Survey Sampling in Official Statistics - Some Further Thoughts on Directions

Ray Chambers[1]

Abstract

In 2014 at the annual Statistics Canada Symposium, I presented a modeller's perspective on the status quo in official statistics surveys-based inference. In that presentation, I identified the strengths and weaknesses of the design and model-based approaches to survey sampling inference as adopted by official statistics. In doing so I used an example from adaptive survey design that illustrated why taking a model-based perspective (either frequentist or Bayesian) represents the best way for official statistics to avoid the debilitating 'inferential schizophrenia' that seems inevitable if current methodologies are applied to the emerging information requirements of today's world. Since then, I have become even more firmly convinced that adopting a modelling approach to official statistics represents the logical way of meeting the information demands of our modern world. In this presentation I will reprise the main thrust of my 2014 arguments and discuss why I think model-based survey sampling in official statistics is inevitable.

[1]National Institute for Applied Statistics Research Australia, University of Wollongong, Australia, 2522 (ray@uow.edu.au)