SMALL AREA ESTIMATION WITH EXAMPLES IN R

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PLACE : University of Neuchâtel, av. 1er Mars 26, D71 (2nd floor)

ABSTRACT : Demand for timely and reliable small area estimates derived from survey data has increased greatly in recent years due to, among other things, their growing use in formulating policies and programs, allocation of government funds, regional planning, small area business decisions and other applications. Traditional area-specific (direct) estimates may not provide acceptable precision for small areas because sample sizes in small areas are seldom large enough or even zero sample sizes in many small areas of interest. This makes it necessary to borrow information across related areas through indirect estimation based on implicit or explicit linking models, using auxiliary information such as recent census data and current administrative data. Methods based on explicit linking models are now widely accepted. This workshop will provide an introduction to small area estimation, with a variety of applications to socio-economic data and practical demonstration of the methods in R statistical software.

TARGET AUDIENCE: The course is primary aimed at methodologists in government statistical bureaus or survey organizations, statistics graduate students and faculty from universities and users with adequate background in linear regression models and survey sampling theory and methods.