Quality of Survey and Administrative Data: Two New Applications of Representativity-Indicators

Ella Williams Davies, Kim Warne, Chelsea-Rhianne McGuire and Nina Sommerland (Office for National Statistics, United Kingdom)
ella.williams.davies@ons.gov.uk

Abstract
Representativeness is a core aspect of survey and administrative data quality. Here we define representativeness as how well the data reflect population groups or individuals’ characteristics. Representativity-indicators (R-indicators), worked on by Professor Natalie Shlomo, Professor Barry Schouten, and Doctor Fannie Cobben (among others) have been widely tested in a survey data context to understand differences between the characteristics of those who do and do not respond to surveys.

Our proposed contribution includes two projects; using R-indicators and distance metrics to assess the representativeness of administrative data, and exploring whether applying R-indicators could provide insight into mode effects on survey data.

Administrative data is data that has been collected during the operation of an organisation. Until now, R-indicators had not been applied to administrative data. Through an ESRC grant, Professor Natalie Shlomo and Doctor Sook Kim adapted the R indicators method for the ONS to test, to measure how representative the administrative data are of the population, compared to (in our application) 2021 Census data.

Separately, we are applying the R-indicators method for surveys to a mixed-mode survey within ONS, to explore what it can tell us (if anything) about mode effects.

We will discuss methodology, results, challenges and future developments.