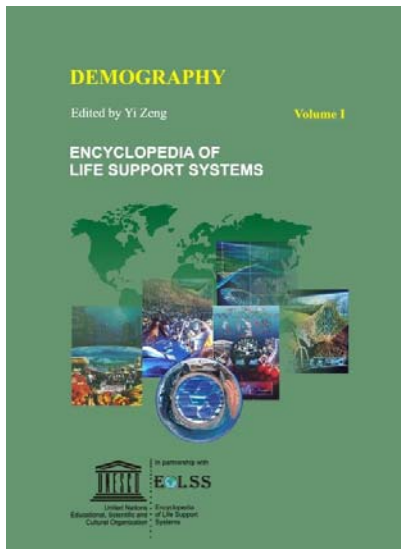


CONTENTS

DEMOGRAPHY



Demography - Volume 1

No. of Pages: 416

ISBN: 978-1-84826-307-9 (eBook)

ISBN: 978-1-84826-757-2 (Print Volume)

Demography - Volume 2

No. of Pages: 420

ISBN: 978-1-84826-308-6 (eBook)

ISBN: 978-1-84826-758-9 (Print Volume)

For more information of e-book and Print Volume(s) order, please [click here](#)

Or contact : eolssunesco@gmail.com

CONTENTS

Preface

xii

VOLUME I

Demography: The Past, Present and Future **1**

Zeng Yi, Duke University and Peking University, China

1. Demography as a Discipline of Science
 - 1.1 What is Demography?
 - 1.2 Distinct Features of Demography
 - 1.3 What is New in this Volume?
2. Historical Evolution of Demography and Population Theories
 - 2.1. Progress of Demography as a Scientific Discipline
 - 2.2. Historical Evolution of Population Theories
3. Demographic Data Sources and Recent Progress
 - 3.1. Vital Statistics
 - 3.2. Census
 - 3.3. Sampling Surveys
 - 3.4. Administrative Records
 - 3.5. Extension of the Data Content in Demographic Surveys
 - 3.6. Openness of the Data Sources
4. The Demographic Methods
 - 4.1. Formal Demography
 - 4.2. Population Studies
 - 4.3. Qualitative Methods and Anthropological Field Observations
5. Challenges and Future Perspectives Of Demography
 - 5.1. Rapid Population Aging due to Low Fertility and Longevity
 - 5.2. Changes in Family
 - 5.3. Gender Equality, Son-preference and Rising Sex Ratio at Birth in Some Developing Countries
 - 5.4. Demographic Consequences of Migration in Both Origination and Destination Regions
 - 5.5. Population and Environmental Sustainability
 - 5.6. Global Health Including Reproductive Health, HIV/AIDS and Healthy Aging
6. Concluding Remarks: Demography Will Be More Interdisciplinary

Historical Demography **38**

Zhongwei Zhao, Australian Demographic and Social Research Institute, Australian National University, Australia

1. Historical Demography
2. The Development of Historical Demography
 - 2.1 The Early Development of Historical Demography in France
 - 2.2 The Cambridge Group and the Advancement of Historical Demography in England
 - 2.3 The Historical Investigation of Fertility Transition in Europe
 - 2.4 Historical Demography in East Asia
 - 2.5 Historical Demography in Other Areas and Its Recent Development
3. Major Data Sources
 - 3.1 Parish Registers
 - 3.2 Population Registers and Census-type Materials
 - 3.3 Family or Lineage Genealogies
 - 3.4 Other Data Sources
4. Methodological Development
 - 4.1 Family Reconstitution
 - 4.2 Inverse Projection, Back Projection, and Generalized Inverse Projection

- 4.3 Computer Simulation
- 4.4 Coale's Fertility Indices and Other Methodological Developments
- 5. Concluding Remarks: Historical Demography at the Beginning of the Twenty-first Century

Demographic Transitions

65

Dirk J. van de Kaa, *Netherlands Interdisciplinary Demographic Institute (NIDI), The Hague, The Netherlands*

