

### *E. ACTUARIAL STATUS OF THE TRUST FUNDS*

Historically, the actuarial status of the OASDI program has been measured by the actuarial balance, as described earlier in this section. Recent annual reports have shown both medium-range and long-range actuarial balances, which have been computed, respectively, for the 25-year and 75-year periods beginning with the calendar year of issuance of the report. Accordingly, the medium-range and long-range actuarial balances shown in this report pertain to the periods 1986-2010 and 1986-2060, respectively. Also presented are actuarial balances for the second and third 25-year subperiods of the 75-year projection period.

As described earlier in this section, a single measure of the actuarial balance over a long period may not reveal problems which could occur during that period. Therefore, in addition to the medium-range and long-range actuarial balances, two other indicators of the financial condition of the trust funds are shown in this report. One is the series of annual balances (that is, the year-by-year differences between the estimated income rates and cost rates), and the other is the series of estimated contingency fund ratios, as defined in the introduction to this section.

The estimates are sensitive to changes in the underlying economic and demographic assumptions. The degree of sensitivity, however, varies considerably among the various assumptions. For example, variations in assumed fertility rates have little effect on the estimates for the early years, because almost all of the projected covered workers and beneficiaries were born prior to the start of the projection period. Variations in economic factors, however, such as increases in wages and prices, have significant effects on the estimates in the short term, as well as the long term. In general, the degree of confidence that can be placed in the assumptions and estimates is greater for the earlier years than for the later years. Nonetheless, even for the earlier years, the estimates are only an indication of the trend and general range of future program experience. Appendix B contains a more detailed discussion of the effects on the estimates of varying certain economic and demographic assumptions.

Table 28 presents a comparison of the estimated income and cost rates by trust fund and alternative. A few of the most significant figures shown in this table are the 75-year average income rates, average cost rates, and actuarial balances of the OASDI program, as well as the corresponding figures for the three 25-year subperiods, as estimated under the intermediate alternatives, II-A and II-B.

Under alternative II-A, the long-range 75-year actuarial balance of the OASDI program is a surplus of 0.28 percent of taxable payroll, consisting of a surplus of 2.53 percent of payroll for the first 25-year subperiod, followed by deficits of 0.12 and 1.58 percent of payroll for the second and third subperiods, respectively. The 75-year actuarial balance results from estimated average annual income and cost rates of 12.92 and 12.64 percent of taxable payroll, respectively. Under alternative II-A, the long-range average income rate is about 102.2 percent of the average cost rate.

Under alternative II-B, the 75-year actuarial balance of the OASDI program is a deficit of 0.44 percent of taxable payroll, consisting of a surplus of 2.12 percent of payroll for the first 25-year subperiod,

followed by deficits of 0.89 and 2.56 percent of payroll for the second and third subperiods, respectively. The 75-year actuarial balance results from estimated average annual income and cost rates of 12.96 and 13.40 percent of taxable payroll, respectively. Under alternative II-B, the long-range average income rate is about 96.7 percent of the average cost rate.

Thus, under each of the intermediate alternatives, the OASDI program, as a whole, is in close actuarial balance, as defined in the introduction to this section, although imbalances exist in the subperiods.

TABLE 28.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1986-2060  
[As a percentage of taxable payroll]

Calendar year	OASI			DI			Total		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
<b>Alternative I:</b>									
1986	10.59	9.89	0.70	1.01	1.10	-0.08	11.60	10.99	0.62
1987	10.60	9.54	1.06	1.01	1.02	-.01	11.61	10.57	1.05
1988	11.28	9.61	1.67	1.07	1.00	.07	12.35	10.62	1.74
1989	11.29	9.48	1.81	1.07	.97	.11	12.37	10.45	1.92
1990	11.44	9.25	2.19	1.22	.92	.29	12.66	10.17	2.49
1991	11.47	9.32	2.16	1.22	.92	.30	12.69	10.23	2.45
1992	11.49	9.13	2.36	1.22	.89	.32	12.71	10.03	2.68
1993	11.52	9.19	2.33	1.22	.90	.32	12.74	10.08	2.65
1994	11.54	9.03	2.51	1.22	.88	.34	12.76	9.91	2.84
1995	11.57	9.10	2.47	1.22	.89	.33	12.79	9.99	2.80
2000	11.30	8.03	3.27	1.45	.92	.53	12.75	8.95	3.80
2005	11.27	7.38	3.89	1.46	1.02	.44	12.73	8.41	4.32
2010	11.29	7.59	3.71	1.47	1.16	.30	12.76	8.75	4.01
2015	11.34	8.46	2.88	1.47	1.24	.23	12.81	9.70	3.11
2020	11.40	9.61	1.79	1.47	1.28	.20	12.88	10.89	1.98
2025	11.45	10.47	.98	1.48	1.33	.15	12.93	11.80	1.13
2030	11.48	10.85	.64	1.48	1.28	.19	12.96	12.13	.83
2035	11.49	10.73	.76	1.48	1.22	.26	12.97	11.95	1.02
2040	11.49	10.28	1.21	1.48	1.20	.28	12.96	11.48	1.49
2045	11.48	9.88	1.60	1.48	1.22	.26	12.96	11.10	1.86
2050	11.47	9.66	1.80	1.48	1.23	.26	12.95	10.89	2.06
2055	11.46	9.56	1.91	1.48	1.22	.27	12.94	10.77	2.17
2060	11.46	9.46	2.00	1.48	1.20	.28	12.94	10.66	2.28
25-year averages:									
1986-2010	11.32	8.44	2.89	1.30	.98	.32	12.62	9.41	3.21
2011-2035	11.42	9.79	1.63	1.48	1.27	.21	12.89	11.06	1.84
2036-2060	11.47	9.86	1.61	1.48	1.21	.27	12.95	11.08	1.88
75-year average:									
1986-2060	11.41	9.36	2.04	1.42	1.15	.26	12.82	10.52	2.31
<b>Alternative II-A:</b>									
1986	10.59	9.93	.67	1.01	1.12	-.11	11.60	11.05	.55
1987	10.61	9.79	.82	1.01	1.07	-.06	11.62	10.86	.76
1988	11.28	9.77	1.51	1.07	1.05	.03	12.36	10.82	1.54
1989	11.30	9.69	1.61	1.08	1.03	.05	12.38	10.72	1.66
1990	11.48	9.67	1.81	1.22	1.01	.21	12.70	10.68	2.02
1991	11.48	9.60	1.88	1.22	1.00	.22	12.70	10.60	2.10
1992	11.50	9.57	1.94	1.22	.99	.23	12.72	10.56	2.16
1993	11.53	9.55	1.98	1.22	.99	.23	12.75	10.55	2.21
1994	11.56	9.54	2.01	1.22	1.00	.23	12.78	10.54	2.24
1995	11.59	9.53	2.06	1.23	1.00	.22	12.81	10.54	2.28
2000	11.33	8.66	2.67	1.46	1.09	.37	12.79	9.75	3.03
2005	11.30	8.13	3.17	1.47	1.26	.21	12.77	9.39	3.38
2010	11.33	8.44	2.89	1.48	1.48	.00	12.80	9.92	2.89
2015	11.38	9.50	1.88	1.49	1.62	-.13	12.87	11.12	1.75
2020	11.46	10.96	.50	1.49	1.69	-.20	12.95	12.66	.30
2025	11.53	12.20	-.67	1.50	1.79	-.29	13.03	13.99	-.96
2030	11.58	12.99	-1.40	1.50	1.76	-.26	13.08	14.75	-1.66
2035	11.61	13.22	-1.61	1.50	1.70	-.20	13.11	14.92	-1.81
2040	11.62	13.05	-1.42	1.50	1.69	-.19	13.12	14.73	-1.61
2045	11.63	12.87	-1.24	1.51	1.75	-.24	13.14	14.61	-1.48
2050	11.63	12.88	-1.25	1.51	1.78	-.27	13.14	14.66	-1.52
2055	11.64	12.98	-1.34	1.51	1.76	-.26	13.14	14.74	-1.60
2060	11.64	13.01	-1.37	1.51	1.74	-.24	13.14	14.75	-1.60
25-year averages:									
1986-2010	11.35	8.98	2.37	1.30	1.14	.17	12.65	10.12	2.53
2011-2035	11.49	11.40	.09	1.49	1.70	-.21	12.99	13.10	-.12
2036-2060	11.63	12.97	-1.34	1.51	1.74	-.24	13.13	14.71	-1.58
75-year average:									
1986-2060	11.49	11.12	.37	1.43	1.53	-.09	12.92	12.64	.28

