Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI-1957

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FOREWORD

This study is another in the series presenting the results
of analysis as to the "amount of life insurance in force" as
survivor benefits under the Old-Age and Survivors Insurance program.
Since the previous investigation (Actuarial Study No. 43, as of
the end of 1954), the amount of life insurance in force has increased
because of the increase in the wage level in 1954-56, the increase
in the number of insured workers, and the reduction in eligibility
age for widows provided in the 1956 Amendments.

Although the amount of life insurance in force under the
OASI program is analogous to the amount in force under private
insurance contracts, there are certain important points of differ-
ence. Generally, the amount of insurance under a private contract
is definitely known or easily determinable. However, under the
OASI program, conditions for receipt of benefit are not based sole-
ly on life contingencies but also on elements more readily under the
control of the individual beneficiary, such as marriage, employment,
retirement, etc. Therefore, the concept of insurance in force under
the OASI program is open to several interpretations and must necessarily
be presented on a range basis.

The importance of the OASI system in the national economy is
indicated by the fact that the amount of insurance in force under the
more restrictive concept of the net estimate was about $425 billion
at the beginning of 1957. This is approximately equal to that in all
private insurance organizations combined.

The "cost of insurance" is also examined. This represents the
aggregate value of the survivor protection provided by the life insur-
ance in force under the OASI program and can be compared with the con-
tributions paid by the covered persons. Because of the relatively
low contribution rates applicable in the past, employee contributions
have in the aggregate been less than the value of the survivor bene-
fits.

As a group, therefore, individuals covered during the past
received sufficient value as survivor benefit protection to at least
offset the employee contributions made. However, younger individuals
with large families and older individuals with wives above or near
age 65 received far more in survivor protection than their contribu-
tions, while, on the other hand, young single individuals received less.

Moreover, any comparison of benefit protection with employee contribu-
tions might well consider the retirement protection that was furnished
to individuals age 65 and over, some of whom took advantage of it by
retiring and others of whom had potential protection which they did
not use because they continued at work.

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This study has been prepared for the use of the staff of the Social Security Administration and for limited circulation to other persons in administration, insurance, and research concerned with the subject treated. It has not been submitted to the Commissioner of Social Security for official approval.

ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE AS SURVIVOR BENEFITS
UNDER OASI--1957

A. Introduction

The purpose of this study is to present an estimate of the
amount of life insurance in force as of January 1, 1957, as survivor
insurance benefits under the Old-Age and Survivors Insurance system.
This amount may then be compared with the amount of life insurance in
force on the lives of policyholders in private insurance organizations
and on the lives of servicemen and veterans under the insurance systems
of the Veterans Administration.

Actuarial Study No. 16 was the pioneer study in this field and
gave the results for 1940 under the 1939 Amendments on the basis of
the rather meager data available at that time. Actuarial Study No.
29 was a similar study, estimating the amount of life insurance in
force as of January 1, 1946 and January 1, 1947 under the 1939
Amendments. Actuarial Study No. 31 estimated the amount of insurance
as of January 1, 1951 after the 1950 Amendments effected an increase
in benefits through the conversion table and liberalized eligibility
conditions. Actuarial Study No. 37 presented an estimate of the
amount of insurance as of January 1, 1953 just after the 1952 Amend-
ments produced a further increase through modification of the con-
version table and liberalization of the benefit formula. Actuarial
Study No. 43 reflected the further changes incorporated in the 1954
Amendments, while the present study follows the liberalizations
made by the 1956 Amendments.

The amount of life insurance in force at any time under the
old-age and survivors insurance program in any individual case is the
present value of monthly survivor benefits and lump-sum payments
available if death occurred at that time. Monthly benefits are payable
on the basis of the earnings credits of insured workers to widows aged
62 and over, to widowed mothers with children under age 18, to children
under age 18 orphaned by the death of the insured father or mother
(and also to such children over age 18 who became disabled before age
18 and have remained continuously disabled), to dependent aged parents,
and to dependent aged widowers[1]. Herein no account is taken of in-
surance benefits to the relatively minor categories, disabled children,
dependent parents, and dependent widowers.

