



The Actuary

The Newsletter of the Society of Actuaries

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THE 1983 TABLE *a*

by Robert J. Johansen

Ed. Note: This is the second of three articles. The first (April issue) told how the 1973 Experience Table was constructed.

Outlined here are two steps: (i) projecting the values in the 1973 Experience Table to produce the 1983 Basic Table, and (ii) reducing the 1983 Basic Table *q*'s to arrive at the recommended annuity valuation table called the 1983 Table *a*.

Mortality Improvement Factors 1973-1983

Because the most recent annuity mortality experience was centered on 1973, the Committee had to rely substantially on recent improvement rates observed in the U.S. white population through 1979 in projecting annual improvement rates for 1973 to 1983. A comparison over earlier periods indicated that such reliance was reasonable.

Annual Improvement Factors

Ages	U.S. White Population		Used for 1973-83 Males & Females
	Males	Females	
57-72	2.50	1.97	2.25
77	1.57	2.45	2.00
82	1.12	1.99	1.75
87	2.17	2.85	1.50

Improvement rates for various population, insured life, medicare and annuitant experiences are shown in Table 9 of our Committee's October 1981 report to Society members to be published in *TSA XXXIII*.

Margin for Fluctuation and Contingencies

To produce an annuity valuation table it is necessary to reduce the pro-

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NEW ACTUARIAL SCIENCE PROGRAM AT HOWARD UNIVERSITY

by Robert J. Randall

An actuarial science program, started at Howard University in Washington, D.C., may be of special interest to actuaries because Howard is the largest and generally recognized as the most prestigious predominantly black university in the U.S.A., and its actuarial program works closely with the Society's Subcommittee on Minority Recruiting. I am on loan from The Equitable Life Assurance Society to serve as its Program Director, with the title Visiting Professor of Actuarial Science.

A unique aspect of this program is its joint sponsorship by the School of Business and the College of Liberal Arts Mathematics Department. An actuarial science major may be in either of these schools. Dr. Adeniran Adebayo, Professor of Mathematics and Chairman of the Actuarial Science Committee, has demonstrated his strong interest by taking and passing the first three actuarial exams. The Mathematics Department furnishes the needed math instruction,

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Fiftieth Anniversary of New York Club

Reminiscences by some of its past leaders, and a keynote address by fiscal and Social Security authority Wilbur Mills, will be among the features of the Golden Anniversary two-day gathering of the New York Actuaries Club at the Sands Hotel in Atlantic City, N.J. on June 11 and 12. Actuaries not members of the Club who would like to attend should ask Charles Carroll at his Yearbook address.

THE INSTITUTE OF ACTUARIES STUDENTS' SOCIETY

by Gary Chamberlin,
London Correspondent

One characteristic of a true student will be that he knows he has more to discover. Keeping eyes and ears open, he will learn from those around him, from books, libraries and journals, from present conditions and past events. His world is open; he will ever be ready to expand and deepen his knowledge. Particularly will he be fortunate if in these endeavours he can enjoy good companionship. It is for such purposes—widening the view and providing companionship—that the Students' Society of the Institute of Actuaries exists. During its 71 years it has contributed substantially to actuarial life.

The Information Gap

The Society's beginning was in 1910, when Steuart Macnaghten—then a tutor, later to become President of the Faculty of Actuaries—saw the difficulties under which students laboured, and resolved that something be done about this. The problems were the state of information and lack of facilities. In some subjects particularly, students found it hard just to discover what knowledge was needed for the examinations. Even text-books were frowned upon; there was no official tuition or reading list; it was only by massive reading of actuarial papers and by kindly assistance from actuaries in his own office, that the student could hope to prepare for what the examiners would require of him. It was as if a cloak of mystery shrouded our profession: even today some evidences remain.

