



SOCIETY OF ACTUARIES

Article from:

The Actuary

February 1973 – Volume 7, No. 2



The Actuary

The Newsletter of the Society of Actuaries

VOLUME 7, No. 2

FEBRUARY, 1973

YOU AND YOUR PENSION

Ralph Nader and Kate Blackwell, *You and Your Pension*, Grossman Publishers, New York 173, pp. 215, \$5.95 (cloth) and \$1.65 (paper).

by *Barnet N. Berin*

The word has been out for some time that Ralph Nader has spread himself too thin. Studies are coming quickly but they are superficial, marred with errors and the leading consumer-advocate's reputation is about to plummet. With this in mind, I wish to report that despite certain flaws and despite certain errors, this book on pensions is helpful in many respects and deserves to be read by all in the field. Interestingly, most of the errors could have been avoided by more knowledge of what the pension actuary does and the technical areas in which the actuary operates.

The book's primary objective is to increase awareness of pension plans, their features and how they might be improved. In this objective, the book is successful. Beyond discussing the "he didn't know" problems that may occur as employees get closer to actual retirement date, there are proposals for specific action. The various check lists for employees are generally excellent. There is also an awareness, on the part of the authors, that some of their proposals represent a bias in favor of the younger and shorter-service employees—a bias that might be difficult to correct.

First, the negatives. A split personality, possibly the result of two authors, is all too apparent. One travels the high road of intelligent comment, the other the road of uninformed and sometimes abusive carping. Analogies to horseraces, snakes, the game, a throw of the dice, hedging the bet, winner takes nothing, the dealers, payoff, are not necessary, add nothing to the principle arguments

(Continued on page 4)

ARCH

The list of contents for the fourth number of ARCH is given below.

Issue 1972.4

A Statistical Treatment of Roundoff Error, Stephen G. Kellison

Poisson Deaths Assumption—1000 Companies and Four Seasons Test, James L. Lewis, Jr.

A Consistent Description of Actuarial Financial Projections Using Matrix Notation and Terminology, Robert L. Collett

Asset Shares and Anderson's Concept, Gottfried Berger

On Calculation of Ruin Probabilities, Evi Giezendanner, Erwin Straub, and Kurt Wettenschwiler

Issue 1973.1

This is a Special Issue of some of the papers discussed at the Waterloo, Ontario Research Conference reported in *The Actuary*, December 1972.

Subscriptions can still be sent to David G. Halmstad, Area 22 Z, Metropolitan Life, One Madison Avenue, New York, N. Y. 10010.

Social Security Notes

A. Rettig and O. Nichols, *Some Aspects of the Dynamic Projections of Benefits Under the 1972 Social Security Amendments*, Actuarial Note No. 81, January 1973, Social Security Administration, Washington, D. C., pp. 8.

This Actuarial Note discusses projections of the relationship between benefits and final earnings for male workers with maximum, median, and low earnings under various assumed increases in CPI and earnings, in accordance with the automatic adjustments provisions in the 1972 Amendments.

Free copies available from Social Security Administration.

(Continued on page 8)

MORE ABOUT MORTALITY

S. H. Preston, N. Keyfitz, R. Schoen, *Causes of Death: Life Tables For National Populations*, Seminar Press, New York, 1972, pp. 787 + xi, \$18.50.

by *Frederic Seltzer*

In the December 1969 issue of *The Actuary*, we favorably reviewed *World Population: An Analysis of Vital Data* by N. Keyfitz and W. Flieger. It presented a collection of life tables and related data covering more than 60 populations over 180 years. "This book presents data on mortality from recorded causes of death in 180 populations, with detail provided on age and sex. . . . This volume should reduce substantially problems of data availability by providing information on mortality experience spanning a period of 103 years, for 48 nations, and encompassing a range of life expectancies from 27 to 77. The data will assist the social scientist in documenting such matters as the sources of the vital revolution, causes of increasing sex mortality differentials, components of age curves of mortality, geographic and temporal variations in mortality structure, and economic and social costs of a disease."*

Cause of death mortality research has been hindered by problems of incomparability and inaccuracy of data, coding changes and definitions, as well as difficulty in obtaining statistics from various countries covering different time periods. The work of the authors, while not solving all these problems, at least minimizes some of them. The Introduction describes the populations reviewed and the selection and combination of the causes of death included. The methodology of calculating life tables for all causes of death combined, for multiple decrement tables, and for associated single-decrement tables is discussed in

*Quoted from the Preface.

(Continued on page 8)

You and Your Pension

(Continued from page 1)

and demean a text that has a definite point of view and is constructive in many of its arguments.

A reference to "fraud" and to the candor of certain senators is relegated to Appendix C, repeating part of a speech Mr. Nader made at a conference on employee benefits. This speech assumes a conspiracy, among the various groups in the private pension movement, to maintain a deliberately contrived system which is alleged to be unfair and resistant to change. This is simply not true and printing this speech does not add to the value of the book.

