

more than one-half of the total number of eligible persons. Moreover, the average age of all persons within the age group 70 and over will be continuously increasing.

One of the sources of increase in the insured population at the older ages is the entrance or reentrance of new employees to covered employment at these ages. Under the high employment conditions assumed in alternative I, this has an appreciable effect on the number insured at the older ages, though recent statistical studies have shown that the effect is not nearly so marked as was believed at the time of the preparation of the estimates appearing in the third annual report of the board of trustees. Under the lower employment assumptions of alternative II for the years 1946-48, there is practically no increment to the number eligible through such entrances or reentrances.

It may be seen that under alternative I the proportion of those eligible who are expected to be receiving primary benefits remains practically constant at ages 65-69, while at ages 70 and over the proportion increases in conformity with actual past experience. This increase is due to an increase in the average age of the group of eligibles among those age 70 and over. Under alternative II the proportion increases sharply during fiscal years 1946-48 for the ages 65-69, while for the ages 70 and over, it increases rapidly though remaining well under 100 percent.

The over-all proportion of the eligibles expected to be receiving benefits under alternative II in the fiscal year 1948 is 63 percent. Were it a full 100 percent instead of 63 percent, the amount of primary benefits in fiscal year 1948, comparable to the figure shown in table 7, would be about \$400 million instead of \$239 million. The amount of benefits to wives and children would be about \$75 million instead of \$43 million. Total disbursements, including administrative expenses, accordingly, would be about \$700 million instead of \$492 million. Thus, assuming 100 percent retirement during fiscal year 1948 under alternative II, the trust fund at the beginning of the 5-fiscal-year period would be about 6 times the highest annual disbursements of the period.

ACTUARIAL STATUS OF THE TRUST FUND

The third annual report of the board of trustees indicated that actuarial study was under way to make use of additional data on population, coverage, and other pertinent subjects in a revision of the illustrations of the long-run costs of old-age and survivors insurance. Such revision is a continuous process. The transition from the large volume of unemployment in the recession of 1938 to the full wartime employment of 1943 and 1944 has involved striking changes due to the war, many of which have been discussed both in the third annual report and in the present one.

Under the old-age and survivors insurance system, benefits accrue to the aged and to orphaned children and their widowed mothers surviving deceased wage earners. Thus, there are certain basic cost factors which must be continuously recognized in analysis of the costs of the old-age and survivors insurance program. These factors include (a) population; (b) mortality; (c) family composition; (d) number of years of credited employment prior to qualification for benefits; (e) remarriage of widowed beneficiaries; (f) employment of widowed

beneficiaries, older children, and aged; and (g) income in covered employment and its distribution among calendar quarters (as affected by a changing workweek, changing productivity, effectiveness of collective bargaining, long-term trends, cyclical changes, etc.).

(a) *Population*.—Population development depends upon the progress of the existing population as changed by future births and immigration and by future deaths and emigration. The 1940 census showed some 600,000 more persons aged 65 and over than had been indicated as probable from an examination of the 1930 census and the deaths and migration between the 2 censuses. It is also thought that the familiar under-registration of children has continued into the 1940 census. The Bureau of the Census has made comprehensive reports as to the many types of error and bias believed present in the latest enumeration.

Birth rates declined for a number of years, due to the increasing percentage of the population completely above the childbearing ages, the increasing proportion at the higher ages where childbearing is less frequent, and changed attitudes toward the size of the family. However, the long decline of birth rates lasting into the thirties has been reversed since 1937. There also appears to be a marked increase in the rate of first births, tending to increase the proportion of the insured population with dependents. This increases the amount of insurance for survivors' benefits under old-age and survivors insurance. The diminution in the proportion of large families has had only a limited effect upon benefits under this program, since aggregate benefits for a family are not increased for children beyond the fourth child in the absence of a mother drawing benefits, nor beyond the third child with the mother drawing benefits.

Immigration which had been heavy up to the end of the nineteenth century and rather intermittent in the early portion of the twentieth century was definitely checked in the 1930's, and most population forecasts have assumed that no return to the old immigration rates may be expected.

