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GENERAL

A. Have "family group" policies been successful? What can be done to reduce the administrative costs of handling such policies?
B. What has been the experience of companies which have graded either premiums or dividends by size of policy? Is it appropriate and practical to recognize differences in lapse rates, not-taken rates, costs of underwriting and settlement options in the computation of premium rates by size of policy?
C. Under what conditions is it appropriate to issue policies to women on a rated down age basis—*i.e.*, at premiums and nonforfeiture values 3 or 4 years lower than for males?
D. What changes have companies made in connection with small policies to counteract the increase in administrative costs?
E. What has been the experience under juvenile policies that provide full coverage from date of issue?
F. Have recent reductions in Ordinary Life nonparticipating rates made it impractical to issue supplementary term insurance because of the low rates which would be required if special nonforfeiture values are to be avoided? Is the problem serious enough to warrant a change in the Standard Nonforfeiture Law?

MR. E. A. PORTER traced the development of so-called "family group" policies. In the twenties a good many of the younger and smaller companies put together whole-family policies by putting separate policies in one cover with a uniform premium due date. In the thirties some assessment companies introduced the idea of a total amount of insurance equally divided among all the children of a family. In 1955 the Manhattan Life put out a policy covering all members of the family, as one measure to reduce the number of small-size policies issued. It was a 20-year endowment on the husband, 20-year term on the wife and term insurance on all children under 20 during that period. Although a rather expensive policy it has had a remarkable sale. Recently this company has introduced a family benefit rider which can be added to most regular policies. This approach seems to have taken hold very well.

Mr. Porter said that the words "family group" are likely to cause trouble in the approval of policy forms. The Manhattan Life uses "family insurance." He felt that there are going to be large savings in policy issue costs where one policy will be written instead of five, say, on a man, wife and their three children. Application forms and inspection forms have been designed to cover all members of the family.

MR. F. E. RATHGEBER stated that substantial administrative savings were effected in the Prudential Regular and Monthly Debit Ordinary Family Policies introduced in 1956. The only change in premiums which can take place is at the attainment of age 65 by the husband. At that time any remaining monthly term insurance on his wife and children expires. The Company need keep no record of children added after policy issue, being informed of them only in the event of claim or conversion. Administration of cash surrender and loan values is reduced since they are available only on the husband's insurance. Settlement provisions have been simplified by stating in the policy who may take the proceeds in the event of any death. Beneficiaries' names are not typed on the face of the policy. The Company encourages the selection of paid-up additions as the dividend option.

MR. G. E. CANNON said that if a company's present cost position is in balance with experience, adoption of a system of premiums graded by amount means that it is necessary to increase premiums for lower amount classes to permit a decrease in premiums for higher amount classes. Therefore, if it is desired to maintain the present level of premiums for the lowest amount class, it becomes very desirable to make this change coincide with a decrease in the cost of insurance. Also, in the case of the Standard of Oregon, the sales people were more interested in a guaranteed quantity discount than in a quantity increase in dividend. They adopted a system of premium rates graded by policy amount for life and endowment policies in June 1956.

With full realization that it might be found advantageous to replace a fairly recent policy with no grading with a new policy on the graded premium system, they nevertheless decided to make no retroactive change affecting policies issued prior to the effective date of the graded premiums. No problems of consequence have appeared.

Filing of rate schedules, where required, was made on an individual basis. No difficulty was encountered in the six western jurisdictions in which they operate. However, one stipulation was made to which they agreed: namely, that all policies involved be issued down to the minimum, which in their case was $1,000.

Very few problems of administration have arisen. In some cases of business insurance where partners are cross-insuring, the breakdown of the insurance on one life into two or more policies has resulted in a higher premium rate. The same situation exists when the limit of issue with disability income forces two policies to be issued. On the other hand, it encourages the single policy in place of four policies with the same total amount for the person who wants to pay quarterly premiums at the annual rate.

