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Section B

Types of Data
Binary (dichotomous) data
- Yes/no
- Polio: Yes/no
- Cure: Yes/no
- Sex: Male/female (or as yes/no, “is subject male?”)
Categorical Data

- **Categorical data** *(place individuals in categories)*

- **Nominal categorical data: no inherent order to categories**
  - Race/ethnicity
  - Country of birth
  - Religious affiliation

- **Ordinal categorical data: order to categories**
  - Income level categorized into four categories, least to greatest
  - Degree of agreement, five categories from strongly disagree to strongly agree
Continuous Data

- **Continuous data** (*finer measurements*)
  - Blood pressure, mmHg
  - Weight, pounds (kilograms, ounces, etc.)
  - Height, feet (centimeters, inches, etc.)
  - Age, years (months)
  - Income level, dollars/year (Euro by year, etc.)
Time to Event Data

- Data that is a hybrid of continuous data and binary data
  - Whether an event occurs and time to the occurrence (or time to last follow-up without occurrence)
Different Methods for Different Data Types

- To compare the number of polio cases in the two treatment arms of the Salk Polio vaccine, you could use . . .
  - Fisher’s Exact Test
  - Chi-Square Test

- To compare blood pressures in a clinical trial evaluating two blood pressure-lowering medications, you could use . . .
  - 2-Sample t-Test
  - Wilcoxon Rank Sum Test