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[1] For more complete details as to beneficiary categories, amounts of
benefits, etc., under the 1954 Amendments, see Actuarial Study No.
41, "Analysis of Benefits, Old-Age and Survivors Insurance Program,
1954 Amendments."

The present study includes in the amount of life insurance in force under OASI that arising from railroad employment, all of which is assumed to be OASI employment. This is in accordance with the 1951 Amendments to the Railroad Retirement Act; under the financial interchange provisions, the OASI Trust Fund is to be placed in the same position in which it would have been if railroad service had always been covered under OASI. This study also includes the amount of life insurance in force on the lives of veterans and servicemen. The 1956 Amendments covered servicemen on a regular contributory basis, whereas previously they had been granted wage credits of $160 per month.
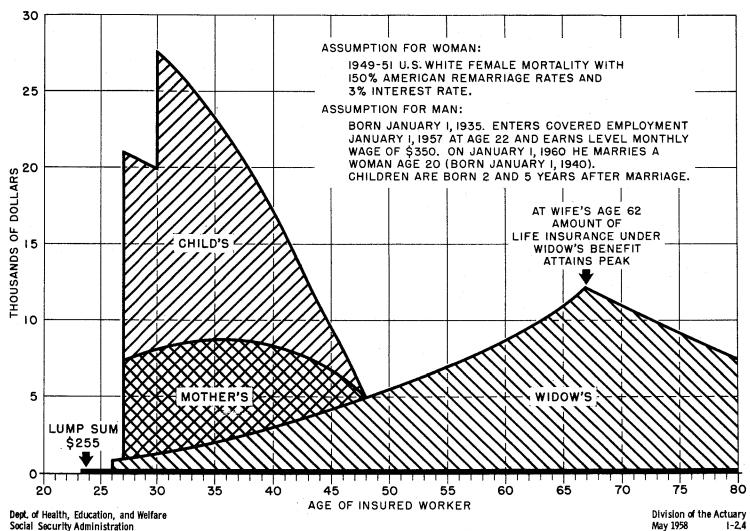
Chart 1 serves to clarify the meaning of "amount of insurance" by type of benefit. It shows the amount of insurance in force for a typical family from age 22 to age 80 of an insured worker. The illustration covers the case of a man entering covered employment on January 1, 1957 at age 22 earning $350 per month and remaining so employed until retirement. Various marital and parental assumptions are made over the period, as shown on the chart, and the amount of insurance has been calculated by type of benefit on a 3% interest assumption and under specified mortality and remarriage rates. The illustration assumes that the program as amended in 1956 remains unchanged, although the system has now been in operation 22 years and has already undergone five major changes.

In the sixth calendar quarter of employment, the worker becomes "insured". At that time the amount of insurance under the lump-sum death payment is the maximum lump-sum payment of $255. The lump-sum is available upon death of the insured man regardless of whether he leaves dependents eligible for immediate monthly benefits.

One year after his marriage in January 1960, the amount of insurance is increased by the present value of the widow's benefit of $81.40 per month. The equivalent amount of life insurance under the widow's benefit is the present value of these monthly payments which begin at age 62 of the widow (or immediately, if she is 62 or over when the husband dies). Since the amount of life insurance depends on the duration and period of deferment of monthly benefits as well as on the interest rate and on the probability of surviving unremarried, the amount under the widow's benefit increases until her age 62 and thereafter decreases.

Mother's and child's insurance protection is in force from the time the first child is born (when the man is age 27) until the youngest child attains age 18. In terms of the primary insurance amount, the combined mother's and child's monthly benefits

Chart 1.

LIFE INSURANCE IN FORCE FOR HYPOTHETICAL FAMILY BY TYPE OF BENEFIT

THOUSANDS OF DOLLARS

30

25

20

15

10

5

0

ASSUMPTION FOR WOMAN:

1949-51 U.S. WHITE FEMALE MORTALITY WITH
150% AMERICAN REMARRIAGE RATES AND
3% INTEREST RATE.

