

**P**resent Values of  
OASI Benefits in  
Current Payment Status

1940-52

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ACTUARIAL STUDY NO.35

MAY 1953

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## FOREWORD

This study makes an actuarial appraisal of the benefits in current payment status on December 31 of each year from 1940 through 1952. Actuarial Study No. 26 made a somewhat similar analysis for 1940-46. This method of analysis is quite similar to valuations of private insurance and retirement plans. But there are significant differences; for example, OASI benefits cease or are suspended for other than demographic reasons, notably where the beneficiary is in covered employment or becomes eligible for another type of benefit.

It is perfectly valid and probably useful to make calculations based on reserve financing even though actual financing may be done on a straight or a modified pay-as-you-go system. For instance, even under the extreme case of a noncontributory Governmental retirement system where pensions are payable directly from general appropriations, it is interesting and instructive to carry out, at least, valuations of the pensions currently in force even though it is not intended actually to set up as liabilities the amounts shown as the "required reserves."

Robert J. Myers  
Chief Actuary  
Social Security Administration

## PRESENT VALUES OF OASI BENEFITS IN CURRENT PAYMENT STATUS, 1940-52

### A. Introduction

This study presents the present value<sup>1/</sup> or actuarial reserve liability in regard to benefits in current payment status, under the old-age and survivors insurance system. Actuarial Study No. 26 contained similar material for the period 1940-46 and also showed the present value of OASI benefits awarded each year.

This actuarial study confines itself to an analysis of the present value of benefits in current payment status. Unlike the previous study, it includes the potential widow's benefits for those currently receiving the wife's benefits and likewise potential widower's benefits. It also considers the present value of the lump-sum death payment for current old-age beneficiaries. These changes in concept were applied retroactively to the present value of benefits in current payment status for 1940-46, and the revised figures are included herein. There are also some minor changes in methodology, or in approximations and adjustments, which likewise have been extended backwards through these former years.

For 1950 and after, included in the valuation were the new benefits added by the 1950 Amendments, notably husband's benefits, widower's benefits, and wife's benefits for the wife under age 65 with children (whose husband is an old-age beneficiary). In the 1950 Amendments the lump-sum death payment was changed in amount and in condition of payment and is so valued for 1950 and after.

As before, the present value of deferred widow's benefits<sup>2/</sup> has been excluded throughout, since such benefits are not in current payment status (further there is the difficulty of estimating this group in the interval during which no benefits are payable). A 2½%

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<sup>1/</sup> The actuarial term "present value" is the lump-sum amount at a specified time equivalent to future installments and is determined by discounting such future installments by theoretical or an assumed rate of interest and probabilities of mortality, remarriage, or other contingencies.

<sup>2/</sup> Deferred widow's benefits can be classified as either actual (where husband has died but woman is now under age 65) or potential (where husband is over age 65 and in current payment status but wife is under age 65).

interest basis for present values is used in this study as well as the 2% basis used in Actuarial Study No. 26. The 2% basis allows comparison of results with the previous study; the 2½% basis is perhaps more realistic in the light of increasing interest rates at the present time. The data on present values of awards are omitted because of the variable definition of "awards" during the past years and because the 1950 and 1952 Amendments greatly increased the amounts of benefits awarded in previous years. As a result, present values of awards are not very meaningful and cannot well be compared year by year.

There are further extensions of the concept of actuarial liability which are not considered in this study because of their more or less indefinite and intangible nature. The total accrued liability of a benefit system (sometimes referred to as the "actuarial reserve") represents the present value of all future benefits that have been "earned" to date. Any fund or reserves on hand are merely the funded portion of this accrued liability.

The present value of OASI benefits in current payment status, shown here, represents a portion of this accrued liability. The remainder of such liability is that for benefit payments in the future, based on cumulative wage credits of active insured workers who have not yet become eligible, filed claims, received awards, or become entitled to benefits, less their contributions in the future. On account of its compulsory nature and assumed permanency, the OASI system does not have the definite contractual liability aspects of private insurance nor the need for immediate funding of such liability by actually putting up the money therefor. For this reason, there is not the necessity for a meticulous valuation of all liabilities which may exist, even if this were possible.