Formed later that year, the Society launched its first session early in 1911 under the chairmanship of that renowned actuary W. P. Elderton. A vigorous

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ARCH**Actuarial Research Clearing House****1981.2 Issue**

In addition to the customary departments: "Problems and Solutions" (two items), and "Teachers' Corner" (three items), this issue contains:

Synopsis of Sixteenth Actuarial Research Conference, Ernest R. Vogt

Bayesian Graduation of FHA/HUD Single Family Home Mortgage Insurance Contracts, Thomas N. Herzog

The Intersection of Portfolio Theory and Risk Theory, James C. Hickman

The Simplex Algorithm and the Exchange Method, Hans U. Gerber

In Defense of Minimum-R₀ Linear Compound Graduation, and a Simple Modification for Its Improvement, Richard L. London

Installment Premiums, Richard L. London

Actuarial Applications of Techebyshew's Inequality, Murray Silver

Student's Note: King's Z-Method and Compound Statuses: An Algebraic Approach, Joseph L. Tupper, III

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Students' Society

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programme of discussions and lectures was given during the run-up period to the exams. Subjects ranged from Approximate Summation and Force of Mortality to Life Assurance Bookkeeping and Indian Railway Securities. Many gatherings were led by men who themselves had yet to qualify.

Vigour and Diligence

These programmes, interrupted only during the two World Wars, have continued with unabated vigour, though

their focus has shifted from needs of the exam-writing student to those of the younger qualified actuary. That turning point came when the Actuarial Tuition Service began in 1937; it was the fulfilment of the Students' Society's original mission, and the moment when it began to evolve into a postgraduate body. The path to the Tuition Service had been well laid; anyone who follows its history in Frederick A. A. Menzler's "The First Fifty Years" will appreciate the diligent and painstaking labours put in by Society members.

Of particular note is the "Consolidation of Reading" series, on essential actuarial matters such as Valuation and Surplus, Life Assurance Premiums and Extra Risks, texts brought out during the 1930's. Their authors were men such as J. H. Gunlake and C. F. Wood, both later Presidents of the Institute; their works indeed were text-books in all but name; prejudice against permitting students such a luxury persisted even through those days.

L'Episode Seal

After the Second war ended came the most heroic episode of the Society's history. Hilary Latham Seal, who had been an Admiralty statistician, became aware of our profession's considerable ignorance of the power of modern statistical techniques. Taking over the Society Journal (JSS) in 1946 as Editor, he forthwith "fraudulently converted the sum of £500 entrusted to him, by using it to edit and publish a highly abstruse mathematical periodical of no interest or value to members of the Society"; so reads the indictment against him in a famous trial at the Prudential's Conference Hall in December 1947 before Mr. 'Justice' Phillips, F.I.A.

Seal was duly convicted of the 'crime', but his only punishment was to have to serve two more sessions as Journal Editor. He proved himself totally unrepentant, continuing to publish high-powered statistical papers unintelligible to most of the readership. Nevertheless, he and his colleagues performed a valuable service to the profession, forcing it to accept the rightful place of statistics in actuarial work, a subject much neglected since the later years of the nineteenth century.

In case prospective JSS readers might

be discouraged by this, let it be said that since Seal's time its content has reverted to a balanced mix of special and general interest actuarial papers. The Alden Press, Osney Mead, Oxford, maintains a subscribers' list on behalf of the Students' Society; readers of *The Actuary* are cordially invited to join that list by direct application to Alden Press. The current volume of JSS, No. 25, to be published soon, contains a paper about advanced simulation methods, intriguingly entitled "Should Actuaries Be Random?", which qualifies for Mr. Hilary Latham's Seal of Approval.

Ed. Note: An amendment in 1966 to the Students' Society rules permits a Society of Actuaries member to join the Students' Society. For information about this agreeable prospect, write to E. J. Moorhead at this newsletter's masthead.

Actuaries in Hong Kong

(Continued from page 2)

erance pay, and there are minor benefits for residents who are disabled, over age 70, or on very low incomes.

