

# Old-Age, Survivors, and Disability Insurance: Financing Basis and Policy Under the 1960 Amendments

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CONGRESSIONAL consideration of revisions in the old-age, survivors, and disability insurance program has always included careful study of the cost aspects. In the 1950 amendments, Congress stated its intention that the program be completely self-supporting from the contributions of covered individuals and employers, and accordingly it repealed the provision permitting appropriations to the system from general revenues of the Treasury. All major amendments since then, including those of 1960,<sup>1</sup> have indicated congressional conviction that the tax schedule should make the program as nearly self-supporting as can be foreseen—that is, actuarially sound.

The test of actuarial soundness differs considerably for old-age, survivors, and disability insurance and for private pension plans though there are certain points of similarity. The chief difference is in the application of the concept of “unfunded accrued liability.” In general, a private plan that has been functioning for a number of years must have sufficient funds on hand to pay off all accrued liabilities if operations should be terminated. For a national compulsory social insurance program, which can be presumed to continue indefinitely into the future, the test is whether the expected future income from contributions and interest on invested assets will meet anticipated expenditures for benefits and administration. The intent that the program be self-supporting can be expressed in law by a contribution schedule that, according to intermediate-cost estimates, will bring the program into balance, or approximate balance, though future experience may be expected to vary from current estimates.

## ACTUARIAL BALANCE IN PAST YEARS

Estimates of the actuarial balance that would develop under the 1952 act were virtually the

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<sup>1</sup> For a summary of the amendments, see pages 3-29.

same as those for the 1950 act; the effect of the rise in earnings levels in the intervening period was believed to about offset the increased cost resulting from the benefit liberalization. Cost estimates made in 1954 indicated that the level-premium cost (the average long-range cost, based on discounting at interest, in relation to payroll) of benefit disbursements and administrative expenses was somewhat more than 0.5 percent of payroll higher than the level-premium equivalent of the scheduled taxes (including allowance for interest on the existing trust fund). The contribution schedule in the 1954 amendments met all the additional cost of the benefit changes and at the same time reduced substantially the actuarial insufficiency that the current estimates had indicated in the financing of the 1952 provisions.

In 1956 the estimates for the 1954 act were revised to take into account the rise in the earnings level since 1951 and 1952—the 2-year period used as the basis for the 1954 estimates. The benefit changes made by the 1956 amendments were fully financed by the increased contribution income provided, and the program's actuarial balance was unaffected.

Cost estimates made in early 1958 indicated that the program was out of actuarial balance by somewhat more than 0.4 percent of payroll. The large number of retirements among the groups newly covered by the 1954 and 1956 legislation had resulted in higher benefit expenditures than those estimated, and the average retirement age had dropped significantly. The 1958 law accordingly provided additional financing for the program, both to reduce the lack of actuarial balance and to finance certain benefit liberalizations.

The revised cost estimates made in 1958 for the disability insurance program contained certain modified assumptions that recognized the emerging experience under that program. As a result, the moderate actuarial surplus originally estimated was increased somewhat.

At the beginning of 1960, the cost estimates for

the old-age, survivors, and disability insurance program were reexamined and modified in certain respects. The earnings assumption was changed to reflect the 1959 level, and the assumptions for the disability insurance portion of the program were revised on the basis of newly available data on the operation of the disability provisions. The data showed that the number of persons meeting the insured-status requirements for disability benefits had been significantly overestimated and that the disability experience with respect to eligible women was considerably lower than the original estimate, although the experience for men was close to the intermediate estimate.

The Committee on Ways and Means of the House of Representatives stated in its report<sup>2</sup> on the 1960 legislation that it believes it a matter of concern if either portion of the program shows any significant actuarial insufficiency—more than 0.25 percent of payroll for old-age and survivors insurance and 0.05 percent for disability insurance. Whenever the actuarial insufficiency has exceeded these limits in the past, any subsequent liberalizations in benefits were fully financed by changes in the tax schedule or through other methods, and at the same time the actuarial status of the program was improved. The changes made by the 1960 amendments are in conformity with these principles.

### **BASIC ASSUMPTIONS FOR COST ESTIMATES**

Benefit disbursements may be expected to increase continuously for at least the next 50–70 years because of factors, such as the aging of the population and the slow but steady growth of the benefit rolls, that are inherent in any retirement program in operation for a relatively short period. Estimates of the future costs of the old-age, survivors, and disability insurance program, however, are affected by many other factors difficult to determine. Accordingly, the assumptions used in the actuarial cost estimates may differ widely and yet be reasonable.

The long-term cost estimates are presented in a range to indicate the plausible variation in future costs. Both the low- and high-cost estimates are based on high economic assumptions, intended to represent almost full employment with average

annual earnings at about the 1959 level. Intermediate estimates, developed by averaging the low- and high-cost estimates, indicate the basis for the financing provisions.

In general, the costs are shown as percentages of covered payroll—the best measure of the program's financial cost. Dollar figures taken alone are misleading. A higher earnings level, for example, will raise not only the outgo but also and to a greater extent the income of the program. As a result, the cost in relation to payroll will decline.

