

ample time to make any changes in the tax rate or other changes that may be necessary to keep the system in actuarial balance.

It is important to note that these estimates are made on the assumption that earnings will remain at about the level prevailing in 1959. If earnings levels rise, as they have in the past, the benefits and the taxable earnings base under the program will undoubtedly be modified. If such changes are made concurrently and proportionately with changes in general earnings levels, and if the experience follows all the other assumptions, the future year-by-year costs of the system as a percentage of taxable payroll would be the same as those shown.

However, the existing trust fund accumulated in the past, and its interest earnings, will represent a smaller proportion of the future taxable payrolls than if earnings were not to increase in future years. As a result, since interest earnings of the trust fund will play a relatively smaller role in the financing of the system, the "net" level-premium cost—taking into account benefit payments, administrative expenses, and interest on the existing trust fund—would be somewhat higher. If benefits were modified to reflect changes in earnings levels, not in full but rather only in part or with a time lag, a still different cost situation would develop. Again, the effect of such events can be observed in ample time to make any needed changes in the contribution schedule or any other changes to improve the actuarial balance of the system.

This analysis includes the benefits and contributions in respect to all persons anticipated to be covered in the future under present legislative provisions. The actuarial deficiency would be larger if account were taken only of (a) the benefits to be paid to workers who have been covered by the system in the past and to their dependents and survivors, (b) the future taxes to be paid by such workers, and (c) the existing trust funds. In a private insurance company it is necessary to set up reserves equal to all currently accrued liabilities, since the company cannot compel individuals to become new policyholders and must be in a position at any time to pay all benefits that will become payable with respect to its present and past policyholders, using only its present assets and the premiums to be paid by present policyholders. In analyzing the actuarial condition of a compulsory social insurance system that will continue indefinitely, the income and outgo with respect to new entrants should properly be included, thus obviating the need to set up reserves for all currently accrued liabilities.

A discussion of the assumptions under which these estimates have been made is presented in appendix I.

MEDIUM-RANGE COST ESTIMATES

Preceding sections have presented both short-range cost estimates (the next 5 years) and long-range cost estimates (many decades into the future) for the old-age, survivors, and disability insurance system. The 1957-58 Advisory Council on Social Security Financing, among its recommendations, suggested that a third type of actuarial cost estimate is desirable; namely, medium-range cost estimates for the next 15 to 20 years (see 19th Trustees Report, H. Doc. 181, 85th Cong., pps. 66-67). These estimates, it was suggested, should take into account possible variations in economic factors, such as earnings and employment levels, as well as in demographic developments. The

long-range cost estimates encompass the latter factors but, for the reasons given previously, do not take into account changes in such economic factors as general business conditions and earnings levels.

In this report, for the first time, such medium-range estimates are presented for the system as it exists following the 1960 amendments, in the form of preliminary estimates subject to future refinement. The estimates cover the period through 1975 and are the same as the short-range estimates through 1965 that were developed for the 1960 amendments at the time the legislation was enacted (contained in "Actuarial Cost Estimates and Summary of Provisions of the Old-Age, Survivors, and Disability Insurance System as Modified by the Social Security Amendments of 1960," prepared for the use of the Committee on Ways and Means of the House of Representatives by Robert J. Myers, September 1960).

The medium-range estimates, like the short-range and long-range estimates, relate to present law. Over the periods covered by the estimates, many changes will undoubtedly be made in the law. In particular, if earnings levels rise, changes will almost certainly be made in benefit levels. The extent and timing of whatever changes are made in the law are, of course, unpredictable.

After 1965, it is assumed that there is an annual increase of 3 percent in the total earnings of each covered worker. A detailed statement of the economic assumptions is in preparation and will be published shortly.

Under a fixed maximum taxable earnings base, the average earnings on which contributions are collected and on which benefits are based will not rise at this assumed 3-percent annual rate; rather, the increase in average covered earnings is considerably smaller because of the dampening effect of the fixed base. This effect is well illustrated by the fact that in 1959, 80.7 percent of the total earnings of covered individuals was taxable, but that by 1975 this proportion will probably drop to slightly less than 60 percent if the earnings base remains unchanged.