The present value of benefits in current payment status is compared with the trust fund at the same date. Such analysis does not imply that the trust fund should be this amount or that full (or partial) actuarial funding is necessary (or even desirable) for this social insurance plan.

## B. Methodology and Assumptions

The first monthly benefit awards were made in January 1940 so that the first valuation of benefits in current payment status is as of December 31, 1940. Detailed data on benefits in current payment status are available as of December 31 of each year through 1951. The data were not available by age and sex for 1952, so the valuation for that year was made on an approximate basis, using the trend in the previous years' average valuation factors (see Table 1).

From these data the valuation of claims liabilities was made by group methods. In other words, all benefits of the same type and duration payable to a beneficiary of the same sex and age were valued as a group by multiplying the total amount of monthly benefits in such group by the appropriate annuity factor (present value of \$1 per month discounted at interest, with life contingencies, and for widows, remarriage probabilities). For instance, a life annuity of \$1 per month to a man age 66 last birthday (i.e., exact age  $66\frac{1}{2}$  on the average) is worth \$116.44 according to the 1939-41 United States White Male Life Table at 2% interest. This factor when applied to the rate of monthly benefits for those males age 66 receiving old-age benefits on December 31, 1951 (145,763 men at an average monthly benefit of \$44.24) yields a present value of \$750.9 million for this group. On the above assumptions, this would be the amount necessary at that date to meet all payments directly for this group (i.e., excluding the lump-sum death payments and supplementary and survivor monthly benefits).

Present values throughout this study are based on the 1939-41 United States White Life Table at both 2% and  $2\frac{1}{2}$ % interest. In practice, neither mortality rates nor interest rates remain constant; furthermore, their trends in the future cannot be accurately determined. Herein no account is taken of improving mortality. The mortality rates are based on white lives and tend to overstate the liability somewhat on this account because survival rates of white lives are higher than those of nonwhite lives (except beyond age 65 where the reported rates are about the same); this is offset by the considerable improvement in mortality since 1939-41, already indicated by mortality rates in the various U.S. Abridged Life Tables of recent years.

All benefits in current payment status are assumed to remain in force in such status until death or prior termination (such as marriage of the beneficiary and attainment of age 18 of child for child's and mother's benefits). The termination of widow's and mother's benefits by remarriage is also taken into consideration by utilizing remarriage rates of 150% of those in the American Remarriage Table<sup>3/</sup>. The 150% remarriage rate has been adopted because

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<sup>3/</sup> "Further Remarriage Experience," Robert J. Myers, Proceedings, Casualty Actuarial Society, Vol. XXXVI, p. 73.

Table 1

MONTHLY AMOUNT OF OASI BENEFITS IN CURRENT PAYMENT STATUS, DECEMBER 31  
(in thousands)

Year	Old-Age <sup>1/</sup>		Wife's <sup>2/</sup>	Widow's <sup>3/</sup>	Mother's <sup>4/</sup>	Child's	Parent's	Total
	Male	Female						
1940	\$3,293	\$246	\$361	\$90	\$402	\$668	\$11	\$4,070
1941	4,069	470	691	302	826	1,432	26	7,815
1942	5,313	676	941	577	1,124	2,112	39	10,782
1943	6,313	858	1,151	930	1,384	2,822	52	13,510
1944	7,909	1,071	1,460	1,367	1,781	3,691	65	17,344
1945	11,153	1,385	2,040	1,893	2,391	4,858	81	23,801
1946	15,420	1,810	2,805	2,568	2,577	5,804	97	31,081
1947	19,415	2,364	3,545	3,352	2,764	6,702	135	38,277
1948	23,582	2,982	4,307	4,331	2,959	7,549	162	45,872
1949	29,615	3,823	5,376	5,442	3,207	8,427	185	56,075
1950	67,091	10,587	11,995	11,481	5,801	19,366	536	126,857
1951	80,837	15,171	14,710	13,849	6,776	22,739	709	154,791
1952	111,624 <sup>5/</sup>	18,593 <sup>5/</sup>	19,179	18,482	8,273	28,141	887	205,179

<sup>1/</sup> Prior to 1950 Amendments, the designation was "primary benefits."

