

First International Survey Methodology Conference

June 10-11, 2020

NCAER India Centre, 11 Indraprastha Estate, New Delhi

Call for Papers and Training Participation

The increasing focus on evidence-based programme and policy design has created a voracious appetite for socio-economic data for development. The UN Sustainable Development Goals have added to this demand by setting targets for human development that necessitate continuous monitoring and often create the demand for data at ever more disaggregated levels.

Simultaneously, there has been tremendous growth in the sources from which data may be drawn. Administrative data from government programmes, tax records, electronic medical records, opinion polls, and social media platforms are now used to supplement traditional sources of data such as the Census, sample surveys, and vital registration systems.

These rising data demands and growing sources of data have led to the problem of plenty for the bewildered policymaker in her task of selecting appropriate data sources and drawing valid inferences from the data. Data suppliers also face similar challenges, as rapidly changing modes of data collection and demands for data across multiple domains, often with large sample sizes, make it difficult to ensure data quality. Further, statistical systems in many countries, including India, face the shortage of well-trained survey personnel and resources.

The first International Survey Methodology conference, organised by the NCAER National Data Innovation Centre (NDIC) in New Delhi, seeks to bring together government statistical personnel, academia, and the global research community to explore the challenges and opportunities offered by this changing landscape of data capture, data analysis, data curation, and data usage.

The conference will comprise five types of sessions: (1) keynote lectures; (2) panel discussions; (3) thematic sessions consisting of a mix of invited and contributed papers; (4) poster sessions; and, (5) roundtables on topical subjects, allowing for greater flexibility and potential for networking.

Papers are invited for the following four technical sessions spread over two days of the Conference:

- Use of Computer-Assisted Personal Interviewing (CAPI) and evaluation of CAPI software programmes in reducing errors in data collection;
- The experience of conducting telephone surveys in India;
- Use of paradata for ensuring quality control in social survey research; and
- Use of innovative study designs and sampling techniques in surveys.

We expect to organize **two keynote lectures**, one by a well-known expert on Indian statistical systems and the second by an eminent international statistician:

- Key Statistical Products in India: Comparability of Estimates, Issues in Survey Design, and Future Challenges, **Gurucharan Manna** (*Senior Adviser, NCAER; Member, Indian National Statistical Commission; former Director General, Central Statistical Organisation and National Sample Survey Organisation*)
- The Past, Present and Future of Social Surveys, **Graham Kalton** (*Chairman and Senior Vice President, Westat; former Research Professor, Joint Program in Survey Methodology at the University of Maryland*)