MR. J. A. CAMPBELL compared the policies issued by The London Life during March 1954 with those issued during March 1956, and noted the change in distribution of new business by amounts which has taken place since the introduction of graded premiums. In 1954, 41% of all ordinary and debit policies issued were for $1,000 and this percentage fell to 28% in 1956. Policies of $1,500 represented 5% of the issues in both years. Policies of $2,000 to $4,999 came up from 17% in 1954 to 22% in 1956. Policies of $5,000 to $9,999 were relatively unchanged, being 33% of the total in 1954 and 35% in 1956. Amounts of $10,000 and over rose from just under 4% of the policies issued in 1954 to just under 10% of the policies issued in 1956. He attributed the changes in policies under $5,000 to premium grading but felt that the increase in proportion of $10,000 and over was also affected by economic conditions and extension of their Ordinary sales force.

He felt that the proper avenue of approach in consideration of the effect of lapse rates, underwriting costs and settlement options was one of attention to the fact that varying premiums by policy size not only reduces the cost of insurance under larger policies, but increases the cost of insurance under small policies. Administrative procedures should be simplified and costs cut on small policies to keep that increase at as low a level as possible.

MR A. C. OLSHEN commented regarding the calculation of nonforfeiture values in connection with grading premiums by size as affected by the definition of adjusted premiums as a uniform percentage of the gross premium. Problems may arise in determining the proper adjusted premium for policies where premiums vary by policy duration, such as modified life. If it is intended to use the same nonforfeiture values for each amount classification, then one must take into account the largest nonforfeiture value requirement. The problems are further complicated if the same nonforfeiture values are to be used for both participating and nonparticipating contracts. Policies with return premium benefits create similar problems.

He indicated that a company contemplating grading premiums by size should be prepared to file with state insurance departments justification of the expense factors and the grading classes as well as the grading steps. His company, the West Coast Life, took into account first year and renewal expenses and the incidence of expense and filed evidence that as between plans the per policy expenses were such as to justify a uniform grading applicable to all plans.

Since introducing premiums graded by size his company has noted a sharp decrease in the proportion of policies ranging from $1,000 to $5,000, heavy bulking at exactly $5,000 and $10,000 and a broader distribution in the $20,000 and over class.

MR. W. A. JENKINS mentioned that the graded dividend plan of the Teachers Insurance and Annuity Association was made retroactive to policies in force. He further stated that the plan was introduced at a time when they were prepared to make a general increase in the dividend scale. As a result they kept the dividends on the small policies the same as they were and increased them on the larger policies, thus avoiding any decrease. He felt this was fortunate from the points of view of conservation, public relations and equity.

MR. CHARLES MEHLMAN considered grading of premiums by policy size a permissible practice under California law. He indicated, however, that graded premiums may cause problems with respect to nonforfeiture benefits in policies whose premiums vary with duration, such as modified life policies, or in policies with return premium death benefits. It would be necessary to consider the effect of the adjusted premium per $1,000 of insurance under the Standard Nonforfeiture Law applicable to each amount classification, since the California Code defines adjusted premium as a uniform percentage of the gross premium. This may give rise to changes in the level of nonforfeiture values unless such values actually granted by the company meet the requirements arising from the gross premium basis established for each amount classification.

MR. E. G. FASSEL said that, if desired, it would be both appropriate and practical to recognize such factors as differences in lapse rates, not-taken rates, costs of underwriting and settlement options.

To the extent that such factors vary in direct proportion to the policy size, they are merely to be included in the portion of the premium varying by plan and age. To the extent that the factors can be regarded as having components constant by policy size, the recognition is through the size variation in the premium rate.

Possibly factors like lapse rates and not-taken rates will be regarded as containing components that vary inversely with policy size. In that case the recognition is to be included among the practical considerations taken into account in fixing the rate differentials in the small policy range.

MR. A. T. BUNYAN, speaking on section C, stated that the prevailing opinion in previous discussions has been that the lower mortality rates of women, as well as the lower lapse rates, are offset by the higher expense rate per thousand, the indication being that the average size policy on women is about half that on men. Under a plan of insurance with a high minimum such as $25,000, however, there is very little difference by sex in the expense rate per thousand. The lower mortality can be reflected in the premium rate provided a method can be found which does not itself involve appreciable extra expense. One such method is the use of the same premiums, dividends and values as for men one or more years younger.

