Old-Age, Survivors, and Disibality Insurance: Financing Basis and Policy Under the 1961 Amendments

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THE COST aspects of any proposed changes in the old-age, survivors, and disability insurance program have always received careful study by Congress. In the 1950 amendments, Congress expressed its conviction that the program should be completely self-supporting from the contributions of covered individuals and employers, and it repealed the provision permitting appropriations to the system from the General Treasury. All major legislation since 1950, including the 1961 amendments,[1] has indicated the intent of Congress that the tax schedule make the program as self-supporting as possible—in other words, actuarially sound.

Actuarial soundness does not have precisely the same meaning for old-age, survivors, and disability insurance and for private insurance and, to some extent, for private pension plans. In connection with individual insurance, the private insurance company to be actuarially sound must, in general, have sufficient funds on hand to pay off all accrued liabilities if operations are terminated. This is not a necessary basis for a national compulsory social insurance program, nor is it always necessary for a well-administered private pension plan.

The national program can be expected to continue indefinitely, and the test is whether the expected future income from taxes and from interest on invested assets will be sufficient to meet anticipated expenditures for benefits and administrative costs. Though future experience may vary from the actuarial cost estimates, the intent that the program be self-supporting, or actuarially sound, can be expressed in law by a contribution schedule that, according to the intermediate-cost estimate, brings the program into approximate balance.

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[1] For a summary of the 1961 amendments, see pages 3–11.

ACTUARIAL BALANCE, 1950–61

The actuarial balance of the old-age, survivors, and disability insurance system is measured in relation to effective taxable payroll (referred to hereafter as "payroll"). "Payroll" means the total earnings of all covered workers, reduced to take into account both the maximum taxable earnings base and the fact that, because the contribution rate for the self-employed is lower than the combined employer-employee rate, only three-fourths of the earnings of the self-employed within the maximum are counted. In this way, actuarial balance of the system is expressed as an equivalent combined employer-employee tax rate on earnings not in excess of the maximum taxable base.

At the time the 1952 act was passed, it was believed that the 1950–52 rise in earnings levels would offset the higher cost resulting from the benefit liberalizations and that the actuarial balance would be the same as that estimated for the 1950 act (table 1). Cost estimates made in 1954 indicated, however, that the level-premium cost (the average long-range cost, based on discounting at interest, in relation to payroll) 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 actuarial insufficiency in the 1952 act was substantially reduced under the 1954 act, which provided for an increase in the contribution schedule that also met all the additional cost of the benefit changes.

The estimates for the 1954 act were revised in 1956 to take into account the rise in the earnings level since 1951 and 1952, the 2-year base period that had been used for the earnings assumption in the 1954 estimates. The lack of actuarial balance under the 1954 act was thus reduced to the point where, for all practical purposes, it was nonexistent. Since the benefit changes made by the 1956 amendments were fully financed by the increased contribution income provided, the program's actuarial balance was not affected.

In cost estimates made in early 1958, the program was found to be 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, probably in part because of the liberalizations of the retirement test. The 1958 amendments recognized this situation and provided additional financing, both to reduce the lack of actuarial balance and to finance certain benefit liberalizations.

As a basis for the revised cost estimates made in 1958 for the disability insurance program, certain modified assumptions that recognized the emerging experience were made. As a result, the moderate actuarial surplus originally estimated was increased somewhat; most of the increase was used in the 1958 amendments to finance certain benefit liberalizations.

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

[Percent]

