

TABLE 9.—ASSETS OF THE DISABILITY INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1972 AND 1973—Continued

	June 30, 1972		June 30, 1973	
	Par value	Book value <sup>1</sup>	Par value	Book value <sup>1</sup>
<b>Investments in public-debt obligations—Continued</b>				
<b>Obligations sold only to this fund (special issues):</b>				
<b>Notes:</b>				
4¾ percent, 1974 .....	309,178,000	309,178,000.00	309,178,000	309,178,000.00
5½ percent, 1975 .....	583,612,000	583,612,000.00	583,612,000	583,612,000.00
5½ percent, 1979 .....	1,058,617,000	1,058,617,000.00	1,058,617,000	1,058,617,000.00
6½ percent, 1978 .....	1,284,249,000	1,284,249,000.00	1,284,249,000	1,284,249,000.00
6½ percent, 1976 .....	1,151,608,000	1,151,608,000.00	1,151,608,000	1,151,608,000.00
6½ percent, 1980 .....			943,266,000	943,266,000.00
7½ percent, 1977 .....	1,394,466,000	1,394,466,000.00	1,394,466,000	1,394,466,000.00
<b>Bonds:</b>				
2½ percent, 1974 .....	425,000	425,000.00		
2½ percent, 1975 .....	132,894,000	132,894,000.00	2,366,000	2,366,000.00
3¾ percent, 1974 .....	20,738,000	20,738,000.00		
3¾ percent, 1975 .....	20,738,000	20,738,000.00	20,738,000	20,738,000.00
3¾ percent, 1976 .....	153,632,000	153,632,000.00	153,632,000	153,632,000.00
3¾ percent, 1977 .....	153,632,000	153,632,000.00	153,632,000	153,632,000.00
3¾ percent, 1978 .....	153,632,000	153,632,000.00	153,632,000	153,632,000.00
4½ percent, 1979 .....	153,632,000	153,632,000.00	153,632,000	153,632,000.00
4½ percent, 1980 .....	125,606,000	125,606,000.00	125,606,000	125,606,000.00
<b>Total obligations sold only to this fund (special issues).....</b>	<b>6,696,659,000</b>	<b>6,696,659,000.00</b>	<b>7,488,234,000</b>	<b>7,488,234,000.00</b>
<b>Total investments in public-debt obligations.....</b>	<b>7,011,654,000</b>	<b>7,010,201,810.14</b>	<b>7,803,229,000</b>	<b>7,801,907,862.69</b>
<b>Undisbursed balance.....</b>		<b>380,075,536.03</b>		<b>67,564,541.18</b>
<b>Total assets.....</b>		<b>7,390,277,346.17</b>		<b>7,869,472,403.87</b>

<sup>1</sup> Par value, plus unamortized premium, less discount outstanding.

The investment policy and practices described in the preceding section apply equally to investments of the assets of the disability insurance trust fund. A distribution of these investments by type of government security and date of maturity is shown in table 9.

#### EXPECTED OPERATIONS AND STATUS OF THE TRUST FUNDS DURING THE PERIOD JULY 1, 1973, TO DECEMBER 31, 1978

In the following statement of the expected operations and status of the trust funds during the period July 1, 1973, to December 31, 1978, it is assumed that present statutory provisions affecting the old-age, survivors, and disability insurance program will remain unchanged in the period 1974–78. The income and disbursements of the program, however, are affected by general economic conditions as well as by legislative provisions. Economic conditions, of course, affect the levels of employment and taxable earnings; but beginning in 1975, under the automatic increase provisions in present law, economic conditions will also directly affect benefits, the contribution and benefit base (i.e., the maximum annual amount of earnings taxable and creditable toward benefits), and the retirement test.

Under the automatic increase provisions, benefits will increase in accordance with increases in the Consumer Price Index (CPI). In 1975, and in each year thereafter which immediately follows a year in which an automatic benefit increase becomes effective, the contri-

bution and benefit base, and the amount of earnings exempted from the withholding of benefits under the retirement test, will automatically be increased in proportion to the increase in average covered wages.

Statements about expected operations of the trust funds should be read with full recognition of the difficulties of estimating future trust fund income and disbursements under changing economic conditions. Because of the uncertainty of future economic developments and because of the very high degree of sensitivity of future levels of benefit expenditures to assumed changes in the CPI, two alternative sets of estimates based on different economic assumptions are presented in this section. The alternatives differ with respect to the assumed future path of the CPI and to assumed future increases in average wages.<sup>1</sup>

[In percent]

	Alternative I		Alternative II	
	Increase in wages	Increase in CPI	Increase in wages	Increase in CPI
Calendar year:				
1974.....	7.9	9.1	8.3	9.7
1975.....	8.5	5.7	9.3	7.1
1976.....	8.0	4.5	8.6	5.5
1977.....	7.6	3.2	8.4	4.8
1978.....	5.5	3.0	7.5	4.3
1979.....	5.5	3.0	6.0	4.0
1980.....	5.5	3.0	6.0	4.0

The estimates under alternatives I and II reflect the following changes assumed to occur, under the automatic increase provisions, in each year 1975-78 (amounts for 1974 are also shown as a basis for comparison):

Year	General benefit increase (percent) <sup>1</sup> under alternative—		Contribution and benefit base <sup>2</sup> under alternative—		Annual exempt amount under the retirement test <sup>2</sup> under alternatives I and II
	I	II	I	II	
1974.....	11.0	11.0	\$13,200	\$13,200	\$2,400
1975.....	4.4	5.5	14,100	14,100	2,640
1976.....	5.0	6.0	15,300	15,300	2,880
1977.....	3.5	5.0	16,500	16,500	3,120
1978.....	3.1	4.5	17,700	18,000	3,360

<sup>1</sup> Effective with benefits for June of the stated year. The 11-percent benefit increase in 1974 is to be made effective in 2 steps—an interim increase of 7 percent effective for the 3 months March, April, and May 1974, followed by the full 11-percent increase effective for June 1974.

<sup>2</sup> Effective on Jan. 1 of the stated year.

Table 10 presents data on the actual operations of the old-age and survivors insurance trust fund for selected fiscal years during the period 1940-73<sup>2</sup> and also estimates of the expected operations of the trust fund in fiscal years 1974-78. Under each alternative, it is assumed that employment and earnings will increase each year through 1978. The estimated number of persons with taxable earnings under the old-age,

<sup>1</sup> Assumed percentage increases over prior year in annual average wages and in annual average CPI, 1974-80.

<sup>2</sup> Data relating to the operations of the two trust funds for years not shown in the tables of this section are contained in earlier annual reports.

survivors, and disability insurance program is expected to increase from 98 million during calendar year 1973 to 108 million during calendar year 1978, under each alternative set of assumptions. Taxable earnings are estimated to increase from \$554 billion in 1973 to \$903 billion in 1978, under alternative I, and to \$936 billion in 1978, under alternative II. These increases are due in part to the increases in the contribution and benefit base previously set forth.

In addition, estimated income from contributions reflects the increase in contribution rates effective on January 1, 1974, and scheduled changes in the allocation of the contribution rates between the old-age and survivors insurance and disability insurance trust funds effective January 1, 1978 (table 1).

TABLE 10.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1940-73 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[Dollar amounts in millions]

Fiscal year	Transactions during period										Net increase in fund	Fund at end of period	
	Income					Disbursements							
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of— Noncontributory credits for military service	Payments to non-insured persons aged 72 and over	Interest on investments <sup>1</sup>	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses <sup>1</sup>	Transfers to railroad retirement account			
Past experience:													
1940 .....	\$592	\$550			\$42	\$28	\$16		\$12			\$564	\$1,745
1945 .....	1,434	1,310			124	267	240		27			1,167	6,613
1950 .....	2,367	2,106	\$4		257	784	727		57			1,583	12,893
1955 .....	5,525	5,087			438	4,427	4,333		103	-\$10		1,098	21,141
1960 .....	10,360	9,843			517	11,073	10,270		202	600		-713	20,829
1965 .....	16,443	15,857			586	15,962	15,226		300	436		482	20,180
1966 .....	18,461	17,866			595	18,769	18,071		254	444		-308	19,872

1967	23,371	22,567	78	726	19,728	18,886	(2)	334	508	3,643	23,515
1968	23,640	22,662	78	899	21,622	20,737	(2)	447	438	2,018	25,533
1969	27,348	25,953	156	\$226	1,014	24,690	23,732	465	491	2,658	28,191
1970	31,746	29,955	78	364	1,350	27,321	26,267	1	474	579	4,425
1971	33,982	31,915	78	371	1,618	32,268	31,101	2	552	613	34,331
1972	37,917	35,711	137	351	1,719	35,849	34,541	2	582	724	36,399
1973	43,639	41,318	138	337	1,847	43,623	42,170	2	667	783	36,416
Estimated future experience: <sup>1</sup>											
Alternative I:											
1974	50,911	48,484	139	303	1,985	49,769	48,118	5	737	909	37,558
1975	57,994	55,525	140	307	2,022	57,612	55,808	5	793	1,006	37,940
1976	63,870	61,363	146	283	2,078	63,293	61,364	6	839	1,084	38,517
1977	70,747	68,182	256	262	2,047	69,791	67,740	7	893	1,151	39,473
1978	76,413	73,817	259	231	2,106	75,618	73,446	7	936	1,229	40,268
Alternative II:											
1974	50,911	48,484	139	303	1,985	49,769	48,118	5	737	909	37,558
1975	58,344	55,865	140	307	2,032	57,612	55,808	5	793	1,006	38,290
1976	64,541	62,014	146	283	2,098	63,978	62,043	6	845	1,084	38,853
1977	71,871	69,267	286	262	2,056	71,265	69,182	7	905	1,171	39,459
1978	78,445	75,839	289	233	2,084	78,387	76,157	7	955	1,268	39,517

<sup>1</sup> Interest on investments includes net profits on marketable investments. Total administrative expenses exclude expenses for the period ending Dec. 31, 1939; for that period, appropriations to the old-age and survivors insurance trust fund (designated as the old-age reserve account prior to Jan. 1, 1940) were approximately equivalent to tax contributions collected by the Treasury Department less administrative expenses. Beginning in 1954, administrative expenses include costs of construction of office space for the Social Security Administration. Beginning in 1967, administrative expenses incurred under each of the 4 programs, old-age and survivors insurance, disability insurance, hospital insurance, and supplementary medical insurance, are charged currently to the appropriate trust fund

on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in interest on investments. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the "1970 Annual Report of the Board of Trustees".

