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

1975-77

by Kevin Wells

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Foreword

To a large extent the social security system is perceived by the
general public as being solely a retirement program, that is, a
program that pays monthly cash benefits to aged workers who no
longer can work or who decide to retire from active employment.
Indeed that is the major role of the system, but it also has other
important functions. The system pays monthly benefits to disabled
workers and to their dependents as well as to surviving dependents
of deceased workers. In addition, through its Medicare operations,
it covers a substantial portion of the hospital and medical
expenses of the aged and the disabled. This actuarial study attempts
to measure the magnitude of one of the "non-retirement" functions:
to that end, the study presents estimates of the amount of "life
insurance" protection provided by the system.

Although similar in many respects, survivors insurance under social
security is not exactly like private life insurance. It provides
benefits to certain survivors as a result of the death of an insured
individual and thus performs a function not unlike that of a private
life insurance policy. However, the amount of insurance is not
exactly predetermined and is to some extent under the control of the
insured and of the survivors. In this study, the amount of "life
insurance in force" is measured as the present value of future sur-
vivors benefits that would become payable if the insured worker
should die on the valuation date. In calculating that amount,
various probability values are assigned to all contingencies,
including those under the control of the insured or survivors.

The estimates in this study indicate that the total amount of life
insurance protection under the system ($2.8 trillion in 1977) sur-
passes the combined protection offered by all private insurers ($2.4
trillion) operating in the United States.

About 60 percent of the protection involves payments to surviving
orphans while the remaining 40 percent is almost in its entirety
payable to surviving spouses. This protection is generally higher
with respect to male workers, who frequently are the principal
breadwinners in the family. On the average it reaches its maximum
when the worker is in his early 30's (estimated at about $59,000
per worker in 1977). This is the age when his death would have
the severest financial impact on the family.

Francisco R. Bayo
Deputy Chief Actuary

Estimated Amount of Life Insurance in Force
As Survivor Benefits under OASI, 1975-77

A. Introduction

This is the eighth in a series of actuarial studies designed to present estimates of the amount of life insurance in force as survivor benefits under the Old-Age and Survivors Insurance System (OASI). Such estimates are of interest insofar as they allow rough comparisons to the amount of life insurance protection offered in our country through various means, among which are included private insurance organizations in general and the various Federal Government programs in particular.

The current study presents estimates of the amount of life insurance in force and of the annual cost of such life insurance as of the beginning of calendar years 1975, 1976, and 1977. These estimates reflect the law as it existed before the 1977 Amendments to the Social Security Law. In addition, a preliminary estimate of the amount of life insurance in force as of the beginning of 1978 is presented.

Concept of Life Insurance in Force under OASI

Social Security has many elements that are similar in concept to private insurance. The benefits it pays to survivors of deceased workers meet much the same needs as similar benefits in private life insurance. The amount of such "life insurance" in force has long been of interest. In the case of OASI that amount may be defined for any given worker at any given time as the sum of the lump-sum death benefit and the present value, under specified assumptions, of the monthly survivor benefits available if the death of the worker occurred at that particular time. Under this concept, the amount of life insurance in force represents the present value of all benefits that would become payable due to the worker's death and is different from the total amount payable during the first month, first year, or any other limited or even unlimited period after the worker's death. Based on the above definition, this study also develops estimates of the annual "cost of life insurance" under OASI. This is defined as the net annual premium that would be needed to pay for the above level of insurance protection for one year. This is computed as the product of the "life insurance in force" and the one-year probability of death at that worker's age.1/

In general, monthly survivor benefits based on the covered earnings of the insured worker are paid to a child under age 18 orphaned by the death of the insured worker, to an orphaned child

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1/ It should be noted that the "cost of life insurance" is a measure of the actuarial value of the life insurance protection for one year.

aged 18 and over if he or she has been continuously disabled since prior to age 22, to an orphaned child aged 18 to 21 if a full-time student, to a widow or widower aged 60 and over, to a disabled widow or widower aged 50 to 59, to a widowed mother or father 2/ caring for an eligible child (excluding student beneficiaries), and to a dependent parent aged 62 and over. One important restriction on the receipt of such benefits is that, if the beneficiary engages in substantial employment, the benefits could be reduced or totally withheld.

For the purposes of this study, survivor benefits to disabled widows, to disabled widowers, and to disabled children were not included because the data on these benefits were too limited and because these benefits were of comparatively small magnitude and do not significantly affect the amount of life insurance in force under OASI.