The Actuarial Association of Hong Kong

Founded in 1967 on the initiative of the two actuaries then resident, their associates and certain people in the Government Statistics Department, the Actuarial Association of Hong Kong started with 12 members, since when it has grown five-fold. In 1981 the Association held five meetings with papers or discussions on such subjects as Reinsurance, Actuarial Education and Evaluating Investment Performance.

The Association's membership includes about 16 Associates and 25 Student Members of the Institute or Society. Most students are taking the Society examinations, some preparing for exams through actuarial courses at the University of Hong Kong.

Hong Kong, like other Far East countries except Japan, is still unsophisticated in life insurance and employee benefits; nevertheless, rapid economic development in this part of the world seems highly likely to lead to expanding use of actuarial skills and influence. □

WOMEN ACTUARIES IN THE U.K.

by Monica C. Allanach, F.I.A.

Ed. Note: Miss Allanach was first elected to the Council of the Institute of Actuaries in 1968. She has served as Honorary Secretary, 1972-74, Vice President, 1976-79.

I read with interest "Women In Our Profession" by Esther H. Milnes in your January 1980 issue, and was encouraged by your Editor to believe that your readers might be interested in a piece about their "sisters" in the U.K.—more particularly in the Institute of Actuaries, the body about which I can more appropriately write.

Much of what Esther Milnes wrote about the struggles of the early days could so easily have been written in a U.K. context that it won't be repeated here. And I'll try to avoid singling out women actuaries to the point of jeopardising what I believe to be our very real acceptance as equals by the profession.

First, a few statistics—which show marked similarity to Esther Milnes' figures:

	1951	1961	1971	1981
Women Fellows	9 (1.2%)	10 (1.0)	14 (0.9)	58 (2.4)
Women Students	13 (1.5%)	27 (3.0)	73 (4.4)	290 (12.8)

Looking Back

In 1916, when consideration was being given to admitting women to our profession, the emphasis was not whether they should be admitted but whether the Institute's then Bye Laws permitted this. Although the legal and other problems took four years to solve, it is clear from the early documents that a feeling was growing amongst the existing (male) members that if women were taking the same training they should be admitted—and, after all, this was 1916! The pioneer amongst us was Mrs. Spiers, then Miss Davis, the first woman to qualify as an F.I.A. (1923).

A happy illustration of professional acceptance of women more than a half a century ago was an invitation to Miss Davis to open an Institute discussion in 1926—and to dine that evening with the Gallio Club, one of the Actuarial Dining Clubs that until then had been exclusively male in attendance as well as in membership.

Looking back, it seems to me that the profession has amply demonstrated its

FOR YOUR READING

Canadian Institute of Actuaries: *Essays For Discussion — Pensions.*

This is a 107-page compilation of 18 papers written by actuaries for a March 1982 Canadian Institute meeting. Executive Director Colin E. Jack having generously shipped us 25 copies for interested actuaries in the U.S.A., we'll mail one while they last to anybody sending \$2. to E. J. Moorhead at this newsletter's masthead address. Titles are:

Real Interest Rates and the Excess Interest Approach

Mandatory Private Plans—Who Needs Them?

Comments on a Few Fundamentals Implicit and Explicit Assumptions (in French)

Multi-Employer Plans in Canada

Test Calculations Under Benefits Legislation

Investment Policy of a Pension Fund (in French)

Pension Financial Statements (in French)

Excess Interest Approach to Post-Retirement Adjustments

Pensions in the Bazaar: Fable on Unisex & Other Problems

Transfer Agreements (in French)

Equal Monthly Benefits for the Sexes under Money Purchase Plans

Excess Interest: Putting the Cart Before the Horse

Trends in Defined Contribution Plans

Pension Design: By Whom and For Whom?

Excess Interest and the Variable Annuity Concept

Improvement of Pension Plans

Social Security in Canada

John A. Svahn, Restoration of Minimum Benefits & Other OASDI Changes: Legislative History and Summary of Provisions, *Social Security Bulletin*, March 1982. This is a companion to a piece noted in this column, Feb. 1982.

