



Assessing nonresponse bias using call record data with applications to a longitudinal study

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A method to monitor survey outcomes during fieldwork is proposed. The approach assesses nonresponse bias using call record data by comparing estimated and “true” distributions of specific survey variables at each call attempt using dissimilarity indices. These are compared with other survey quality indicators such as response rate, nonresponse bias, R-indicators, coefficients of variation, partial R-indicators and partial coefficients of variation. Empirical analyses are conducted using data from Understanding Society – the UK Household Longitudinal Study. Results show that survey estimates tend to stabilise after around 5 call attempts. The study demonstrates that a number of indicators commonly used, although adequate to assess nonresponse bias after data collection, may not be effective in capturing nonresponse bias during the call process. The study concludes that dissimilarity indices and coefficients of variation exhibit best properties. This research has implications for responsive and adaptive survey designs.

Keywords: nonresponse bias monitoring; paradata; survey quality indicator; Understanding Society.