Legislation	Date of estimate	Level-premium equivalent [1]		
		Benefit costs [2]	Contributions	Actuarial balance [3]
	Old-age, survivors, and disability insurance [4]			
1950 act	1950	6.05	5.95	−0.10
1950 act	1952	5.35	5.75	+.40
1952 act	1952	5.85	5.75	−.10
1952 act	1954	6.62	6.05	−.57
1954 act	1954	7.50	7.12	−.38
1954 act	1956	7.45	7.29	−.16
1956 act	1956	7.85	7.72	−.13
1956 act	1958	8.25	7.83	−.42
1958 act	1958	8.76	8.52	−.24
1958 act	1960	8.73	8.68	−.05
1960 act	1960	8.98	8.68	−.30
1961 act	1961	9.35	9.05	−.30
	Old-age and survivors insurance [4]			
1956 act	1956	7.43	7.23	−0.20
1956 act	1958	7.90	7.33	−.57
1958 act	1958	8.27	8.02	−.25
1958 act	1960	8.38	8.18	−.20
1960 act	1960	8.42	8.18	−.24
1961 act	1961	8.79	8.55	−.24
	Disability insurance [4]			
1956 act	1956	0.42	0.49	+0.07
1956 act	1958	.35	.50	+.15
1958 act	1958	.49	.50	+.01
1958 act	1960	.35	.50	+.15
1960 act	1960	.56	.50	−.06
1961 act	1961	.56	.50	−.06

[1] Percentage of taxable payroll.
[2] Includes adjustments to take into account (a) interest on the trust funds, (b) administrative expenses, and (c) lower contribution rate for the self-employed.
[3] A negative figure indicates the extent of lack of actuarial balance; a positive figure indicates more than sufficient financing, according to the estimate.
[4] The disability insurance program was established by the 1956 act; data for earlier years are for the old-age and survivors insurance program only.

The cost estimates for old-age, survivors, and disability insurance were reexamined at the beginning of 1960 and modified in certain respects. The earnings assumption was changed to reflect the 1959 level, and revised assumptions were made for the disability insurance portion of the program on the basis of newly available data. It was found that the number of persons meeting the insured-status conditions to be eligible for disability benefits had been significantly overestimated and that the disability experience with respect to eligible women was considerably lower than had been originally estimated.

Both the Committee on Ways and Means of the House of Representatives and the Senate Committee on Finance, in reporting on the 1961 legislation, stated their belief that it is a matter for concern if either portion of the old-age, survivors, and disability insurance system shows any significant actuarial insufficiency [2]—more than 0.25 percent of payroll for old-age and survivors insurance and more than about 0.05 percent for disability insurance. Whenever the actuarial insufficiency has exceeded these limits, any subsequent liberalizations in benefit provisions have been fully financed by appropriate changes in the tax schedules or through other methods, and at the same time the actuarial status of the program has been improved. The changes provided in the 1961 amendments are in conformity with these principles.

BASIC ASSUMPTIONS FOR COST ESTIMATES

Because of such factors as the aging of the population and the slow but steady growth of the benefit rolls, benefit disbursements may be expected to increase continuously for at least the next 50–75 years. Similar factors are inherent in any retirement program, public or private, that has been in operation for a relatively short period. Estimates of the future cost of the old-

[2] H.Rept. 216 and S.Rept. 425, 87th Cong., 1st sess.

age, survivors, and disability insurance program are also affected by many elements that are difficult to determine. The assumptions used in the actuarial cost estimates may therefore differ widely and yet be reasonable.

The long-run estimates are presented in a range to indicate plausible variations in future costs. Both the low- and high-cost estimates are based on high economic assumptions, intended to represent close to full employment, with average annual earnings at about the 1959 level. The intermediate estimates, developed by averaging the low- and high-cost estimates, indicate the basis for the financing provisions.

Costs are shown, in general, as percentages of payroll—the best measure of the program's financial cost. Dollar figures alone are misleading. A higher earnings level, for example, will increase not only the program's outgo but also—and to a greater extent—its income, with the result that cost in relation to payroll will decrease.

For the short-range cost, only a single estimate is considered necessary. A gradual rise in the earnings level, paralleling that of the past few years, is assumed. As a result, contribution income is somewhat higher than if level earnings were assumed, but benefit outgo is only slightly affected.

An important measure of long-range cost is the equivalent level contribution rate required to support the program into perpetuity, based on discounting at interest. Adoption of such a level rate would result in relatively large accumulations in the old-age and survivors insurance trust fund and, eventually, sizable income from interest. Even though such a method of financing is not followed, the concept may be used as a convenient measure of long-range costs, especially in comparing various possible alternative plans, since it takes into account the heavy deferred benefit costs.