TABLE 28.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1986-2060 (Cont.)  
[As a percentage of taxable payroll]

Calendar year	OASI			DI			Total		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
<b>Alternative II-B:</b>									
1986	10.59	9.98	0.61	1.01	1.13	-0.12	11.61	11.11	0.50
1987	10.61	9.93	.68	1.01	1.09	-.07	11.62	11.02	.60
1988	11.29	9.99	1.29	1.07	1.07	.00	12.36	11.07	1.30
1989	11.30	9.89	1.42	1.08	1.05	.03	12.38	10.94	1.45
1990	11.51	9.96	1.55	1.22	1.04	-.19	12.74	11.00	1.74
1991	11.49	9.94	1.55	1.22	1.03	-.19	12.71	10.96	1.75
1992	11.51	9.90	1.61	1.22	1.02	-.20	12.73	10.92	1.82
1993	11.54	9.88	1.66	1.22	1.01	-.21	12.76	10.89	1.87
1994	11.57	9.88	1.69	1.22	1.02	-.21	12.79	10.90	1.89
1995	11.60	9.90	1.71	1.23	1.03	-.20	12.83	10.92	1.91
2000	11.35	9.13	2.22	1.46	1.12	.33	12.81	10.25	2.55
2005	11.32	8.64	2.68	1.47	1.31	.16	12.79	9.95	2.84
2010	11.35	8.96	2.38	1.48	1.55	-.07	12.83	10.51	2.32
2015	11.41	10.08	1.33	1.49	1.69	-.20	12.90	11.77	1.13
2020	11.49	11.62	-.14	1.50	1.77	-.28	12.98	13.40	-.41
2025	11.56	12.96	-1.40	1.50	1.88	-.37	13.07	14.84	-1.77
2030	11.62	13.85	-2.23	1.50	1.84	-.34	13.13	15.70	-2.57
2035	11.66	14.15	-2.50	1.50	1.78	-.28	13.16	15.93	-2.78
2040	11.67	14.00	-2.34	1.51	1.77	-.26	13.17	15.77	-2.60
2045	11.68	13.82	-2.14	1.51	1.83	-.32	13.19	15.65	-2.46
2050	11.68	13.83	-2.15	1.51	1.86	-.35	13.19	15.69	-2.50
2055	11.68	13.92	-2.24	1.51	1.85	-.34	13.19	15.77	-2.57
2060	11.68	13.95	-2.27	1.51	1.82	-.31	13.19	15.77	-2.58
25-year averages:									
1986-2010	11.36	9.37	1.99	1.30	1.17	.13	12.67	10.54	2.12
2011-2035	11.52	12.13	-.61	1.50	1.78	-.28	13.02	13.91	-.89
2036-2060	11.68	13.92	-2.24	1.51	1.82	-.31	13.18	15.74	-2.56
75-year average:									
1986-2060	11.52	11.81	-.29	1.44	1.59	-.15	12.96	13.40	-.44
<b>Alternative III:</b>									
1986	10.59	9.99	.60	1.01	1.15	-.14	11.61	11.14	.46
1987	10.61	10.08	.53	1.01	1.13	-.12	11.63	11.21	.41
1988	11.30	10.54	.76	1.08	1.17	-.09	12.38	11.71	.67
1989	11.32	10.38	.93	1.08	1.14	-.07	12.39	11.53	.87
1990	11.56	10.79	.77	1.23	1.18	.05	12.78	11.97	.82
1991	11.52	10.80	.72	1.22	1.17	.05	12.74	11.97	.77
1992	11.54	10.77	.77	1.22	1.17	.06	12.77	11.94	.83
1993	11.57	10.76	.81	1.23	1.17	.06	12.80	11.92	.87
1994	11.60	10.76	.84	1.23	1.17	.05	12.83	11.93	.90
1995	11.64	10.78	.86	1.23	1.19	.05	12.87	11.96	.91
2000	11.39	10.21	1.18	1.46	1.35	.11	12.86	11.56	1.29
2005	11.37	9.79	1.58	1.48	1.63	-.15	12.85	11.42	1.43
2010	11.40	10.25	1.15	1.50	1.99	-.49	12.90	12.23	.67
2015	11.47	11.67	-.20	1.51	2.23	-.72	12.99	13.90	-.91
2020	11.58	13.77	-2.19	1.52	2.38	-.86	13.10	16.15	-3.05
2025	11.69	15.86	-4.17	1.53	2.58	-1.05	13.23	18.44	-5.22
2030	11.80	17.69	-5.89	1.54	2.60	-1.06	13.34	20.29	-6.95
2035	11.88	18.96	-7.08	1.54	2.57	-1.03	13.42	21.54	-8.11
2040	11.95	19.73	-7.79	1.55	2.62	-1.07	13.49	22.35	-8.86
2045	12.01	20.46	-8.45	1.56	2.78	-1.22	13.57	23.23	-9.67
2050	12.06	21.45	-9.39	1.56	2.87	-1.31	13.62	24.32	-10.70
2055	12.11	22.50	-10.38	1.56	2.86	-1.30	13.67	25.36	-11.68
2060	12.15	23.26	-11.11	1.56	2.82	-1.26	13.71	26.08	-12.37
25-year averages:									
1986-2010	11.40	10.30	1.10	1.31	1.39	-.08	12.71	11.70	1.01
2011-2035	11.65	14.89	-3.25	1.53	2.43	-.91	13.17	17.33	-4.15
2036-2060	12.03	21.14	-9.10	1.56	2.77	-1.22	13.59	23.91	-10.32
75-year average:									
1986-2060	11.69	15.44	-3.75	1.46	2.20	-.73	13.16	17.64	-4.49

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

Also significant are the long-range actuarial balances of the separate OASI and DI programs, as estimated under the intermediate alternatives. The long-range actuarial balances of the OASI program under alternatives II-A and II-B are a surplus of 0.37 percent of taxable payroll and a deficit of 0.29 percent, respectively. The surplus under alternative II-A results from long-range average income and cost rates of 11.49 and 11.12

percent of taxable payroll, respectively; the deficit under alternative II-B results from corresponding income and cost rates of 11.52 and 11.81 percent, respectively. Because the long-range average income rates are about 103.3 and 97.6 percent, of the corresponding cost rates under alternatives II-A and II-B, respectively, the OASI program is in close actuarial balance under each of these alternatives, although imbalances exist in the subperiods.

