Little, R.J., Carpenter, J.R. and Lee, K.J. (2022): A Comparison of Three Popular Methods for Handling Missing Data: Complete-Case Analysis, Inverse Probability Weighting, and Multiple Imputation. Sociological Methods & Research https://doi.org/10.1177/00491241221113873

Short summary

This paper presents a comparison of three commonly used techniques for dealing with missing data: complete-case analysis, where only units that are complete on the variables in the analysis are included, inverse probability weighting, where the complete cases are weighted by the inverse probability of being complete, and multiple imputation, which involves filling in missing values using a statistical model, the imputation process is repeated to create multiple filled-in datasets, and the analysis is carried out using simple MI combining rules. The paper provides a non-technical overview of the advantages and limitations of each method and provides guidance on when each of the methods might be adopted over the others. The methods are demonstrated using data from the Youth Cohort Series study in England, Wales, and Scotland.