Guidelines for Paper Submission

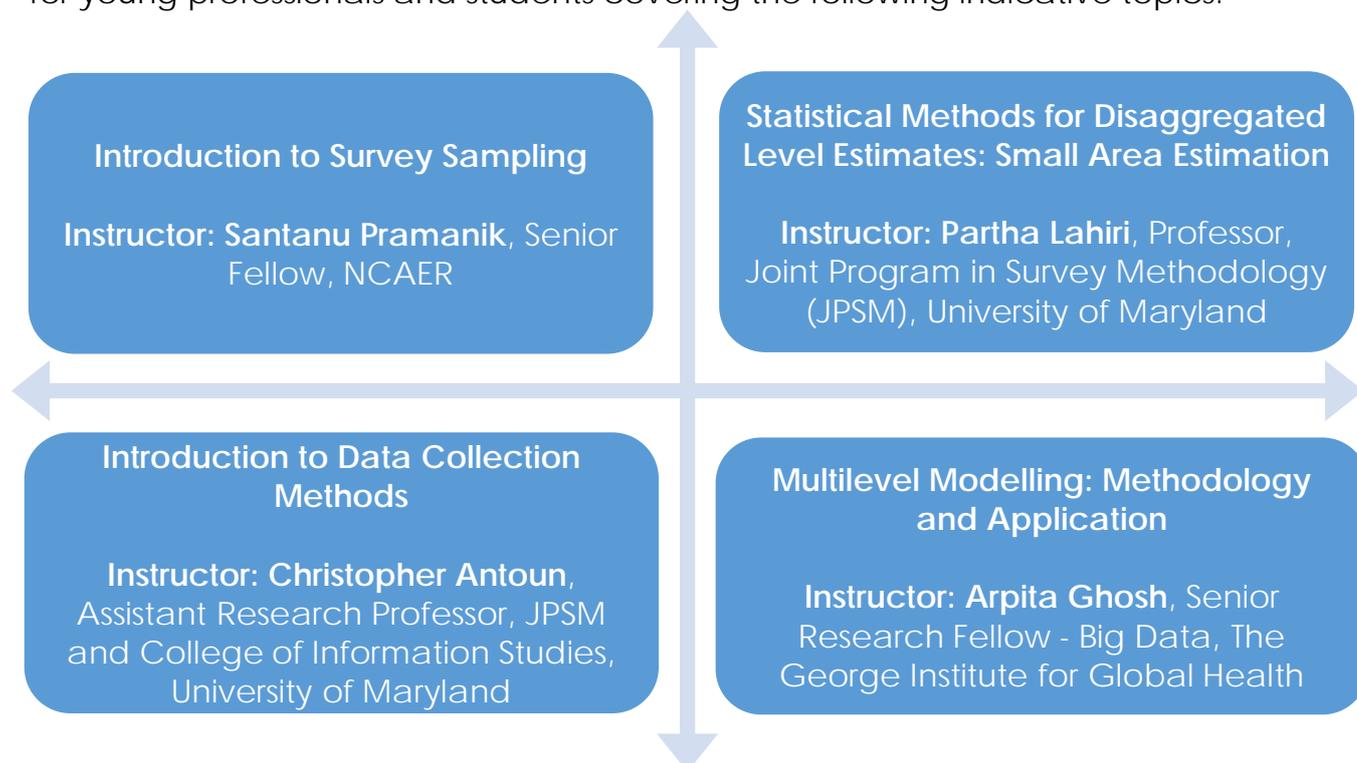
We invite you to submit extended abstracts (no more than three A4/Letter size pages) of original research papers by February 15, 2020 to surveyconf@ncaer.org. Please note the following important pointers for submitting your abstracts:

- Include your affiliation and contact details in the email.
- Mention one of the four sessions noted above for which the paper is being submitted.
- There will be limited number of spaces available for presentation in the technical sessions. Therefore, some of the selected abstracts may be included in a dedicated poster session. Specify clearly if you do not want to be considered for a poster session.
- This is a survey methodology conference, hence, this may not be the right platform for presenting empirical research that is substantive but without a strong methodological component.

After reviewing the extended abstracts, selected authors will be informed by March 15, 2020 about selection either for paper presentation or for a dedicated poster session. Full draft papers will be due by May 1, 2020.

Pre-conference Training Programme, June 8-9, 2020

The conference will be preceded by two days of **statistical and methodological training** for young professionals and students covering the following indicative topics:



Guidelines for Training Programme Application

Applications for the training programme must be received by February 15, 2020 by email at surveyconf@ncaer.org. Applicants must:

- Specify the training for which you are applying;
- Include a cover letter (no more than one A4/letter page) describing the relevance of the training to your research study(ies);
- Attach a copy of your curriculum vitae;
- Rank your preferences if you are applying for more than one training in view of limited places in each.



Important Dates

Last Date for receiving paper abstracts
Communication on acceptance of paper
Submission of full paper

February 15, 2020
March 15, 2020
May 1, 2020

Application for training programme due on
Notification of acceptance in training programme
Training dates
Conference dates

February 15, 2020
March 15, 2020
June 8-9, 2020
June 10-11, 2020

Programme Committee

- Santanu Pramanik (Chair)
- Sonalde Desai
- Shashanka Bhide
- Gurucharan Manna
- Partha Lahiri
- Sharan Sharma
- Rinku Murgai
- Stephanie Chardoul

Conference Secretariat

- Arpita Kayal
- Anupma Mehta
- Deepa S

For queries, please email surveyconf@ncaer.org.

About the NCAER National Data Innovation Centre



The National Council of Applied Economic Research established its National Data Innovation Centre (NDIC) in December, 2017. The University of Maryland at College Park (UMCP) and University of Michigan are key partners in this initiative. NDIC serves as a laboratory for experiments in data collection, interfacing with partners in think tanks, Indian and foreign universities, and government. NDIC forms an important core of NCAER's long-standing data collection activities. Start-up funding for the NCAER NDIC has been provided by the Bill & Melinda Gates Foundation through grants to NCAER and to UMCP.