<sup>2</sup> Less than \$500,000.

<sup>3</sup> In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

Rising benefit disbursements during fiscal years 1974-78 reflect the effects of the assumed automatic benefit increase previously set forth, as well as the effects of the other benefit provisions enacted in 1972 and 1973. The long-range upward trend in the numbers of beneficiaries and in the average monthly amounts of benefits payable under the program are also reflected in the increases in benefit payments. Under each alternative, aggregate income of the old-age and survivors insurance trust fund is estimated to exceed aggregate outgo in the 5-year period covering fiscal years 1974-78. During this period, there is an estimated net increase in the old-age and survivors insurance trust fund of \$3.9 billion, under alternative I, and \$3.1 billion under alternative II.

Estimates consistent with those shown on a fiscal-year basis in table 10 are presented in table 11 to show the progress of the old-age and survivors insurance trust fund on a calendar-year basis. During the 5-year period covering calendar years 1974-78, the trust fund is estimated to increase by \$2.4 billion, reaching \$38.9 billion on December 31, 1978, under alternative I. Under alternative II, the trust fund is estimated to increase by \$0.8 billion, reaching \$37.3 billion on December 31, 1978.

The growth in the number of beneficiaries in the past and the expected growth in the future are attributable in large measure to the rising number of aged persons who are eligible for and receiving old-age and survivors insurance benefits. The growth in the number of eligible persons since 1940 has been uninterrupted. This growth results partly from the increase in the aged population and partly from two other factors—(1) in each passing year a larger proportion of the persons attaining age 65 became eligible for benefits and (2) the amendments during the period 1950-73 liberalized the eligibility provisions and extended coverage to new categories of employment.

TABLE 11.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1940-73 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[Dollar amounts in millions]

Calendar year	Transactions during period										Fund at end of period	
	Income					Disbursements						
	Total	Reimbursements from general fund of Treasury for costs of—			Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account		Net increase in fund
		Contributions, less refunds	Noncontributory credits for military service	Payments to noninsured persons aged 72 and over								
<b>Past experience:</b>												
1940	\$368	\$325			\$43	\$62	\$35		\$26		\$306	\$2,031
1945	1,420	1,285			134	304	274		30		1,116	7,121
1950	2,928	2,667	\$4		257	1,022	961		61		1,905	13,721
1955	6,167	5,713			454	5,079	4,968		119	-\$7	1,087	21,663
1960	11,382	10,866			516	11,198	10,677		203	318	184	20,324
1965	16,610	16,017			593	17,501	16,737		328	436	-890	18,235
1966	21,302	20,580	78		644	18,967	18,267	(1)	256	444	2,335	20,570
1967	24,034	23,138	78		818	20,382	19,468	(1)	406	508	3,652	24,222
1968	25,040	23,719	156	\$226	939	23,557	22,642	\$1	476	438	1,483	25,704
1969	29,554	27,947	78	364	1,165	25,176	24,209	1	474	491	4,378	30,082
1970	32,220	30,256	78	371	1,515	29,848	28,796	2	471	579	2,371	32,454
1971	35,877	33,723	137	351	1,667	34,542	33,413	2	514	613	1,335	33,789
1972	40,050	37,781	138	337	1,794	38,522	37,122	2	674	724	1,528	35,318
1973	48,344	45,975	139	303	1,928	47,175	45,741	3	647	783	1,169	36,487
<b>Estimated future experience:</b>												
<b>Alternative I:</b>												
1974	54,135	51,662	140	307	2,026	54,131	52,404	5	813	909	4	36,491
1975	60,674	58,178	146	283	2,067	60,404	58,578	6	814	1,006	270	36,761
1976	67,033	64,442	256	262	2,073	66,427	64,474	6	863	1,084	606	37,367
1977	73,686	71,100	259	231	2,096	72,570	70,500	7	912	1,151	1,116	38,483
1978	78,912	76,292	263	200	2,157	78,482	76,289	7	957	1,229	430	38,913
<b>Alternative II:</b>												
1974	54,190	51,715	140	307	2,028	54,131	52,404	5	813	909	59	36,546
1975	61,142	58,634	146	283	2,079	60,735	58,906	6	817	1,006	407	36,953
1976	67,834	65,205	286	262	2,081	67,488	65,526	6	872	1,084	346	37,299
1977	74,967	72,368	289	233	2,077	74,665	72,560	7	927	1,171	302	37,601
1978	81,601	79,011	293	205	2,092	81,936	79,682	7	979	1,268	-335	37,266

1 Less than \$500 000.

Note: In interpreting the above reference should be made to the footnotes in table 10.

In addition, there has been a growth in the proportion of eligible persons who receive benefits. This growth is due to several factors, among which are (1) the amendments enacted during the period 1950-73 which affect the conditions governing the receipt of benefits, and (2) the increasing percentage of eligible persons who are aged 72 and over and who therefore receive benefits regardless of earnings.

The expected operations and status of the disability insurance trust fund during the next 5 fiscal years are presented in table 12, together with the figures on actual experience in earlier years. Contribution income will increase under both alternatives during fiscal years 1974-78, reflecting the same factors, insofar as they apply to contributions to the disability insurance trust fund, that are reflected in the increase in contributions to the old-age and survivors insurance trust fund during the same period. Benefit payments will increase under both alternatives because of the legislation enacted in 1972 and 1973 and because of increases in the numbers of beneficiaries and the average monthly benefit amounts payable. Aggregate outgo from the disability insurance trust fund is expected to exceed aggregate income in the 5-year period covering fiscal years 1974-78 under both alternatives. During this period, the assets of the trust fund are estimated to decline by \$0.4 billion under alternative I and \$0.5 billion under alternative II.

Estimates consistent with those shown on a fiscal-year basis in table 12 are presented in table 13 to show the progress of the disability insurance trust fund on a calendar-year basis. During the 5-year period covering calendar years 1974-78, the assets of the trust fund are estimated to decline by nearly \$0.9 billion, from \$7.9 billion at the end of calendar year 1973 to \$7.1 billion by the end of calendar year 1978, under alternative I. During the same period, under alternative II, assets are estimated to decline by \$1.1 billion, from \$7.9 billion at the end of calendar year 1973 to \$6.8 billion by the end of calendar year 1978.

TABLE 12.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED FISCAL YEARS 1960-73 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[In millions of dollars]

Fiscal year	Transactions during period										
	Income				Disbursements						
	Total	Contributions, less refunds	Reimbursements, from general fund of Treasury for cost of non-contributory credits for military service	Interest on investments <sup>1</sup>	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses <sup>1</sup>	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
<b>Past experience:<sup>2</sup></b>											
1960	1,034	987		47	533	528		32	-27	501	2,167
1965	1,237	1,175		62	1,495	1,392		79	24	-257	2,007
1966	1,611	1,557		54	1,931	1,721	1	183	25	-321	1,686
1967	2,332	2,249	16	67	1,997	1,861	7	99	31	335	2,022
1968	2,800	2,699	16	85	2,236	2,088	15	112	20	564	2,585
1969	3,705	3,532	32	141	2,613	2,443	15	133	21	1,092	3,678
1970	4,380	4,141	16	223	2,954	2,778	16	149	10	1,426	5,104
1971	4,911	4,569	16	325	3,606	3,381	21	190	13	1,305	6,408
1972	5,291	4,853	50	388	4,309	4,046	28	212	24	982	7,390
1973	5,947	5,461	51	435	5,467	5,162	39	247	20	479	7,869
<b>Estimated future experience:<sup>3</sup></b>											
<b>Alternative I:</b>											
1974	6,774	6,243	52	479	6,421	6,180	60	159	22	353	8,222
1975	7,835	7,298	52	485	7,792	7,462	75	235	20	43	8,265
1976	8,619	8,066	66	487	8,732	8,381	91	246	14	-113	8,152
1977	9,505	8,963	89	453	9,801	9,418	106	263	14	-296	7,856
1978	10,454	9,929	95	430	10,793	10,381	121	275	16	-339	7,517
<b>Alternative II:</b>											
1974	6,774	6,243	52	479	6,421	6,180	60	159	22	353	8,222
1975	7,882	7,343	52	487	7,792	7,462	75	235	20	90	8,312
1976	8,706	8,151	66	489	8,821	8,468	91	248	14	-115	8,197
1977	9,649	9,105	90	454	9,997	9,607	108	267	15	-348	7,849
1978	10,729	10,206	96	427	11,166	10,744	123	281	18	-437	7,412

<sup>1</sup> Interest on investments include net profits on marketable investments. Beginning in 1967, administrative expenses incurred under the disability insurance program are charged directly to the trust fund on a current (preliminary) basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these, interest adjustments are included in interest on investments. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report of the Board of Trustees.

