

Withdrawal Rates

What has been the trend of lapse rates in recent years? How do lapse rates vary by plan of insurance, by age at issue, by sex, by frequency of premium payment, and by geographical area?

Atlanta Regional Meeting

MR. WALTER J. MAYS stated that the Western and Southern recently studied its withdrawal rates on its Regular Ordinary and Monthly Debit Ordinary lines. He indicated that the business was produced entirely by combination agents in the industrial Midwest area, and that Monthly Debit Ordinary was a relatively new line.

The trend of lapse rates was shown as the number of months of cumulative lapses for which accumulated withdrawals amounted to 15% of the total issue. For example, on the Regular Ordinary issues of January 1956, the cumulative lapses for sixteen months accounted for 15% of the total issue. For the issues of July 1956, it took fifteen months to accumulate 15% lapses; January 1957, ten months; July 1957, nine months; January 1958, ten months.

On Monthly Debit Ordinary the issues of January 1956 required nine months to accumulate to 15% lapses. This reduced to three months on the issues of January 1958.

Variation by age at issue was determined by dividing each year of issue into five-year age groups and tracing the group from year to year. Based on the issues of 1955, the company experienced the following first year lapse rates under the Regular Ordinary insurance: 1.50% for age 0; 4.62% for the age group 1 to 4; 12.46% for the age group 20 to 24; and 8.56% for the age group 25 to 29, and diminishing through older age groups to .60% for age group 45 to 49. The higher rates for issue age range 20 to 29 were evident in renewal years although to a less pronounced extent.

MR. WILLIAM K. NICOL stated that the Commonwealth Life made a study of 1958 lapses by volume and by mode of premium payment. The lapse rates by premiums were 90% of those by amounts; the lapse rates by number of policies were 94% of those by amounts. In comparing lapse rates by mode of premium payment, it was found that semiannual cases were approximately 150% of the annual rates. The quarterly rates were 200% of the annual rates. Mr. Nicol stated that the pre-authorized check plan which had accounted for a very high proportion of business in the last two years gave a lapse rate which was 125% of the annual. Regular Monthly business amounted to 175% of the annual rates, and the Salary Savings business was 225% of annual.

MR. JOHN L. GLENN described a method of computing mortality and lapse information by use of the Burroughs 220 Electronic Computer by a seriatim process. Under this method the valuation file at the end of the observation period and all policy transactions during the observation period are combined and put in policy number order. The file is passed through the computer and a policy history during the observation period is prepared. The exposure to risk of lapse, as well as the exposure of death, is computed for each combination of analysis year and policy duration, both by number of policies and by amount of insurance. The exposure to death and lapse, the expected claims and expected lapses, the actual claims and lapses, and the amount of insurance written, are internally stored according to ten indexes, such as plan of insurance, year of issue, underwriting classification, etc.

By sorting the file first in policy number order and then by agent and agency number, the same information can be accumulated for each agent and each agency. Mr. Glenn felt that modern electronic computers make studies of this type and complexity economically feasible for the small and medium-sized companies.

San Francisco Regional Meeting

MR. HILLARY J. FISHER stated that the *United States and Canadian Lapse Survey*, issued by the LIAMA, shows that the two-year lapse ratios of the Ordinary business in the United States increased throughout 1957 and 1958. The ratios by calendar year have run: 1955, 18%; 1956, 18%; 1957, 19%; 1958, 21%. The corresponding ratios for the Occidental Life of California for U.S. business have run a little higher but have followed nearly the same pattern. For Canadian business of the Occidental, the ratios have run well below the LIAMA Canadian ratios.

For life, endowment and nondecreasing term plans exposed between policy anniversaries in 1952 and 1956, the Occidental's withdrawal rates by policy year were: first, 19%; second, 9%; third, 7%; fourth, 6%; fifth, 11%; sixth through tenth, 5% average; 11th through 15th, 4% average; 16th through 20th, 3% average. The first year persistency on decreasing term insurance was about the same as on other plans but the renewal lapse rates were quite high.

Withdrawal rates seem to be related to attained age more than to age at issue. Persistency is best at the juvenile ages but with a tendency to rise at later durations. Lapses are heaviest at the young adult ages. In the thirties persistency is about average, and in the forties and fifties better than average. After 60, lapse rates are high, although the first year rate for policies issued at 60 and over is quite low.