The long-range estimates are based on level-earnings assumptions, although covered payrolls are assumed to rise steadily until the year 2050, with the growth in the population at the working ages. If in the future the earnings level should be considerably above that which now prevails, and if the benefits are adjusted upward so that the annual costs in relation to payroll remain the same as now estimated for the present system, then the increased dollar outgo resulting will offset the increased dollar income. This is an important reason for considering costs in relation to payroll rather than in dollars. Although a rise in earning levels has characterized the past, the long-range estimates have not taken the possibility of such a rise into account. If such an assumption were used, along with the unlikely assumption that the benefits would not be changed, the cost in relation to payroll would, of course, be lower.

The possibility that a rise in earnings levels will produce lower costs in relation to payroll is an important "safety factor" in the financial operations of the system. The financing of the system is based essentially on the intermediate-cost estimate, along with the assumption of level earnings; if experience follows the high-cost assumption, additional financing will be necessary. If covered earnings do increase in the future as in the past, the resulting reduction in program costs (expressed as a percentage of taxable payroll) will more than offset the higher cost under experience following the high-cost estimate. If the latter condition prevails, the reduction in the relative cost of the program coming from rising earnings levels can be used to maintain the actuarial soundness of the system, and any remaining savings can be used to adjust benefits upward (to a lesser degree than the increase in the earnings level).

If benefits are adjusted currently to keep pace with rising earnings trends as they occur, 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 earned by the trust funds would gradually diminish with the passage of time. If earnings do consistently rise, thorough consideration will need to be given to the financing basis of the system because then the interest receipts of the trust funds will not meet as large a proportion of the benefit costs as was anticipated under the assumption that the earnings level would not rise.

The costs of old-age, survivors, and disability insurance are affected significantly by amendments made to the Railroad Retirement Act in 1951. Under these amendments, railroad retirement compensation and the earnings covered under old-age, survivors, and disability insurance are combined in determining benefits for workers with fewer 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 by the Social Security Act. It is estimated that in the long run the net effect will be a relatively small loss to the old-age, survivors, and disability insurance system since the reimbursements from the railroad retirement system will be somewhat smaller than the net additional benefits paid on the basis of railroad earnings.

Program costs are 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 reflect the effect of these reimbursements (included as contributions), based on the assumption that the required appropriations will be made in 1961 and thereafter.

RESULTS OF INTERMEDIATE-COST ESTIMATES

The long-range intermediate-cost estimates are developed from the low- and high-cost estimates by averaging the dollar estimates and then developing the corresponding estimates in relation to payroll. The intermediate-cost estimate is not presented as the most probable estimate but rather as a convenient, single set of figures to use for comparative purposes.

Because Congress believes that the old-age, survivors, and disability insurance program should be on a completely self-supporting basis, a single estimate is necessary in the development of a tax schedule. No schedule can be expected to obtain exact balance between contributions and benefits. Development of a specific schedule does make the intention clear, even though in actual practice future changes in the tax schedule may be required. Likewise, exact self-support cannot be obtained from a specified set of integral or rounded fractional tax rates increasing in orderly intervals, but this principle of self-support should be aimed at as closely as possible.

The combined employer-employee rate under the contribution schedule contained in the 1961 act is higher than that under the previous law by 0.25 percent in all future years, and, in addition, the ultimate tax rate is reached in 1968 instead of 1969.[3] The principle that the tax rate for the self-employed should be 75 percent of the combined employer-employee rate is continued, except that the resulting rate is rounded to the nearest 1/10 of 1 percent. This change will make tax computation easier for the self-employed. The maximum earnings base to which these tax rates are applied is the same under the 1961 act as under the previous law—$4,800 a year.

The interest rate used for the level-premium costs for the 1961 amendments is 3.02 percent. The same rate was used in the cost estimates for the 1960 amendments.