Immunization References—see Irwin T. Vanderhoof's article in our April issue. Mr. Vanderhoof recommends:

Fisher and Weil, Coping with the Risk of Interest Rate Fluctuations, *Journal of Business*, Oct. 1971. Also, Ingersoll, Skelton and Weil, Duration Forty Years Later, *Journal of Financial and Quantitative Analysis*, Nov. 1978.

cannot but help experience loneliness and isolation. This feeling may have discouraged, even if only subconsciously, technically able people who like to feel one of the crowd.

Remedial measures were applied to all these difficulties. The Institute has taken steps to cut down the time taken to qualify; the scope of exemptions from early Institute examinations for University graduates has been extended; the national need for more mathematicians has brought more girls to the study of mathematical subjects at University; and in the 1950's a number of us women actuaries gave thought to what we personally might do to relieve the isolation problem.

We felt it might help if the few of us—we were but nine—could have occasional informal meetings with women students, to get acquainted, to discuss their problems, and to encourage them to attend Institute and Students Society meetings together. Thus was born the Lady Actuaries' Tea Club, started in 1954 with 21 people attending, still continuing today with its numbers in the

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acceptance of women on equal professional terms—indeed, more so than has the business world at large. But, this said, is "acceptance" enough? There must surely come a time when we are not only "accepted" but "unnewsworthy" too!

Even beyond the attitudes and problems which Esther Milnes described, our pioneers faced serious difficulties, some of which may have accounted for the initially slow growth in number of women members.

Firstly, there was the length of time needed to qualify. A problem for both sexes, it was of more particular concern to women if they were also to devote part of their lives to being a wife and mother as well as to a career. This difficulty of course pursued them after Fellowship too.

Secondly, there was the need to start with a good mathematically based education in days when our system was not geared to turn out "numerate" women.

Thirdly, minorities in most endeavours

Women Actuaries in the U.K.

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60's. It is agreed, I think, that it has amply achieved its purposes.

Looking Forward

Said an article in *The Economist* of 20th February 1982:

"The liberation that women have won so far too often means freedom to do a double job."

That article goes on to foreshadow the day of the "tele-commuting out-worker spending much of his or her time at a terminal at home or in a suburban satellite office." Until that day comes, how do and how can women actuaries cope with their "double job?"

They must, it seems, expect their career to be sometimes full-time, sometimes part-time, and sometimes a case of breaking off and then resuming—conditions that have applied ever since Mrs. Spicer's time. To these they may add job sharing, not easy to visualise in professional work but perhaps feasible and worth trying.

I am confident the actuarial profession will continue to provide opportunity for women as it has done for so long, and that ways and means of accommodating a woman's "dual career" will increasingly be found and put into operation.

1953 Table *a*.

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jected experience mortality rates. After experimenting with both level margins and margins declining with increasing age, our Committee selected the 10% factor that had been used to obtain the 1971 IAM, as both adequate and suitable. A test based on ten companies contributing to the 1971-76 annuity experience indicated that the 10% reduction in mortality would be adequate for valuation purposes.

Mortality rates at quinquennial ages equal to 90% of those of the 1983 Basic Table were graduated by a Jenkins 5th difference osculatory interpolation formula; age 115 was chosen as the terminal age for both men and women, the same as in 1971.

U.K. REPORT

by Alistair Neill,
Edinburgh Correspondent

I. Response To Inflation

This is a sequel to William Vickers' interesting analysis of the same title (Feb. issue).

Since the time of our March 1981 budget, unemployment unfortunately has continued to grow, and there have been more company liquidations. But some unions are now realising that if employers are to survive, wage settlements have to be less than inflation. The effort to reduce interest rates was not initially successful though they are now seemingly again on a downward trend; the government's minimum lending rate was abolished but the average clearing banks' base rate, now treated as the guide, increased from the 12% of a year ago to 16% but has since declined to about 13½% (this written before the Falkland Islands invasion—Ed.) Rates of inflation in both earnings and prices seem now to be approaching single figures, even though their fall seems not yet much affected by possibly the most noticeable change of the past twelve months—the considerable depreciation of the pound sterling against the dollar, which is helping exports.

