APPENDIX A

ACTUARIAL METHODOLOGY AND PRINCIPAL ASSUMPTIONS FOR THE HOSPITAL INSURANCE COST ESTIMATES

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

1. PROGRAM COSTS

The principal steps involved in projecting the future costs of the hospital insurance program are (1) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (2) projecting increases in payment amounts for inpatient hospital services under the program; (3) projecting increases in payment amounts for skilled nursing facility and home health agency services covered under the program; and (4) projecting increases in administrative costs. The major emphasis will be directed toward expenditures for inpatient hospital services, which account for approximately 93 percent of total benefits.

a. Projection Base

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

For those expenses still reimbursed on a reasonable cost basis, the costs for covered services are determined on the basis of provider cost reports. Payments to a provider initially are made on an "interim" basis; to adjust interim payments to the level of retroactively determined costs, a series of payments or recoveries is effected through the course of cost settlement with the provider. The net amounts paid to date to providers in the form of cost settlements are known; however, the incomplete data available do not permit a precise determination of the exact amounts incurred during a specific period of time. Due to the time required to obtain cost reports from providers, to verify these reports, and to perform audits (where appropriate), final settlements have lagged behind the liability for such payments 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 diagnostic 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 solution to which can be only approximate. Under the circumstances, the best that can be expected is that the actual incurred cost of the program for a recent period can be estimated within a few percent. This increases the projection error directly, by incorporating any error in estimating the base year into all future years.

b. Payments for Inpatient Hospital Costs

Beginning with hospital accounting years starting on or after October 1, 1983, the hospital insurance program began paying 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) still reimbursed on the basis of reasonable costs as defined by law, the payment rate for each admission depends upon the DRG to which the admission belongs.

The law contemplates that the annual increase in the payment rate for each admission will be related to a hospital input price index, which measures the increase in prices for goods and services purchased by hospitals for use in providing care to hospital inpatients. For hospital accounting years beginning before October 1, 1988, the prospective payment rates have already been determined. For fiscal year 1989 and later, the increase in the payment rate for each hospital admission is determined by the Secretary of Health and Human Services, with the advice of the Prospective Payment Assessment Commission, a special commission appointed to study and make recommendations with regard to the level of payments to hospitals. The law specifies that the only increase in the payment rates that can be provided without specific justification is one-quarter of one percent plus the increase in the hospital input price index. Therefore, it is anticipated that in most years the Secretary will recommend an increase in payment per admission equal to one-quarter of one percent plus the increase in the hospital input price index, although the law provides that the Secretary may select an alternative increase. The projections contained in this report are based on the assumption that for fiscal year 1988, the prospective payment rates will be increased by the hospital input price index minus two percent from the levels determined for 1987 (as required by Section 9302 of P.L. 99-509), and in fiscal year 1989 and later, program payments to participating hospitals for each covered admission will be increased by one-quarter of one percent plus the increase in the hospital input price index.

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

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

(2) Non-labor factors - the increase in the hospital input price index which is attributable to factors other than hospital workers' hourly earnings, such as the costs of energy, food, and supplies;

(3) Unit input intensity allowance - the increase in inpatient hospital 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 hospital insurance program).

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

Increases in hospital workers' hourly earnings can be analyzed and projected in terms of the assumed increases in hourly earnings in employment in the general economy and the difference between hourly earnings increases in the general economy and the proxy for hospital hourly earnings used in the hospital input price index.

Since the beginning of the hospital insurance program, the differential between the proxy for hospital workers' hourly earnings and hourly earnings in the general economy has fluctuated widely. Since 1975, this differential has averaged about 0.5 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 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. Over the short term, this differential is assumed to return to a level of one percent, declining gradually to zero by the end of the first 25-year projection period.

Increases in hospital price input intensity, which are primarily the result of price increases for goods and services that hospitals purchase which do not parallel increases in the Consumer Price Index (CPI), are measured as the difference between the non-labor component of the hospital input price index and the CPI. Although the level has fluctuated erratically in the past, this differential has averaged about 0.5 percent during 1975-1986. Over the short term, hospital price input intensity is assumed to remain at a level of one-half percent, and decline to zero by the end of the first 25-year projection period.