Table 1 has shown that under the 1960 amendments the lack of actuarial balance was 0.24 percent of payroll for old-age and survivors insurance and 0.06 percent of payroll for disability insurance. The effect of the 1960 amendments on the combined old-age, survivors, and disability insurance system was an actuarial deficit of 0.30 percent of payroll—well within the margin of variation possible in actuarial cost estimates and about the same as that generally prevailing in the past when the system has been considered to be in substantial actuarial balance.

Under the 1961 amendments the benefit changes will, it is estimated, be exactly financed by the increases in the contribution rates and the 1-year advance in the ultimate tax rate. The previous figures as to lack of actuarial balance thus continue to apply. The level-premium cost of the benefits and the level equivalent of the contributions are somewhat higher than under the 1960 act, not only because of the new provisions but also because the valuation date is 2 years later. The relative relationship of benefits and contributions is, however, about the same. If the cost estimates had been based on a higher interest rate than 3.02 percent, the lack of actuarial balance would have been considerably less than 0.30 percent of payroll. If an interest rate of 3½ percent had been hypothesized, the cost estimates would show no actuarial deficit.

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[3] See page 7 of this issue for the schedule in the 1961 amendments.

Table 2 traces the change in the actuarial balance from its situation under the 1960 act, according to the latest estimates, to that under the 1961 act, for each of the changes.

The changes made by the 1961 act will have relatively little cost effect on the disability insurance portion of the program. Few disability beneficiaries qualify for as little as the minimum benefit (less than 1 percent of the awards in 1959 were under $40). Moreover, the liberalization of the provision for fully insured status will have little effect in making more persons eligible for these benefits because the vast majority of these persons, who meet the requirements of 20 quarters of coverage out of the last 40 quarters, will thereby have sufficient coverage to be fully insured under the definition in the old law.

The introduction of actuarially reduced benefits for men aged 62–64 who choose to receive them will, however, reduce the disability benefit costs slightly. In certain cases a man might take the reduced benefits and thus no longer be eligible for disability benefits; under the old law he might have qualified for the latter at some later date (but before age 65). As a result of these counterbalancing factors, it is estimated that there is no significant change in the cost of the disability insurance portion of the program.

It is significant that in the 1950 law and in all amendments since that time, 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 rate. This graded tax schedule will produce a considerable excess of income over outgo for many years so that a sizable trust fund will develop, although it will be smaller than it would have been under a level tax rate. This fund, like the trust funds of the civil-service retirement, railroad retirement, national service life insurance, and U.S. Government life insurance systems, will be invested in Government securities. The resulting interest income will help to bear part of the higher benefit costs of the future.

According to the latest intermediate-cost estimate, the level-premium cost of the old-age and survivors insurance benefits (excluding administrative expenses and the effect of interest earnings on the existing trust fund) under the 1960 act was about 8.5 percent of payroll, and for the 1961 act it is about 8.9 percent (table 3). The corresponding figure for the disability benefits is 0.56 percent for both the 1960 and 1961 acts. The level contribution rates equivalent to the graded schedules in the law may be computed in the same manner as level-premium benefit costs, shown in table 1.

TABLE 2.—Changes in actuarial balance, expressed in terms of estimated level-premium cost as percent of taxable payroll, by type of change, based on intermediate-cost estimate, 1960 and 1961 acts

[Percent]

Item	Change under 1961 act
Old-age and survivors insurance benefits:	
Lack of balance (−) under 1960 act	−0.24
Increase in widow's benefit to 82½ percent of primary benefit [1]	−.17
Increase in minimum benefit to $40	−.06
Liberalization of fully insured status [2]	−.02
Reduction in retirement age for men (to 62)	0
Liberalization of retirement test (increase of "1-for-2" band to $500)	−.02
Effect of increased contribution rates	+.25
Advance of ultimate tax rate to 1968	+.02
Lack of balance (−)	−.24
Disability insurance benefits:	
Lack of balance under 1960 act (−)	−.06
Effect of changes in law [3]	0
Lack of balance (−)	−.06

[1] Similar increase for widower's and parent's benefits.
[2] Requirement is 1 quarter of coverage for every 4 "elapsed quarters."
[3] The increase in the minimum benefit and the liberalization of the insured-status requirement result in small increases in cost, but these are offset by the lower cost resulting when some men claim reduced old-age benefits and then are not eligible for disability benefits later.

