



HAL
open science

Nazrul Hoque, Llyod B. Potter, eds., *Emerging Techniques in Applied Demography*, Dordrecht: Springer, Applied Demography Series, vol. 4, 2015, 394 p.
Daniel Courgeau

► **To cite this version:**

Daniel Courgeau. Nazrul Hoque, Llyod B. Potter, eds., *Emerging Techniques in Applied Demography*, Dordrecht: Springer, Applied Demography Series, vol. 4, 2015, 394 p.. Population (English edition), 2015, 70 (1), pp.153-155. hal-04212545

HAL Id: hal-04212545

<https://hal.science/hal-04212545>

Submitted on 20 Sep 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



BOOK REVIEWS

Book review editor: Francisco Muñoz-Pérez
Assisted by Dominique Diguët, INED Documentation Department

Nazrul HOQUE, LLOYD B. POTTER, eds., *Emerging Techniques in Applied Demography*, Dordrecht: Springer, Applied Demography Series, vol. 4, 2015, 394 p.

In reading this work, several questions come to mind about the relevance of considering applied demography as a sub-discipline of demography. In contrast to historical demography and palaeodemography, it is not indexed in the *Dictionnaire Démographique Multilingue*⁽¹⁾ as a term referring to a discipline with its own subject or method. This is perhaps due to the fact that it was only recognized very recently – in 1986 in the United States, at the first conference on the topic, and in 1995 in French-speaking countries, in connection with a seminar organized by AIDELF (International association of French-speaking demographers) entitled “Applied demography in the service of business and public management.”

In this work, the definition of the term varies considerably by researcher-author. Some emphasize the unit of analysis, which is usually small (a single business, locality, etc.) though it may also be an entire country; others see it as centred on population estimates and local or more general population projections; still others emphasize goals and recommend policy choices to public or private organizations.

Is applied demography actually so recent? Attentive examination of the demographic literature indicates a much earlier origin. As early as 1686 Petty tried to prove that London had a larger population than Paris,⁽²⁾ though his hypotheses were highly debatable.⁽³⁾ And as early as 1852, Francis Bonyngé⁽⁴⁾ suggested that it would be useful for political reasons to estimate the United States population. He hypothesized that population growth rates vary by period and group (the groups in his work being whites, slaves and “free colored”). Bonyngé estimated the population through the year 2000. And while his 1910 estimate of 96,376,928 inhabitants was only 5% above the observed figure, his estimate of 703,044,897 for the year 2000 was a 251% overestimation, area held

(1) Louis Henri, *Dictionnaire démographique multilingue*, Liège, Ordina Editions, 1973.

(2) *Deux essais d'arithmétique politique touchant les villes et hospitaux de Londres et Paris*, London, François Vaillant, 1686.

(3) See Sabine Reungoat, *William Petty, observateur des îles britanniques*, Paris, INED, 2004.

(4) *The Future Wealth of America*, New York, published by the author, 1852.

constant. However, it is important to recognize the length of the period analysed, the arbitrary nature of assumed variation in growth rates over time for the various subpopulations, and the instability of the groups studied.

Emerging Techniques in Applied Demography is divided into five sections, each made up – in some cases fairly arbitrarily – of research topics in applied demography. Each of the 23 chapters presents a particular case; cases are not analysed in detail, though some are followed by more general concluding remarks.

Part I is on population projections and the quality of the 2010 US decennial census. Projections have become increasingly sophisticated since Bonyngé's time; they can now assess the distinct impacts of different demographic phenomena in terms of several variation hypotheses, and they concern both world population trends and change within tightly circumscribed areas. The United Nations' medium scenario projection for the 1980-2000 period was 6.119 billion inhabitants as against the observed figure of 6.057 – a mere 1% overestimation.⁽⁵⁾ In Chapter 2 on population forecast errors for Florida, Stan Smith and Stefan Reyer find an error of 10.8% for the state as a whole and 15.5% for an average-sized Florida county, thereby demonstrating the decline in projection quality for smaller areas. In Chapter 4, William O'Hare examines the quality of 2010 US census data. Despite improvements over time, the United States census still undercounts children.

Part II assesses the quality of various population estimates during the intercensus period and compares them to data from census counts done in the 2010s. These estimates can be calculated in a variety of ways that range from administrative records to using regression to extrapolate from past trends. But since the data are not complete for municipalities of 10,000 or more inhabitants, it may be useful to draw on administrative records, especially for small subpopulations. The best solution is population registers, which are replacing traditional census counts in Northern European countries. They provide statistical data at any time for any territorial unit or time period, while respecting privacy.⁽⁶⁾

Part III covers a wide range of subjects, from labour market outcomes to household expenditure, poverty and mobile home population displacement. Several of these chapters are on entire countries, a fact that goes against the emphasis on local studies. Chapter 11 by Cristina Bradatan and Laszlo Kulcsar is on the United States labour market; Chapter 12 by Elena Kotylro tests Easterlin's hypothesis on Sweden; Chapter 13 by Farhat Yusuf and Stephen Leeder is on expenditure on health in Australia. The chapters in this part generally draw not on census data but survey data because their subjects are handled only in specialized surveys.

(5) See Jacques Vallin, Graziella Caselli, "Les projections de population mondiale des Nations unies", in Graziella Caselli, Jacques Vallin, Guillaume Wunsch, eds., *Démographie: Analyse et synthèse*, V, *Histoire du peuplement et prévisions*, Paris, INED, 2004, pp. 339-404.

(6) See Michel Poulain, Anne Herm, "Central Population Registers as a Source of Demographic Statistics en Europe", *Population, English Edition*, 68(2), 2013, pp. 183-212.

Part IV focuses on applying the Geographic Information System (GIS) in demographic analysis. This approach involves establishing correspondences between geographic coordinates and data of all sorts, particularly demographic information. In Chapter 17, Richard Lycan and Charles Rynerson suggest using GIS to provide a solid, detailed basis on which to plan for school enrolment in a region where population structure and behaviours change quickly.

Part V examines disparities in health care access and the factors that impact on it in various world regions.

In sum, the reader discovers the strengths and weaknesses of applied demography. Because applied demography is strongly anchored in the complex life of populations, it can in some cases lead to developing realistic policies. However, is this enough to endow it with the status of a full-fledged scientific approach to populations? The book is far from having demonstrated this. Sharply diverse studies are simply juxtaposed; it is difficult to see what unites them – and the editors avoid providing any general conclusion. Furthermore, the methods applied already exist in several fields: projections or perspectives in demography, the GIS in geography (put in place in 1960 in Canada), optimal locating of businesses in economics (devised in 1909 by Alfred Weber), etc. Without more fully developed theory, applied demography will continue to have difficulty gaining recognition as a genuine sub-discipline of demography.

Daniel COURGEAU