The 6th KOSTAT-UNFPA Summer Seminar on Population

About the Summer Seminar on Population:
The Summer Seminar on Population will be offering a series of workshops in 2019 to serve as a forum for individuals and institutions concerned with population-related issues and to enable participants to capture and share knowledge on population statistics more effectively.
There will be three independent and consecutive workshops as below:

- **Workshop 1**: Application of R to Demographic Analysis,
  Statistical Training Institute, Daejeon, July 22 (Mon) – July 26 (Fri), 2019 (1 week, 30 hours)
  *Lecturer: Professor Guy Abel, School of Sociology and Political Science, Shanghai University/
      Applied Scientist, Asian Demographic Research Institute

- **Workshop 2**: Analysis of Demographic Data with GIS Technology,
  Crown Harbor Hotel, Busan, July 29 (Mon) – August 2 (Fri), 2019 (1 week, 30 hours)
  *Lecturer: Professor Seong-Yun Hong, Professor of Geography, Kyung Hee University
      Professor Jangik Jin, Professor, Dept. of Urban Planning and Real Estate, Chung-Ang University

- **Workshop 3**: Methods for Analyzing the Life Course,
  Ocloud Hotel, Seoul, August 5 (Mon) – August 9 (Fri), 2019 (1 week, 30 hours)
  * Lecturer: Professor Edith Gray, Head of School, School of Demography, Australian National University

Application Requirements:
  (1) Training and experience in a field relevant to the topic of their workshop, but not necessary
  (2) Fluency in English

Workshop(s) Application:
Send the workshop application form to popstat2019@gmail.com **no later than June 14, 2019**.
Cancellation is available only by July 5, 2019.

Selection Criteria:
The assessment of each applicant will be based on the information provided on the application form plus the required other materials submitted as part of the application, and evidence of relevant experience and interest. Applicants will be selected based on the following criteria:
  (1) Relevance of training and research experience relevant to the topic of the workshops,
  (2) Working in a field or on research projects relevant to a workshop topic (including doctoral students whose dissertation research directly relates to a workshop topic),
  (3) Experience/ability using one or more statistical package (e.g. R, SAS, STATA, and SPSS)
  (4) Basis of their potential contribution to the workshops and to future professional work

Others:
  (1) Tuition is supported by KOSTAT, but all prospective Summer Seminar participants are responsible for their own travel expenses incurred traveling to/from Korea such as airfare, meals, and lodging. All prospective applicants are advised to seek funding from their home organizations or from national or international agencies.
  (2) The workshops will be held at three venues in different cities in the Republic of Korea, and applicants are able to select one, two, or all three workshops.
  (3) Limited funding for meals and lodging is available for full-time graduate students. For more information, please contact the summer seminar secretariat.
  (4) A certificate of completion under the name of KOSTAT and UNFPA will be given to participants who successfully complete each workshop.

Inquiries:
Summer Seminar Secretariat
(International Cooperation Center, Korea Statistics Promotion Institute)
Email: popstat2019@gmail.com
Tel: +82-70-8892-5568, +82-70-8892-2643

WORKSHOP 1 │ Application of R to Demographic Analysis

July 22 – July 26, 2019/Statistical Training Institute, Daejeon, Republic of Korea

Lecturer: Guy Abel
Professor, School of Sociology and Political Sciences, Shanghai University
Applied Statistician, Asian Demographic Research Institute
https://guyabel.com/

This workshop focuses on the use of the R statistical language for handling, investigating and displaying data, with a particular focus on data related to population studies. Practical hands-on exercises will be emphasized throughout the course to build up participants' R experience. No prior knowledge of R is necessary, although participants should be comfortable using computers to handle data sets in statistical software (such as SPSS or Stata) and spreadsheets (such as Excel). 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 visualizing data.

The workshop involves five sections:

1) An introduction to R, including basic R functions, accessing R packages, and using *RStudio* effectively.

2) Visualizing data in R using the *ggplot2* package, including basic charts, facet plots, and maps.

3) Creating simple dynamic visualizations such as animations and interactive plots using the *gganimate* and *shiny* packages.

4) Managing demographic data in R using the *tidyverse* suite of packages, including reading data of different formats into R and summarizing, combining and reshaping data within R.

5) Using *R markdown* to efficiently turn your analyses into high quality documents, reports, and presentations.

Students will gain experience in each of these areas through lectures interspersed with practical computing exercises. Besides experience of handling data using statistical software, participants should also have a basic knowledge of demography, mathematics, and statistics.

WORKSHOP 2 │ Analysis of Demographic data with GIS Technology

July 29 – August 2, 2019/Crown Harbor Hotel, Busan, Republic of Korea

Lecturers:
Seong-Yun Hong
Professor, Dept. of Geography, Kyung Hee University
https://kr.linkedin.com/in/seong-yun-hong-7584967a
Jangik Jin
Professor, Dept. of Urban Planning and Real Estate, Chung-Ang University
https://sites.google.com/site/jangikjinwis/

This workshop provides an overview of GIS-based methods for measuring and visualizing population segregation. Population segregation is an important demographic phenomenon as it can cause various negative impacts such as uneven development and social conflicts. Participants of this workshop will learn how to assess the overall level of segregation in a city and identify areas where certain population groups are clustered using spatial statistics. As the level of segregation is affected by the size of areal units, the workshop also introduces a couple of techniques for disaggregating census data into smaller spatial zones.

The topics that will be covered in this five-day workshop include:

(1) Theories on the causes and consequences of population segregation and empirical cases from around the world

(2) Measuring and visualizing population segregation using the *seg* package in R and QGIS

(3) Modifiable areal unit problem (MAUP) and areal interpolation methods

(4) Spatial distribution of elderly populations and their social implications

(5) Comparing the distributions of employment and population

Hands-on exercises are an important component of this workshop. The participants will use open source software R and QGIS for analyzing population segregation and detecting hot spots where, for example, elderly people are concentrated. No prior experience of R and QGIS is assumed, but some knowledge of statistics would be helpful (not essential though).

WORKSHOP 3 │ Methods for Analyzing the Life Course

August 5 – August 9, 2019/Ocloud Hotel, Seoul, Republic of Korea

Lecturer: Edith Gray
Head of School, School of Demography, Australian National University
https://researchers.anu.edu.au/researchers/gray-ee

Course outline
The life course perspective considers how individual's lives are shaped by time and place. There are five key principles that include: (1) Life-span; (2) Agency; (3) Historical time and place; (4) Timing of events; and (5) Linked lives. In this course we will introduce the main methods for analyzing life events. We will consider a range of life events including leaving school, relationship timing, having children, employment, relationship dissolution (divorce, widowhood), and other life course event depending on the interests of participants.

The topics that will be covered in this five-day workshop include:

(1) Introducing the life course approach
     Data requirements for conducting life course analysis.

(2) Conducting descriptive analysis
     Comparing results across populations, and comparing results across time
     (includes preparing tables and figures)

(3) Measuring spells, net and gross change. Preparing data for measuring event occurrence.
     Introducing Survival Analysis (Timing of events)

(4) Comparative Survival Analysis
     Introducing multivariate analysis of event timing

(5) Multivariate analysis of event timing
     Sequence analysis

* Please note that the detailed program is tentative and subject to change.

Requirements
Laptop with Stata SE(14).
Experience using Stata is recommended.
A working knowledge of Excel.

Optional (not required): Participants may bring longitudinal data from their setting. Please contact the convener in advance to determine whether the data is suitable.