

Censoring

Types of Censoring

Left censoring a data point is below a certain value but it is unknown by how much.

Interval censoring a data point is somewhere on an interval between two values.

Right censoring a data point is above a certain value but it is unknown by how much.

Type I and II Censoring

Type I censoring occurs if an experiment has a set number of subjects or items and stops the experiment at a predetermined time, at which point any subjects remaining are right-censored.

Type II censoring occurs if an experiment has a set number of subjects or items and stops the experiment when a predetermined number are observed to have failed; the remaining subjects are then right-censored.

- Random (or non-informative) censoring is when each subject has a censoring time that is statistically independent of their failure time. The observed value is the minimum of the censoring and failure times; subjects whose failure time is greater than their censoring time are right-censored.
- Interval censoring can occur when observing a value requires follow-ups or inspections. Left and right censoring are special cases of interval censoring, with the beginning of the interval at zero or the end at infinity, respectively.
- Estimation methods for using left-censored data vary, and not all methods of estimation may be applicable to, or the most reliable, for all data sets.