<sup>2</sup> The financial operations of the disability insurance trust fund began in the latter half of fiscal year 1957.

<sup>3</sup> In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

TABLE 13.—OPERATIONS OF THE DISABILITY INSURANCE TRUST FUND DURING SELECTED CALENDAR YEARS 1960-73 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[In millions of dollars]

Calendar year	Transactions during period										
	Income				Disbursements						
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for cost of non-contributory credits for military service	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account	Net increase in fund	Fund at end of period
<b>Past experience:</b>											
1960	1,063	1,010		53	600	568		36	-5	464	2,289
1965	1,247	1,188		59	1,687	1,573		90	24	-440	1,606
1966	2,079	2,006	16	58	1,947	1,781	3	137	25	133	1,739
1967	2,379	2,286	16	78	2,089	1,939	11	109	31	290	2,029
1968	3,454	3,316	32	106	2,458	2,294	16	127	20	996	3,025
1969	3,792	3,599	16	177	2,716	2,542	15	138	21	1,075	4,100
1970	4,774	4,481	16	277	3,259	3,067	18	164	10	1,514	5,614
1971	5,031	4,620	50	361	4,000	3,758	24	205	13	1,031	6,645
1972	5,572	5,107	51	414	4,759	4,473	29	233	24	813	7,457
1973	6,443	5,932	52	458	5,973	5,718	46	190	20	470	7,927
<b>Estimated future experience:</b>											
<b>Alternative I:</b>											
1974	7,274	6,736	52	486	7,179	6,890	67	200	22	95	8,022
1975	8,205	7,648	66	491	8,265	7,922	83	240	20	-60	7,962
1976	9,032	8,470	89	473	9,249	8,883	99	253	14	-217	7,745
1977	9,883	9,345	95	443	10,292	9,896	113	269	14	-409	7,336
1978	11,012	10,487	101	424	11,288	10,864	127	281	16	-276	7,060
<b>Alternative II:</b>											
1974	7,281	6,742	52	487	7,179	6,890	67	200	22	102	8,029
1975	8,265	7,707	66	492	8,307	7,965	83	241	20	-42	7,987
1976	9,136	8,571	90	475	9,390	9,020	100	256	14	-254	7,733
1977	10,048	9,512	96	440	10,574	10,169	116	274	15	-526	7,207
1978	11,378	10,862	101	415	11,760	11,323	151	288	18	-382	6,825

Note: In interpreting the above, reference should be made to the footnotes in table 12.

Estimates of benefit payments that are shown in this report, under either alternative, are larger than the estimates prepared at the time P.L. 93-233 was being considered by the Congress. The increased outlays are attributable primarily to the greater-than-expected upward movement in the CPI, with the result that automatic benefit increases assumed herein are larger than were previously estimated.

The expected operations and status of the old-age and survivors insurance and disability insurance trust funds combined, during each year 1974-78, under both alternative sets of assumptions, are shown in tables 14 and 15 on a fiscal-year basis and a calendar-year basis, respectively, together with figures on actual experience in earlier years.

Expenditures in calendar year 1973, from both trust funds combined, were 9.81 percent of taxable earnings for the year. The estimated percentage throughout most of the next 5 calendar years will fluctuate within a relatively narrow range of 10.07%-10.25% under both alternatives. These percentages, as well as the actual percentages for earlier years, are shown in table 16 for both trust funds combined and for each trust fund separately.

Although the assets of the trust funds are estimated to increase in each of the years 1974-78 under alternative I and in each of the years 1974-76 under alternative II, the ratio of assets to annual outgo is estimated to decline each year under both alternatives. By calendar year 1978, the estimated ratio is 0.51 under alternative I and 0.48 under alternative II. The estimated ratio for each of the next 5 calendar years 1974-78, as well as the actual ratio for earlier years, is shown in table 17 for both trust funds combined and for each trust fund separately.

TABLE 14.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND THE DISABILITY INSURANCE TRUST FUNDS, COMBINED, DURING SELECTED FISCAL YEARS 1960-73 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[In millions of dollars]

Fiscal year	Transactions during period											Funds at end of period
	Income					Disbursements					Net increase in funds	
	Total	Contributions, less refunds	Reimbursements from general fund of Treasury for costs of—	Payments to non-insured persons aged 72 and over	Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Administrative expenses	Transfers to railroad retirement account		
Past experience:												
1960	11,394	10,830	-----	-----	564	11,606	10,798	-----	234	574	-212	22,996
1965	17,681	17,032	-----	-----	648	17,456	16,618	-----	379	459	224	22,187
1966	20,071	19,423	-----	-----	649	20,700	19,793	1	437	469	-629	21,558
1967	25,703	24,816	94	-----	793	21,725	20,747	7	433	539	3,979	25,537
1968	26,440	25,362	94	-----	984	23,859	22,825	16	560	458	2,581	28,118
1969	31,054	29,485	188	226	1,155	27,303	26,175	17	599	513	3,750	31,868
1970	36,127	34,096	94	364	1,572	30,275	29,045	18	623	589	5,852	37,720
1971	38,893	36,485	94	371	1,943	35,874	34,482	23	742	626	3,019	40,739
1972	43,208	40,564	187	351	2,107	40,158	38,587	29	794	749	3,050	43,789
1973	49,586	46,779	189	337	2,281	49,090	47,332	42	914	802	496	44,285
Estimated future experience:												
Alternative I:												
1974	57,685	54,727	191	303	2,464	56,190	54,298	64	896	931	1,495	45,780
1975	65,829	62,823	192	307	2,507	65,404	63,270	81	1,028	1,026	425	46,205
1976	72,489	69,429	212	283	2,565	72,025	69,745	97	1,085	1,098	464	46,669
1977	80,252	77,145	345	262	2,500	79,592	77,158	113	1,156	1,165	660	47,329
1978	86,867	83,746	354	231	2,536	86,411	83,827	128	1,211	1,245	456	47,785
Alternative II:												
1974	57,685	54,727	191	303	2,464	56,190	54,298	64	896	931	1,495	45,780
1975	66,226	63,208	192	307	2,519	65,404	63,270	81	1,028	1,026	822	46,602
1976	73,247	70,165	212	283	2,587	72,799	70,511	97	1,093	1,098	448	47,050
1977	81,520	78,372	376	262	2,510	81,262	78,789	115	1,172	1,186	258	47,308
1978	89,174	86,045	385	233	2,511	89,553	86,901	130	1,236	1,286	-379	46,929

Note: In interpreting the above, reference should be made to the footnotes in table 10.

TABLE 15.—OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND THE DISABILITY INSURANCE TRUST FUNDS, COMBINED DURING SELECTED CALENDAR YEARS 1960-73 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

[In millions]

Calendar year	Transactions during period										Funds at end of period		
	Income					Disbursements							
	Total	Reimbursements from general fund of Treasury for costs of—				Interest on investments	Total	Benefit payments	Payments for vocational rehabilitation services	Admini- strative expenses		Transfers to railroad retirement account	Net increase in funds
		Contributions, less refunds	Noncontributory credits for military service	Payments to non-insured persons aged 72 and over									
<b>Past experience:</b>													
1960	12,445	11,876			569	11,798	11,245		240	314	647	22,613	
1965	17,857	17,205			651	19,187	18,311		418	459	-1,331	19,841	
1966	23,381	22,585			702	20,913	20,048	3	393	469	2,467	22,308	
1967	26,413	25,424	94		896	22,471	21,406	11	515	539	3,942	26,250	
1967	28,493	27,034	188	226	1,045	26,015	24,936	17	603	458	2,479	28,729	
1968	33,346	31,546	94	364	1,342	27,892	26,751	16	612	513	5,453	34,182	
1969	40,908	34,737	94	371	1,791	33,108	31,863	20	635	589	3,886	38,068	
1970	36,993	38,343	187	351	2,027	38,542	37,171	26	719	626	2,366	40,434	
1971	45,622	42,888	189	337	2,208	43,281	41,595	30	907	749	2,341	42,775	
1972	54,787	51,907	191	303	2,386	53,148	51,459	49	837	802	1,639	44,414	
1973													
<b>Estimated future experience:</b>													
<b>Alternative I:</b>													
1974	61,409	58,398	192	307	2,512	61,310	59,294	72	1,013	931	99	44,513	
1975	68,879	65,826	212	283	2,558	68,669	66,500	89	1,054	1,026	210	44,723	
1976	76,065	72,912	345	262	2,546	75,676	73,357	105	1,116	1,098	389	45,112	
1977	83,569	80,445	354	231	2,539	82,862	80,396	120	1,181	1,165	707	45,819	
1978	89,924	86,779	364	200	2,581	89,770	87,153	134	1,238	1,245	154	45,973	
<b>Alternative II:</b>													
1974	61,471	58,457	192	307	2,515	61,310	59,294	72	1,013	931	161	44,575	
1975	69,407	66,341	212	283	2,571	69,042	66,869	89	1,058	1,026	365	44,940	
1976	76,970	73,776	379	262	2,556	76,878	74,546	106	1,128	1,098	92	45,032	
1977	85,015	81,880	385	233	2,517	85,239	82,729	123	1,201	1,186	-224	44,808	
1978	92,979	89,873	394	205	2,507	93,696	91,005	138	1,267	1,286	-717	44,091	

Note: In interpreting the above, reference should be made to the footnotes in table 10.