ASSUMPTION FOR MAN:

BORN JANUARY 1, 1935. ENTERS COVERED EMPLOYMENT
JANUARY 1, 1957 AT AGE 22 AND EARNS LEVEL MONTHLY
WAGE OF $350. ON JANUARY 1, 1960 HE MARRIES A
WOMAN AGE 20 (BORN JANUARY 1, 1940).
CHILDREN ARE BORN 2 AND 5 YEARS AFTER MARRIAGE.

AT WIFE'S AGE 62
AMOUNT OF
LIFE INSURANCE UNDER
WIDOW'S BENEFIT
ATTAINS PEAK

CHILD'S

MOTHER'S

WIDOW'S

LUMP SUM
$255

20   25   30   35   40   45   50   55   60   65   70   75   80

AGE OF INSURED WORKER

-3-

are as follows[2]: 150%, or $162.80, after the first child is born; the maximum family benefit of $200.00, after the second child is born; 150% or $162.80 after the first child becomes age 18; and nothing after the second child becomes age 18. When the first child is born, the amount of insurance increases greatly. There is another big jump in the amount of insurance when the second child is born (when the man is age 30). At this point the amount of insurance attains a peak of nearly $28,000 but decreases rapidly thereafter as the children grow older and their period of dependency to age 18 becomes shorter.

For persons with higher wages, the amount of insurance may be considerably greater than the above amounts. The maximum amount would be the very rare and improbable case of a man with an average monthly wage of $350 or more and with a wife age 44 and four children age 0, at which time the amount of life insurance in force under the 3% interest rate basis is about $38,785. A more likely case involving considerable survivor insurance protection would be if the wife were age 40 and had two children aged 0 and 1, for which the corresponding figure is $35,357.

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[2] The indicated percentages are not exact because of rounding of each individual benefit to the next higher multiple of 10 cents.

B. Factors Involved

Since a large proportion of survivor benefits is payable in monthly instalments over long periods of time, the calculation of the equivalent amount of life insurance protection in force involves an interest rate. Just what interest rate should be assumed in discounting monthly benefits payable over periods which may extend 50 or 60 years into the future is a difficult question to answer. Perhaps one realistic answer is the current yield rate under very long-term Government bonds (currently close to 3%), or else the average interest rate earned on the OASI Trust Fund (approximately $2\frac{1}{2}\%$ as of December 1957). Another possible basis is the rate on the widely-held Series E bonds, now bearing $3\frac{1}{4}\%$ compounded semiannually. Actuarial Study No. 43 used both 2% and 3%. It is evident that the higher the assumed interest rate, the lower will be the discounted values and the equivalent amount of insurance. Private insurance companies generally guarantee an interest rate varying from $2\frac{1}{4}\%$ to 3% on policies currently issued, and currently the net average rate earned (and payable to beneficiaries through participating provisions) is about $3\frac{1}{4}\%$. The 2% rate seems low in relation to present conditions, and accordingly, the present estimates of the amount of life insurance in force have been computed at $2\frac{1}{2}\%$ and 3%.

Calculation of the equivalent amount of insurance also involves mortality rates, which have been decreasing and may be expected to continue to decrease in the future. Mortality of widow survivor beneficiaries was assumed to follow the death rates of the U. S. White Females 1949-51 Life Table. This mortality table tends to understate the amount of life insurance in force, because mortality has improved since 1951 and continued improvement may be expected in the future; the use of a mortality table based on white-lives throughout tends to some extent to correct for this understatement. Mortality of children has a negligible effect on these estimates, and is accordingly ignored.

Since the rights to both widow's and mother's insurance benefits terminate on remarriage, this contingency must be measured. The estimates assume remarriage rates of widows equal to 150% of those under the American Remarriage Table (which was based on experience of 1921-29). This assumption was made because remarriage rates have increased considerably, and recent OASI-experience indicates remarriage rates of widows substantially higher than those of the American Remarriage Table[3].