The authors have every right to find their own references and their own quotes and, as might be expected, they did not cover the waterfront. Yet, somehow, they are not terribly unfair—just a bit unfair. The critics of the Williams-Javits' statistics are ignored and there is a free use of quotations by non-actuaries about the work of actuaries in the pension field.

Few actuaries would recognize their work, as described here. For example, a selected quotation from Dan McGill: "Actuaries of equal skill, experience and judgment can examine the same set of plan specifications and employee data and come up with widely different estimates as to the probable cost of the plan."

What is left out here is that the pension actuary does carefully choose many assumptions about future events (interest, mortality, turnover, etc.) based upon his knowledge of the case and experience in the field. His work does not end there. Each year he determines the difference between actual experience and expected experience with the net result adjusting next year's costs. Periodically, the assumptions are changed to reflect experience.

Benefits, despite what the book says, are almost never reduced as a result of one year's experience. It would probably surprise the authors to find out that there are pension plans where costs are determined without any assumed rate of employee turnover as part of the actuarial assumptions. More knowledge of this technical area would be desirable for the authors.

The influence of Accounting Opinion 8 on funding a pension plan is never developed. For example: "The Accounting Principles Board of the American Institute of Certified Public Accountants recommends 40 years for funding past service credits." This is not accurate. The Accounting Principles Board is essentially offering this level of contribution as a minimum, not as a "recommended contribution."

Pension Plan liabilities do *not* include only vested benefits. The authors state: "You must remember, too, that 'liabilities' include only those benefit credits that have vested. They do not include the years of service of employees who have not yet acquired vested rights." The actuarial valuation definitely includes accrued liabilities for employees not yet vested.

The authors state: "In 1971 non-insured funds earned an average of only 4%." The quote of 4% is silly: net realized gains are excluded. No one familiar with the field would quote such a rate, because both book value and market value include net realized gains. Also, the investment field has changed, 1971 to date, and is becoming more competitive and more analytical. (Witness, the *alpha, beta* technology).

A minimum dollar limit attached to an annual pension plan benefit isn't nearly as workable, or as effective, as a maximum percentage benefit expressed as pension plan benefit plus primary Social Security benefit divided by final salary. For example, the percentage might be 100% for low salaried employees, grading to 60% at the Social Security wage base and decreasing to 50% for higher paid employees.

The authors quote Merton Bernstein—"By and large, pensions work like insurance policies"—and then develop certain conclusions which they find shocking. If you think about it, the risks are quite opposite. Life insurance risks are maximum at issue with the employee covered almost always paying the full premium. Pure pension risks are minimal at issue with the employee covered paying in most cases, little or no cost. This difference leads to a different system of reserves and to an entirely different concept of "cash-values."

Amortizing unfunded liabilities is closer to paying off a mortgage on a house over a period of years. It is a na-

tural, initial state, *if* past service is recognized as it almost always is. The problems occur largely with plan improvement (adding on to the house), which immediately increases the unfunded liability and where a decision has to be reached on how to continue to amortize the new and higher unfunded liability.

Figures on the number of people covered by pension plans are confusing, as the authors state. Would it not be desirable to try to identify the number and characteristics of *uncovered* groups? Are they bunched in certain geographical regions, or in certain salary classifications, or by size of company? If we really knew the group, perhaps the solution to bringing them into pension plans might become apparent. (Such a study I am told is in the works in Congress).

The role of the Internal Revenue Service is not properly explored or explained. The rules of the I.R.S. are significant in many respects and not always constructive. For example, the various I.R.S. rules on coordinating a plan with Social Security benefits are so complex and so restrictive that they might prevent the offering of certain special benefits such as early retirement subsidies and survivor death benefits. (The authors would like to see survivor death benefits added to pension plans).

On integration the authors miss the point. Most plans are integrated for cost reasons, not to discriminate against low-paid employees. This is apparent if you add the Social Security benefit and the pension and compare the result with final salary.

Are the rules on integration necessary? Probably not. If the rules were designated essentially to prevent excessive benefits for higher-paid employees, the present set-up (Revenue Ruling 71-446) could be revised and a much simpler system installed.

Among pension critics are those who would scrap the private pension system and those who would like to see it improved. One suspects that the authors would like to see radical surgery but will settle for expanded pension legislation: a much stronger Williams-Javits bill. The authors do offer their alternative to the present system. Those in the field will recognize a future service, money purchase pension plan with vol-

(Continued on page 5)

You and Your Pension

(Continued from page 4)

untary employee contributions. Based on experience, it is not a viable alternative. An "improved" present system makes more sense.