The March 1982 budget made little real change—just some slight relaxation and assistance to business through payroll tax reduction, and more direct help to small businesses.

II. Index-Linked Securities

Since my last report (Sept. 1981 issue) a third security maturing in 2011 has come out. The most interesting event has been elimination of any restriction on who could hold these stocks. They had been trading at a nominal yield of about 2½% but the sudden widening in the conditions increased their dealing prices by about 7% at a stroke. Some saw this as a good omen for a new stock to be issued with a 2% coupon maturing in 1988; however, not all the stock offered was tendered for at a price satisfactory to the government. Those who had tendered were allotted stock at 97½%, giving a nominal yield of about 2½%.

How these stocks should be priced, and their relationship to the normal government securities and to non-government investments, is proving a fascinating puzzle.

BOLESLAW MONIC FUND PRIZE

The competition for the Boleslaw Monic Prize, managed by a distinguished committee of European actuaries, happens this year to be of less interest than usual to most of our readers. Nevertheless, we are glad to draw attention to it. Prizes totalling Dutch florins 12,500 (roughly US\$4,500) are being offered for the three best papers submitted on:

"The significance of inflation for the *non-life* insurance industry, with particular reference to the relationship between direct insurance and reinsurance; the problems facing management and a suggested methodology for their solution."

The closing date for entries, which may be in English or in any of five other languages, is 30th September 1982. We have a set of guidelines and entry rules for anybody requesting it to our masthead address.

E.J.M.

Howard University

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but the School of Business has so far been more successful in motivating students to elect the actuarial science major.

Essentials for Success

Two elements rank as essential to this program's success. First is to recruit an adequate flow of actuarial science majors with sufficient mathematical skills and career motivation. At present there are only a dozen of these, but we aim for total enrollment of at least one hundred within a few years.

The second essential is to give the students vigorous support while they are at Howard. Such support must include math courses and tutoring for the early exams, special courses and lectures on actuarial careers and other topics of actuarial interest, and, perhaps most importantly, summer and eventually permanent actuarial employment for our students.

Please Help

Society members who feel you might be helpful in any way, specially in employing students, are urged to write to me at:

Howard University School of Business
2345 Sherman Avenue NW,
Washington, DC 20059

MINORITY RECRUITING PROGRAM REACHED ITS 1981 GOAL

Our thanks to five companies and fifteen individual actuaries who saw the appeal in our December 1981 issue and responded with checks totalling \$3,935. These contributions have enabled the committee to balance its 1981 books.

We believe that in 1982 and future years the virtues of this project will prove to be appealing to many more of our readers than have supported it so far.

E.J.M.

CUNCTATOR

The Retirement Plan Valuation & Funding seminar, scheduled for June, has been moved back to December.

Topics and places for all Fall seminars will be announced in June.

L.N.C.

Deaths

L. Ronald Hill, F.S.A. 1978
Harry S. Saunders, F.S.A. 1968

MAIL ALERT

Since the 1982 Yearbook arrived, you should have got the 1980 Reports Number, and the Record (Atlanta Meeting) Vol. 7, No. 4. If you haven't, tell the Society office in Chicago.

DROUGHT AFFLICTS E. & E. CORNER

Readers' steady inflow of questions about exam and syllabus matters has almost ceased. Now that the spring exam period has come upon us, surely some students and some teachers have queries of general interest. Please send yours to James J. Murphy at his Yearbook address.

OUR ASSOCIATES BY YEAR QUALIFYING

The companion figures, i.e. for Associates, to those given for Fellows in our April issue are:

1917	1	1949	11
1919	1	1950-54	105
1923	1	1955-59	99
1925	6	1960-64	176
1926	2	1965-69	292
1927	2	1970-74	421
1929	4	1975	139
1930-34	23	1976	167
1935-39	27	1977	187
1940-44	4	1978	248
1945-48	25	1979	621
		1980	676
		1981	470
Subtotal	96*	1917-1981	3708

*These entered the old Society or American Institute.