TABLE 16.—EXPENDITURES FROM THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS AS A PERCENTAGE OF TAXABLE PAYROLL FOR SELECTED CALENDAR YEARS 1960-73 AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

Calendar year	Expenditures as a percentage of taxable payroll <sup>1</sup>		
	Old-age and survivors insurance and disability insurance trust funds combined	Old-age and survivors insurance trust fund	Disability insurance trust fund
<b>Past experience:</b>			
1960.....	5.89	5.59	0.30
1965.....	7.93	7.23	.70
1966.....	6.88	6.24	.64
1967.....	6.92	6.27	.65
1968.....	7.03	6.35	.67
1969.....	7.07	6.38	.70
1970.....	8.14	7.34	.81
1971.....	9.28	8.31	.97
1972.....	9.15	8.14	1.01
1973.....	9.81	8.70	1.11
<b>Estimated future experience: <sup>2</sup></b>			
<b>Alternative I:</b>			
1974.....	10.10	8.91	1.19
1975.....	10.25	9.01	1.24
1976.....	10.16	8.92	1.25
1977.....	10.12	8.86	1.26
1978.....	10.17	8.89	1.28
<b>Alternative II:</b>			
1974.....	10.07	8.88	1.18
1975.....	10.22	8.99	1.23
1976.....	10.20	8.95	1.25
1977.....	10.22	8.95	1.27
1978.....	10.24	8.95	1.29

<sup>1</sup> Percentage takes into account (1) the lower contribution rate payable by the self-employed compared with combined employee-employer rate; (2) employee contributions subject to refund; and (3) that for 1966 and later, only the employee contribution is payable on tips taxable as wages. Beginning in 1966, expenditures are adjusted to exclude payments to certain noninsured persons aged 72 and over with less than 3 quarters of coverage, costs of which are financed from the general fund of the Treasury. For 1969-73, percentages are preliminary and subject to revision.

<sup>2</sup> In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

TABLE 17.—ASSETS, AT THE BEGINNING OF THE YEAR, AS A PERCENTAGE OF EXPENDITURES DURING THE YEAR, FOR THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM, BY TRUST FUND, FOR SELECTED CALENDAR YEARS 1960-73, AND ESTIMATED FUTURE PERCENTAGES FOR CALENDAR YEARS 1974-78 UNDER 2 ALTERNATIVE SETS OF ASSUMPTIONS

Calendar year	Assets, at the beginning of the year, as a percentage of expenditures during the year		
	Old-age and survivors insurance and disability insurance trust funds, combined	Old-age and survivors insurance trust fund	Disability insurance trust fund
<b>Past experience:</b>			
1960.....	186	180	304
1965.....	110	109	121
1966.....	95	96	83
1967.....	99	101	83
1968.....	101	103	83
1969.....	103	102	111
1970.....	103	101	126
1971.....	99	94	140
1972.....	93	88	140
1973.....	80	75	125
<b>Estimated future experience:<sup>1</sup></b>			
<b>Alternative I:</b>			
1974.....	72	67	110
1975.....	65	60	97
1976.....	59	55	86
1977.....	54	51	75
1978.....	51	49	65
<b>Alternative II:</b>			
1974.....	72	67	110
1975.....	65	60	97
1976.....	58	55	85
1977.....	53	50	73
1978.....	48	46	61

<sup>1</sup> In interpreting the estimates, reference should be made to the accompanying text which describes the underlying assumptions.

The estimates in the tables in this section include the effects of various provisions to which reference has been made in earlier sections, namely, the provisions for (1) reimbursements to the trust funds from the general fund of the Treasury for the costs of granting noncontributory credits for military service and for the costs of monthly payments to certain noninsured persons aged 72 and over, and (2) financial interchanges between the railroad retirement account and the trust funds.

#### ACTUARIAL ANALYSIS OF BENEFIT DISBURSEMENTS FROM THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES

(Specifically required by section 201(c) of the Social Security Act)

Effective January 1957, monthly benefits have been payable from the old-age and survivors insurance trust fund to disabled adult children aged 18 and over—sons and daughters of retired and deceased workers—with respect to disabilities that have continued since childhood. Effective February 1968, reduced monthly benefits have been payable from this trust fund to disabled widows and widowers beginning at age 50.

On December 31, 1973, about 384,000 persons were receiving monthly benefits from the old-age and survivors insurance trust fund with respect to disability. In addition to disabled beneficiaries, this total

includes 31,000 mothers. These mothers—wives under age 65 of retired-worker beneficiaries and widows of deceased insured workers—met all other qualifying requirements and were receiving full-rate (i.e., not reduced for age) benefits solely because they had at least one disabled-child beneficiary in their care. Benefits paid from this trust fund to persons receiving benefits with respect to disability totaled \$502 million in calendar year 1973. Similar figures are presented in table 18 to show the past experience in each of the calendar years 1957-73.

TABLE 18.—BENEFITS PAYABLE FROM THE OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, CALENDAR YEARS 1957-78

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments <sup>1</sup>		
	Total	Children <sup>2</sup>	Widows and widowers	Total	Children <sup>2</sup>	Widows and widowers <sup>3</sup>
<b>Past experience:</b>						
1957.....	34	34		\$7	\$7	
1958.....	59	59		23	23	
1959.....	94	94		41	41	
1960.....	117	117		59	59	
1961.....	138	138		74	74	
1962.....	163	163		89	89	
1963.....	183	183		101	101	
1964.....	200	200		113	113	
1965.....	214	214		134	134	
1966.....	228	228		147	147	
1967.....	243	243		163	163	
1968.....	275	256	19	212	198	\$14
1969.....	301	270	31	249	214	35
1970.....	320	284	36	301	260	41
1971.....	338	298	40	363	307	56
1972.....	363	317	46	409	343	66
1973.....	384	333	51	502	417	85
<b>Estimated future experience:<sup>4</sup></b>						
1974.....	410	349	61	575	475	100
1975.....	430	363	67	644	529	115
1976.....	446	377	69	705	580	125
1977.....	462	391	71	769	636	133
1978.....	478	405	73	828	688	140

<sup>1</sup> Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup> Reflects effect of including certain mothers. (See text.)

<sup>3</sup> Reflects the offsetting effect of lower benefits payable to disabled widows and widowers who continue to receive benefits past age 60 (62, for disabled widowers, prior to 1973) as compared to the higher nondisabled widow's (and widower's) benefits that would otherwise be payable.

<sup>4</sup> In interpreting the estimates, reference should be made to the accompanying text.

Table 18 also shows the expected future experience in calendar years 1974-78. The estimates of benefit payments shown in the table reflect the changes under the automatic increase provisions assumed to occur under the assumptions underlying alternative I described in the previous section. Under this alternative, total benefit payments from the old-age and survivors insurance trust fund with respect to disabled beneficiaries are estimated to increase from \$575 million in calendar year 1974 to \$828 million in calendar year 1978. Under alternative II, estimated benefit payments in calendar years 1975-78 would be higher than under alternative I by relatively small amounts. Such payments are estimated to total \$863 million in calendar year 1978 under alternative II.

In calendar year 1973, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the old-age and survivors insurance trust fund and from the disability insurance trust fund (including payments from the latter fund to all dependents of disabled-worker beneficiaries) totalled \$6,266 million, of which \$502 million, or 8.0 percent, represented payments from the old-age and survivors insurance trust fund. Similar figures for all of the calendar years 1957-78 are presented in table 19. As in table 18, the estimated figures shown in table 19 for calendar years 1974-78 reflect the assumptions of alternative I. Although the estimated amounts of benefit payments with respect to disabled beneficiaries, in calendar years 1975-78, would be somewhat higher under alternative II, the amount of such payments in each year from the old-age and survivors insurance trust fund, when expressed as a percentage of the total amount of such payments from both trust funds, would be the same as under alternative I.

TABLE 19.—BENEFIT PAYMENTS UNDER THE OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, CALENDAR YEARS 1957-78

[Dollar amounts in millions]

Calendar year	Total <sup>1</sup>	Benefit payments <sup>1</sup> from—		
		Disability insurance trust fund <sup>2</sup>	Old-age and survivors insurance trust fund	As a percentage of total benefit payments with respect to disabled beneficiaries
<b>Past experience:</b>				
1957	\$64	\$57	\$7	11.1
1958	272	249	23	8.5
1959	498	457	41	8.2
1960	627	568	59	9.4
1961	961	887	74	7.7
1962	1,194	1,105	89	7.4
1963	1,311	1,210	101	7.7
1964	1,422	1,309	113	8.0
1965	1,707	1,573	134	7.9
1966	1,932	1,784	147	7.6
1967	2,113	1,950	163	7.7
1968	2,523	2,311	212	8.4
1969	2,806	2,557	249	8.9
1970	3,386	3,085	301	8.9
1971	4,146	3,783	363	8.8
1972	4,911	4,502	409	8.3
1973	6,266	5,764	502	8.0
<b>Estimated future experience: <sup>4</sup></b>				
1974	7,532	6,957	575	7.6
1975	8,649	8,005	644	7.4
1976	9,687	8,982	705	7.3
1977	10,778	10,009	769	7.1
1978	11,819	10,991	828	7.0

<sup>1</sup> Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup> Benefit payments to disabled workers and their dependents.