For the short-range costs (for the years 1960–65), only a single estimate is necessary. It is assumed that the earnings level will rise gradually, paralleling the increase of the past few years. As a result, contribution income is somewhat higher than if level earnings were assumed, and benefit outgo is only slightly affected.

The level-premium contribution rate required to support the program into perpetuity, based on discounting at interest, is an important measure of long-range cost. It is assumed that benefit payments and taxable payrolls remain level after the year 2050. If a level rate based on this assumption were adopted, relatively large accumulations in the old-age and survivors insurance trust fund would result, and consequently sizable eventual income from interest. Even though such a method of financing is not followed, the concept may nevertheless be used as a convenient measure of long-range costs. This is a valuable cost concept, especially in comparing various alternative proposals, since it takes into account the heavy deferred benefit costs.

The long-range cost estimates have not taken into account the possibility of a rise in earnings levels, although such a rise has been characteristic of the past. If such an assumption were used, along with the unlikely assumption that the benefits would nevertheless not be changed, the cost in relation to payroll would be lower. If benefits are adjusted to keep pace with rising earnings trends, the year-by-year costs as a percentage of payroll would be unaffected. The level-premium cost, however, would be higher, since the relative importance of the interest receipts of the trust funds would gradually diminish with the passage of time. If earnings do consistently rise, the financing basis of the program will have to be thoroughly considered because the interest receipts will then meet a smaller proportion of the

<sup>2</sup> H. Rept 1799, 86th Cong., 2d sess.

benefit costs than would be anticipated if the earnings level had not risen.

Amendments made in 1951 to the Railroad Retirement Act affect old-age, survivors, and disability insurance costs. Under these amendments, railroad retirement compensation and any earnings covered by the Social Security Act are combined in determining benefits for those with less than 10 years of railroad service and for all survivor cases.

Under the financial interchange provisions established at the same time, the old-age and survivors insurance trust fund and the disability insurance trust fund are to be maintained in the same financial position in which they would have been if railroad employment had always been covered. It is estimated that in the long run the net effect of these provisions will be a relatively small loss to the old-age, survivors, and disability insurance program, since the reimbursements from the railroad retirement system will be somewhat smaller than the net additional benefits paid on the basis of railroad earnings.

The financing of old-age, survivors, and disability insurance is also affected by the 1956 legislation that provided for reimbursement from general revenues for past and future expenditures with respect to the noncontributory credits that had been granted for persons in military service before 1957. The cost estimates presented here reflect the effect of these reimbursements (included as contributions), based on the assumption that the required appropriations will be made in 1961 and later years.

## RESULTS OF INTERMEDIATE-COST ESTIMATES

The long-range intermediate-cost estimates are developed from the low- and high-cost estimates by averaging them (using the dollar estimates and developing therefrom the corresponding estimates related to payroll). The intermediate-cost figures presented are not the most probable estimate but a convenient and readily available single set of figures to use for comparative purposes.

A single estimate is necessary in the development of a tax schedule intended to make the system self-supporting. Any specific schedule will necessarily be somewhat different from what will actually be required to obtain exact balance be-

tween contributions and benefits. Such a schedule, however, does make the intention specific, even though it may develop from actual experience that future changes may be necessary. Likewise, exact self-support cannot be obtained from a specific set of integral or rounded fractional tax rates increasing in orderly intervals, but the principle of self-support should be aimed at as closely as possible.

The schedule for contributions and the annual maximum earnings base (\$4,800) to which these tax rates are applied are unchanged by the 1960 amendments. The schedules are as follows:

[Percent]		
Calendar year	Employee rate (same for employer)	Rate for self-employed
1960-62.....	3	4½
1963-65.....	3½	5½
1966-68.....	4	6
1969 and thereafter.....	4½	6½

The 1960 amendments revised the basis for determining the interest rate on public-debt obligations issued for purchase by the trust funds (special issues), which constitute a major portion of the investments of the trust funds.<sup>3</sup> This change will have the immediate effect of gradually increasing the interest income of the trust funds. The ultimate effect will probably be only a slight increase in interest income since, over the long run, the market rates and the coupon rates on long-term Government obligations tend to be about the same.

The gain in the immediate future and the small, possible long-run advantage of the new interest basis are reflected in the cost estimates for the 1960 amendments by using a level interest rate of 3.02 percent for the level-premium calculations. This rate is the overall equivalent of the varying interest rates, developed on a year-by-year basis, used in the development of the progress of the trust funds. These varying interest rates have been estimated from the existing maturity schedule of special issues and from assumed average market rates on long-term Government obligations, running from their present level of about 4 percent down to about 3 percent ultimately. The interest rate used in the cost estimates for the

<sup>3</sup> See page 23 of this issue for a description of the revision.

1958 act was 3 percent (except that in developing the progress of the trust funds a slightly lower rate was used for the first few years).