Railroad Employment

The amount of life insurance in force, as estimated in this study, includes that arising from railroad employment, all of which is assumed to be OASI employment. This is in accordance with the financial interchange provisions, under which the OASI Trust Fund is to be placed in the same position in which it would have been if railroad employment had always been covered under OASI.

B. Factors Involved

Rate of Interest

With the exception of the lump-sum death benefit, all survivor benefits are made up of monthly payments over varying periods of time. In order to obtain a realistic estimate of the amount of survivor insurance protection available under OASI, it is therefore necessary to compute the present value of all these monthly payments at an assumed rate of interest. The determination of an appropriate rate of interest for discounting monthly benefits can be considered simultaneously with the automatic benefit increase provisions in the present law under which monthly benefits are increased annually according to increases in the Consumer Price Index (CPI).

Under the intermediate set of assumptions (alternative II) of the 1978 Trustees Report, an annual nominal interest rate of 6.6% and an ultimate annual increase in CPI of 4.0% were assumed. One can think of the nominal interest rate as containing two components: (1) an assumed ultimate annual inflation rate of 4.0% and (2) a residual component or

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2/ Father's benefits are not part of the statutes, but are payable on the basis of the Supreme Court decision in Weinberger vs. Weisenfeld, March 19, 1975. No amount of life insurance in force as father's benefits was taken into account prior to that date.

"real interest rate" of 2.5%.3/ It will be noted that by assuming a
real interest rate of 2.5% and static benefits (which simplifies
calculations significantly), we obtain an accurate approximation to
estimates that directly reflect a nominal 6.6% interest rate and
dynamic benefits that increase at a 4.0% annual rate.

Mortality Rates

Because OASI monthly benefits are payable only if the beneficiary
survives from month to month, death contingencies must be taken into
account in computing present values.4/ Mortality rates have decreased
more or less steadily for many years and will likely continue to decrease
in the future. In this study, however, surviving spouse beneficiaries
are assumed to be subject to the death rates of the 1969-71 United
States Life Tables. Because mortality has declined since then and
probably will continue to decline in the future, this assumption
tends to understate the amount of life insurance in force. In order
to offset, at least in part, this understatement, the lower mortality
pertaining to white persons was made applicable to all surviving spouses.

Technically, a better choice of mortality would have been the
rates in the intermediate set of assumptions (alternative II) in
the 1978 Annual Report of the Board of Trustees of the OASDI
Trust Funds. Such choice, however, involves varying death rates
through time for which no actuarial functions are available. The
difference between the results of the two choices is believed to
be moderate, and the use of the U.S. Life Tables is thought to produce
a small understatement of the amount of life insurance in force.

Remarriage Rates of Surviving Spouses

Since the rights to some surviving spouse benefits terminate
upon remarriage,5/ this contingency also has to be included. For
this study, the remarriage rates for surviving spouse beneficiaries
are taken from tables 15 and 16 of an article in the Transactions
of the Society of Actuaries, Volume XXI, Part I, entitled "Mortality
and Remarriage Experience for Widow Beneficiaries under OASDI"
written by Francisco R. Bayo. Table 15 shows select and ultimate

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3/ The assumed annual nominal interest rate of 6.6% is obtained by
    compounding (i.e., multiplying) the assumed annual rate of inflation
    of 4.0% by the real interest rate of 2.5%. Thus 1.066 = (1.04)x(1.025).
4/ Due to the low mortality rates of persons at the younger ages, the
    death contingencies were disregarded for child beneficiaries (see
    Section C for details).
5/ Under the Social Security Amendments of 1977, after 1978, remarriage
    of a surviving spouse after age 60 would not reduce aged widow's
    or aged widower's benefits. This provision does not affect the
    insurance estimates for January 1, 1975-77, which are based on the
    law in effect at those times, and is not considered in the preliminary
    estimate for January 1, 1978. Before the 1977 Amendments, benefits to
    surviving spouses would either terminate or be reduced upon remarriage.

remarriage rates for widowed mother beneficiaries, while table 16 shows select and ultimate remarriage rates for aged widow beneficiaries. The two tables of remarriage rates were connected by gradually merging the widowed mother beneficiary remarriage rates into the aged widow beneficiary remarriage rates.

The published remarriage rates for both widowed mother beneficiaries and aged widow beneficiaries were based on 1960-62 OASI experience, that being the most recent data available for remarriage rates. Widowed father beneficiaries and aged widower beneficiaries are assumed to have the same pattern of remarriage as widowed mother beneficiaries and aged widow beneficiaries, respectively. This procedure should overstate the values for young surviving spouse benefits, because remarriage rates are currently higher than the 1960-62 experience, but would understate the aged spouse benefits, because few of them are currently terminated because of remarriage.

