

Sampling Methods for Small or Hard-to-Reach Populations

A Short Course Offered by the National Institute for Applied Statistics Research Australia (NIASRA) at the Sydney Business School of the University of Wollongong

9:30am - 4:45pm, June 14, 2013 (registration 9:15-9:30)

This one-day course is aimed at statisticians and survey professionals interested in small populations (e.g. immigrants, particular ethnicities, indigenous populations), which may also be hard to reach (e.g. HIV populations, drug users, men who have sex with men, jazz musicians, immigrants). Some familiarity with survey practice and standard sampling techniques is assumed. The course is divided into two parts:

- Respondent driven sampling (RDS) is a non-probability sampling method which shares some similarities with snowball sampling, but with a much stronger theoretical foundation. Briefly, initial seed respondents recruit additional respondents from their personal network. The recruiting process repeats iteratively, thereby forming long referral chains.
- Probability sampling techniques for subpopulations include the use of screening instruments and disproportionate stratified, multi-stage or two-phase sampling. Subpopulation statistics can be improved by more intensive sampling of areas thought to contain higher proportions of the group of interest. This must be done carefully, as targeted sampling can result in a higher sample size for the subpopulation but worse precision.

At the conclusion participants will be able to judge under what circumstances RDS may be appropriate, how to collect data, and how to conduct standard RDS analyses in the STATA package. They will also have an understanding of when and how to apply probability sampling methods, and how to assess in advance the precision achievable for subpopulation statistics.

Presenters: Matthias Schonlau, Ph.D. is a Professor of Statistics at the University of Waterloo, Canada, and an affiliate adjunct researcher at RAND. Prof. Schonlau's research interests include survey and web survey methodology. He is the lead author of the book "Conducting Research Surveys via E-Mail and the Web". He is a board member of the European Survey Research organization. Dr. Schonlau has published more than 50 peer-reviewed articles in Statistical Science, JAMA, the New England Journal of Medicine and other journals.

Dr Robert Clark (www.uow.edu.au/~rclark) is an Associate Professor at the National Institute for Applied Statistics Research Australia, at the University of Wollongong. He consults on a range of government and private sector statistical and survey projects. He has published articles on assorted topics in survey sampling and environmental statistics, and is the co-author of the book "An Introduction to Model Based Survey Sampling with Applications."

Location: Sydney Business School, Gateway Building, 1 Macquarie Place, Circular Quay, Sydney

Fees: \$600 per participant including GST, or \$500 for members of the Statistical Society of Australia (www.statsoc.org.au) or the Australian Market and Social Research Society (www.amsrs.com.au). Morning and afternoon tea and a sandwich lunch will be provided.

Registration: Places are limited, so please contact Anica Damcevski on 02 4221 5435 or email anica@uow.edu.au to obtain a nomination form.

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