

Sullivan Section 1.2

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Sources of Data

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By a **CENSUS** we mean a list of all of the individuals in a population, usually including certain characteristics for each individual.

Observational Studies

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The reason for this is that there may be characteristics of the individuals known as **LURKING VARIABLES** that are not measured or controlled.

Observational Studies

An **observational** study is generally used when:

- the investigator wants to learn the characteristics of a population, or
- the investigator wishes to determine whether there is an association between two or more variables whose values have already been determined.

Designed Experiments

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A characteristic of **designed experiments** is a **CONTROL GROUP** which does not receive any treatment.

Simple Random Sampling

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There are other ways of sampling which will be discussed in later chapters.

Sampling Terminology

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Usually, it is undesirable to have the same individual selected twice for a sample.

To prevent this, a technique called **SAMPLING WITHOUT REPLACEMENT** is used, in which the individual who is selected for the sample becomes ineligible for any subsequent selection.