

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1958 VOL. 10 NO. 27**

DIGEST OF SMALLER COMPANY FORUM

MORTALITY

- A. What studies can be justified by small companies, and what results have they shown?
- B. What standards for expected mortality have been successfully used?
- C. Have any companies compared their experience with Table X_{17} ?
- D. What objections, if any, are there among small companies for adopting X_{17} as a valuation standard on a mandatory basis; on a permissive basis?
- E. If X_{17} is adopted as a valuation basis, what effect would it have on premiums or dividends?

MR. J. A. ANDERSON reported on a recent mortality study conducted by the Colonial Life covering exposures from 1954 to 1957. The study covered the first fifteen policy years on Ordinary business. It was found not practicable to separate medical and nonmedical or substandard business. Aggregate ratios of actual to expected were 58.0% of Table X_{17} and 79.9% of Table X_{18} by amounts of insurance. Calculating the

COLONIAL LIFE AGGREGATE EXPERIENCE 1954-1957
BY AMOUNTS OF INSURANCE

AGE AT ISSUE	RATIO OF ACTUAL TO EXPECTED		POLICY YEAR	RATIO OF ACTUAL TO EXPECTED	
	X_{17}	X_{18}		X_{17}	X_{18}
0.....	69.6%	95.8%	1.....	70.4%	96.8%
1.....	38.9	62.7	2.....	51.2	75.5
2.....	41.0	65.6	3.....	36.6	53.1
3.....	66.1	104.9	4.....	35.7	50.4
4.....	57.2	91.3	5.....	50.9	70.4
5-9.....	57.8	95.8	6.....	62.0	85.1
10-14.....	86.9	149.4	7.....	77.0	107.2
15-19.....	41.7	72.6	8.....	54.6	75.6
20-24.....	42.8	72.4	9.....	56.3	77.4
25-29.....	43.9	71.6	10.....	55.7	75.0
30-34.....	54.5	81.8	11.....	67.1	88.5
35-39.....	97.6	130.7	12.....	86.0	108.7
40-44.....	54.2	66.5	13.....	97.1	121.1
45-49.....	59.7	69.6	14.....	41.8	51.9
50-54.....	67.9	78.1	15.....	76.5	94.0
55-59.....	37.7	43.3			
60-64.....	21.5	24.7			
65-69.....					
	58.0%	79.9%		58.0%	79.9%

expected deaths on the CSO Table, the experience was 30.4% and, using the 1946-49 Basic Table, the ratio was 67.8%. He stated that his company feels a study of this nature is essential periodically but that more detailed or frequent studies could not be justified by the cost.

In discussing section D, Mr. Anderson stated that his company was very much interested in the adoption of a new mortality table as a valuation standard since the deficiency reserve problem was very serious. He stated that modern tables are being used to calculate nonparticipating premium rates and there would be no change in such rates except where they are unnecessarily high in order to avoid such reserves.

MR. D. M. MILLYARD stated that increased competition made it more important for small companies to carry out some form of mortality study. Intercompany investigations can be of value but individual company experiences are known to vary considerably. The Imperial Life has carried out a study for the last eight years which has been reasonably inexpensive and yet has provided valuable results. He described their process in detail and stated that, because of this study, they had been able to produce from their own experience suitable tables for both participating and nonparticipating rates. Under section B, he stated that when their study was first started, they had used Miller's Select 1930-39 Table for mortality. During the last four years the Canadian Association of Actuaries 1949-1952 Select Table had been used. Commencing this year, they will use the new Canadian Assured Lives Table 1952-1956. He felt that, during the periods they were used, each of these tables had been satisfactory for expected mortality even though in his own company's study they did not exclude substandard policies, Group conversions, extended term or reduced paid-up policies.

MR. H. L. JONES, JR. stated that, in his opinion, small companies cannot obtain from their own experience satisfactory select or even ultimate mortality information because of lack of data. His company, Guarantee Mutual Life, conducts a yearly mortality study excluding the first three years of duration. This eliminates a good portion of select mortality and still leaves a significant volume. For dividend purposes some other ultimate basic table or modification thereof must be employed which will yield margins for contingencies and take into consideration a longer select period. If Table X₁₇ were used for valuation of participating insurance, one of the first considerations is the margin of mortality provided that could reasonably be returned through dividends. Mr. Jones presented the following comparison of 1,000 q_x on a variety of tables. "GMLC 5 Yr. Exp." is the actual experience in his company from policy anniversaries in 1952 to 1957 excluding the first three years.

