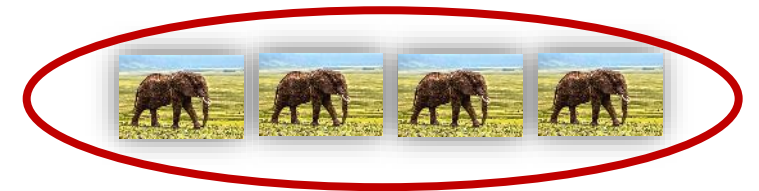
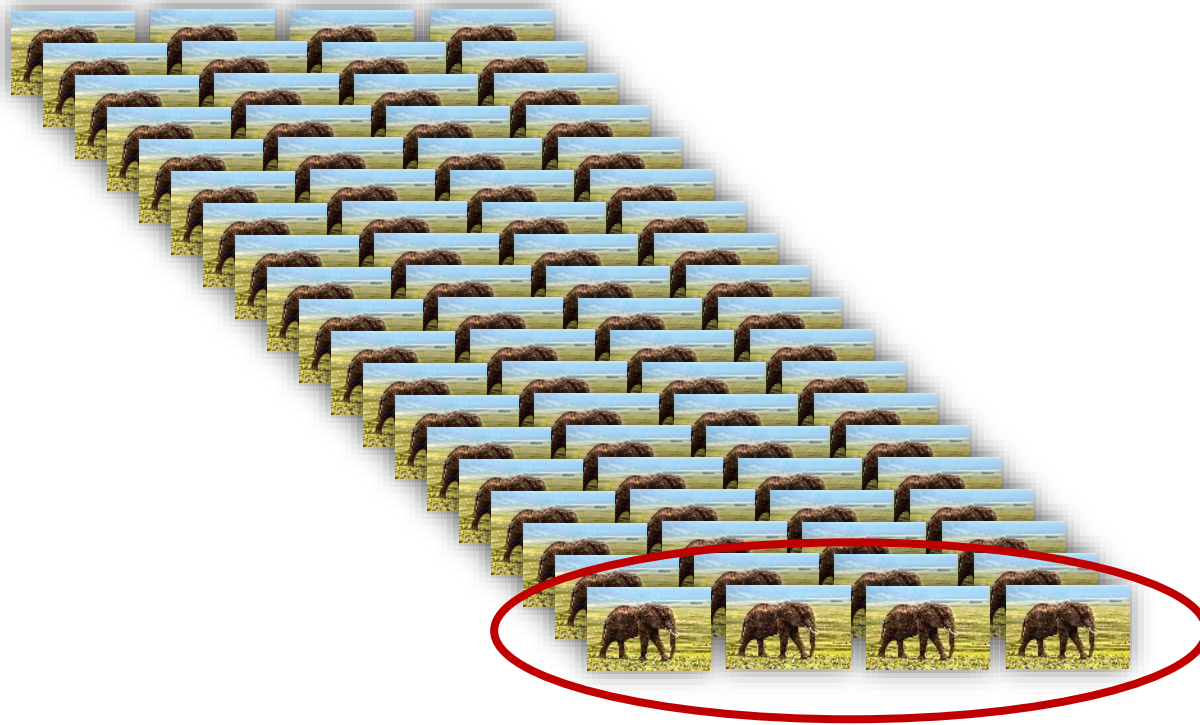




