

**TRANSACTIONS OF SOCIETY OF ACTUARIES
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GROUP INSURANCE

1. (a) In continuing group life insurance on retired employees, is it more satisfactory to purchase the insurance by payment of a single premium at retirement rather than to use the regular one-year term method?
- (b) If the single premium method is used, on what basis are the single premiums calculated and how is such insurance treated with respect to participation in surplus?
2. What problems are involved in the continuation of group hospital insurance after the retirement of an employee, and how are these solved?

MR. H. J. STARK stated, in referring to subdivisions 1(a) and (b), that continuation of group life insurance for retired employees has become a major question for such reasons as the rapid spread of retirement plans, collective bargaining developments, increased amounts of group insurance and the aging of the employed population. Continuation of full term insurance after retirement results in unsatisfactory increased cost whereas discontinuance of insurance at retirement is a deterrent to retirement of impaired lives. Therefore his company (the Metropolitan Life) recommends and often requires continuation of reduced insurance for retired employees, reduction taking place either at retirement or at a fixed age, and either in one step or in a series of steps. It would be more advantageous to all for the employer to provide paid-up insurance after retirement, but unfortunately the use of this method is currently hampered by the possibility that the Treasury Department will, somewhat illogically, rule adversely as to the tax aspects of such a plan.

For single premium group rates Mr. Stark reports that his company used the American Men Table with $2\frac{1}{4}\%$ interest and a loading approximately equal to the commuted value of loadings which would be paid if the insurance were continued on a term basis. Dividends for this form must reflect proper provision for future expenses and contingency reserves as well as claims.

Regarding subdivision 2, Mr. Stark stated that continuance of hospitalization insurance (as well as surgical insurance for employees and such coverages for dependents) after retirement, which is sometimes requested, introduces a substantial underwriting problem because of the increase in risk with age. His company is experimenting with continuance after retirement with aggregate benefits limited to the maximum amounts which would be paid for any one period of disability if the employee were

active. For such limited continuance no specific increase in premium seems to be required, but it is advisable for the employer to absorb the employee's normal contributions. It is hoped that experience will permit liberalizing this arrangement.

MR. W. M. RAE pointed out that there are a number of methods of providing insurance after retirement. In addition to continuation of term insurance, or the use of single premiums at retirement, portions of the insurance may be purchased at two or more advanced ages with corresponding reduction in group term insurance. Also, the insurance may be provided by a level premium group permanent plan, or by a method of purchasing small increments of paid-up insurance for each employee over a period of years. In the latter case a fixed unit of paid-up insurance may be purchased each year, or a "money purchase" method may be used with a regular premium providing increments decreasing with age, supplementary one year term insurance reducing correspondingly. Most such plans have been on the "money purchase" basis with employees paying the whole cost of the paid-up insurance. Only under group permanent plans, or under those providing accumulating increments over a long period of years, can employees pay a substantial part of the cost of their post-retirement insurance, a point that is important in current labor negotiations. Mr. Rae also brought out that when we take the position that pay-as-you-go industrial pensions are unsound the analogy in life insurance suggests advance funding for insurance after retirement, especially since vesting of such insurance is not easily arranged otherwise. He expressed faith that the current tax uncertainties in the methods discussed will eventually be satisfactorily resolved.

MR. R. G. ESPIE set forth reasons for adoption of advance funding of post-retirement insurance including (1) desire to forestall increasing term insurance costs (see Cammack, *TASA XLI*) and to commute future costs into current prosperous high tax years, (2) recognition of true cost-accounting for current share of accruing liability for pensioners' insurance and unwillingness to saddle future management with full cost for future pensioners, (3) security for pensioners independent of continuation of group insurance plan, now being demanded by unions, and (4) desire to transfer to the insurance company burden of administration of insurance for ex-employees. He brought out, on the other hand, reasons for lack of widespread advance funding provision including (1) inertia, (2) failure of insurance companies to convince employers of seriousness of problem, (3) lack of ready cash and unwillingness of management to undertake cost that may be postponed, and (4) uncertainty as to whether single pre-

miums are deductible business expenses in the employer's tax return and effect on taxable income of insured pensioner.

His company has developed a group life plan with paid-up amounts purchased in increments by employee contributions over a period of years. These may be possibly supplemented after retirement by the employer with term insurance or single premium insurance to total a satisfactory amount, most popularly 50% of pre-retirement insurance. They also carry a number of plans under which the post-retirement insurance is purchased at or shortly before retirement, and various combinations are possible.