"Expected a/c Div'ds" is developed from the 1946-49 Basic Table and represents their expected ultimate mortality for current dividend purposes. "GMLC '57 Mort." is the actual mortality in his company from the policy anniversary in 1956 to 1957, excluding the first three policy years.

Age	CSO	X ₁₇	GMLC 5 Yr. Exp.	Expected a/c Div'ds.	GMLC '57 Mort.
10.....	1.97	.60	.55	.61	1.40
15.....	2.15	1.00	.33	.76	.58
25.....	2.88	1.59	1.08	1.08	.92
30.....	3.56	1.82	1.11	1.18	1.39
40.....	6.18	3.30	2.53	2.30	1.97
45.....	8.61	5.06	3.68	4.05	2.84
55.....	17.98	12.55	8.36	11.44	7.37
60.....	26.59	20.20	13.41	18.95	11.32
70.....	59.30	49.79	37.58	45.25	35.39

Mr. Jones also showed the mortality element for dividends as developed for his company using the CSO Table and also Table X₁₇ as a valuation base. These vary by plan and duration as shown but it is evident that there would be little mortality contribution at younger ages if Table X₁₇ were used.

MORTALITY CONTRIBUTIONS TO DIVIDENDS PER 1,000

	O.L.		20 P.L.		20 E.		20 Y.T.	
	CSO Base	X ₁₇ Base	CSO Base	X ₁₇ Base	CSO Base	X ₁₇ Base	CSO Base	X ₁₇ Base
Age 5: 5th year.....	1.32	-.01	1.26	-.01	1.09	-.01	1.36	-.01
10th year.....	1.29	.22	1.16	.20	.80	.14	1.39	.24
20th year.....	1.51	.43	1.13	.34	.02	.01	1.30	.51
Age 20: 5th year.....	1.70	.49	1.61	.46	1.44	.41	1.79	.51
10th year.....	2.11	.57	1.85	.51	1.02	.36	2.36	.64
20th year.....	2.92	.77	1.95	.54	.05	.01	3.87	1.00
Age 35: 5th year.....	3.55	.92	3.34	.87	3.10	.80	3.80	.99
10th year.....	3.76	.84	3.23	.73	2.61	.57	4.41	.99
20th year.....	4.17	.72	2.30	.42	.08	.01	6.49	1.10
Age 50: 5th year.....	5.66	.96	5.38	.92	5.38	.88	6.11	1.05
10th year.....	5.62	.93	4.89	.81	4.40	.71	6.83	1.13
20th year.....	6.98	2.30	2.88	1.03	.17	.05	13.67	4.44

MR. P. M. BAILEY, in discussing section D, recited the following objections which have been raised to Table X₁₇: (1) there is no need for

a new table except to solve the deficiency reserve problem; (2) it would result in a costly revision of policy forms, etc.; (3) the table has some undesirable characteristics from the standpoint of dividend calculations; (4) excessive periods of extended term insurance are developed; (5) margins in the table are not adequate to provide expenses for paid-up nonforfeiture benefits or for adverse mortality under such benefits; (6) a new table would complicate the technical administrative problems of smaller companies by requiring another reserve basis; (7) the over-all margins are not large enough to absorb abnormal mortality fluctuations; (8) adoption of the table might precipitate a rate war.

If the table were adopted on a permissive basis, there is a feeling that competition would soon force its use generally.

MERCHANDISING

What special problems have smaller companies encountered in trying to stay abreast of new methods of merchandising ordinary insurance?

- A. Family plans
- B. Graded premiums
- C. Policies with high early cash values
- D. Clauses designed to "Insure Insurability"
- E. Lower rates for females

MR. W. C. BROWN stated that the limited staff of the smaller company makes it difficult to stay abreast of new developments.

MR. J. W. HAHN mentioned the problem of getting new policy forms approved in Texas but expressed confidence that the situation would improve.

MR. H. G. WALTON described the Union Mutual's Family Policy and the underwriting, valuation and policy exhibit treatment of the policy.

MR. C. J. STAFFORD outlined the procedure by which the Monarch Life decided to adopt a Family Policy, expressing the feeling that by vigorous promotion the Company could induce its agents to change their marketing areas and increase their average premium per policy.