<sup>3</sup> Benefit payments to disabled children aged 18 and over, to certain mothers (see text), and to disabled widows and widowers (see footnote 3, table 18).

<sup>4</sup> In interpreting the estimates, reference should be made to the accompanying text.

## ACTUARIAL STATUS OF THE TRUST FUNDS

*Factors Affecting Long-Range Costs*

The estimates of the long-range cost of the Old-Age, Survivors, and Disability Insurance System are for the law as presently written and do not take into account any possible statutory changes in the future. The cost of these provisions as now enacted in the law will depend on demographic factors and on economic factors. It is also important to remember that any future legislation that results in changes in benefits or in the financing provisions will affect the actual cost of the program as it develops and that such changes would, of course, require new long-range actuarial cost estimates.

Table 16 in the section dealing with the expected short-range operations of the trust funds traced the history of the expenditures from the Old-Age, Survivors, and Disability Insurance Trust Funds as a percentage of taxable payroll. Several benefit increases are reflected in the expenditures; and several changes in the taxable earnings base are reflected in taxable earnings, as are changes in the earnings level of covered workers. Table 1 indicates when changes in the taxable earnings base have occurred and what relationship exists between (1) the expenditures as a percent of taxable payroll and (2) the contribution rates by employer and employee.

Substantial general benefit increases are responsible for the marked rise in expenditures as percent of taxable earnings since 1969. These increases are reflected in the percentages even after the substantial increases in the taxable earnings base that were enacted.

*Long-Range Cost Estimates*

The long-range cost estimates for the Old-Age, Survivors, and Disability Insurance System presented in this Report are computed under dynamic assumptions with respect to the future levels of the benefits and of the taxable earnings base. These assumptions are based on the automatic adjustment provisions in present law. The estimates do not take into account any other possible future modification in either the benefits or the financing.

The amendments to the Social Security Act enacted in 1972 and 1973 included financing schedules based on dynamic assumptions as recommended by the 1971 Advisory Council on Social Security. Estimates based on such dynamic assumptions basically assume that the provisions for automatically adjusting the benefit table in accordance with the Consumer Price Index and for automatically adjusting the taxable earnings base in accordance with the increase in covered earnings per worker will continue to be a part of the structure of the system.

Tax schedules based on such dynamic assumptions provide the financing needed to increase the benefit table in step with the Consumer Price Index. However, increases beyond those provided under the present law that may be enacted in the future will require additional financing.

Table 20 compares the long-range average-cost of the Old-Age, Survivors, and Disability Insurance System over the 75-year projection period (1974-2048) with the average rate in the tax schedule in present law. Under the above set of assumptions, the OASDI System

is shown to be underfinanced over the long-range, with a negative actuarial balance of about 3 percent of taxable payroll. This underfinancing is almost proportionately distributed between the two programs. Both OASI and DI have a long-range actuarial deficit equivalent to about 21 percent of their costs.

TABLE 20.—ESTIMATED ACTUARIAL BALANCE<sup>1</sup> OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL,<sup>2</sup> DYNAMIC ASSUMPTIONS<sup>3</sup>

[In percent]			
Item	OASI	DI	Total
Average-cost of system.....	11.97	1.92	13.89
Average rate in present tax schedule.....	9.39	1.52	10.91
Actuarial balance.....	-2.58	-.40	-2.98

<sup>1</sup> As measured over the 75-year period, 1974-2048.

<sup>2</sup> 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.

<sup>3</sup> See text for a description of the assumptions.

The results in table 20 are based on new actuarial assumptions as compared to those used in the past with respect to demographic factors as well as to economic factors. In regard to demographic factors, new population projections were prepared based on the results of the 1970 census under the assumption of significantly lower future fertility which have substantially affected the actuarial balance, as may be observed from table 21.

With respect to the economic factors, it is assumed that:

(a) The benefit table will be adjusted after 1974 to reflect increases in the Consumer Price Index.

(b) The taxable wage base and the exempt amount under the earnings test are both adjusted after 1974 to reflect increases in average earnings.

(c) Through 1980 the assumptions are similar to those used in developing the short-range cost estimates under Alternative I, which are presented earlier in this Report.

(d) Beyond 1980, the CPI will increase at an annual rate of 3 percent, while average earnings will increase at 5 percent.

The results in table 20 should be read with full recognition of the uncertainties involved in the projection of economic factors over long-range periods. Because of the sensitivity of the projections to changes in economic assumptions, as illustrated in Appendix Table D, these results are subject to wide margins of variation.

As compared with the long-range cost estimates prepared last fall when the Social Security Amendments (P.L. 93-233) were under consideration, the present estimates show substantially higher costs. These higher costs are attributed mostly to a change in the population projections that are used to project the costs of the social security programs. The new projections are based on an ultimate total fertility rate of 2.1 babies per woman, which is close to population replacement rates, while the previous projections were based on ultimate rates of 2.3 and 2.8 babies per woman. The lower fertility rate that is now being projected results in a higher projected ratio of aged persons in the population to workers and therefore in higher costs to the program expressed as a percentage of payroll.

Although most of the increase in cost is expected to occur after the turn of the century (when the effects of the changes in the population projections are fully felt), part of it will already occur within the next few years, thereby producing a marked decline in the near future in the ratio of assets to expenditures in the absence of an immediate increase in income to both the OASI and DI Trust Funds. In the very short run (for the next 5-10 years) a reallocation of the current contributions could cover this problem. The overall OASHDI contribution rate in present law would be enough, if reallocated, to adequately support all three trust funds (OASI, DI and HI) during this period. However, after the next 5-10 years, a tax increase or constraints in the growth of benefits will nonetheless be needed for each of the three programs.

Another important factor that has affected the long-range cost of the program is the recent increase in the number of disabled-worker benefits that are being awarded. As was indicated in last year's report, a significant increase in the disabled-worker benefit awards has been experienced since 1971. The present cost estimates incorporate all the increases that have been experienced through the end of calendar year 1973.

As shown in table 21, other factors affecting the cost of the program are changes in economic assumptions, which include modifications in the projected labor-force participation rates and unemployment rates, short-range assumptions regarding increases in average earnings, and both short-range and long-range assumptions regarding increases in the CPI (with the long-range assumptions changing from 2-3/4% to 3%), as well as the elimination of the 3/8 percent margin used in previous long-range cost estimates. The remaining itemized factor affecting the actuarial balance is a small increase in the rates of retirement among the eligible aged population that has been observed in the last two years.

TABLE 21.—CHANGE IN OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE LONG-RANGE ACTUARIAL BALANCE<sup>1</sup> AS PERCENT OF TAXABLE PAYROLL<sup>2</sup> BY TYPE OF ASSUMPTION

[In percent of taxable payroll]

	Old-age and survivors insurance	Disability insurance	Total
Actuarial balance under previous estimates.....	-0.43	-0.08	-0.51
Retirement rates.....	-.14		-.14
Disability rates.....		-.21	-.21
Population assumptions.....	-1.79	-.08	-1.87
Economic assumptions.....	-.18	-.01	-.19
All other factors (net).....	-.04	-.02	-.06
Change in actuarial balance.....	-2.15	-.32	-2.47
New actuarial balance.....	-2.58	-.40	-2.98

<sup>1</sup> Represents the difference over the 75-year period, 1974-2048, between the average tax rate and the average cost.

<sup>2</sup> Payroll is adjusted to take into account the lower contribution rate on self-employment income, on tips, and on multi-employer "excess wages" as compared with the combined employer-employee rate.

Table 22 shows the current-cost of the OASDI System (including the cost of maintaining one year's expenditures on hand) for selected years over the next 75 years, expressed as percent of taxable payroll, in accordance with the dynamic actuarial assumptions.

It may be observed that the annual cost of the Old-Age, Survivors, and Disability Insurance System is projected to increase slowly throughout the remainder of this century and that after the turn of the century it will increase rapidly until leveling at about 17–18 percent of taxable payroll after the year 2025.

According to the present 75-year projections, the cost of the Old-Age, Survivors, and Disability Insurance System could be divided into three periods of 25 years each. The first period is projected to be a period of slowly increasing costs. The second period involves fast increases in cost, while the third period is characterized by high but level costs.

TABLE 22.—ESTIMATED "CURRENT-COST"<sup>1</sup> OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF TAXABLE PAYROLL<sup>2</sup> UNDER DYNAMIC ASSUMPTIONS,<sup>3</sup> FOR SELECTED YEARS, 1985–2045

[In percent]

Calendar year	Old-age and survivors insurance	Disability insurance	Total
1985	9.00	1.44	10.44
1990	9.52	1.51	11.03
1995	9.64	1.61	11.25
2000	9.54	1.77	11.31
2005	9.72	1.97	11.69
2010	10.56	2.13	12.69
2015	11.82	2.22	14.14
2020	13.47	2.24	15.71
2025	14.78	2.19	16.97
2030	15.46	2.14	17.60
2035	15.49	2.19	17.68
2040	15.40	2.28	17.68
2045	15.53	2.33	17.86
Average cost <sup>4</sup>	11.97	1.92	13.89

<sup>1</sup> Represents the cost as percent of taxable payroll of all expenditures in the year, including amounts needed to maintain the funds at about 1 year's expenditures.

