

FURTHER EDUCATION | WORKSHOP

Weighting and Sampling in Survey Statistics

Instructor: Dr Anne Konrad

Date & Time: Tuesday, December 01, 2026, 09:00 a.m. to 13:00 p.m. (s.t.) &
Wednesday, December 02, 2026, 09:00 a.m. to 13:00 p.m. (s.t.) &
Thursday, December 03, 2026, 09:00 a.m. to 13:00 p.m. (s.t.) &

Place: LifBi, Wilhelmsplatz 3, 96047 Bamberg, Room 01.13

Registration: To register, please send an email to weiterbildung@lifbi.de by November 16, 2026. Registration is mandatory. The number of participants is limited to 16.

Short Outline

Methods to analyze data taught in introductory statistics and econometric courses often rely on the assumption that the data are collected in a simple random sampling process. In practice, however, more complex sampling techniques are often used, such as stratification or clustering. In such cases, a weight has to be assigned to the sampled units to account for the sampling design. The course will cover methods to select random samples and weight the sampled units to infer from the single sample to the population. We will discuss in detail the key steps in a weighting process including 1) obtaining the design weights to account for the random sample selection, 2) adjusting the design weights to compensate for nonresponse, and 3) adjusting the weights such that the sample estimates agree with known population totals. Special issues in the weighting of longitudinal data will also be addressed. In addition to the computation of weights, we will discuss practical challenges such as weight variability and the application of survey weights in regression analysis. Finally, the course will provide a brief overview of sampling and weighting in non-probability surveys.

The focus of the course is on the intuition of the underlying theory and the statistical methods so that the participants can assess the appropriateness of the methods in their application by themselves. For the course, no prior knowledge on survey statistics is required, but the participants are expected to be comfortable with statistics and to have some experience with data analysis. We will do exercises in R that apply the techniques learned in the lecture. Participants will get the most out of the class if they have prior experience with R.

Workshop content

- Sampling (survey design such that simple random sampling, stratification, clustering and more complex designs).
- Weighting (design weights, nonresponse weights, calibration).
- Weighting in regression analysis.



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- Sampling and weighting in non-probability samples.

In case of any vacant places, it is open to anyone interested.

About the Trainer

Anne Konrad is research associate at the Leibniz Institute for Educational Trajectories. After studying economics and statistics, she completed her doctorate in survey statistics at the University of Trier. Her research focuses on weighting sampling data, calibration methods, nonresponse adjustment, sampling theory and causal treatment effect estimation.