TABLE 3.—Estimated level-premium cost of benefit payments, administrative expenses, and interest earnings on existing trust fund under 1961 act as percent of taxable payroll,[1] by type of benefit, based on intermediate-cost estimate at 3.02-percent interest

[Percent]

Item	Old-age and survivors insurance	Disability insurance
Primary benefits	6.13	0.44
Wife's benefits	.60	.05
Widow's benefits	1.43	(2)
Parent's benefits	.02	(2)
Child's benefits	.46	.07
Mother's benefits	.11	(2)
Lump-sum death payments	.12	(2)
Total benefits	8.87	.56
Administrative expenses	.10	.02
Interest on existing trust fund [3]	−.18	−.02
Net total level-premium cost	8.79	.56

[1] Includes adjustment to reflect the lower contribution rate for the self-employed.
[2] Not payable under this program.
[3] Offsets the benefit and administrative expense costs.

Estimates for 1961–63

Under the 1961 act, old-age and survivors insurance benefit disbursements for the calendar year 1961 will be increased by about $310 million, since the increase in benefits becomes effective with checks payable for August, issued in September. There will be no additional income during 1961, since the contribution rate increases are effective January 1, 1962.

In the calendar year 1961, disbursements for old-age and survivors insurance benefits will total about $12.0 billion. At the same time, contribution income, including reimbursements from the General Treasury for the additional cost of noncontributory credit for military service, is estimated to amount to about $11.7 billion under the 1961 act, the same as under the previous law. Thus, the excess of benefit outgo over contribution income will be about $255 million under the new law, compared with an almost exact balance under the old law.

The size of the old-age and survivors insurance trust fund under the 1961 amendments will, on the basis of this estimate, decrease by about $325 million in 1961, since interest receipts approximately equal the outgo for administrative expenses and for transfers to the railroad retirement account. Under the previous law, it was estimated that this trust fund would be about the same size both at the beginning and at the end of 1961.

In 1962, disbursements for old-age and survivors insurance benefits will be about $13.2 billion, or about $900 million higher than under the previous law; contribution income for 1962 is estimated at $12.4 billion, an increase of about $400 million. Accordingly, in 1962, benefit outgo will be about $800 million higher than contribution income under the 1961 act, in contrast to a difference of $400 million under the old law. The situation will be reversed in 1963, as a result of the scheduled increase in the tax rate, and contributions will exceed benefit outgo by about $800 million in 1963 and about $1.1 billion in 1964.

Under the 1961 act, according to this estimate, the old-age and survivors insurance trust fund will thus drop from $20.3 billion at the end of 1960 to $20.0 billion at the end of 1961 and $19.1 billion at the end of 1962. At the end of 1963, however, it is expected to rise to $19.8 billion. Under the old law, the decrease in the trust fund during 1961 and 1962 was estimated at about $400 million.

The cost estimates for disability insurance, as modified by the 1961 act, are unchanged from those for the old law. In 1961, benefit disbursements will total about $850 million, and contribution income will exceed benefit disbursements by about $200 million. In 1962 and the years immediately following, contribution income will also be well in excess of benefit outgo.

Long-Range Future

The estimated operation of the old-age and survivors insurance trust fund under the 1961 act for the long-range future, based on the intermediate-cost estimate, is shown in table 4. The figures for the next two or three decades, of course, are the most reliable (under the assumption of level-earnings trends in the future) since most of the population concerned—both covered

TABLE 4.—Progress of the old-age and survivors insurance trust fund under the 1961 act, high-employment assumptions, based on intermediate-cost estimate at 3.02-percent interest [1]

[In millions]

