

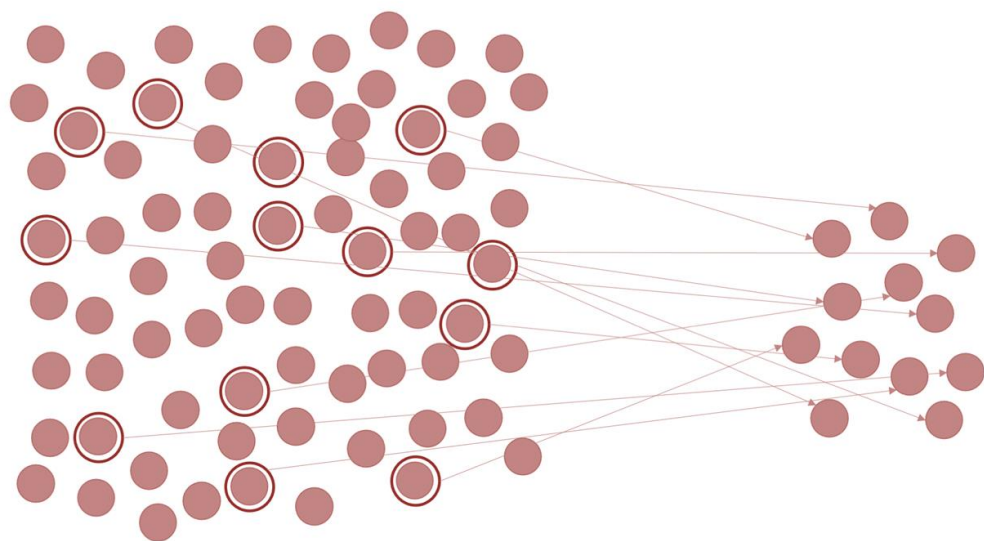


STATISTICS AND ANALYTICS TERMINOLOGY



Population vs Sample

We use a SAMPLE to answer questions about a target POPULATION



Population

Can measure true mean and standard deviation

Sample

Can estimate mean and standard deviation
(random error away from true values due to specific sample)

Statistics

It is the discipline that deals with **gathering, organising, analysing, interpreting** and **presenting** data.

Statistics includes:

Descriptive Statistics

Exploring what is contained in a data set by drawing graphs and creating tables of data summaries.

Inferential Statistics

Drawing conclusions about the population based on a data sample taken from the population.

Measures of Centred-ness

Mean:
The average

Median:
The middle observation after ranking

Mode:
The most frequent observation

Population vs Sample

- The target population should be well defined.
- The sample should be representative of the target population (not biased), and large enough to give accurate information about the population.
- Ideally, the observations should be independent of each other.

Numerical



An observation can take any integer or non-integer value.



Categorical



An observation can only belong to one of the groups.