



SOCIETY OF ACTUARIES

Article from:

The Actuary

June 1980 – Volume 14, No. 6

Morbidity-Mortality Table

(Continued from page 1)

Origin of the Idea

The seed of this analytical system had been in the author's mind for more than thirty years. The current stimulus for the paper was the formation of a committee on factors affecting mortality and length of life by the International Union for the Scientific Study of Population, which committee was ushered in with a comment that

"the traditional demographic and actuarial approach to mortality produces diminishing returns . . . (and) closer links with other biomedical disciplines, with genetics or biology, are essential if we wish as demographers to improve our contribution to the study of mortality."

Advantages Cited

Prof. Pollard sees his system as productive of numerous useful measures, notably: the chance at birth of incurring a specified disease during any subsequent period; the chance of dying from the disease; the relative survival rate; the percentage of the population afflicted by the disorder; the incidence of the disease per 100,000 of total population; the death rates from the disease; the median age of incurring the ailment and the average subsequent survival; the expectation of life free of the disease, etc., etc.

In justifying the unconventional approaches employed, the author points out that demographers have used various mixes of data for estimating longevity in countries handicapped by inadequate statistics. By applying to diverse material the ratios and empirical formulae found to apply universally, demographers, it is asserted, have been able to obtain satisfactory results.

Table Format

The author's tables, displayed for illustration in his paper, require eleven columns to exhibit numbers living, numbers incurring the disease being studied, and deaths from the disease and from other causes. Of major interest is the combining, as already mentioned, of material from different sources. In the examples presented, experience of the total 1976 Australian population is fitted with experience of cancer incidence and mor-

ELIZUR WRIGHT'S DAUGHTER LUCY

Lucy Jane Wright (1842-67), rather than Emma Warren Cushman (February issue), might have become the actuarial world's first Lady Fellow. Eduard H. Minor, who remembered reading about her in T. O'Donnell's book of the 1930's, *History of Life Insurance in Its Formative Years*, and Stephen L. Smith, who had his company's records perused for details of her life in Maine, combined to supply the story for this sketch.

As Mr. O'Donnell recounted, Elizur Wright put his daughter Lucy, and his other children, to work on his actuarial calculations. Thus Lucy, in 1858-66, learned the rudiments and more of actuarial science.

On May 2, 1866, Miss Wright was appointed actuary of Union Mutual Life Insurance Company of Portland, ME. From the pages of that company's history (*A Maine Heritage*, George Stuyvesant Jackson, 1964), we learn that she had an impressive background: "By the time she was 15, she had not only mastered college mathematics (without ever going to college) but was well versed in civil and mechanical engineering." And yet "she was no solemn young mathematical prodigy . . . but . . . a born mimic and master of impersonations, a talented artist and amateur playwright . . ."

Sad to report, onslaught of tuberculosis forced Miss Wright to resign after seven strenuous months as an actuary. She died on May 26, 1867—22 years before the Actuarial Society of America was founded. To her goes the honor of having been the first North American woman actuary. □

tality compiled by the New South Wales Cancer Registry for 1972. Morbidity embracing other diseases came from the Intercontinental Medical Statistics International, formed in U.S.A. 1954 and since extended to other countries.

Comment

The author's analytical procedure strikes this observer as being thoroughly worthy of study by actuaries on this continent. □

BOOK REVIEW

The Journal of Irreproducible Results. Published quarterly by the Society for Irreproducible Research, Box 234, Chicago Heights, IL 60411. 32 pp. Annual subscription, \$3.70 within USA, \$4.45 elsewhere.

For our readers who relish satire and hilarity at the expense of people like ourselves, it seems safe to recommend that you risk a year's subscription to this *Journal* so you can find out whether its contents tickle your funny-bone as they do this reviewer's.

The *Journal's* editorial staff is impressive, consisting of people in 38 disciplines. To draw a sample, #1 is Astronomy, #11 Genetics, #21 Neonatology, and #31 Psychology. The actuarial profession is not represented on the current list of Associate Editors. Assuming that the numbering is to be taken seriously—it is hard to know when one's leg is being pulled—the magazine is in its 26th year, and has been a quarterly for seven of these years.

Its major content is of three kinds. There are derisive descriptions, some of them ribald, of pseudo-research, bearing titles such as:

A Refutation of the "Proof" That Heaven is Hotter Than Hell
The Rational Number Shortage
A Model of Secrecy
Predictive Documentation by Computer

Then there are quotations from serious articles and speeches that, at least when quoted out of context, range from whimsical to uproarious. And there are tongue-in-cheek Letters to the Editor.

Each issue's cover, of the three we have seen, displays a caricature of some scientific object.

The moving spirit, who is said to publish it at a negative profit out of his laboratory, is George H. Scherr, Ph.D. To describe the product, as one reviewer has, as a ray of sunshine to lighten one's despair, seems fitting.

E.J.M.

Myers' Social Security Summaries—For the Asking

The latest in Robert J. Myers' famous series of Summaries of the provisions of the OASDI and Medicare system may now be had free by writing to Mr. Myers at his *Year Book* address. It even includes the just enacted disability amendments.