Title: Multiple Statistical Approaches to Multi-Dimensional Issues; the Examples of

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Much important economic and social information relating to the human condition is derived from surveys, both cross-sectional and longitudinal. The former tend to inform well on the nature and status of individuals and the households they belong to whilst the latter reveal how people are affected by, and adjust to, changing circumstances over time. But conventional household surveys are imperfect instruments of enquiry, not least because they suffer from varying and often indeterminate non-response and tend, by design and frame limitations, to exclude important sections of the population, particularly at the ends of the distribution. The data collected in surveys are subject to both unavoidable as well as deliberate observation and measurement errors and, importantly, they sometimes fail to pick up key information about groups at the extremes. For some 'central averaging' purposes such as average household consumption and the derivation of representative CPI weights, this may be acceptable but, for poverty and inequality analysis, it usually means such surveys miss out collecting relevant and very distinct information about the very poor, who are most vulnerable to policy change, and very rich households who underpin inequality.