3/ Myers, Robert J., "Further Remarriage Experience," Proceedings, Casualty Actuarial Society, Vol. XXXVI, 1950.

If a beneficiary has not attained age 72 and earns more than $1,200 in a year in any employment, one month's benefit is withheld for each $80 (or fraction thereof) of earnings in excess of $1,200[4]. Many "eligible" beneficiaries such as mothers, widows under age 72, and older orphan children engage in covered employment, earn over $1,200 in a year, and thus have benefits withheld for some months. In times of full employment, a job with wages may be more attractive than the benefits. Thus the effect of employment on benefit receipt is variable and depends to a great degree on fluctuations of the business cycle.

The "gross" estimate does not take into consideration the effect of employment on benefit receipt; thus, this amount of life insurance is the maximum potential amount available if eligible survivor beneficiaries under age 72 take full advantage of their benefit rights and do not engage in any employment with earnings exceeding $1,200 in a year. The gross estimate also includes another element of duplication. Female covered workers include a considerable number of widows of insured workers. Many of these widows have become, or will become, entitled to old-age insurance benefits in their own right. If their primary insurance amount is greater than the widow's benefit, the latter is not payable; if less, only the excess of the widow's benefit over the primary insurance amount is payable as a widow's benefit. Here again is an indeterminate area which does not readily yield to accurate estimation, particularly as to the breakdown between survivor and retirement benefits.

The "net" estimate allows for reduction of the amount of insurance, both to allow for the effect of employment on current benefit receipt and for possible "forfeiture" of widow's benefits because of old-age insurance benefits earned by the widow in her own right. Reduction factors have been applied to the gross estimate by type of benefit as a basis for the net estimate. These reduction factors are 20% for the widow's benefits, 27% for mother's benefits, 3% for child's benefits, and 1% for lump-sum death payments (the latter to allow for the relatively few cases of payments to other than spouses where the reimbursable funeral expenses are less than 3 times the primary insurance amount or $255 if lower). These reduction factors are based on OASI claims statistics, with the reduction factor for the widow's benefit being based on the long-range cost estimates data and methodology.

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[4] In no case, however, are benefits withheld for any month in which the beneficiary's remuneration as an employee was $80 or less and in which he rendered no substantial services in self-employment.

C. Methodology

The amount of insurance in force at any time on the life of an insured worker is the present value of the equivalent amount of all survivor benefits which would be payable in the event of his death. The present value of the widow's benefit, whether deferred to her age 62 or payable immediately if that age has been attained, takes into account both survivor and remarriage contingencies.

The present value of the mother's insurance benefit was similarly calculated. This benefit also terminates on attainment of age 18 of her youngest child or on death or marriage of the last child under 18. The present value of the child's benefit was calculated as though the monthly payments terminate on attainment of age 18 without considering the contingencies of the child's death or marriage prior to age 18 (both of which are negligible). However, in cases where the maximum family benefit is payable, an allowance was made for an increase in the child's benefit on death or remarriage of the mother or, in any event, when other children attain age 18. The years of dependency to age 18 of children were based on the data of the Family Composition Study of 1935-36 5/. Data on married working mothers with children were drawn from recent census data and 1953 OASI Substantive Claims Statistics. Benefits to disabled children over age 18 (and their mothers) have been ignored, as the number of such cases is extremely small.

One of the most difficult factors to arrive at is the average primary insurance amount. This statistic was estimated from data on 1956 survivor benefit awards under the 1956 Amendments.

It should be recalled throughout that only survivor benefits are considered in determining the amount of life insurance in force; retirement benefits of workers and supplementary benefits to their spouses do not belong in the category of life insurance that matures at death of an insured worker. However, the fully insured group age 65 and over considered herein properly includes those who are old-age beneficiaries (on whose death survivor benefits become payable).

