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The 4th **KOSTAT-UNFPA Summer Seminar** on Population

Aging and NTA

I July 23 - 29

Workshop 2 Demography with R | July 30 – August 5

Workshop 3

Migration Analysis | August 6 - 12

* Registration Deadline June 23, 2017 * Register online, or download a registration form at http://www.appi.re.kr/eng



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THE 4TH KOSTAT-UNFPA SUMMER SEMINAR ON POPULATION

The KOSTAT-UNFPA Summer Seminar on Population serves as a forum for individuals and institutions concerned with population-related issues. Three independent and consecutive workshops will focus on "Aging and National Transfer Accounts (NTA)", "Demography with R", and "Migration Analysis" during this year's KOSTAT-UNFPA Summer Seminar on Population.

The workshops are expected to provide an opportunity for every participant to enhance their statistical capacity n producing and analyzing population statistics and demography.

| Workshop topics for 2017 will be |

1. Aging and NTA		
July 23 – July 29 2. Demography with R	• Daejeon	· 30-hour course
July 30 – August 5 3. Migration Analysis	• Busan	• 30-hour course
August 6 – August 12	• Seoul	• 30-hour course

• Participants are encouraged to select one or more workshops among the three options. The working language of the seminar is English.

• Certifications of completion under the name of the commissioner of KOSTAT will be given to participants who <u>successfully finish the workshop.</u>

| APPLICATION |

1. Requirements

- · University graduates, fluency in English
- Experience in a field relevant to the topic of the workshops

2. Tuition Fees : Free

- Free one-day field trip for each workshop
- · Participants responsible for own lodging and meals
- * Accommodation & meals provisions for up to ten full-time graduate students (More information is available at www.appi.re.kr/eng)
- 3. Registration (choose one)
- On-line application (www.appi.re.kr/eng)
 E-mail application to master@appi.re.kr

4. Deadline : June 23, 2017

- 5. Inquiries regarding KOSTAT-UNFPA Summer Seminar : • E-mail: master@appi.re.kr
- •Tel: +82.42.482.9328, +82.42.489.9334
- * Registration cancellation must be made before 18:00, July 14 (Korean time basis)

WORKSHOP 1

Aging and NTA July 23 – July 29, 2017

Statistics Training Institute, Daejeon



Sang-Hyop Lee, PhD. Professor, Department of Economics, University of Hawaii / East-West Center

leesang@hawaii.edu

I This course is designed for those interested in I

- Introduction of National Transfer Accounts (NTA) and basic frameworks to construct the accounts.
- · Estimating the age profiles and other various hands-on exercises

| Requirements |

 A certain level of knowledge on spreadsheets, computer skills, and statistical methodology is necessary. Knowledge on STATA, although not mandatory, is recommended for more effective learning.

The world population is undergoing profound changes in its age distribution. The corresponding changes in the population age structure have numerous socio-economic consequences, presenting opportunities and challenges for development and for policymakers. The lack of information, however, severely limits our ability to understand the consequences of global fertility decline, population aging, the interaction between public and private transfer systems, and so on.

In the workshop, National Transfer Accounts (NTA) are introduced, which measure how people at each age produce, consume, and reallocate their resources over their lifecycle. The accounts are designed to complement population data, UN System of National Accounts, and other important economic and demographic indicators, and hence provide useful information on how population changes influence economic growth, generational equity, public finances, and other important features of the socio-economy. It has particular policy implications on issues related with retirement, pensions, health care, and other social and economic issues of population aging.

We will learn the basic theoretical background and methodological frameworks required to construct the accounts. Basic mathematical and statistical techniques will be also introduced to estimate the age profiles of the accounts. Hands-on exercises are a key learning element. The workshop will provide the necessary data sets for exercises, but participants are welcome to bring their own data sets in consultation with the lecturer.

WORKSHOP 2

Demography with R July 30 – August 5, 2017

Crown Harbor Hotel, Busan



Professor, School of Sociology and Political Sciences, Shanghai University / Vienna Institute of Demography

guy.abel@oeaw.ac.at

Guy Abel, PhD.

I This course is designed for those interested in I

- · Learning R environment to efficiently handle data
- Hands-on experience on popular R packages for importing, manipulating, and visualising data

| Requirements |

 No prior knowledge of R is necessary but participants should be comfortable using computers to handle data sets in statistical software (such as SPSS or STATA) and spreadsheets (such as Excel). Participants should also have a basic knowledge of demography, mathematics, and statistics.

This workshop focuses on the study of demography using the R statistical language.

Practical hands-on exercises will be emphasised throughout the workshop to build up participants' R experience. Upon completion of this workshop, participants will be familiar with the R environment, its basic functions, and more advanced methods from some of the most popular R packages for importing, manipulating, and visualising data.

The workshop involves four sections:

- 1) An introduction to R, including basic R functions, accessing R packages and using RStudio effectively.
- 2) Visualising demographic data in R using the ggplot2 package, including basic charts, facet plots, and maps.
- 3) Managing demographic data in R using the tidyverse suite of packages, including reading data of different formats into R and summarising, combining, and reshaping data within R.
- 4) Life table construction and population projections, including writing R functions to speed up repetitive tasks and displaying the results in interactive plots created with the shiny package.

Participants will gain experience in each of these areas through lectures interspersed with practical computing exercises.



WORKSHOP 3

Migration Analysis August 6 – August 12, 2017 Ocloud Hotel, Seoul



James Raymer, PhD.

Professor, School of Demography Australian National University

James.rayer@anu.edu.au

I This course is designed for those interested in I

- · Understanding causes and consequences of migration in the broader context
- Overcoming measurement and data limitations and predicting future movement

| Requirements |

•The workshop will be taught utilising a mixture of lectures and computer workshops. Participants should have computer experience and a basic knowledge of demography, mathematics, and statistics.

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

The 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 utilising a mixture of lectures and computer workshops. All techniques, statistical packages, and concepts will be introduced at an introductory level and then reinforced during the workshop. This includes, for example, multiregional life tables, gravity and spatial interaction models, and multiplicative decomposition analyses.