Another population factor to be considered is that of emigration. The war has already led to one type of emigration of considerable magnitude in the American Expeditionary Forces to Africa, England, Europe, Asia, and the Pacific. After the last war, some members of our Expeditionary Forces did not return, but continued to live as private individuals in the countries where they had been stationed during the war. There is continuous discussion concerning the extent of the manpower requirements of the Allied Military Government and the use of American technicians in many countries of the world after the war. The 1943 report of the National Resources Planning Board on future population development gives certain adjustment figures to recognize the effects of the war. Extensive analysis of this and similar material will be made over the next few years. It will call for continuous adjustment in cost estimates.

The possible future progress of the population has been indicated in two different reports:

- (1) The 1935 report prepared by the staff employed by the Committee on Economic Security in developing long-range cost estimates for the original program of old-age benefits.

(2) The National Resources Committee's report on future population trends issued in 1938. The actual experience from which projections were made in that report did not go beyond 1936.

In the light of the as yet unpredictable population results of the war, it has seemed well to retain in the low-cost assumptions the rather cautious population forecast made by the staff of the Committee on Economic Security, as representative of one reasonable rate of growth. At the same time the National Resources Committee's medium population forecast of 1938¹ which has been used in other studies seems suitable as an indication of the potential increase under high-cost assumptions. Table 9 indicates the two assumptions used as to population growth for the group aged 20 to 64, inclusive, and the group aged 65 and over.

TABLE 9.—Estimated population of United States aged 20 to 64 and 65 and over, in selected years, 1955-2000

[In thousands]

Calendar year	Ages 20-64			Ages 65 and over		
	Total	Men	Women	Total	Men	Women
Low assumptions (Committee on Economic Security)						
1955.....	88,400	44,100	44,300	12,200	6,000	6,200
1960.....	89,400	44,600	44,800	13,600	6,600	7,000
1980.....	90,600	45,600	45,000	17,000	7,900	9,100
2000.....	87,400	44,100	43,300	18,200	8,600	9,600
High assumptions (National Resources Committee medium)						
1955.....	88,200	43,900	44,300	12,800	6,200	6,600
1960.....	89,500	44,600	44,900	14,800	7,100	7,700
1980.....	91,600	46,300	45,300	22,100	10,400	11,700
2000.....	90,800	46,300	44,500	26,400	12,800	13,600

It is not believed that future population progress is exactly represented by either of the two series used. The striking sequence of depression, recovery, recession, and war, with tremendous unsettled influences throughout the world, leave doubtful in any nation the future trends of mortality, fertility, or migration. The figures shown in table 9 represent two possible developments. Because both series have been used for some time and because the detailed 1940 census data and the National Resources Planning Board population study of 1943 have not yet been adequately adapted for cost purposes, use of these older bases has been continued in this report, with both series extended from their terminal year of 1980 to the year 2000.

(b) *Mortality*.—Mortality rates by age and sex have been steadily improving since the turn of the century for both sexes and virtually all ages up to 60, with very little change at ages above 60. Both the National Resources Committee study of 1938 and the National Resources Planning Board study of 1943 make assumptions of a future improvement in mortality as plausibly indicated by the past history

¹ A new report of the National Resources Planning Board, dated August 1943 and entitled "Estimates of Future Population of the United States, 1940-2000," was published at the end of 1943.

of mortality improvement. In the low-cost assumptions discussed in this section, very little improvement in mortality rates is assumed. In the high-cost assumptions, some improvement is assumed but their assumption of improvement beyond age 65 is believed by many to be too optimistic.

Mortality is of major importance for estimates of future benefits for the aged, and of importance also in determining potential deaths among the younger fathers which will give rise to mothers' and childrens' survivor benefits. Studies are still under way, both in the Social Security Board and in the Bureau of the Census, as to what current mortality rates may be after allowing for corrections of errors and bias in the most recent census; and following these there will be further studies along the line of the recent National Resources Planning Board's mortality forecasts. Such remarkable developments as insulin, penicillin, the sulfa drugs, and other more recent discoveries carry potential mortality improvements, particularly at the middle and higher ages, which may yet justify the lighter mortality assumed in the high-cost illustrations.

