-80 generally

ranged from 5 to 7 1/2 percent per year, with somewhat higher increases increases from 1976-80. Changes in the CPI during the same period generally varied between 2 1/2 and 7 1/2 percent, with the exception of substantially higher rates of increases in 1974, 1975, 1979, and 1980. The increases in both average wages and CPI beyond 1980 are based on assumptions used in projecting experience under the OASDI program.

Increases in volume of services (as measured by admissions) are separated into (1) a part due to population growth and (2) a part due to changes in the average number of admissions per capita. The population projection used in this report is based on assumptions used in projecting experience under the OASDI program. Admission incidence rates increased on average 1.7 percent during the 10-year pre-Medicare period 1956-65; the trend in the period 1966-74 has been relatively consistent, with an average rate of increase of about 1 1/2 percent. Increases in admission incidence in the period 1975-79 averaged less than 1 percent. Increase in admission incidence for 1980 was 2.0 percent. This level is projected to taper gradually to an ultimate rate of increase that results solely from aging in the general population (i.e., admissions per capita by age and sex ultimately are assumed to be constant, so that the increases in overall average admissions per capita are due solely to changes in the mix of age and sex).

Unit input intensity changes can be analyzed and projected in terms of payroll and nonpayroll components in a manner similar to that for economic factors. The payroll component can be divided further between

unit input intensity increases related to (1) the excess of average wage
increases for hospital employees over average wage increases in the
general economy and (2) increases in the average number of hospital
employees per admissions.

For several years preceding the beginning of the hospital insurance
program, average hospital wages and salaries (as derived from data
reported by the American Hosptial Association) increased at a rate of
about 1 percent per year more rapidly than the rate of increases in
earnings in OASDI-covered employment. During the 1966-80 period, this
differential has fluctuated widely, but has averaged slightly higher
than 1 percent. Several factors contributing to this differential can
be identified, including (1) growth in third-party reimbursement of
hospitals--through Medicare, Medicaid, and comprehensive private plans--
which is likely to have weakened hospital resistance to wage demands;
(2) increased proportions of highly trained and more highly paid personnel;
(3) an increased degree of labor organization and activity; and (4) the
fact that hospital employees historically have earned less than similarly
skilled workers in other industries. Preliminary data for 1981 shows a
relatively high increase in the wage differential of about 3 1/2 percent.
Over the short term, the differential level is assumed to taper to a
modest level. The projection assumes a continuation of this modest wage
level intensity factor over the long run.

The number of hospital employees has continued to increase more
rapidly than the number of admissions over the past 20 years. Increases

in employee intensity averaged 2 percent per year during the 10 years preceding Medicare. The early years of the program were marked by a substantial surge in employees per admission, followed by a period of only modest increases during the imposition of economic stabilization program controls. Many of the same factors which have affected hospital wage level differentials can be identified also as contributing to the increase in employee intensity; in addition, the increased number and complexity of services provided with a given admission have been significant factors. Preliminary data for 1981 show an increase in employee intensity of about 2.9 percent. The projection assumes a gradual tapering of this trend to reflect a lower rate of industry growth than during the earlier period.

Nonlabor unit input intensity is a composite of several heterogeneous components. These include (1) price increases for goods and services that hospitals purchase which do not parallel increases in the CPI, (2) increases in the volume of medical and other supplies purchased and used per admission, and (3) increases in medical equipment and other capital assets employed in the provision of a hospital admission. Due to a lack of data, the nonlabor intensity factor cannot be separated into its component parts and must be treated as a residual. Historically, this factor has increased at a high rate and in an erratic fashion. Increases during the 1956-65 period averaged nearly 5 1/2 percent; these were followed by an irregular series of increases during the period 1966-72 ranging between 6 and 18 1/2 percent. The second and third years of the

controlled period 1972-74 produced increases of only 2 to 3 percent,

substantially below even the increases for the 10-year pre-Medicare

period. The nonlabor intensity factor declined sharply in 1979, and

increased slightly in 1980. The projection assumes a return to a level

consistent with experience (excluding years subject to economic stabili-

zation program controls), followed by a gradual decline to a level

consistent with experience during the decade preceding Medicare. In

general, there is an inverse relationship between the level of the CPI

and nonlabor intensity factor. Hence, the nonlabor intensity factor under

alternative II-A, which has lower CPI projections than alternative II-B,

is assumed to remain at a higher level than under alternative II-B

before declining to a level consistent with the pre-Medicare period.

