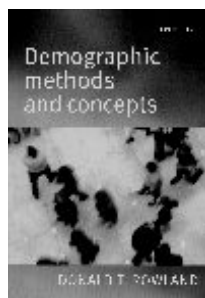


Demographic Methods and Concepts

By Donald T. Rowland

Oxford University Press
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Reviewed by L. Ruzicka

This new textbook of demography combines a discussion of methods of analysis of demographic data with explanation of demographic concepts and research issues.

It represents a new, exciting approach in at least two respects: in the use of clear, non-technical language and the assumption that the reader has no more than an elementary knowledge of mathematics. (Appendix A explains the basic mathematical concepts used in the book.) The second important innovation is the recognition of the fact that in most instances the student or researcher would be using a computer.

A CD-ROM which accompanies the volume contains Microsoft Excel spreadsheet modules that provide illustrative examples of the procedures explained in the text. The author guides the user of the computer step by step, through the application of the individual modules so that no previous knowledge of Excel is required. In addition, Appendices B and C contain a concise introduction to Excel.

The book contains 13 chapters organized in 6 sections. The first section, entitled "Population Dynamics", has three chapters dealing with measuring population change and age and sex composition. The second section is labelled "Analytical Approaches" and deals with methods of comparing populations; it includes standardization and explains the period and cohort approach to data analysis. One chapter in this section is devoted to demographic research and to the writing of research papers in general and on demographic topics in particular.

Section three, “Vital Processes” covers measures of mortality and health (including the concept of epidemiologic transition) and of fertility and the family (including the second demographic transition).

“Demographic Models” – life tables and stationary and stable populations – are the subject of section four. Here too is included an explanation of population momentum. Section five on “Spatial Patterns and Processes” contains not only approaches to the study of such spatial aspects of population as measures of population distribution and of housing, occupancy rates and housing density, but also population mapping and geographic information systems. Migration statistics and methods for estimating migration from basic demographic data also form a part of this section.

The final section “Applied Demography” is concerned with methods of projecting total population as well as constructing special-purpose projections, such as labour force, households and families.

The presentation is well structured. Each chapter starts with an outline of the topic, followed by learning objectives and boxed sections on computer applications that relate to the examples on the CD-ROM. The chapters end with advice on sources for further study, Internet resources, spreadsheet exercises which are accompanied by a detailed explanation of the relevant Microsoft-Excel procedures and other exercises.

The author has been teaching demography at the undergraduate and postgraduate levels for many years at the Australian National University. In this textbook, he offers the reader a possibility, on one hand, to understand the evolution of a population, and on the other, to focus on and study in detail the processes that are responsible for the dynamics of populations.

“Demographic Methods and Concepts” was not written with merely the needs of undergraduate students of demography in mind. The book is equally relevant to students of such disciplines as geography, sociology, economics and statistics. Moreover, professionals in areas that deal with population-related issues in planning and decision-making in health, education, social welfare, market research, or business management, for instance, will find much of the contents of this book useful as a reference work.