U.S. Life Tables for 1949–51 show yearly mortality rates of females at ages 40 to 70 about the same as those of males 5 to 7 years younger. The age differential is less than 5 years at ages over 70 and drops to about one year in the 90's. Life expectancies at the ages at which insurance is generally written show about 5 years age differential up to age 55, 3 or 4 years at ages 60 to 70. A paper by Dublin and Spiegelman in the 1951 *Transactions* indicates that the difference between the mortality rates of females and males in 1946 to 1950 was a little greater among Metropolitan's Industrial policyholders than among the U.S. population. It would seem, therefore, that a 3-year rating down could safely be given at all issue ages.

In at least two states this rating down is not permitted. A few states are interpreting the Standard Nonforfeiture Law as requiring that minimum nonforfeiture values be calculated for the actual age at issue. A company may, therefore, need to consider whether it is willing to offer a policy under which in certain combinations of age at issue and duration it may, in certain jurisdictions, have to provide larger values than those allowed to men at the rated-down age who pay the same premium.

A company adopting the rating-down procedure will be faced also with the problem of whether to carry reserves on its regular reserve basis for actual ages at issue or, to the extent allowed by valuation laws, to calculate reserves on these policies for the rated-down ages. If the premium at the rated-down age is less than the net premium at the actual age at issue, deficiency reserves may be required for a company carrying reserves for actual ages at issue.

MR. N. L. CAMPBELL pointed out that life insurance companies have already established that female insureds constitute what might be termed a separate classification, at least for the purposes of annuities, settlement options and even disability benefits. Consequently, since we make such recognition, it seems illogical not to give female insureds, where merited, the benefits as well as the detriments of their experience.

A practical way of recognizing the sex mortality differential is by the age setback device. This minimizes the objection to increased administrative problems.

From a study of male and female experience premiums at specimen issue ages, employing various assumptions as to the average size policies issued to males and females (see accompanying table), he drew the following impressions:

(1) Endowment plans appear to be an area where, in the aggregate, the combined effect of mortality and expense for female insureds, if at all superior to that of male insureds, is possibly not such that a premium differential might be prudently employed. However, this would depend upon the com-

EXCESS OF MALE EXPERIENCE PREMIUM PER $1,000 OVER FEMALE EXPERIENCE PREMIUM, AND APPROXIMATE NUMBER OF YEARS MALE PREMIUM MUST BE SET BACK TO EQUAL FEMALE EXPERIENCE PREMIUM

MALE AVERAGE SIZE POLICY	AGE AT ISSUE	RATIO OF FEMALE AVERAGE SIZE POLICY TO MALE AVERAGE SIZE POLICY							
		¼		½		¾		1	
		Excess	Years Set Back	Excess	Years Set Back	Excess	Years Set Back	Excess	Years Set Back
Whole Life									
$ 2,000	25	$−2.40	−5	$− .08	0	$ .94	3	$1.95	5
	35	−1.08	−1	1.01	1	2.06	3	3.11	5
	45	.70	1	2.90	3	4.00	4	5.10	6
	55	5.67	4	6.53	5	7.71	6	8.89	7
5,000	25	.30	1	1.12	3	1.52	4	1.93	5
	35	1.40	2	2.24	3	2.66	4	3.08	5
	45	3.29	4	4.17	5	4.61	5	5.05	6
	55	6.43	5	7.37	5	7.84	6	8.32	7
10,000	25	1.11	3	1.52	4	1.72	5	1.92	6
	35	2.23	3	2.65	4	2.86	5	3.07	6
	45	4.16	5	4.60	5	4.82	5	5.04	6
	55	7.35	5	7.83	6	8.06	6	8.28	7
15,000	25	1.38	4	1.65	5	1.78	5	1.92	6
	35	2.51	4	2.79	5	2.93	5	3.07	6
	45	4.44	5	4.73	5	4.88	5	5.03	6
	55	7.66	5	7.97	6	8.13	6	8.29	7
20 Year Endowment									
2,000	25	−4.68	−20	−2.19	−13	− .96	−8	.29	4
	35	−4.25	−11	−1.75	−5	− .50	−2	.74	4
	45	−3.09	−5	− .57	−1	.69	2	1.95	6
	55	− .36	−1	2.20	3	3.48	5	4.76	7
5,000	25	−1.70	−11	− .71	−7	− .21	−3	.29	4
	35	−1.26	−4	− .37	−1	.23	2	.73	4
	45	− .08	0	.93	3	1.43	4	1.94	6
	55	2.67	4	3.69	6	4.20	6	4.72	7
10,000	25	− .70	−7	− .20	−3	.04	0	.29	4
	35	− .27	−1	.23	2	.48	4	.73	4
	45	.92	3	1.43	4	1.68	5	1.93	6
	55	3.67	5	4.19	6	4.44	7	4.70	7

pany, the average size written, and the distribution of business on the various durations of endowments.