1. Introduction
2. The First Demographic Transition (FDT) and its precursors
 - 2.1 Early Reactions to European Fertility Decline
 - 2.2 The Concept of a 'rèvolution dèmograpique'
 - 2.3 The Concept of a 'Demographic Transition'
 - 2.4 The First Demographic Transition (FDT)
3. The Second Demographic Transition (SDT) and its precursors
 - 3.1 The Idea of a Renewed Transition
 - 3.2 The Second Demographic Transition (SDT)
4. A schematic representation of the two transitions
5. Explaining the First Demographic Transition
 - 5.1 Biological and Associated Factors
 - 5.2 Economic and Social Factors
 - 5.3 Innovation and Institutional Factors
 - 5.4 Ready, willing, and able
6. Explaining the Second Demographic Transition
 - 6.1 Innovation and Institutional Factors
 - 6.2 Economic and Social Factors
 - 6.3 Biological and Associated Factors
7. Transitions in context
 - 7.1 Transitions, Revolutions, Regime Change, 'Compromises', and Homeostasis
 - 7.2 Transitions and the Developmental Paradigm
 - 7.3 The Third World and the European Experience
 - 7.4 Regional Flavors
8. Criticisms and support
 - 8.1 Theories or Generalizations?
 - 8.2 Criticisms and Support: Regarding the First Demographic Transition
 - 8.3 Criticisms and Support: Regarding the Second Demographic Transition

Fertility Trends and Implications

104

Hans-Peter Kohler, *Department of Sociology and Population Studies Center, University of Pennsylvania, Philadelphia, PA 19104-6299, USA*

1. Introduction
2. Fertility Trends: Past and Present
3. Theoretical Frameworks
 - 3.1. Demographic Transition Theory
 - 3.2. Economic Approaches to Fertility
 - 3.3. Institutional and Ideational Perspectives
 - 3.4. Biodemographic Perspectives on Fertility
 - 3.5. Understanding Fertility Change and Variation: Structure, Conjuncture and Action
4. Looking Forward: The Future of Low Fertility

Sexual Behavior and Reproductive Health

141

Elwood D. Carlson, *Center for Demography & Population Health, Florida State University, USA*

1. Effects of Health on Sexual Behavior

- 1.1. Menarche and Menopause in Societal Context
- 1.2. Health Limitations on Sexual Activity
 - 1.2.1. Age effects
 - 1.2.2. Disease and Disability as Limitations of Sexual Activity
 - 1.2.3. Behavioral Complications
 - 1.2.4. Medical and Pharmacological Treatments
2. Effects of Sexual Behavior on Reproductive Health
 - 2.1. Sexual Behavior and Adverse Birth Outcomes
 - 2.1.1. Age at First Intercourse, Age at Conception and Infant Outcomes
 - 2.1.2. Sexual Behavior, Length of Birth Interval and Infant Outcomes
 - 2.1.3. Sexually Transmitted Infections and Adverse Fetal and Infant Outcomes
 - 2.1.4. Spontaneous and Induced Abortion and Determinants of Fetal Wastage
 - 2.2. Sexual Behavior and Reproductive Impairment
 - 2.2.1. Reproductive Consequences of Sexually Transmitted Infections
 - 2.2.2. Secondary Sterility
 - 2.2.3. Elective Sterilization
 - 2.3. Sexual Behavior, Reproductive Health and Adult Mortality
 - 2.3.1. Sexual Behavior and Disease-Related Mortality
 - 2.3.2. Maternal Mortality
 - 2.4. Health Impact of Violent Sexual Behavior
 - 2.4.1. Social Crisis and Organized Sexual Violence
 - 2.4.2. Violence in Early Life and Reproductive Health
 - 2.4.3. Violence in Adulthood and Reproductive Health

Family Planning and Reproductive Health

162

Iqbal H. Shah, *Department of Reproductive Health and Research, World Health Organization, Geneva, Switzerland*

1. Introduction
 - 1.1. Data Sources
 - 1.2. Definitions and Discussion of Key Concepts
2. Family Planning: Levels and Trends in the Use of Contraceptive Methods
 - 2.1. Family Planning Use by Major Area and Region
 - 2.2. Male Participation in Family Planning
 - 2.3. Family Planning by Type of the Contraceptive Method Used
3. Reversible Contraceptive Methods: Discontinuation and Switching
4. Family Planning and Induced Abortion
5. Family planning in the era of HIV/AIDS
 - 5.1. Contraceptive Methods for Couples Living with HIV/AIDS
6. Family Planning and Reproductive Health
7. Conclusions

Mortality Patterns and their Implications

185

France Meslé, *Institut national d'études démographiques (INED), Paris, France*
 Jacques Vallin, *Institut national d'études démographiques (INED), Paris, France*