(c) *Family composition.*—Births have significance for old-age and survivors insurance costs, not alone because of their importance in building up the population of the future, but also because the system provides an orphaned child under the age of 18 with one-half of a primary benefit and a widowed mother with three-fourths of a primary benefit so long as she has children in her care. The maximum benefit payable to a family is twice the primary benefit. Thus, the distribution of families by size is of importance in determining the extent of prospective benefits.

The early claims experience is probably not typical because of lags in getting under way and the sequence of falling and rising birth rates over the last dozen years. During the next few years, as a result of the currently increased birth rate, a smaller proportion of nonchild families and a change in the distribution of orphan children by age is expected.

It is also important to consider the trends in those deaths which terminate husband-wife families, the trends in divorce which have the same effect, and determinations as to what constitutes a "separation" of spouses to be recognized under the law. Important also are the age relationship between husband and wife and the differential mortality by sex and by marital condition. Experience has shown that at almost all ages women have a lighter mortality than men and that the mortality of married persons is significantly lower than that of single or ex-married persons. The large proportion of marriages in which the wife is younger than the husband results in a predominance of terminations of marriage by the husband's rather than the wife's death. Further studies concerning these various factors are planned in order to secure a more complete understanding of the relationships.

Thus, the three elements of population, mortality and family composition, constitute the warp and woof for estimates of future potential beneficiaries, with the other influences discussed in (d) through (g) below forming the specific patterns of beneficiaries.

Old-age-insurance beneficiaries are composed of several different types of recipients. Table 10 shows the various illustrative rates of

progress in the number of beneficiaries, distinguishing between male primary beneficiaries, female primary beneficiaries, wives of male primary beneficiaries, children of primary beneficiaries, aged widows of male primary beneficiaries or of deceased employees, and "wholly dependent" aged parents of deceased covered employees without widows or children.

TABLE 10.—*Old-age-insurance recipients of monthly benefits in selected years, 1955–2000*

[In thousands]

Calendar year	Male primary beneficiaries	Female primary beneficiaries	Wives of primary beneficiaries	Children of primary beneficiaries	Aged widows	Dependent parents
Low assumptions						
1955.....	1,300	200	400	60	450	80
1960.....	1,700	350	550	80	750	110
1980.....	3,700	1,100	1,100	160	2,300	130
2000.....	4,500	1,400	1,400	170	3,300	130
High assumptions						
1955.....	1,800	250	600	85	450	140
1960.....	2,500	450	850	100	800	200
1980.....	5,700	1,500	2,100	250	2,600	300
2000.....	8,400	2,500	3,400	300	4,500	250

Whereas old-age-insurance beneficiaries make up the bulk of the prospective recipients under old-age and survivors insurance, the young survivors composed of half-orphaned and full-orphaned children and widowed mothers of the former, will be responsible for a considerable amount of benefits. Table 11 lists the two groups separately for inspection and for comparison between the high and low examples. In table 10 the high assumptions show, as expected, a larger number of beneficiaries; this is because the lighter mortality rates of the National Resources Committee population projections result in a greater number and proportion of aged persons. This lighter mortality, plus the assumed lower birth rate, has the opposite effect in table 11; here the assumed population projection results in a smaller number of child and mother beneficiaries under the high assumptions than under the low.

TABLE 11.—*Young survivor insurance recipients of monthly benefits in selected years, 1955–2000*

[In thousands]

Calendar year	Low assumptions		High assumptions	
	Orphaned children	Widowed mothers	Orphaned children	Widowed mothers
1955.....	1,200	300	1,100	250
1960.....	1,400	350	1,200	300
1980.....	1,600	400	1,200	250
2000.....	1,600	400	1,200	250

(d) *Credited employment and insured status.*—The number of persons who gain protection through becoming “insured” under old-age and survivors insurance depends upon the volume and pattern of their work in employments covered by the program and upon the amount of taxable wages earned in such work. A discussion of the latter factor is presented later under item (g). The old-age and survivors insurance program covers primarily employees in industry and commerce. Illustrations are presented in table 12 showing the percentage of the population insured by virtue of current or previous work experience for age groups above and below 65.

