

# Data Management and Reporting in SPSS

Laura Berbert, MS



Lecture 1  
*Navigating SPSS*



Lecture 2  
*Data Manipulation*



Lecture 3  
*Summarizing Data*



Lecture 4  
*Comparing Means/Proportions*

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# Lecture Outline

- Merging Data
- Data Types
- Variable Creation
  - Transforming dates
  - Calculate a new variable from one or more existing variables
  - Create a categorical variable from a numeric variable
  - Create an indicator (dummy) variable



# Merging Data

- Datasets being merged must share at least one variable to match on and must be sorted by this variable prior to merging
  - Use menus to select Data > Sort Cases
  - Choose the matching variables in the 'Sort Cases' dialog
- Types of merges in SPSS
  - Use menus to select Data > Merge Files
    - Add Variables – same cases but different variables
    - Add Vases – different cases but same variables



# Data Types

Determine how you summarize data, display data in a table or graph, and analyze data using statistical methods

## Qualitative / Categorical

- Ordinal – the order among the categories is important
- Nominal – no inherent ordering
  - Dichotomous or binary – two categories or levels

## Quantitative / Numeric

- Discrete – integers and counts
- Continuous – not restricted to integers



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# Transforming Dates

- Date data may be qualitative or quantitative depending on how it is manipulated
- In SPSS, date variables are stored as a number corresponding to the number of days since October 15, 1582
- Use menus to select Transform > Compute Variable
  - Date Arithmetic – compute time between dates as a new variable
  - Date Extraction – extract parts of a date (i.e. day, month, year)
  - Date Creation – create a new date variable



# Demo

- SPSS sample data file dietstudy.sav
- Each case represents a separate subject
- Pre-, interim-, and post-diet weights and triglyceride levels



# Calculate a New Variable

- Menus to select Transform > Compute Variable
  - Name and label new variable
  - Combine existing variables with arithmetic operations/functions
- New variable occupies the last row of variable view and last column of data view





# Create a Categorical Variable from a Numeric Variable

- Menus to select Transform > Recode into Different Variables
  - Name and label new variable
  - Specify range parameters in the 'Old and New Values' dialog
  - Edit formatting of new variable in the variable view
- Menus to select Transform > Visual Binning
  - Name and label new variable
  - 'Make Cutpoints'
    - Equal Width Intervals
    - Equal Percentiles Based on Scanned Cases
    - Cutpoints at Mean and Selected Standard Deviations Based on Scanned Cases
  - Specify whether cutpoints should be included or excluded



# Create an Indicator or Dummy Variable

- Menus to select Transform > Recode into Different Variables
  - Name and label new variable
  - Specify value parameters in the 'Old and New Values' dialog
- Repeat for additional indicator variables



# Next Lecture

- Lecture 3: Summarizing Data
  - Descriptive statistics
  - Graphical displays
  - By a grouping variable
  
- Questions? Email: [laura.berbert@childrens.harvard.edu](mailto:laura.berbert@childrens.harvard.edu)