(2) Considering whole life by itself, and assuming the average size for males as $5,000 and females as $2,500, the setback might well be one or two years, if not lower. However, a company which has a preponderance of limited payment life plans may find it inadvisable to consider any setback for policies in this area of size.

(3) If the average size for males is in excess of $15,000 and females about $7,500, the maximum setback may be two or three years. However, if a company establishes a policy with a minimum of, say, $15,000, then the average size for females may closely approximate that for males. Allowing for fluctuation and considering it as two-thirds, the maximum setback might be three or four years.

(4) The establishment of a minimum policy in the neighborhood of $2,500 may be helpful in minimizing unfavorable female differentials, particularly in the case of endowments, where there is frequently found a large number of small policies for the young female ages.

One other interesting speculation arises. If companies choose to adopt the principles of grading by size, then within the size groups might not this drive up the ratio of female average size to male average size? Within each size group age setbacks could be conceivably employed, the largest setback being for the large-size groups and little or no setback in the small-size groups.

Mr. Campbell noted that the Standard Nonforfeiture Law was not written in contemplation of rating down male ages for female lives. Anomalies can develop such that a company would have to provide nonforfeiture values on a basis less favorable to the insured than it would otherwise be willing to provide, in order to comply with the interpretation of the law in certain states.

MR. W. G. McCORMICK said that the main basis for not allowing a lower premium rate for women is the additional expense due to the lower average size policy. However, since many companies are now taking policy size into consideration in their premium rate structure, it would seem imperative that a company so doing should rate down policies issued to women. Lower lapse rates, not-taken rates, underwriting costs, and fewer special settlement option provisions would tend to support the theory that even though the average policy size is lower, the average cost of issuing this smaller policy would be less than for a corresponding male issue.

MR. MEHLMAN remarked that the level of premium rates established by any company in California for women is a matter for discretion of company management, subject to any deficiency reserve requirements under the Standard Valuation Law applied according to the actual age at issue. He further pointed out that under California law if nonforfeiture values on ordinary insurance are on a rated-down age basis, they must not be less than the minimum values based upon the rate of interest specified in the policy for calculating the actual nonforfeiture values granted and the CSO Table, when applied according to the actual age at issue.

MR. GEORGE RYRIE said that in 1952 the North American Life (Canada) concluded that some attention should be given to the impact of the rising per policy costs on small policies. A study of new policy amounts indicated a fairly definite breaking point at the $2,500 level at which there appeared to be a separation between the small and not so small policies. They felt that there should be a more equitable assessment of costs according to policy size but realized that unless steps were taken to reduce costs on small policies, any appropriate rate adjustments would result in prohibitive increases.

After due consideration of their special problems they decided to create a special class of policies for amounts from $1,000 to $2,499 with some special regulations designed to reduce costs. Briefly the features of this special class were: (*a*) additional mortality provision up to age 50 to permit streamlined underwriting; (*b*) automatic inclusion up to age 55 of a disability waiver benefit with a one year waiting period—disability income benefit and family income benefit not to be available; (*c*) restriction to 12 policy plans, participating only, and a ban on special quotations; (*d*) higher expense charges and a lower cash value basis.

Although there were some difficulties in selling this scheme to some of their branch managers, particularly those operating in rural areas, it is now generally approved. Of particular note is the improvement in policy issue time which, using median time for comparison, is only 60% of the median issue time for the rest of their business. This appears to mean more to the sales force than any other factor.

The field reports very infrequent difficulty in competition but cites many cases of prospects being switched to the higher amount series because of the net cost position. They apparently are not impressed with the automatic disability waiver benefit. However, the elimination of practically all disability benefit underwriting has been an important factor in reducing underwriting time and cost.

MR. W. H. BREEZE presented the following mortality experience of the Ohio National Life on policies issued to children less than six months old. For policies issued during calendar years 1945 through 1947 the death benefit during the first policy year was $100 for each $1,000 ultimate face amount. From 1948 through 1950 the death benefit was $250, and from 1951 through 1954 it was the full face amount.