As in the case of the OASDI program as a whole, the long-range actuarial balance for the OASI program consists of surpluses during the early years, followed by deficits in the later years. Under alternative II-A, the actuarial balances for the three subperiods are 2.37, 0.09, and -1.34 percent of payroll, respectively. Under alternative II-B, the pattern is 1.99, -0.61, and -2.24 percent.

The long-range actuarial balances of the DI program under alternatives II-A and II-B are deficits of 0.09 percent and of 0.15 percent of taxable payroll, respectively. Under alternative II-A, this deficit results from long-range average income and cost rates of 1.43 and 1.53 percent of taxable payroll, respectively; under alternative II-B, it results from corresponding income and cost rates of 1.44 and 1.59 percent, respectively. Because the long-range average income rates are less than 95 percent of the corresponding cost rates—94.0 and 90.3 percent under alternatives II-A and II-B, respectively—the DI program is not in close actuarial balance under either alternative. The DI program could be brought into close actuarial balance by a small reallocation of the tax rate from the OASI program to the DI program, in such a way that the OASI program would remain in close actuarial balance.

Under alternative II-A, the long-range actuarial balance of the DI program consists of an average surplus of 0.17 percent of payroll for the first 25-year subperiod, followed by average deficits of 0.21 and 0.24 percent for the second and third subperiods, respectively. Under alternative II-B, the pattern is similar, with the actuarial balances for the three 25-year subperiods being 0.13, -0.28, and -0.31 percent of payroll.

Table 28 also illustrates the spread of the long-range actuarial balances among the four alternatives. For the OASI program, long-range actuarial surpluses are estimated based on alternatives I and II-A, and deficits are estimated based on alternatives II-B and III. For the DI program, a surplus is estimated based on alternative I, and deficits are estimated based on the other three alternatives. The combined OASDI long-range actuarial balance varies from a surplus of 2.31 percent of taxable payroll based on alternative I, to a deficit of 4.49 percent based on alternative III.

In addition, table 28 shows the ranges of the actuarial balances for the 25-year subperiods. For example, for the OASI program, actuarial surpluses are estimated for the first 25-year subperiod on the basis of all four alternatives. For the DI program, surpluses are estimated for the first subperiod on the basis of all alternatives except alternative III. The combined OASDI actuarial surplus for the first subperiod varies from 3.21 percent of taxable payroll based on alternative I, to 1.01 percent based on alternative III.

Table 28 also shows the OASDI annual balances. On the basis of alternative II-A, OASDI annual surpluses are estimated until about 2020, after which annual deficits are estimated. These deficits are estimated to increase steadily to a peak around 2035, when the magnitude is 1.81 percent of taxable payroll; thereafter they decrease somewhat to about 1.6 percent by the end of the long-range projection period. On the basis of alternative II-B, OASDI annual surpluses are estimated until about 2015, after which annual deficits are estimated. These estimated deficits increase more rapidly than those based on alternative II-A and also peak around 2035, when the magnitude is 2.78 percent of taxable payroll. Although the annual deficits thereafter are significantly larger than those based on alternative II-A, they follow a similar pattern, decreasing by approximately 0.2 percent of taxable payroll to about 2.6 percent by the end of the long-range projection period.

The OASDI cost rates based on alternatives I and III differ by about 15 percentage points at the end of the long-range period, although the difference is only about 3.5 percentage points at the end of the medium-range period. The long-range average cost rate for the OASDI program varies from 10.52 percent on the basis of alternative I, to 17.64 percent on the basis of alternative III, while the medium-range average cost rate varies much less—from 9.41 to 11.70 percent.

Figure 2 shows in graphical form the patterns of the OASDI annual income and cost rates. In figure 2, the income rates for alternative II-B represent those for all of the alternatives in order to simplify the graphical presentation. Such representation is satisfactory because, as shown in table 29, the variation in the income rates by alternative is very small. The OASDI long-range average income rates for alternatives I and III differ by only 0.33 percent of taxable payroll. At the end of the long-range projection period, the annual income rates for alternatives I and III differ by only 0.77 percent of taxable payroll. The income rates in figure 2 and table 29 show two distinct increases in 1988 and 1990, when the payroll-tax rate is scheduled to rise under present law. Thereafter, only small fluctuations are noticeable, as the rate of income from taxation of benefits varies slightly, by alternative, with changes in the cost rate.

The patterns of the annual balances are indicated in figure 2. For each alternative, the magnitude of each of the surpluses in the early years is represented by the distance between the appropriate cost-rate curve and the income-rate curve above it. The magnitude of each of the deficits in subsequent years is represented by the distance between the appropriate cost-rate curve and the income-rate curve below it.

The future OASDI cost rate will not necessarily be within the range encompassed by alternatives I and III. Nonetheless, because alternatives I and III define a reasonably wide range of economic and demographic conditions, the resulting estimates delineate a reasonable range for future program costs.