<sup>2/</sup> Includes a small amount of husband's benefits at end of 1950, 1951 and 1952; on December 31, 1951, the monthly amount was about \$58,000.

<sup>3/</sup> Includes a small amount of widower's benefits at end of 1950, 1951 and 1952; on December 31, 1951, the monthly amount was \$7,600.

<sup>4/</sup> Prior to 1950 Amendments, the designation was "widow's current benefits."

<sup>5/</sup> Distribution by sex was estimated.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.



it compares closely with remarriage rates of recent years. The effect of considering remarriage for a woman widowed at a young age is to reduce the present value of her annuity payable to age 18 of her youngest child by at least one-half.

The general assumption has been made that the size of the monthly benefit remains constant throughout and is not adjusted upward by recomputation or by subsequent legislation. However, there is a significant increase in the child's benefit if a child in the family attains age 18 or dies, since then 25% of the primary insurance amount is redistributed among the remaining children. There is also a redistribution on termination of any benefit while the family is receiving the maximum benefit. For child's benefits, an adjustment of 3% of the present value of benefits in current payment status has been made prior to 1950 and 7% thereafter to reflect these factors. There may also be an increase in the mother's benefit on termination of a child's benefit, if the maximum benefit provisions had been applicable. Furthermore, mother's benefits, even though not available in select form (by duration of widowhood), were valued by select annuities at widowhood at the attained age on the date of valuation. To allow for both of these factors, an upward adjustment of 3% was made in the present value of mother's benefits in current payment status prior to 1950 and 4% for 1950 and thereafter. These various small adjustments have been made on the basis of actual operating data along with necessarily somewhat arbitrary estimating techniques when the data were not available in proper or sufficient form.

More important, it is assumed that benefits are not suspended because of subsequent covered employment of the beneficiary and that benefits are not reduced or eliminated because the surviving beneficiary earns old-age benefits in her own right. On the other hand, no allowance is made for persons on the roll but not receiving benefits because they are in substantial covered employment in the month of valuation (such persons are "eligible" and "entitled" but not "in current payment status"). These "ins" and "outs" counteract each other and tend to balance at any time.

### C. Present Value of Benefits in Current Payment Status

Under this concept, the liability of claims in current payment status is evaluated as of December 31 of each year. Any subsequent net increase or net decrease in claims is taken into account in future valuations. The factor of withdrawal from, or entering upon, covered employment in the past is, in effect, allowed for automatically. The benefit roll on December 31 is the basis of the liability on account of claims of all previous years in current payment status at that date at the then attained age of the recipient. This liability would be the correct figure for use in a balance sheet, but as stated it would not include the liability on account of insured workers who are not yet eligible for benefit, nor of those workers who have made claim and have not yet received awards, nor of those who have received awards but are not receiving benefits currently, nor of those with deferred benefits based on wage records of deceased fully insured wage earners.

The liability under this concept is shown in Table 2 on a 2% interest basis and in Table 3 on a 2½% basis. There is a difference of only about 3% relatively in the figures on the two interest bases. Since the benefit roll is not matured, there is an increase in the liability each year, which trend may be expected to persist for many years until the system does become mature. Survivor benefits to mothers and children are more of a current risk and will therefore mature earlier than benefits for aged recipients.

The present value of benefits in current payment status rose steadily from about \$400 million at the end of 1940 to about \$5¼ billion at the end of 1949. The figure for the end of 1950 is significantly higher (being about \$12 billion) as a result of the benefit increases in the 1950 Amendments. There was a further rise in the 1951 figure to about \$14½ billion, and then again for the 1952 figure of roughly \$19 billion (in part due to the benefit increases in the 1952 Amendments).