The medium-range and long-range cost estimates consider trends in the labor force participation rates (including increases in rates among women and changes in rates among persons aged 65 and over). The medium-range estimates presented here take into consideration the business cycle conditions of the postwar type, in that their effect has been averaged out in the trend projected for the 1965-75 period.

The results of the medium-range cost estimates are presented in tables D and E, which show the estimated progress over the next 15 years of the old-age and survivors insurance trust fund and the disability insurance trust fund, respectively. The old-age and survivors insurance trust fund grows steadily through the period up to 1975—reaching about \$85 billion in 1975. It is interesting to note that, according to the intermediate-cost long-range estimate, which assumes level earnings, the balance in this trust fund at the end of 1975 is about \$63 billion (see table B), or \$22 billion lower than under the medium-range estimate, which assumes rising earnings.

It is also interesting to note that under the medium-range estimate the old-age and survivors insurance benefit disbursements in 1975 are 4 percent higher than under the long-range cost estimate, whereas the corresponding increase in the contributions is 21 percent. If the conditions assumed in the medium-range estimate actually eventuate,

the actuarial balance of the system would, of course, be materially improved, but it is highly improbable that under such conditions there would be no legislation liberalizing the benefits of the program. If benefits are liberalized without provision being made for a corresponding increase in income to the system, through increased contribution rates or otherwise, the estimated size of the trust fund shown in table D would, of course, be smaller, beginning with the year in which the benefit liberalization took effect.

TABLE D.—*Estimated progress of old-age and survivors insurance trust fund, high employment and increasing earnings assumptions, varying interest rate basis*¹

[In millions]

Calendar year	Contributions	Benefit payments	Administrative expenses	Financial inter-change ²	Interest on fund	Fund at end of year
1965.....	\$14,925	\$13,880	\$229	—\$240	\$604	\$23,135
1966.....	17,409	14,503	239	—234	767	26,335
1967.....	18,379	15,126	249	—210	903	30,032
1968.....	18,997	15,752	260	—181	1,043	33,879
1969.....	21,630	16,378	270	—184	1,215	39,892
1970.....	22,704	17,003	282	—160	1,426	46,577
1975.....	26,224	19,899	347	—91	2,440	84,843

¹ On the same basis as used to develop the progress of the trust funds in tables B and C.

² A positive figure indicates payment to the trust fund from the railroad retirement account; a negative figure indicates the reverse.

TABLE E.—*Estimated progress of disability insurance trust fund, high employment and increasing earnings assumptions, varying interest rate basis*¹

[In millions]

Calendar year	Contributions	Benefit payments	Administrative expenses	Interest on fund	Fund at end of year
1965.....	\$1,154	\$1,029	\$57	\$107	\$3,323
1966.....	1,193	1,077	60	116	3,495
1967.....	1,231	1,125	61	122	3,662
1968.....	1,271	1,173	65	127	3,823
1969.....	1,304	1,221	67	131	3,969
1970.....	1,341	1,270	70	134	4,104
1975.....	1,643	1,476	88	140	4,733

¹ On the same basis as used to develop the progress of the trust funds in tables B and C.

The estimated future growth of the disability insurance trust fund under the medium-range cost estimates is very similar to that previously described for the old-age and survivors insurance trust fund. The trust fund grows steadily throughout the entire period up to 1975, reaching \$4.7 billion at the end of that year. Of course, this estimated growth is subject to the same qualification mentioned in the discussion of the progress of the old-age and survivors insurance trust fund, namely, that if benefits are liberalized without provision being made for a corresponding increase in income to the system, either through increased contribution rates or otherwise, the estimated size of the trust fund shown in table E would be smaller, beginning with the year in which the benefit liberalization took effect.

CONCLUSION

Total assets of the old-age and survivors insurance trust fund declined by about \$2.2 billion during the 3 fiscal years ended June 30, 1960. The cash needed to meet expenditures not financed by current income of the fund during this period was obtained by redemption before maturity, at par, of securities issued for purchase by the trust fund. The Board believes that these transactions demonstrate the effectiveness with which the funds can serve as a contingency reserve.