It is contemplated that future increases in payments to participating hospitals for covered admissions in most years will be equal to one-quarter of one percent plus the increase in the hospital input price index. Thus, the unit input intensity allowance, as indicated in table A1, is assumed to equal one-quarter of one percent in most years during the first 25-year projection period. After the first 25-year projection period, the input price index plus the unit input intensity allowance is assumed to increase at the same rate as average earnings increase. However, it should be noted that the level of the unit input intensity allowance is completely within the discretion of the Secretary of Health and Human Services and could vary significantly from the assumed value from year to year. For 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.

For the years 1986 through 1988, 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) legislation affecting the payment rates; and (3) the impact of the "Balanced Budget and Emergency Deficit Control Act of 1985" on the fiscal year 1986 payment rates. For the years 1989 through 1995, a small one-half percent increase from other sources is attributable to a continuation of the current trend toward treating less complicated (and thus, less expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission for inpatient hospital services. The long-term average increase from other sources is due to payments

for certain costs not included in the DRG payment increasing at a rate faster than the input price index plus one-quarter of one percent. Possible other sources of both relative increases and decreases in payments include (1) a shift to more or less expensive admissions (diagnosis related groups) due to changes in the demographic characteristics of the covered population; (2) changes in medical practice patterns; and (3) adjustments in the relative payment levels for various diagnosis related groups or addition/deletion of diagnosis related groups in response to changes in technology. As experience under the prospective payment system develops and is analyzed, it may be possible to establish a predictable trend for this component.

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

c. Skilled Nursing Facility and Home Health Agency Costs

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

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

Program experience with home health agency costs has shown a generally upward trend. The number of visits has increased sharply from year to year. Relatively large increases are assumed for the next few years, followed by a projected pattern of increases similar to that for skilled nursing facilities. Cost per service is assumed to increase at about the same rate as increases in general earnings. The resulting home health agency cost increases are shown in table A2.

d. Administrative Expenses

The costs of administering the hospital insurance program have remained relatively small, in comparison with benefit amounts, throughout the history of the program. The ratio of administrative expenses to benefit payments has generally fallen within the range of 1 to 3 percent. The short-range projection of administrative cost is based on estimates of workloads and approved budgets for intermediaries and the Health Care Financing Administration. In the long range, administrative cost increases are based on assumed increases in workloads, primarily due to growth and aging of the population, and on assumed unit cost increases of slightly less than the increases in average hourly earnings shown in table A1.

2. FINANCING

In order to analyze costs and to evaluate the financing of a program supported by payroll taxes, program costs must be compared on a year-by-year basis with the taxable payroll which provides the source of income for these costs.

Since the vast majority of total program costs are related to insured beneficiaries and since general revenue appropriations and premium payments are available to support the uninsured segments, the remainder of this report will focus on the financing for insured beneficiaries.

a. Taxable Payroll

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

b. Relationship Between Program Costs and Taxable Payroll

The single most meaningful measure of program cost increases, with reference to the financing of the system, is the relationship between program cost increases and taxable payroll increases. If the rates of increase in both series are the same, a level tax rate over time will be adequate to support the program. However, to the extent that program costs increase more rapidly than taxable payroll, either a schedule of increasing tax rates or a reduction in program costs will be required to finance the system over time. Table A2 shows the resulting increases in program costs relative to taxable payroll over the first 25-year projection period. These relative increases reduce gradually to a level of approximately 1.0 percent and 1.1 percent per year by 2011 for alternatives II-A and II-B, respectively. The result of these increases is a continued increase in the year-by-year ratios of program expenditures to taxable payroll, as shown in table A3.