Aggregate inpatient hospital costs--reflecting the composite of economic

factors, volume of service, and unit input intensity--have exhibited a very

rapid rate and irregular pattern of increases. Although the pre-Medicare

period produced an average rate of increase of appproximately 10 1/2 percent,

typical rates in subsequent years have tended to vary between 10 and 19 percent.

Changes in the program's share of aggregate hospital costs result from

(1) changes in the proportion of the population covered, including changes

due to legislation; (2) changes in the relative number and value of services

received by beneficiaries; and (3) the effect of administrative actions

defining the services eligible for reimbursement and affecting the level of

program payment. Historical and projected changes in the hospital insurance

program's share of aggregate inpatient hospital costs appear in table A-1 with changes in the proportion of the population covered netted from the other sources. As indicated in the table, the share of hospital costs allocated to beneficiaries has fluctuated somewhat in recent years.

The increases experienced in the proportion of the population covered reflect the more rapid rate of increase in the number of persons aged 65 and over than in the total population of the United States and, beginning in mid-1973, the coverage of certain disabled beneficiaries and persons with end-stage renal disease. Increases in the proportion of the population covered are projected to continue, reflecting a continuation of the demographic shift into categories of the population which are eligible for hospital insurance protection.

Other sources which contribute to changes in the program's share of hospital costs include changes in the relative number and value of services received by beneficiaries and the effect of administrative actions defining covered services and affecting payment levels. Data are not available which would enable a quantitative separation between the two components for historical years. The projection assumes, over the long range, changes in these "other sources" only due to the effects of demographic shifts on the number of services received by beneficiaries as a proportion of the total number of hospital services provided for the entire population. Increases in the average age of beneficiaries and of persons not covered lead to higher expected levels of usage of hospital services by both groups, the net effect of which is reflected as changes in "other sources."

c. Skilled Nursing Facility and Home Health Agency Costs

Historical experience with the number of days of care covered in skilled nursing facilities under the hospital insurance program has been characterized by wide swings. The number of covered days dropped very sharply in 1970 and continued to decline through 1972. This was the result of strict enforcement of regulations separating skilled nursing from custodial care. Because of the small fraction of nursing home care covered under the program, this reduction primarily reflected the determination that Medicare was not liable for payment rather than reduced usage of services. The 1972 amendments extended benefits to persons who require skilled rehabilitative services regardless of their need for skilled nursing services (the former prerequisite for benefits). This change and subsequent related changes in regulations have resulted in significant increases in the number of services covered by the program. Recent data has indicated a decline in utilization of these services through 1980. Only modest increases are projected in skilled nursing utilization thereafter.

Increases in the average cost per day in skilled nursing facilities under the program are caused principally by increasing payroll costs for nurses and other skilled labor required. Projected rates of increase are assumed to be about the same as increases in general wages throughout the 25-year projection period. The resulting increases in the cost of skilled nursing facility services are shown in table A2.

Program experience with home health agency costs has shown a generally upward trend. The number of visits has fluctuated somewhat from year to

year, with very sharp increases appearing in the last three years.
Relatively large increases are assumed for the next few years, followed
by a projected pattern of increases similar to that for skilled nursing
facilities. Cost per service is assumed to increase at about the same
rate as increases in general wages. The resulting home health agency
cost increases are shown in table A2.

d. Administrative Expenses

The costs of administering the hospital insurance program have
remained relatively small, in comparison with benefit amounts, throughout
the history of the program. The ratio of administrative expenses to
benefit payment 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 2 percent less than the increases in average wages shown in table A1.