MR. BROWN stated that the Colonial Life entered the family plan field by use of a rider and did not promote the plan vigorously, but had found that 17% (by volume) and 25% (by amount) of new business was being issued with the rider.

Both MR. T. H. KIRKPATRICK of the Paul Revere and MR. HAHN of the Great Southern said that their companies had developed "transfer" clauses for the family policy to take care of divorce, but Mr. Kirkpatrick warned of the complications of the clause.

MR. J. S. HILL pointed out the problems a company which included premium waiver benefit on all standard issues would encounter with the "insured insurability" benefit. On the one hand the agency force would oppose offering the benefit without automatic waiver, and on the other hand inclusion of automatic waiver would more than double the cost.

According to MR. BROWN, the Colonial Life decided against lower rates for females because of complications with certain plans such as Life Paid-up at 65 and because of the relatively small volume of business being sold to females.

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SMALLER COMPANY FORUM

- A. If the Western Spring Meeting of the Society includes a session of simultaneous discussions, should the Smaller Company Forum (a) be continued as a separate session, (b) be combined with the session on Individual Ordinary insurance, or (c) be a separate section of the simultaneous discussions?
- B. In 1959 there will be four regional meetings in the spring (Atlanta, Ga.; New York, N.Y.; Omaha, Nebr.; San Francisco, Calif.). Should the Smaller Company Forum be a part of any of these meetings?
- C. To what extent have the Smaller Company Forums fulfilled the needs of actuaries of the small companies?
- D. If the Smaller Company Forum is continued, how can it be improved?

The comments of several members indicated a decided preference for the continuation of the Smaller Company Forum as a separate session.

In connection with the four regional meetings planned for the spring of 1959, MR. P. M. BAILEY of the Security Life and Accident suggested that the Smaller Company Forum should be held at each location except New York.

This supported strongly a view advanced by MR. JOHN PHELPS of the Lincoln National. Speaking on behalf of the actuaries of a number of smaller companies, he said they felt that the Forum should be held at some of the meetings but probably not at New York.

MR. J. C. ANGLE, Woodman Accident and Life, mentioned the wide range of problems confronting the actuary of a smaller company. He noted that among the most popular topics on the programs were subjects dealing with agency and related problems, accounting, procedures of administration, valuation, premiums, dividends, and management problems.

MR. G. A. MACLEAN of the Standard Life suggested that the definition of "smaller company" should be reconsidered. Until recently the group included companies with business in force amounting to less than \$500,000,000. The present classification of smaller companies is understood to include all but the fifty largest companies. Accordingly, companies with up to about \$1,500,000,000 of business in force are now treated as smaller companies. He expressed concern that with the growing size of the companies it might be difficult to prepare a program which would be satisfactory for the really small companies.

MR. W. M. STEWART of the Central Standard Life observed that in the smaller companies the nature of the problems and interest of the actuaries were often quite different from those of the actuaries in the larger companies. For example, a smaller company may have greater

flexibility in meeting new problems because its operations are conducted in a few states without too many restrictions. On the other hand, the larger companies, operating in many states, possibly on a multiple line basis, are sometimes handicapped by the presence of all the restrictions.

Mr. Stewart went on to say that, in the smaller companies, in view of the smaller actuarial staff, there is a greater emphasis on the practical aspects of handling many problems. Necessarily, less effort is directed into research work, and more reliance is placed on the experience of the industry, on judgment and intuition. The constant changes in the dynamic life insurance industry bring new problems to the actuary. The Smaller Company Forum helps the members to keep abreast of the new developments.

Turning to the question of improving the Forum, Mr. Stewart reminded the members that it existed for their benefit. The selection of timely topics, carefully worded, tends to promote good discussions. He thought the quality of these discussions could be improved. Material should be of interest to a sufficiently large proportion of the group, with definite emphasis on the "practical" side. In some cases an idea or method could be described briefly. In other cases a reference to the essential points would be sufficient. Mr. Stewart felt that one of the primary functions of the Forum was to provide an opportunity for reporting on practices followed by the "smaller" companies. With the broad interpretation now given to this term, many members would be able to make valuable contributions to these discussions.