FIGURE 2.—ESTIMATED OASDI INCOME RATES AND COST RATES BY ALTERNATIVE, CALENDAR YEARS 1986-2060

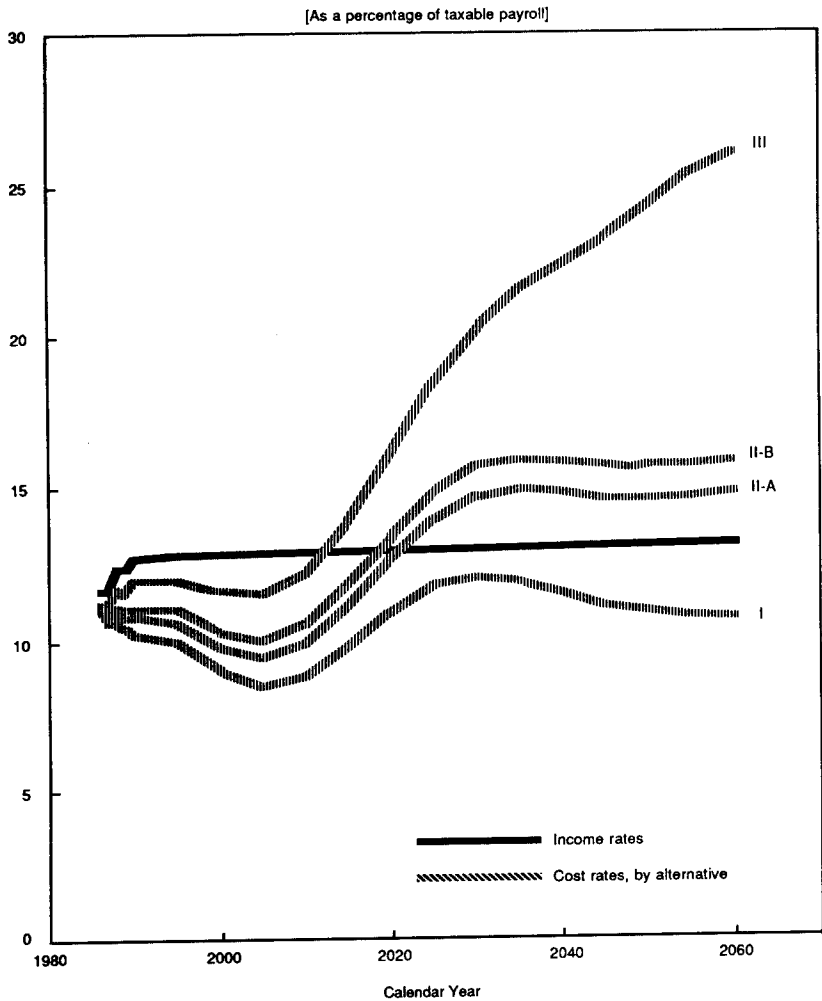


TABLE 29.—ESTIMATED INCOME RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1986-2060  
[As a percentage of taxable payroll]

Calendar year	OASI			DI			Total		
	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total
<b>Alternative I:</b>									
1986	10.40	0.19	10.59	1.00	0.01	1.01	11.40	0.20	11.60
1987	10.40	.20	10.60	1.00	.01	1.01	11.40	.21	11.61
1988	11.06	.22	11.28	1.06	.01	1.07	12.12	.23	12.35
1989	11.06	.23	11.29	1.06	.01	1.07	12.12	.25	12.37
1990	11.20	.24	11.44	1.20	.02	1.22	12.40	.26	12.66
1991	11.20	.27	11.47	1.20	.02	1.22	12.40	.29	12.69
1992	11.20	.29	11.49	1.20	.02	1.22	12.40	.31	12.71
1993	11.20	.32	11.52	1.20	.02	1.22	12.40	.34	12.74
1994	11.20	.34	11.54	1.20	.02	1.22	12.40	.36	12.76
1995	11.20	.37	11.57	1.20	.02	1.22	12.40	.39	12.79
2000	10.98	.32	11.30	1.42	.03	1.45	12.40	.35	12.75
2005	10.98	.29	11.27	1.42	.04	1.46	12.40	.33	12.73
2010	10.98	.31	11.29	1.42	.05	1.47	12.40	.36	12.76
2015	10.98	.36	11.34	1.42	.05	1.47	12.40	.41	12.81
2020	10.98	.42	11.40	1.42	.06	1.48	12.40	.48	12.88
2025	10.98	.47	11.45	1.42	.06	1.48	12.40	.53	12.93
2030	10.98	.50	11.48	1.42	.06	1.48	12.40	.56	12.96
2035	10.98	.51	11.49	1.42	.06	1.48	12.40	.57	12.97
2040	10.98	.51	11.49	1.42	.06	1.48	12.40	.56	12.96
2045	10.98	.50	11.48	1.42	.06	1.48	12.40	.56	12.96
2050	10.98	.49	11.47	1.42	.06	1.48	12.40	.55	12.95
2055	10.98	.48	11.46	1.42	.06	1.48	12.40	.54	12.94
2060	10.98	.48	11.46	1.42	.06	1.48	12.40	.54	12.94
25-year averages:									
1986-2010	11.03	.30	11.32	1.27	.03	1.30	12.30	.32	12.62
2011-2035	10.98	.44	11.42	1.42	.06	1.48	12.40	.49	12.89
2036-2060	10.98	.49	11.47	1.42	.06	1.48	12.40	.55	12.95
75-year average: 1986-2060									
	11.00	.41	11.41	1.37	.05	1.42	12.37	.46	12.82
<b>Alternative II-A:</b>									
1986	10.40	.19	10.59	1.00	.01	1.01	11.40	.20	11.60
1987	10.40	.21	10.61	1.00	.01	1.01	11.40	.22	11.62
1988	11.06	.22	11.28	1.06	.01	1.07	12.12	.24	12.36
1989	11.06	.24	11.30	1.06	.02	1.08	12.12	.26	12.38
1990	11.20	.28	11.48	1.20	.02	1.22	12.40	.30	12.70
1991	11.20	.28	11.48	1.20	.02	1.22	12.40	.30	12.70
1992	11.20	.30	11.50	1.20	.02	1.22	12.40	.32	12.72
1993	11.20	.33	11.53	1.20	.02	1.22	12.40	.35	12.75
1994	11.20	.36	11.56	1.20	.02	1.22	12.40	.38	12.78
1995	11.20	.39	11.59	1.20	.03	1.23	12.40	.41	12.81
2000	10.98	.35	11.33	1.42	.04	1.46	12.40	.39	12.79
2005	10.98	.32	11.30	1.42	.05	1.47	12.40	.37	12.77
2010	10.98	.35	11.33	1.42	.06	1.48	12.40	.40	12.80
2015	10.98	.40	11.38	1.42	.07	1.49	12.40	.47	12.87
2020	10.98	.48	11.46	1.42	.07	1.49	12.40	.55	12.95
2025	10.98	.55	11.53	1.42	.08	1.50	12.40	.63	13.03
2030	10.98	.60	11.58	1.42	.08	1.50	12.40	.68	13.08
2035	10.98	.63	11.61	1.42	.08	1.50	12.40	.71	13.11
2040	10.98	.64	11.62	1.42	.08	1.50	12.40	.72	13.12
2045	10.98	.65	11.63	1.42	.09	1.51	12.40	.74	13.14
2050	10.98	.65	11.63	1.42	.09	1.51	12.40	.74	13.14
2055	10.98	.66	11.64	1.42	.09	1.51	12.40	.74	13.14
2060	10.98	.66	11.64	1.42	.09	1.51	12.40	.74	13.14
25-year averages:									
1986-2010	11.03	.32	11.35	1.27	.03	1.30	12.30	.35	12.65
2011-2035	10.98	.51	11.49	1.42	.07	1.49	12.40	.59	12.99
2036-2060	10.98	.65	11.63	1.42	.09	1.51	12.40	.73	13.13
75-year average: 1986-2060									
	11.00	.49	11.49	1.37	.06	1.43	12.37	.56	12.92

TABLE 29.—ESTIMATED INCOME RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1986-2060 (Cont.)  
[As a percentage of taxable payroll]