2. FINANCING

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

a. Taxable Payroll

Taxable payroll increases can be separated into a part due to increases in covered wages and a part due to increases in the number of covered workers. The taxable payroll projection used in this report is based on assumptions used in projecting experience under the OASDI program. Increases in taxable payroll assumed for this report are shown in table A2.

b. Relationship Between Program Costs and Taxable Payroll

The single most meaningful measure of program cost increases, with reference to the financing of the system, is the relationship between program cost increases and taxable payroll increases. If the rates of increase in both series are the same, a level tax rate over time will be adequate to support the program. However, to the extent that program costs increase more rapidly than taxable payroll, a schedule of increasing tax rates will be required to finance the system over time. Table A2 shows the resulting increases in program costs relative to taxable payroll over the 25-year projection period. These relative increases reduce gradually to an ultimate level of approximately 2.9 and 3.3 percent per year for alternatives II-A and II-B, respectively. The result of these increases over the duration of the projection period is a continued increase in the year-by-year ratios of program expenditures to taxable payroll, as shown in table A3.

3. SENSITIVITY TESTING OF COSTS UNDER ALTERNATIVE ASSUMPTIONS

Over the past 20 years, aggregate inpatient hospital costs for all patients have increased substantially faster than increases in average wages and prices in the general economy. As indicated in table A1, the 10-year period preceding Medicare was characterized by an average 10.4 percent increase in hospital costs, nearly 7 1/2 percent higher than the increase attributable to general wage and price increases. The 1966-71 period experienced substantially higher increases in total hospital costs, averaging 16 percent per year. Of this increase, general economic factors accounted for only 5 1/2 percent; the remaining 10 1/2 percent reflected increases in the volume of services provided and in unit input intensity. Even during the 1972-74 period of economic stabilization program controls, hospital costs increased at an average rate of about 12 1/2 percent, almost 5 1/2 percent higher than the amount attributable to increases in average wages and in the CPI. Experience for the fully decontrolled years 1975-80 shows an average annual increase in hospital costs of 15 percent, of which about 6 percent is in excess of increases in general economic factors. Preliminary indications for 1981 show hospital cost increases about 8 percent higher than wages and prices in the general economy.

The sustained, high rates of hospital cost increases in the past raise serious questions concerning future cost increases which might be anticipated. Under conventional economic wisdom, the hospital industry would not be expected to sustain indefinitely the same rate of growth, relative to the general economy, experienced during the last 20 years. However, the growth rate pattern shows no indication of halting.

The most reasonable pattern of cost increase assumptions for the future,
then, would fall between the two extremes of (1) an indefinite continuation
of the past levels of excess of hospital cost increases over general economic
factors and (2) a decline in the near term to hospital cost increase levels
approaching those for the economy as a whole.

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

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

Under both sets of intermediate assumptions, program costs are projected
ultimately to increase approximately 3 percent faster than increases in taxable
payroll. Program expenditures, which are currently about 2 1/2 percent

of taxable payroll, increase to a level of about 6 and 7 percent by the year 2005 under alternatives II-A and II-B, respectively. Hence, if all of the projection assumptions are realized over time, hospital insurance tax rates by the end of the 25-year period will have to be substantially higher than those provided in the present financing schedule (2.9 percent of taxable payroll, for 1986 and later).

Alternatives I and III contain assumptions which result in program costs increasing, relative to taxable payroll increases, approximately 2 percent less and 2 percent more rapidly, respectively, than the results under both sets of intermediate assumptions. Under alternative I, program costs ultimately increase 1.2 percent more rapidly than increases in taxable payroll. By the year 2005, program expenditures under this alternative would be about 4.5 percent of taxable payroll. Hence, hospital insurance tax rates required by the end of the valuation period would be greater than those currently scheduled, even under the optimistic alternative I assumptions. Under alternative III, program costs ultimately increase 5.4 percent more rapidly than increases in taxable payroll. The result of this differential is a level of program expenditures in the year 2005 which is 11.0 percent of taxable payroll, about 8.1 percent higher than the 2.9 percent tax rate currently scheduled.