TABLE 12.—*Proportion of the population insured¹ under old-age and survivors insurance in selected years, 1955–2000 (including primary beneficiaries)*

Calendar year	Low assumptions				High assumptions			
	Men		Women		Men		Women	
	20-64	65 and over	20-64	65 and over	20-64	65 and over	20-64	65 and over
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1955.....	54	30	18	5	64	34	22	5
1960.....	56	34	19	7	66	40	24	7
1980.....	59	54	21	18	71	60	30	19
2000.....	60	60	21	21	71	71	32	32

¹ “Insured,” as distinct from “covered,” means sufficient participation in covered employment to have become eligible for benefits upon death or retirement; a person may be “covered” (i. e. with past or current wage credits) without having reached or maintained an “insured” status.

The percentages shown in table 12 for ages 65 and above include primary beneficiaries drawing benefits to the extent shown by table 13, which indicates the proportion under both low and high assumptions.

TABLE 13.—*Proportion of the population aged 65 and over receiving primary benefits (excludes women eligible to receive benefits as wives, widows, and parents)*

Calendar year	Low assumptions		High assumptions	
	Men	Women	Men	Women
	Percent	Percent	Percent	Percent
1955.....	22	3.5	29	4
1960.....	26	5	35	6
1980.....	46	13	55	13
2000.....	52	14	66	14

The proportions of the population shown in tables 12 and 13 are derived from application of the coverage and insured status specifications of old-age and survivors insurance to the end results of qualification through a sufficient number of quarters with a covered wage of at least \$50.

In the several tables presented above, only potential long-range trends have been set down without recognition of cyclical or periodic

irregularities. Bearing this in mind, certain trends may be observed in these illustrative tables of numbers of beneficiaries:

- (1) An over-all uptrend in beneficiaries under all types of old-age benefits—save in the relatively unimportant case of dependent parents;
- (2) A very slight increase after 1960 in the number of children and the widowed mothers who are beneficiaries;
- (3) The relatively and increasingly small proportion of survivors' benefits in relation to old-age benefits;
- (4) The relatively rapid advance in the percent insured at age 65 and over (including those drawing benefits) when compared with the percent insured aged 20 to 64, inclusive; and
- (5) The rapid rise in the percent drawing primary benefits from 1955 to 1980, and the slowing down of the increase in the percent in the following 20 years.

(e) *Remarriage rates.*—Remarriage of "young widows" is a rather important cost factor. The greatest possible duration of benefits occurs among the younger widows, who as mothers of young children can expect to receive benefits for many years. These are also the women with the greatest chance of remarriage. Among the older women with fewer prospective years of benefit receipt (their children being nearer age 18), the probability of remarriage is lower. Remarriage rates are affected both by age of widow and duration of widowhood. Use of these rates results in considerable reduction in the prospective cost of benefits to young widows. It also results in considerable reduction in the deferred portion of benefits otherwise payable to widows upon reaching age 65. This serves as a tangible reduction in the volume of "life insurance" afforded by the program when such "life insurance" is interpreted as the present value, in case of the worker's death, of prospective benefit payments to his surviving dependents. It is estimated that at the present time the program is providing approximately \$50 billion of "life insurance" protection for survivors.

(f) *Employment of beneficiaries.*—During the depression, it is probable that many children who should have been in school were working. Moreover, the labor market was increased by many married women seeking employment to reinforce what they hoped might be only a temporary inadequacy in their husband's income. As indicated quantitatively earlier in this report, during the war years a very large group of elderly persons have acquired eligibility for benefits under old-age and survivors insurance. Many of these after receiving some benefits have returned to work and suspended their benefits. There are also many instances where covered employees have announced their intention to retire but have postponed retirement. The greatest proportion of those eligible, however, have shown no evidence of intention to retire. The abnormal work opportunities are also shared by older children, by widowed mothers, and by aged wives of potential primary beneficiaries. Thus, assumptions as to the employment of beneficiaries are indissolubly woven in with all

the other cost elements entering into the number and cost of benefits.