Mr. Espie's company requires that single premium insurance purchased by employer at retirement be noncancellable, thus avoiding surrender value problems and establishing a better case for tax reduction for the employer and possibly for the pensioner since he receives no property of immediate value that he can deal with or realize in cash. To avoid financial anti-selection and to help avoid adverse tax rulings, his company will not permit widely variable purchase payments at the employer's option. The paid-up insurance is usually handled under a rider to the basic group policy and the amounts and eligibility must be determined on a basis precluding individual selection. This insurance is carried on a strictly nonparticipating basis in contrast to the experience rating basis used for the basic term insurance, and the premiums are necessarily lower than those for ordinary insurance since the opportunity for employer-paid conversion to an ordinary policy is usually open. The commission element of expenses is held quite low because the arrangement is considered almost purely a service feature. Reserves are held on the CSO $2\frac{1}{2}$ % basis for all paid-up group insurance.

MR. M. H. BEACH listed the arguments in favor of continuation of group term insurance after retirement as simplicity, flexibility and economy of administration. The disadvantage of a continuously rising cost can be logically offset by reducing the amount of insurance, since the insurance needs are lower after retirement and the employee's wife on reaching age 65 acquires an immediate valuable benefit of a Social Security income payable to her after her husband's death. The use of paid-up insurance instead of term will further reduce costs and it has other advantages as discussed by previous speakers. For this purpose Mr. Beach favors employer purchases of paid-up insurance at retirement over plans involving regular purchase of small amounts of paid-up insurance while the employee is active, because the latter is expensive to administer. However, his company issues plans using such employer purchases only after a clear

statement of the uncertainty as to the employees' tax status. He pointed out that this tax problem is not great if the amounts are limited to needs and it can be alleviated by purchasing a percentage of the ultimate amount each year over a few years prior to retirement.

In order to illustrate the effect of alternative methods, Mr. Beach prepared some stationary population cost estimates assuming mortality follows the 1932-39 Group Non-Hazardous Table and that the employer's final cost will average out to actual claims plus 12% for expenses, etc. Using sample age distributions taken from large, stable companies and illustrative turnover rates, the figures set forth in the following table were produced. The costs for both active and retired lives are expressed as monthly costs per active employee for each \$1,000 of insurance while active.

This table shows that a reduction in amount of insurance after retirement produces a substantial reduction in cost, but the use of paid-up insurance effects only moderate savings unless the plans are contributory, as may be expected from the fact that most deaths occur after age 65, and the only saving in the paid-up program is interest earned on reserves.

For group paid-up insurance Mr. Beach's company uses American Men Ultimate 2½% net single premiums. The insurance is combined with the term insurance for experience rating purposes.

**EMPLOYER'S MONTHLY COST PER ACTIVE EMPLOYEE FOR AN AVERAGE* OF \$1,000
OF INSURANCE ON ACTIVE LIVES AND INDICATED PERCENTAGES OF
FINAL AMOUNT ON RETIRED LIVES**

% OF INS. CONTINUED ON RETIRED LIVES	PLAN OF INSURANCE USED FOR PENSIONERS				% SAVING TO EMPLOYER BY USE OF PAID-UP INS.	
	Term		Paid-Up		Contrib.†	Noncontrib.
	Contrib.†	Noncontrib.	Contrib.†	Noncontrib.		
	No Withdrawals					
100%.....	\$1.91	\$2.51	\$1.46	\$2.06	24%	18%
75.....	1.48	2.08	1.14	1.74	23	16
50.....	1.05	1.65	.82	1.42	22	14
25.....	.62	1.22	.50	1.10	19	10
0.....	.19	.79	.19	.79	0	0
	10% Withdrawals (Graded from 30% at 20 to 0% at 64)					
100%.....	\$1.17	\$1.77	\$.89	\$1.49	24%	16%
75.....	.90	1.50	.69	1.29	23	14
50.....	.63	1.23	.49	1.09	22	11
25.....	.36	.96	.29	.89	19	7
0.....	.09	.69	.09	.69	0	0
	20% Withdrawals (Graded from 50% at 17 to 0% at 64)					
100%.....	\$.41	\$1.01	\$.38	\$.87	7%	14%
75.....	.28	.88	.29	.78	××	11
50.....	.15	.75	.19	.68	××	9
25.....	.02	.62	.10	.59	××	5
0.....		.49		.49	××	0

* Amount of insurance graded by ages as follows:

Ages	Amount	Ages	Amount
Under 23.....	\$2,300	38-42	\$3,320
23-27.....	2,600	43-47	3,480
28-32.....	3,050	48-64	3,500
33-37.....	3,150		

† Active lives only contribute \$.60 per \$1,000 monthly, or actual cost if less.