Earnings Test

Under the earnings test provisions of the law, some or all of the monthly benefits may be withheld if a beneficiary who has not attained age 72 (age 70 after 1981) earns more than a certain amount (depending on the amount of such earnings and on their timing). Many entitled survivor beneficiaries engage in substantial employment, and thus have benefits withheld for some months. Surviving spouses of female insured workers (i.e., aged widower beneficiaries and widowed father beneficiaries) are the category of beneficiaries most strongly affected by the earnings test provisions. Also heavily affected, but to a lesser extent, are young surviving widows.

Gross and Net Estimates

Two sets of estimates are developed in this study - "gross" and "net" estimates. The "gross" estimates do not take into consideration the effect of the earnings test on benefit receipt. Consequently, the "gross" estimates tend to overstate the amount of life insurance in force.

Another element of overstatement in the "gross" estimate is that a considerable number of widows become insured under OASI based on their own earnings record and draw their own primary benefits rather than survivors benefits. If their old-age benefit is greater than the widow's benefit, the latter is not payable; if it is less, only the excess of the widow's benefit over the old-age benefit is payable as a widow's benefit. Such effect is even more significant for widowers.

The "net" estimates represent an adjusted estimated "gross" amount of life insurance in force, to allow for the effect of the earnings test and to exclude the old-age benefit component of dually entitled widow and widower beneficiaries.

The chart below shows the adjustment factors that were used. This means, for example, that "net" child benefits were calculated as 99.8% of "gross" child benefits.

Adjustment Factors

Sex of Beneficiary	Type of Benefit			
	Aged Spouse	Young Spouse	Child	Parent
Male	5%	5%	99.8%	100%
Female	85%	85%	99.8%	100%

The above factors are based partly on OASI claims experience and partly on judgment. For example, eligible survivor beneficiaries who never file for benefits because of substantial earnings, never enter the OASDI statistical system. Their number must be estimated, because no accurate count is available. This problem accounts for most of the judgment elements in the adjustment factors. Additional judgment elements are due to incomplete data on the effect of the earnings test on the entitled survivor beneficiaries (those who are eligible and who file a claim, but whose benefits are withheld) and on the effect of dual entitlement of widows. It should be observed, however, that the "net" estimates shown fail to adjust for possible duplication of benefits in cases of orphan children both of whose parents were insured, a relatively negligible matter.

C. Methodology

This section is divided into two subsections. The first subsection is a general description of the methodology used in this study. The second subsection expands on the first, giving a fuller description of how the estimates were prepared. It is thought that the first subsection will serve as an aid to the reader who does not wish to study the details of the methodology, while also serving as a brief introduction of the second subsection.

General Description

The first step in the calculating procedure is to estimate the number of insured workers by single ages, sex, and marital status. The second step is to estimate the average primary insurance amount (PIA) and the average maximum family benefit (MFB) for deceased workers by single ages, sex, and marital status. Then estimates of family composition are made for married workers according to their age and sex.

For a given number of insured workers of a specified sex, age, marital status, and family composition (if married), a "gross" estimate of the amount of life insurance in force by benefit type is prepared by using the corresponding average PIA (and possibly the

corresponding average MFB if there are enough children in the assumed
survivor family). These amounts are summed over all ages and family
compositions to get a "gross" estimate for each sex and type of
benefit. Finally, the "gross" amounts by benefit types and sex
are added together to arrive at the total "gross" amount of life
insurance in force. Adjustment factors are applied to the "gross"
estimates by benefit type and sex to estimate the "net" amount of
life insurance in force.

Detailed Description

In estimating the equivalent amount of life insurance in force as
survivor benefits, the first step is to estimate the number of insured
workers by single ages who were alive on January 1 of 1975, 1976, and
1977. Such estimates are normally developed by the Office of the
Actuary for the Trustees Reports and are based on the Continuous
Work History Sample (CWHS). This is a representative sample of workers
covered by the system, from which various tabulations are annually
prepared. The numbers of insured workers are subdivided into two
categories: "fully insured" and "currently insured only". To these
were added the third category of "railroad insured", which is not a
part of the CWHS and was obtained on a rough basis from the Railroad
Retirement Board.

For the purposes of this study, all three types of insured workers
were combined by sex and single ages, except that for aged widow or
aged widower benefits, the estimated number of "currently insured
only" workers was not included.

