

New challenges for the interaction between survey sampling theory and official statistics

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The relation between survey sampling theory and official statistics can be described in terms of periods of development, in response to challenges that faced statistics production at different points in time. The early decades of the 20th century witnessed lively discussion in regard to “incomplete data collection”: Could a modest size sample really suffice for accurate conclusions about a large population? The 1970’s brought a change of emphasis: Estimation theory came into focus and different modes of inference about the finite population emerged, model-based, design-based and other alternatives, characterized by many different uses of auxiliary information in the estimation. The last decade or two, two developments may signal a return to an emphasis on the data acquisition: One is the apparent impossibility to conduct sample surveys without massive nonresponse, necessitating a data collection that satisfies new quality objectives and criteria, such as representativity and balance of the survey response. The other is the access, for free as it were, to large masses of data, auxiliary information in a sense, more or less related to the particular survey objective. The talk comments on these developments, with an emphasis on the present period.