The 1960 amendments will increase the lack of actuarial balance of the old-age and survivors insurance system from 0.20 to 0.24 percent of payroll (table 1). The disability insurance system will have a lack of actuarial balance of 0.06 percent of payroll under the amendments, compared with the 0.15-percent actuarial surplus under the 1958 provisions. The effect of the amendments on the combined old-age, survivors, and disability insurance system will be an actuarial deficit of 0.30 percent of payroll, which is well within the margin of variation possible in actuarial cost estimates and which is about the same as has generally prevailed in the past when the system has been considered to be in substantial actuarial balance. If the cost estimates had been based on an interest rate higher than 3.02 percent, the lack of actuarial balance would have been considerably less than 0.30 percent of payroll. In fact, if an

TABLE 1.—Actuarial balance of the old-age, survivors, and disability insurance program under various acts, based on intermediate-cost estimate

Legislation	Date of estimate	Level-premium equivalent <sup>1</sup>		
		Benefit costs <sup>2</sup>	Contributions	Actuarial balance <sup>3</sup>
		[Percent]		
Old-age, survivors, and disability insurance <sup>4</sup>				
1950 act.....	1950	6.05	5.95	-0.10
1952 act.....	1952	5.85	5.75	-0.10
1952 act.....	1954	6.62	6.05	-0.57
1954 act.....	1954	7.50	7.12	-0.38
1954 act.....	1956	7.45	7.29	-0.16
1956 act.....	1956	7.85	7.72	-0.13
1956 act.....	1958	8.25	7.83	-0.42
1958 act.....	1958	8.76	8.52	-0.24
1958 act.....	1960	8.73	8.68	-0.05
1960 act.....	1960	8.98	8.68	-0.30
Old-age and survivors insurance <sup>4</sup>				
1956 act.....	1956	7.43	7.23	-0.20
1956 act.....	1958	7.90	7.33	-0.57
1958 act.....	1958	8.27	8.02	-0.25
1958 act.....	1960	8.38	8.18	-0.20
1960 act.....	1960	8.42	8.18	-0.24
Disability insurance <sup>4</sup>				
1956 act.....	1956	0.42	0.49	+0.07
1956 act.....	1958	.35	.50	+0.15
1958 act.....	1958	.49	.50	+0.01
1958 act.....	1960	.35	.50	+0.15
1960 act.....	1960	.56	.50	-0.06

<sup>1</sup> Percent of taxable payroll.

<sup>2</sup> Includes adjustments to reflect (a) the lower contribution rate for the self-employed, compared with the combined employer-employee rate, (b) interest earnings on the existing trust fund, and (c) administrative expenses.

<sup>3</sup> A negative figure indicates the extent of lack of actuarial balance; a positive figure indicates more than sufficient financing, according to the estimate.

<sup>4</sup> The disability insurance program was established by the 1956 act; data for earlier years are for the old-age and survivors insurance program only.

interest rate of 3½ percent had been hypothesized, the cost estimates would show no actuarial deficit.

Table 2 traces the change in the actuarial balance of the program from its situation under the 1958 act, according to the latest estimate, to that under the 1960 law.

It should be emphasized that in 1950 and in subsequent amendments, Congress did not recommend a high level tax rate in the future but rather an increasing schedule, which, of necessity, ultimately rises higher than the level-premium rate. Nevertheless, this graded tax schedule will produce a considerable excess of income over outgo for many years so that a sizable trust fund, although less than that under a level-premium tax rate, will develop. This fund will be invested in Government securities. The resulting interest income will help to bear part of the higher benefit costs of the future.

The level-premium cost of the old-age and survivors insurance benefits (without considering administrative expenses and the effect of interest earnings on the existing trust fund) under the 1958 act, according to the latest intermediate-cost estimate, was about 8.5 percent of payroll. For the 1960 act it is about the same. The corresponding figures for the disability benefits are 0.35 percent for the 1958 act and 0.56 percent for the 1960 act (table 3).

The level-premium contribution rates equivalent to the graded schedules in the 1958 and 1960 acts may be computed in the same manner as level-premium benefit costs. They are shown for income and disbursements after 1959 in table 1, which also shows the net actuarial balances.

TABLE 2.—Changes in estimated level-premium cost of benefit payments as percent of taxable payroll, by type of change, based on intermediate-cost estimate, 1958 act and 1960 act

Item	Change under 1960 act (percent)
Old-age and survivors insurance benefits:	
Lack of balance (-) under 1958 act.....	-0.20
Increase in child survivor benefits.....	-0.02
Liberalization of retirement test.....	-0.02
Liberalization of fully insured status.....	-0.02
Improved yield of trust fund investments.....	+0.02
Effect of increased coverage.....	---
Lack of balance (-).....	-0.24
Disability insurance benefits:	
Surplus (+) under 1958 act.....	+0.15
Elimination of age-50 requirement.....	-0.20
Other changes <sup>1</sup> .....	-0.01
Lack of balance (-).....	-0.06

<sup>1</sup> Elimination of second waiting period for recurrence of disability within 5 years and liberalization of trial work period.

Under the 1960 act, the estimated increase (about \$10 million) in old-age and survivors insurance benefit disbursements for the calendar year 1960 is not significant, since the provisions affecting disbursements in general become effective late in the year. There will, of course, be virtually no additional income during 1960 since the coverage extensions are generally effective on January 1, 1961.