Sampling & Estimation

Population vs. Sample

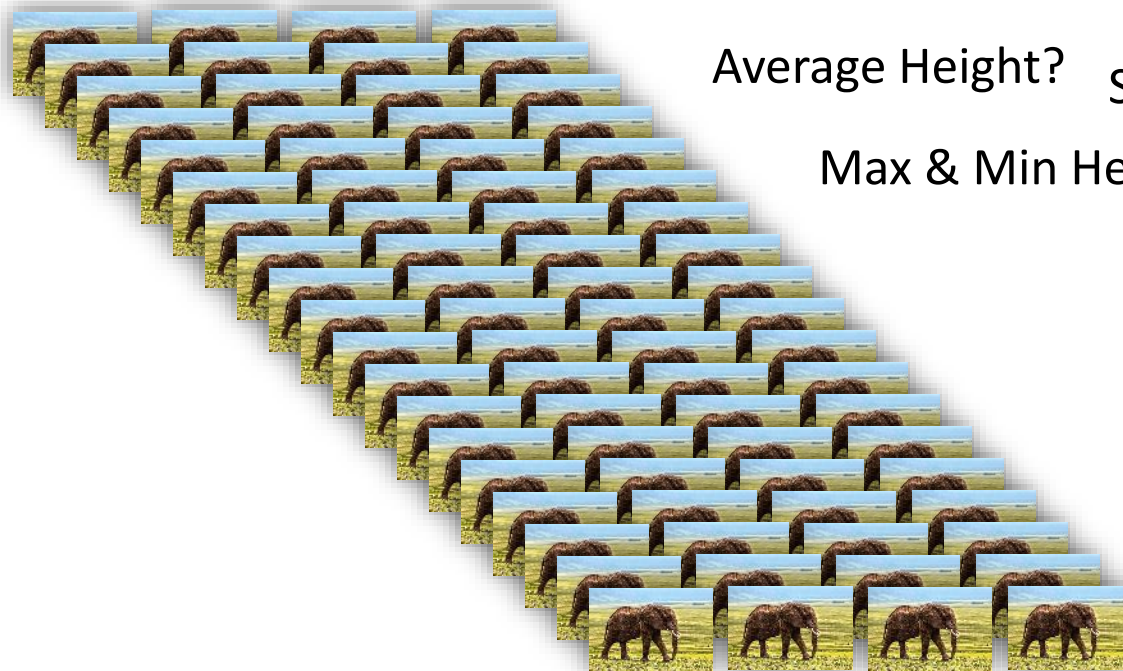
Population (set of all possible members of a group)



Sample (subset of a population)

Descriptive Statistics vs ...

Population (set of all possible members of a group)



Average Height? Standard Deviation of Height?
Max & Min Height?

Sample
Statistics

Max & Min Height?
Standard Deviation of Height?
Average Height?



Sample (subset of a population)

... Inferential Statistics

Hypothesis
Test

Population (set of all possible members of a group)



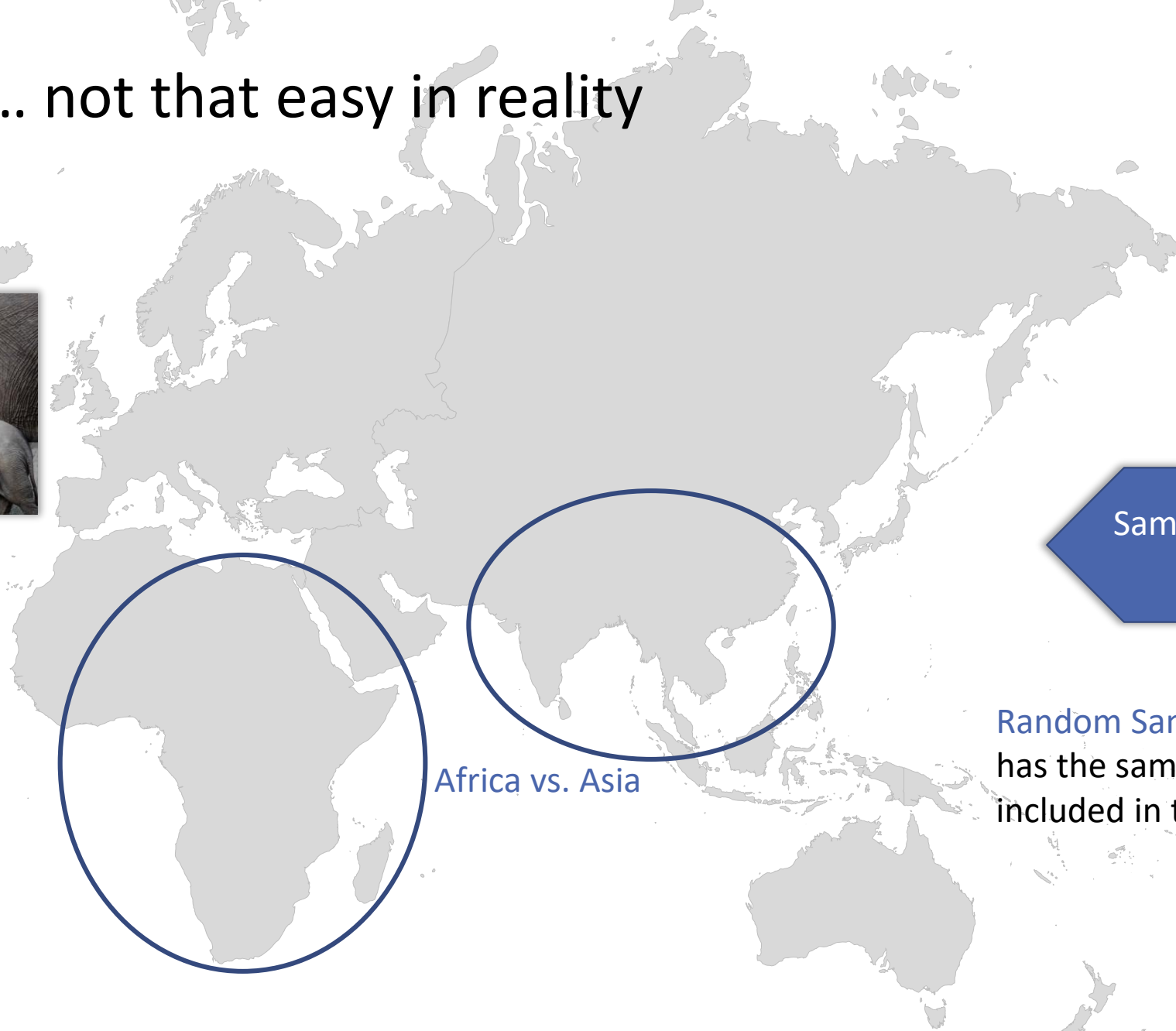
What is the average Height of an Elephant (Pop)?