<sup>2</sup> Payroll is adjusted to take into account the lower contribution rate on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

<sup>3</sup> See text for a description of the assumptions.

<sup>4</sup> Represents the arithmetic average of the "current-cost" for the 75-year period 1974–2048.

The increasing costs in the second period as well as the high costs in the third period are due principally, but not totally, to the demographic effect of the projected large aged population as compared to the working population. Some of the cost, however, is due to what could be considered anomalies in the automatic benefit adjustment provisions in present law. As is discussed in the appendix and as may be noted from Appendix Table C, the present automatic provisions are projected to result in awarded benefits that would increase faster than average earnings in the future. The differential in trends between average awarded benefits and average covered earnings would be relatively minor during this century (because of the way benefits are calculated under present law), but it is projected to increase substantially thereafter.

The Board of Trustees has suggested to the Department of Health, Education, and Welfare that the present Advisory Council be asked to study this matter, as well as other ways of dealing with the emerging long-range actuarial status of the trust funds.

## CONCLUSION

The long-range actuarial cost estimates for the old-age, survivors, and disability insurance program prepared in accordance with dynamic assumptions as to both benefits and taxable earnings show an actuarial balance of—2.98 percent of taxable payroll over the valuation period of 75 years, which substantially exceeds the acceptable limit of variation of 5 percent of the cost of the program (0.69 percent of taxable payroll).

The principal reason for the increase in the actuarial imbalance, as compared to that reflected by the cost estimates used last fall by the Congress, is a change in the long-range population projections underlying the cost estimates, which are now based on the results of the 1970 Census and on lower future fertility assumptions than were previously used for such projections.

Although the new population and fertility projections will have a major impact after the turn of the century on the long-range cost estimates, they will not have a significant effect in the short run. According to present short-range cost estimates, action to increase the combined income of the OASDI and hospital insurance systems for the next 5–10 years is not necessary right now. Although, when considered separately, the Disability Insurance Trust Fund and, to some extent, the Old-Age and Survivors Insurance Trust Fund decline in terms of both absolute dollar amounts and as a percent of outgo, the Hospital Insurance Trust Fund is increasing more rapidly than previously projected, with the result that it is developing an excess of funds. The Board noted that one of the possible ways that the projected short-range excess of outgo over income in the cash benefit funds can be avoided is a reallocation of the total program income among the three funds (OASI, DI, and HI) by revising the contribution rates scheduled in present law without increasing the total rate. However, in order to maintain the HI Trust Fund in actuarial balance, any reduction in the HI tax rates in the early years would have to be offset by compensatory increases in later years.

The present assumptions as to the rate of increase in the CPI, in both the short-range and the long-range estimates, assume some deceleration from recent rates of increase. If this deceleration does not occur, or occurs more slowly than assumed, the reallocation noted above may not be sufficient over the next 5–10 years to prevent a decline in the funds. And, of course, if such deceleration does not occur and if, as is assumed, recent fertility trends should continue, the additional financing needed over the long-range will be increased.

Although there is of necessity a considerable degree of uncertainty inherent in the long-range demographic and economic assumptions and consequently in the projections that flow from those assumptions, it is certain that additional income to the cash benefits program or some adjustment in the benefit structure will be needed eventually. However, in view of this inherent uncertainty and the fact that the newly appointed Advisory Council on Social Security is studying the long-range financial status of the social security system, the Board is not recommending a specific increase in the combined OASDHI contribution rates scheduled in present law. The Board believes that there is ample time to await the Council's findings and recommendations before making specific proposals.

# APPENDIX

## STATEMENT OF ASSUMPTIONS, METHODOLOGY, AND DETAILS OF LONG-RANGE COST ESTIMATES

(Prepared by Office of the Actuary, Social Security Administration)

The basic assumptions used in the long-range estimates for the Old-Age, Survivors, and Disability Insurance System are described in this Appendix. Also given here are some detailed data in connection with the results of these estimates.

Section A of this Appendix provides a description of the demographic aspects of the long-range cost estimates, while Section B discusses the economic aspects. These terms are used in a general sense, since it is not entirely possible to fully separate the effect of these two aspects on the cost estimates. By "demographic aspects" we mean those elements dealing with the population and its characteristics. These include the number, age, sex, marital status, retirement, disability, mortality, fertility, employment, and coverage under the system. By "economic aspects" we mean the monetary elements of the estimates which primarily consist of the projected annual increases in the Consumer Price Index (CPI) and in the average earnings in covered employment.

### A. DEMOGRAPHIC ASPECTS

This section of the Appendix discusses the methods used to estimate the demographic elements of the OASDI cost projections and their effect on the cost estimates.

#### (1) *Population*

A projection was made of the United States population (including persons overseas covered by the Old-Age, Survivors, and Disability Insurance Program) for future quinquennial years, by 5-year age groups and by sex. The starting point was the population on July 1, 1973, as estimated by the Bureau of the Census from the 1970 Census and from births, deaths, and migration in 1970-73. This population estimate was adjusted for differences in the geographical areas covered by the estimate of the Bureau of the Census and those covered by the Old-Age, Survivors, and Disability Insurance System.

In the population projection it was assumed that mortality rates will decline until the year 2000. Mortality rates for the year 2000 are, on the average, about 10 percent lower than those experienced in 1972.

The total fertility rate was assumed to increase slowly until the year 2005 after which it was assumed to remain constant at a level of 2.1 children per woman, which is close to replacement rate and which would ultimately result in zero population growth. In addition, the projection assumes a small amount of net immigration. Complete details about the population projection will be given in a new actuarial study to be published by the Social Security Administration.

#### (2) *Employment*

Assumptions as to the percentage of the population who have covered employment during a year were made for each age group by sex for each quinquennial year. For men, the estimated average percentages for 1968-71 were projected to increase for teenagers, to decrease slightly for those aged 20-59, and to decrease significantly for those aged 60 and over (thus recognizing the trend toward higher retirement rates). For women, the corresponding percentages were assumed to increase, except for those aged 60 and over for whom a decrease was projected.

The foregoing projections are consistent with the projected average unemployment rate of 5 percent. Although a depression lasting several years could increase the cost, it is assumed that any periods during which unemployment is substantially higher than the assumed level would be of relatively short duration or would be balanced by offsetting periods of low unemployment, and would therefore have virtually no long-range cost effect.

### (3) *Insured Population*

The term "insured" is used as meaning fully insured, since the number of persons who are currently-insured only is relatively small and can be disregarded for long-range cost analysis purposes. The percentages of insured persons by age and sex in various future years are estimated from recent experience and from the projected coverage. It is evident that eventually almost all males in the country will be insured for old-age and survivors benefits; the ultimate percentage for aged males is estimated at 97 percent. For females it is estimated that the corresponding proportion will eventually be 71 percent. This is lower than for males because of the lower participation rates of females in the labor force.

The estimated number of persons insured for disability benefits are lower than those insured for old-age and survivor benefits because of the more restrictive insured status provision for disability benefits. These were also estimated on the basis of recent experience and the projected percentage of persons covered.

### (4) *Old-Age and Survivors Insurance Beneficiaries*

Old-age beneficiaries were estimated from the aged insured population. The proportions, by age and sex, of the insured population that were receiving benefits at the beginning of 1973 were projected to increase according to past trends after adjustment for changes in the earnings test and in the level of unemployment, thereby reflecting assumed gradual increases in the retirement rates.

Wives aged 62 and over of male old-age beneficiaries were estimated by using census data and mortality projections. These potential wife beneficiaries, after adjustment for eligibility for their own old-age benefits, were assumed to claim benefits as soon as they are eligible, even if this occurred at ages 62-64, when they would have to take reduced benefits. The experience to date indicates that in the vast majority of the cases, such immediate claiming of wife's benefits does occur.

Young wives and children of retired workers were estimated by reference to their ratios to male old-age beneficiaries, as derived from recent actual data and projected according to the aforementioned fertility and mortality assumptions.

Child-survivor beneficiaries were obtained from estimates of total paternal orphans in the country in future years. The projected child population, by age group, was multiplied by the probability of being a paternal orphan. These probabilities were derived by using distributions of age of fathers at birth of child and death rates consistent with the population projections. The number of paternal orphans was then adjusted to eliminate orphans of uninsured men, to add orphans of insured women and to include the eligible disabled orphans aged 18 and over. For the non-disabled children aged 18-21, a further reduction was made to exclude those not attending school. Mother survivor beneficiaries were estimated by extrapolating the present ratio of mothers to children, after excluding those non-disabled children 18-21 who were attending school, to reflect the lower projected fertility.

To estimate widow beneficiaries the proportions of widows in the female aged population were projected according to mortality assumptions and adjusted for both eligibility for their own old-age benefits and for the insured status of their deceased husbands. These uninsured eligible widows were assumed to claim benefits as soon as available even if this occurred at ages 60 to 64, when they would have to take reduced benefits. For ages 50-59, the disabled widow beneficiaries were estimated from the eligible widows by using disability prevalence rates.