The preceding figures are based on 1939-41 general population mortality. If current population mortality had been used for the benefits in current payment status at the end of 1952, the present value would have been increased by about 5½% or to roughly \$20 billion. If the Annuity Table for 1949 (ultimate, without projection)<sup>4/</sup> had been used, the increase would have been about 21½%, yielding a present value of about \$23 billion; this valuation standard, however, is over-conservative when used for old-age and survivors insurance beneficiaries whose mortality closely follows that of the general population<sup>5/</sup>.

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<sup>4/</sup> This table represents approximately the mortality experienced under individual annuities and life income settlements of United States and Canadian life insurance companies in 1949 (but with some small safety margin--i.e. lower mortality rates).

<sup>5/</sup> "Mortality Experience Under the Old-Age and Survivors Insurance System," Louis O. Shudde, Transactions, Society of Actuaries, Vol. III, p. 201.

Table 2

PRESENT VALUE OF OASI BENEFITS IN CURRENT PAYMENT STATUS, DECEMBER 31, 2% INTEREST  
(in millions)

Year	Old-Age <sup>1/</sup>		Wife's <sup>2/</sup>	Widow's <sup>3/</sup>	Mother's <sup>4/</sup>	Child's	Parent's	Lump-Sum <sup>5/</sup>	Total
	Male	Female							
1940	\$241	\$30	\$50	\$10	\$26	\$54	\$1	\$10	\$422
1941	411	54	94	34	54	117	2	18	784
1942	521	76	126	64	71	175	4	24	1,061
1943	604	95	152	101	88	237	5	29	1,311
1944	744	116	191	147	113	311	6	36	1,664
1945	1,044	148	266	202	156	421	7	51	2,295
1946	1,435	191	366	272	166	487	9	69	2,995
1947	1,799	248	463	355	175	548	12	88	3,688
1948	2,172	310	561	455	186	608	13	108	4,413
1949	2,727	396	699	567	200	658	16	136	5,399
1950	6,132	1,116	1,533	1,180	364	1,498	45	197	12,065
1951	7,315	1,607	1,842	1,409	430	1,760	61	244	14,668
1952	10,046	1,971	2,375	1,867	529	2,183	76	332	19,379

<sup>1/</sup> Prior to 1950 Amendments, the designation was "primary benefits."

<sup>2/</sup> Includes husband's benefits; also potential widow's and potential widower's benefits.

<sup>3/</sup> Includes widower's benefits.

<sup>4/</sup> Prior to 1950 Amendments, the designation was "widow's current benefits."

<sup>5/</sup> Payable on death of old-age beneficiary.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and **not** the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.

Table 3

PRESENT VALUE OF OASI BENEFITS IN CURRENT PAYMENT STATUS, DECEMBER 31, 2½% INTEREST  
(in millions)

Year	Old-Age <sup>1/</sup>		Wife's <sup>2/</sup>	Widow's <sup>3/</sup>	Mother's <sup>4/</sup>	Child's	Parent's	Lump Sum <sup>5/</sup>	Total
	Male	Female							
1940	\$233	\$29	\$48	\$10	\$26	\$53	\$1	\$10	\$410
1941	398	52	91	33	52	114	2	17	759
1942	505	73	122	62	70	171	4	23	1,030
1943	586	92	146	98	85	232	5	28	1,272
1944	722	112	184	142	111	304	6	35	1,616
1945	1,014	143	256	195	153	412	7	49	2,229
1946	1,394	185	353	263	162	476	8	67	2,908
1947	1,748	240	447	344	172	536	12	84	3,583
1948	2,109	301	541	441	182	593	13	103	4,283
1949	2,649	384	675	549	196	644	15	130	5,242
1950	5,957	1,081	1,481	1,143	357	1,466	44	189	11,718
1951	7,107	1,556	1,778	1,366	422	1,723	59	235	14,246
1952	9,767	1,910	2,294	1,811	518	2,133	74	319	18,826

<sup>1/</sup> Prior to 1950 Amendments, the designation was "primary benefits."

