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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	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 Adeboye, 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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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:

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2345 Sherman Avenue NW,
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