

Statistics Seminar

Topic: Bayesian approach to survey sampling

Speaker: Dr. Gauri Sankar Datta
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Abstract:

Survey sampling enjoys considerable importance in statistics. Most statistical data come from survey sampling. Meaningful analysis of such data is equally important for valid inference. Among the widely used approaches to analyzing survey data, Bayesian approach is found to be quite attractive. In this talk we will provide a selective review of the Bayesian approach to finite population sampling. We will concentrate on Bayesian methods in small area estimation.

Due to an increasing demand for reliable data at the local level, research in small area estimation is becoming an important topic in survey sampling. A small area may represent a geographical region and/or a demographical subgroup of a population for which the sample size is small. In many large scale surveys targeted at producing accurate statistics at the national level, collected data are often used to produce useful statistics at the state or county level. However, the same data that is adequate to produce accurate estimates at the higher level of aggregation is often quite small to generate reliable estimates at the small area level. The demand for small area estimates is due to a growing use of statistics in policy formulation, program implementation, government resource allocation and regional planning. There is also an increased demand for small area statistics from the private sectors in making business decisions. We will discuss and illustrate Bayesian methodologies in small area estimation.

Date: Friday, April 22, 2005

Time: 11 AM

Location: Hume 331

ALL ARE WELCOME.

Tea/coffee/snacks will be served at 10.45 AM in the faculty lounge.