

Populations and Samples

Populations vs. Samples

A population is: the whole set of items that are of interest

A sample is some subset of the population intended to represent the population.

Each individual thing in the population that can be samples is known as a sampling unit.

Often sampling units of a population are individually named or numbered to **form a list** called the **sampling frame**. It can be said that a sampling frame is a *sub-population* of the overall population being sampled.

We can collect data either from a sample, or from the entire population. Data collected from the entire population is known as a **census**

	Advantages	Disadvantages
Census	Should give a completely accurate answer	<ul style="list-style-type: none">• Time consuming and expensive.• Can not be used when testing involves destruction• Large volume of data to process
Sample	<ul style="list-style-type: none">• Cheaper• Quicker• Less data to process	<ul style="list-style-type: none">• Data may not be accurate• Data may not be large enough to represent small sub-groups