EXPERIENCE DURING FIRST POLICY YEAR
POLICIES ISSUED AT AGE 0

Calendar Year's Issues	Exposure		Claims		Mortality Rate per 1,000	
	Number	Amount	Number	Amount	Number	Amount
1945	566	$ 69,596	2	$ 200	3.5	2.9
1946	792	101,060	7	938	8.8	9.3
1947	1,172	149,650	3	443	2.6	3.0
	2,530	$ 320,306	12	$ 1,581	4.7	4.9
1948	1,160	$ 430,628	0	$ 0	0	0
1949	1,042	420,163	3	750	2.9	1.8
1950	1,011	420,291	4	2,000	4.0	4.8
	3,213	$1,271,082	7	$ 2,750	2.2	2.2
1951	987	$1,219,932	3	$ 2,461	3.0	2.0
1952	1,018	1,806,140	3	7,301	2.9	4.0
1953	1,024	1,919,365	0	0	0	0
1954	1,026	1,788,778	1	2,545	1.0	1.4
	4,055	$6,734,215	7	$12,307	1.7	1.8

He attributes the low age 0 mortality rates experienced to the following factors:

1. Applications on premature babies and infants under normal weight are postponed until there is evidence of normal development.
2. If the application is taken during the first two weeks of life, the agent is not permitted to take any settlement with the application or issue a binding receipt. On delivery of a policy applied for during the first two weeks after birth, the agent must obtain a signed statement from the purchaser that the child is normal and in good health, and the agent must personally see the child and execute a form certifying that he has done so and that the child appears well nourished and in good health. Seldom, if ever, does coverage go into effect during the first two weeks of life.

MR. R. M. SELLERS reported on the juvenile experience of the Commonwealth Life, which has issued policies with full coverage from date of issue since September 1, 1954. Most of the policies considered were issued on a nonmedical basis without inspection reports and at an average age at issue of forty days.

Commonwealth's experience for the calendar years 1948–1951, inclusive, was used as the basis of expected claims. All studies were made on a calendar year basis and are based on the face amount of insurance reduced by the policy reserve. The ultimate face amount is used for issues prior to September 1, 1954.

For the 1948–1951 period, graded benefits per $1,000 of ultimate amounts were $150, $300, $400, $600, $800 and $1,000. For the remaining period through September 1, 1954, graded benefits were $250 and $1,000.

There is no evidence that mortality experience has been influenced by the schedule of graded benefits in effect. Careful underwriting in the field with close local supervision of the agency staff is responsible for the favorable results. The single period of adverse experience, 1954, was caused by one claim for $10,000. Had this study been made by number rather than by amount, the results would have been uniformly favorable.

ORDINARY ISSUES 1948–1951 AT AGE 0

Year of Issue	Amounts Exposed	Actual Claims	Expected Claims	Claims per 1,000
1948–1951	$3,570,563	$14,925	$14,925	4.18
1952	1,224,024	2,981	5,117	2.44
1953	1,320,695	0	5,520	0
1954	1,228,875	12,948	5,137	10.54
1955	1,380,948	2,994	5,772	2.17
1952–1954	$3,773,594	$15,929	$15,774	4.22

MR. J. E. MORRISON said that the Great-West Life has been issuing juvenile business subject to legal limitations applicable to Canada and in the case of United States business offers full coverage from issue except at age 0, where the limit is $250 per thousand in the first policy year. Their mortality experience for the calendar years 1952–1955 shows that the experience under the American business has been extremely favorable and lower than the Canadian experience. In relation to expected claims by the Canadian 1949–1952 Intercompany Table the experience under American policies for attained ages 0 to 4 inclusive was 65.5% by number and 54.4% by amount.

MR. W. J. NOVEMBER said that the Equitable Life Assurance Society has been issuing full benefit policies at age 0 since 1951. They experienced a death rate on juvenile policies issued at age 0 of 2.3 per thousand between 1945 and 1950 anniversaries and 2.1 per thousand between 1950 and 1955 anniversaries. Their underwriting includes a relatively conservative limit of insurance and applications are not accepted until the child is two weeks old.