Although the old-age and survivors insurance trust fund decreased during the fiscal years 1957-60, short-range estimates show that trust fund assets will remain relatively unchanged through fiscal year 1963, and will then begin to rise substantially, in line with the increase in contribution rates that becomes effective during that year.

Long-range cost estimates show that the old-age and survivors insurance program is in close actuarial balance. In other words, the system will have sufficient income from contributions based on the tax schedule now in the law and from interest earned on investments to meet payments for benefits and administrative expenses over the long-range future.

Aggregate income of the disability insurance trust fund during the period immediately ahead will continue to be wholly sufficient to meet aggregate disbursements. With the elimination of the age-50 limitation for disability insurance benefits, as provided by the 1960 amendments, the system is shown to be not quite self-supporting over the long-range future under the intermediate-cost estimate. The difference, on a level-premium basis, is relatively small, however, considering the variation possible in long-range actuarial cost estimates. Accordingly, this portion of the program can continue to be considered to be in close actuarial balance.

APPENDIXES

APPENDIX I. ASSUMPTIONS, METHODOLOGY, AND DETAILS OF LONG-RANGE COST ESTIMATES

The basic assumptions used in the long-range estimates for the old-age, survivors, and disability insurance system are described in this appendix.¹ Also given are more detailed data in connection with the results of these estimates.

POPULATION

A projection was made of the U.S. population (including overseas areas 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, 1955, as estimated by the Bureau of the Census from the 1950 census and from births, deaths, and migration in 1950-55. This population estimate was increased to allow for probable underenumeration in the 1950 census.

In both cost estimates it is assumed that mortality rates will decline until the year 2000. In the high-cost estimate, mortality rates for the year 2000 are in the neighborhood of 50 percent of the 1953 level up to age 70, with the rates at the older ages showing somewhat smaller improvements. The low-cost estimate assumes less improvement in mortality than the high-cost estimate.

In the low-cost estimate, fertility rates are assumed to remain at about the level of recent years until 1975 and then decrease slowly until in 2045-50 they reach about the level required to maintain a stationary population. The high-cost fertility rates begin decreasing at once and, in 2005-10, reach about the level required to maintain a stationary population. Both estimates assume a small amount of net immigration.

The low-cost estimate is based on high fertility and high mortality, while the high-cost estimate assumes low fertility and low mortality. This makes the high-cost population relatively much older than the low-cost population, which is reasonable in view of the fact that benefits to aged persons account for nearly 90 percent of the cost of the system. Complete details about the population projections are given in "Actuarial Study No. 46," Social Security Administration, Department of Health, Education, and Welfare.

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 males aged 25-64 the 1955

¹ For more details as to the procedures followed in making the long-range cost estimates, see "Actuarial Study No. 49," Social Security Administration, DHEW, which deals with the 1956 act but also indicates the modified procedures that were used in connection with estimates for the 1958 and 1960 acts.

figures, after upward adjustment to allow for the extension of coverage under the 1956 amendments and the full potential coverage of the 1954 amendments, were continued level into the future. For females under retirement age an increase was assumed, especially at the middle and older ages, which continues the past trend. Beyond retirement age, an increase was assumed in the low-cost estimate, which implies an increasing proportion affected by the retirement test; conversely, in the high-cost estimate a decrease was assumed, which is somewhat larger than the increase assumed in the low-cost estimate. Assumptions were also made about the percentage of covered workers in each age group who have four quarters of coverage during the year. These assumptions may be characterized as representing moderately full employment.

A depression could substantially increase the cost, as shown in table 20 of the main text. But it is believed that any periods of low employment would be of short duration and would not have a significant long-range effect.

EARNINGS

Level average earnings at about the 1959 level were assumed in each of the four groups: male four-quarter workers, male workers with less than four quarters of employment, female four-quarter workers, and female workers with less than four quarters of employment. It was also assumed that the earnings level would not rise on account of changes in the distribution of covered workers by occupation or industry.