The median of this highly skewed distribution is in 1978; the quartiles are 1972 and 1980.

Of special interest is to see, for years 1975-1979, the ratios of the figures above to the numbers of new Associates in those years, viz.:

	1975	1976	1977	1978	1979
New Associates	630	774	784	482	779
At End of 1981	139	167	187	248	621
Percent.	22	22	24	51	80

The three oldesttimers among Associates are Henry G. Sellman, Monmouth, Ill. ('17); John V. Hanna, Concord, N.H. ('19); Morris Pike, White Plains, N.Y. ('23).

E.J.M.

THIS MONTH'S QUERY FOR ACTUARIES

This enquiry's aim is to increase our knowledge of actuaries who practiced in North America before the Actuarial Society of America was founded in 1889.

Query: (1) What additions can readers contribute to the following list of 19th century actuaries? (2) What information can readers furnish about those in the list that are marked (with an asterisk) to show that we know nothing about their histories in our profession?

BAKER, Hugh C., Canada Life

BOWDITCH, Nathaniel I.,
Massachusetts Hospital Life

*BURKE, David, New York Life,
Montreal, A.I.A. 1882

*EATON, Henry William, Liverpool,
London & Globe, New York,
A.I.A. 1868

ENTZ, John F., Consulting &
Guardian Life

GILL, Charles, Mutual Benefit Life
& Mutual Life of N.Y.

*GOLDMAN, Leopold, North American
Life, Toronto, A.I.A. 1882

HARVEY, Charles J., Metropolitan
Life & Colonial Life, F.I.A. 1879

*LITCHFIELD, Edward, Lancashire
Insce., New York, A.I.A. 1868

*MOON, Sidney M. L., Employers
Liability, Boston, A.I.A. 1879

SHOEMAKER, Jacob, Pennsylvania
Company for Insce. on Lives &
Granting Annties

*STANCLIFFE, Frederick, British
Empire Mutual, Montreal, A.I.A.
1881

WRIGHT, Elizur, New England
Mutual & Massachusetts Insur-
ance Department

WRIGHT, Lucy J., Union Mutual
Life

There were, of course, about four-score other actuaries who practiced before 1889 but whose lives are known to us because they became charter members of, or later joined, the Actuarial Society. Our search is for their predecessors.

If, Dear Reader, your company has published a history, won't you please let us know if it tells about 19th century actuaries whom we have overlooked! □

LETTERS

How Many Human Beings?

Sir:

The New York Times (Oct. 6, 1981) and others have reported an estimate by the Dean of Science at Hampshire College that since about 300,000 years ago (generally set by paleoanthropologists as the time of earliest emergence of homo sapiens) the entire human race has numbered about 50 billion people, of whom some 9%, 4.5 billion, are alive today.

The next logical (or illogical, some may think) step might be to project this population estimate to determine how many more of us will be born before the human race dies out.

Knowing how much time remains to us might give perspective to some of our more mundane problems, and, for actuaries, might help bring stationary population problems and those about perpetuities to more precisely defined solutions.

Michael J. Cowell

Ed. Note: A speculation by Sir William Petty in 1682 on the respective numbers of the quick and the dead at the Resurrection was reported in J.I.A. Vol. 1 (1850). Sir William's arithmetic, which involved such elements as the number of "quick" our earth can feed; the number who had died (separate calculations before and since The Flood); and how much room for graves existed in Ireland, caused his essay to end with: "From all which it is plain how madly they were mistaken who did so petulantly vilify what the Holy Scriptures have delivered". J. I. A. presented this as a curiosity only, recommending that actuaries use it "as sauce to a dry discourse."

* * * *

Universal Life In South Africa

Sir:

It is interesting to compare Universal Life development in South Africa with that in the U.S.A. and in the United Kingdom (Seamus Creedon, Dec. 1981).

