

Data Management and Reporting in SPSS

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Lecture 1
Navigating SPSS



Lecture 2
Data Manipulation



Lecture 3
Summarizing Data



Lecture 4
Comparing Means/Proportions

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Boston Children's Hospital

Where the world comes for answers

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