(g) *Income in covered employment.*—One of the most striking changes in earned income on record has taken place between 1938 and 1943. Whereas a considerable group of individuals in non-war employments have had very little change in their incomes, large groups in manufacturing have had marked increases both in their basic rates of pay and in the number of hours in their working week. Moreover, there has been a great falling off in partial unemployment with a greater stability of work from week to week. This change in income status will give a great many more persons quarters of coverage than had been the case in pre-war years. The increase in the persistency of employment and thus in the number of quarters credited results, at least temporarily, in an increase in the number of persons with an insured status—either fully or currently insured.

Assumptions as to future covered wages are essential in developing illustrative actuarial projections. The trend of wages in the past has been unquestionably of an upward character. The level of earnings at the end of the reconversion period and their movement thereafter will, of course, affect contributions and benefits under the program, since both are geared to covered earnings. Some indirect recognition of uncertainties with respect to wages is given in the adoption of low and high sets of average wage assumptions. This point is discussed further in connection with the illustrative cost charts presented below.

None of the data derived from old-age and survivors insurance records are yet fully useful for long-range cost purposes. Average reported wages were much lower in the early years of the system than they are currently. The increase which has occurred is indicated in table 14.

TABLE 14.—Average taxable wages of workers with taxable wages under old-age and survivors insurance, by year and sex, 1937-43

Calendar year	Average taxable wage			Calendar year	Average taxable wage		
	Total	Men	Women		Total	Men	Women
1937.....	\$901	\$1,042	\$541	1941.....	\$1,023	\$1,197	\$581
1938.....	834	961	507	1942 ¹	1,143	1,349	649
1939.....	881	1,016	536	1943 ¹	1,310	1,589	753
1940.....	934	1,078	556				

¹ Preliminary estimates.

The high assumptions use an average annual taxable wage of \$2,000 for men working in four quarters of a year, \$1,000 for men working three quarters, \$400 for men working two quarters, and \$200 for those working one quarter. The corresponding average wage figures used for women under the high assumptions are \$1,200 for four quarters, \$600 for three quarters, \$250 for two quarters, and \$100 for one quarter. Under the low assumptions, the four-quarter average wage assumption used for males is \$1,500, with \$750 used for three quarters, \$300 for two quarters, and \$150 for one quarter. The low four-quarter average used for women is \$900, \$450 being used for three quarters, \$200 for two quarters, and \$90 for one quarter. The ratios to the annual four-quarter averages of approximately 50 percent for three

quarters, 20 percent for two quarters, and 10 percent for one quarter parallel fairly closely the actual ratios observable in old-age and survivors insurance wage data for 1940 and 1941.

For purposes of determining the number of employed men under the low assumption, the male labor-force percentages by age of the 1940 census after subtraction of those seeking work were applied to the assumed future male populations; for the high assumption, corresponding percentages from the 1930 census of gainful workers were applied, they being relatively high in comparison with subsequent years. For women, percentages of the total female population represented by the 1940 female labor force minus those seeking work were applied against the assumed future female populations for the low assumption, while the total 1940 female labor force percentages were used for the high assumption, these being higher than those for 1930. It has been further assumed that the labor-force characteristics of those in covered employment will bear the same relation to those of all workers as existed in 1940 under old-age and survivors insurance.