### The Next Five Years

In 1961, old-age and survivors insurance benefit disbursements under the new law will total about \$11.7 billion—about \$250 million more than under the previous law. Contribution income will be about the same—\$11.5 billion—as under the old law. Thus, the excess of benefit outgo over contribution income will be about \$150 million under the 1960 act, compared with an excess of contribution income over benefit outgo of about \$50 million under the old law. The size of the old-age and survivors insurance trust fund will decrease by about \$150 million since the interest receipts approximately equal the outgo for administrative expenses and for transfers to the railroad retirement account.

In 1962, old-age and survivors insurance benefit disbursements under the 1960 act will, according to the intermediate-cost estimate, be \$12.3 billion, or an increase of \$300 million from disbursements under the 1958 law. At the same time, contribution income will be \$11.8 billion under the

TABLE 3.—Estimated level-premium cost of benefit payments, administrative expenses, and interest earnings on existing trust funds under the 1960 act as percent of taxable payroll,<sup>1</sup> by type of benefit, based on intermediate-cost estimate at 3.02-percent interest

Item	[Percent]	
	Old-age and survivors insurance	Disability insurance
Old-age (primary) benefits.....	5.98	0.44
Wife's benefits.....	.58	.05
Widow's benefits.....	1.25	(2)
Parent's benefits.....	.02	(2)
Child's benefits.....	.45	.07
Mother's benefits.....	.11	(2)
Lump-sum death payments.....	.12	(2)
Total benefits.....	8.51	.56
Administrative expenses.....	.10	.02
Interest on existing trust fund <sup>2</sup> .....	-.19	-.02
Net total level-premium cost.....	8.42	.56

<sup>1</sup> Includes adjustment to reflect the lower contribution rate for the self-employed, compared with the combined employer-employee rate.

<sup>2</sup> Not payable under this program.

<sup>3</sup> Offsets costs of benefits and administrative expenses.

new law. Accordingly, in 1962, there will be an excess of benefit outgo over contribution income of about \$500 million under the new law; under the previous law the corresponding figure would be \$200 million. The situation will be reversed thereafter because of the scheduled rise in the tax rate, and contributions will exceed benefit outgo by almost \$1.0 billion in 1963 and about \$1.2 billion in 1964.

Under the 1960 act, according to this estimate, the old-age and survivors insurance trust fund will decline from \$20.2 billion at the end of 1960 to \$20.0 billion at the end of 1961 and to \$19.5 billion at the end of 1962. At the end of 1963, however, it is estimated that it will rise to \$20.6 billion.

Disability insurance benefit disbursements for 1960 will be increased by about \$20 million under the new law, since the elimination of the age limitation will be effective for benefits for November

TABLE 4.—Progress of the old-age and survivors insurance trust fund under the 1960 act, high-employment assumptions, based on intermediate-cost estimate at 3.02-percent interest  
(In millions)

Calendar year	Contributions <sup>1</sup>	Benefit payments	Administrative expenses	Railroad retirement financial interchange <sup>2</sup>	Interest on fund <sup>3</sup>	Balance in fund <sup>4</sup>
<b>Actual data:</b>						
1951.....	\$3,367	\$1,885	\$81	-----	\$417	\$15,540
1952.....	3,819	2,194	88	-----	365	17,442
1953.....	3,945	3,006	88	-----	414	18,707
1954.....	5,163	3,670	92	-----	468	20,676
1955.....	5,713	4,968	119	-----	461	21,663
1956.....	6,172	5,715	132	-----	531	22,519
1957.....	6,825	7,347	<sup>5</sup> 162	-----	557	22,393
1958.....	7,566	8,327	<sup>5</sup> 194	-\$121	549	21,864
1959.....	8,052	9,842	<sup>5</sup> 184	-275	525	20,141
<b>Estimated data (short-range estimate):</b>						
1960.....	10,747	10,725	205	-308	503	20,152
1961.....	11,486	11,658	227	-270	520	20,003
1962.....	11,790	12,325	221	-250	530	19,526
1963.....	13,882	12,913	223	-270	558	20,560
1964.....	14,609	13,424	225	-265	620	21,875
1965.....	14,925	13,880	229	-250	694	23,135
<b>Estimated data (long-range estimate):</b>						
1970.....	20,006	16,132	245	-160	1,239	41,270
1975.....	21,673	19,044	260	-91	1,846	63,305
1980.....	23,327	22,092	270	1	2,377	81,581
2000.....	31,477	30,704	366	86	4,101	140,161
2020.....	38,291	42,127	466	86	7,779	263,268

<sup>1</sup> Includes reimbursement for additional cost of noncontributory credit for military service.

<sup>2</sup> A positive figure indicates payment to the trust fund from the railroad retirement account, and a negative figure indicates the reverse. Interest payment adjustments between the two systems are included in the "Interest" column.

<sup>3</sup> An interest rate of 3.02 percent is used in determining the level-premium costs, but in developing the progress of the trust fund a varying rate in the early years has been used, equivalent to such fixed rate.

<sup>4</sup> Excludes amounts in the railroad retirement account creditable to the old-age and survivors insurance trust fund—\$377 million for 1953, \$284 million for 1954, \$163 million for 1955, and \$60 million for 1956.

<sup>5</sup> Figures for 1957 and 1958 are artificially high and for 1959 too low because of the method of reimbursements between this trust fund and the disability insurance trust fund.