1. Introduction
2. The Variety of Situations Today
3. The End of the Third World
4. The Stages of Health Transition
5. What Assumptions for the Future?
6. Divergence and Convergence
7. Is There any Limit to Life Expectancy Growth?
8. Conclusion

Sex and Sex Structure

209

Dudley L. Poston, *Texas A&M University, USA*Jr., Bethany S. DeSalvo, *Texas A&M University, USA*Heather Terrell Kincannon, *Texas A&M University, USA*

1. Introduction
2. The Importance of Sex and Sex Structure for Demography
3. The Conceptualization, Definition and Classification of Sex
 - 3.1. Biological Definitions of Sex
 - 3.2. Intersex
 - 3.3. Changing Sex
 - 3.4. Sex Determination, Self-identification, and the Olympic Games
 - 3.5. Sex versus Gender
4. Measures of Sex Structure
5. The Population Pyramid
6. Sex Structure and the Labor Force
 - 6.1. The United Arab Emirates
 - 6.2. Kuwait
7. Sex Ratio at Birth
8. Conclusion

Anthropological Demography

245

Laura Bernardi, *Max Planck Institute for Demographic Research and Rostock University Germany.*

1. Introduction
2. Demography turns to Anthropology
3. Theoretical Challenges: Culture and Gender as Institutions
 - 3.1. Culture
 - 3.2. Political Economy
 - 3.3. Gender and Institutions
4. Methodological Challenges: Combining Fieldwork and Statistical Approaches
5. Empirical Research in Anthropological Demography
 - 5.1. Fertility and Practices of Fatherhood
 - 5.2. Differential Mortality in Context
 - 5.3. Motivations and Meanings of Migration Experiences
6. Future Perspectives

Health and Demography

267

Jean-Marie Robine, *French National Institute of Health and Medical Research (INSERM), France*Carol Jagger, *Department of Health Sciences, University of Leicester, UK*

1. Introduction: The overlap between Health and Demography
2. Health Data: The Different Concepts of Health and the Main Classifications
 - 2.1. The different Approaches to Population Health
 - 2.1.1. The Bio-medical Approach
 - 2.1.2. The Functional Approach: The Consequences of Disease and Concepts of Disability
 - 2.1.3 The perceptual approach
 - 2.1.4. The Frailty Approach
 - 2.2. Main Classifications
 - 2.2.1. The International Classification of Diseases (ICD)
 - 2.2.2. The International Classification of Disability
3. Health survey: Study Design and Data Collection Methods
 - 3.1. Study Design
 - 3.2. Data Collection Methods
4. Population Health Indicators: Basic Indicators and Summary Measures
 - 4.1. Incidence and Prevalence

- 4.2 Summary measures of population health (health expectancies)
- 5. Research Questions
 - 5.1. Monitoring Changes in Population Health
 - 5.2. Understanding Gender Gaps
 - 5.3. Demographic Theories of Population Health

Economic Demography **292**
 C.Y. Cyrus Chu, *Institute of Economics, Academia Sinica, Taiwan*

- 1. Introduction
- 2. The Classical Malthusian World
- 3. Marriage and the Modern Family
 - 3.1. Male-Female Age of Marriage
 - 3.2. Assortative Mating
 - 3.3. The Couple's Division of Labor
 - 3.4. Co-residence Proportion
 - 3.5. Cohabitation
- 4. Family Fertility Behavior
 - 4.1. Cost/Benefit Calculation by Parents
 - 4.2. Quantity-Quality Tradeoffs
 - 4.3. The Tradeoff for Poor Parents
 - 4.4. The Influence of Traditional Norms
 - 4.5. The Global Population Problem
- 5. Population Dynamics and Cycles
 - 5.1. Demographic Transition
 - 5.2. The Easterlin Cycle
 - 5.3. Other Population Cycles
- 6. Intergenerational Transfers
- 7. Conclusions

Applied Demography: Its Business and Public sector Components **321**
 D. A. Swanson, *Department of Sociology, University of California Riverside, USA*
 Louis G. Pol, *College of Business Administration, University of Nebraska at Omaha, USA*

- 1. Introduction
- 2. Business and Public Sector Demography
 - 2.1 Basic Data Sources
 - 2.2 Tools
 - 2.3 Training
- 3. Examples
 - 3.1. The Need for a New Medical Facility
 - 3.2. Improving Cellular Market Valuation with Demographic Data
 - 3.3. Determining the Effect of Hurricane Katrina on Medical Practices
- 4. Challenges and Opportunities