This study includes the "cost of insurance" concept which has previously been discussed in Actuarial Study No. 43. As used herein it is a measure of the equivalent present value of death claims arising in a year under the insurance in force January 1, 1957.

5/ Federal Security Agency, Social Security Board, Bureau of Research and Statistics, Statistics of Family Composition in Selected Areas of the United States 1934-36, Volume II, The Urban Sample.

D. Analysis of Results

In considering the results of this study, allowance should be made for the limitations of the data. For instance, the assumption that the family composition as to children parallels that of the Family Composition Study is subject to criticism, even though these data are the best available[6]. We would expect that the relative proportion of younger children has increased due to the heavy birth rates of the last decade as compared with the low birth rates of the 1930's.

Table 1 summarizes the estimated amount of life insurance in force as of January 1, 1957 by type of benefit and by sex of the insured worker under the gross and net estimates. Under the gross estimate, the amount of insurance in force is $510 billion on the $2\frac{1}{2}\%$ interest rate assumption and $486 billion on the 3% interest rate assumption. The net estimates are $445 billion and $425 billion respectively, or about 12% less than the gross estimates. The 3% interest rate assumption decreases the amount of insurance by an average of about 5% below the $2\frac{1}{2}\%$ interest basis--more for the longer deferred widow's benefits, and less for the more immediate mother's and child's benefits. The amount of insurance on the net estimate (the more realistic basis) on a 3% interest basis is distributed roughly by type of benefit as follows: 23% for widow's, 19% for mother's, 54% for child's, and 4% for the lump-sum death payment (on the $2\frac{1}{2}\%$ interest rate basis, the widow's benefit proportion is increased, and the other proportions are decreased).

Men account for 91-92% of the total insurance in force. The 8-9% in respect to women is a much greater proportion than the corresponding 4% before the 1950 Amendments were enacted. This increase occurred primarily because the 1950 Amendments provided child's survivor benefits on the wage records of currently insured married women, even though the husband is living, working, and insured. As far as the total amount of life insurance is concerned, the protection has been taken as additive in regard to children protected under the wage records of both the insured father and the insured mother[7].

6/ It should be noted, however, that the proportions of families having children were based on OASI claims data for 1955. The Family Composition Study was used only to estimate the distributions of family size and ages of children for families with one or more children.

7/ Since the child cannot get benefits on both wage records (but in effect only the larger benefit if both die), there is a slight element of overstatement in combining the amounts for men and women.

Table 1

SUMMARY OF ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE
AS OASI SURVIVOR BENEFITS, JANUARY 1, 1957
(In billions)

Type of Benefit	Gross Estimate[a]		Net Estimate[b]	
	2½% Interest	3% Interest	2½% Interest	3% Interest
	Total			
Widow's	$137	$122	$110	$98
Mother's	114	112	83	81
Child's	242	236	235	229
Lump-Sum	17	17	17	17
Total	510	486	445	425
	Men			
Widow's	137	122	110	98
Mother's	114	112	83	81
Child's	207	202	201	195
Lump-Sum	12	12	12	12
Total	470	447	406	386
	Women			
Child's	35	34	34	33
Lump-Sum	5	5	5	5
Total	40	39	39	38

a/ The gross estimate does not take into consideration the effect of
employment; it also fails to eliminate the duplication between
widow's benefits and primary benefits that widows may earn in their
own right.

b/ The net estimate takes into account both the effect of employment
and the payment of only the excess if the widow's benefit is greater
than her primary insuance amount.

Note: See text for description of methodology, concepts and assumptions.
All figures are individually rounded and, in some instances, do
not add exactly to totals shown.