Because the coverage of the system excludes several large categories of employment (agricultural, domestic, railroad, and public employment and the self-employed), there is a flow of workers between covered and noncovered employments as well as between covered employment and unemployment. The restricted coverage necessarily will result in large numbers of workers who have not had sufficient contact with the program to establish or maintain the insured status necessary for benefit qualification. The extent of contact is a function both of stability of covered jobs and of age; older persons are more settled in their work than younger persons. Table 15 illustrates differences in the extent of contact workers had with the program in 1941. Other data pertinent to this matter were presented by the Chairman of the Social Security Board in his testimony before the Ways and Means Committee of the House on January 13, 1944 (Hearings on an amendment, adopted by the Senate, to the Revenue bill of 1943 (H. R. 3687) freezing the Social Security tax rate at 1 percent for 1944, pp. 17-18).

TABLE 15.—Percentage distribution of covered workers under old-age and survivors insurance, by numbers of quarters with taxable wages, 1941¹

Classification	Total	Those with taxable wages in—			
		1 quarter only	2 quarters only	3 quarters only	4 quarters only
A. By 2 classes of taxable wages					
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Taxable wages under \$1,000.....	100	23.1	22.0	15.9	39.0
Taxable wages \$1,000 and over.....	100	.1	.5	1.4	98.0
All workers.....	100	13.1	12.6	9.6	64.7
B. By 2 age groups of workers					
Workers under age 35.....	100	15.3	15.2	11.1	58.4
Workers age 35 and over.....	100	10.1	9.3	7.6	73.0
All workers.....	100	13.1	12.6	9.6	64.7

¹ Includes all persons who earned any taxable wages during the calendar year. Data partly estimated.

The carrying through of the prospective progress of the program using the elements discussed above furnishes reasonable illustrations of future beneficiaries and costs, neither the lowest nor the highest conceivable, the values derived being within the outside boundaries of possibility. Experience to date is very limited, the payment of monthly benefits having begun only in 1940. As payments got under way, the limitations of coverage and the insured status requirement excluded large numbers of potential beneficiaries. Payments were further delayed by the "lag" with which any new program commences. In recent years, as the lag has lessened, payments among the relatively small number yet eligible to receive them have been limited by delays in the claiming of benefits occasioned by the war. The long-range illustrations look beyond these various limitations, and furnish some indication of the trend in the costs of the old-age and survivors insurance program.

Table 16 sums up the previous discussion in terms of illustrative numbers of beneficiaries. The category "younger survivors" comprises orphaned children and their widowed mothers. Widows age 65 and over are included under the "old age" category.

TABLE 16.—*Old-age and survivors insurance beneficiaries in receipt of benefits in selected years, 1955-2000*

[In thousands]

Calendar year	Low assumptions			High assumptions		
	Old-age beneficiaries	Younger survivors	Lump sum ¹	Old-age beneficiaries	Younger survivors	Lump sum ¹
1955.....	2,500	1,500	270	3,300	1,300	270
1960.....	3,500	1,700	300	4,900	1,500	300
1980.....	8,500	2,000	550	12,500	1,400	550
2000.....	10,800	2,000	600	19,300	1,400	750

¹ Represent number of deaths during the year resulting in lump-sum benefits.

It is to be noted that in addition to the assumptions already discussed, the long-range cost illustrations include assumptions relating to the length of the period of retirement, invalidity, and interest rates.

There now follows a presentation of the illustrative cost results of combining values for the various elements discussed earlier in this section. The revised long-range cost illustrations, which are subject to continual testing, refinement, and adjusting, are presented in the accompanying charts and in table 17. These exhibits commence with the year 1955. The gap between 1948, for which alternative figures are shown earlier in this report, and 1955 is purposely left open to emphasize the very great uncertainty with respect to the transition period following the war.

TABLE 17.—Two illustrations of benefit payments and tax income of the Federal old-age and survivors insurance trust fund, by quinquennial years, 1955–2000¹ (subject to the limitations stated in the text)

[In billions]

Year	Low assumptions		High assumptions		Year	Low assumptions		High assumptions	
	Benefit payments	Tax income	Benefit payments	Tax income		Benefit payments	Tax income	Benefit payments	Tax income
1955.....	\$0.9	\$2.1	\$1.2	\$3.3	1980.....	\$2.6	\$2.2	\$3.9	\$3.4
1960.....	1.2	2.1	1.7	3.3	1985.....	2.9	2.2	4.6	3.4
1965.....	1.5	2.2	2.2	3.4	1990.....	3.1	2.2	5.3	3.4
1970.....	1.9	2.2	2.7	3.4	1995.....	3.2	2.2	5.8	3.4
1975.....	2.3	2.2	3.2	3.4	2000.....	3.2	2.2	6.1	3.4

¹ The figures in this table correspond to the values used in the charts.