Index **349**

About EOLSS **355**

VOLUME II

Demography of Aging

1

M. Nizamuddin, *HEC Foreign Professor, University of Gujrat, Pakistan*

Javed Sajjad Ahmad, *HEC Visiting Professor, University of Gujrat, Pakistan*

Fauzia Maqsood, *Institute of Social and Cultural Studies, University of the Punjab, Research Consultant, University of Gujrat*

1. Introduction and Background
2. Global Ageing: An Overview of Major Trends in Developed and Developing World
3. Rapid Populations Ageing in Developing World
 - 3.1. Regional Dimensions in Population Aging
 - 3.2. Population Aging in East-Asia, South-East Asia, South and West Asia and the Pacific
4. Demographics of Ageing: Major Determinants
 - 4.1. Success in Family Planning, Declining Trends in Fertility and Mortality
 - 4.2. Sex Ratio of Aging Population
5. Major Challenges of Rapid Aging for Public Policy
 - 5.1. Economic Challenges
 - 5.2. Is the Developing World ready to deal with rapid aging?
6. Changing Family Structure, Status of Women and Feminization of Aging
 - 6.1. Dwindling Family Support System
 - 6.2. Changing Status of Women
 - 6.3. Gender Differences in Mortality and Life Expectancy
 - 6.4. Changing Role of Young and Elderly Women
7. Problems and Needs of Aging Population
 - 7.1. Health and Morbidity
 - 7.2. Changing Morbidity, Chronic Diseases and Functional Disability
 - 7.3. Increasing Risks of Disability
 - 7.4. Changing Educational Needs
 - 7.5. Aging and Nutrition
 - 7.6. Active and Healthy Aging
 - 7.7. Health Care Services for the Elderly
 - 7.8. Health and Long Term Care
 - 7.9. Patterns and Levels of Support
 - 7.10. Growing Need for Institutional Support and Geriatric Care
 - 7.11. Community Care Institutions
8. Financial and Fiscal Policies for Older Persons
 - 8.1. Economic Security and Retirement Patterns
 - 8.2. Need for Old-age Security
 - 8.3. Need for Universal Pension System
 - 8.4. Emerging Trends in Pension and Social Assistance: Selected Best Practices
9. Foreign Assistance and the Role of Civil Society
10. Growing Concerns for Public Policy in Developing Countries
11. Recommendations for Action
 - 11.1. A Way Forward

Biological Demography

44

James R. Carey, *Department of Entomology, University of California, Davis, CA; & Center for the Economics and Demography of Aging, University of California, Berkeley, CA*

James W. Vaupel, *Founding Director, Max Planck Institute for Demographic Research, Rostock, Germany*

1. Introduction
2. Biological Demography
 - 2.1. Conceptual Framework
 - 2.2. Contribution to Mainstream Demography

3. Historical Overview
 - 3.1. Early History
 - 3.2. Convergence of Ideas
 - 3.3. Recent Coalescence
4. General Biological Demographic Principles
 - 4.1. Principles of Senescence
 - 4.1.1. Natural Selection Shapes Senescence Rate
 - 4.1.2. All Sexual Organisms Senesce
 - 4.2. Principles of Mortality
 - 4.2.1. Mortality Decelerates at Advanced Ages
 - 4.2.2. Mortality is Sex-Specific
 - 4.2.3. Mortality Trajectories are Facultative
 - 4.2.4. Selection Shapes Mortality Trajectories
 - 4.3. Principles of Longevity
 - 4.3.1. Longevity is Adaptive
 - 4.3.2. Life Span is Indeterminate
 - 4.3.3. Reproduction is A Fundamental Longevity Determinant
 - 4.3.4. The Heritability of Individual Life Span is Modest
 - 4.4. Biological-demographic Principles and the Human Primate
 - 4.4.1. Body and Brain Size Predict Extended Human Longevity
 - 4.4.2. Long-Lived Monkeys have Life Spans Proportional to Human Centenarians
 - 4.4.3. Post-Reproduction Expected From Primate Patterns
5. An Emerging Biological-Demographic Paradigm
 - 5.1. Model System
 - 5.2. Levels of Specificity
 - 5.3. Emerging Areas of Biological-Demographic Research: Selected Examples
 - 5.3.1. Evolutionary Demography
 - 5.3.2. Genetic and Genomic Demography
 - 5.3.3. Paleodemography
 - 5.3.4. Ecological Biodemography
6. Biomedical Demography