<sup>2/</sup> Includes husband's benefits; also potential widow's and potential widower's benefits.

<sup>3/</sup> Includes widower's benefits.

<sup>4/</sup> Prior to 1950 Amendments, the designation was "widow's current benefits."

<sup>5/</sup> Payable on death of old-age beneficiary.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.

Table 4 gives the percentage distribution of the present values of the various types of benefit in current payment status for the various years on the 2% interest basis. Using the 2½% interest basis would produce only slightly different results. The liability for male old-age beneficiaries (i.e. retired workers) represented 57% of all liabilities for benefits in current payment status in 1940, decreased to a low of less than 45% in 1944, and then rose to about 52% in 1952. Female old-age beneficiaries show a similar trend, but the rise is relatively more pronounced in recent years. There is a still greater relative increase for widow's benefits, for which however there was a slight decrease since 1949. Perhaps, wife's benefits have shown the greatest stability over the 12-year period. The mother's, child's, and lump-sum benefits have lost ground at the expense of the benefits for the aged.

The trend in these percentages indicates that survivor benefits assumed a significant place in the liability of early years; the liability for old-age benefits is becoming relatively more and more important with time. Consideration must be given to a number of other factors. Most important is the time in which the monthly benefit roll under a certain type of benefit reaches an ultimate situation.

Table 4

PERCENTAGE DISTRIBUTION OF PRESENT VALUES OF OASI BENEFITS IN CURRENT PAYMENT STATUS, BY TYPE OF BENEFIT,  
DECEMBER 31, 2% INTEREST

Year	Old-Age <sup>1/</sup>		Wife's <sup>2/</sup>	Widow's <sup>3/</sup>	Mother's <sup>4/</sup>	Child's	Parent's	Lump-Sum <sup>5/</sup>	Total
	Male	Female							
1940	57.1%	7.1%	11.8%	2.4%	6.2%	12.8%	.2%	2.4%	100%
1941	52.4	6.9	12.0	4.3	6.9	14.9	.3	2.3	100
1942	49.1	7.2	11.9	6.0	6.7	16.5	.4	2.2	100
1943	46.1	7.3	11.6	7.7	6.6	18.1	.4	2.2	100
1944	44.7	7.0	11.5	8.8	6.8	18.7	.3	2.2	100
1945	45.5	6.4	11.6	8.8	6.9	18.3	.3	2.2	100
1946	47.9	6.4	12.2	9.1	5.5	16.3	.3	2.3	100
1947	48.8	6.7	12.6	9.6	4.7	14.9	.3	2.4	100
1948	49.2	7.0	12.7	10.3	4.2	13.8	.3	2.5	100
1949	50.5	7.3	13.0	10.5	3.7	12.2	.3	2.5	100
1950	50.8	9.3	12.7	9.8	3.0	12.4	.4	1.6	100
1951	49.9	11.0	12.5	9.6	2.9	12.0	.4	1.7	100
1952	51.8	10.2	12.3	9.6	2.7	11.3	.4	1.7	100

<sup>1/</sup> Prior to 1950 Amendments the designation was "primary benefits."

<sup>2/</sup> Includes husband's benefits; also potential widow's and potential widower's benefits.

<sup>3/</sup> Includes widower's benefits.

<sup>4/</sup> Prior to 1950 Amendments the designation was "widow's current benefits."

<sup>5/</sup> Payable on death of old-age beneficiary.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.

#### D. Average Annuity Factors

Tables 5 and 6 show average monthly annuity factors as determined from the present values of benefits in current payment status on each December 31. These factors represent the lump-sum present value of \$1 per month payable until termination of benefit (by death, remarriage, attainment of age 18, etc.). The factors, though shown to the nearest cent, are not necessarily that accurate, due to rounding of the figures for present values.

The average age of recipients in current payment status is increasing each year, leaving a shorter time on the average in which benefits are receivable, and thereby decreasing the annuity value of future benefits slightly. Thus, as the system ages, the annuity factor for those in current payment status decreases for every type of benefit, with few exceptions. This trend may be expected to continue with time until an ultimate condition has been reached.