The estimated "cost of insurance" is calculated on the basis of the net estimate of life insurance in force on January 1, 1957. The present value of benefits arising from a year's death claims is $3.9 billion under the 2½% interest assumption or $3.5 billion on the 3% interest basis. Thus, the cost of insurance is somewhat in excess of the total amount of the contributions paid in 1956 by employees and self-employed persons (i.e. excluding employer taxes)--namely, about $3.2 billion. This indicates that insured workers in the aggregate currently get a little more than their money's worth in survivor insurance. In 1952 and 1954 there was rough equality between the cost of insurance and contributions of employee's and the self-employed. In 1940 the total cost of insurance was 2/3 greater than the total employee contributions. Thus, it may be concluded that survivor benefits have had, on the average, a greater value than the employee tax since monthly benefits began in 1940. It is conceivable that, if the future brings still lower mortality and higher tax rates, this relationship will no longer hold, but employees will still get their money's worth in survivor and old-age benefits.

Table 2, for the gross estimate, and Table 3, for the net estimate, show the amount of insurance by age, sex, and type of benefit. Under widow's benefits, nearly 3/4 of the life insurance in force is on insured workers age 35-64. Under mother's and child's benefits, the peak occurs at ages 30-34, since this is the period where child dependency is greatest, and in this age-group the greatest amount of total insurance is found.

Table 4 shows the total number insured and the total amount of insurance in force by sex for Actuarial Study No. 16, Actuarial Study No. 29, Actuarial Study No. 31, Actuarial Study No. 37, Actuarial Study No. 43, and this study, all under the gross estimate on the 3% interest basis. Both the number insured and the total amount of insurance have increased substantially over the period since 1940.

During the 2-year interval between January 1, 1955 and January 1, 1957, the gross estimate of the amount of insurance on the 3% interest basis increased by 27%, and the net estimate by 23%.

Several factors contributed to this increase. The number of insured workers increased about 4% during the 2-year period. The average primary insurance amount applicable to all living insured workers increased by about 10%, due in part to the rising earnings level and in greater measure to the effect of the increase in the earnings base from $3600 to $4200, which was effective January 1, 1955. Further, the gross amount of insurance representing widow's benefits is increased by about 25% as a result of the reduction in the minimum age from 65 to 62 under the 1956 Amendments.

Table 2

ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE BY AGE AND TYPE OF BENEFIT, GROSS ESTIMATE
(In billions)

Age of Insured	Widow's	Mother's	Child's Insurance Men	Child's Insurance Women	Lump-Sum Men	Lump-Sum Women	Total
2½% Interest							
Under 20	*	*	*	*	*	*	$1
20-24	$2	$7	$18	$7	$1	$1	35
25-29	4	17	39	8	1	1	70
30-34	8	25	49	8	1	1	92
35-39	12	25	43	6	1	1	88
40-44	16	17	30	4	1	1	70
45-49	17	12	17	2	1	1	50
50-54	19	6	8	*	1	*	35
55-59	18	2	3	*	1	*	24
60-64	17	1	1	*	1	*	19
65-69	13	*	*	*	1	*	15
70-74	8	*	*	*	*	*	9
75 and over	3	*	*	*	*	*	3
Total	137	114	207	35	12	5	510
3% Interest							
Under 20	*	*	*	*	*	*	1
20-24	1	7	17	6	1	1	33
25-29	3	17	37	8	1	1	67
30-34	6	24	48	8	1	1	88
35-39	10	24	41	6	1	1	84
40-49	13	19	29	4	1	1	67
45-49	15	12	17	2	1	1	47
50-54	17	6	8	*	1	*	33
55-59	17	2	3	*	1	*	23
60-64	15	1	1	*	1	*	18
65-69	13	*	*	*	1	*	14
70-74	8	*	*	*	*	*	8
75 and over	3	*	*	*	*	*	3
Total	122	112	202	34	12	5	486

* Less than $500 million.

Note: See text for description of methodology, concepts and assumptions. All figures are individually rounded and, in some instances, do not add exactly to totals shown.

