

MISCELLANEOUS TOPICS

- A. What planned programs for educating and training actuarial trainees have been developed by life insurance companies and consulting firms? Have the various educational programs that have been adopted in recent years in the actuarial field proved to be of significant help in recruiting actuaries?
- B. Is there a trend toward final salary pension plans? What are the advantages and disadvantages of this type of plan as compared with career average salary plans? In relation to the problems of inflation, what are the pros and cons of the final salary plan as compared with
- (i) Periodic upgrading of benefits under a career average salary plan?
 - (ii) Variable annuities for a part or all of the plan?
 - (iii) Cost-of-living annuities?
- Have final salary plans operated within the financial estimates of the actuary in recent years?
- C. (i) What has been the effect on both new issues and policies in force in the field of individual hospitalization and surgical insurance of
- (1) The continued expansion of group protection in these areas and particularly the new program for federal government employees in the United States?
 - (2) The provincial hospitalization systems in effect in Canada?
 - (ii) What experience is available as to the effect of dual coverage for hospitalization and surgical benefits under Blue Cross and Blue Shield plans and under individual insurance policies?

MR. CLARENCE H. TOOKEY opened the discussion of section A by reporting on the first year of the formal actuarial training program of the Occidental of California. The program includes classes during working hours for each associateship examination, and additional study time for most students. The results on the recent examinations written by students were very favorable with 33 passes out of 51 examinations written.

Because of the program a number of new employees have joined the Company, and it has also resulted in several present Company employees becoming actuarial students, with some showing great promise. In addition, the program has produced significant contacts with college students who have not yet enrolled in the program.

In contrast to previous years, summer employment was offered only to those who had demonstrated an interest in becoming actuaries and the summer program was designed to help them pass some actuarial examinations in the coming year. Previous summer programs had been designed to sell open-minded students on the profession.

When contact is made with interested students, they are encouraged to

prepare seriously for the examinations and are given practice problems and other help. It is hoped that in this way future students joining the Company will have some examinations already passed and can be offered attractive salaries compared to other opportunities. In addition, they will have an idea of the Company's program.

Mr. Tookey felt that in the future the effect of the program might be measured in quality rather than numbers, with the emphasis in the formal program then shifting to the later examinations.

MR. FREDRICK E. RATHGEBER reported that his company's program for full-time actuarial students basically consists of frequent job rotation and assistance in studying for the examinations. Job assignments are related to examination status as much as possible and are changed at intervals ranging from three months to one year. The students are sent to classes sponsored by the New York Actuaries Club, and the practice of having a company instructor has been discontinued. The amount of study time allowed was doubled this year.

Mr. Rathgeber felt that the summer program is the best means of developing potential actuarial material. After experimenting with a maximum volume of summer students a few years ago, it was concluded that it is better to be more selective and do a more complete job with each student than to do a mediocre job with a large number. Another conclusion was that it is better to concentrate on students completing their sophomore and junior years at college, and encourage students under that level to take courses which will be helpful in studying for the examinations, with the hope that some of them will develop into actuarial students. In an attempt to overcome the problem of getting summer students to know what an actuary does, small groups of students have informal meetings with an actuary who discusses various aspects of his job. Each student has three such interviews during the summer.

The joint program of the Society and the Mathematical Association of America is starting to bear fruit, both as to inquiries from students who have taken these competitive examinations and as to the increasing number of college students, particularly freshmen, who are aware of actuarial work.

Mr. Rathgeber mentioned the tendency of college students to go on to graduate school, other than in actuarial science, thus deferring actuarial work for another year and possibly leading to another career. He felt that if the graduate schools become filled to maximum capacity the number of potential actuaries siphoned off would tend to reduce.

MISS NORA M. BEATTIE noted a recent trend toward a more positive and formalized approach to actuarial student training. Although the

New York Life's training program includes recruiting of students who have both actuarial and executive potential, basing of salaries on both examinations and merit, supplementary study notes and on-the-job study time, it is felt that the most important aspect of the program is the work assignment itself.