The next step was to subdivide the estimated insured population
by broad marital status (married versus non-married). This was
derived from the Current Population Reports6/ by interpolating the
"proportion currently married" in each quinquennial age group to
arrive at the estimated "proportion currently married" at single
ages. These proportions were multiplied by the corresponding
number of insured workers to give the number of currently married
insured workers. The number of currently married insured workers
was subtracted from the total number of insured workers to give the
number of currently unmarried insured workers.

Next, the average PIA's by age, sex, and marital status of the
insured worker were estimated from data on 1974 OASI survivor benefit
awards under the then-current law. The average PIA's for January 1
of 1975, 1976, and 1977 were found by adjusting the 1974 survivor
benefit award PIA's to take into account the general benefit
increases that have become effective (8.0% on June 1975 and 6.4%
on June 1976) and to take into account an estimated annual rate of
intrinsic growth of 1.6% due to increases in the average monthly
wages under covered employment. The intrinsic rate of growth was

6/ Current Population Reports, Series P-20, Bureau of Census, U.S.
   Department of Commerce.

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estimated from the increase in the average survivor benefit award in excess of the automatic benefit increase as shown in successive editions of the Annual Statistical Supplement of the Social Security Bulletin.7/ The MFB's associated with the average PIA's were estimated from published tables showing the MFB as a function of the PIA.

Annuity factors at 2.5% interest were developed for aged widow beneficiaries, aged widower beneficiaries, mother beneficiaries, father beneficiaries, and child beneficiaries. The annuity factors for all surviving spouse beneficiaries were calculated by sex of the beneficiary and included the contingencies of mortality and remarriage. Annuity factors for child beneficiaries disregarded mortality, because it was believed that mortality at the young ages was practically negligible and, therefore, could be ignored without significantly affecting the precision of the estimates. All of the annuity factors assumed continuous payments, which is a close and convenient approximation to the actual monthly payments.

The distribution of family composition of married workers was estimated on the basis of both population data8/ and OASI survivor benefit claim statistics. From the latter, the average difference between the age of the worker and the age of the worker's spouse was roughly estimated. From population data, the percentages of married worker families with zero, one, two, three, or four children respectively, were estimated by age of worker. Also from population data, the average age of the youngest child for families of various sizes and the median age interval between children for families of various sizes were estimated. From these data, the average ages of the children for families of various sizes and for workers of various ages were estimated.

For each "sex of worker-family size-age of worker" cell, the annuity factors for various types of beneficiaries were multiplied by the average PIA of the worker and also by the various proportions of PIA that according to the law are payable to survivors (e.g., 75% for mother's, father's, and child's benefits) in cases where the family composition was not large enough to require MFB considerations. In cases where the family composition included two or more children, the average MFB was used in computing the present value of survivors benefits. The present values of benefits by type of beneficiary were summed, first by age of worker and then by size of family to arrive at the present value of survivors benefits for each sex of married worker.

Because a lump-sum death benefit is paid whether or not the insured worker was married, the amount of insurance protection under lump-sum payments was estimated by multiplying $255 (the lump-sum amount) by the number of insured workers.

7/ In the 1975 Annual Statistical Supplement the data were taken from table 70. In 1973 and 1974, the required tables were tables 66 and 67, respectively.

8/ Current Population Reports, Series P-20, Bureau of Census, U.S. Department of Commerce.

Parent beneficiaries are relatively few in number and receive a relatively small proportion of total survivor benefits. Also, data relating the age of parent beneficiaries to the age of the deceased worker at the time of parent benefit award are not available. For these reasons, the estimate of the amount of life insurance in force in the form of parent's benefits was not made by sex and by single age of worker. Instead, the ratio of the number of parent awards to deaths of insured workers was estimated from available data and multiplied by the estimated total number of insured workers so as to give the estimated number of potential parent beneficiaries on each effective date. This was multiplied by the average of the present values of the annualized parent benefit payments to male and female beneficiaries. Where needed, the resulting estimate for each effective date was apportioned between the number of male and female insured workers by the ratio of the number of male insured workers to the total number of insured workers.

Benefits to mother beneficiaries and to father beneficiaries were assumed to end when the youngest child attained age 18. The possibility of continuation of entitlement due to disability of the child was disregarded. Their deferred aged survivor benefits were assumed to commence at age 60 of the beneficiary, the earliest allowable age for aged widow and aged widower benefits. Similarly, young surviving spouses not entitled to benefits because they have no dependent children were assumed to commence drawing deferred benefits at age 60. It should be noted that aged widow and aged widower benefits which start at ages under 65 are permanently actuarially reduced.

