

GROUP LIFE INSURANCE

- A. In the light of the information on mortality under conversions recently published by the Committee on Group Mortality and Morbidity of the Society of Actuaries, what are the current practices in determining the Group Life conversion charge the Ordinary branch makes to the Group branch?
- B. What methods are used to allocate the cost of conversions to Group Life insurance policies for dividend or premium rate adjustment purposes?
- C. Are agents allowed compensation for selling individual policies to standard risks when a conversion privilege is available, and how do this and other procedures affect the mortality on converted policies?
- D. What reserves are being established to take care of conversions which arise as a result of termination of the Group master policy?

MR. M. J. WOOD referred to the paragraph in the 1941-47 Report of the Group Mortality Committee on Group Conversion Experience shown in *TASA XLIX*, 526, and stated that The Travelers made a restudy of the charges needed for Group Conversions using E. E. Cammack's methods, *TASA XXXIII* and *XLI*, to derive the average single premium charge. Mortality assumed was their 1914-47 Group Conversion Experience (recent years providing the bulk of the exposure) for the first fifteen policy years and 115% of the AM^b Table thereafter to represent average mortality over a whole economic cycle. Interest assumed was 2½% and withdrawals were based on their own experience. An average charge of approximately \$65 per \$1,000 of converted insurance was developed reproducing the result of their previous study, so they have continued the use of this figure both for experience rating and for determining the transfer of funds between the Group and Ordinary accounts.

No commissions are paid by The Travelers on Group Conversions but under a practice adopted several years ago commissions are paid if the applicant is under age 60 and is employed and an agent submits an application for a regular policy which receives underwriting approval. Since this practice has the effect of siphoning off many of the healthier lives it may lead to higher Group Conversion mortality than shown in the 1941-47 experience, particularly in the ultimate years.

It is Mr. Wood's feeling that conversion on termination of the Group master policy will prove to be an expensive problem. A study of such conversions now being considered by the Group Mortality Committee would be confined to a short prosperous period with limited exposure so it cannot be expected to produce the real long-range answer. Liberalization of this provision up to \$4,000 insurance after three years' coverage

would seem untimely until we have a better idea of the cost of the present provision.

MR. W. M. RAE, in referring to section B, stated that conversion costs for Group Life dividends could be allocated by either charging the same percentage of group premiums for all cases or charging each case \$*N* per \$1,000 of insurance converted. The percentage of premium method is not only simpler but more equitable since in practically every case there is a definite percentage of poor lives, say 1%, who are going to convert in any event. If the conversion rate in certain cases is, say, 5%, it is reasonable to believe that the 4% additional are better lives than the first 1%. If the commissions and other savings on the 4% group offset their extra mortality, then the actual conversion cost in both instances is the same. The percentage of premium method produces this result, but the \$*N* per \$1,000 method implies that the actual conversion cost is five times as great on the one case as on the other. The true answer probably lies between the two methods but closer to the percentage method. Although the conversion privilege is socially desirable, the \$*N* per \$1,000 converted method gives the employer an incentive to discourage conversions.

MR. J. M. BOERMEESTER stated that the over-all improvement in mortality shown by the Group Committee report is not as great as indicated by the comparison of the aggregate mortality ratios with those of earlier conversion studies because the large apparent aggregate gain arises from the heavy weighting of exposures for the early durations where the improvement has been relatively the greatest. Withdrawal rates show decreases which may or may not become a permanent characteristic. An improvement in the persistency while favorable for standard issues does not have the same favorable financial results on converted policies since it increases the amount of business subject to the higher mortality rate. The improvement in combined mortality and withdrawal may be more than offset by mortality improvement on standard issues. In adopting a new conversion charge, a company should also evaluate its own expense patterns as well as plan and age distribution on new conversions.

Mr. Boormeester analyzed a hypothetical medium-sized Company A, which last computed conversion charges in 1940 on intercompany experience *TASA XXXIII*. In deciding to recompute charges it noted that its underwriting, commission payment and volume of conversions rated substandard because of occupation might make the rates recently published applicable to its converted business. A preliminary analysis was then made of the death benefit cost alone based on the old and new experiences by applying select mortality rates on amounts at risks for the first fifteen policy years and discounting at 3% interest, death and withdrawal. This

resulted in decreases in the present value of the death benefit per \$1,000 insurance on the Life Paid-up at Age 85 Plan of \$12.30 at age at issue 30, \$3.10 at age 50, and \$26.40 at age 70, with an average decrease of \$8.10. But Company A's mortality studies indicated that standard mortality improvement might reasonably be measured by the excess of the select mortality rates corresponding to the 1925-39 Basic Table over the rates in Elston's 1939-44 Table. The present value of the improvement on standard issues at ages over 30 was greater and at ages under 30 less than the improvement indicated for conversions, with an average decrease in death benefit value of \$19.40 per \$1,000 insurance. The difference between \$19.40 and \$8.10, or \$11.30, would be the increase in conversion charge without considering expense studies and plan and age distribution.

MR. F. W. ELLEY outlined the methods and practices of the Metropolitan. Submission of an ordinary application along with a conversion application is allowed if an ordinary policy with waiver disability is applied for. If the applicant qualifies for the ordinary policy with waiver disability the insurance is placed as an ordinary issue with the agent receiving full first year and renewal commissions and service fees. Otherwise the insurance is placed as a group conversion with reduced commissions and service fees. As compared to the company's practice before 1949 of not encouraging regular ordinary applications, this practice has not thus far shown any conclusive evidence of having resulted in a reduction in the number of cases issued as conversions or in a higher average mortality on such cases.