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

Calendar Year	Economic Factors			Volume of Services 2/		Wage level	Unit Input Intensity 2/			Aggregate Inpatient hosp.costs 4/	HI Share		HI inpatient hospital costs
	Average wages	CPI	Weighted average 3/	Total population	Admission incidence		Employee intensity	Nonlabor intensity	Weighted average 3/		Proportion of population	Other sources	
Historical Data:													
1956-65	3.7%	1.6%	3.0%	1.6%	1.7%	1.0%	2.0%	5.3%	4.1%	10.4%			
1966	5.7	3.0	4.7	1.1	.5	-4.8	8.2	8.4	5.4	11.7			
1967	5.5	2.8	4.6	1.1	-0.7	3.5	6.2	18.4	13.6	18.6			
1968	6.4	4.2	5.7	1.0	0.1	3.3	4.4	11.6	9.7	16.5	0.6%	7.5%	24.6%
1969	6.7	5.4	6.6	1.0	2.6	2.5	3.5	9.9	8.2	18.4	0.5	-3.7	15.2
1970	4.9	5.9	5.7	1.1	2.4	5.0	1.3	8.3	7.6	16.8	0.5	-5.3	12.0
1971	4.9	4.3	4.9	1.0	2.0	5.1	-0.1	6.1	5.8	13.7	0.6	-0.8	13.5
1972	7.3	3.3	5.8	0.9	1.2	0.7	0.2	11.3	5.6	13.5	0.7	-3.3	10.9
1973	6.9	6.2	6.8	0.7	2.4	-2.2	0.0	3.1	0.2	10.1	5.3	1.0	16.4
1974	7.4	11.0	9.5	0.7	3.0	-1.6	2.3	2.0	1.3	14.5	6.0	3.1	23.6
1975	6.6	9.1	8.2	0.7	1.0	3.9	2.4	10.5	8.8	18.7	2.2	1.6	22.5
1976	8.2	5.8	7.4	0.7	0.9	0.8	1.5	10.9	6.7	15.7	2.2	1.1	19.0
1977	8.0	6.5	7.4	0.8	0.0	-0.9	2.9	8.5	5.4	13.6	2.2	2.2	18.1
1978	8.2	7.6	8.2	0.8	-0.2	-0.2	2.3	5.4	3.9	12.7	1.6	0.4	14.7
1979	8.8	11.1	10.2	0.9	0.8	-0.3	1.3	0.5	0.8	12.7	1.6	2.0	16.3
1980	8.6	13.5	11.7	0.9	2.0	1.2	1.5	1.2	2.0	16.6	1.1	3.8	21.5
Projection:													
Alternative II-A													
1981	8.6	10.3	10.1	0.9	1.1	3.5	2.9	5.7	6.4	18.5	0.8	0.8	20.1
1982	8.6	6.8	8.1	0.9	1.1	1.5	2.2	8.5	6.5	16.6	0.7	-1.4	15.9
1983	6.3	6.0	6.5	0.9	0.8	1.5	2.0	8.0	6.1	14.3	0.7	0.3	15.3
1984	5.6	4.6	5.3	0.9	0.8	1.0	1.5	8.0	5.7	12.7	0.9	0.0	13.6
1985	7.4	4.8	6.2	0.9	0.7	0.5	1.0	8.0	5.3	13.1	1.3	0.3	14.7
1990	6.0	3.5	4.7	0.8	0.5	0.5	1.0	7.0	4.9	10.9	1.2	0.2	12.3
1995	5.0	3.0	3.8	0.7	0.3	0.5	0.5	6.0	4.3	9.1	0.8	0.2	10.1
2000	5.0	3.0	3.8	0.6	0.3	0.5	0.5	5.0	3.7	8.4	0.4	0.0	8.8
2005	5.0	3.0	3.8	0.6	0.3	0.5	0.5	5.0	3.7	8.4	0.5	-0.1	8.8
Alternative II-B													
1981	8.6	10.3	10.1	0.9	1.1	3.5	2.9	5.7	6.4	18.5	0.8	0.8	20.1
1982	6.6	6.9	7.2	0.9	1.1	2.5	2.7	8.5	7.3	16.5	0.7	-1.3	15.9
1983	8.1	7.9	8.4	0.9	0.8	1.5	2.0	7.5	5.9	16.0	0.7	0.3	17.0
1984	8.1	7.4	8.1	0.9	0.8	1.0	1.5	7.5	5.5	15.3	0.9	0.0	16.2
1985	6.9	6.6	7.0	0.9	0.7	0.5	1.0	7.5	5.1	13.7	1.3	0.3	15.3
1990	6.0	4.5	5.3	0.8	0.5	0.5	1.0	7.0	5.0	11.6	1.2	0.2	13.0
1995	5.5	4.0	4.6	0.7	0.3	0.5	0.5	6.0	4.4	10.0	0.8	0.2	11.0
2000	5.5	4.0	4.6	0.6	0.3	0.5	0.5	5.0	3.8	9.3	0.4	0.0	9.7
2005	5.5	4.0	4.6	0.6	0.3	0.5	0.5	5.0	3.8	9.3	0.5	-0.1	9.7