Major influences in South Africa also are responsiveness to changed circumstances, (e.g. inflation in the 13-15% range), competition from other savings media, and increasing competition within our own industry. Universal Life-type

development began to gain momentum here about 3 years ago.

Our legislative background and the various formulae used for taxation of individuals and life companies place relatively few impediments in the way of innovative product development.

Our forms of Universal Life are usually of the unit-linked or investment-linked type, based on some form of "accumulation fund plus decreasing term." Linked business has been aggressively marketed from the mid-1960's and now contributes substantially to countrywide sales. At least one large life office markets an amended form of linked policy wherein the "accumulation fund" consists of a "stabilized savings accumulation with interest", to policyholders in all income groups, including the lowest. It is possible that the fairly vigorous development of Universal Life here has written on the back of our experience gained from linked-type business.

Jacques De Villiers

Ed. Note: We welcome this contribution from a member in Cape Town.

* * * *

Twenty Thousand Fellows

Sir:

You speak of 10,000 Fellows in the 1990s ("See How We Grow", March issue). By taking away 5 years for the effects of World War II, doubling of F.S.A.'s will have occurred in the progression 18, 16, 14, 12 and 10 years (by 1984). If this pattern continues, Fellows will number 20,000 before the turn of the century.

Stephen C. Frechtling

* * * *

Salary Scales

Sir:

George L. Hogeman (Feb. issue) rightly says that salary scales used for pensions should reflect the potential of promotional increases as well as those related to basic considerations such as productivity and inflation—also that their accurate reflection might narrow the excess of the interest rate over the salary assumption. Even more importantly, the promotion factor depends heavily upon age; promotions tend to occur more often and with greater salary effect at the younger ages; hence, salary increase assumptions need to be graded by age

and, alas, sometimes by sex. In the extreme, notable in some other countries, the gap between the interest rate and the salary increase rate may well be negative.

Turning to Joseph R. Brzezinski's observations (Sept. 1981 issue), certainly there is considerable mobility in society which, specially for employees covered under final-pay plans, can give rise to a pension shortfall unless the individual is covered by a nation-wide (as in France, Sweden and Finland) or industry-wide (common in The Netherlands and Germany) pension plan. Some countries are beginning to focus on this problem by suggesting that the new employer provide for the sometimes large cost of picking up the "rear veranda" benefits—those that had accrued through service with a former employer and which normally aren't indexed through service to allow for future salary increases.

All in all, final pay plans offer a challenge to the thoughtful actuary, but one that I believe is being met by our colleagues here and elsewhere.

Charles Barry H. Watson

* * * *

Social Security Actuaries

Sir:

May I second Robert J. Myers' comment ("Social Security Diary", March issue) about the high quality of the staff of the Office of the Actuary, Social Security Administration and its sister office in the Health Care Financing Administration. The public is well served by the talent, dedication and public spiritedness of these actuaries.

S.S.A.'s new Chief Actuary, Harry C. Ballantyne, may not be as well known to the profession as some of his predecessors, but we will come to appreciate his leadership in what, measured in financial terms, is the largest actuarial responsibility in the world.

Although my relationship with Mr. Myers, while he was Deputy Commissioner and I Chief Actuary, was of short duration, I will always treasure that association with a great man of our profession.

Dwight K. Bartlett, III

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Letters

(Continued from page 7)

We Should Examine On Computers

Sir:

In the March "E. & E. Corner" five "philosophical and practical" objections, none of them valid, to putting computers into the exam syllabus were offered. Considering each in turn:

(1) "The computer . . . is . . . not an element of actuarial theory." That could be said of social insurance, taxation, law and accounting, which are on the syllabus purely because a practicing actuary must (generally) know about them. This is equally true of computers.

(2) "Rapidity of EDP development would make syllabus items obsolete." Many other syllabus topics, e.g. the four mentioned above, tend to change.