MR. PHELPS thought the Smaller Company Forum had fulfilled a need for the actuaries of the smaller companies. It might be advisable to consider a new Forum for the medium sized companies and also continue the Forum for the really smaller companies. It had been suggested that the representatives of the fifty largest companies might be invited to attend and be available for answering questions.

MR. BAILEY felt that the *Transactions* might devote a section to the smaller companies, including the publication of papers prepared by members of regional actuarial clubs, perhaps encouraged by some sort of an award.

MR. I. M. CHARLTON of the Monumental Life thought the Forum should be continued on the present plan and made even less formal.

MR. R. E. EDWARDS of the Baltimore Life commented on the relatively small membership in the Society representing companies with business in force of less than \$500,000,000. It had been difficult to find such members who would serve on committees and take part in the discussions. Partly on this account, the larger "smaller companies" were now included in the Forum.

CURRENT CONDITIONS

What variations have occurred in the economy of various regions, and what has been the effect on:

- A. Life insurance sales?
- B. Policy loans and surrenders?
- C. Changes in mode of premium payments?
- D. New investments?

What steps have companies taken to adjust their home office and field operations to these changes?

MR. W. H. BREEZE stated that the Ohio National Life is licensed to operate in 28 states with the principal activity centered in the Midwest, Pennsylvania, and parts of the Mountain and Pacific Coast areas. He reported that production of new business by his company during the first four months of 1958 was 6% greater by volume than in the corresponding period of 1957, affected in part by the introduction of the family policy which comprised 20% of the new Ordinary business during 1958 and which was not available during the comparable period of 1957.

The new business production of 1958 was subdivided into five areas to determine the variations in production of new business, if any, as a result of changes in the economy by areas. These subdivisions, with the percentage (during the first four months of 1958) of total Ordinary paid-for new business from each area shown in parentheses, are as follows:

1. Eastern—Pennsylvania, District of Columbia, Maryland, Virginia, New Hampshire (13%).
2. Central—Ohio, Indiana, Illinois, Michigan, Kentucky (53%).
3. Western—Iowa, Kansas, Missouri, Nebraska, Minnesota, South Dakota, Colorado, Montana, Idaho, Eastern Washington, New Mexico, Wyoming, Utah (22%).
4. Pacific Coast—California, Oregon, Nevada, Western Washington (10%).
5. Texas (2%).

When the production of the first four months of 1958 was compared with the corresponding 1957 production of agencies operating in both periods there was found to be no significant difference by area, except in Texas which showed a decline of about one-third. Because of the small exposure in Texas little significance can be attached to the decline there. The Central region which, in total, showed a 6% increase, the same as the company average, includes the automobile manufacturing area where the present recession is known to have been pronounced.

Sales among Michigan agencies have shown either increases or modest decreases; there is no evidence of a significant decline there.

Mr. Breeze stated that late in 1957 his company changed a long-standing practice of not permitting a cash surrender other than on a policy anniversary; policy loans only were available on off-anniversary dates. As a result 1957 and 1958 comparable figures of policy loans (other than those used to pay premiums) and of surrenders are misleading. However, despite the change, the number of such policy loans increased slightly but the amount of such loans decreased slightly during the first four months of 1958, while for the same period the surrenders for cash increased more than 50% by number and 75% by amount.

In order to obtain regional information where possible, his company examined the amount of premiums paid by loan during the first four months of 1957 and 1958 according to the sales regions previously described. Over-all, the increase in amount of premium paid by loan was approximately 7%. Regional variations from the average, after making adjustment for a pension trust case paid by loan in 1957, were slight except for Texas (down one-third) and for the Pacific Coast (up 26%).

No regional data were available for policies lapsing without value which, in the aggregate, were up 15% by number, 27% by amount, during the first four months of 1958 as compared to 1957, indicating some financial difficulty or reconsideration on the part of buyers of new insurance.

Mr. Breeze concluded that while business prospects in some geographic areas have undoubtedly been partly responsible for increased activity in certain home office services, no regional variations have affected his company's operations sufficiently to require an adjustment in either home office or field operations.

MR. M. R. NELSON reported that variations in the economy have been of small consequence to the Security Mutual Life of Nebraska. The only noticeable effect has been in new investments and this has been indirect. The programs designed by the various government agencies, particularly the Federal Reserve Bank System, to combat inflation have caused the rate of interest to fall off considerably. With an eye on the Federal Income Tax situation his company bought largely tax exempt municipals during the first quarter of 1958. These were bought at an average rate of 4.16%. They are now unable to approach such a figure for that kind of bond in the quality desired. They have, therefore, invested heavily in mortgages during the last month or two. This has been satisfactory up to now with the rate being 5% to 5½%. There is

still a fair volume of mortgages available at those rates, but they have to watch the quality very carefully.