1/ Percent increase in year indicated over previous year.

2/ Based on data from the American Hospital Association through 1980.

3/ Weighted average of the individual components, with adjustments for the effects of compounding. The weightings are based on the proportions of aggregate inpatient hospital costs which are for payroll and for nonpayroll expenses. The adjustments for the effects of compounding are necessary to compensate for the fact that the various components actually are multiplicative, rather than additive as illustrated in this table.

4/ Includes hospital costs for all patients.

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

Calendar year	Inpatient hospital 2/	Skilled nursing facility 3/	Home health agency 3/	Weighted average	HI administrative costs 3/	Total HI program costs 3/	HI taxable payroll	Ratio of costs to payroll 4/
Alternative II-A								
1982	15.4%	11.7%	40.2%	16.1%	-2.2%	15.7%	9.0%	6.1%
1983	15.5	9.2	15.6	15.4	7.8	15.3	9.4	5.4
1984	14.0	9.0	11.6	13.8	6.9	13.7	8.6	4.7
1985	15.0	10.7	11.8	14.9	9.3	14.8	9.5	4.8
1990	12.4	9.1	8.9	12.3	7.4	12.2	7.3	4.6
1995	10.2	7.6	7.5	10.1	5.9	10.0	5.7	4.1
2000	8.8	6.9	6.9	8.8	5.4	8.7	5.8	2.8
2005	8.8	6.6	6.6	8.7	5.3	8.7	5.6	2.9
Alternative II-B								
1982	15.4	11.7	39.7	16.1	-2.4	15.7	6.6	8.5
1983	17.2	11.3	17.7	17.2	9.5	17.0	10.7	5.8
1984	16.6	11.6	14.1	16.4	9.5	16.3	10.3	5.4
1985	15.6	10.2	11.1	15.4	8.7	15.3	9.3	5.5
1990	13.1	9.0	9.0	13.0	7.4	12.9	7.2	5.3
1995	11.1	8.1	8.0	11.0	6.5	11.0	6.1	4.5
2000	9.7	7.4	7.4	9.7	5.9	9.6	6.2	3.2
2005	9.7	7.0	7.0	9.6	5.8	9.6	6.1	3.3

1/ Percent increase in year indicated over previous year.

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

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

4/ 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 self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