Benefits to survivor children were assumed to continue in all cases until age 18, with 62.5% of the number of benefits continuing until age 22. This ratio was developed on the basis of the number of student-child continuance awards at age 18 and of the number of child benefit termi- nations at age 18, as shown in the 1975 Annual Statistical Supplement of the Social Security Bulletin. This assumption represents an overstatement of student-child benefits, because many student-child benefits are terminated before attainment of age 22. We believe this overstatement is offset in two ways: (1) no account was taken of awards to surviving student-child beneficiaries at ages 18 to 21 who had not received child's benefits before age 18; and (2) all benefits to disabled children were ignored. While it would have been preferable to have estimated the present value of student-child benefits more accurately and to have included the present value of disabled child benefits, the data on both types of benefits are somewhat scarce and lack the necessary detail. Under these circumstances it was believed that the use of the offset procedure was appropriate and would cause little inaccuracy.

One possible problem with the methodology as described so far concerns the use of assumed average ages in the calculation of the survivor children benefits, instead of full distributions. However, some tests showed the error to be only minor.9/

The present values of all types of benefits for a given effective date were added together to obtain the total "gross" estimate of the amount of life insurance in force on that effective date. The "gross" estimate was adjusted, as discussed in Section B, to eliminate all elements of duplication and thus obtain a "net" estimate.

As mentioned in the introduction, this study also examines the concept of annual "cost of insurance", which represents the net single premium which would cover the present value of all future benefit payments that will be made as a result of deaths of insured workers in the calendar year. The average annual cost of insurance per insured person was estimated by multiplying the "net" estimate of the amount of life insurance in force per insured worker by appropriate death rates according to the age and sex of the insured worker.

D. Analysis of Results

In considering the results of this study, allowance should be made for the limitations of the data used and the approximations that were needed to develop the estimates. In particular, the assumption that the actual family composition followed the patterns indicated by the data used may be subject to criticism, because the data came from different sources and introduced some inconsistencies. Unfortunately, completely consistent data from a single source are not available.

Table 1 summarizes the estimated amount of life insurance in force as of January 1 of 1975, 1976, and 1977 by type of benefit and by sex of the insured worker under the "gross" and "net" bases. This table shows that the total "gross" estimate increased by about 19% during 1975 (from $2,668 billion to $3,164 billion) and by about 11% during 1976 (from $3,164 billion to $3,514 billion). The corresponding increases for the total "net" estimate are 13% and 11%, respectively. Part of the reason why the rate of increase declined over the two-year period is that father's benefits were first included during 1975 (due to a Supreme Court decision). In addition, the automatic benefit increase of 8.0% effective June 1975 was larger than the automatic benefit increase of 6.4% effective June 1976. The lower rate of increase for the "net" estimate for 1975 is due to the fact that the new father's benefits would not be payable in virtually all cases because of the effect of the earnings test. The distribution of the amount of life insurance in force by type of benefit based on the "net" estimates was approximately 28% for aged surviving spouse benefits, 11% for young surviving spouse benefits, 60% for child benefits, negligible for parent benefits, and 1% for lump-sum death benefits. An analysis by sex showed that the male insured workers had about 79% of the total "net" insurance in force.

9/ Hypothetical survivor families composed of one, two, three, and four children were considered.

Table 2 gives both "gross" and "net" estimates of the amount of life insurance in force as of January 1, 1977, by age and sex of the worker and by type of benefit. About 67% of the "net" amount of life insurance in force was on insured workers aged 25-44.

Table 3 shows the estimated average life insurance protection per insured worker by age and sex of the insured worker on January 1 of 1975, 1976, and 1977. The figures in this table were computed by dividing the "net" estimates of the amount of life insurance in force for each age-sex cell and for each effective date by the corresponding estimates of the number of insured workers. The table shows that the estimated averages reached a maximum at ages 30-34 for male insured workers and at ages 25-34 for female insured workers. This pattern reflects the substantial effect of child's benefits.

Table 4 shows the estimated average annual cost of life insurance protection per insured worker by age and sex of the insured worker during 1975, 1976, and 1977. These figures are also based on the "net" estimates and were computed by applying, by age and sex, the appropriate probability of death within one year to the estimated average life insurance protection per insured worker in Table 3. It should be mentioned that the average annual cost was computed on a net premium basis; that is, no allowance was made for administrative expenses.

As might be expected, for male insured workers, the average costs increase from a very low level at ages under 20 until they reach a rather high level at ages 75 and over. This cost pattern reflects the sharply increasing trend of mortality by age for males and tends to conceal the fact that young male workers actually have greater insurance coverage. For female insured workers, the average annual costs reach a relative maximum at ages 30-34, decline to a relative minimum at ages 45-49, and increase steadily thereafter.