3. SENSITIVITY TESTING OF COSTS UNDER ALTERNATIVE ASSUMPTIONS

Over the past 20 years, aggregate inpatient hospital costs for Medicare beneficiaries have increased substantially faster than increases in average earnings and prices in the general economy. Table A1 shows the experience of the HI program for 1975 to 1985. As mentioned earlier, the HI program now makes payments to most participating hospitals on a prospective basis (with the exception of certain expenses). Thus, the trends in aggregate HI inpatient hospital costs prior to 1983, as shown in the historical section of table A1, have little relation to the projected HI inpatient hospital payments. The prospective payment system has made the outlays of the HI program potentially less vulnerable to excessive rates of growth in the hospital industry. However, there is some uncertainty in projecting HI expenditures due to the uncertainty of the underlying economic assumptions and utilization increases. In addition, there is some uncertainty in projecting HI inpatient hospital payments due to the Secretary of Health and Human Services' discretion in setting the payment levels to hospitals.

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

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

By the end of the first 25-year projection period, program costs are projected to increase about 1.0 percent and 1.1 percent faster than increases in taxable payroll for alternative II-A and II-B, respectively. Program costs beyond the first 25-year projection period are based on the assumption that costs per unit of service will increase at the same rate as earnings increase. Program expenditures, which are currently about 2.6 percent of taxable payroll, increase to a level of about 4 percent by the year 2011 under both alternatives II-A and II-B and to about 6.5 percent by the year 2061. Hence, if all of the projection assumptions are realized over time, hospital insurance tax rates provided in the present financing schedule (2.9 percent of taxable payroll) will be inadequate to support the cost of the program.

During the first 25-year projection period, alternatives I and III contain assumptions which result in program costs increasing, relative to taxable payroll increases, approximately 2 percent less rapidly and 2 percent more rapidly, respectively, than the results under both sets of intermediate assumptions. Costs beyond the first 25-year projection period assume the 2 percent differential gradually decreases until the year 2036 when program cost increases relative to taxable payroll are approximately the same as under both sets of intermediate

assumptions. Under alternative I, program costs increase slightly more than increases in taxable payroll during the first 25-year projection period. Program expenditures under this alternative would be about 2.6 percent of taxable payroll in the year 2011, increasing to about 3.4 percent of taxable payroll by 2061. The average program costs for the 75-year projection period are about 3.0 percent of taxable payroll; hence, hospital insurance tax rates provided in the present financing schedule will be inadequate even under the optimistic alternative I assumptions. Under alternative III, program costs increase about 3.5 percent more rapidly than increases in taxable payroll during the first 25-year projection period. The result of this differential is a level of program expenditures in the year 2011 which is about 6.4 percent of taxable payroll, increasing to about 13.6 percent of taxable payroll in the year 2061.

