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SAKS' NOTATION

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As actuaries familiar with computers are thoroughly aware, the Halo notation (the century-old life contingencies system we all learned as students) has to be "linearized" (strung out in a straight line) for computer programming. This article describes a linearized notation that I have used successfully for several years. It is for programming use only as I have wholeheartedly supported the Halo system for continued general use until an internationally approved successor comes into being.

Saks' Notation elements are set forth in the accompanying exhibit. The general rules governing transformation from Halo to my notation are these:

1. Write down the function in Halo form.
2. Read its parameters in anti-clockwise direction.
3. In cases of multiple parameters, read them from left to right.

A few of the Saks' letters serve more than one purpose, but no interpretative difficulty arises because such a letter's position makes its meaning clear.

Here are a few interest and mortality functions in both notations. I will be happy to send a complete list of these to anybody who requests it to my Year Book address. Appraisal and comments from readers would be welcomed.

Examples

$$\begin{aligned}
 i^{(m)} &= EIBUM \\
 a_{\overline{n}|} &= AAN \\
 \ddot{s}_{\overline{n}|} &= ESTAN \\
 L_{[x]+t} &= ELSXPT \\
 \ddot{L}_x &= EOX \\
 n|q_x &= QXBDN \\
 n|t a_x &= AXRDNBWT \\
 \bar{D}_x &= DCXBS
 \end{aligned}$$

Saks' Notation

A	Angle
	Annuity Function
B	Break (between parameters)
C	Continuous
	Commutation Fnctn. C
CI	Interest Fnctn. δ
CL	Life Table Fnctn. L
CM	Life Table Fnctn. m
D	Deferred
	Rate of Discount
	Commutation Fnctn. D
E	Endowment Fnctn. E
	Life Table Fnctn. e
EA	Single Premium A
ED	Life Table Fnctn. d
EI	Rate of Interest i
EL	Life Table Fnctn. l
EM	Commutation Fnctn. M
EN	Commutation Fnctn. N
EP	Annual Premium P
ES	Interest Fnctn. s
EU	Life Table Fnctn. μ
G	Commutation Fnctn. G
H	Commutation Fnctn. H
I	Increasing
L	Last Survivor
M	Minus
O	Complete
P	Plus
	Life Table Fnctn. p
Q	Life Table Fnctn. q
R	Commutation Fnctn. R
S	Select
	Commutation Fnctn. S
	Salary Scale
T	Trema
	Mortality Table Fnctn. T
U	Upper
	Age u
V	Interest Fnctn. v
	Age v
	Policy Value V
W	Within
	Age w
	Paid-up Policy Value
X	Age x
Y	Age y
	Life Table Fnctn. Y
Z	Age z

MANILA MEETING

The Pacific Insurance Conference, an organization that has warranted and received strong support of actuaries in Canada and the United States, will hold its 10th biennial meeting in Manila, Philippines, October 25-30, 1981. Its theme will be *Life Insurance In An Inflationary Era*.

If you want particulars, ask any of the following members of the P.I.C. Executive Committee at his Year Book Address:

In Canada — Richard Humphrys, Robin B. Leckie, Ian G. Michie, George N. Watson; *in U.S.A.* — Meno T. Lake, E. J. Moorhead, Walter W. Steffen.

Book Review

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Under the alternative system, transferable credits between Social Security and non-covered systems would be established to reduce coverage gaps, minimum standards would be imposed to eliminate some of these gaps, and individual benefits would be adjusted to remove or reduce windfall benefits.

Focussing its attention on the 90% of Federal employees not now covered by Social Security, the Study Group concluded that extending those benefits to them and modifying future accrual rates under their existing plans is legally feasible. Three transition options were examined. Extending Social Security coverage to future employees only was seen to be the most readily accepted plan but slow in achieving the goals sought.

About 28% of state and local government employees are not under Social Security. The Study Group explored possible solutions for these, leaning heavily on the research of two outside groups, one of which was our own Actuarial Education and Research Fund.

In general, the Study Group has produced a comprehensive analysis of implications and options. Yet, some important considerations seem not to have been given adequate attention, specially the financial strain that the resulting cost increases would place on the affected jurisdictions. Also, the gaps in the protection already being provided may have been somewhat exaggerated. □