In addition to operating divisions, the actuarial department has a research division which is devoted to jobs of a special nature and to non-recurring work. Practically all actuarial students are assigned to this division and have an opportunity to work on practical problems connected with topics in the actuarial curriculum. Students are rotated from time to time within the division and may be temporarily transferred to other areas for training or special assignments. The placement of students in the same division gives them an opportunity, through informal discussions, to learn about jobs to which they have not been assigned. Miss Beattie felt that this program prevents a student from becoming entrapped in a specific work area by giving him a broad range of jobs, and at the same time provides an efficient actuarial department able to handle maintenance, administration, and special problems in the best possible way.

MR. GEORGE W. CHALMERS stressed the need for keeping in close contact with students. Most students in universities are used to a training schedule with assignments and continuous supervision. The problem of recruiting actuaries cannot be solved by getting students interested with publicity and lectures and then leaving them to their own devices to study the course of reading. He stated that his company offers separate courses for Parts 2 and 3 which meet for three hours each week.

Speaking of his experiences as a tutor for the Canadian Association of Actuaries study course for Part 2, Mr. Chalmers noted a high correlation between the amount of work done and examination success. In a group of 200 students, almost invariably one-quarter will finish the course and work hard, another quarter stumble through half the course, and the remainder do nothing. Some 90% of the first group get through the examinations, while not more than 5% of the other groups are successful. As tutor for the Canadian Association of Actuaries Mr. Chalmers closely supervised the Part 2 students in his own company and he reported nearly 100% success as a result of this.

Mr. Chalmers strongly recommended exercising university discipline on actuarial students and taking a week-by-week interest in their progress with their actuarial courses.

MR. ELMER R. BENEDICT reported that the program of the John Hancock for permanent students is similar to that of other companies and includes various job assignments, formal lectures on the operations of

other departments, courses offered by the Actuaries' Club of Boston and office time for study.

Four years ago the company expanded their summer program. The 1960 program included courses for Parts 3 through 5, a survey for new students of actuarial work, seminars in actuarial work for advanced students, lectures on data processing machines, lectures by company officers on the insurance business and tours to certain departments such as an agency office. The usual number of summer students has been between 25 and 30, with permanent students also attending certain of the activities. In each of the four summers, the company has employed the services of men who have been both Society members and members of a college faculty to handle the program.

It is too early to evaluate the effectiveness of the program in terms of permanent employees, but programs such as this have become increasingly necessary as competition with other industries for such men has increased. In evaluating such programs it is necessary to look at the results on an industry-wide basis, since the company may lose some summer students to other companies but in turn employ those who have been in the summer programs of other companies.

MR. ALVIN B. NELSEN, in discussing the permanent student program of the Equitable, gave a report similar to Mr. Benedict's. He noted that a large number of top college students are interested in graduate study, and that the graduate actuarial course should attract students to the actuarial field, but that this source has not proved very helpful in meeting needs. A problem for New York City companies has been the geographical distribution of the schools and the students they attract. Mr. Nelsen recommended encouragement of graduate courses at additional schools, particularly in the Northeastern area.

DR. J. PERHAM STANLEY, speaking on section B, noted a definite trend toward final salary pension plans. He analyzed the retirement plans of the present clients of the Detroit office of The Wyatt Company, omitting plans where the benefit was not related to earnings. After combining parallel plans of each employer there were 82 plans in the study, of which 59, or 72%, were final salary type. Of the 28 plans now in force which were in effect in 1950, only 11 (39%) were final salary type at that time. In the ten year period, 11 more changed from career average type to final salary type. Of the plans installed in the last ten years, 37 of 54 were final salary type. Dr. Stanley felt that the same trend to "final pay" plans would be evident in most consulting offices.

Because of different approaches used in selecting the plans to be in-

cluded, these results are not comparable with the 1960 Study of Industrial Retirement Plans by the Bankers Trust Company of New York, which showed only 44% of certain major plans established or amended in 1956 to 1959 to be related wholly or partly to final salary. A study confined to insured plans might show divergent results between conventional group deferred annuity contracts, which are most commonly of the career average type, and individual policy pension trusts, of which a substantial fraction are of the final salary type.

MR. WILLIAM A. FERGUSON also noted a definite trend toward final average salary plans, and felt that this emphasized the actuary's obligation to fully inform a client of the greater economic hazards inherent in this type of plan. Part of this trend is due to the increasing acceptance by employers of the obligation to provide pensions bearing a reasonable relationship to salary at the time of retirement, as evidenced today by supplemental benefit payments, supplemental plans, and minimum pensions in relation to final salary. A final average type pension will usually be reasonable at the time of retirement.

