

Chapter 1 - Overview & Descriptive Statistics

1.1 Populations, Samples, and Processes.

*Why Statistics?

- Variability! There is variability (uncertainty) and randomness everywhere.
- Allows us to Draw Conclusions despite the uncertainty.* fuck you

*What is Statistics?

- Statistics is a field that is dedicated to drawing conclusions about Populations or Processes based on **Samples** drawn from them*
- Populations
 - A well-defined set of items from a collection of objects
 - Ex: All students in a Class
 - A **Process** that produces random outcomes.
 - Ex: Flipping a Coin
- Samples
 - A subset drawn from a fixed Population used to represent the Data
 - A sample is used to collect observations from that Process
 - Ex: Top 10 Students from that Class