Calendar year	Contributions [2]	Benefit payments	Administrative expenses	Railroad retirement financial interchange [3]	Interest on fund [1]	Balance in fund [4]
Actual data:						
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	20,576
1955	5,713	4,968	119	--------	461	21,663
1956	6,172	5,715	132	--------	531	22,519
1957	6,825	7,347	[5] 162	--------	557	22,393
1958	7,566	8,327	[5] 194	−$121	549	21,864
1959	8,052	9,842	[5] 184	−275	525	20,141
1960	10,866	10,677	203	−308	506	20,324
Estimated data (short-range estimate):						
1961	11,713	11,968	268	−310	509	20,001
1962	12,376	13,194	259	−305	509	19,128
1963	14,638	13,857	258	−325	523	19,849
1964	15,482	14,420	271	−320	568	20,888
1965	15,864	14,887	282	−305	625	21,903
Estimated data (long-range estimate):						
1970	20,583	16,945	245	−160	1,253	40,064
1975	22,298	19,708	260	−91	1,785	61,243
1980	24,000	22,688	270	1	2,311	79,346
2000	32,386	31,525	356	86	4,030	137,779
2020	39,396	43,196	456	86	7,739	261,918

[1] 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 that is equivalent to such fixed rate.

[2] Includes reimbursement for additional cost of noncontributory credit for military service.

[3] 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 2 systems are included in the "interest" column.

[4] 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, $60 million for 1956, and nothing for 1957 and thereafter.

[5] Figures are artificially high for 1957 and 1958 and low for 1959 because of the method of reimbursements between this trust fund and the disability insurance trust fund.

workers and beneficiaries—are already born. As the estimates proceed further into the future, there is much more uncertainty—if for no reason other than the relative difficulty in predicting future birth trends—but these long-range possibilities must be considered for a social insurance program that is intended to operate in perpetuity.

Contribution income under the 1961 act is estimated to exceed old-age and survivors insurance benefit disbursements in every year after 1962 for the next 25 years. Even after the benefit-outgo curve rises higher than the contribution-income curve, the trust fund will continue to grow because 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 reach $40 billion in 1970, $79 billion in 1980, and more than $135 billion at the end of this century. It is estimated to reach a maximum of about $275 billion in the year 2025 and then begin to decrease. The old-age and survivors insurance trust fund, according to this estimate, will not become exhausted until about a century from now.

The disability insurance trust fund, under the 1961 act, grows steadily for about the next 10 years and then decreases slowly, according to the intermediate-cost estimate (table 5). In 1970, it is expected to be $3.4 billion and in 1980, $2.4 billion. Contribution income will exceed benefit disbursements every year until about 1965, and even thereafter the trust fund continues to grow because of its interest earnings. The decline after 1970 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 income, 0.50 percent of payroll. As the experience develops, it will be necessary to study it carefully to determine whether the actuarial cost factors used are appropriate or if the financing basis needs to be modified.

TABLE 5.—Progress of disability insurance trust fund under 1961 act, high-employment assumptions, intermediate-cost estimate at 3.02-percent interest [1]

[In millions]

Calendar year	Contributions [2]	Benefit payments	Administrative expenses	Interest on fund [1]	Balance in fund
Actual data:					
1957	$702	$57	[3] $3	$7	$649
1958	966	249	[3] 12	25	1,379
1959	912	457	[3] 50	41	1,825
1960	1,015	568	36	53	2,289
Estimated data (short-range estimate):					
1961	1,044	857	43	61	2,494
1962	1,079	986	49	71	2,609
1963	1,108	1,071	52	78	2,672
1964	1,141	1,137	54	81	2,703
1965	1,171	1,186	57	83	2,714
Estimated data (long-range estimate):					
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	(4)	(4)
2020	2,252	2,701	103	(4)	(4)

[1] 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 that is equivalent to such fixed rate.
[2] 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.
[3] Figures for 1957 and 1958 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.
[4] Fund exhausted in 1993.

