There is a growing interest in National Statistical Offices to produce Official Statistics using non-probability sample data, such as big data or data from volunteer web surveys, either alone or in combination with probability sample data. The main motivation for using non-probability samples is their low cost and respondent burden, and quick turnaround since they allow for producing estimates shortly after the information needs have been identified. However, non-probability samples are not a panacea. They are well known to produce estimates that may be fraught with significant selection bias. We first discuss this important limitation, along with an illustration, and then describe some remedies through inverse probability weighting or mass imputation. We also discuss how to integrate data from probability and non-probability samples through the Fay-Herriot model used in Small Area Estimation. We conclude with a few remarks on some challenges that statisticians are facing when implementing data integration methods.

Key words: Big data, Inverse probability weighting, Mass imputation, Selection bias, Small area estimation.