

SOCIETY OF ACTUARIES

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# CALCULATORS ENTER THE EXAM ROOM

The E & E Committee has announced that, beginning in May 1984, calculators will be permitted for all Society examinations. Rules have been promulgated for all exams, except Part 7-P (US), rules for which will be distributed with the tickets of admission.

Use of calculators will be optional. The Part Committees will not change their examination emphasis or the types of questions; the same fundamentals as in the past will be stressed.

The announcement to candidates sets forth the names and model numbers of the only calculators that will be permitted in 1984. Candidates may bring extra batteries and one back-up calculator; only one calculator may be used at one time.

## QUALIFYING TO PRACTICE IN THE UNITED KINGDOM

The following message, of interest to Society Fellows who may wish to practice in the U.K., has come to our President from Mr. C. S. S. Lyon, President of the Institute of Actuaries:

When an overseas insurance company is transacting long-term business in the UK, our regulatory authority, the Department of Trade and Industry (DTI), requires certain statutory returns to be signed by an actuary appointed by the company, i.e., the Appointed Actuary. If the company wishes to appoint for this purpose an actuary who is not a Fellow of the Institute or Faculty, the DTI, with the advice of the Government Actuary, has to decide whether or not he is acceptable.

The criteria for this decision relate both to the nature of the applicant's actuarial qualification and to the extent of his relevant experience. The DTI considers it essential that a person becoming an Appointed Actuary have available the guidance given by the Institute and Faculty to FIAs and FFAs, that he carry out his duties with due regard to such guidance, and (Continued on page 3)

## DIRECTORY OF ACTUARIAL TRAINING PROGRAMS

In May 1983, the Society office circulated members who are chief actuaries inviting their contributions to a booklet for students that would acquaint them with existing actuarial training programs, full-time or summer and internships. The result was "Actuarial Training Programs, 1983", a copy of which is available from Itasca headquarters. The numbers of such programs in this first edition were:

| Canada       | 17  |
|--------------|-----|
| U.S.AEast    | 38  |
| U.S.AMidwest | 41  |
| U.S.ASouth   | 32  |
| U.S.AWest    | 11  |
| Overseas     | 5   |
|              | 144 |

Immediately upon publication, a survey for the second edition was launched. Our guess is that many who missed being in the first booklet will make the second.

## BLENDED 1980 CSO TABLES FOR "NORRIS"

by Robert J. Johansen, Chairman, Mortality Problems Committee

In response to an NAIC request, our newly renamed committee (see below— Ed.) has prepared two sets of blended-bysex 1980 CSO mortality tables for use in determining minimum cash values and nonforfeiture benefits for life insurance policies issued in employee benefit plans which, because of the Norris decision, must provide equal annual benefits to men and women.

An NAIC resolution adopted last fall permitted use of blended tables but did not specify any tables nor a method to construct them; at its December meeting, NAIC adopted 20%, 40%, 50%, 60% and 80% male blended tables iden-

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## THE FUTURE—AS THROUGH A GLASS DARKLY

#### by James C. Hickman

FEBRUARY, 1984

Actuaries and social scientists gazed into their collective crystal ball at the Actuarial Research Conference at University of Wisconsin-Madison, September 29th to October 1st, 1983. They were trying to foresee the implications of population trends on social insurance and employee benefit programs.

The conference, on "Population Projections: Techniques and Implications", was co-sponsored by the Society's Research and Social Insurance Committees and the School of Business, University of Wisconsin.

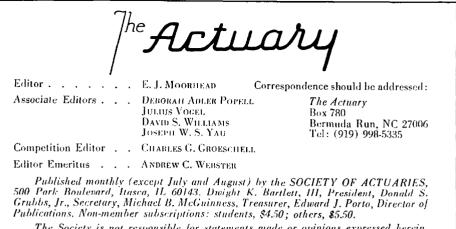
The far-reaching trends cited were: increasing life expectancy, decreasing birth rate, an aging population and workforce, growing numbers of working women, impending revolution in office work, a declining tax base, and escalating social and benefit program costs

#### **Keyfitz Analysis**

In his keynote address, "Technology, Employment and the Succession of Generations", Nathan Keyfitz, Harvard University, recalled that formerly a person trained in some skill could expect to live out his or her working life in the exercise of that skill. "Technical change", said he, "was manageable. Only at retirement would substantial change be made as a youthful successor replaced him (or her) on the job. The rhythm of change was thus in harmony with the succession of generations." This is no longer true.