Now, for the good points. At the end of several of the chapters the authors list certain questions employees might want to ask about their pension plans. These questions are pertinent (with some exceptions) and, with editing, could be published separately as a booklet in the public interest:

Does your employer contribute enough money to the fund to give you some assurance that you will receive a benefit when you retire?

How many years of continuous service must you have to be eligible for a pension?

If you leave the company and have vested rights, be sure you know and follow the procedures for applying for benefits.

If the plan were to terminate today, what percentage of your plan's liabilities (existing benefit claims of both retired and active workers) could be paid out of assets (funds now on hand)?

Have you exercised the survivors option properly?

The authors discuss such questions as recognizing past service; social mobility and the earning of a pension benefit; the improvement of plan benefits and its effect on the funding of a plan; pension plan termination; and the old saw of retirement income as generated from three sources: by a private pension plan, by the Social Security system, and by individual savings (little to nil, per the authors) ignoring family assistance.

Do all families turn their backs on aged parents?

The emphasis throughout is on the relatively younger, shorter-service employee whereas most people in the pension field are probably much more concerned with the older, longer-service employee. The resulting difference in needs creates problems in design which must be resolved. For example: very early vesting? or no upper age limit at hire? a minimum benefit at retirement?—which is most desirable? The authors should realize that this kind of decision is an individual case-by-case problem and that priorities have to be established.

NEW FEDERAL ESTATE AND GIFT TAX PUBLICATION

by William H. Lewis*

A recent list of government publications announces the publication of a volume entitled *Actuarial Values I: Valuation of Last Survivor Charitable Remainders—Part B—Two-Life Tables for Unitrusts and Pooled Income Funds—Internal Revenue Service Publication 723B (11-71)* available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402 for \$4.50.

Under Section 170 of the Internal Revenue Code of 1954, no deduction is allowed for the contribution to charity of a remainder interest of property transferred in trust unless the trust is a charitable remainder annuity trust or a charitable remainder unitrust [Section 664], or a pooled income fund [Section 642-(c) (5)].

In the case of a charitable remainder unitrust, Section 1.664-4 of the Income Tax Regulations shows Table E (1), male, and Table E(2), female, which contain the factors for the present worth of a remainder interest after a single life, based on Adjusted Payout Rates varying from 4.6% to 9.0% in steps of .2%. Similarly, the new publication contains Table E(3), which sets forth re-

**The opinions expressed are those of the author and do not necessarily represent the views of the Internal Revenue Service.*

Proposed pension legislation is explored. The authors feel that some of the bills represent a good start but that "they are pitifully weak." The suggested solution is an employee lobby; Appendix F lists names and addresses of "People to Contact."

Despite occasional heat, Ralph Nader and Kate Blackwell have discussed many important points which, hopefully, will lead to more general discussions and to improvements where necessary. Their idea of increased awareness as being most important is correct and, at the same time, suggests that there can be a rapprochement between those in the field and the critics of the private pension movement. Education could lead to dialogue and to understanding. At this point, I do not know whether the authors are interested in such an exchange. □

mainder factors after the death of the survivor of two persons, based on Adjusted Payout Rates varying from 4.6% to 12.4% in steps of .2%.

Perhaps a word of explanation is in order. In the case of the E tables referring to charitable remainder unitrusts, the creator of the unitrust is permitted to choose any fixed percentage that is not less than 5%. Once the choice is made, the creator and/or surviving beneficiary or beneficiaries under the unitrust must receive an amount equal to the fixed percentage times the net fair market value of the assets in the trust, valued annually, not less often than annually. Certain exceptions are permitted.

The remainder factors shown in Table E(3) of IRS Publication 723B

are values of $(1 + \frac{i}{2}) A_{xy}$

just as those shown in Tables E(1) and

E(2) are values of $(1 + \frac{i}{2}) A_{x|c}$

where in all cases i is obtained from the adjusted payout rate p by the formula

$$i = \frac{p}{1-p}$$

In the case of a pooled income fund, Section 1.642(c)-6(d) of the Income Tax Regulations shows Table G(1), male, and Table G(2), female, which contain the factors for the present worth of a remainder interest after a single life, based on Yearly Rates of Return varying from 2.2% to 8.0% in steps of .2%. The new publication contains Table G(3), which sets forth remainder factors after the death of the survivor of two persons, based on Yearly Rates of Return varying from 2.2% to 10.0% in steps of .2%.

Tables E(3) and G(3) contain factors for all combinations of two ages and both sexes from age 30 to age 90 inclusive. The earlier IRS Publication 723 (12-70) is prescribed for 2-life age combinations outside of this range, and as appropriate, in cases involving three or more lives. The earlier publication is based on the "Kemmerer Method," which was mentioned in my December, 1971, article in *The Actuary*.

In the case of the G tables referring to pooled income funds, only the income is paid to the survivors, the yearly rate of return is equal to the interest rate and the valuation technique proceeds in the usual manner. □