

Data Analysis

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Data Analysis

Data analysis can generally be divided into two phases; *pre-computational* and *computational*. The steps involve the consideration of most of the following issues:

1. Study objective(s).
2. Data and measurements: What was observed, when, how, by who, units of observation, units of measurement, etc.
3. Study design and sampling scheme or sampling plan.
4. Models (random variables, parameters), population model + sampling scheme \rightarrow sample model.
5. Study objectives translated to statistical objectives.
6. Actual computation: Estimation, confidence intervals, hypothesis testing, model (regression) diagnostics, etc.
7. Possibly iterate some of the above steps.
8. Interpretation, summary and conclusions.

The computational phase involves the last three items only.