Family and Household Demography

86

Frans Willekens, *Netherlands Interdisciplinary Demographic Institute (NIDI), The Hague, The Netherlands*

1. Introduction
2. A Brief History
3. Conceptual and Measurement Issues
4. Profile and Major Trends in Households
5. Household Models
 - 5.1. Introduction
 - 5.2. Headship Rate Models
 - 5.3. Multistate Models
 - 5.4. Microsimulation Models
 - 5.5. Behavioral Models
6. Discussion and Conclusion

Demographic Models and Actuarial Science

113

Robert Schoen, *Hoffman Professor of Family Sociology and Demography, Pennsylvania State University, USA*

1. Introduction
2. Life Table Models
 - 2.1 Life Table Structure and Functions
 - 2.2 Actuarial Science

- 2.3 Analytical Representations of Mortality
- 3. Stable Populations
 - 3.1 The Stable Population Model in Continuous Form
 - 3.2 The Stable Population Model in Discrete Form
 - 3.3 Population Momentum
 - 3.4 Analytical Representations of Fertility and Net Maternity
- 4. Multistate Population Models
- 5. “Two-Sex” Population Models
 - 5.1 The “Two-Sex” Problem
 - 5.2 Analyzing the Marriage Squeeze
- 6. Dynamic Population Models
 - 6.1 Population Projections
 - 6.2 Dynamic Mortality Models
 - 6.3 Timing Effects with Changing Fertility
 - 6.4 Dynamic Birth-Death and Multistate Models

Multistate Demography**139**

Jacques Ledent, *Institut national de la recherche scientifique, Centre Urbanisation, Culture et Société, Montréal, Québec (INRS), University of Quebec, Canada*
 Yi Zeng, *Duke University and Peking University, China*

- 1. Introduction
- 2. The Multistate Life Table
 - 2.1. A Reminder on the Ordinary Single-State Life Table
 - 2.2 The Multistate Life Table Functions
 - 2.3 Estimating the Transition Probability Matrices
 - 2.4 Dealing with the Underlying Markov Process
 - 2.5 Summary Measures
 - 2.6 Additional Considerations
- 3. The Multistate Projection Model
 - 3.1 Multistate Projection and Stable Growth
 - 3.2 Multistate Population Projections in Practicewith Time-Varying Input
- 4. Applications of Multistate Demography
 - 4.1. Multistate Working Life Tables
 - 4.2. Active and Disabled Life Expectancies
 - 4.3. Multistate Life Table Analysis on Marriage/Union Formation and Dissolution
 - 4.4. Multistate Population Projections by Educational Attainment
 - 4.5 Multistate Projections of Households and Living Arrangements
 - 4.6 Modeling and Estimation of the Age and Spatial Structures of Migration Flows
- 5. Bridging the Micro- and Macro-Simulation Models - Recent Development of Multistate Demography

Mathematical Demography**164**

Vladimir Canudas-Romo, *Johns Hopkins Bloomberg School of Public Health, USA.*
 Kenneth C. Land, *Duke University, USA.*
 Yang Yang, *University of Chicago, USA.*
 Zeng Yi, *Duke University, USA; Peking University, China*

- 1. Introduction
- 2. Models in Demography
 - 2.1. The Nature of Demographic Phenomena and Data
 - 2.2. Introduction to Models
 - 2.3. Mathematical Demography Models
- 3. Measures of Longevity in the Life Table
 - 3.1. The Mean, Median and Mode of the Distribution of Deaths
 - 3.2. Lags and Gaps in Life Expectancy
- 4. Decomposition Methods in Demography

- 4.1. Standardization and Decomposition Methods
- 4.2. Decomposition of the Difference of Two Rates
- 4.3. Decomposing Fertility Measures
- 4.4. Decomposition of the Change in Demographic Variables
- 4.5. Life Expectancy Decomposition
- 4.6. Remarks on Decomposition Methods
5. Models of Mortality Patterns
 - 5.1. The Coale-Demeny Model Life Tables
 - 5.2. Modified Logit Relational Model
 - 5.3. The Lee-Carter Model
 - 5.4. Advantages and Applications of Life Table Models
6. Extensions of the Basic Relations in Stable Population
 - 6.1. Extensions Derived from the Population Growth Rates
 - 6.2. Use of Variable-r Methods
 - 6.3. Population Momentum and Family Household Momentum
7. Modeling Vital Events
 - 7.1. Model Schedules and Summary Indices
 - 7.1.1. Modeling Demographic Schedules
 - 7.1.2. Model Standard Schedules and Summary Demographic Indices
 - 7.2. Age-Period-Cohort models
 - 7.3. Frailty Models
 - 7.4. Vital Events and Population Projection
8. Indirect Estimation and Evaluation of Data
 - 8.1. Estimation of Child Mortality
 - 8.2. Completeness of Adult Mortality Registration