Studies in mortality, interest, expense and withdrawal rates used in the calculation of conversion charges to the Group branch are made by Metropolitan about every three years and experience differs materially from other contributors to the intercompany study. The average charge, rounded to nearest \$5 per \$1,000 of converted insurance, is recalculated annually from the basic factors for each plan and age, giving close attention to trends in distribution of issue by plan and age and to increased mortality from changes in underwriting practice.

The Metropolitan's formula for obtaining a charge for conversion to participating insurance based on the differences in the costs of converted policies and regular issues is convenient and simple in application.

Cost of Group Conversion =

$$\frac{1}{D'_{[x]}} \sum_{t=1}^{\infty} D'_{[x]+t-1} [({}_tE'_{[x]} - {}_tE_{[x]}) + v(q'_{[x]+t-1} - q^d_{[x]+t-1}) \\ \times (1000 - {}_tCV_{[x]}) + vq'_{[x]+t-1}({}_tH_{[x]})]$$

where

$$D'_{[x]} = v^x l'_{[x]} \quad \text{and} \quad l'_{[x]}$$

is based on group conversions mortality and lapse rates,

- ${}_tE_{[x]}$ = t th year expenses,
- ${}_tCV_{[x]}$ = t th year cash value, and
- ${}_tH_{[x]}$ = the additional value over normal of the insurance nonforfeiture benefit granted at lapse of converted policies in the t th year.

The primed functions are based on the group conversion experience and the unprimed on the experience of the regular issues.

Mr. Elley stated that as soon as the transfer of the cost of conversion is made, dividend earnings are equally shared by both converted policies and regular issues. The conversion charge is considered a nonparticipating, nonassessable single premium paid to the Ordinary department and any differences which develop from future studies enter only into modifications of the conversion charge for future issues. A direct charge to the group incurring the conversions is made in the amount of the average charge multiplied by the amount of insurance converted out of the group. Charges are reversed on conversions rescinded as, for example, when death occurs on a life continually disabled from date of termination of employment where the death is charged to the Group Policy.

Conversion costs on termination of Group master policies can only be roughly estimated because future changes in economic conditions could very well bring about greater costs. Contingency reserves in addition to epidemic reserves should be established, especially if present statutory provisions are liberalized. For the annual statement the claim reserves, and a small reserve for deaths occurring within 31 days of termination of master policies during December, are the only reserves specifically set up for terminated Group one-year term policies.

MR. H. L. FEAY stated that the larger companies make their own investigations for conversion charges about every five years. One large company computed a \$75 per \$1,000 charge based on 1943 to 1945 conversion mortality graded to standard for the twentieth policy year. Other assumptions were based on company's actual experience. Another large company developed a \$70 per \$1,000 rate from investigations made in 1947 and 1949 using 1943 through 1946 mortality for both conversions and standard issues and assuming for conversions standard mortality at ages 85 and over. The company with the \$75 rate made calculations on an asset share basis while the \$70 rate company made the calculations using a discount formula. In both of these companies Mr. Feay questioned whether the extra conversion mortality ran out after the assumed periods

of twenty years or after age 84. An additional problem that should be given more consideration is whether an average charge should be made or whether charges should vary by plan and age since the older ages require substantially larger charges, the ordinary life plan showing a \$22 charge per \$1,000 at age 30 and a \$180 charge per \$1,000 at age 59.

Extra reserves for conversions can be set up on the basis of a reserve factor per \$1,000 of converted insurance remaining in force by year of issue or by setting up a decreasing proportion of the original amount of transfer charges. If a check is made and it is found that the original charge is incorrect, it is more difficult to increase the charges than to transfer back any excess charges. For this reason the original charge should be on an adequate basis. An additional reserve to cover cost of conversions should be set up at the end of the year for individuals who have terminated employment, where the 31-day conversion period has not expired.

MR. J. H. SMITH described a study dated December 1948 on the cost of group insurance conversions which might be helpful to those looking for practical reference material on the subject. This study, available from the offices of the Life Insurance Association, was prepared for the information of the Life Insurance Committee of the National Association of Insurance Commissioners. Formulas for obtaining cost, experience data and estimates as to the cost of proposed changes in conversion privilege requirements are given.

As to the payment of commissions on conversions, Mr. Smith had recently inquired of nine companies, including the seven largest group carriers, and found that only two pay commissions on business going through as conversions. One company pays a small first year commission only, and the other pays greatly reduced first year and renewal commissions. He stated that on the question of whether payment of commissions would result in lowering losses under conversions through an improvement of the very bad mortality among those who convert, there is considerable misunderstanding. While the extra premium per \$1,000 (which now ranges from \$60 to \$80 for the companies he surveyed) might be reduced by encouraging agents to bring additional lives into the conversion group, the total amount of extra mortality to be met would undoubtedly increase so that the aggregate charge would be greater. Furthermore, the extra premium required would be very substantially increased because of commissions and related costs. He had recently computed what the conversion charge would be for his company if full commissions and related items were included, and found that it would have to be increased by 60%, assuming other factors remain the same.