Keyfitz explained that "the disharmony that results when the pace of technical advance greatly exceeds the pace of turnover of generations is accentuated by the fall in birth rate". Because the birth rate fell 30-40 percent, starting in about 1960, the number of entrants into the labor force in most Western countries is now

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# EDITORIAL

#### "THE WIDOW'S AND ORPHANS' LEGACY"

In 1868 The Guardian Mutual Life Insurance Company, 102 Broadway, New York City—no connection, we emphasize, to the present Guardian Life on Park Avenue South—published a 20-page booklet with the above title.

Announced as taken from a very entertaining work by a Mr. Adams of Massachusetts, it told of the Brown and Jones families whose appraisals of the merits of life insurance differed.

"Got his life insured! Then he will certainly die!" exclaimed Mrs. Jones..."I never knew any man to get his life insured without dying very soon after."

Mrs. Brown smiled at her friend's superstition, but failed to shake her hostility towards life insurance which stemmed from having heard her minister assert that getting one's life insured is trifling with death.

The ladies' husbands entered the scene. Brown was always pleased to discuss his favorite topic. Life insurance had been a boon of happiness to him, but Jones was obstinate:

"It's all a humbug, Mrs. Brown...These fellows mean to get your money and keep it. You never will eatch them paying the policies."

Six months later, Jones suffered a fall; he lingered for a month, then died. His widow's material and mental sufferings ended in her death six months after that, leaving her young children in the poorhouse.

The rest of the booklet, advertising the Guardian Mutual, explained that the plan on which it does business has been proved entirely safe and reliable:

"the premiums are payable in cash...but when a party desires, one-third of each annual premium may remain on loan at legal interest...The non-forfeitable system is applied liberally." There followed a statement of the company's condition the previous year-end, which we summarize:

| Cash and securities                  | \$ 251,718 |
|--------------------------------------|------------|
| Loans on Policies                    | 566,458    |
| Deferred Premiums                    | 220,331    |
| Deduct:                              | 1,038,507  |
| Reinsurance Fund & other Liabilities | 799,786    |
| Surplus, December 31, 1867           | \$ 238,721 |

The sequel is found in the 1875 Annual Report of the Superintendent of Insurance of New York:

"Sufficient information relative to the condition of the Guardian Life was obtained, to authorize the Department to request its officers to cease doing new business in the interest of old policyholders; an examination of the company, and of the companies it had insured, was instituted, and a contract of re-insurance was entered into between it and the Universal, by which the latter company assumed...each and all of the risks of the former."

A sad tale—particularly as the Superintendent's Report for 1877 disclosed that the Universal Life Insurance Company was in deficit; it went out of business that year. Only one of three Society members who have corresponded about this case since the booklet came to light has noted a silver lining; it released the name so that Germania Life could adopt it in 1917. E.J.M.

## DEATHS

F. Arthur Goodwin, A.S.A. 1929

#### **Blended 1980 CSO Tables**

(Continued from page 1)

tified respectively as 1980 CSO-B, C, D, E and F Tables. The 100% male and 100% female tables are called the 1980-CSO-A and 1980 CSO-G Tables; the corresponding CET tables are called 1980 CET-A, 1980 CET-B, etc.

The intent is that the blend be that most closely matching the employee male/female ratio in a particular case. Valuations of Norris-affected policies will continue to be required on the 1980 CSO sex-distinct tables. Adequacy of reserves to cover cash values will depend, inter-alia, on how closely the blended tables track the actual proportions by sex.

The A and G tables are intended for use (as "blended" tables) for employee groups that are 90% or more males or females respectively. Unrestricted use is permitted through the end of 1934; use for group conversions is permitted through 1985.

In our Committee report and orally at the NAIC meeting, it was pointed out that inasmuch as there had not been time for Board approval of the report or even for the Committee members to go beyond general agreement with the methodology and quick review of the tables, the report was not an official Committee opinion—furthermore, that production of these tables does not constitute endorsement of the Norris decision.

The TIAA method of blending the l-values was used, 45 being the age at which the ratio was applied. Tests showed that choice of the blending age had negligible effect at the young ages, and little through ages 65-70.

The Committee, at NAIC request, is working on blended select factors.

Copics of the Committee report may be had from the Society office. The Committee's full name? Committee on Nonforfeiture and Valuation Mortality Problems—Individual Life Insurance and Annuities.

#### Comments Requested

Please send comments to me at my Yearbook address, with copies to Mark G. <sup>-</sup> Doherty, Director of Research, at the Society office, and to Ted Becker, Chairman, NAIC Technical Staff Actuarial Group, 1110 San Jacinto, Austin, TX 78786.