(payable at the beginning of December). There will be virtually no additional contribution income to the trust fund during the year. In 1961, benefit disbursements under the new law will total about \$800 million, or \$200 million more than the amount under the previous law. Nevertheless, under the 1960 act, contribution income in 1961 will exceed benefit outgo by about \$240 million. In 1962 and the years immediately following, contribution income will also be well in excess of benefit outgo.

### The Long-Range Future

Table 4 gives the estimated operation of the old-age and survivors insurance trust fund for the long-range future, based on the intermediate-cost estimate. It will be recognized that the figures for the next two or three decades are the most reliable (under the assumption of level-earnings trends in the future) since most of the populations concerned—covered workers and beneficiaries—are already born. As the estimates proceed further into the future, there is more uncertainty—if for no reason other than the relative difficulty in predicting future birth trends—but it is desirable and necessary to consider these long-range possibilities under a social insurance

TABLE 5.—Progress of the disability insurance trust fund under the 1960 act, high-employment assumptions, based on intermediate-cost estimate at 3.02-percent interest

(In millions)

Calendar year	Contributions <sup>1</sup>	Benefit payments	Administrative expenses	Interest on fund <sup>2</sup>	Balance in fund
<b>Actual data:</b>					
1957.....	\$702	\$57	\$3	\$7	\$649
1958.....	966	249	12	25	1,379
1959.....	891	457	50	41	1,826
<b>Estimated data (short-range estimate):</b>					
1960.....	1,012	570	44	53	2,276
1961.....	1,040	802	52	65	2,527
1962.....	1,066	864	51	76	2,754
1963.....	1,092	924	53	88	2,957
1964.....	1,126	978	55	98	3,138
1965.....	1,154	1,029	57	107	3,323
<b>Estimated data (long-range estimate):</b>					
1970.....	1,177	1,229	53	111	3,354
1975.....	1,275	1,401	58	95	3,108
1980.....	1,372	1,550	62	75	2,438
2000.....	1,852	2,048	80	(*)	(*)
2020.....	2,252	2,701	103	(*)	(*)

<sup>1</sup> Includes reimbursement for additional cost of noncontributory credit for military service and transfers to or from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act.

<sup>2</sup> An interest rate of 3.02 percent is used in determining the level-premium costs, but in developing the progress of the trust fund a varying rate in the early years has been used, equivalent to such fixed rate.

<sup>3</sup> Figures for 1967 and 1968 are artificially low and for 1959 too high because of the method of reimbursements between this trust fund and the old-age and survivors insurance trust fund.

<sup>4</sup> Fund exhausted in 1993.

program that is intended to operate in perpetuity.

In every year after 1962 for the next 20 years, contribution income under the 1960 act is estimated to exceed old-age and survivors insurance benefit disbursements. Even after the benefit-outgo curve rises ahead of the contribution-income curve, the trust fund will continue to increase because of the effect of interest earnings (which more than meet the administrative expense disbursements and any financial interchanges with the railroad retirement program). As a result, this trust fund is estimated to grow steadily, reaching \$41 billion in 1970, \$82 billion in 1980, and more than \$140 billion at the end of this century. The trust fund is estimated to reach a maximum of about \$275 billion in the year 2025 and then begin to decline. The fund, according to this estimate, will not become exhausted until about a century hence.

The disability insurance trust fund, under the 1960 act, will grow steadily for about the next 10 years and then decrease slowly, according to the intermediate-cost estimate (table 5). In 1970, it is estimated at \$3.4 billion and in 1980 at \$2.4 billion. There will be an excess of contribution income over benefit disbursements for every year up to about 1966, and even thereafter the trust fund will continue to grow because of its interest earnings. This fund will decline after 1970, which is to be expected since the level-premium cost of the disability benefits, according to the intermediate-cost estimate, is slightly higher than the level-premium income—0.50 percent of pay-

TABLE 6.—Estimated progress of the old-age and survivors insurance trust fund under the 1960 act, high-employment assumptions, based on low-cost and high-cost estimates

(In millions)

Calendar year	Contributions <sup>1</sup>	Benefit payments	Administrative expenses	Railroad retirement financial interchange <sup>2</sup>	Interest on fund	Balance in fund
<b>Low-cost estimate:</b>						
1970.....	\$20,061	\$15,790	\$230	-\$100	\$1,420	\$45,530
1975.....	21,873	18,494	240	-41	2,090	71,951
1980.....	23,821	21,168	250	41	2,841	98,122
2000.....	34,065	27,807	332	126	7,521	259,577
<b>High-cost estimate:</b>						
1970.....	19,951	16,476	260	-220	1,157	36,974
1975.....	21,474	19,594	280	-141	1,600	54,617
1980.....	22,833	23,014	290	-39	1,913	64,999
2000.....	28,858	33,603	379	46	680	*20,668

<sup>1</sup> Includes reimbursement for additional cost of noncontributory credit for military service.

<sup>2</sup> A positive figure indicates payments to the trust fund from the railroad retirement account, and a negative figure indicates the reverse.