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

Calendar Year	Labor			Non-Labor			Input Price Index	Unit Input Intensity Allowance 2/	Units of Service		Other Sources	HI Inpatient Hospital Payments
	Average hourly Earnings	Hospital Hourly Earnings Level	Hospital Hourly Earnings	CPI	Hospital Price Input Intensity	Non-Labor Hospital Prices			HI Enrollment	Admission Incidence		
Historical Data:												
1975	7.8	0.5	8.3	9.1	3.5	12.9	10.2	1.00	3.4	0.1	6.4	22.5
1976	6.8	0.4	7.2	5.7	1.9	7.7	7.4	1.00	2.9	1.5	5.3	19.2
1977	7.0	0.5	7.5	6.5	0.6	7.1	7.3	1.00	3.0	4.6	0.4	17.2
1978	9.0	-1.2	7.7	7.6	-0.8	6.7	7.3	1.00	2.7	-1.9	5.3	14.9
1979	8.7	-0.8	7.8	11.4	-1.1	10.2	8.8	1.00	2.7	3.1	0.2	16.5
1980	8.2	1.4	9.7	13.5	0.8	14.4	11.8	1.00	2.1	2.4	2.4	20.8
1981	8.4	1.8	10.3	10.3	-0.5	9.8	10.1	1.00	1.9	2.8	2.9	19.7
1982	5.9	2.8	8.9	6.0	0.3	6.3	7.7	1.00	1.8	0.0	4.6	15.8
1983	4.0	2.2	6.3	3.0	1.2	4.2	5.4	1.00	1.7	1.0	1.7	11.2
1984	6.1	-0.6	5.5	3.4	0.7	4.1	4.9	1.00	1.4	-3.7	7.2	10.9
1985	5.8	-1.3	4.4	3.5	-0.5	3.0	3.8	-0.05	2.2	-7.6	8.1	5.9
Projection:												
Alternative II-A												
1986	4.2	-0.5	3.7	1.6	0.4	2.0	3.0	-2.79	2.2	-3.1	3.8	3.0
1987	4.2	-0.2	4.0	3.0	0.4	3.4	3.7	-2.30	2.0	1.0	-0.3	4.2
1988	4.5	1.0	5.5	3.6	0.5	4.1	4.9	-1.04	1.9	0.0	1.9	7.8
1989	4.8	1.0	5.8	3.6	0.5	4.1	5.1	0.25	1.9	1.5	1.0	10.1
1990	4.9	1.0	5.9	3.2	0.5	3.7	5.0	0.25	1.9	1.8	0.9	10.2
1995	4.4	1.0	5.4	3.0	0.5	3.5	4.7	0.25	1.3	1.3	0.3	8.0
2000	4.8	1.0	5.8	3.0	0.5	3.5	5.0	0.25	0.9	1.0	-0.1	7.1
2005	5.0	0.5	5.5	3.0	0.5	3.5	4.8	0.25	1.3	0.5	0.0	6.9
2010	5.0	0.0	5.0	3.0	0.0	3.0	4.3	0.25	1.9	-0.2	0.1	6.4
Alternative II-B												
1986	4.2	-0.5	3.7	1.6	0.4	2.0	3.0	-2.79	2.2	-3.1	3.8	3.0
1987	3.5	0.5	4.0	3.2	0.2	3.4	3.7	-2.30	2.0	1.0	-0.3	4.2
1988	4.5	1.0	5.5	4.5	0.5	5.0	5.3	-1.44	1.9	0.0	1.9	7.8
1989	4.6	1.0	5.6	4.3	0.5	4.8	5.3	0.25	1.9	1.5	1.1	10.4
1990	5.5	1.0	6.6	4.5	0.5	5.0	5.9	0.25	1.9	1.8	0.8	11.0
1995	5.1	1.0	6.2	4.0	0.5	4.5	5.5	0.25	1.3	1.3	0.3	8.8
2000	5.4	1.0	6.5	4.0	0.5	4.5	5.7	0.25	0.9	1.0	-0.2	7.8
2005	5.4	0.5	5.9	4.0	0.5	4.5	5.4	0.25	1.3	0.5	-0.1	7.5
2010	5.5	0.0	5.5	4.0	0.0	4.0	5.0	0.25	1.9	-0.2	0.0	7.0

1/ Percent increase in year indicated over previous year, on an incurred basis.
2/ Reflects the allowances provided for in the prospective payment update factors.

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

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

Calendar year	Inpatient hospital 2/ 3/	Skilled nursing facility 3/	Home health agency 3/	Weighted average 3/ 4/	HI administrative costs 3/	HI program expenditures 3/	HI taxable payroll	Ratio of expenditures to payroll 5/
Alternative II-A								
1987	4.4%	6.9%	11.8%	4.9%	23.8%	5.2%	6.1%	-0.9%
1988	7.9	9.7	11.3	8.2	5.9	8.1	6.3	1.7
1989	10.3	9.0	11.2	10.3	7.5	10.3	7.0	3.1
1990	10.3	8.6	9.5	10.3	8.1	10.3	6.4	3.6
1995	8.0	7.6	7.4	8.0	6.5	8.0	5.6	2.3
2000	7.1	7.0	7.0	7.2	6.0	7.2	5.9	1.2
2005	6.9	6.6	6.7	6.9	5.9	6.9	5.7	1.2
2010	6.4	6.5	6.5	6.4	5.8	6.4	5.4	1.0
Alternative II-B								
1987	4.4%	6.9%	11.8%	4.9%	23.8%	5.2%	5.4%	-0.2%
1988	8.0	9.7	11.3	8.2	6.0	8.2	6.0	2.1
1989	10.6	9.0	11.2	10.7	7.3	10.6	6.4	3.9
1990	11.1	9.0	10.0	11.0	8.7	11.0	6.8	3.9
1995	8.8	8.0	7.9	8.8	7.1	8.8	6.3	2.4
2000	7.9	8.0	8.1	7.9	6.8	7.9	6.3	1.5
2005	7.5	7.7	7.7	7.5	6.6	7.5	6.1	1.4
2010	7.0	7.5	7.5	7.0	6.4	7.0	5.9	1.1