E. Comparison with Other Life Insurance Protection

As indicated in the introduction, the amount of life insurance in force as survivor benefits under the OASI system could be regarded as analogous to the amount of insurance in force in a private life insurance company. There are, however, important points of difference between benefits under the Social Security system and benefits under private insurance programs. One difference is that private insurance protection is a contractual obligation, while Social Security protection is a statutory relationship between the system and its participants. Another difference is that the amount of protection offered in private insurance is generally specific in its amount, while the Social Security protection is constantly varying its amount as the marital and family status of the worker changes. Nevertheless, it is of interest to compare the estimates of the amount of insurance in force under OASI with the amounts of insurance in force under private organizations, and under the insurance programs administered by the Veteran's Administration, by the Civil Service Commission, and by a few other agencies of the Federal Government. Table 5 shows a comparison of the life insurance protection.

Not included in table 5, however, is a considerable amount of
life insurance in force as survivor benefits under the retirement
programs for employees of State and local governments, railroads
under the Railroad Retirement Act in excess of the OASDI benefit level,
and certain agencies of the Federal Government not covered under Civil
Service Retirement, because data were not available at the time that
this study was written. Private pension plans also have a substantial
amount of survivor protection in force that is not included in table 5.
No attempt has been made to estimate the amount of life insurance in
force not so included.

F. Preliminary Estimate for January 1, 1978

A rough "net" estimate of the amount of life insurance in force as
survivor benefits under OASI has been made for January 1, 1978. This
estimate is $3.1 trillion.

The estimate was made by projection from the detailed estimates for
January 1 of 1975, 1976, and 1977, respectively. The percent increases
in (1) PIA's due to growth in the CPI, (2) the estimated number of insured
workers, (3) the estimated amount of survivor benefits awarded, and (4) the
"residual growth"10/ were projected separately for the more important types
of benefits (widow's benefits, mother's benefits, and child's benefits).
These percent increases were added for each type of benefit and applied
to the corresponding "net" estimate of the amount of life insurance in
force on January 1, 1977, to get the "net" estimate of the amount of
life insurance in force for each type of benefit. The amounts of life
insurance in force for the other survivor benefit types were relatively
small and were therefore assumed to remain constant or very nearly so.

The reader is cautioned not to graphically extrapolate the above
estimates (final for January 1 of 1975-77 and preliminary for January 1
of 1978) into the future. The effect of the 1977 Amendments to the Social
Security Act, which is expected to be significant, will begin to be
reflected in survivors benefits in 1979. The benefit formula in the 1977
Amendments will result in average PIA's that are between 6% and 30% lower
than they would have been under the previous law. This implies that on
the average the 1977 Amendments, due to "decoupling", reduced the "net"
survivors protection by about 20% for 1979 and by higher amounts in
the future from the net amounts that would have been in effect under
prior law.

10/ "Residual growth" is the growth due to all other factors.

Table 1

Summary of Estimated Amount of Life Insurance in Force
as OASI Survivor Benefits, January 1, 1975-77
(In Billions)

Sex of Insured and Type of Benefit	"Gross" [1] Estimate as of:			"Net" [1] Estimate as of:		
	1/1/1975	1/1/1976	1/1/1977	1/1/1975	1/1/1976	1/1/1977
Total: Both Sexes	$2,668	$3,164	$3,514	$2,269	$2,556	$2,829
Aged Surviving Spouse	980	1,102	1,226	628	706	785
Young Surviving Spouse	292	490	558	248	281	317
Child	1,363	1,538	1,695	1,360	1,535	1,692
Parent	2	2	2	2	2	2
Lump-Sum	31	32	33	31	32	33
Men: Total	1,945	2,181	2,384	1,793	2,012	2,196
Widow	721	810	901	615	691	769
Mother	292	321	361	248	273	307
Child	913	1,031	1,103	911	1,029	1,101
Parent	1	1	1	1	1	1
Lump-Sum	18	18	18	18	18	18
Women: Total	723	983	1,130	476	544	633
Widower	259	292	325	13	15	16
Father	---	169	197	---	8	10
Child	450	507	592	449	506	591
Parent	1	1	1	1	1	1
Lump-Sum	13	14	15	13	14	15

1/ See the text for a detailed description of these terms.

NOTE: All figures are individually rounded and may not add exactly to the totals shown.