Although there has not been sufficient time to develop mature experience, cost estimates of final average plans appear to have been satisfactory. In some cases losses resulting from increases in salary greater than expected have been offset by investment or termination gains.

An ideal plan is one which provides adequate benefits at retirement and adjusts pensions during retirement to maintain the same purchasing power. A final average salary plan can provide adequate retirement benefits, but does not adjust to future changes in the cost of living. A cost-of-living plan compensates for changes in the price level both before and after retirement, but does not solve the problem of accumulating sufficient pension credits to provide an adequate pension at retirement, particularly for those who rise to executive positions late in their careers. A final average plan with periodic cost-of-living adjustments during retirement seems the closest approach to the ideal.

If the employer has already assumed the risk of inflation affecting salaries, the additional risk of keeping pensions in pace with living costs after retirement is relatively small. The usual reasons for employers electing a more conservative career average type of plan with periodic updating are a desire to retain direct control over and to stabilize the dollar amount of pension obligation, a desire to be able to modify the pension formula periodically with use of hindsight and a desire to obtain the good will created by periodic improvements in pension benefits.

The variable annuity plan does not necessarily assure the adequacy of

the pension at retirement, and in addition it passes on to the employee the risk that the cost of living will vary independently of the short term value of the equities in which the contributions are invested.

A career average plan transfers to the employees the major portion of the risk of increases in the cost of living, but may be desirable for employers who are hesitant to accept the risks implied by a final salary or cost-of-living plan, since the career average plan can be designed to provide adequate benefits for employees retiring in the near future with the intention of future adjustments in pensions.

Summarizing, Mr. Ferguson felt there is a valid need for all of the types discussed, and regardless of type the actuary should clearly point out the risks involved. The plan chosen is usually a compromise between a concept of an ideal plan and the extent to which the employer is willing to assume the risk in providing the ideal.

DR. ALAN A. GROTH also noted the trend toward final salary plans, and commented that the trend is even greater than it appears if companies are included which are considering changing from a career average to a final salary plan but for the time being are postponing the change because of the extra cost involved.

If a career average plan has the same cost level as a final salary plan, the benefit rate of the career average plan is generally much higher. This may create problems in changing from one type to another, and there is no satisfactory solution short of guaranteeing that the employee will receive the greater of the benefits produced by the different formulas. Dr. Groth thought this type of guarantee was not always desirable and suggested further analysis of problems connected with changes and amendments in pension programs.

Dr. Groth felt that the final salary plan was superior to the career average plan, both as to adequacy of pensions and as to avoiding the discrimination against executive personnel inherent in the career plan. He doubted that periodic upgrading of career average plans will solve the problem of inadequacy at retirement and in addition the upgrading seldom covers employees who are already retired.

Although no actuary can forecast the dollar cost of a final average plan, the normal annual cost of the plan can be predicted in terms of payroll and therefore becomes a budgetable cost. The actuary cannot give definite information as to the accrued past service liability in a final salary plan, but if money can be invested so that the actual asset value of the plan increases in proportion to changes in past service liability, there need be no fear in changing to a final average plan.

MR. ROBERT J. MYERS discussed the career average wage formula in the Old-Age, Survivors, and Disability Insurance program. The basis of the average monthly wage has been a career average, but, in order to get the program fully effective as soon as possible, in the early years the average wage has been computed over a relatively short period which has been as low as one and a half years.

Under the basis in effect before the 1960 Amendments, for persons who worked beyond the minimum retirement age there was the alternative of the average monthly wage to age 65 (age 62 for women) or the average wage computed as of the later date of retirement. In a number of cases people who had worked beyond the minimum retirement age found that if they had filed at an earlier date (but after the minimum retirement age), they would have had larger benefits. This produced some severe criticism.

The 1960 Amendments provide that a specified number of years of highest earnings are to be used in the calculation of the average monthly wage, the number of years being determined entirely by the date of birth, and being approximately the same number as under previous law for persons retiring at the minimum age. This allows people working beyond the minimum retirement age to substitute years of high earnings after that age for low years before then, and will allow people retiring in the near future to attain the maximum benefit of \$127, since they can substitute years after the minimum retirement age for years before 1959, when the earnings base was less than \$4,800.

