

J. I. A. S. S.

VOL. 8

PT. 4

**JOURNAL
OF THE
INSTITUTE OF ACTUARIES
STUDENTS' SOCIETY**

VOLUME VIII

I maintain that the actuary should not abandon himself to mere empiricism; I maintain that he should be the person most suited to develop actuarial technique towards a practical end. In an actuarial department it is not a question of practical men and theoreticians: it is a question of practical men who do not know theory and practical men who do know it.

F. P. CANTELLI

CAMBRIDGE UNIVERSITY PRESS

LONDON: BENTLEY HOUSE

BOMBAY, CALCUTTA, MADRAS: MACMILLAN

1949

CONTENTS OF VOLUME VIII

	PAGE
Methods of bonus distribution with special reference to the reduction of premium system. By A. E. Peter	1
On the mathematical theory of risk. By E. Lukacs	20
Tests of significance in the simple regression problem. By J. Wishart	38
On the application of compound interest functions to certain manpower problems. By L. Solomon	44
The application of the Service-Table technique to staffing problems. By E. Jones	49
Computing methods. By D. H. Sadler	65
Valuation for Estate Duty purposes of an estate subject to an annuity. By A. W. Joseph	78
Notes on valuations for Estate Duty purposes. By W. P. Goodchild	82
The use of normal significance limits when the parent population is of Laplace form. By L. Edwards	87
Sheppard's correction to the variance. By H. M. Finucan	100
Karup's theorem of multiple decrement	104
Factor analysis and its application in aptitude testing. By D. M. Edwards	111
Disability benefits in conjunction with life assurance policies. By H. F. Purchase	121
A nomogram for calculating extended terms. By J. G. L. Michel	147
Mathematics and the actuary. By S. Vajda	160
The conversion of whole life extras into extra premiums for other classes of assurance. By P. T. Jenkins	176
Annuities certain at linearly decreasing rates of interest. By R. E. Beard	186
The mathematics of non-life insurance. By Paul Riebesell	190
Depreciation allowances in the valuation of reversions. By T. M. Springbett	195
Discrete random processes	204
Medical examination for contingent assurances. By H. Nagler	210
The nomographic estimation of the influence of substandard mortality on the policy value. By G. Wünsche	216
Award of prize	224
Editorial apologia	225
 Reports:	
1944-45	229
1945-46	230
1946-47	232
1947-48	234
 Accounts:	
1944-45, 1945-46, 1946-47, 1947-48	236
 Notes and Queries:	
The Life Table	227
An early estimate of mortality	227

	PAGE
Reviews:	
<i>Gauging Public Opinion.</i> By Hadley Cantril and others	56
<i>Introduction to Mathematical Statistics.</i> By P. G. Hoel	117
Correspondence:	
Multiple decrement tables	60
Annuities-certain at linearly decreasing rates of interest	120
Index of Authors	238
Index of Titles	240