Week 2 - Lab 2: Spreadsheet Design Rules

Introduction

- Basic spreadsheet design rules
- Components of a well-designed spreadsheet

Basic spreadsheet design rules

- Design the spreadsheet on paper first
- Test and edit your calculations
- Keep the components of a calculation visible
- Be aware of the "space" or "geography" of the spreadsheet

Well-designed Spreadsheet

- Components of a Well-designed Spreadsheet
 - Introduction
 - Model and Assumptions
 - Data Dictionary
 - Raw Data
 - Calculated Data
 - Presentation/Dashboard

Spreadsheet Component: Introduction

- What is this spreadsheet or workbook about?
 - Title
 - Purpose
 - Author
 - Creation
 - Revision dates, etc.

Example: Introduction

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Model & Assumptions

- Justify the calculations you are using
 - any models
 - summary statistics
 - or calculated variables, etc.

Example : Model & Assumptions

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Data Dictionary

- For every variable in the spreadsheet note: its
 - Location (cell range),
 - Name,
 - The **Data Class** it is (Raw Data, Statistical Summary, Calculated Variable, Score etc.),
 - Data Type (e.g. Integer, Text, Currency, Date, etc.) and
 - **Description** (a description of the data or what it's 'purpose' is).

Example: Data Dictionary

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Raw Data

- Present your raw data in tabular form with
 - columns representing variables, and
 - rows representing cases

Example: Raw Data

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Calculated Data

- Summary Statistics
 - Usually Summary statistics result from calculations across rows for a single column.
- Derived variables are often based on calculations across columns for a row.

Presentation

- Emphasize the final information you wish to show without excessive background details.
- Use charts wherever appropriate to summarize large volumes of data

Example: Presentation