Mr. Myers expected that there will be pressure in the future to change from a career average method to something like a five or ten year high average, in order to keep up with rising wage or inflationary trends.

MR. ALLAN K. ARCHER led off section C by reporting on experience with the provincial hospitalization systems in effect in Canada.

Manitoba, Ontario, and Prince Edward Island have prohibited the making of, the renewal of, or any payments under contracts covering hospital services provided by the Hospitalization Act. The prohibition on renewal has brought a need for amendment of commercial contracts, and the prohibition on the making of payments has had the same effect on guaranteed continuable and noncancelable contracts. In an effort to maintain premium income most insurers have offered other benefits in lieu of those deleted, but many policies have gone out of force. Reasons for termination include policyholder misunderstanding in thinking the government system supplanted all of the individual policy benefits, self-insuring by the policyholders, and uneconomic premiums or the impossibility of adjusting the benefits after elimination of hospitalization benefits.

The Yukon and Northwest Territories also prohibit duplication of insured services and indications are that Quebec will introduce legislation of the prohibitive type.

The legislation of the other provinces is silent on the point of duplication of government insured services, although there are signs that Alberta may change its Act to a prohibitive kind. In these provinces amendment of commercial contracts to avoid duplication with the government scheme has been possible, but no steps have been possible with guaranteed continuable and noncancelable contracts. Consequently, the amount of hospitalization coverage has not diminished as much in this group of provinces.

Prohibitive legislation and the natural desire of insurers to avoid duplication of benefits have resulted in new issues being confined to a supplementary type of benefit relative to the cost differential between semi-private or private and standard ward accommodations.

The number of Canadians whose hospital expenses are covered by individual insurance contracts has declined from 1,049,000 to 496,000 since 1957, according to a study of the Canadian Health Insurance Association. In the provinces with prohibitive legislation the decline has been in the order of 65%.

MR. ANTHONY J. HOUGHTON outlined the three policies drafted by the Metropolitan in 1958 to prepare for the provincial hospitalization systems. The Standard Medical Expense policy provides surgical benefits, an anesthetist fee, a maternity benefit in family policies, and reimbursement of the amount charged for private or semiprivate accommodations in excess of the charge for standard ward care up to a maximum of \$5 per day. The Senior Hospital Expense policy is similar, with a different surgical schedule and maximum duration of hospital stay, and no maternity provision. The Comprehensive Medical Expense policy adds out-of-hospital coverage to the Standard Medical Expense policy and pays 80% of the excess of expense over a \$50 deductible. All three plans are renewable at the option of the Company.

When notice of a Provincial Plan was received these policies were issued with a Supplementary Agreement that temporarily covered the hospital benefits which would be provided by the Provincial Plan when it began operating.

Older policies were revised to conform to the legislation by eliminating benefits covered by a Provincial Plan and reducing the premium accordingly.

Mr. Houghton presented the following table for Ontario, which adopted

a Provincial Plan January 1, 1959, and indicated that the Metropolitan has been pleased with the sustained demand for policies.

	Old Forms	New Forms	Total
Number of Policies in force December 1958. . .	9,709	1,785	11,494
Number of Policies in force December 1959. . .	6,641	4,613	11,254

MR. EDWIN L. BARTELSON reported that the Prudential discontinued the sale of hospital expense policies in all provinces except Quebec in April 1958. Their substitute policies provide surgical and medical expense benefits, a small hospital daily benefit for semiprivate room charges beyond the standard ward level of the provincial plans and have a small deductible and coinsurance factor. They have sold very few policies, and the new issues in Ontario in 1959 were only 12% by number and 8% by premium of the 1957 hospitalization issues.

In Ontario and Manitoba, policies in force were amended to eliminate duplication with the provincial plan, leaving only surgical benefits and supplementary semiprivate room charge benefits. Premiums were sharply reduced, and when combined with lapses and negligible new issues the effect in Ontario was a drop in policies in force of 36% by number and 63% by premium from the end of 1957 to the end of 1959. In contrast, the in-force in Quebec increased 22% by number and 31% by amount, and the issue 42% by number and 64% by amount. Current developments indicate that Quebec will have a provincial plan next year, and the Prudential expects to lose most of that business also.