



SOCIETY OF ACTUARIES

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## AMERICAN EXPERIENCE

The Federal Register of October 18, 1982 contained the following announcement by the Veterans Administration:

For USGLI, premiums are based on the American Experience Mortality Table at 3½ percent interest. This mortality table was published in 1868 and was calculated from the mortality experience of a single insurance company. At almost all ages, but especially at the younger ages, this table overestimates mortality. The table is no longer an accurate measure of mortality as life expectancy has greatly increased since its publication. As a result, the mortality savings in the USGLI program have been significant. The guaranteed interest value of 3½ percent is likewise antiquated when compared with current interest earned from investments in United States securities. The net effect of the mortality savings and excess interest earnings is that premiums are no longer required to safely run the USGLI program.

The report of this announcement that turned up in the AARP News Bulletin of December 1982 expressed the matter in these words:

Despite bargain rates charged for the policies, the VA disclosed that World War I vets had been overcharged all along because premiums were based on life expectancy rates carried in the American Experience Mortality Table that were calculated in 1868 and had never been revised. . . .

An official connected with the insurance program commented that for years the VA has been aware of the imbalance surrounding the life expectancy tables and interest rate assumptions. Consequently, the spokesman continued, the agency has distributed annual dividends amounting to as much as \$500.

It strikes this reader that the whole matter might have been expressed more usefully than it was. Surely, the waiving of these premiums must be attributable more to the excess interest than to redundancy of the mortality element in the policy reserves. Furthermore, explanation that mortality rates are too high at the younger ages seems superfluous in discussion of contracts on the

## 1983 TABLE *a* IN PERSPECTIVE

by Robert J. Johansen

*Ed. Note: Mr. Johansen is chairman of the committee that developed 1983 Table a, which NAIC has adopted for individual annuity valuation. The table's construction is described in the committee's report, circulated as a draft in 1981 and now published in TSA Vol. XXXIII; articles on it are in our April, May and June 1982 issues.*

The table below compares the mortality rates at decennial ages in the 1983 Table *a* with those of, respectively, two prior annuity tables, an insurance table and a population table.

Ratio of  $q_x$  by 1983 Table *a* to  $q_x$  in Table Listed

Age	<i>a</i> -1949 (Ult.) <sup>(1)</sup>	1971 IAM <sup>(2)</sup>	1980 CSO Basic <sup>(3)</sup>	1980 U.S. White Population <sup>(4)</sup>
<b>MALES</b>				
55	.57	.71	.72	.53
65	.56	.74	.60	.46
75	.64	.87	.62	.53
85	.68	.89	.67	.67
95	.61	.67	.70	.72
<b>FEMALES</b>				
55	.61	.76	.55	.49
65	.59	.79	.64	.52
75	.56	.80	.63	.56
85	.63	.76	.65	.70
95	.60	.79	.66	.78

(1) TSA I, 386-389

(2) TSA XXIII, 496

(3) TSA XXXIII, 632.

(4) 1980  $q_x$ 's at ages 85 and 95 are from Medicare experience.

In appraising the above comparisons with 1980 insured life and population mortality, readers should have in mind that 10% mortality rate reductions, to provide safety margins, were built into both the 1983 Table *a* and the 1971 IAM Table.

### Note On Projections Beyond 1983

In our report, our Committee published a set of annual mortality improvement rates, called Projection Scale G, to permit carrying forward as far as the year 2000 the values of  $q_x$  in 1983 Table *a*. We suggest that projection Scale G values for ages not shown in the report be derived as follows:

1. For values at ages other than those ending in 2 and 7, interpolate linearly between the given values.
2. At ages 5 and 6, use the same 1.50 improvement rate as at age 7.
3. For ages above age 97, interpolate to a zero improvement rate at age 102.

### New Model Regulation

At its Winter 1982 meeting, the NAIC adopted a model regulation, for use in states which permit the commissioner to specify valuation mortality tables, (i) permitting use of 1983 Table for valuing either individual or group annuities, and (ii) requiring it for valuing individual annuities issued after the regulation's effective date.

lives of veterans of 1918. Emphasis throughout the announcement and the reporting thereof on the nature of policy dividends would have avoided spreading the false notion that this was a belated remedy of many years of injustice.

E.J.M.

### THEY EASED THE SUSPENSE

For, we believe, the first time ever, results for the fall exams were all mailed by Dec. 30. A fine piece of compassionate work by our Chicago staff and the E & E people involved.