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

Calendar year	Increases in aggregate inpatient hospital costs 1/				Changes in the relationship between costs and payroll 2/			Expenditures as a percent of taxable payroll
	Average wages	CPI	Volume & intensity	Total	Program costs 3/	Taxable payroll	Ratio of costs to payroll	
					ALTERNATIVE I			
1982	8.2%	6.3%	8.9%	16.5%	15.7%	8.7%	6.4%	2.55%
1983	7.3	5.9	7.7	14.7	15.7	11.1	4.2	2.66
1984	7.5	4.6	7.2	13.5	14.6	10.7	3.5	2.75
1985	7.0	4.2	6.4	12.1	13.8	9.8	3.6	2.85
1990	5.2	2.2	4.1	7.7	9.2	5.5	3.5	3.34
1995	4.5	2.0	4.0	7.9	7.9	5.1	2.6	3.88
2000	4.5	2.0	3.3	6.2	6.6	5.3	1.2	4.24
2005	4.5	2.0	3.2	6.1	6.5	5.2	1.2	4.50
					ALTERNATIVE II-A			
1982	8.6	6.8	8.5	16.6	15.7	9.0	6.1	2.54
1983	6.3	6.0	7.8	14.3	15.3	9.4	5.4	2.68
1984	5.6	4.6	7.4	12.7	13.7	8.6	4.7	2.80
1985	7.4	4.8	6.9	13.1	14.8	9.5	4.8	2.94
1990	6.0	3.5	6.2	10.9	12.2	7.3	4.6	3.68
1995	5.0	3.0	5.3	9.1	10.0	5.7	4.1	4.59
2000	5.0	3.0	4.6	8.4	8.7	5.8	2.8	5.40
2005	5.0	3.0	4.6	8.4	8.7	5.6	2.9	6.18
					ALTERNATIVE II-B			
1982	6.6	6.9	9.3	16.5	15.7	6.6	8.5	2.60
1983	8.1	7.9	7.6	16.0	17.0	10.7	5.8	2.75
1984	8.1	7.4	7.2	15.3	16.3	10.3	5.4	2.90
1985	6.9	6.6	6.7	13.7	15.3	9.3	5.5	3.06
1990	6.0	4.5	6.3	11.6	12.9	7.2	5.3	3.93
1995	5.5	4.0	5.4	10.0	11.0	6.1	4.5	5.00
2000	5.5	4.0	4.7	9.3	9.6	6.2	3.2	6.01
2005	5.5	4.0	4.7	9.3	9.6	6.1	3.3	7.03
					ALTERNATIVE III			
1982	6.3	7.2	9.3	16.5	15.7	6.2	8.9	2.61
1983	7.3	9.6	7.1	16.0	16.9	8.5	7.7	2.81
1984	7.8	9.6	7.3	16.5	17.4	9.2	7.5	3.02
1985	9.2	9.2	8.8	18.3	19.9	11.6	7.5	3.25
1990	8.0	7.2	8.2	15.9	17.2	9.2	7.3	4.58
1995	6.2	5.2	6.7	13.3	13.2	6.2	6.6	6.42
2000	6.0	5.0	6.0	11.4	11.7	6.2	5.3	8.53
2005	6.0	5.0	6.0	11.4	11.7	6.0	5.4	11.00

1/ Percent increase in the year indicated over the previous year. Includes hospital costs for all patients.
2/ Percent increase in the year indicated over the previous year.
3/ Includes cost attributable to insured beneficiaries only.

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

APPENDIX B

DETERMINATION AND ANNOUNCEMENT
OF THE INPATIENT HOSPITAL DEDUCTIBLE FOR 1982*

Under the authority in section 1831(b)(2) of the Social Security Act
(42 U.S.C. 1395e(b)(2)), I have determined that the Medicare inpatient
deductible for 1982 will be $260.

Section 1813 provides for an inpatient hospital deductible and certain
coinsurance amounts to be deducted from the amount payable by Medicare for
inpatient hospital services and post-hospital extended care services furnished
an individual. Section 1813(b)(2) requires the Secretary of HHS to determine
and publish, between July 1 and October 1 of each year, the amount of the
inpatient hospital deductible applicable for the following calendar year.

Because the coinsurance amounts in section 1813 are fixed percentages
of the inpatient hospital deductible for services furnished in the same
calendar year, the increase in the deductible has the effect of also
increasing the amount of coinsurance the Medicare beneficiary must pay.
Thus, for inpatient hospital services or post-hospital extended care services
furnished in 1982, the daily coinsurance of the 61st through 90th days
of hospitalization (1/4 of the inpatient hospital deductible) will be
$65; the daily coinsurance for lifetime reserve days (1/2 of the inpatient
hospital deductible) will be $130; and the daily coinsurance for the 21st
through the 100th days of post-hospital extended care services in a
skilled nursing facility (1/8 of the inpatient hospital deductible)
will be $32.50.