<sup>3</sup> Fund exhausted in 2005.

roll. As the experience develops, it will be necessary to study it carefully to determine if the actuarial cost factors used are appropriate or if the financing basis needs to be modified. The use of slightly less conservative cost factors would result in the cost estimates for the disability insurance system probably showing complete actuarial balance, with a trust fund that would grow steadily and level off rather than declining.

## RESULTS OF COST ESTIMATES ON RANGE BASIS

Table 6 and table 7 show the estimated operation of the two trust funds for the low- and high-cost estimates. Under the low-cost estimate, the old-age and survivors insurance trust fund will build up rapidly, reaching about \$260 billion in the year 2000, when it will be growing at a rate of about \$14 billion a year. Likewise, the disability insurance trust fund will grow steadily under the low-cost estimate, reaching about \$10 billion in 1980 and \$26 billion in the year 2000, when its annual rate of growth will be about \$1 billion. For both trust funds, under these estimates, benefit disbursement after 1962 will not exceed contribution income in any year in the foreseeable future.

Under the high-cost estimate the old-age and survivors insurance trust fund will build up to a maximum of about \$65 billion in about 25 years but decrease thereafter until it is exhausted shortly after the year 2000. Under this estimate, benefit disbursements will be less than contribution income during all years after 1962 and before 1980.

TABLE 7.—Estimated progress of the disability insurance trust fund under the 1960 act, high-employment assumptions, based on low-cost and high-cost estimates

[In millions]					
Calendar year	Contributions <sup>1</sup>	Benefit payments	Administrative expenses	Interest on fund	Balance in fund
<b>Low-cost estimate:</b>					
1970.....	\$1,180	\$934	\$51	\$180	\$5,622
1975.....	1,287	1,049	55	223	7,599
1980.....	1,401	1,160	58	285	9,805
2000.....	2,004	1,573	78	743	25,537
<b>High-cost estimate:</b>					
1970.....	1,174	1,525	55	42	1,089
1975.....	1,263	1,752	62	( <sup>2</sup> )	( <sup>2</sup> )
1980.....	1,343	1,943	66	( <sup>2</sup> )	( <sup>2</sup> )
2000.....	1,699	2,522	82	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Includes reimbursement for additional cost of noncontributory credit for military service and transfers to or from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act.

<sup>2</sup> Fund exhausted in 1973.

TABLE 8.—Estimated cost of benefits of the old-age, survivors, and disability insurance program as percent of payroll,<sup>1</sup> under the 1960 act

[Percent]			
Calendar year	Low-cost estimate	High-cost estimate	Intermediate-cost estimate <sup>2</sup>
<b>Old-age and survivors insurance benefits:</b>			
1970.....	6.69	7.02	6.85
1980.....	7.55	8.57	8.05
1990.....	7.73	9.78	8.71
2000.....	6.94	9.89	8.29
2025.....	7.81	13.01	9.97
2050.....	9.90	14.85	11.81
Level-premium cost <sup>3</sup> .....	7.40	9.65	8.42
<b>Disability insurance benefits:</b>			
1970.....	0.40	0.65	0.52
1980.....	.41	.72	.56
1990.....	.39	.71	.54
2000.....	.39	.74	.55
2025.....	.45	.82	.60
2050.....	.49	.85	.63
Level-premium cost <sup>3</sup> .....	.42	.73	.56

<sup>1</sup> Takes into account the lower contribution rate for the self-employed, compared with the combined employer-employee rate.

<sup>2</sup> Based on the average of the dollar costs under the low-cost and high-cost estimates.

<sup>3</sup> Level-premium contribution rate, at 3.02-percent interest, for benefits after 1959, taking into account (a) interest on the trust fund as of Dec. 31, 1959, (b) future administrative expenses, and (c) the lower contribution rates payable by the self-employed.

In the early years of operation of the disability insurance trust fund, under the high-cost estimate, contribution income will be about the same as benefit outgo. Accordingly, the fund, as shown by this estimate, will be about \$2.5 billion during 1961-64 and will then slowly decrease until it is exhausted in 1973.

These results are consistent and reasonable, since the system on an intermediate-cost-estimate basis is intended to be approximately self-supporting. Accordingly, a low-cost estimate should show that the system is more than self-supporting, but a high-cost estimate should show that a deficiency (on a cash-income versus cash-outgo basis) would develop in later years. In actual practice, under the philosophy set forth in the congressional committee reports on the 1950 and subsequent acts, the tax schedule would be adjusted in future years so that none of the developments described above would happen.