In the past, average earnings have increased greatly, partly because of inflation, partly because of increased productivity, and partly because of the changed occupational composition of the labor force and related factors. If this trend continues and if the benefit formula is not changed, the cost relative to payroll would be less than the estimates show because the formula provides a benefit that is a decreasing percentage of average wage as the average wage increases.

It is likely, however, that if average earnings increase, the benefit formula will be modified accordingly. If benefit payments are increased in exactly the same ratio as the increase in average earnings, the year-by-year cost estimates of benefit payments expressed as a percentage of payroll would be unchanged. There would, however, be some increase in the level-premium cost because of the diminished relative value of interest earnings on the trust funds.

INSURED POPULATION

The term "insured" is used as meaning either fully or currently insured. Separate estimates of fully insured, currently insured, and both fully and currently insured have not been made, because almost all aged insured persons and almost all younger male insured persons are fully insured, and also because either fully or currently insured status generally gives eligibility to all young survivor benefits.

The percentages of insured persons by age and sex in various future years are estimated from the percentages of persons covered. It is evident that eventually almost all males in the country will be insured for old-age and survivor benefits; the ultimate percentage for aged males is estimated at 92 percent in the low-cost estimate and 97 per-

cent in the high-cost estimate. For females there is much greater uncertainty; it is estimated that the corresponding proportions for aged females will eventually be 60 percent in the low-cost estimate and 70 percent in the high-cost estimate. The liberalized requirements for attaining fully insured status which were provided by the 1960 amendments will have the effect of increasing the insured population for the next several years. In the long run, however, all persons attaining retirement age will need 40 quarters of coverage—as under previous law—so that the effect is largely temporary in nature.

The estimated numbers of the population insured for disability benefits are lower than those for the population insured for old-age and survivor benefits; the latter have been reduced to take into account the more restrictive insured status provisions for disability benefits. The estimated disability costs contained in this report are, of course, higher than those in the previous report since the 1960 amendments eliminated the age-50 requirement for monthly disability benefits.

AGED BENEFICIARIES

Old-age beneficiaries are estimated by subtracting from the estimated total aged insured workers those whose earnings are at a level that they do not meet the retirement test. The number of persons with benefits so withheld or not payable is assumed to be a constant percentage of the aged covered population, based on recent actual data adjusted for changes made in the retirement test by the 1960 amendments. To estimate potential wife beneficiaries, the percentages of men having wives aged 62 and over, by age of male, are obtained from census data. These figures are assumed to increase in the future so as to be consistent with the decreasing mortality assumption. Based on experience to date it is assumed that no wives will defer claiming benefits to age 65 in order to avoid reduced benefits.

To estimate potential widow beneficiaries, the deaths of insured married men in each quinquennial year are computed using the same percentages of married men among the total deaths of insured male workers in the year as is found in recent operating data. The number of widows thus created are projected with mortality and remarriage rates. The death rates assumed are consistent with the survival rates used in the population projections; the remarriage rates are based on the 1956 experience of women receiving mothers' benefits.

It is assumed that the actual wife and widow beneficiaries consist of the uninsured among these potential beneficiaries. In actual practice, a fraction of the remainder receive a residual benefit—the amount by which the potential wife's or widow's benefit exceeds the old-age benefit. Ultimately, it is assumed that the percentage of potential wife or widow beneficiaries who are uninsured and thus receive a full benefit is 43 percent in the low-cost estimate and 32 percent in the high-cost estimate. These figures are obtained by assuming that the proportion of single and divorced women in the aged female population would remain at the present level of about 10 percent, that 90 percent of the single and divorced would be insured, and that the chance of a wife or widow being insured would be the same regardless of whether she is a potential wife or widow beneficiary. The percentage uninsured is, in effect, graded from estimates of recent actual data to the ultimate figure; initially the figure is greater

for wives than for widows since the former are less likely to have had recent employment. The number of widow beneficiaries is adjusted so as to yield a reasonable relationship between the total number of aged female beneficiaries and the total aged female population.

The minor category of parent beneficiaries is estimated as a constant proportion of aged persons not eligible for any other benefit. The insignificant effect of the retirement test for wives and widows is ignored, as also are benefits for dependent husbands and widowers.