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/ Includes costs for hospice care, as provided for by the Tax Equity and Fiscal Responsibility Act of 1982 as amended by the Consolidated Omnibus Budget Reconciliation Act of 1985.
5/ Percent increase in the ratio of program expenditures to taxable payroll. This is equivalent to the differential between the increase in program costs and the increase in taxable payroll.

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

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

Calendar year	Increases in aggregate HI inpatient hospital payments 1/				Changes in the relationship between expenditures and payroll 1/			Expenditures as a percent of taxable payroll
	Average hourly earnings	CPI	Other factors 2/	Total	Program expenditures 3/	Taxable payroll	Ratio of expenditures to payroll	
				ALTERNATIVE I				
1987	3.7%	2.6%	0.9%	4.2%	5.2%	6.1%	-0.9%	2.54%
1988	4.4	3.1	3.5	7.5	7.9	6.8	1.0	2.57
1989	4.8	3.0	4.6	8.8	9.1	7.1	1.9	2.62
1990	4.6	2.7	4.6	8.6	8.8	6.4	2.2	2.68
1995	3.6	2.0	2.4	5.4	5.6	5.0	0.6	2.79
2000	4.2	2.0	1.7	5.2	5.4	5.8	-0.3	2.76
2005	4.2	2.0	1.2	4.7	4.9	5.4	-0.5	2.70
2010	4.4	2.0	0.5	4.1	4.4	5.1	-0.6	2.66
				ALTERNATIVE II-A				
1987	4.2	3.0	0.5	4.2	5.2	6.1	-0.9	2.55
1988	4.5	3.6	3.5	7.8	8.1	6.3	1.7	2.60
1999	4.8	3.6	5.6	10.1	10.3	7.0	3.1	2.68
1990	4.9	3.2	5.8	10.2	10.3	6.4	3.6	2.78
1995	4.4	3.0	4.0	8.0	8.0	5.6	2.3	3.13
2000	4.8	3.0	2.8	7.1	7.2	5.9	1.2	3.34
2005	5.0	3.0	2.5	6.9	6.9	5.7	1.2	3.54
2010	5.0	3.0	2.0	6.4	6.4	5.4	1.0	3.78
				ALTERNATIVE II-B				
1987	3.5	3.2	0.8	4.2	5.2	5.4	-0.2	2.57
1988	4.5	4.5	3.2	7.8	8.2	6.0	2.1	2.63
1989	4.6	4.3	5.7	10.4	10.6	6.4	3.9	2.73
1990	5.5	4.5	5.6	11.0	11.0	6.8	3.9	2.84
1995	5.1	4.0	4.0	8.8	8.8	6.3	2.4	3.22
2000	5.4	4.0	2.8	7.8	7.9	6.3	1.5	3.48
2005	5.4	4.0	2.5	7.5	7.5	6.1	1.4	3.73
2010	5.5	4.0	1.9	7.0	7.0	5.9	1.1	4.01
				ALTERNATIVE III				
1987	3.3	3.4	0.8	4.2	5.2	3.4	1.8	2.64
1988	4.2	5.4	3.4	8.3	8.6	3.8	4.6	2.76
1989	5.9	6.0	5.6	11.9	11.9	6.9	4.7	2.89
1990	5.5	5.7	5.9	11.8	11.7	4.4	7.0	3.09
1995	5.9	5.0	5.9	11.8	11.6	7.2	4.1	3.80
2000	6.0	5.0	4.3	10.2	10.1	6.5	3.4	4.49
2005	6.0	5.0	3.9	9.8	9.7	6.3	3.2	5.26
2010	6.3	5.0	3.4	9.4	9.2	6.1	2.9	6.19

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, and units of service as measured by admissions.
3/ Includes expenditures attributable to insured beneficiaries only.