Estimate



Sample (subset of a population)

Sampling ... not that easy in reality

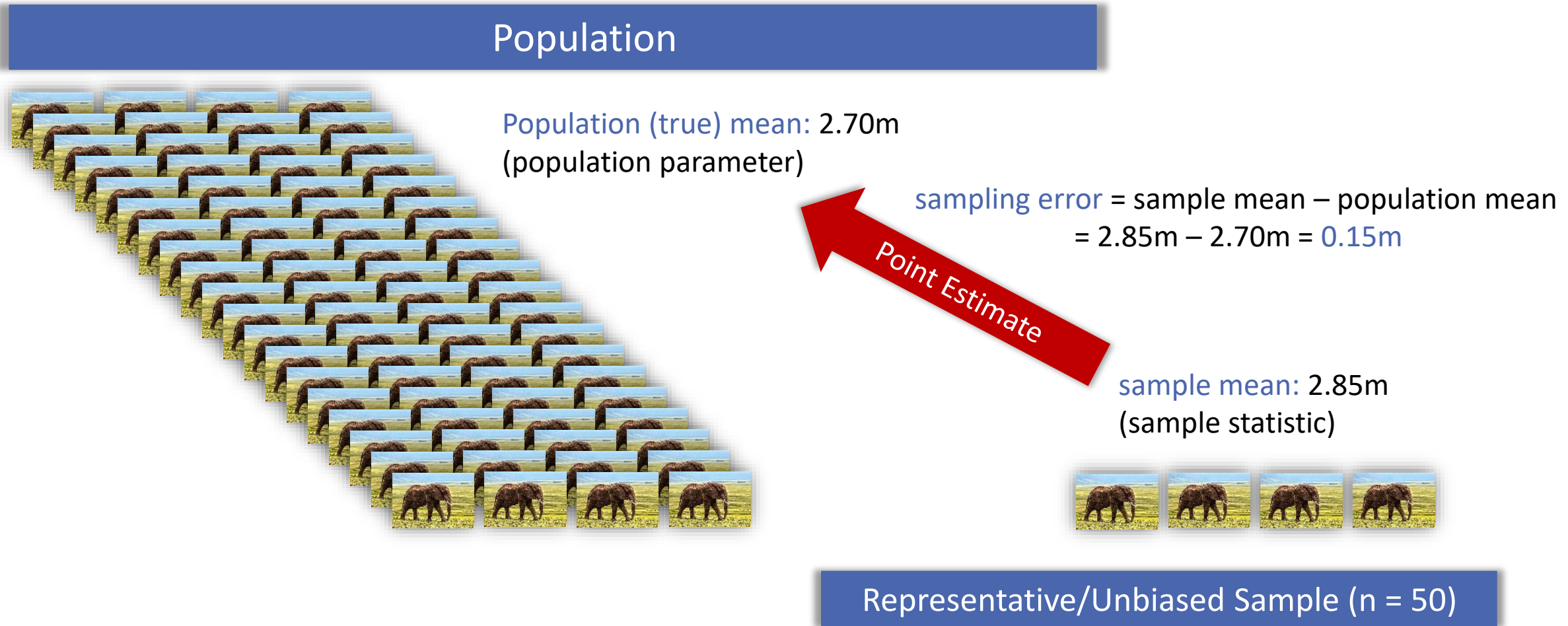


Africa vs. Asia

Sample must be representative and unbiased.

Random Sampling: Each observation has the same likelihood of being included in the sample.

Sample Statistic / Point Estimate / Sampling Error



Sampling Distribution