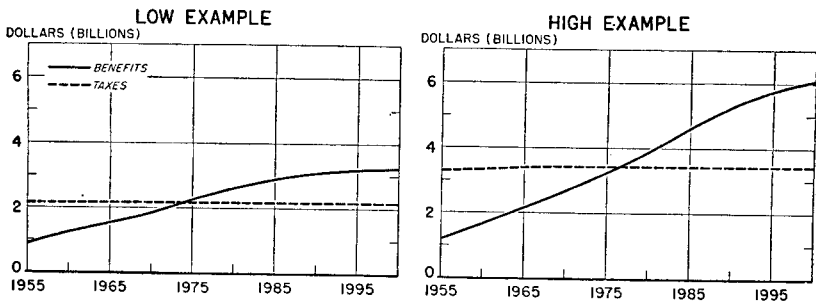
As indicated in the charts and table, taxes at the rate of 6 percent of taxable pay roll (the rate scheduled to become effective in 1949) would exceed benefits during the 50's and 60's under both low and high examples. This would result in increases in the funds accumulated, and the interest earnings thereon would be available later to meet a portion of the benefit payments. This could forestall, perhaps indefinitely in the case of the low example, the necessity for (i) an increase above 6 percent in pay-roll tax rates; (ii) contributions on the part of the Treasury derived from general taxes as distinct from pay-roll taxes; or (iii) liquidation of the trust fund for purposes of meeting benefit obligations when these come to exceed pay-roll contribution income. Under the high example, such interest income would substantially defer, but only defer, the time when one or more of these other sources would have to be tapped to assist in financing statutory benefits.

The charts show the steady rise in benefit payments under the two widely different sets of conditions discussed earlier in this section. They show the large increases, relatively and in absolute quantities, which would occur even after 1980, particularly within the framework of the high assumptions. Because of the fixed nature of the assumptions, the charts result in smooth curves and hence do not show the irregularities and periodic cyclical variations which would surely develop. These irregularities are expected to be far more pronounced in the curves pertaining to taxes than in those representing benefits. This is because the dollar amount of the benefit roll, after the system is well established, will contain a large proportion of fixed payments to permanently retired persons. The pay roll of covered workers wherefrom the tax income springs is, however, quite sensitive to current fluctuations, through increases or decreases in job opportunities, ups and downs in the workweek, and changes in unit rates of pay. Thus, the charts indicate more smoothness of income and disbursements, especially the former, and more stability in the percentage relationship of the two than actually can occur. In fact, for demographic reasons alone, as discussed earlier in this section, the system cannot be expected even eventually to level out to a fixed relationship between contributions and benefits.

Another factor mentioned earlier but not used in the actuarial projections is the trend, exhibited in the past, of an irregular but upward movement in earnings, both on a dollar basis and in the form of real wages. If this secular trend continues, then—other things being equal—the curves of benefits and taxes would both be more steeply ascending than shown. The upward change in the tax curves, however, would be far more accentuated than would be such change in the benefits curves. There are several reasons for this, the important one being that the benefit increase would be dampened because (i) the basis for benefits is the average monthly wage up to the maximum \$250; 40 percent is taken on the first \$50 thereof and 10 percent operates on that part above \$50; as average wages increase, and as more persons reach the \$250 maximum, a larger portion of such wages falls in that part of the benefit formula to which the 10 percent rather than the 40 percent rate applies, thus reducing benefits in relation to wage, and consequently in relation to taxes; and (ii) any year's taxes are substantially based on the covered wages of that year, while any year's benefits in force are based on weighted composite wages of all previous years in which the insured persons on whose account the benefits are