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

APPENDIX B

DETERMINATION AND ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) INPATIENT HOSPITAL DEDUCTIBLE AND MONTHLY PREMIUM RATE FOR THE UNINSURED AGED, FOR CALENDAR YEAR 1987 1/

I. Background

As required by the Social Security Act (the Act), the Secretary of Health and Human Services (HHS) must publish every year the new Medicare Part A (Hospital Insurance) inpatient hospital deductible and Part A premium rates. Section 1813(b) of the Act as amended by section 9125 of the Consolidated Omnibus Budget Reconciliation Act (COBRA) Pub. L. 99-272, requires the Secretary to determine and publish, between July 1 and September 15 of the year, the amount of the inpatient hospital deductible applicable for the following calendar year. Section 1818(d)(2) of the Act requires the Secretary to determine and publish, during the next to last quarter of each calendar year, the amount of the monthly Part A premium for voluntary enrollment of the uninsured aged for the following calendar year.

The inpatient hospital deductible for 1987 was published in the Federal Register on September 15, 1986. The new deductible was announced as $572. The daily coinsurance amounts were: (a) $143 for the 61st through the 90th day of hospitalization; (b) $286 for lifetime reserve days; and (c) $71.50 for the 21st through 100th day of extended care services in a skilled nursing facility (51 FR 32691).

1/ The notice entitled "Medicare Program; Omnibus Budget Reconciliation Act of 1986; Effect of Provisions on Part A Deductible, Part A and B Premiums, and Economic Index," which was published in the Federal Register on November 20, 1986 (Vol. 51, No. 224, p. 42007), discusses (1) the 1987 Part A deductible (and associated coinsurance amounts), (2) the 1987 Part A premium for the uninsured aged, (3) the 1987 Part B monthly actuarial rates and premium rate, and (4) the Medicare Economic Index for physicians participating in Part B for the fee screen year beginning January 1, 1987, each as determined and announced both before and after the passage of the Omnibus Budget Reconciliation Act of 1986. The portions of the notice which are pertinent to the Medicare Part A (Hospital Insurance) program appear here in extracted form.

The Part A premium for the uninsured aged for the 12 months beginning January 1, 1987 was published in the Federal Register on October 1, 1986. The premium was announced as $248 (51 FR 35053).

On October 21, 1986, new legislation was enacted. The Omnibus Budget Reconciliation Act of 1986, Pub. L. 99-509, amended those sections of the Act controlling the Part A deductible and premium. This notice explains the effect of these changes.

II. Part A Deductible for Calendar Year 1987

Section 1813 of the Act (42 U.S.C. 1395e) provides for an inpatient hospital deductible and certain coinsurance amounts to be deducted from the amount payable by Medicare for inpatient hospital services furnished an individual. Section 1813(b)(2) of the Act as amended by section 9125 of COBRA, Pub. L. 99-272, requires the Secretary to determine and publish, between July 1 and September 15 of the year, the amount of the inpatient hospital deductible applicable for the following calendar year. As noted above, we announced, in a Federal Register notice on September 15, 1986, that the inpatient hospital deductible for 1987 was to be $572.

Section 9301 of the Omnibus Budget Reconciliation Act of 1986, Pub. L. 99-509, provides that the Part A deductible for 1987 will be $520. The daily coinsurance amounts will be: (a) $130 for the 61st through 90th days of hospitalization; (b) $260 for lifetime reserve days; and (c) $65 for the 21st through 100th days of extended care services in a skilled nursing facility.