Appendix table 1 shows the estimated aged beneficiaries. By 2050, the numbers of beneficiaries in the low-cost estimate slightly exceed those under the high-cost estimate. This is because the low-cost population is much larger—not only at the working ages but also, although to a smaller degree, at the older ages.

APPENDIX TABLE 1.—*Estimated monthly aged beneficiaries,¹ males aged 65 and over and females aged 62 and over, in current-payment status, 1970–2050*

[In thousands]

Calendar year	Old-age beneficiaries		Wives of old-age beneficiaries ²	Aged widows ³	Dependent parents	Total
	Male	Female				
Actual data for end of year ⁴						
1950.....	1,469	302	508	314	15	2,608
1951.....	1,819	459	647	384	19	3,328
1952.....	2,082	592	724	434	21	3,823
1953.....	2,438	784	864	511	22	4,619
1954.....	2,803	972	981	595	24	5,375
1955.....	3,252	1,222	1,141	701	25	6,341
1956.....	3,572	1,540	1,378	913	27	7,430
1957.....	4,198	1,999	1,784	1,095	29	9,105
1958.....	4,617	2,303	1,980	1,233	30	10,163
1959.....	4,937	2,587	2,131	1,394	35	11,086
Low-cost estimate						
1970.....	6,123	4,093	2,420	2,735	54	15,425
1980.....	7,515	6,150	2,785	3,494	47	19,991
2000.....	9,395	9,234	2,947	4,245	34	25,855
2050.....	20,905	24,651	5,475	8,503	50	59,584
High-cost estimate						
1970.....	6,879	4,979	2,680	2,506	52	17,096
1980.....	9,114	7,822	3,300	2,963	43	23,242
2000.....	13,432	12,502	3,840	3,649	24	33,447
2050.....	23,684	25,021	4,678	4,907	24	58,214

¹ Persons qualifying both for old-age benefits and for wife's, widow's, husband's, widower's, and parent's benefits are shown only as old-age beneficiaries.

² Including dependent husbands and including wives of any age with child beneficiaries in their care (both relatively small categories).

³ Including dependent widowers.

⁴ As of December, except for 1958 (November). Excluding effect of railroad coverage under financial interchange provisions.

BENEFICIARIES UNDER RETIREMENT AGE

Young wives and children of retired workers are estimated by reference to pertinent ratios to male old-age beneficiaries, as derived from recent actual data.

Child survivor beneficiaries are obtained from estimates of total paternal orphans in the country in future years. The projected child population by age groups is multiplied by the probability of the father

having died, using an average age for fathers at birth of child and using death rates consistent with the population projections. The numbers of paternal orphans are then adjusted to eliminate orphans of uninsured men and to include the small numbers of orphans of insured women and of eligible disabled orphans aged 18 and over. Mother survivor beneficiaries are estimated by assuming a constant ratio of mothers to children, a little below the recent actual ratio in the low-cost estimate, and a little above it in the high-cost estimate. The numbers of lump-sum death payments are estimated by multiplying the estimated insured population by death rates consistent with the survival rates used in the population projections.

DISABLED BENEFICIARIES AND THEIR DEPENDENTS

Future numbers of persons receiving monthly disability benefits based on their own earnings records are estimated by applying disability incidence and termination rates (annual rates, by age and sex) to the appropriate groups. New cases are estimated by applying disability incidence rates to the assumed population insured for disability benefits. Then, termination rates are applied to the disability benefit roll to complete the projection; when disability beneficiaries attain age 65, they are transferred to the old-age benefit roll.

As discussed in the previous report, the actuarial assumptions used in the original estimates of the cost of the disability insurance program (prepared at the time of the 1956 amendments) have been revised in the light of actual operating experience. It was found in particular that the assumed incidence rates for women had been too high and that the population insured for disability benefits had been over-estimated. These changes in assumptions tended to reduce estimated future costs of the program. Since the 1960 amendments eliminated the age-50 requirement for monthly disability benefits, the costs (and number of beneficiaries) appearing here are higher than those shown in the previous report.

