

3.1: Why It Matters- Examining Relationships- Quantitative Data

Why learn how to analyze data by examining the relationships within quantitative data?

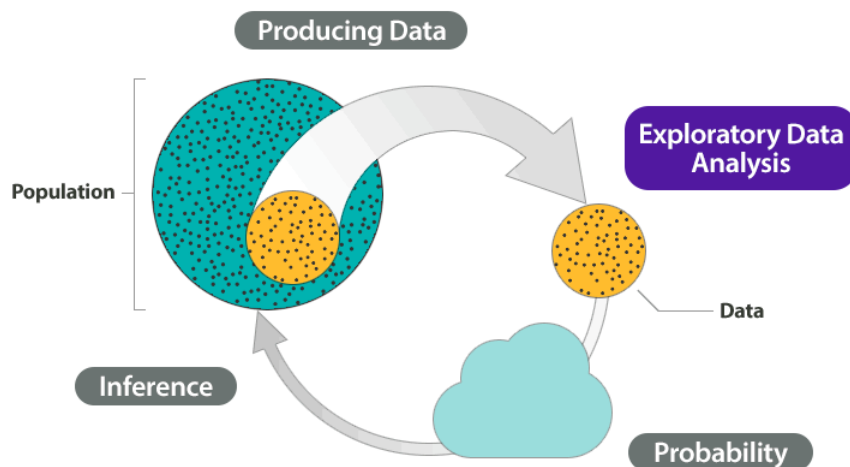
Before we begin *Examining Relationships: Quantitative Data*, let's see how the new ideas in this module relate to what we learned in the previous modules, *Types of Statistical Studies and Producing Data* and *Summarizing Data Graphically and Numerically*.

Recall the Big Picture:

We begin a statistical investigation with a research question. The investigation proceeds with the following steps:

- Produce Data: Determine what to measure, then collect the data. ← **Types of Statistical Studies and Producing Data**
- Explore the Data: Analyze and summarize the data. ← **Summarizing Data Graphically and Numerically, Examining Relationships: Quantitative Data**
- Draw a Conclusion: Use the data, probability, and statistical inference to draw a conclusion about the population.

Types of Statistical Studies and Producing Data focused on methods for collecting reliable data. *Summarizing Data Graphically and Numerically* focused on summarizing and analyzing data for a quantitative variable. In this module, we focus on summarizing and analyzing the relationship between two quantitative variables. In the Big Picture of Statistics, the material in *Examining Relationships: Quantitative Data* is still part of exploratory data analysis.



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