MR. J. E. HOSKINS, speaking on section F, said that for the purpose of minimum nonforfeiture values the Standard Nonforfeiture Law regards a policy with attached level supplemental term as if the total coverage were one policy with varying benefits and varying premiums. It follows that the total minimum values are defined by adjusted premiums which are proportionate to the gross premiums with and without supplemental term extra.

When a company has the practice of adding level supplemental term by rider to almost any basic plan of insurance, it is obviously desirable that the addition of the rider shall not affect the basic policy after the rider has expired. To accomplish this it is essential that the adjusted premium for the period following the expiry of the rider shall be such that the legal minimum values thereafter shall not exceed the values normally contained in the basic policy. This puts a maximum limit on the ratio of the gross supplemental term premium to the gross premium for the basic policy. (See *RAIA* XXXV, 235, for full discussion of this point.)

It appears that if a company were permitted to use a table more modern than the 1941 CSO as the minimum standard for nonforfeiture values, and elected to do so, and if there were no other change in the Standard Nonforfeiture Law, the effect would be to lower still further the maximum supplemental term premiums which could be charged in connection with a given scale of basic premiums.

Some companies have brought their level term riders within the specific exemption accorded to decreasing term riders under the Standard Nonforfeiture Law by giving a greater amount of insurance in the first year or two of the rider. Supervising authorities have apparently regarded these as decreasing term riders until a court rules to the contrary. Here is another situation where it ought to be possible to do directly what can be done by an artificial procedure which has no purpose other than to get around an unreasonable technicality.

The situation is further complicated by the trend toward variation of premiums by size of policy. The ratio of extra to basic premium will then vary with the size of the basic policy, and consequently the maximum practical extra premium will vary, unless the extra premiums are arbitrarily varied by size in proportion to the basic premiums. Even then, the premium for $10,000 supplemental term when attached to $5,000 of basic insurance might have to differ from what it would be if attached to $10,000 of basic insurance.

Mr. Hoskins remarked that a situation which originally appeared to some as only a mild inconvenience has in the course of time become serious. While relief can be obtained through nominally turning level supplemental term insurance into decreasing term, a more straightforward solution ought to be made possible. An obvious and simple solution would be to provide that the minimum additional nonforfeiture values required on account of level supplemental term shall be only such minimum values as would be required if the term insurance were issued separately.

MR. S. P. ADAMS said that when the Lincoln National introduced a special ordinary life nonparticipating policy, with a $25,000 minimum amount and $2\frac{1}{2}\%$ minimum cash values, they felt they had four possible courses regarding level-amount term riders under the limitations of the Standard Nonforfeiture Law: (1) to increase basic policy premiums arbitrarily, (2) to reduce term rider rates to a point where they would not only be inadequate but would also produce deficiency reserve, (3) to increase basic policy values to a level not justified by asset share calculations, or (4) to refuse to issue level term riders with the new policy. They chose the fourth course, a choice which they have had some trouble explaining to the field force.

He felt that the law discriminates against level-amount riders when the treatment of level-amount and decreasing riders is compared.

There are apparently about twenty-five jurisdictions where the present law exempts only decreasing riders. However, the desired exemption of all term riders which, if issued as separate policies, would be exempt now appears in the law of about seven states. It was his impression that, in most of these seven cases, the desired language was in the law as originally passed. However, in at least one of the instances where this was not the case, the desired amendment was secured without any particular difficulty.

MR. WILLIAM ALLAN expressed concern that under the Standard Nonforfeiture Law the special nonforfeiture values for supplemental term insurance should be a controlling factor instead of a by-product in the establishing of premium rates. He said that the sections of the law which relate to contracts with varying premiums or varying amounts of insurance were designed for step-rate premium or amount policies and not for supplemental term insurance issued in connection with a base policy. Much actuarial ingenuity has been required to solve the problems of conforming with the requirements of the Standard Nonforfeiture Law in order to be able to market a popular form of term coverage in connection with a wide variety of life or endowment policy forms.

The administration of the resulting product, whether participating or nonparticipating insurance, is a cumbersome and costly job. In fact, participating companies writing supplemental term insurance benefits in Massachusetts must provide in the policy contract for the allocation of any dividend equities between the surrender values of the base policy and the supplemental term insurance benefit.