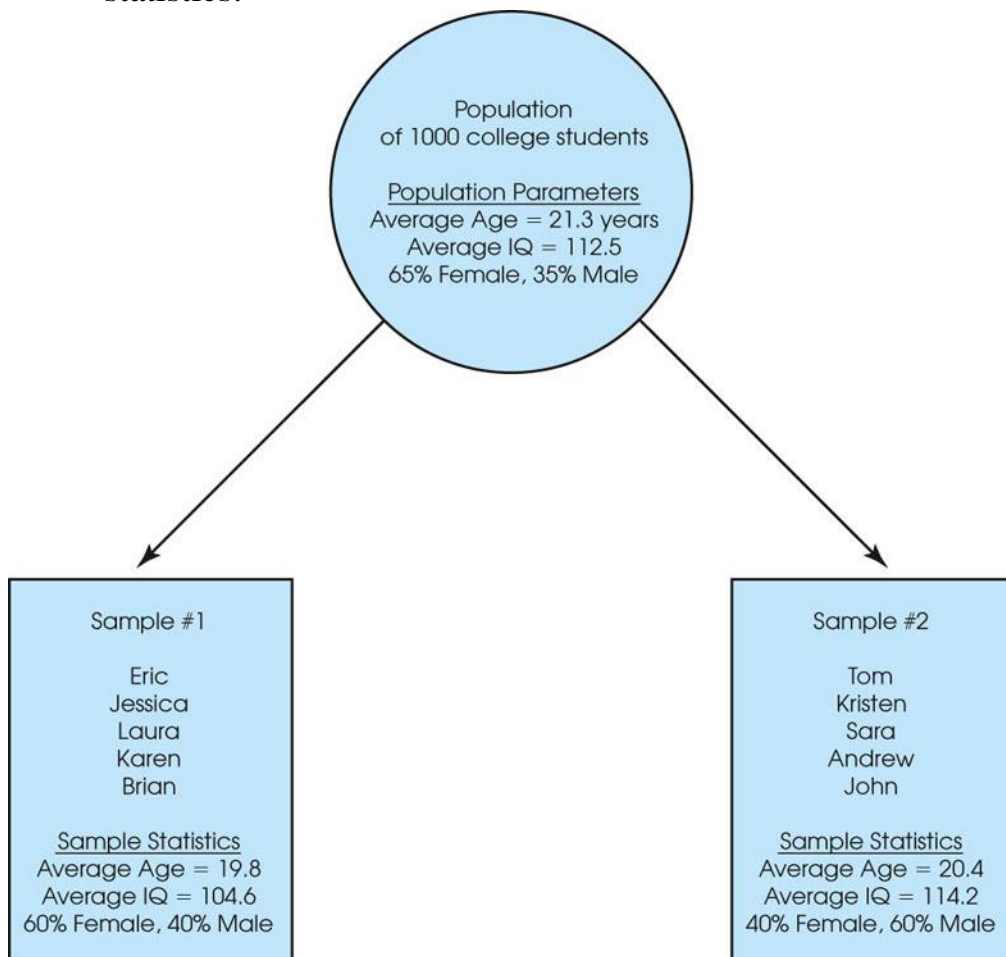


# Handout 1

## Sampling Error

- The discrepancy between a sample statistic and its population parameter is called **sampling error**.
- Defining and measuring sampling error is a large part of inferential statistics.



Non-sampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, is understanding of the questions on the part of either the interviewer or the respondent, and data entry errors.

– Major sources : Sampling Bias, Non-response Bias.

Sampling bias occurs when a chosen sample is not representative of the larger population.

- It occurs due to the sampling technique/method used to perform data collection.
- It can be either selection bias and nonresponsive bias.

## Sampling Bias

A sampling method has sampling bias if all subjects in the population are not equally likely to be included in a sample.

Selection bias is a type of sampling bias that occurs when objects are selected from the population in a non-random fashion. With selection bias, the exclusion of certain objects from possible samples affects statistical results based on those samples.

Nonresponse bias is a type of sampling bias that occurs because of the absence of certain objects or subjects from a sample.

For example, some subjects don't respond to surveys because they refuse, cannot be contacted, or have a lack of interest in the survey content.