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*This statement was published in the Federal Register for September 24, 1981,
(Vol. 46, No. 185, p. 47115).

On August 13, 1981, Public Law 97-35 amended section 1813 of the Social Security Act in two ways. First, section 2131 of Public Law 97-35 bases the coinsurance amount on the inpatient hospital deductible in effect when the services are furnished, rather than on the deductible in effect at the beginning of the beneficiary's spell of illness (benefit period). Congress explained that this change will not only reduce Medicare program costs, but will also simplify administration of the program by making the amount of coinsurance the same for all services received during a calendar year. Previously, before calculating the amount of coinsurance for which the beneficiary was responsible, HCFA had to determine first when each spell of illness began.

Secondly, section 2132 of Public Law 97-35 increases the basis in the formula for the deductible calculation from $40 to $45, beginning January 1, 1982. For 1982, this change in the basis accounts for an increase in the deductible and coinsurance amounts of approximately 12.1 percent. The remainder of the overall 27 percent increase is due to the increase in the average per diem hospital cost. Congress explained that the inpatient hospital deductible is supposed to increase each year to reflect the covered cost of one day's hospital care, but in reality the calculation actually lags about two years behind actual hospital cost increases. Congress believes that the necessity of achieving a reduction in Medicare program costs warrants making the deductible more reflective of the current cost of one day's hospital care (page 317 of H.R. Rep. No. 97-158, 97th Congress, 1st Session (1981)).

Under the amended formula in the law, the deductible for calendar
year 1982 must be equal to $45 multiplied by the ratio of (1) the current
average per diem rate for inpatient hospital services for calendar year
1980 to (2) the average per diem rate for such services in 1966. The
amount so determined is rounded to the nearest multiple of $4. The average
per diem rates are based on the amounts paid to participating hospitals by
Medicare for inpatient services to insured individuals, plus the deductible
and coinsurance amounts.

The average per diem rate for a calendar year is computed from the
inpatient hospital bills for all beneficiaries. Each bill shows the number
of inpatient days of care and the interim cost (the sum of interim reimbursement,
deductible, and coinsurance). The data are summarized for each year, and
an average interim per diem rate computed that accurately reflects interim
costs on an accrual basis.

In order to reflect the change in the average per diem hospital cost
under the program properly, the average interim cost must be adjusted to
show the effect of final cost settlements made with each participating
hospital after the end of its accounting year. The final settlements
adjust the interim payment to the hospital to the actual full cost of
providing covered services to beneficiaries. To the extent that the ratio
of final cost to interim cost for 1980 differs from the ratio of final cost
to interim cost for 1966, the increase in average interim per diem costs
will not coincide with the increase in actual cost that has occurred.

The current average interim per diem rate for inpatient hospital
services for calendar year 1980, based on tabulated interim cost, is

$221.99; the corresponding amount for 1966 is $37.92. The averages are
based on approximately 105 million days of hospitalization in 1980 and
30 million days in 1966 (last six months of the year). The ratio of
final cost to interim cost is approximately 1.047 for 1980 and 1.055
for 1966. Thus, the inpatient hospital deductible is $45 x (221.99 x 1.047)/
(37.92 x 1.055) = $261.44, which is rounded to $260.

IMPACT ANALYSES

The inpatient hospital deductible and coinsurance amounts for the
calendar year 1982 will be 27 percent higher than the 1981 amounts. The
inpatient hospital deductible increased from $204 to $260; the daily
coinsurance for the 61st through 90th days of hospitalization increased
from $51 to $65; the daily coinsurance for lifetime reserve days increased
from $102 to $130; and the daily coinsurance for the 21st through 100th
days of post-hospital extended care sevices in a skilled nursing facility
increased from $25.50 to $32.50.

The estimated cost to beneficiaries due to these increases is
$560 million. About half, or $280 million, is due to the change in the law
which increased from $40 to $45, the basis in the formula used to compute
the deductible. The remaining $280 million increase is due to inflation.
These amounts are based on an estimated 7.3 million beneficiaries who will
have 8.3 million benefit periods and use 4.7 million coinsurance days and
1.2 million lifetime reserve days in 1982.