In a dynamic research and policy environment with a growing demand for data, it is crucial to invest in methods of data collection leading to rapid, high-quality, and policy-relevant data. Changing socio-economic conditions and technological innovations necessitate rethinking both the kinds of data being collected as well as how they are collected, and the ways in which they are curated and made accessible to users. In this context, NDIC is a centre of innovation and excellence in data collection with the objective of strengthening the data ecosystem in India.

The Centre is pursuing the following research objectives:

- Adopting best practices in scientific data collection through sample surveys, using probability sampling for population level inference;
- Reducing bias and measurement errors in data through experimentation with questionnaire designing and technology-based modes of data collection;
- Improving data quality through remote monitoring of data collection activities, using process data and survey data;
- Conducting substantive research in income, expenditure and financial inclusion, labour force participation, gender, health, and family planning; and
- Using appropriate data analysis and visualisation tools towards valid inference, using appropriate statistical methods incorporating different aspects of the survey methodology and study design.

In addition to its research goals, NDIC also:

- (1) Builds connections with diverse stakeholders, including national statistical organisations, academics, researchers and journalists;
- (2) Promotes integration and mainstreaming of best practice in existing data collection efforts in India; and
- (3) Enhances skills by imparting formal and informal training and by building a broader collaborative network.



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Pre-Conference Training Programme

T1 Tower, Room-102, NCAER India Centre

June 8-9, 2020

Tentative Agenda

Day-1 (June 8, 2020)

9:30 AM TO 1:00 PM

Course Title: **Introduction to Survey Sampling**

Instructor: **Santanu Pramanik**

11:30 AM - Tea Break

1:00 PM TO 2:00 PM

Lunch

2:00 PM TO 5:30 PM

Course Title: **Multilevel Modelling: Methodology and Application**

Instructor: **Arpita Ghosh**

4:00 PM---- Tea Break

Day-2 (June 9, 2020)

9:30 AM TO 1:00 PM

Course Title: **Introduction to Data Collection Methods**

Instructor: **Christopher Antoun**

11:30 AM - Tea Break

1:00 PM TO 2:00 PM

Lunch

2:00 PM TO 5:30 PM

Course Title: **Statistical Methods for Disaggregated Level Estimates: Small Area Estimation**

Instructor: **Partha Lahiri**

4:00 PM---- Tea Break

Instructor Profiles and Course Details



Christopher Antoun is an assistant research professor in the Joint Program in Survey Methodology and College of Information Studies at the University of Maryland, College Park, U.S.A. He holds a PhD in survey methodology from the University of Michigan, U.S.A. His research focuses on survey methods issues, including the impacts of emerging technology on survey design and survey errors. He serves on the Executive Faculty Board for the International Program in Survey and Data Science (IPSDS) and the Communications Committee for the American Association for Public Opinion Research (AAPOR).

Title of the course: Introduction to Data Collection Methods

Course outline: The short course will provide an introduction to the key theoretical ideas and practice of survey data collection. It will begin with an introduction to the Total Survey Error framework. The next section of the course will focus on nonresponse rates and nonresponse error. Finally, we will examine sources of measurement error and consider different modes of collecting survey data, including both classic (mail, face-to-face, telephone, and web) and emerging (e.g., mobile web and text/SMS) modes, as well as mixed-mode surveys. People who take this course will learn more about how survey design decisions can impact surveys errors.

Target audience: This course is intended for individuals in government, universities, business, and nonprofit organizations interested in understanding survey data collection methods and applying them in practice. (No prior background is required.)



Arpita Ghosh works at the George Institute for Global Health India as a Senior Research Fellow - Big Data. She is a biostatistician who received her doctoral training at the University of North Carolina at Chapel Hill and post-doctoral training at the National Cancer Institute. Prior to joining the George Institute, she was at the Public Health Foundation of India. Her work involves quantitative research cutting across multiple areas of public health including childhood vaccination, nutrition, elderly health, and chronic conditions, particularly cancer and kidney disease. Arpita has extensive experience of working with secondary data sets and of conducting epidemiological studies. Her current research interests include causal inference for observational studies and machine learning methods.