Calendar year	OASI			DI			Total		
	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total
<b>Alternative II-B:</b>									
1986	10.40	0.19	10.59	1.00	0.01	1.01	11.40	0.21	11.61
1987	10.40	.21	10.61	1.00	.01	1.01	11.40	.22	11.62
1988	11.06	.23	11.29	1.06	.01	1.07	12.12	.24	12.36
1989	11.06	.24	11.30	1.06	.02	1.08	12.12	.26	12.38
1990	11.20	.31	11.51	1.20	.02	1.22	12.40	.34	12.74
1991	11.20	.29	11.49	1.20	.02	1.22	12.40	.31	12.71
1992	11.20	.31	11.51	1.20	.02	1.22	12.40	.33	12.73
1993	11.20	.34	11.54	1.20	.02	1.22	12.40	.36	12.76
1994	11.20	.37	11.57	1.20	.02	1.22	12.40	.39	12.79
1995	11.20	.40	11.60	1.20	.03	1.23	12.40	.43	12.83
2000	10.98	.37	11.35	1.42	.04	1.46	12.40	.41	12.81
2005	10.98	.34	11.32	1.42	.05	1.47	12.40	.39	12.79
2010	10.98	.37	11.35	1.42	.06	1.48	12.40	.43	12.83
2015	10.98	.43	11.41	1.42	.07	1.49	12.40	.50	12.90
2020	10.98	.51	11.49	1.42	.08	1.50	12.40	.58	12.98
2025	10.98	.58	11.56	1.42	.08	1.50	12.40	.67	13.07
2030	10.98	.64	11.62	1.42	.08	1.50	12.40	.73	13.13
2035	10.98	.68	11.66	1.42	.08	1.50	12.40	.76	13.16
2040	10.98	.69	11.67	1.42	.09	1.51	12.40	.77	13.17
2045	10.98	.70	11.68	1.42	.09	1.51	12.40	.79	13.19
2050	10.98	.70	11.68	1.42	.09	1.51	12.40	.79	13.19
2055	10.98	.70	11.68	1.42	.09	1.51	12.40	.79	13.19
2060	10.98	.70	11.68	1.42	.09	1.51	12.40	.79	13.19
<b>25-year averages:</b>									
1986-2010	11.03	.33	11.36	1.27	.03	1.30	12.30	.37	12.67
2011-2035	10.98	.54	11.52	1.42	.08	1.50	12.40	.62	13.02
2036-2060	10.98	.70	11.68	1.42	.09	1.51	12.40	.78	13.18
<b>75-year average:</b>									
1986-2060	11.00	.52	11.52	1.37	.07	1.44	12.37	.59	12.96
<b>Alternative III:</b>									
1986	10.40	.19	10.59	1.00	.01	1.01	11.40	.21	11.61
1987	10.40	.21	10.61	1.00	.01	1.01	11.40	.23	11.63
1988	11.06	.24	11.30	1.06	.02	1.08	12.12	.26	12.38
1989	11.06	.26	11.32	1.06	.02	1.08	12.12	.27	12.39
1990	11.20	.36	11.56	1.20	.03	1.23	12.40	.38	12.78
1991	11.20	.32	11.52	1.20	.02	1.22	12.40	.34	12.74
1992	11.20	.34	11.54	1.20	.02	1.22	12.40	.37	12.77
1993	11.20	.37	11.57	1.20	.03	1.23	12.40	.40	12.80
1994	11.20	.40	11.60	1.20	.03	1.23	12.40	.43	12.83
1995	11.20	.44	11.64	1.20	.03	1.23	12.40	.47	12.87
2000	10.98	.41	11.39	1.42	.04	1.46	12.40	.46	12.86
2005	10.98	.39	11.37	1.42	.06	1.48	12.40	.45	12.85
2010	10.98	.42	11.40	1.42	.08	1.50	12.40	.50	12.90
2015	10.98	.49	11.47	1.42	.09	1.51	12.40	.59	12.99
2020	10.98	.60	11.58	1.42	.10	1.52	12.40	.70	13.10
2025	10.98	.71	11.69	1.42	.11	1.53	12.40	.83	13.23
2030	10.98	.82	11.80	1.42	.12	1.54	12.40	.94	13.34
2035	10.98	.90	11.88	1.42	.12	1.54	12.40	1.02	13.42
2040	10.98	.97	11.95	1.42	.13	1.55	12.40	1.09	13.49
2045	10.98	1.03	12.01	1.42	.14	1.56	12.40	1.17	13.57
2050	10.98	1.08	12.06	1.42	.14	1.56	12.40	1.22	13.62
2055	10.98	1.13	12.11	1.42	.14	1.56	12.40	1.27	13.67
2060	10.98	1.17	12.15	1.42	.14	1.56	12.40	1.31	13.71
<b>25-year averages:</b>									
1986-2010	11.03	.37	11.40	1.27	.04	1.31	12.30	.41	12.71
2011-2035	10.98	.67	11.65	1.42	.11	1.53	12.40	.77	13.17
2036-2060	10.98	1.05	12.03	1.42	.14	1.56	12.40	1.19	13.59
<b>75-year average:</b>									
1986-2060	11.00	.70	11.69	1.37	.09	1.46	12.37	.79	13.16

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

The primary reason that the estimated OASDI cost rate increases rapidly after 2005 is that the number of beneficiaries is projected to increase more rapidly than the number of covered workers. This occurs because the relatively large number of persons born during the period of high fertility rates from the end of World War II through the mid-1960s will reach retirement age, and begin to receive benefits, while the



relatively small number of persons born during the subsequent period of low fertility rates will comprise the labor force. A comparison of the numbers of covered workers and beneficiaries is shown in table 30.

