

The 3rd KOSTAT Summer Seminar on Population



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Online registration at http://www.appi.re.kr/eng

Registration Deadline June 24, 2016

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The 3rd KOSTAT Summer Seminar on Population

Workshop 1

Demographic Measurement and Theory July 25 – July 30, 2016 Ocloud Hotel, Seoul

Workshop 2

Migration Analysis with Own Data August 1 – August 12, 2016 Statistical Training Institute, Daejeon

Workshop 3

Statistical Demography Using R August 16 – August 24, 2016 Crown Harbor Hotel, Busan



OVERVIEW

The KOSTAT Summer Seminar on Population serves as a forum for individuals and institutions concerned with population-related issues in the Asia-Pacific region. Three independent and consecutive workshops will focus on "Demographic Measurement and Theory", "Migration Analysis with Own Data", and "Statistical Demography Using R" during the 3rd KOSTAT Summer Seminar on Population. The workshops are expected to provide an opportunity for experts on demography and government officials in charge of population censuses and statistics in the Asia-Pacific region to promote new methods for producing and analyzing population statistics and demography.

Participants are encouraged to select one or more workshops among the three options. The working language of every workshop will be English.

Workshop topics for 2016 will be:

1. Demographic Measurement and Theory July 25 – July 30 / Seoul / 30-hour course

- 2. Migration Analysis with Own Data August 1 – August 12 / Daejeon / 48-hour course
- 3. Statistical Demography Using R August 16 – August 24 / Busan / 36-hour course
- * Certification of completion under the name of the commissioner of the KOSTAT will be given to participants who successfully finish the workshop.

APPLICATION

REQUIREMENTS

· University Graduates, Fluency in English

- · Experience in a field relevant to the topic of the workshops
- TUITION FEES : Free

Responsible for own meals and lodging
Free one-day field trip for each workshop

- * Lodging & meals provision for up to ten full-time graduate students. (More information is available on the APPI website.)
- REGISTRATION (choose one)
- ① On-line application webpage (www.appi.re.kr/eng)
- ② E-mail application to master@appi.re.kr
- Deadline: June 24, 2016
- Contact Information
- Email:master@appi.re.kr
- Phone: +82.42.489.9329 / +82.42.482.9328

WORKSHOP 1

Demographic Measurement and Theory July 25 – July 30, 2016 Ocloud Hotel, Seoul



Andrew Noymer, PhD.

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Adjunct Senior Fellow

Part I) Demographic Theory

This workshop will cover advanced topics in formal mathematical demography, with an emphasis on practical applications. Although basic concept will be reviewed, it is assumed that workshop participants will have some prior formal training and/or real-world experience in population studies. The computer-related prerequisite for this workshop is some knowledge of computer spreadsheet software packages such as Excel. This module will cover population dynamics, including the basics of stable theory and Lesliematrix population projection.

Part II) Life Tables and their applications

Life Tables are a multi-column presentation of mortality statistics. A set of age-specific mortality and related statistics are presented in a life table. In the five-part lectures on life tables and their applications, students will learn how to construct life tables and how to use life tables for mortality analysis. Additionally, the basics of survival analyses that can be used for studying the occurrence of an event and the timing of the event will be taught.

Participants are expected to have training in social science or public health research, knowledge of basic demographic methods, and knowledge of basic statistical methods for causal analysis such as regression models. If participants have data on survival analyses, they are welcome to bring them for additional exercises and consultation with the lecturer.

WORKSHOP 2

Migration Analysis with Own Data August 1 – August 12, 2016 Statistical Training Institute, Daejeon



Director, Australian Demographic and Social Research Institute The Australian National University

James.raymer@anu.edu.au

Migration is increasingly becoming a major source of demographic change for countries throughout the world. The ability to conduct migration analyses is, therefore, essential for studying a wider array of social and environmental problems. This workshop provides a framework and a set of tools for analyzing domestic (internal) and international movements.

This workshop brings together research questions, measurement, types of data, and methodological frameworks required to study the complex nature of migration. We will learn about the causes and consequences of migration, overcoming measurement and data limitations, how to place migration within the wider picture of population change and urbanisation, and how to provide robust predictions of future movements. Mathematical and statistical techniques will be introduced to allow you to address different research questions and problem sets. Key to the discussion will be the realization that migration involves two populations - an origin and a destination - within a wider system of movements.

The workshop will be taught utilizing a mixture of lectures, computer workshops and participant-led presentations. Participants should have computer experience and a basic knowledge of demography, mathematics, and statistics. All techniques, statistical packages, and concepts will be introduced at an introductory level and then reinforced during the two weeks of the workshop. Workshop participants are encouraged to bring their own migration data from censuses, surveys or administrative sources that can be used to address particular research questions or policy issues.

WORKSHOP 3

Statistical Demography Using R August 16 – August 24, 2016 Crown Harbor Hotel, Busan





Professor, School of Sociology and Political Sciences, Shanghai University Research Scientist, Vienna Institute of Demography quy.abel@ceaw.ac.at

This workshop deals with statistical models for the analysis of quantitative data typically found in population studies. These include standard linear regression models for the study of continuous responses (including multiple regression), binomial regression models for binary data (including logistic regression and probit models), models for count data (including Poisson regression and negative binomial models) and strategies for forecasting time series data.

The course has a strong statistical computing element to it, where students will learn in R how to efficiently load and manipulate data sets, implement their modelling strategies and produces effective visualizations of their results using popular R libraries such as dplyr, ggplot2 and shiny. No prior knowledge or R is required, although a basic level of computer literacy is essential. Participants will work and present findings individually or in small groups. They should bring their own raw, demographic data ready to tidy, visualize, and then analyze in R.

The course is taught at an intermediate statistical level with an emphasis on understanding and applying statistical concepts and techniques, rather than proving theorems. However, the course assumes students are familiar with basic concepts in probability theory, statistical estimation, and methodology up to, but not necessarily including, regression analysis.