Table 3

ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE BY AGE AND TYPE OF BENEFIT, NET ESTIMATE
(In billions)

Age of Insured	Widow's	Mother's	Child's Insurance Men	Child's Insurance Women	Lump-Sum Men	Lump-Sum Women	Total
			2½% Interest				
Under 20	*	*	*	*	*	*	$1
20-24	$1	$5	$17	$6	$1	$1	32
25-29	3	13	37	8	1	1	63
30-34	6	18	48	8	1	1	82
35-39	10	18	41	6	1	1	77
40-44	12	14	29	4	1	1	61
45-49	14	9	16	2	1	1	42
50-54	15	5	8	*	1	*	29
55-59	15	2	3	*	1	*	20
60-64	13	1	1	*	1	*	16
65-69	11	*	*	*	1	*	12
70-74	6	*	*	*	*	*	7
75 and over	2	*	*	*	*	*	3
Total	110	83	201	34	12	5	445

3% Interest

Age of Insured	Widow's	Mother's	Child's Insurance Men	Child's Insurance Women	Lump-Sum Men	Lump-Sum Women	Total
Under 20	*	*	*	*	*	*	1
20-24	1	5	16	6	1	1	31
25-29	3	12	36	7	1	1	60
30-34	5	17	46	8	1	1	79
35-39	8	18	40	6	1	1	74
40-44	11	14	28	3	1	1	58
45-49	12	8	16	2	1	1	40
50-54	14	4	8	*	1	*	28
55-59	13	1	3	*	1	*	19
60-64	12	1	1	*	1	*	15
65-69	10	*	*	*	1	*	11
70-74	6	*	*	*	*	*	7
75 and over	2	*	*	*	*	*	3
Total	122	81	195	33	12	5	425

* less than $500 million.

Note: See text for description of methodology, concepts and assumptions. All figures are individually rounded and, in some instances, do not add exactly to totals shown.

Table 4

COMPARISON OF SUMMARY RESULTS OF THIS STUDY AND PREVIOUS STUDIES

Sex of Insured Worker	Actuarial Study					
	No. 16 1940	No. 29 1947	No. 31 1951	No. 37 1953	No. 43 1955	This Study January 1, 1957
Number Insured (in millions)						
Men	18.2	27.6	39.5	44.9	45.8	48.5
Women	5.7	14.0	22.0	25.0	26.7	26.9
Total	24.0	41.6	61.5	69.9	72.5	75.4
Amount of Insurance in Force (in billions)						
Men	$41	$64	$168	$320	$353	$447
Women	1	3	23	22	30	39
Total	42	67	191	342	383	486

Note: The dollar figures are on a 3% basis. Figures for this Study, for Actuarial Study No. 43, for Actuarial Study No. 37, and for Actuarial Study no. 31 are the gross estimate, those for Actuarial Study No. 29 are the high (or gross) estimate and those for Actuarial Study No. 16 are the low estimate, which is fairly comparable to the high (or gross) estimate in later studies.

It is to be noted that, while the net estimate of life insurance in force on the 3% interest basis increased by 23% between January 1, 1955 and January 1, 1957, the corresponding cost of insurance increased by 40%. This is due to a substantial increase in the amount of insurance in force on aged males, resulting both from a greater number of insured aged males and an increased value of insurance in force because under the 1956 Amendments their widows can claim benefits at age 62.

E. Comparison With Other Life Insurance

As indicated in the Foreword, the amount of life insurance in force as survivor benefits under the Old-Age and Survivors Insurance program is analogous to the amount of insurance in force in a private life insurance company to the extent that each figure represents the aggregate present value of the benefit payments which would become due if all participants in the system in question should die immediately. There are important points of difference, such as the absence of contractual relationships and of cash values under the social insurance system, and conditions for receipt of benefits, such as failure to remarry or to engage in substantial employment, which do not obtain under private insurance. Nevertheless, it is of some interest to compare the estimate of the amount of insurance in force under OASI on January 1, 1957 with the amount in force in private organizations and in the programs administered by the Veterans Administration:

ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE, JANUARY 1, 1957
(in billions)

Old-Age and Survivors Insurance System[a]	$425
Veterans' Administration[b]	44
Private Insurance[c]	427
Total	896

[a] Based on the net estimate of this Study and 3% interest rate assumption.