(3) "There is no consensus on a universal computer language for actuaries." I doubt that the questioner was asking that a specific computer language be in the syllabus. But it does seem desirable to examine on a comparison among the main language types; some of James Martin's books might be useful here.

(4) "Exam questions . . . would . . . give some students an unfair advantage." There is hardly a syllabus item about which this can't be said.

(5) "There is enough exam material already." This was true when I was writing the exams, and still may be, but does the E. & E. Committee believe that every present syllabus item outranks the computer topic in usefulness to the student? Isn't there some deadwood cullable to make room for computers?

If there are sound reasons for not bringing computers into the syllabus, they weren't presented in the March issue.

Kenneth T. Pawulski

* * * *

Hurrying Actuaries

Sir:

Michael J. Cowell's observation (March issue) of the abnormally high proportion of actuarial marathoners should come as no surprise. Surely it's just an extension of the masochistic . . . oops . . . zealous tendencies displayed in our tenacity to continue through the examinations.

ACTUARIAL LEFTIES

FIASCO has reported from London that the Institute President and at least three other members of its 35-member governing body are left-handed, a proportion said to be above their national average, though not necessarily significantly so.

A poll of our 29 Board of Governors members under President Robert H. Hoskins' supervision reveals that we veer even farther to the left. Among them we find six lefties.

Our refined study differentiated between Class "L" (4 Board members) who write with their left hands, and Class "R" (2 members) who have taken the risks popularly associated with acquiring the ability to scribble right-handedly.

We'd welcome information from readers on how these figures compare with the Canadian and U.S.A. averages, and what difficulties lefthanded actuaries encounter in performing their professional duties.

E.J.M.

Some of us, though, have recognized the value of bicycling instead of running long distances. You can coast downhill. You can carry your refreshments, change of clothing and, on some machines, your accompanying person. And the pleasures of Falstaffian eating don't have to be renounced.

Lawrence Mitchell

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Self Slaughter

Sir:

Helga Kronheim's report from COINTRA (March issue) that lessened availability of lethal ovens in the U.K. may account for fewer suicides is surprising; one would think that where there's a will, there's a way. This may tell us how many suicides reflect the mood of the moment.

The gas in question is of course not carbon dioxide but carbon monoxide which, together with hydrogen and a sprinkling of hydrogen sulphide, formed a delightful mixture called coal gas, now widely replaced by North Sea natural gas.

Michael Cohen

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Crabbed Age and Youth

Sir:

The distribution of Fellows by year of Fellowship (April issue) bears on the question whether our Board of Governors has the same perspectives about the Society's direction as the Fellows do. Here is the same distribution for the current Board:

<u>Year of Fellowship</u>	<u>Number of Board Members</u>
1940(1), 1949(1)	2
1950(1), 1952(4), 1954(2)	7
1956(1), 1957(2), 1958(1), 1959(5)	9
1960(3), 1962(1), 1963(1)	5
1965(2), 1967(2), 1969(2)	6
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For Board Members the median year of qualification is 1959, contrasting with 1974 for the Fellows as a whole. All the Board Members have been Fellows for longer than the average for Fellows as a whole, and most fall into the first quartile.

Even though the Board is bound to have a higher proportion of older, more experienced, Fellows than the membership at large, there may be practical and useful ways for the Committee on Elections to achieve greater young-member representation. One might be to include some younger people as candidates, as was done some years ago. Another would be to publish a distribution by year of Fellowship corresponding to what's now done for geographical region and type of employment.

Peter W. Plumley

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Tastes Vary

Sir:

Actucrostics and Actucrosswords are all very well for lovers of those art forms, but would it be too unreasonable to suggest that perhaps once or twice a year *The Actuary* publish a Literary Supplement for those of us who prefer fiction or poetry? Among those whose classic writings might appear are Henry H. Jackson, William M. Anderson, Benjamin T. Holmes and, going back to the 19th century, Augustus de Morgan. Do other readers support this idea?

Frank P. Di Paolo