CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

SOME RECENT RESEARCHES IN THE THEORY OF STATISTICS AND ACTUARIAL SCIENCE

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

SOME RECENT RESEARCHES IN THE THEORY OF STATISTICS AND ACTUARIAL SCIENCE

BY

J. F. STEFFENSEN

Professor of Actuarial Science in the University of Copenhagen and Corresponding Member of the Institute of Actuaries London

CAMBRIDGE

Published for the Institute of Actuaries

AT THE UNIVERSITY PRESS

1930

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

CAMBRIDGE
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781316601914

© Cambridge University Press 1930

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1930
First paperback edition 2015

A catalogue record for this publication is available from the British Library

ISBN 978-1-316-60191-4 Paperback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

CONTENTS

Preface . . . . . *page* vii

Lecture I 1

Introductory observations on the place of mathematics in Statistical and Actuarial Theory

Errors due to neglect of the principle that theoretical assumptions should not contain contradictions, illustrated by a discussion of (1) the Biometric functions; the doctrine of the "oldest age"; (2) the problem of two different mortality tables which produce identical policy values; (3) presumptive values of frequency-constants

Lecture II 21

A mathematical investigation of the limits of error in the calculation of $\bar{a}_x$ when the force of mortality follows Makeham's Law

A proposition in inequalities; with applications to Tchebychef's inequality, to the value of $\bar{e}_x$, to the values of temporary life annuities, to the policy values of endowment assurances, and to the paid-up policy that can be granted for a pure endowment

Lecture III 35

The theoretical foundation of various types of frequency-functions. The English School; Karl Pearson's types. The Continental School; the *A*-series; Charlier's *B*-series. Some notes on factorial moments

Notation 49

Index 51

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

© in this web service Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-1-316-60191-4 - Some Recent Researches in the Theory of Statistics and Actuarial Science
J. F. Steffensen
Frontmatter
More information

PREFACE

The three Lectures delivered by the writer in London University on March 12th, 13th and 14th, 1930, are here presented together in a somewhat extended form. In publishing these Lectures I have supplied all such details as had to be left out, owing to the limited time at my disposal. In order that the present publication may be read by itself, I have also found it advisable to include certain details which are already accessible in other papers of mine.

My best thanks are due to the Institute of Actuaries for facilitating this publication.

J. F. STEFFENSEN

COPENHAGEN
March 1930

© in this web service Cambridge University Press www.cambridge.org