

*Withdrawal Rates*

- A. What studies dealing with the factors affecting withdrawal rates have been made recently? How do these factors affect different segments of a company's business? What measures have proved useful in controlling withdrawals?
- B. Is there a need for new standard tables of withdrawal rates to replace Linton's A and B rates?

MR. WILLARD A. THOMPSON described two studies of withdrawal rates being made by New York Life. One is a comprehensive study on the IBM 705 based on valuation data. All policies are included for all durations by age, plan and amount groups. For the first two durations, it is also possible to obtain lapse data by mode of premium payment.

The other is a 20% sample of new issues based on information developed manually. This study will produce first year withdrawal rates only, but will cover certain additional important factors such as type of agent. Some results for issues of the third quarter of 1957 have already been obtained. The first year lapse rate on the annual mode of payment is only 25% of the over-all first year lapse rate. The checkomatic mode is running at 40%, whereas the regular monthly mode is twice the over-all average.

By plan of insurance, the \$10,000 minimum plans show a first year lapse rate of 70% of the total rate. Family plans and \$5,000 minimum plans are about 150% of the over-all rate; in the case of the former, about half of the excess is due to the high proportion of monthly premiums. In this sample, term policies had only a slightly higher than average lapse rate, but this may not hold for issues of the last quarter of 1957.

MR. DAVID THOMAS compared the relative persistency of ordinary life and graded premium ordinary life contracts of his company.

The graded premium policy was first issued by Connecticut Mutual in 1931. The premium grades upward over five years to a level ultimate premium approximately equal to the ordinary life rate for an age two years higher than the original age at issue. The plan provides immediate maximum protection on the whole life basis and yet gives a few years to allow for an increase in income or for adjusting the budget to take care of the premium. They feel it has helped hold down the proportion of business issued on a straight term basis. This policy accounted for approximately 13% of their new paid-for business in 1959 by amount.

Valuation records for an observation period from 1949 through 1958 on a calendar year basis were used. Years of issue back to 1940 were used so that all durations could be represented equally for each exposure year.

Termination rates for each duration for all calendar years in the observation period combined were then obtained.

Results indicated termination rates on graded premium ordinary life were about double those on ordinary life for the first few durations after issue. This differential decreases quite rapidly and disappears by the end of the grading period. Linton A termination rates fall between during the early policy years and are higher than both plans subsequently.

A similar study ten years ago suggested that changes in economic conditions influenced the graded premium ordinary life policy more than the ordinary life.

MR. M. ALBERT LINTON reflected that it was terrible to have one's lapses of early days incorporated in a table which lasted as long as these A and B tables have lasted.

The genesis of the tables was an interest in returns under agents' contracts which, of course, depend upon termination rates of the policies issued. Data from the Medico-Actuarial Mortality Investigation were used in a study by Mr. Alexander Maclean, published in 1920, along with Massachusetts Mutual's own experience. The A and B tables were developed from data in that paper and from consultation with Mr. Maclean. Mr. Linton's paper was presented in 1924 at a joint meeting of the Actuarial Society of America and the American Institute of Actuaries and the tables A and B became widely known.

These rates have been used in the New York Insurance Department and in the contracts of various companies. Then the McConney-Guest tables of agents' termination rates were constructed. Now it is time to look into these old data. It will not be an easy task to select the period to be covered and the types of policies to be included when preparing new tables.

Mr. Linton concluded with a warning to the younger actuaries that there is a lot of work to be done and "to be very careful about getting your lapses embalmed in a table."

MR. E. J. MOORHEAD suggested we should avoid thinking of any table as a standard table. On the other hand, every exploration of withdrawal rates is useful to actuaries, particularly when in the form of graduated tables giving withdrawal rates by duration as pioneered by Mr. Linton. Any new tables of withdrawal rates that may emerge from current studies should not be labeled official, standard, authoritative, or replacing or superseding any existing tables.

A family of tables based on present experience can serve three worthwhile purposes. First, they could exhibit the effects of different relation-

ships between early withdrawal rates and the withdrawal rates in later policy years. Second, they could illustrate how specific provisions might be made for withdrawals during each policy year, resulting from fractional premium business. And third, they could combine voluntary termination rates with mortality rates taken from modern mortality experience and could show termination rates at a range of issue ages instead of at one single issue age.

An investigation is being conducted by the Agency Management Association. Material for the initial part of this study consists of 12,000 policies issued by 54 companies in the month of May 1949 that have been observed through nine complete policy years. To achieve the first purpose, the 12,000 policies were divided into three roughly equal groups according to persistency experience of the first two policy years—very good persistency, medium, and not so good. As might be expected, the rates converge for the three groups as the years go by.

Statistics are being tabulated to help in determining appropriate allowances for fractional premium business, especially for first year commission valuations.

The withdrawal rates of these investigations can be combined with current mortality rates at several issue ages, such as 5, 25, and 45.

Any new tables that are published are not expected to reduce the popularity of Mr. Linton's A table. They may decrease use of his B table. They would give a wider range of different bases among which to choose.