Although Mr. Nelson's company's sales are not up appreciably over last year, they feel the recession has had little to do with this and therefore no action aimed directly at combating the recession has been taken. Some might feel that a leveling off of production would indicate that an outside effect like the recession was causing such leveling off. However, they had an exceptional year last year and their agency force has not increased sufficiently to provide such increases year after year. They feel then that their problem is not a weak economy, but rather too small an agency force.

The final area that would be a yardstick in measuring effects of the economy on the business of Mr. Nelson's company is the area of policyholders' action on existing business. Mr. Nelson stated that his company had a considerable increase in policy loans and surrenders, but it was a surprise to him to learn that the increase was no greater percentagewise than in the previous four years. The trend has not changed and if the current results had been predicted on the basis of the last four years' experience the predictions would have been in line with their actual current experience without consideration of a change in economic conditions.

Mr. Nelson's conclusion on the subject was that his company has experienced a noticeable effect on investments because of government actions in combating the recession which required adjustments in their operations, but that they have experienced no noticeable reactions from their policyholders or prospects due to a change in economy and therefore had to make no adjustments in these areas. He felt this conclusion might be typical of companies operating in the same area as his company. This area is entirely west of the Mississippi River, and a good deal of the older business is from rural areas.

MR. H. B. STALEY stated that the Iowa Life sells almost exclusively to Iowa farmers and in two of the recent years, while the rest of the country was still prospering, the farmers were feeling a very considerable price squeeze, with farm prices being down and with the cost of the things they had to purchase being up. This was very noticeable, both in new business and in the speed of premium payments. However, this year, with the rest of the country feeling the recession, there was a complete reversal of that situation as far as they were concerned, with the result that new business for the first four months of this year was 78 percent ahead of what it was last year.

MR. R. E. EDWARDS stated that Baltimore Life operates through mortgage correspondents spread widely over the United States. The company has preferred residential loans on the conventional basis and has had a policy of limiting the term to 20 years. The volume of submissions has held up reasonably well in 1958, but more and more requests for 25 year loans are being received. They may find it necessary to liberalize their investment policy, but meanwhile are looking for other suitable investment outlets as a substitute.

COMPANY ORGANIZATION

To compete successfully, have small companies found it necessary to:

- A. Sell individual accident and sickness insurance?
 - B. Enter the group field?
 - C. Develop an affiliation with a fire and casualty company?
- What are the major problems associated with each of these developments?

MR. J. H. MILLER predicted two divergent types of company development: (1) the affiliation of life with fire and casualty insurance companies; (2) specialization of companies in particular fields with increasing reliance on brokerage outlets. The choice between the two will be based on the type of agency force desired by the individual company.

MR. G. R. FRASER stated that Excelsior Life had found it necessary to broaden their scope to include group insurance, carrying the life insurance themselves and placing the casualty insurance with another company under a prearranged agreement. He indicated the advantages and problems connected with this step, including the favorable effect on their agency force, the effect of the rapid growth of group life insurance and the necessity for an offset to their substantial amounts of deferred annuity business. The problems were found mostly in financing the new department, training group personnel and competing with established group companies. Other than entering the group field he felt that life insurance agents had many substantially different operating conditions from agents specializing in casualty coverages.

MR. J. C. BERTRAM remarked that the State Capital Life had formed an affiliated fire and casualty company in 1952 and at that time had concluded that it would grow faster by using independent general agents. They are now re-examining this position in the light of current trends.

MR. J. F. MACLEAN related that Bankers of Nebraska's entry into accident and sickness was predicated on the following: (1) it would raise income to the field force, (2) it would pay a portion of current expenses, (3) it would enable the company to capitalize on talent already in the organization. At the present time it would appear that entry into the group field or affiliation with a fire and casualty company would require too much of a capital investment budget.

MR. A. L. BUCKMAN remarked that the entry of the Beneficial Standard Life into the casualty field has not been too satisfactory. He ventured the opinion that there would be more casualty companies looking for life affiliates than vice versa.