

# Teaching Survey Sampling Theory using R

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**Keywords:** Comparing estimators, Sampling distributions, Simulated data, Survey sampling, Teaching statistics

Formulas in survey sampling theory can be quite long and complex. Programming them in a language like R can aid in assessing understanding. Writing functions in R can enable comparisons across many samples and simulations of estimators. The comparisons in terms of bias and variance enhance statistical understanding of concepts in survey sampling. Examples are taken from a graduate course in modern survey sampling. Many of the examples also would be useful for an undergraduate course. Functions, some utilizing the **survey** package, summaries, and graphs are illustrated.

## References

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