TABLE 30.—COMPARISON OF OASDI COVERED WORKERS AND BENEFICIARIES  
BY ALTERNATIVE, CALENDAR YEARS 1945-2060

Calendar year	Covered workers <sup>a</sup> (in thousands)	Beneficiaries <sup>a</sup> (in thousands)			Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
		OASI	DI	Total		
<b>Past experience:</b>						
1945.....	46,390	1,106	—	1,106	41.9	2
1950.....	48,280	2,930	—	2,930	16.5	6
1955.....	65,200	7,563	—	7,563	8.6	12
1960.....	72,530	13,740	522	14,262	5.1	20
1965.....	80,680	18,509	1,648	20,157	4.0	25
1970.....	93,090	22,618	2,568	25,186	3.7	27
1975.....	100,200	26,998	4,125	31,123	3.2	31
1980.....	*113,000	30,385	4,734	35,119	*3.2	*31
1985.....	*121,600	32,776	3,874	36,650	*3.3	*30
<b>Alternative I:</b>						
1986.....	124,290	33,380	3,940	37,320	3.3	30
1990.....	133,060	35,628	3,850	39,478	3.4	30
1995.....	140,190	38,106	3,953	42,059	3.3	30
2000.....	148,990	38,586	4,625	43,211	3.4	29
2005.....	156,100	39,786	5,297	45,083	3.5	29
2010.....	160,640	42,665	6,086	48,751	3.3	30
2015.....	163,340	48,014	6,575	54,589	3.0	33
2020.....	165,160	54,828	6,838	61,666	2.7	37
2025.....	167,330	61,346	7,216	68,562	2.4	41
2030.....	171,000	66,201	7,192	73,393	2.3	43
2035.....	175,780	68,734	7,100	75,834	2.3	43
2040.....	180,880	68,964	7,184	76,148	2.4	42
2045.....	186,090	68,944	7,523	76,467	2.4	41
2050.....	191,770	69,596	7,818	77,414	2.5	40
2055.....	198,050	70,904	8,041	78,945	2.5	40
2060.....	204,780	72,468	8,240	80,708	2.5	39
<b>Alternative II-A:</b>						
1986.....	124,130	33,390	3,956	37,346	3.3	30
1990.....	132,340	35,742	4,047	39,789	3.3	30
1995.....	139,030	38,469	4,342	42,811	3.2	31
2000.....	145,670	39,276	5,113	44,389	3.3	30
2005.....	150,810	40,773	6,071	46,844	3.2	31
2010.....	153,940	43,880	7,162	51,042	3.0	33
2015.....	154,770	49,479	7,825	57,304	2.7	37
2020.....	154,250	56,587	8,160	64,747	2.4	42
2025.....	153,530	63,376	8,597	71,973	2.1	47
2030.....	153,760	68,643	8,520	77,163	2.0	50
2035.....	154,720	71,620	8,343	79,963	1.9	52
2040.....	156,610	72,213	8,355	80,568	1.9	52
2045.....	156,180	72,375	8,657	81,032	1.9	52
2050.....	156,810	73,050	8,851	81,901	1.9	52
2055.....	157,760	74,014	8,888	82,902	1.9	53
2060.....	158,970	74,809	8,878	83,687	1.9	53
<b>Alternative II-B:</b>						
1986.....	123,810	33,389	3,956	37,345	3.3	30
1990.....	130,550	35,740	4,043	39,783	3.3	30
1995.....	137,880	38,457	4,337	42,794	3.2	31
2000.....	143,500	39,262	5,105	44,367	3.2	31
2005.....	148,000	40,752	6,062	46,814	3.2	32
2010.....	151,040	43,850	7,146	50,996	3.0	34
2015.....	151,820	49,441	7,803	57,244	2.7	38
2020.....	151,280	56,539	8,131	64,670	2.3	43
2025.....	150,520	63,317	8,561	71,878	2.1	48
2030.....	150,700	68,575	8,483	77,058	2.0	51
2035.....	151,630	71,542	8,304	79,846	1.9	53
2040.....	152,510	72,124	8,315	80,439	1.9	53
2045.....	153,090	72,280	8,615	80,895	1.9	53
2050.....	153,700	72,945	8,807	81,752	1.9	53
2055.....	154,610	73,902	8,844	82,746	1.9	54
2060.....	155,790	74,691	8,834	83,525	1.9	54

TABLE 30.—COMPARISON OF OASDI COVERED WORKERS AND BENEFICIARIES  
BY ALTERNATIVE, CALENDAR YEARS 1945-2060 (Cont.)

Calendar year	Covered workers <sup>1</sup> (in thousands)	Beneficiaries* (in thousands)			Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
		OASI	DI	Total		
<b>Alternative III:</b>						
1986.....	123,700	33,398	3,976	37,374	3.3	30
1990.....	127,250	35,845	4,242	40,087	3.2	32
1995.....	135,510	38,792	4,726	43,518	3.1	32
2000.....	139,170	39,891	5,653	45,544	3.1	33
2005.....	142,010	41,682	6,927	48,609	2.9	34
2010.....	143,500	45,110	8,338	53,448	2.7	37
2015.....	142,170	51,168	9,176	60,344	2.4	42
2020.....	138,960	58,876	9,566	68,442	2.0	49
2025.....	134,870	66,356	10,039	76,395	1.8	57
2030.....	131,140	72,571	9,870	82,441	1.6	63
2035.....	127,840	76,616	9,553	86,169	1.5	67
2040.....	124,230	78,238	9,435	87,673	1.4	71
2045.....	120,010	79,234	9,624	88,858	1.4	74
2050.....	115,630	80,534	9,592	90,126	1.3	78
2055.....	111,520	81,578	9,256	90,834	1.2	81
2060.....	107,840	81,751	8,852	90,603	1.2	84

<sup>1</sup>Workers who pay OASDI taxes at some time during the year.

\*Beneficiaries with monthly benefits in current-payment status as of June 30.

\*Preliminary.

Note: The numbers of beneficiaries do not include certain uninsured persons, most of whom both attained age 72 before 1968 and have fewer than 3 quarters of coverage, in which cases the costs are reimbursed by the general fund of the Treasury. The number of such uninsured persons was 35,289 as of June 30, 1985, and is estimated to be less than 500 by the turn of the century. Totals do not necessarily equal the sums of rounded components.

Table 30 shows that the number of covered workers per beneficiary, which was about 3.3 in 1985, is estimated to decline in the future. Based on alternative I, for which high fertility rates and small reductions in death rates are assumed, the ratio declines to an ultimate level of about 2.5. Based on alternative III, for which low fertility rates and substantial reductions in death rates are assumed, the decline is much greater, reaching 1.2 workers per beneficiary. Based on alternatives II-A and II-B, the ratio declines to 1.9 workers per beneficiary.

The impact of the demographic shifts under the four alternatives on the OASDI cost rates is better understood by considering the projected number of beneficiaries per 100 workers. As compared to the current level of 30 beneficiaries per 100 covered workers, this ratio rises by the end of the long-range period to a significantly higher level, which ranges from 39 under alternative I to 84 under alternative III. The salience of these numbers can be seen by comparing figure 2 to figure 3, which is a graphical representation of the beneficiaries per 100 covered workers shown in table 30. For each alternative, the shape of the curve in figure 3 is strikingly similar to that of the corresponding cost-rate curve in figure 2, thereby emphasizing the extent to which the cost of the OASDI program is determined by the age patterns of the population. Because, conceptually, the cost rate consists of the product of the number of beneficiaries and their average benefit, divided by the product of the number of covered workers and their average earnings, it is reasonable that the pattern of the annual cost rates is similar to that of the annual ratios of beneficiaries to workers. A graphical presentation of covered workers per beneficiary is shown in the "Summary."