The first two columns of factors include adjustments for the present value of lump-sum payments payable on death of old-age beneficiaries. The wife's (or husband's) benefits factors include the present value of the potential widow's (and widower's) benefits, at an increased rate (i.e. a widow gets 75% of the primary insurance amount, while a wife gets 50% a relative increase of 50%). The mother's benefits factors were determined after adjustment of the present value by increased mother's benefits on termination of a child's benefit while both are payable under the maximum family benefit. The child's benefits factors take into account the increased child's benefit (while under the maximum family benefit) on termination of the mother's benefit by death or remarriage and in all cases on termination of an older child's benefit. The child's benefit was valued on an annuity-certain basis (i.e. deaths were disregarded).

Table 5

AVERAGE ANNUITY FACTORS<sup>1/</sup> DETERMINED FROM PRESENT VALUES OF OASI BENEFITS  
IN CURRENT PAYMENT STATUS, DECEMBER 31, 2% INTEREST

Year	Old-Age <sup>2/</sup>		Wife's <sup>3/</sup>	Widow's	Mother's	Child's	Parent's
	Male	Female					
1940	\$109.20	\$124.79	\$137.86	\$114.10	\$64.98	\$80.84	\$92.04
1941	104.99	120.62	135.73	111.74	64.29	81.76	91.46
1942	101.96	117.73	133.59	110.32	63.38	82.86	90.65
1943	99.53	114.97	131.97	109.15	62.97	83.98	89.57
1944	97.96	113.00	130.87	107.80	63.59	84.26	88.87
1945	97.53	111.66	130.56	106.62	65.17	86.66	88.63
1946	97.01	110.52	130.32	105.90	65.11	83.91	88.32
1947	96.61	109.95	130.73	105.88	63.40	81.76	87.54
1948	96.02	109.05	130.17	105.03	62.81	80.47	86.78
1949	96.03	108.70	129.97	104.17	62.46	78.05	85.66
1950	93.96	107.90	128.01	102.80	62.74	77.34	84.24
1951	93.04	108.38	125.15	101.75	63.46	77.41	85.94
1952 <sup>4/</sup>	92.56	108.48	123.82	101.01	63.94	77.57	85.68

- <sup>1/</sup> The present value of future benefits per \$1 of present monthly benefits, until death or termination of benefit in current payment status on the assumption of 1939-41 U.S. White Mortality and 150% American Remarriage Table rates for young widows.
- <sup>2/</sup> Includes present value of lump-sum payable on death of old-age beneficiary.
- <sup>3/</sup> Includes present value of wife's potential widow's benefit, also present value of husband's benefit and husband's potential widower's benefit.
- <sup>4/</sup> Factors are based on estimated projection of previous years' data rather than on detailed age data.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.



Table 6

AVERAGE ANNUITY FACTORS<sup>1/</sup> DETERMINED FROM PRESENT VALUE OF OASI BENEFITS  
IN CURRENT PAYMENT STATUS, DECEMBER 31, 2 $\frac{1}{2}$ % INTEREST

Year	Old-Age <sup>2/</sup>		Wife's <sup>3/</sup>	Widow's	Mother's	Child's	Parent's
	Male	Female					
1940	\$105.92	\$120.40	\$132.90	\$110.14	\$63.70	\$78.98	\$89.37
1941	101.84	116.48	130.84	107.94	63.05	79.88	88.81
1942	98.91	113.79	128.78	106.64	62.15	80.95	88.02
1943	96.56	111.18	127.22	105.56	61.75	82.05	86.97
1944	95.05	109.32	126.16	104.30	62.34	82.32	86.29
1945	94.64	108.05	125.86	103.19	63.86	84.67	86.06
1946	94.15	106.97	125.80	102.51	62.95	81.98	85.76
1947	93.77	106.44	126.15	102.51	62.17	79.94	85.06
1948	93.21	105.58	125.67	101.81	61.59	78.65	84.34
1949	93.22	105.25	125.47	100.86	61.26	76.33	83.27
1950	91.25	104.45	123.46	99.60	61.55	75.69	81.92
1951	90.37	104.90	120.89	98.60	62.25	75.75	83.53
1952 <sup>4/</sup>	89.96	105.09	119.60	97.98	62.61	75.79	83.43

<sup>1/</sup> The present value of future benefits per \$1 of present monthly benefits, until death or termination of benefit in current payment status on the assumption of 1939-41 U.S. White Mortality and 150% American Remarriage Table rates for young widows.