Plans of insurance were compared on the basis of persistency over the first ten policy years. In general, the ordinary life and limited payment life plans had better than average persistency. The Junior Estate (jumping juvenile) was about average and the 5-Year Modified Life was below average. Retirement plans did well except at the younger issue ages. Endowments at 55, 60, and 65 on the other hand experienced good persistency at issue ages 0 to 49. Short term endowments were about average through issue age 29 and very good at higher ages. "Savings" plans with coupons and special options were mediocre for issue ages under 40 but did well at the older ages. Lapse rates for renewable term were exceptionally high in every policy year. The experience reflects the rate of non-renewal. By size of policy, renewable term persistency was best in the \$10,000 to \$15,000 range, but grew progressively worse with increase in size.

MR. WILLARD A. THOMPSON said that in the New York Life the number of policies withdrawing in cash or lapsing without value increased 15% in 1955, 16% in 1956, 42% in 1957, and 27% in 1958. In order to ascertain whether or not their experience was unusual, they compiled the figures for seven of the largest companies, including their own, for the years 1954 to 1958, using the Policy Exhibits. The resulting percentage increases were 10% in 1955, 20% in 1956, 65% in 1957, and 30% in 1958—a pattern similar to their own. The high percentage increase in 1957 was undoubtedly heavily influenced by the introduction of Family policies in some of these companies in the latter part of 1956 and in 1957.

The experience of the New York Life was further analyzed in an attempt to find out what factors were responsible for the increased level of withdrawals. The actual experience was compared with the expected experience based on their 1954 level of withdrawal rates by duration. The ratio of actual to expected withdrawals remained constant at about 100% for 1955 and 1956 but rose to 122% for 1957 and to 133% for 1958. These figures indicate that the increases in the amounts of withdrawal for 1955 and 1956 were due almost entirely to increases in new business. However, the increases in new business in 1957 and 1958 do not fully account for the much higher increases in withdrawals in those years. It was estimated that about one-half of the excess of actual withdrawals in 1957 and 1958 over those expected was due to the introduction of the Family Insurance policy in April of 1957, with the balance due to economic conditions.

A study based on a 10% sample of 1954 paid issues gave first and second year lapse rates by plan, age, sex, and frequency of payment. This study showed that the whole life plan, which is issued for \$10,000 and higher amounts, had the lowest lapse rates of all plans. These rates were some-

what more than half the average rates for all plans for the first year and somewhat less than half the average for the second year. The lapse rates for other life plans were about the average for all plans while endowment and term had higher than the average lapse rates.

The study indicated that the lapse rates generally decreased with increase in age. Age group 20-29 at issue had lapse rates about 40% above the average, age group 30-39 about the average, and 40-49 about 40% below the average. Under age 20, the lapse rates were somewhat below average.

By policies, the lapse rates for females were about 85% of those for males. By amount of insurance, however, the female lapse rates were very close to the male lapse rates, being about 95% of the male rates in the first year and 100% in the second year.

The study of 1954 paid issues shows, as expected, the most favorable withdrawal rates under policies with premiums payable annually and the least favorable under regular monthly premium policies. The first year lapse rate for annual premium policies was about 42% of the average by number and 27% by amount. For monthly premium policies, the first year lapse rate was 179% of the average by number and 186% by amount. The semiannual rate was under the average and the quarterly rate above the average for all policies. The second year lapse rate for annual premium policies was about 60% of the average by number and 40% by amount. The corresponding rates for monthly premium policies were about 140% and 145% of the average by number and amount, respectively.

A study was also recently made of the lapse rates under their pre-authorized check business issued during June 1957. The study, which was by number only, indicated a withdrawal rate for the first policy year which is considerably lower than that on corresponding regular monthly premium policies.

MR. JOSEPH C. NOBACK said that in the Northwestern Mutual their lapse rates on the LIAMA basis run about one-half those of the industry as a whole. For their 1931 business about 13 percent had terminated at the end of two years. For 1945 business about 3 percent had terminated at the end of two years. For the 1957 issues the rate was 7 percent.

The terminations for 1957 business were analyzed by plan of insurance and the results showed that life plans had the best experience. In searching for an explanation between various life and endowment plans, it seemed that the endowment experience was affected by the fact that it is sold as a package sale whereas the life plans are used in program selling. Their conclusion was that persistency depends not so much on plans of insurance or age or sex or even frequency of premium payments but largely on

the type of selling the agent does. It depends on how well he has convinced each potential buyer of the desirability of continuing his program in effect for a long period of time. In other words, it depends on how well the agent qualifies his prospects.

MR. CHRISTOPHER H. WAIN commented on the fact that within the Prudential the business written through the western and southwestern home offices had higher lapse rates than business written through northern offices. He also mentioned the general trend of the American people to want to pay for everything on a monthly basis and pointed out that there was more of an obligation to pay for items such as a car than there was to pay for life insurance. He thought that the lapse experience on monthly business would be poor unless there was some strong incentive such as the check-o-matic plan to keep payments coming in regularly.