

Types of Statistics

An overview of the concepts and types of statistical analysis



Types of Statistical Analysis

01

Inferential Analysis

02

Descriptive Analysis

Descriptive Analysis

- Summarizing and organizing data
- Provides insights into the data set
- Metrics: mean, median, mode, standard deviation
- Graphical representations: histograms, bar charts, pie charts
- Describes the data without making conclusions beyond the data





Scenario Example: Academic Performance in 10th Grade

01

Determines highest and lowest grades

02

Principal collects final grades of 10th-grade students

03

Calculates average grade for each subject

04

Provides clear picture of academic landscape



Inferential Analysis

- Use of data sample to make inferences or predictions about a population
- Statistical models and hypothesis testing
- Subject to uncertainty
- Helps infer trends or hypotheses about a population



Scenario Example: Impact of New Teaching Methods

- 01 Inference about effectiveness of new teaching methods across entire school population
- 02 Principal compares grades of current 10th-grade students with previous year's grades
- 03 Statistical test (e.g., t-test) to determine significant difference



Conclusion

01

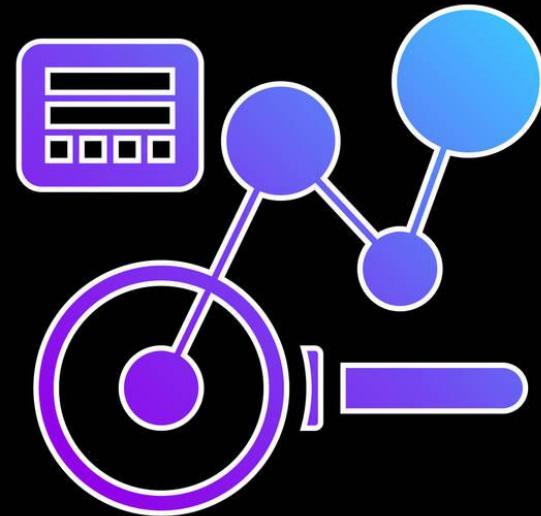
Descriptive focuses on observed data, inferential uses sample to infer about population

02

Descriptive analysis summarizes and describes data

03

Inferential analysis makes predictions or generalizations about a population



Thanks for watching. 😊