FIGURE 3.—RATIOS OF ESTIMATED OASDI BENEFICIARIES PER 100 COVERED WORKERS BY ALTERNATIVE, CALENDAR YEARS 1986-2060

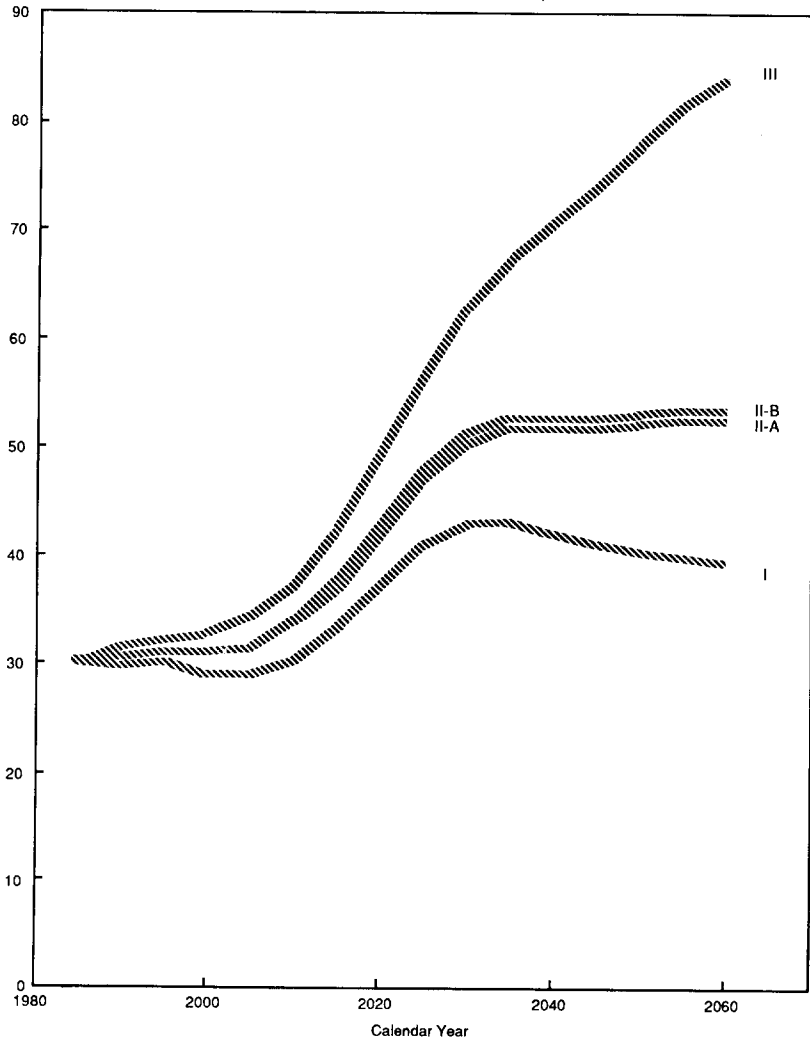


Table 31 shows, by alternative, the estimated contingency fund ratios for the OASI, DI, and combined OASDI Trust Funds. The OASI and DI ratios are estimated to be relatively low for the next several years, before generally increasing to very high levels thereafter. Based on alternatives

II-A and II-B, the OASI ratio peaks about 2015, when it is 735 and 582 percent, respectively, and the DI ratio peaks about 2005, when it is 319 and 269 percent, respectively. Thereafter, the OASI and DI ratios decline steadily. Under alternative II-A, the DI Trust Fund becomes exhausted in 2034; under alternative II-B, the OASI and DI funds become exhausted in 2054 and 2026, respectively. Based on alternative I, the ratios increase throughout the long-range projection period to extremely high levels, around 1,500-1,600 percent for both the OASI and DI programs. In contrast, under alternative III, both the OASI and the DI Trust Funds are estimated to be exhausted within the long-range projection period. Thus, because of the high costs estimated for the last third of the long-range projection period under all but the most optimistic assumptions, eventually income will need to be increased or program costs will need to be reduced in order to prevent the OASI and DI Trust Funds from becoming exhausted.

TABLE 31.—ESTIMATED CONTINGENCY FUND RATIOS BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1986-2060  
[In percent]

Calendar year	Alternative I			Alternative II-A			Alternative II-B			Alternative III		
	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total	OASI	DI	Total
1986.....	28	38	29	28	38	29	28	38	29	28	37	28
1987.....	29	48	31	28	43	29	27	43	29	27	39	28
1988.....	40	49	41	37	40	37	35	38	35	32	30	32
1989.....	57	58	57	52	43	51	47	38	46	39	22	37
1990.....	79	74	78	69	50	67	61	43	59	47	17	44
1991.....	101	106	102	89	71	87	77	61	75	54	20	51
1992.....	128	144	130	109	94	107	93	80	92	61	24	58
1993.....	152	178	155	129	117	128	109	100	109	68	28	64
1994.....	182	219	185	150	139	149	126	120	126	76	33	71
1995.....	207	253	211	172	160	170	144	140	143	84	37	79
2000.....	401	409	402	319	235	309	262	202	255	140	29	127
2005.....	654	590	646	505	319	480	408	269	390	211	27	184
2010.....	881	674	853	668	309	615	536	247	493	273	(*)	220
2015.....	993	740	960	735	268	667	582	191	526	274	(*)	201
2020.....	1,009	811	966	714	214	647	550	119	493	207	(*)	126
2025.....	1,004	853	987	661	141	594	481	31	424	93	(*)	8
2030.....	1,007	943	1,000	596	61	532	397	(*)	342	(*)	(*)	(*)
2035.....	1,044	1,077	1,048	538	(*)	477	311	(*)	258	(*)	(*)	(*)
2040.....	1,130	1,204	1,137	497	(*)	432	233	(*)	180	(*)	(*)	(*)
2045.....	1,239	1,268	1,244	462	(*)	392	159	(*)	103	(*)	(*)	(*)
2050.....	1,344	1,375	1,348	423	(*)	348	85	(*)	26	(*)	(*)	(*)
2055.....	1,443	1,479	1,447	377	(*)	299	(*)	(*)	(*)	(*)	(*)	(*)
2060.....	1,546	1,594	1,551	330	(*)	248	(*)	(*)	(*)	(*)	(*)	(*)
Trust fund is estimated to be exhausted in:	(*)	(*)	(*)	(*)	2034	(*)	2054	2026	2051	2028	2006	2025

\*The fund is estimated to be exhausted in the year shown in the last line of the table.

†The fund is not estimated to be exhausted within the projection period.

Note: See footnote 2 of table 13 for definition of contingency fund ratio. The OASDI ratios shown for years after a given fund is estimated to be exhausted are theoretical and are shown for informational purposes only.

Table 32 itemizes the reasons for the changes in the long-range actuarial balances, based on alternative II-B, between last year's report and this report. Also shown are the estimated effects associated with

each reason for change.

TABLE 32.—CHANGE IN ACTUARIAL BALANCE ESTIMATED ON THE BASIS OF ALTERNATIVE II-B BY TRUST FUND AND REASON FOR CHANGE  
[As a percentage of taxable payroll]

Item	OASI	DI	Total
Shown in last year's report: <sup>1</sup>			
Average income rate.....	11.51	1.43	12.94
Average cost rate.....	11.85	1.49	13.35
Actuarial balance.....	-.35	-.07	-.41
Changes in actuarial balance due to changes in:			
Valuation period.....	-.04	-.00	-.04
Economic assumptions.....	-.09	-.01	-.10
Demographic assumptions.....	+ .17	+ .02	+ .19
Disability assumptions.....	-.00	-.05	-.05
All other factors.....	+ .01	-.04	-.03
Total change in actuarial balance.....	+ .06	-.09	-.03
Shown in this report: <sup>2</sup>			
Actuarial balance.....	-.29	-.15	-.44
Average income rate.....	11.52	1.44	12.96
Average cost rate.....	11.81	1.59	13.40

<sup>1</sup>Income rates, cost rates, and taxable payroll are calculated on the basis of alternative II-B as described in the 1985 report, for which the ultimate assumptions include annual increases of 5.5 percent in average earnings in covered employment and 4.0 percent in the CPI, an annual unemployment rate of 6.0 percent, and a total fertility rate of 2.0 children per woman. The averages are computed for projection periods commencing with 1985.