Title of the course: Multilevel Modelling: Methodology and Application

Course outline: This course is designed to provide researchers with training in the methodology and application of multilevel statistical modeling. The introductory session will motivate participants to think about correlated and dependent data structures that arise due to sampling design and/or are inherent in the population. The subsequent sessions will include quantitative assessments of the role of contexts (for example, schools, health facilities, neighborhoods) in determining individual outcomes. The course will cover in details two-level linear models along with an introduction to more

advanced topics including three-level structures and multilevel logistic models. These discussions will be accompanied by data examples in R and MLwiN – a specialized software to handle models with complex data structures. The final session will include a discussion about published scientific articles that used multilevel analysis.

Target audience: Clinicians, epidemiologists, economists and demographers (Knowledge of linear and logistic regression, variance components (optional), working knowledge of R is recommended.)



Partha Lahiri is a Professor in the Joint Program in Survey Methodology (JPSM) and Department of Mathematics at the University of Maryland College Park, USA. He is also an Adjunct Research Professor of the Institute of Social Research, University of Michigan, Ann Arbor. Dr. Lahiri is a Fellow of the American Statistical Association and the Institute of Mathematical Statistics and an elected member of the International Statistical Institute. His research interests include survey sampling, small-area estimation, record linkage and Big Data. Dr. Lahiri's research has

been widely published in leading statistical journals such as the Journal of the American Statistical Association, Annals of Statistics, Biometrika and Survey Methodology. Dr. Lahiri has served on a number of advisory committees, including the U.S. Census Advisory committee and U.S. National Academy panel. Over the years Dr. Lahiri worked on research projects and offered short courses and workshops in different government and private agencies such as the United States Census Bureau, Bureau of Labor Statistics, National Center for Health Statistics, Department of Agriculture, Ministry of Social Development and Family of Chile, Italian National Institute of Statistics, Statistics Norway, Gallup Organization, WESTAT. He has served as a consultant in international organizations such as United Nations Development Program, United Nations Statistical Institute for Asia and the Pacific, World Bank.

Title of the course: Statistical Methods for Disaggregated Level Estimates: Small Area Estimation

Course outline: The demand for various socio-economic and health indicators for small geographical areas is steadily increasing for policy making. However, increasing sample size up to the level that would satisfy the demand for reliable disaggregated level estimates often has unintended consequence of poor quality data. Moreover, large sample size for surveys requires an enormous amount of resources in terms of survey personnel and cost. In this context, it is crucial to explore alternative methods of obtaining disaggregated level estimates. One of the key factors that led to the success of small area estimation (SAE) methodology is its ability to borrow strength from various sources, including survey data, census and administrative records, similar areas, previous time points. The goal of this half-day short course is to provide a broad overview of the SAE methodology without going into details of theoretical derivations. We will discuss a few case studies to illustrate the utility of combining information from multiple sources. Active participation from the attendees will be strongly encouraged.

Target audience: Survey practitioners, economists and demographers (Knowledge of linear and logistic regression, variance components (optional))



Santanu Pramanik is a Senior Fellow at NCAER and the Deputy Director of the National Data Innovation Centre. He is a Statistician and Survey Methodologist by training. His methodological research interests lie in survey methods, data quality, randomized controlled trials, small area estimation being applied across different substantive domains including childhood immunization, health insurance & healthcare expenditure, family planning. Before joining NCAER he worked as a

Research Scientist at the Public Health Foundation of India (PHFI). Prior to joining PHFI, Santanu was based in Washington DC as a Survey Statistician at NORC, an independent affiliate of the University of Chicago.

Title of the course: Introduction to Survey Sampling

Course outline: The course will start with an introduction to survey sampling, basic design elements of a survey, different sources of errors in surveys and data quality. Then we will focus on probability sampling, basic principles in estimation from probability samples, different sampling techniques along with real life survey examples. The later part of the course will focus on the importance and interpretation of survey weights, different components of survey weights and construction of survey weights along with examples.

Target audience: Survey practitioners, survey research officers and survey coordinators associated with large scale surveys in India. Moreover, Social scientists, Economists, Clinicians involved in primary data collection may find this course useful for designing their own surveys.