

50 Years of IIASA Contributions on Population Studies Andrei Rogers

Good afternoon and welcome to this special session on multidimensional population carried out at IIASA over the past nearly 50 years. My particular task today is to introduce the content and context of demographic research carried out at IIASA in its early years.

I arrived at the Institute on July 1, 1975 to spend a year of sabbatical leave from Northwestern University and joined what then was the Urban Project headed by Harry Swain, a Canadian geographer. The year 1975 was an important one for the Institute, its incoming director, Roger Levien, reorganized the many existing projects, and in this reorganization, the Urban and Biomedical Projects were merged to create the Human Settlements and Services (HSS) Area, which would focus on the relevant fields of knowledge dealing with the earth's human endowment: population settlement patterns and processes, and human resources and services.

In December of 1975 I decided to extend my stay by another year. I had just published my book Introduction to "Multiregional Mathematical Demography" and my then Ph.D. student, Frans Willekens, joined me at IIASA as a research assistant. We were making good progress on research that was an extension of my 1975 book. I wanted to go on further and a second year was necessary to do that. Roger Levien and I discussed the possibility of a still longer extension, an appointment as Chairman of the Human Settlements and Services (HSS) Area, and the opportunity to build a major international research program on population. Also, as part of the longer appointment I would be allowed to bring in several of my graduate students from Northwestern to allow me to continue my personal research agenda. A long term contract would allow for me to bring to IIASA three more graduate students: Jacques Ledent, Richard Raquillet, and Luis Castro.

Over the eight years (1975-1983) that I spent at IIASA we began with two basic tasks: the development and publication of a set of computer programs for multiregional demographic analysis and the establishment of a network of collaborating investigators from the Institute's then 17 national member organizations (NMOs). Our principal goal was a case study of each country's demography carried out by one or more scholars from that country. Each study was to use a common methodology and to follow a common outline of substantive topics. Much of the data analysis was to be carried out at IIASA using our package of computer programs, and most of the scholars involved had to be trained in the methodology. In the end, the perspective of multiregional demographic analysis united the efforts of some 40 scientists, representing over half dozen disciplines, and more than 20 countries, and it focused their attention on the migration and settlement patterns in the 17 IIASA nations.

In addition to our research, an important activity was the assembly of an international data bank on the regional population stocks, and interregional patterns of fertility, mortality, and migration. I was especially grateful to the many scientists and research assistants for their devoted work in handling data for the 139 regions in 17 countries. These case studies and their data led to new methodological contributions. New problems led to new ideas. For example, missing data led to new methods of indirect estimation. Inadequate data on interregional migration led to the invention of model migration age profiles, and the use of spatial interaction models drawn from the gravity modeling family.

In summary, over a relatively short span of time, the fundamental ideas of multiregional/multistate mathematical demography became widespread. In the words of Wolfgang Lutz, leader of the Population Project beginning in 1994:

“Under the leadership of Andrei Rogers, IIASA became the cradle of methods of multistate (or multidimensional) population analysis and projection. This very powerful methodological tool has by now become a standard ingredient in the toolkit of demographers around the world. It still has great potential for application, especially when the states are not only defined in geographical terms but, for example, as educational status, family status or labor force status.” (Lutz, 1999, pp1-2).

In looking back at my years at IIASA, I'm proud of the Institute's accomplishments both then and over the 40 years since then. Several of the scholars have been honored by the PAA with the prestigious Mindal Sheps Prize for Formal Demography: Anatoli Yashin, Wolfgang Lutz, Andrei Rogers, Jim Vaupel, and Frans Willekens. And my replacement as leader of the Population Program, Nathan Keyfitz, was an earlier recipient.

Finally, I would like to express my gratitude to IIASA, a unique institution, and especially acknowledge the support of Roger Levien, its Director during most of my time at the Institute, without whom our contributions would undoubtedly have been much reduced indeed.