Urbanization and Its Consequences

210

Xizhe Peng, *Institute of Population Research, School of Social Development and Public Policy, Fudan University, China*

Xiangming Chen, *Center for Urban and Global Studies, Trinity College, US and School of Social Development and Public Policy, Fudan University, China*

Yuan Cheng, *Institute of Population Research, Fudan University, China*

1. Definition and Background
2. Urbanization Theories
3. Important Dimensions of Urbanization
 - 3.1 Urban Place and Hierarchy
 - 3.2 Urban Primacy
 - 3.3 Overurbanization vs. Underurbanization
 - 3.4 Natural Increase and Migration
4. Consequences of Urbanization
 - 4.1 Urbanization and the Environment
 - 4.2 Urbanization, Job Creation, and the Informal Sector
 - 4.3 Urbanization, Housing, and Spatial Form
 - 4.4 Urbanization, Education, and Health
5. Conclusions

Population Geography

236

Suzanne Davies Withers, *Department of Geography, University of Washington, USA*

1. Introduction
2. Population Geography and Contemporary Spatial Demography
 - 2.1. Geographic concepts and spatial thinking
 - 2.2. The Making of Population Geography
 - 2.3. The Development of Spatial Demography
3. Methods of Population Geography

- 3.1. The Spatial Basics – Geographic Distribution of Population
 - 3.1.1. Descriptive spatial statistics
 - 3.1.2. Index of Concentration – The Hoover Index
 - 3.1.3. The Lorenz curve
 - 3.1.4. Population potential - the accessibility index
 - 3.1.5. Location quotients
 - 3.1.6. Segregation Measures
- 3.2. Measures of migration – population on the move
 - 3.2.1. Migration rates
 - 3.2.2. Demographic efficiency of migration
 - 3.2.3 Migration characteristics and expectancies
 - 3.2.4. Spatial shift-share analysis
 - 3.2.5. Gravity models and economic gravity models
- 3.3. Methods of spatial analysis
 - 3.3.1. Measures of spatial autocorrelation: Global to Local Moran’s I
 - 3.3.2. Global to Local: Getis-Ord G to Getis Gi
 - 3.3.3. Agent-Based Computational Demography
 - 3.3.4. Geographically weighted regression
4. Themes of population geography
 - 4.1. Whither fertility and mortality
 - 4.2. Migration events
 - 4.3. Life course perspective
 - 4.4. Intergenerational studies
 - 4.5. Gendered family migration
 - 4.6. Assimilation processes
 - 4.7. Neighborhood studies and residential mobility
5. Challenges and future directions

Population, Natural Resources and Environment **270**

Haydea Izazola, *Department of Methods and Systems, Universidad Autonoma Metropolitana-Xochimilco, Mexico*

Alan Jowett, *Centro de Investigación y Docencia Económicas, Mexico*

1. Introduction
2. History of the Debate
3. Contemporary Approaches
4. Population and Food Availability
5. Population and Land Use Cover Change
6. Population and Water Resources
7. Population, Energy and Climate Change
8. Environmental Migration
9. Final Remarks

Population Policy **294**

Paul Demeny, *Population Council, New York, USA*

1. Introduction
2. Population control in traditional societies
3. Rationale for population policy
4. Population policy in the liberal state
5. Population policy between the World Wars
6. International population policy after World War II
7. Population policy in response to below-replacement fertility

Population Projections and World Population Trends **314**

Hania Zlotnik, *Population Division, Department of Economic and Social Affairs, United Nations*

1. Introduction
2. The United Nations population projections: History and relevance
3. Methods and assumptions to project national populations
 - 3.1. The Projection of Fertility
 - 3.2. The Projection of Mortality
 - 3.3. The Projection of International Migration
4. Past and future population trends
 - 4.1. Trends and Prospects for Fertility Change
 - 4.2. Trends and Prospects for Mortality Change
 - 4.3. Population Growth and Distribution
 - 4.4. Population Ageing
5. Conclusion

Index **353**

About EOLSS **359**