Currently, in the high-cost estimates, disability incidence rates for men are based on the so-called 165-percent modification of class 3 rates (which includes increasingly higher percentages for ages above 45). This 165-percent modification corresponds roughly to life insurance company experience during the early 1930's. Incidence rates assumed for women are the same as those for men. Termination rates because of death or recovery are class 3 rates (relatively high—to be consistent with the high incidence rates assumed.)

For the low-cost estimates, disability incidence rates for men are based on 25 percent of those used in the high-cost estimates, or, in other words, on the average, about 45 to 50 percent of the class 3 rates considering the larger adjustments above age 45. Incidence rates assumed for women are the same as those for men. Termination rates are based on German social insurance experience for 1924-27, which is the best available experience as to relatively low disability termination rates to be anticipated in conjunction with low incidence rates.

The incidence rates actually used for both estimates are 10 percent below the above rates because, unlike the general definition in insurance company policies, disability is not presumed to be total and of expected long-continued duration after 6 months' duration. Rather, permanence must be proved at that time.

It will be noted that the low-cost estimate includes low incidence rates (which, taken by themselves, produce low costs) and also low termination rates (which, taken by themselves, produce higher costs, but which are considered necessary since with low incidence rates there would tend to be few recoveries). On the other hand, the high-cost estimate contains high incidence rates that are somewhat offset by high termination rates.

It is, of course, recognized that in many disability benefit programs the cost experience of the early years is much lower than in later years. For example, this has been true with respect to life insurance company experience under disability income benefit policies (which led to a rather general revision of contract provisions in the early 1930's). More valid estimates are possible only after operating experience of several years has developed and has been adequately tabulated and analyzed. Many factors make disability incidence and termination rates difficult to predict—much more so than mortality rates, which underlie retirement and survivor benefit cost calculations. In adopting these assumptions for the long-range estimates, however, account is taken of the fact that it is not within the jurisdiction of the Department of Health, Education, and Welfare to liberalize the definition of disability by administrative action. Furthermore, it is assumed that there will be no court decisions that will have the general effect of liberalizing the definition of disability. Moreover, as indicated earlier, the estimates presuppose a continued high level of employment.

Persons who will receive benefits as dependents of disabled workers have been estimated by assuming a constant ratio to the number of disability insurance beneficiaries. This ratio is based on statistics recently developed concerning dependents of workers for whom a disability determination has been made.

Appendix table 2 shows the estimates of numbers of beneficiaries under retirement age (including disability insurance beneficiaries and their dependents).

AVERAGE BENEFITS AND TOTAL BENEFIT PAYMENTS

Average benefits in the various benefit categories were interpolated between the sizes of current benefit awards, estimated from recent claims data, and the sizes of ultimate benefits computed. The latter were as though the 1959 earnings level would be in effect throughout the entire working life of all workers with respect to whom benefits are being paid. Total benefit payments are shown in tables B and C of the main text (and as a percentage of payroll in table A).

The cost for old-age, survivor, and disability benefits combined, as a percentage of payroll, is eventually about three times the 1960 figure for the high-cost estimate, as shown in tables 15, 19, and A, and two times as high for the low-cost estimate. The significant upward cost trend is temporarily reversed around the year 2000, at which time a significant part of the aged population consists of survivors of persons born in the 1930's, when birth rates were low. The disability estimates show a wider relative range between low-cost and high-cost figures because of the relative uncertainty about the disability rates to be experienced.

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APPENDIX TABLE 2.—Estimated monthly beneficiaries under retirement age¹ in current-payment status, 1970-2050

[In thousands]