ILLUSTRATIVE LONG-TERM TRENDS OF BENEFITS AND TAXES*

(SUBJECT TO THE LIMITATIONS STATED IN THE TEXT)



*THESE CURVES IMPLY SMOOTHER PROGRESSION THAN IS LIKELY TO OCCUR. THE TAX CURVES PARTICULARLY WOULD BE SUBJECT TO VARIATIONS REFLECTING TEMPORARY FLUCTUATIONS IN EMPLOYMENT CONDITIONS. THE BENEFIT CURVES WOULD BE MORE STABLE AS THEY APPLY LARGELY TO PERMANENTLY RETIRED INDIVIDUALS. ALTHOUGH CHANGES IN EMPLOYMENT CONDITIONS CAN HAVE CONSIDERABLE INFLUENCE ON THE RATE AT WHICH PERSONS RETIRE, (SEE TEXT FOR FULLER DISCUSSION.)

paid worked in covered employment, thus including in future years, wages of as much as 60, 70, or more years previously. In view of these facts, continuation of the past upward trend in wages would postpone for a longer period, or possibly even permanently, the time at which benefits computed under the present formula would rise above taxes at the rates now scheduled.

In addition to excluding the assumption of increasing wages, the cost examples given have avoided dealing with various other important secular trends with diverse effects on costs which cannot now be adequately extrapolated into the future, such as: (i) Lengthening of the period of childhood or preparation for work; (ii) an earlier age of retirement, conceivably reversible under circumstances of improved health and good employment conditions; (iii) the long-time trend of migration out of agriculture and domestic service into occupations

now covered by the program; (iv) the downward trend in hours of work; and (v) the upward trend in the employment of women outside the home. Recognition of these trends is another factor, in addition to those discussed in more detail above, which prompts the board of trustees to present the long-range cost figures with reservations.

SUMMARY AND CONCLUSION

The board of trustees has repeatedly emphasized in its annual reports that the primary consideration with respect to the size of the trust fund is its adequacy to assure the financial integrity of the old-age and survivors insurance program. There is a large measure of uncertainty with regard to economic developments in the next 5 years—particularly if a part of the period should be in the post-war phase. Neither the present nor the immediately prospective level of employment can be confidently considered representative of what is likely to be the long-term experience. The probable post-war level of benefit payments is high and the trend of such payments will be an ascending one over the next generation and longer. With present benefit payments in the magnitude of \$180 million a year, over the period of several decades disbursements will increase some 25 to 30 times. Prudent management requires emphasis on the long-range relationship of income and disbursements.

It is estimated that the level premium cost of the benefits now provided by the system is between 4 and 7 percent of the covered pay roll. This means that if pay-roll taxes of this magnitude (employer tax and employee taxes combined) had been levied from the beginning, and were continued indefinitely, the system as a whole would be just self-supporting. But Congress has now maintained old-age and survivors insurance tax rates at 1 percent each on employees and employers for over 7 years instead of permitting the scheduled increases of the act to become effective, although in recent years economic conditions have imposed no obstacle in such increases. The tax rates maintained during this period have been equal to only one-half of the low estimate of the level premium cost of the system.

It is clear that the present rates of contributions even under the most favorable prospects are not more than half the minimum level premium cost of the system. Moreover, they are only one-third the ultimate maximum rates provided by statute. The board believes that since the existing rates of contribution are less than those necessary to support the system on a level-premium basis (or bear such proportion of the total cost as it is believed suitable to meet by employer and employee contributions), and general economic conditions are such that increased rates of contribution could be borne without injury to the economy, the rates of contribution should be raised. It is clear, in the opinion of the board, that, under present conditions, an increase in contribution rates would cause no hardship; but, on the contrary, would assist the economic stabilization program by the absorption of excess purchasing power. The board of trustees believes, therefore, that in the interest of the long-run welfare of the system and of the general economy, contribution rates should be immediately increased to 2 percent each for employers and employees.