<sup>2/</sup> Includes present value of lump-sum payable on death of old-age beneficiary.

<sup>3/</sup> Includes present value of wife's potential widow's benefit, also present value of husband's benefit and husband's potential widower's benefit.

<sup>4/</sup> Factors are based on estimated projection of previous years' data rather than on detailed age data.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment had always been covered under old-age and survivors insurance.

E. Comparison of Present Values of Benefits in Current Payment  
Status with Trust Fund

Table 7 serves to help answer the question as to whether the trust fund is sufficient to cover the liability for benefits in current payment status. Column 4 shows that the ratio of the present value of benefits in current payment status on a 2% interest basis to the balance in the trust fund was only about 28% in 1941-44. On a 2½% interest basis the ratios are somewhat lower. Under either interest assumption there was a gradual increase in the ratio until the 1950 Amendments were enacted and increased benefits became effective. There was another rise when the 1952 Amendments were enacted. On December 31, 1952, the liability for benefits in current payment status exceeded the trust fund by 11% under the 2% interest assumption and by about 8% under the 2½% interest basis.

The present value of benefits in current payment status on a 2% interest basis has increased steadily every year to a total of over \$19.4 billion on December 31, 1952, which exceeds the trust fund of \$17.4 billion by about \$2.0 billion. Thus the present value of benefits in current payment status, which is only a portion of the total accrued liability, is now greater than the funded portion of the accrued liability (i.e., the trust fund). In the usual private insurance system this sizeable deficiency would obviously be considered a serious threat to solvency, but the situation is quite different under a compulsory, governmental social insurance system.

Table 7

COMPARISON OF TRUST FUND WITH PRESENT VALUE OF BENEFITS  
IN CURRENT STATUS, DECEMBER 31  
(in millions of dollars)

Year	Trust Fund	Present Value of Benefits in Current Payment Status <sup>1/</sup>		As Percent of Trust Fund	
		2%	2 1/2%	2%	2 1/2%
1940	\$2,031	\$422	\$410	20.8%	20.2%
1941	2,762	784	760	28.4	27.5
1942	3,688	1,061	1,030	28.8	27.9
1943	4,820	1,311	1,272	27.2	26.4
1944	6,005	1,664	1,616	27.7	26.9
1945	7,121	2,295	2,228	32.2	31.3
1946	8,150	2,995	2,898	36.7	35.6
1947	9,360	3,688	3,583	39.4	38.3
1948	10,722	4,413	4,283	41.2	39.9
1949	11,816	5,399	5,243	45.7	44.4
1950	13,721	12,065	11,718	87.9	85.4
1951	15,540	14,668	14,246	94.4	91.7
1952	17,442	19,379	18,826	111.1	107.9

<sup>1/</sup> Liability in respect to benefits in current payment status at end of year. Includes present value of potential widow's benefits (based on wife's benefits); present value of potential widower's benefits (based on husband's benefits); also present value of lump-sums payable on death of old-age beneficiaries. Does not include liability for deferred widow's or widower's benefit.

Note: The figures in this table reflect only the direct operations of the old-age and survivors insurance system and not the indirect effects due to the coordinating and financial interchange provisions of the Railroad Retirement Act (based on the 1951 Amendments thereto). The financial interchange provisions provide that the old-age and survivors insurance trust fund shall, on and after June 30, 1952, be placed in the same position as if railroad employment has always been covered under old-age and survivors insurance.