<sup>2</sup>Income rates, cost rates, and taxable payroll are calculated on the basis of alternative II-B as described in a preceding subsection of this report. The averages are computed for projection periods commencing with 1986.

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

In changing from the valuation period of last year's report, which was 1985-2059, to the valuation period of this report, 1986-2060, 1985 is replaced by 2060. For the OASI program, the estimated surplus for 1985 shown in last year's report (0.49 percent of taxable payroll) is replaced by a deficit for 2060 (2.15 percent), thereby decreasing the actuarial balance. For the DI program, the estimated deficit for 1985 shown in last year's report (0.17 percent) is replaced by a deficit for 2060 (0.18 percent) which is so similar in magnitude that the resulting decrease in the actuarial balance is negligible. The net effect of these OASI and DI changes is an OASDI actuarial balance that is lower.

Various economic assumptions were revised for this report. The most significant change was that labor force participation rates are assumed to be somewhat lower. Most of the change in assumed labor force participation rates is for men, particularly at ages 25-40 and 60-70. The decline in labor force participation rates for these age groups since the 1950s is assumed to continue for about 10 years, although more slowly, before the rates generally stabilize. These changes in economic assumptions result in a net decrease in the long-range actuarial balance.

Various demographic assumptions were changed for this report. The starting population was decreased slightly, to reflect updated estimates by the Bureau of the Census. The updated estimates include the effects of death rates which are higher than those previously estimated. With respect to fertility, however, the rates for 1981-84, based on recent data, are higher than those estimated a year ago; these higher estimated rates are reflected in higher fertility rates for the first 25 years of the projection period. The ultimate total fertility rate is the same as was assumed last year. The estimated initial death rates at the older ages, which reflect new and revised data for 1982 and 1983, are slightly higher. Also, the ultimate rates of decrease in death rates are slightly

higher than in last year's report, in order to reflect the results of a more comprehensive analysis of historical rates. The net effect of all the changes in demographic assumptions is an increase in the long-range actuarial balance.

Various modifications were made to the disability assumptions for this report. The rate of decline in death rates for disabled individuals is assumed to be greater throughout the projection period; in last year's report, the assumed death rates for the disabled in 2060 were approximately 21 percent less than those experienced in 1977-80, while in this report, such death rates are approximately 30 percent less than those for 1977-80. The disability incidence rates, as compared to those for last year's report, are assumed to be higher at the younger ages and lower at the older ages, to reflect recent experience; although the ultimate age-adjusted incidence rate is the same as for last year's report, the changes by age result in higher program costs because more workers are projected to become disabled-worker beneficiaries at the younger ages. The net effect of these changes in disability assumptions is to decrease the long-range actuarial balance.

Numerous changes were made in other items. These changes result in an increase in the OASI long-range actuarial balance and decreases in the DI and combined OASDI long-range actuarial balances.

The cost of the OASDI program has been discussed in this section in relation to taxable payroll, which is a program-related concept that is very useful in analyzing the financial status of the OASDI program. The cost can also be discussed in relation to broader economic concepts, such as the Gross National Product (GNP). A discussion of both the cost and taxable payroll of the OASDI program in relation to GNP is presented in Appendix F.

## VI. CONCLUSION

The actuarial estimates shown in this report indicate that the assets of the OASI and DI Trust Funds will be sufficient to enable the timely payment of OASDI benefits for many years into the future, on the basis of all four sets of economic and demographic assumptions. The long-range 75-year estimates indicate that the OASDI program, on an overall basis, is in close actuarial balance, based on the two intermediate sets of assumptions, although deficits appear in the second and third 25-year subperiods.

The economy continued to grow in 1985. Trust fund assets also grew—more rapidly than was estimated in the 1985 Annual Report, based on any of the four sets of assumptions. As a result, current trust fund levels are higher than had been expected, and the ability of the OASDI program to withstand temporary economic downturns has improved significantly. The estimates for each trust fund, separately, indicate that both the OASI and the DI programs can operate satisfactorily for many years, as shown by all four sets of estimates. During the next several years, however, the DI contingency fund ratio could decline to a relatively low level, as shown by the pessimistic alternative III estimates.

The growth of the trust funds in 1985 was such that the entire \$10.6 billion in interfund loans owed from the OASI Trust Fund to the HI Trust Fund in January 1986 was repaid then. The complete repayment of the loan owed to the HI fund therefore occurred a year sooner than was expected, based on the estimates in the 1985 report. The \$2.5 billion owed from the OASI fund to the DI fund at the end of 1985 is scheduled to be repaid in April 1986.

For the long-range 75-year projection period, the estimates based on the intermediate alternative II-B assumptions indicate that the OASDI program has an average annual deficit of 0.44 percent of taxable payroll. This deficit represents about 3 percent of the average annual cost rate. In other words, the long-range income rate represents about 97 percent of the long-range cost rate. The program is defined to be in "close actuarial balance" if the estimated average annual income rate is between 95 and 105 percent of the estimated average annual cost rate. The OASDI program as a whole is therefore estimated to be in close actuarial balance for 75 years, although deficits appear after the first three decades.

For OASI and DI, separately, the average long-range deficits, based on alternative II-B, are 0.29 percent and 0.15 percent of taxable payroll, respectively. The deficit for DI represents about 10 percent of the average annual cost rate; thus, the DI program is not in close actuarial balance. The DI program could be brought into close actuarial balance by a small reallocation of the contribution rate from OASI to DI, in such a way that the OASI program would remain in close actuarial balance. While such a reallocation is not recommended at this time, the financial condition of the DI program, in both the short range and the long range, will need to be carefully monitored for the next several years.

The long-range estimates based on alternative II-B show a pattern of recurring annual surpluses in the first three decades and recurring annual deficits thereafter. These actuarial surpluses and deficits do not reflect

interest earnings, which result in trust fund growth continuing for about 15 years after the first actuarial deficits occur. The long-range actuarial deficit of 0.44 percent of taxable payroll consists of an average annual surplus of 2.12 percent of taxable payroll for the first 25-year subperiod, and average annual deficits of 0.89 and 2.56 percent for the second and third 25-year subperiods, respectively. Thus, in the absence of other changes, the long-range actuarial balance will tend to decline slowly in future annual reports, as the valuation period moves forward and near-term years of surplus are replaced by distant years of deficit. The actuarial deficits in the later years of the 75-year projection period are caused primarily by the demographic trends, which will result in a lower ratio of workers to beneficiaries in the future.