TABLE 6.—Estimated progress of the old-age and survivors insurance trust fund under the 1961 act, high-employment assumptions, based on low-cost and high-cost estimates

[In millions]

Calendar year	Contributions [1]	Benefit payments	Administrative expenses	Railroad retirement financial interchange [2]	Interest on fund	Balance in fund
Low-cost estimate:						
1970	$20,640	$16,588	$230	−$100	$1,384	$44,311
1975	22,504	19,164	240	−41	2,030	69,911
1980	24,509	21,790	250	41	2,774	95,876
2000	35,050	28,644	332	126	7,460	257,577
High-cost estimate:						
1970	20,527	17,306	260	−220	1,123	35,812
1975	22,094	20,255	280	−141	1,539	52,556
1980	23,492	23,591	290	−39	1,847	62,779
2000	29,721	34,408	379	46	604	[3] 18,089

[1] Includes reimbursement for additional cost of noncontributory credit for military service.
[2] A positive figure indicates payment to the trust fund from the railroad retirement account, and a negative figure indicates the reverse.
[3] Fund exhausted in 2004.

RESULTS OF COST ESTIMATES ON RANGE BASIS

Table 6 shows the estimated operation of the old-age and survivors insurance trust fund under the 1961 act for the low-cost and high-cost estimates, and table 7 gives corresponding figures for the disability insurance trust fund. Under the low-cost estimate, the old-age and survivors insurance trust fund builds up rapidly and amounts to more than $255 billion by the year 2000, when it is growing at a rate of about $14 billon a year. The disability insurance trust fund also grows steadily under the low-cost estimate, reaching about $10 billion in 1980 and $26 billion in the year 2000, at which time its annual rate of growth is about $1 billion. For both trust funds, under

TABLE 7.—Estimated progress of the disability insurance trust fund under the 1961 act, based on high-employment assumptions, low-cost and high-cost estimates

[In millions]

Calendar year	Contributions [1]	Benefit payments	Administrative expenses	Interest on fund	Balance in fund
Low-cost estimate:					
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
High-cost estimate:					
1970	1,174	1,525	55	42	1,089
1975	1,263	1,752	62	(2)	(2)
1980	1,343	1,943	66	(2)	(2)
2000	1,699	2,522	82	(2)	(2)

[1] 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.
[2] Fund exhausted in 1973.

these estimates, benefit disbursements do not exceed contribution income in any year after 1962 for the foreseeable future.

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

In the disability insurance trust fund, under the high-cost estimate, the contribution income is about the same as the benefit outgo in the early years of operation. Accordingly, the fund 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 basis is intended to be approximately self-supporting. A low-cost estimate should show that the system is more than self-supporting, and a high-cost estimate should show that a deficiency will eventually arise.

In actual practice, under the philosophy expressed in the congressional committee reports on the 1950 and subsequent acts, the tax schedule would be adjusted in future years so that the developments shown in tables 6 and 7 would never eventuate. Thus, if experience followed the low-cost estimate and 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 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 does indicate that, under the tax schedule adopted, there will be ample funds to meet benefit disbursements for several decades, even under relatively high-cost experience.

TABLE 8.—Estimated cost of benefits of the old-age, survivors, and disability insurance system as percent of payroll,[1] under the 1961 act

[Percent]

Calendar year	Low-cost estimate	High-cost estimate	Intermediate-cost estimate [2]
Old-age and survivors insurance benefits:			
1970	7.03	7.37	7.20
1980	7.78	8.78	8.27
1990	7.96	10.02	8.94
2000	7.15	10.12	8.51
2025	8.04	13.30	10.22
2050	10.19	15.18	12.13
Level-premium cost [3]	7.71	10.08	8.79
Disability insurance benefits:			
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 [3]	.42	.73	.56

[1] Takes into account the lower contribution rate for the self-employed.
[2] Based on the average of the dollar costs under the low-cost and high-cost estimates.
[3] Level-premium contribution rate, at 3.02-percent interest, for benefits after 1961, taking into account (a) interest on the trust fund as of Dec. 31, 1961, (b) future administrative expenses, and (c) the lower contribution rates payable by the self-employed.

The estimated costs of the old-age and survivors insurance benefits and of the disability insurance benefits under the 1961 act are shown in table 8 as a percentage of payroll for various years through the year 2050 for the low-, high-, and intermediate-cost estimates. The table also shows the level-premium cost of the two programs.