Calendar year	Children ²	Wid- owed mothers	Disability beneficiaries			Total monthly benefici- aries	Lump- sum death pay- ments
			Workers	Wives ³	Chil- dren ⁴		
Actual data for end of year ⁵							
1950.....	699	169				868	200
1951.....	846	204				1,050	414
1952.....	939	229				1,168	438
1953.....	1,053	254				1,307	512
1954.....	1,161	272				1,433	516
1955.....	1,276	292				1,568	567
1956.....	1,341	301				1,642	547
1957.....	1,502	328	150			1,980	689
1958.....	1,606	354	238	12	18	2,223	657
1959.....	1,754	376	334	48	78	2,500	822
Low-cost estimate							
1970.....	2,278	468	685	145	289	3,865	1,129
1980.....	2,401	484	803	168	337	4,193	1,367
2000.....	2,685	543	1,029	233	466	4,956	1,852
2050.....	3,247	588	2,016	418	835	7,104	4,104
High-cost estimate							
1970.....	1,887	449	1,118	237	473	4,164	1,084
1980.....	1,709	382	1,367	284	568	4,310	1,276
2000.....	1,589	329	1,703	368	737	4,729	1,804
2050.....	1,835	317	2,283	461	922	5,818	3,253

¹ Does not include wives under age 62 of old-age beneficiaries. Includes female disability beneficiaries aged 62-64, wives aged 62 and over of male disability beneficiaries, and dependent husbands aged 65 or over of female disability beneficiaries.

² Children of retired and deceased workers.

³ Wives of disabled workers, including some such wives aged 62 and over; also includes dependent husbands aged 65 and over.

⁴ Children of disabled workers.

⁵ As of December, except for 1958 (November). Figure for lump-sum payments is number of deaths in awards of year. Excluding effect of railroad coverage under financial interchange provisions.

⁶ January through November 1953.

⁷ December 1958 through December 1959.

ADMINISTRATIVE EXPENSES

Assumed administrative expenses for old-age and survivors insurance are based on two factors—the number of persons having any covered employment in the given year and the number of monthly beneficiaries. In estimating disability insurance administrative expenses, a third factor—the number of persons becoming disabled during the year—was taken into account, since the cost of adjudication of disabilities represents a substantial part of the expenses.

RAILROAD RETIREMENT FINANCIAL INTERCHANGE

A financial interchange between the old-age, survivors, and disability insurance system and the railroad retirement system is provided, as explained in appendix II. The purpose of this interchange is to place the old-age and survivors insurance and the disability insurance trust funds in the same position they would have been in if railroad employment were, and always had been, covered employment.

The long-range estimates are first made as if railroad employment were covered directly under old-age, survivors, and disability insurance. Then, estimates are made of the old-age, survivors, and disability insurance taxes that would be payable by railroad workers (a level railroad payroll of \$5.3 billion is assumed) and of the additional old-age, survivors, and disability insurance benefits that would be payable, if railroad employment were covered directly. The progress of the trust funds as shown in tables B and C as to contributions, benefit payments, and administrative expenses, is exclusive of the amounts arising from the indirect coverage. The amount transferred to or from the railroad retirement system is shown as a separate item in table B, but is included in contributions in table C.

Because of the relatively older age distribution of railroad workers, the transfer is currently in favor of the railroad retirement system. But it is estimated that eventually the low-cost factors in respect to railroad employment—higher average wage, lower percentage of females, and more wives and widows of railroad workers receiving old-age, survivors, and disability insurance benefits on their own earnings records, rather than on the record of the railroad worker—will shift the transfer the other way. The long-range effect is relatively insignificant insofar as old-age, survivors, and disability insurance costs are concerned, but the current estimates indicate a small “net gain” to the railroad retirement system over the entire period of these estimates.

INTEREST RATE

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. Under previous law, the interest rate on special obligations was related to the average coupon rate on all outstanding marketable obligations of the United States not due or callable for at least 5 years from the original issue date. Under the new law, this interest rate is based on the average market yield of all such marketable obligations not due or callable for 4 or more years from the time of the issuance of the special obligations. In the first month of the application of this new basis (October 1960), the interest rate so determined was increased from 2½ percent to 3½ percent.

This change, therefore, will have the immediate effect of gradually increasing the interest income of the trust funds as compared with the previous basis. The ultimate effect is expected to be only a slight increase in the interest income of the system since, over the long run, market rates and 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 by using a level interest rate of 3.02 percent for the level-premium calculations (as against 3 percent formerly). This rate is the overall equivalent of the varying interest rates, developed on 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-yield rates on long-term Government obligations, running from about their present level down to about 3 percent ultimately.