Table 2

Estimated Amount of Life Insurance in Force as of January 1, 1977
Distribution by Age and Type of Benefit
(In Billions)

Male Insured — "Gross"1/ Estimate

Age of Insured	Total	Widow	Mother	Child	Parent	Lump-Sum
	$2,384	$901	$361	$1,103	$ 1	$ 18
All Ages	$2,384	$901	$361	$1,103	$ 1	$ 18
Under 20	4.8	.2	.7	2.8	.2	.9
20-24	137.6	6.5	25.5	102.9	.3	2.4
25-29	423.8	30.8	92.6	297.6	.3	2.4
30-34	472.7	47.2	105.6	317.8	.2	1.9
35-39	360.0	60.0	78.0	220.4	--	1.6
40-44	220.1	66.8	41.6	110.3	--	1.4
45-49	135.7	85.7	12.8	35.8	--	1.4
50-54	115.8	102.7	2.5	9.2	--	1.4
55-59	123.4	116.0	1.3	4.8	--	1.3
60-64	129.3	126.3	.4	1.5	--	1.1
65-69	125.5	124.6	--	--	--	.9
70-74	80.0	79.4	--	--	--	.6
75 & Over	55.2	54.5	--	--	--	.7

Male Insured — "Net"1/ Estimate

Age of Insured	Total	Widow	Mother	Child	Parent	Lump-Sum
	$2,196	$769	$307	$1,101	$ 1	$ 18
All Ages	$2,196	$769	$307	$1,101	$ 1	$ 18
Under 20	4.7	.2	.6	2.8	.2	.9
20-24	132.8	5.6	21.7	102.8	.3	2.4
25-29	404.8	26.4	78.7	297.0	.3	2.4
30-34	449.4	40.3	89.8	317.2	.2	1.9
35-39	339.1	51.2	66.3	220.0	--	1.6
40-44	204.0	57.1	35.4	110.1	--	1.4
45-49	121.3	73.2	10.9	35.8	--	1.4
50-54	100.3	87.6	2.1	9.2	--	1.4
55-59	106.2	99.1	1.1	4.7	--	1.3
60-64	110.7	107.8	.3	1.5	--	1.1
65-69	107.2	106.3	--	--	--	.9
70-74	68.4	67.8	--	--	--	.6
75 & Over	47.2	46.5	--	--	--	.7

Female Insured — "Gross"1/ Estimate

Age of Insured	Total	Widower	Father	Child	Parent	Lump-Sum
	$1,130	$325	$197	$592	$ 1	$ 15
All Ages	$1,130	$325	$197	$592	$ 1	$ 15
Under 20	7.9	.2	1.4	5.4	.2	.7
20-24	145.7	8.3	32.4	102.8	.3	1.9
25-29	298.8	20.3	66.9	209.2	.3	2.1
30-34	241.8	25.1	55.4	159.5	.2	1.6
35-39	132.4	24.9	28.4	77.9	--	1.2
40-44	63.5	27.6	9.5	25.3	--	1.1
45-49	44.0	35.4	1.7	5.8	--	1.1
50-54	47.4	42.0	.9	3.4	--	1.1
55-59	48.9	45.9	.4	1.6	--	1.0
60-64	42.6	40.9	.1	.7	--	.9
65-69	32.5	31.8	--	.1	--	.7
70-74	15.7	15.2	--	--	--	.5
75 & Over	8.5	7.8	--	--	--	.7

Female Insured — "Net"1/ Estimate

Age of Insured	Total	Widower	Father	Child	Parent	Lump-Sum
	$633	$ 16	$ 10	$591	$ 1	$ 15
All Ages	$633	$ 16	$ 10	$591	$ 1	$ 15
Under 20	6.4	--	.1	5.4	.2	.7
20-24	106.8	.4	1.6	102.6	.3	1.9
25-29	215.6	1.0	3.4	208.8	.3	2.1
30-34	165.0	1.2	2.8	159.2	.2	1.6
35-39	81.6	1.2	1.4	77.8	--	1.2
40-44	28.3	1.4	.5	25.3	--	1.1
45-49	8.7	1.7	.1	5.8	--	1.1
50-54	6.6	2.1	--	3.4	--	1.1
55-59	4.9	2.3	--	1.6	--	1.0
60-64	3.7	2.0	--	.8	--	.9
65-69	2.4	1.6	--	.1	--	.7
70-74	1.2	.7	--	--	--	.5
75 & Over	1.1	.4	--	--	--	.7

1/ See text for a detailed description of this term.

NOTE: All figures are individually rounded and may not add exactly to the totals shown.

