

Report on joint IUSSP-ISI Session at the

54th Session of the International Statistical Institute,
13-20 August 2003, Berlin

Invited Paper Session 78: Tuesday August 19, 13:00-15:15

Statistical Aspects of Projecting Populations: How to deal with
uncertainty in population forecasting ? (Organizer and Chair: Wolfgang Lutz)

After a general introduction to the relevance of the topic by the session organizer the following three invited papers were given, all of them being survey papers of the respective fields of research:

1) **Quantifying the Uncertainty of Population Forecasts: An Overview**
by Joshua R. Goldstein (Office of Population Research, Princeton University)

This paper critically discussed the different approaches to probabilistic forecasting (times series analysis, *ex post* error analysis and expert-argument based models) with an emphasis on the need for synthesizing the positive aspects of the different approaches.

2) **The use of probabilistic projections for long-run economic growth and environmental forecasts** by Alexia Prskawetz (Max Planck Institute for Demographic Research) and B.C. O'Neill (IIASA and Brown University)

This paper provided a survey of fields of application for probabilistic population projections in which there is a clear advantage for using such projections as compared to single best guess projections or probability free scenarios. The examples came mostly from the fields of economics and long term environmental change.

3) **Population and Socio-economic Structure Simulation using Micro Simulation**
by Seiichi Inagaki and Yoshiro Matsuda (Tokyo, Japan)

In contrast to the other two papers that operated at the macro-level of projecting the education by age and sex, this paper discussed, how one can explicitly address uncertainty in the context of micro-simulation. This was illustrated through a specific micro model for Japan.

There were two invited discussants: **John Long** (US Census Bureau) and **Aris Ananta** (Singapore/Indonesia) – unfortunately Aris Ananta had to cancel his trip on short notice.

The session was well attended (an estimated 60-70 participants) although the timing (starting at 1 pm) was not ideal. The participants seemed to come from very different fields of statistics and there clearly was only a small minority of demographers.

After John Long had done a nice job in highlighting the key points made by the speakers and posing some general questions, there was a very lively discussion at a high scientific level.

More information about this session and the specific papers presented can be found at the ISI Berlin website which will still be active for a while:

<http://www.isi-2003.de>

In addition to this session Wolfgang Lutz was also invited to participate in an ISI press briefing on population trends together with Paul Demeny, Charlotte Hoehn, Dirk van de Kaa and Joe Chamie.

In several discussions with past and current ISI presidents and Board members the desirability of intensified ISI-IUSSP collaboration in the future was stressed.

W. Lutz, September 2003