An additional $10 million will be paid by beneficiaries because of the
change in the law which bases coinsurance amounts on the deductible in

effect when the service is provided instead of the year in which the benefit period began. This provision will only affect beneficiaries who have benefit periods that overlap two or more calendar years.

REGULATORY FLEXIBILITY ACT

The Regulatory Flexibility Act requires that an agency prepare a regulatory flexibility analysis for a proposed rule, or a final rule issued after a proposal, if a rule would have a significant economic impact on a substantial number of small businesses, small non-profit organizations, or small governmental jurisdictions. This notice merely announces (as required by section 1813 of the Social Security Act) amounts beneficiaries are responsible for in the cost of their own hospitalization or treatment in a skilled nursing facility. This announcement is made annually in the form of a notice. Because this notice is not a proposed rule or final rule issued after a proposal, no analysis is required under the Regulatory Flexibility Act.

However, we have determined that this notice will not have a significant economic impact on a substantial number of small entities. The increase of $570 million represents only 1.8 percent of the $32.5 billion which HCFA will pay to hospitals and skilled nursing facilities in 1982 for inpatient services provided to Medicare beneficiaries. That amount will be met by Medicare beneficiaries. Because this notice will not result in a significant economic impact on hospitals or skilled nursing facilities or other small entities, the Secretary certifies that a regulatory flexibility analysis is not required.

Dated:

Richard S. Schweiker
Secretary

APPENDIX C

DETERMINATION AND ANNOUNCEMENT OF
THE HOSPITAL INSURANCE MONTHLY PREMIUM RATE FOR THE UNINSURED AGED,
FOR THE 12-MONTH PERIOD BEGINNING JULY 1, 1982*

Under the authority in section 1818(d)(2) of the Social Security Act

(42 U.S.C. 139512(d)(2)), I have determined that the monthly Medicare

hospital insurance premium for the uninsured aged for the 12 months

beginning July 1, 1982, is $113.

Section 1818 of the Social Security Act provides for voluntary

enrollment in the hospital insurance program (Part A of Medicare), subject

to payment of a monthly premium, of certain persons age 65 and older who

are uninsured for social security or railroad retirement benefits and do

not otherwise meet the requirements for entitlement to hospital insurance.

(Persons insured under the Social Security or Railroad Retirement Acts need

not pay premiums for hospital insurance.)

Section 1818(d)(2) of the Act requires the Secretary to determine and

publish, during the last quarter of each calendar year, the amount of the

monthly Part A premium for voluntary enrollment for the 12-month period

beginning with the following July 1. The formula specified in this section

also requires that, for the period beginning July 1, 1982, the 1973 base

year premium ($33) be multiplied by the ratio of (1) the 1982 inpatient

hospital deductible to (2) the 1973 inpatient hospital deductible, rounded

to the nearer multiple of $1 or, if midway between multiples of $1, to the

next higher multiple of $1.

Under section 1813(b)(2) of the Act, the 1982 inpatient hospital deductible was determined to be $260. (See 46 FR 47115, September 24, 1981.) The 1973 deductible was actuarially determined to be $76, although the 1973 deductible was actually promulgated to be only $72, to comply with a ruling of the Cost of Living Council. (See 37 FR 21452, October 11, 1972.) The monthly premium for the 12-month period beginning July 1, 1982, has been calculated using the $76 deductible for 1973, since this more closely satisfies the intent of the law. Thus, the monthly hospital insurance premium is $33 x (260/76) = $112.89, which is rounded to $113.

<div align="center">IMPACT ANALYSES</div>

The monthly hospital insurance premium for the uninsured aged for the 12-month period beginning July 1, 1982, will increase to $113. That amount is 27 percent higher than the $89 monthly premium amount for the previous 12-month period.

The estimated cost of this increase to the approximately 24,000 enrollees who do not meet the requirements for entitlement to hospital insurance will be about $7,000,000.

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

Dated:

Richard S. Schweiker
Secretary

APPENDIX D

STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the methodology used herein is based upon sound principles of actuarial practice and (2) 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.

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