In subsequent years (that is, beginning with the deductible to be published in September 1987) the Part A deductible will be adjusted by the applicable percentage increase (as defined in section 1886(b)(3)(B) of the Act) which is applied under section 1886(d)(3)(A) for discharges in the fiscal year that begins on October 1 of the preceding calendar year, and adjusted to reflect changes in real case mix (determined on the basis of the most recent case-mix data available). Any amount which is not a multiple of $4 will be rounded to the nearest multiple of $4 (or, if it is midway between two multiples of $4, to the next higher multiple of $4).

A new section 1813(b)(3) provides that a hospital stay which falls into two calendar years will have the deductible applied based on the first day of the hospitalization. Applicable cost sharing under Part A would continue to be determined based on the annual deductible in effect for the year in which the cost sharing days are incurred.

Under section 9301(b) of Pub. L. 99-509, this amendment applies to inpatient hospital services and post-hospital extended care services furnished on or after January 1, 1987, and is to be applied in calculating the Part A premium to be paid by the uninsured aged for months beginning with January 1, 1987. Section 9301(c) requires the Secretary to provide for the publication of the inpatient hospital deductible, and the affected coinsurance and premium amounts within 30 days of the date of enactment; that is, by November 20, 1986.

III. Part A Premium for Calendar Year 1987

Section 1818 of the Act provides for voluntary enrollment in Part A of Medicare, subject to payment of a monthly premium, of certain persons age 65 and older who are uninsured for Social Security or Railroad Retirement benefits and do not otherwise meet the requirements for entitlement to hospital insurance. (Persons insured under the Social Security or Railroad Retirement Acts need not pay premiums for hospital insurance.) Section 1818(d)(2) of the Act, as amended by section 606(b) of the Social Security Amendments of 1983 (Pub. L. 98-21) requires the Secretary to determine and publish, during the next to last quarter of each calendar year, the amount of the monthly Part A premium for voluntary enrollment for the following calendar year.

Based on the formula specified in the statute, the monthly hospital insurance premium for the uninsured aged for the 12-month period beginning January 1, 1987 was announced as $248. With the enactment of section 9301 of Pub. L. 99-509 (which set the Part A deductible at $520 for 1987), the Part A premium rate for calendar year 1987 had to be recalculated. The necessity was recognized by Congress in section 9301(b) of Pub. L. 99-509, which, in providing for the effective date of the new Part A deductible for 1987, noted its application to the 1987 Part A premium. Therefore, effective January 1, 1987, the new monthly premium rate will be $226.

Under section 1818(d)(2) of the Act, which was not amended by Pub. L. 99-509, to calculate the Part A premium for calendar year 1987, the 1973 base year premium ($33) is multiplied by the ratio of: (1) the 1987 inpatient hospital deductible to (2) the 1973 inpatient hospital deductible, rounded to the nearest multiple of $1, or, if midway between multiples of $1, to the next higher multiple of $1.

Since under section 1813(b)(1) of the Act, as amended by Pub. L. 99-509, the 1987 inpatient hospital deductible is $520, and the 1973 deductible was actuarially determined to be $76 [2/], the monthly hospital insurance premium is $33 x (520/76)=$225.79, which is rounded to $226.

IV. Regulatory Impact Statement

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

2/ Although the 1973 deductible was actually promulgated to be only $72 to comply with a ruling of the Cost of Living Council (See 37 FR 21452, October 11, 1972), the monthly premium for the 12-month period beginning January 1, 1987 was calculated using the $76 deductible for 1973, since this more closely satisfies the intent of the law.

V. Paperwork Reduction Act

The changes in this notice would not impose information collection requirements. Consequently, they need not be reviewed by the Executive Office for Management and Budget under the authority of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.).

Dated: November 13, 1986

William L. Roper
Administrator
Health Care Financing Administration

Approved: November 14, 1986

Otis R. Bowen
Secretary
Department of Health and Human Services

APPENDIX C

STATEMENT OF ACTUARIAL OPINION

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

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