It can be observed that the assumed wife and widow beneficiaries consist of the uninsured potential beneficiaries. In actual practice, some of the insured potential beneficiaries also receive a residual benefit consisting of the excess of the potential wife's or widow's benefit over their own old-age benefit. These residual benefits, although not giving rise to additional aged beneficiaries, were considered in the cost of the particular type of dependent or survivor benefit concerned.

The minor category of parent beneficiaries was projected by adjusting the previous estimates (which had been projected as a constant proportion of aged persons not eligible for any other benefit) to reflect the experience through the end of calendar year 1973. The insignificant effect of the retirement test as it applies to wife's, widow's and parent's benefits was ignored. No separate estimates were made for benefits to dependent husbands and widowers since their cost is relatively negligible.

Appendix Table A shows the estimated number of beneficiaries in the old-age and survivors insurance program.

APPENDIX TABLE A.—OLD-AGE AND SURVIVORS INSURANCE BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT PAYMENT STATUS<sup>1</sup>

[In thousands]

Calendar year	Retired workers and dependents			Survivors of deceased workers				Total
	Old-Age	Wives <sup>2</sup>	Children	Mothers	Children	Widows <sup>3</sup>	Parents	
<b>Actual data (as of June 30):</b>								
1962	9,348	2,464	378	435	1,690	1,778	37	16,130
1963	10,037	2,563	416	457	1,775	1,940	37	17,226
1964	10,482	2,595	425	467	1,862	2,087	37	17,955
1965	10,843	2,601	429	472	1,900	2,228	36	18,509
1966	11,461	2,641	506	480	2,224	2,503	35	19,850
1967	11,745	2,619	517	490	2,328	2,686	34	20,419
1968	12,188	2,635	522	494	2,447	2,843	32	21,161
1969	12,582	2,634	523	497	2,559	3,011	31	21,837
1970	13,066	2,651	535	514	2,673	3,151	29	22,619
1971	13,604	2,673	556	523	2,745	3,287	28	23,416
1972	14,181	2,706	578	536	2,847	3,433	27	24,308
1973	14,880	2,756	602	548	2,887	3,575	25	25,273
<b>Projection (as of June 30):</b>								
1985	21,157	3,292	550	946	3,083	3,923	20	32,971
1990	23,368	3,407	421	1,093	3,206	3,915	19	35,430
1995	24,763	3,407	406	1,162	3,475	3,880	18	37,111
2000	25,520	3,306	410	1,198	3,724	3,909	17	38,084
2005	26,613	3,196	431	1,126	3,569	3,993	16	38,944
2010	28,993	3,291	496	1,107	3,483	4,290	15	41,675
2015	33,086	3,518	579	1,125	3,505	4,277	16	51,429
2020	37,309	3,915	653	1,160	3,612	4,764	17	56,400
2025	41,314	4,254	701	1,175	3,683	5,256	17	59,280
2030	43,651	4,405	698	1,171	3,683	5,654	18	59,449
2035	43,764	4,299	659	1,168	3,668	5,871	20	59,334
2040	43,055	4,118	641	1,181	3,691	6,126	22	58,334
2045	43,078	4,075	667	1,201	3,752	6,173	24	58,970

<sup>1</sup> Excluding the effect of the railroad financial interchange provisions.<sup>2</sup> Including dependent husband beneficiaries.<sup>3</sup> Including dependent widower beneficiaries.*(5) Lump-Sum Death Payments*

The numbers of lump-sum death payments were estimated by multiplying the insured population by the death rates used in the population projections.

*(6) Disability Insurance Beneficiaries*

The future number of persons receiving monthly disability benefits based on their own earnings was estimated by the application of incidence and termination rates. These rates were developed from the most recent experience data available from the operations of the Disability Insurance System. The population insured for disability (by sex and age) was multiplied by the incidence rates to arrive at the number of new cases of disabled workers. These in turn were projected through the use of mortality and recovery rates to obtain the number of beneficiaries.

The assumed incidence rates were based on the estimated actual experience in calendar year 1965, adjusted to reflect both the increases in awarded disability benefits through the end of calendar year 1973 as well as relevant legislated changes through that year. Although the reasons for these increases are not yet fully understood, it was decided that the projected costs should reflect the total increases that have already been experienced through the end of calendar year 1973. However, although the incidence rates have been increasing steadily for the past several years, no increases beyond the 1973 level were projected. If the incidence rates should continue to increase either in line with the current trend or as a result of the implementation of the disability provisions of the Supplementary Security Income Program, enacted in 1972 and implemented in January of this year, it will be necessary to further increase the projections of the disabled beneficiaries.

A more complete knowledge of possible future trends in the number of disabled worker beneficiaries will not be available until the current study of the recent increases is completed.

The mortality and recovery rates are based on the actual experience of the system for the period 1957-67. These experience rates were not modified to take into account any later data. It is possible that the recent increase in the awards may affect the rate at which benefits are terminated, but this will not be known for several years.

The number of child beneficiaries were projected as a proportion of the disabled male beneficiaries allowing for future projected changes in fertility.

The number of wife beneficiaries were projected as a proportion of child beneficiaries after allowing for projected future changes in fertility.

Appendix Table B shows the projected number of beneficiaries in the Disability Insurance Program.

APPENDIX TABLE B.—DISABILITY INSURANCE BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS<sup>1</sup>  
[In thousands]

Calendar year	Workers	Wives <sup>2</sup>	Children	Total
<b>Actual data (as of June 30):</b>				
1962	679	133	340	1,152
1963	790	160	432	1,382
1964	862	175	480	1,517
1965	944	187	518	1,649
1966	1,050	209	627	1,886
1967	1,141	226	692	2,059
1968	1,245	244	768	2,257
1969	1,343	254	810	2,407
1970	1,436	271	861	2,568
1971	1,561	293	934	2,788
1972	1,737	327	1,028	3,092
1973	1,925	364	1,127	3,416
<b>Projection (as of June 30):</b>				
1985	3,035	547	1,043	4,625
1990	3,224	573	1,060	4,857
1995	3,468	612	1,146	5,226
2000	3,873	673	1,307	5,853
2005	4,383	756	1,467	6,606
2010	4,813	826	1,603	7,242
2015	5,044	863	1,676	7,583
2020	5,080	869	1,687	7,636
2025	4,926	844	1,638	7,408
2030	4,767	818	1,588	7,173
2035	4,832	829	1,610	7,271
2040	5,045	865	1,679	7,589
2045	5,172	886	1,720	7,778

<sup>1</sup> Excluding the effect of the railroad financial interchange provisions.

<sup>2</sup> Including dependent husband beneficiaries.

#### (B) ECONOMIC ASPECTS

In this section of the Appendix, a detailed discussion of the economic aspects of the OASDI long-range cost estimate is presented. As stated above, the term "economic aspects" is used here to refer primarily to the assumptions regarding future annual increases in average earnings in covered employment as well as in the Consumer Price Index (CPI). The importance of these economic aspects results from the automatic adjustment provisions in the present law which require that the benefit table be adjusted to keep up with the increases in the CPI and that the taxable earnings base, as well as the exempt amount in the earnings test, be adjusted to keep up with the increases in average earnings. This type of automatic procedure has the effect that, once a worker retires, his benefits will not deteriorate in terms of purchasing power. It has the further effect that a worker before retirement will have his potential benefits increased because of both the increases in his credited earnings and the adjustments to his benefits to maintain their purchasing power. This dual increase in potential benefits for future beneficiaries may in combination be above or below increases in earnings, but (as will be shown later) is likely to be, on the average, slightly higher for the next 20 years and significantly higher thereafter.

##### (1) The Central Set of Economic Assumptions

Unless otherwise stated, the estimates presented in this Appendix are based on the central set of economic assumptions defined in this subparagraph. This central set consists of projected ultimate annual increases in the CPI of 3 percent and in the average earnings in covered employment of 5 percent. For years before 1981 the assumptions are as described within Alternative I in the section of this report dealing with the projected short-range operations; the assumed increases for 1978 were also adopted for 1979 and 1980.

The 3-percent CPI assumption is approximately  $\frac{3}{4}$  of one percent higher than has been experienced over the last 20 years, and the 5-percent average-earnings assumption is approximately  $\frac{1}{2}$  of one percent higher. The latter assumption is a by-product of the 3-percent CPI assumption and the assumption adopted regard-

ing the annual increases in the average real earnings. Based on the trend in real earnings over the last 20 years, and also on the assumption that there would be a leveling in the movement toward part-time employment, an ultimate annual increase in average real earnings of 2 percent was adopted. This increase when combined with the assumed CPI increase of 3 percent yielded the assumption of a total increase in average earnings of 5 percent.

(2) *Average Benefits*

The average awarded benefits for retired workers were projected by computer simulation of the automatic provisions for workers at various earnings levels under the specific assumptions regarding the increases in earnings and CPI. The average benefits in current-payment status were then obtained by weighing the awarded benefits according to values obtained from recent actual experience while allowing for the effect of projected CPI adjustments.

Appendix Table C shows the projected average awarded retirement benefit, the projected average retirement benefit in current-payment status, and the projected increases in each as compared to increases in average earnings. As can be observed from the projected ratios in the third column of the table, all of which are greater than one, the average awarded retirement benefit is projected to increase faster than average earnings. It can also be observed that this is particularly true after the turn of the century.