Table 3

Estimated Average Life Insurance Protection1/ Per Insured Person
(In Thousands)

Age of Insured	Male Insured			Female Insured		
	1/1/1975	1/1/1976	1/1/1977	1/1/1975	1/1/1976	1/1/1977
All Ages	$26.1	$28.8	$30.8	$ 9.0	$ 9.9	$11.1
Under 20	1.1	1.5	1.3	2.7	2.5	2.4
20-24	12.3	13.0	14.0	12.3	12.3	14.3
25-29	36.9	40.2	42.6	21.4	24.5	26.6
30-34	51.1	55.4	58.9	22.1	23.9	26.2
35-39	45.9	50.8	54.4	13.8	15.2	17.4
40-44	32.4	35.0	37.1	5.0	5.5	6.6
45-49	19.3	20.7	22.0	1.7	1.7	2.0
50-54	14.8	16.3	17.9	1.3	1.5	1.5
55-59	18.2	19.5	21.0	1.1	1.2	1.2
60-64	21.6	23.9	25.7	1.0	1.1	1.1
65-69	23.8	28.5	31.0	.8	.8	.9
70-74	22.3	26.2	28.0	.6	.6	.6
75 & Over	12.8	14.9	16.1	.4	.4	.4

1/ Based on "net" estimate of life insurance in force. See the text for a detailed description of this term.

NOTE: All figures are individually rounded and may not add exactly to the totals shown.

Table 4

Estimated Average Annual Cost of Life Insurance Protection[1]/ Per Insured Person, 1975-77

Age of Insured	Male Insured			Female Insured		
	1975	1976	1977	1975	1976	1977
Under 20	$ 1.89	$ 2.58	$ 2.24	$1.73	$1.60	$1.54
20-24	25.22	26.65	28.70	8.00	8.00	9.30
25-29	60.88	66.33	70.29	15.41	17.64	19.15
30-34	93.51	101.38	107.79	21.44	23.18	25.41
35-39	117.50	130.05	139.26	20.15	22.19	25.40
40-44	132.52	143.15	151.74	11.50	12.65	15.18
45-49	129.89	139.31	148.06	6.22	6.22	7.32
50-54	159.99	176.20	193.50	7.15	8.25	8.25
55-59	317.59	340.28	366.45	9.01	9.83	9.83
60-64	573.91	635.02	682.85	12.03	13.23	13.23
65-69	946.53	1,133.44	1,232.87	15.06	15.06	16.95
70-74	1,261.06	1,481.61	1,583.40	18.29	18.29	18.29
75 & over	1,339.65	1,559.43	1,685.03	28.51	28.51	28.51

1/ Based on "net" estimate of life insurance in force. See the text for a detailed description of this term.

Table 5

Comparison of Life Insurance Protection: OASI, Other Government,
and Private Insurance
(In Billions)

	Estimated Amount of Life Insurance in Force as of:		
	1/1/1975	1/1/1976	1/1/1977
Total	$4,386.6	$4,834.9	$5,317.8
Old-Age and Survivors Insurance 1/	2,269	2,556	2,829
Veterans Administration			
Total	35.8	35.3	34.7
U.S. Government Life Insurance (World War I)	.6	.6	.6
National Service Life Insurance (World War II)	27.2	26.8	26.3
Veteran's Special Term Insurance (Korean Conflict)	5.2	5.1	5.1
Service Disabled Veterans Insurance (Korean Conflict)	1.4	1.5	1.5
Veterans Reopened Insurance	1.3	1.3	1.2
Civil Service Commission	54.0	58.0	60.6
Miscellaneous Government Systems 2/	.6	.6	.7
Private Insurance 3/			
Total	2,027.2	2,185.0	2,392.8
Ordinary Insurance	1,009.0	1,083.4	1,177.7
Group Insurance	827.0	904.7	1,002.6
Industrial Insurance	39.4	39.4	39.2
Credit Insurance	109.6	112.0	123.6
Fraternal Insurance	34.8	37.3	40.7
Savings Bank Insurance	7.4	8.2	9.0

1/ Based on "net" estimate of life insurance in force. See the text for a
detailed description of this term.

2/ Includes the Tennessee Valley Authority, Foreign Service, Washington, D.C.
police, fire and teacher systems.

3/ Source: Life Insurance Fact Book 1978, Institute of Life Insurance.

NOTE: All figures are individually rounded and may not add exactly to the
totals shown.

ESTIMATED AVERAGE AMOUNT OF LIFE INSURANCE IN FORCE
UNDER SOCIAL SECURITY FOR MALE WORKERS ON JANUARY 1, 1977