Thus, if experience followed the low-cost estimate, and if the benefit provisions were not changed, the contribution rates would probably be adjusted downward—or perhaps would not be increased in future years according to schedule. If, however, the experience followed the high-cost estimate, the contribution rates would have to be raised above those scheduled. At any rate, the high-cost estimate indicates that, under the tax schedule adopted, there will be ample funds to

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TABLE 9.—Public assistance in the United States, by month, July 1959–July 1960<sup>1</sup>

[Except for general assistance, includes vendor payments for medical care and cases receiving only such payments]

Year and month	Total *	Old-age assistance	Aid to dependent children		Aid to the blind	Aid to the permanently and totally disabled	General assistance (cases) <sup>4</sup>	Total	Old-age assistance	Aid to dependent children (recipients)	Aid to the blind	Aid to the permanently and totally disabled	General assistance (cases) <sup>4</sup>	
			Families	Recipients										
				Total *										Children
Number of recipients													Percentage change from previous month	
1959														
July.....		2,413,938	772,222	2,911,086	2,233,672	109,443	341,355	370,000						
August.....		2,407,910	771,156	2,910,596	2,235,272	109,325	342,616	380,000	-0.2	-0.6	( <sup>5</sup> )	+0.6	-4.6	
September.....		2,404,265	771,931	2,917,419	2,241,727	109,291	344,477	393,000	-2	+2	( <sup>5</sup> )	+4	+2.9	
October.....		2,401,104	771,432	2,918,520	2,244,305	109,142	346,832	403,000	-1	( <sup>5</sup> )	-1	+5	+3.3	
November.....		2,397,937	773,091	2,926,331	2,251,394	109,094	348,206	413,000	-1	+3	( <sup>5</sup> )	+7	+2.6	
December.....		2,393,990	779,150	2,953,234	2,273,100	109,062	350,333	399,000	-2	+9	( <sup>5</sup> )	+4	+2.5	
													-3.3	
1960														
January.....		2,387,398	781,354	2,964,725	2,281,892	108,881	352,038	413,000	-3	+4	-2	+5	+3.4	
February.....		2,378,154	785,212	2,980,954	2,294,899	108,643	353,425	423,000	-4	+5	-2	+4	+2.4	
March.....		2,372,645	792,773	3,012,690	2,319,749	108,223	356,121	436,000	-2	+1.1	-4	+8	+1.1	
April.....		2,365,399	796,340	3,027,918	2,332,109	107,785	358,286	410,000	-3	+5	-4	+6	-5.9	
May.....		2,361,324	796,782	3,031,185	2,335,339	107,812	360,547	384,000	-2	+1	( <sup>5</sup> )	+6	-6.3	
June.....		2,358,600	794,435	3,023,410	2,330,202	107,979	362,832	367,000	-1	-3	+2	+6	-4.6	
July.....		2,354,992	789,323	3,006,344	2,317,776	107,879	364,583	354,000	-2	-6	-1	+5	-3.4	
Amount of assistance													Percentage change from previous month	
1959														
July.....	\$299,870,000	\$155,561,621		\$82,658,813		\$7,563,706	\$21,586,726	\$24,659,000	-1.0	-0.7	-0.6	+0.1	+0.4	-3.2
August.....	300,715,000	155,474,907		82,469,933		7,554,696	21,686,592	25,706,000	+3	-1	-2	-1	+5	+4.2
September.....	304,703,000	155,909,481		83,445,777		7,541,305	21,945,382	27,341,000	+1.3	+3	+1.2	-2	+1.2	+6.4
October.....	307,947,000	157,581,948		83,768,710		7,535,895	22,237,528	28,587,000	+1.1	+1.1	+4	-1	+1.3	+4.6
November.....	308,626,000	157,126,976		84,187,394		7,547,728	22,265,642	28,726,000	+2	-3	+5	+2	+1	+5
December.....	309,918,000	157,667,820		85,688,459		7,775,486	22,644,994	27,764,000	+4	+3	+1.8	+3.0	+1.7	-3.3
1960														
January.....	312,155,000	159,082,935		86,096,235		7,869,131	22,680,221	28,196,000	+7	+9	+5	+1.2	+2	+1.6
February.....	314,328,000	159,281,445		86,623,543		7,807,304	22,826,994	29,135,000	+7	+1	+6	-8	+6	+3.3
March.....	319,360,000	160,458,176		88,143,701		7,829,715	23,265,605	30,566,000	+1.6	+7	+1.8	+3	+1.9	+4.9
April.....	318,017,000	161,104,968		88,484,163		7,806,046	23,482,701	28,326,000	-4	+4	+4	-3	+9	-7.3
May.....	315,113,000	160,536,798		88,319,223		7,813,157	23,591,593	25,823,000	-9	-4	-2	+1	+5	-8.8
June.....	312,889,000	160,149,370		87,980,819		7,862,375	23,850,779	24,738,000	-7	-2	-4	+6	+1.1	-4.2
July.....	312,066,000	160,670,845		87,837,176		7,852,263	24,138,836	23,578,000	-3	+2	-3	-1	+9	-4.7

<sup>1</sup> For definition of terms see the *Bulletin*, October 1957, p. 18. All data subject to revision.

<sup>2</sup> Total exceeds sum of columns because of inclusion of vendor payments for medical care from general assistance funds and from special medical funds; data for such expenditures partly estimated for some States.

<sup>3</sup> Includes as recipients the children and 1 parent or other adult relative in

families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.

<sup>4</sup> Excludes Idaho; data not available.

<sup>5</sup> Decrease of less than 0.05 percent.

<sup>6</sup> Increase of less than 0.05 percent.

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meet benefit disbursements for several decades, even under relatively high-cost experience.

Table 8 shows the estimated costs of the old-age and survivors insurance benefits and of the disability insurance benefits under the 1960 act as a percentage of payroll for selected years through 2050 and the level-premium cost of the two programs for the low-, high-, and intermediate-cost estimates.