APPENDIX TABLE C.—PROJECTED INCREASES IN AVERAGE RETIREMENT BENEFIT AT AWARD AND IN CURRENT-PAYMENT STATUS AS COMPARED WITH PROJECTED INCREASES IN AVERAGE COVERED EARNINGS, DYNAMIC ASSUMPTIONS<sup>1</sup>

Calendar year	Average annual retirement benefit		Ratio of increase in retirement benefits to increase in earnings	
	Awards	In current payment	Awards	In current payment
1974	\$2,220	\$2,131	1.000	1.000
1985	4,390	3,715	1.047	.923
1990	5,602	4,845	1.046	.943
1995	7,213	6,235	1.056	.951
2000	9,475	8,010	1.086	.957
2005	12,561	10,434	1.129	.977
2010	16,418	13,712	1.156	1.006
2015	21,225	17,967	1.171	1.032
2020	27,387	23,375	1.184	1.052
2025	35,355	30,255	1.197	1.067
2030	45,624	39,078	1.210	1.080
2035	58,905	50,445	1.225	1.092
2040	76,100	65,119	1.240	1.105
2045	98,089	84,072	1.252	1.118

<sup>1</sup> Based on the central set of economic assumptions of annual increases of 3 percent in CPI and 5 percent in earnings and somewhat higher increases before 1981. All extensions in the benefit table are on the basis of a 20-percent factor as required by the present law. The benefits refer only to those payable to retired workers. The figures in the column entitled "In current payment" refer to the average benefits for all retired workers who are receiving benefits, while those in the column entitled "Awards" refer to the average benefits for those workers becoming entitled in the particular year.

Although modifying either the economic assumptions or the method of extending the benefit table would result in a projection that would be different in both absolute and relative terms, the relative slowness in the increases before the turn of the century would nonetheless still occur since that phenomenon is associated with the procedure used for calculating the average monthly wage of retiring workers rather than with the economic assumptions or the benefit formula. To elaborate, under the present law, workers attaining age 65 in 1974 have their average monthly wage computed over a period of 18 years for males and 15 years for females. Also according to the present law, these computation periods are required to increase by one year for each year elapsed (with the exception that, because of the amendments enacted in 1972, the computation period does not increase for male workers attaining age 65 in the years 1976-78) until a maximum is reached in the year 1994 after which they will remain unchanged. The effect of this procedure is reflected in the contrast between the ratios in Appendix Table C before and after 1994. After that year the awarded average retirement benefit increases significantly faster than average earnings whereas before that year it increases only slightly faster. Thus, it can be observed that the effect of the present procedure under which the computation period increases until 1994 is to offset in large part the dual increments to which awarded retirement benefits are subjected under the present law (that is, the automatic benefit increases and the increments due to the use of higher creditable earnings).

(3) *Total Benefit Payments*

Total benefit payments were calculated as the product of the number of beneficiaries by their corresponding average benefits. These values were adjusted to reflect retroactive payments.

(4) *Administrative Expenses*

On the basis of recent experience and expected operations, it was assumed that future administrative expenses would be 1.8 percent of benefit payments for OASI and 5.0 percent of benefit payment for DI. These percentages include the allocation of funds to be used to rehabilitate disabled beneficiaries under the Beneficiary Rehabilitation Program enacted in 1965.

(5) *Railroad Retirement Financial Interchange*

The effect of the financial interchange was evaluated on the basis of trends similar to those used for the OASDI direct cost. This results in a long-range loss to the OASDI system.

(6) *Interest Rate*

Interest rate was assumed at 6 percent per year. This rate was adopted as a reflection of the assumed ultimate CPI increment of 3 percent. The resulting differential or "true" interest rate of 3 percent seems to be reasonable.

The effect of a different interest rate would be minor since the system is evaluated on a "current-cost" basis with only a one-year fund on hand. The same interest assumption was retained for all estimates and projections.

(7) *Sensitivity to Economic Assumptions*

This subparagraph contains a brief analysis of the sensitivity of the cost projections to changes in the economic assumptions. The assumptions tested were those regarding the projected ultimate increases in the average earnings, CPI, and by implication average real earnings. In addition, the earnings and CPI assumptions for the years before 1981 were adjusted to produce a smoother transition from the 1974 value to the specific ultimate value. All of the other assumptions and all formulae and procedures remained the same as those used in the preparation of the cost estimates based on the central set of economic assumptions.

Six sets of assumptions were chosen in a manner which facilitated the analysis of the effect on the cost projections of varying each of the three ultimate assumptions separately. All variations in the ultimate assumptions were arbitrarily selected to be in convenient increments of one percent. Consequently, the resulting selections are not intended to represent the possible outside range of variation in the assumptions. In addition, no claim is made about the internal consistency within any of these sets of economic assumptions, when viewed in terms of today's national economy or of a possible long-range projection of that economy.

Appendix Table D presents the results of this sensitivity test.

APPENDIX TABLE D.—PROJECTED "CURRENT COST"<sup>1</sup> OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE SYSTEM AS PERCENT OF PAYROLL<sup>2</sup>, UNDER VARIOUS DYNAMIC ASSUMPTIONS, FOR SELECTED YEARS, 1974–2045

Calendar year	Dynamic economic assumption <sup>3</sup>						
	5-3	5-2	5-4	6-3	4-3	6-4	4-2
1974	10.67	10.33	10.35	10.33	10.33	10.35	10.33
1985	10.44	9.63	11.64	9.33	10.96	10.49	10.20
1990	11.03	9.76	13.00	9.53	12.15	11.25	10.77
1995	11.25	9.53	13.98	9.44	12.94	11.69	10.92
2000	11.31	9.10	14.71	9.19	13.48	11.92	10.84
2005	11.69	8.88	15.74	9.14	14.23	12.39	10.89
2010	12.69	9.16	17.71	9.60	15.82	13.55	11.56
2015	14.14	9.78	20.55	10.43	18.15	15.27	12.68
2020	15.71	10.48	23.80	11.37	20.84	17.24	13.95
2025	16.97	11.01	26.86	12.16	23.29	18.99	14.97
2030	17.60	11.14	29.05	12.53	24.92	20.12	15.42
2035	17.68	10.89	30.15	12.45	25.62	20.50	15.30
2040	17.68	10.57	30.97	12.26	26.05	20.66	15.04
2045	17.86	10.39	32.08	12.19	26.74	20.98	14.95
Average cost <sup>4</sup>	13.89	10.05	20.41	10.66	17.96	15.20	12.60

<sup>1</sup> Represents the cost as percent of payroll of the year's total outgo, including amounts needed to maintain the funds at about 1 year's outgo.

<sup>2</sup> Payroll is adjusted to take into account the lower contribution rate on self-employment income, on tips, and on multiple-employer "excess wages" as compared with the combined employer-employee rate.

<sup>3</sup> The 1st of the 2 figures represents the assumed ultimate annual percent increase in earnings after 1980, while the 2d figure represents the assumed ultimate increase in CPI.

<sup>4</sup> Represent the arithmetic average of the "current cost" for the 75-year period 1974–2048.

The first column in the table shows the projected "current-cost" under the central set of assumptions. The projection is identical to the one presented in table 22 in the main body of this report. It is included in this table in order to facilitate comparisons with other projections in assessing the sensitivity of the projections to the assumptions. Under the central assumptions, the average "current-cost" of the OASDI system is estimated at 13.89 percent of taxable payroll. It should be observed that the overall projected "current-cost" is measured in this table in terms of the arithmetic average of the "current-cost" for each of the 75 years in the valuation period.

The second and third columns in Appendix Table D present the projected "current-cost" on the assumptions that increases in earnings would remain at the same ultimate 5 percent level as in the central set, but that CPI would be one percent lower or higher than in the central set. These results could also be interpreted as being based on a one-percent variation of the projected gain in real earnings wherein the whole variation is reflected in a change in CPI. These projections indicate that a one-percent variation in CPI would change the average-cost by about 28-47 percent, relatively.

The fourth and fifth columns present the projected "current-cost" on the assumptions that the ultimate CPI increase would remain at the 3 percent level used in the central set, but that the ultimate increases in earnings would be one percent lower or higher than in the central set. These results could also be interpreted as being based on a one-percent variation on the projected gain in real earnings wherein the whole variation is reflected in a change in earnings. These projections indicate that a one-percent variation in earnings would change the average-cost by about 23-29 percent, relatively.

A significant fact to be noted is that the second and fourth columns are based on the same projected gain in real earnings of 3 percent but that the projected average-costs are different. A similar observation could be made on the basis of the third and fifth columns. The results indicate that, even if two projections are based on the same gain in real earnings, the projected cost of the OASDI System would be affected by the level of the CPI increases. We could also interpret the results to mean that, all other factors being equal, the cost of the OASDI System will depend on the level of inflation, with the cost being lower if inflation is kept at low levels.

The same effect can be observed by comparing the first, sixth, and seventh columns. In this case, the real earnings gains are assumed at 2 percent. As will be noted, the average-cost of the OASDI System increases by 9-½ to 10 percent, relatively, for every one-percent increase in CPI and earnings.

In general, this sensitivity analysis indicates that the effect of variations in the economic assumptions is relatively small in the early years, but that it becomes progressively more significant in the later years. The results of this analysis demonstrate the effect of changes in specific economic factors on future OASDI costs. However, they should not be interpreted as a prediction of the range of variation in that cost over the next 75 years.

