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Dynamic Demographic Analysis

Springer

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ISSN 1389-6784 ISSN 2215-1990 (electronic)
The Springer Series on Demographic Methods and Population Analysis
ISBN 978-3-319-26601-5 ISBN 978-3-319-26603-9 (eBook)
DOI 10.1007/978-3-319-26603-9

Library of Congress Control Number: 2016930170

Springer Cham Heidelberg New York Dordrecht London

Printed on acid-free paper

Springer International Publishing AG Switzerland is part of Springer Science+Business Media (www.springer.com)

Preface

A central strength of the discipline of demography is its mathematical core, which builds on the logically closed system in which the demographic processes of fertility and mortality shape a population's size and composition. Mathematical demography is now in transition, moving from a focus on the fixed rate models of the past to dynamic models, where the underlying vital rates change over time. That increased level of analytical complexity brings new and difficult challenges.

This volume presents state-of-the-art work on how current research is enlarging the scope of dynamic mathematical demography. It ranges across the field, including studies of fertility, mortality, population heterogeneity, the dynamics of population size and structure, and the thorny problem of age-period-cohort analysis. The primary audience of this book is academic demographers, but it will also be of interest to demographers in government and business and to some actuaries and statisticians.

As editor, I want to express my appreciation to Springer, for its many efforts in promoting demographic research, and especially to its editors Evelien Bakker and Bernadette Deelen-Mans. Vladimir Canudas-Romo, Kenneth C. Land, Adrian Raftery, and Roland Rau provided me with helpful comments. Let me also acknowledge the positive, facilitating role of the Population Association of America, which has greatly strengthened the field by bringing together mathematically oriented demographers from around the world. My greatest thanks go to the chapter authors, whose diligent work has made this volume possible.

University Park, PA, USA — Robert Schoen
August 2015

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