## SUMMARY

The old-age, survivors, and disability insurance program, as modified by the 1960 act, has an esti-

mated benefit cost that is closely in balance with contribution income.

The separate old-age and survivors insurance system as modified by the 1960 act is about as close to actuarial balance, according to the intermediate-cost estimate, as it was under the 1958 act according to the latest cost estimates. As modified by the 1960 amendments, and also as modified by earlier amendments, it has been shown to be not fully self-supporting under the intermediate-cost estimate. It is, however, close to an exact balance, especially since a range of variation is necessarily present in the long-range actuarial cost estimates and rounded tax rates are used in actual practice. Accordingly, the old-age and survivors insurance program, under the 1960



TABLE 10.—Amount of vendor payments for medical care for recipients of public assistance, by program and State, July 1960<sup>1</sup>

State	Old-age assistance	Aid to dependent children	Aid to the blind	Aid to the permanently and totally disabled	General assistance
<b>Total</b> .....	<b>\$24,827,094</b>	<b>\$5,293,992</b>	<b>\$668,817</b>	<b>\$4,266,949</b>	<b>2 \$7,989,000</b>
Alabama.....	<i>1,400</i>	<i>727</i>	<i>3</i>	<i>80</i>	<i>443,511</i>
Alaska.....				(3)	
Arkansas.....	322,943	18,306	9,562	52,858	74,215
California.....	1,873,699	1,012,446	127,845	162,796	95,536
Colorado.....	982,986	40,570	2,319	17,135	(4)
Connecticut.....	331,093	177,912	5,679	110,379	
Delaware.....			631		
District of Columbia.....	24,577	49		10,911	
Florida.....	433,488	25,375	8,488	71,415	
Hawaii.....	10,816	23,400	494	3,487	
Idaho.....	64,463		587	5,035	
Illinois.....	2,492,046	576,904	66,440	427,915	4 596,450
Indiana.....	531,331	152,881	32,191	(5)	4 292,600
Iowa.....	245,724	67,845	9,002		4 261,906
Kansas.....	334,161	89,835	6,842	53,384	53,136
Louisiana.....	252,728	10,435	4,211	51,740	4,018
Maine.....	152,191	28,560	2,628	21,460	57,366
Maryland.....	50,420	78,701	1,418	5,906	
Massachusetts.....	3,417,163	207,813	3,579	629,291	147,416
Michigan.....	676,989	210,848	15,205	97,192	210,523
Minnesota.....	1,707,079	196,456	34,739	12,108	249,222
Missouri.....	86,283	9,185		8,585	3,230
Montana.....					4 203,202
Nebraska.....	374,126	8,497	28,312	38,819	4 26,855
Nevada.....	15,438		1,110	(6)	4 137,575
New Hampshire.....	81,429	17,342	3,628	13,834	(7)
New Jersey.....	653,439		8	136,947	183,252
New Mexico.....	93,072	63,386	1,608	18,977	9,355
New York.....	2,855,798	1,186,056	120,653	1,172,945	239,741
North Carolina.....	71,485	34,750	11,187	39,892	4 227,877
North Dakota.....	275,070	36,788	1,180	52,374	4 19,533
Ohio.....	1,040,604	640	23,968	118,296	4 1,528,814
Oklahoma.....	1,069,404	6,414	22,332	112,248	(8)
Oregon.....	610,758	64,377	6,551	151,642	100,251
Pennsylvania.....	192,093	306,479	53,190	105,242	32,993
Rhode Island.....	101,610	84,871	1,342	43,245	4 46,284
South Carolina.....	29,757	11,775	1,403	11,909	9,182
South Dakota.....					4 116,501
Tennessee.....	59,964	30,689	2,488	13,806	
Utah.....	38,969	49,416	200	11,645	212
Vermont.....	70,265		766	7,122	
Virgin Islands.....	280	130	5	103	189
Virginia.....	121,916		5,559	34,983	4 13,356
Washington.....	1,379,848	178,217	16,195	183,418	65,077
West Virginia.....	95,784	98,763	2,634	28,752	4 7,804
Wisconsin.....	1,603,776	181,166	32,090	219,366	203,850
Wyoming.....	29,957	5,878	498	4,698	37,426

<sup>1</sup> For the special types of public assistance figures in italics represent payments made without Federal participation. For State programs not shown, no vendor payments were made during the month or such payments were not reported.

<sup>2</sup> Includes an estimated amount for States making vendor payments for medical care from general assistance funds and from special medical funds and

reporting these data semiannually but not on a monthly basis.

<sup>3</sup> No program for aid to the permanently and totally disabled.

<sup>4</sup> Includes payments made in behalf of recipients of the special types of public assistance.

<sup>5</sup> Data not available.

act, is actuarially sound. The cost of the liberalized benefits is for all practical purposes met by the financing provided.

The disability insurance trust fund shows a small lack of actuarial balance under the 1960 act because the contribution rate allocated to this

fund is slightly less than the cost for the disability benefits, based on the intermediate-cost estimate. In view of the variability of cost estimates for disability benefits and certain elements of conservatism believed to be present in these estimates, the small actuarial deficit is not significant.