[b] U.S. Government Life Insurance (World War I), $2 billion; National Service Life Insurance (World War II), $35 billion; and Veteran's Special Term Insurance (Korean Conflict) and Service-Disabled Veteran's Insurance (Korean Conflict), $6 billion.

[c] Ordinary, industrial, and group insurance, $413 billion; savings bank insurance, $1 billion; fraternal insurance, $11 billion; and assessment life insurance, $2 billion. Does not include death benefits under annuities.

The above comparison does not include an estimated $10-15 billion of life insurance in force as survivor benefits under Civil Service Retirement; other public retirement systems have perhaps $2 billion more. Private pension plans also have a considerable amount of survivor protection in force (mostly in the form of potential refunds of employee contributions), although their primary purpose is providing retirement benefits.

In comparing the amount of insurance under the old-age and survivors insurance system with that in private organizations, it may be mentioned that the former includes a large proportion of decreasing term insurance, since the survivor protection is concentrated where it is most needed--at the younger ages of the insured workers, where the greatest number of minor children is found. Since the cost of insurance is relatively low at these ages, the current annual cost of insurance in force under OASI would be substantially less than for the aggregate of all private insurance.

Actuarial Studies Available from the Division of the Actuary[*]

10. Various Methods of Financing Old-Age Pension Plans--September 1938.

14. An Analysis of the Benefits and Costs under Title II of the Social Security Act Amendments of 1939--December 1941.

16. Estimated Amount of Life Insurance Value in Force under Survivors Benefits of the Old-Age and Survivors Insurance System--January 1941.

17. New Cost Estimates for the OASI System, with the Assumption of a Static Future Wage Level--December 1942.

19. OASI 1943-44 Cost Studies--May 1944.

21. Analysis of Long-Range Cost Factors--September 1946.

22. Cost Study for Complete Coverage Program of Old-Age, Survivors and Disability Insurance--August 1945.

23. Long-Range Cost Estimates for OASI, 1946--April 1947.

26. Present Values of OASI Benefits Awarded and in Current Payment Status, 1940-46--May 1948.

28. Long-Range Cost Estimates for Expanded Coverage and Liberalized Benefits Proposed to the OASI System by H.R. 2893--February 1949.

29. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI System--April 1949.

30. Analysis of the Benefits under Title II of the Social Security Act Amendments of 1950--February 1951.

31. Estimated Amount of Life Insurance in Force as Survivor Benefits under Social Security Act Amendments of 1950--September 1951.

32. Analysis of 346 Group Annuities Underwritten in 1946-50--October 1952.

33. Illustrative U.S. Population Projections, 1952--November 1952.

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[*] Numbers not listed are out of print.

34. Analysis of the Benefits under the OASI Program as Amended in 1952--December 1952.

35. Present Values of OASI Benefits in Current Payment Status 1940-52--May 1953

36. Long-Range Cost Estimates for OASI 1953--June 1953.

37. Estimated Amount of Life Insurance in Force as Survivor Benefits under Social Security Act Amendments of 1952--August 1953.

38. Long-Range Cost Estimates for Changes Proposed in the OASI System by H.R. 7199, with Supplementary Estimates for Universal Coverage--March 1954.

39. Long-Range Cost Estimates for OASI 1954--December 1954.

40. The Financial Principle of Self-Support in the OASI System--April 1955.

41. Analysis of Benefits, OASI Program, 1954 Amendments--May 1955.

42. Present Values of OASI Benefits in Current Payment Status 1940-54--July 1955.

43. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI--1955--September 1955.

44. Analysis of 157 Group Annuity Plans Amended in 1950-54--July 1956.

45. Present Values of OASI Benefits in Current Payment Status 1940-56--May 1957.

46. Illustrative United States Population Projections--May 1957.

47. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI--1957--July 1958.