Introduction to SPSS

Data View

Data View is always the default view when entering the SPSS program.

Many of the features of the Data View are similar to those found in other spreadsheet applications. There are, however, several important distinctions:

- **Rows** are **cases**. Each row represents a case or an observation. For example, each individual respondent to a questionnaire is a case.
- **Columns** are **variables**. Each column represents a variable or characteristic being measured. For example, each item on a questionnaire is a variable.
- **Cells** contain **values**. Each cell contains a single value of a variable for a case.
Variable View can be accessed by selecting the “Variable View” tab in the bottom left corner of the spreadsheet window.

The Variable view contains descriptions of the attributes of each variable in the data file. In the Variable view:

- Rows are variables.
- Columns are variable attributes.

**Name**  
The following rules apply to variable names:

- The name must begin with a letter. The remaining characters can be any letter, any digit, a period, or the symbols @, #, _, or $.
- The length of the name cannot exceed 64 characters.
- Blanks and special characters (for example, !, ?, ‘, and *) cannot be used.
- Each variable name must be unique; duplication is not allowed.
- Reserved keywords cannot be used as variable names. Reserved keywords are: ALL, AND, BY, EQ, GE, GT, LE, LT, NE, NOT, OR, TO, WITH.

**Type**  
Variable Type specifies the data type for each variable. By default, all new variables are assumed to be numeric.

The available data types are as follows:

- **Numeric.** A variable whose values are numbers.
- **Comma.** A numeric variable whose values are displayed with commas delimiting every three places, and with the period as a decimal delimiter.
- **Dot.** A numeric variable whose values are displayed with periods delimiting every three places and with the comma as a decimal delimiter.
- **Scientific notation.** A numeric variable whose values are displayed with an imbedded E and a signed power-of-ten exponent.
• **Date**. A numeric variable whose values are displayed in one of several calendar-date or clock-time formats. Select a format from the list.

• **Custom currency**. A numeric variable whose values are displayed in one of the custom currency formats that you have defined in the Currency tab of the Options dialog box.

• **String**. Values of a string variable are not numeric and therefore are not used in calculations. They can contain any characters up to the defined length. Uppercase and lowercase letters are considered distinct.

**Width**

You can assign a maximum number of characters to appear in each cell, however it is best to limit to two characters if your values have two digits as this will limit the potential for data entry errors. For example, you will not be able to enter “100” in error if you intended to enter “10.”

**Decimals**

You can assign the number of decimal places to appear in your data values. Width always has to be a higher number than the number of decimal places you assign.

**Label**

You can assign descriptive variable labels up to 256 characters long (128 characters in double-byte languages), and variable labels can contain spaces and reserved characters not allowed in variable names.

**Values**

You can assign descriptive value labels for each value of a variable. This is particularly useful if your data file uses numeric codes to represent non-numeric categories (for example, codes of 1 and 2 for male and female).

- Value labels are saved with the data file.
- Value labels can be up to 60 characters long.
- Value labels are not available for string variables longer than 8 characters.

**Missing**

Missing Values defines specified data values as user-missing. It is often useful to know why information is missing. *For example*, you might want to distinguish between data missing because a respondent refused to answer and data missing because the question didn't apply to that respondent. Data values specified as user-missing are flagged for special treatment and are excluded from most calculations.

**Columns**

You can specify a number of characters for the column width. Column widths can also be changed in the Data view by clicking and dragging the column borders.

*Column formats affect only the display of values in the Data Editor. Changing the column width does not change the defined width of a variable. If the defined and actual width of a value are wider than the column, asterisks (*) are displayed in the Data view.*
Align | Alignment controls the display of data values and/or value labels in the Data view. The default alignment is right for numeric variables and left for string variables. This setting affects only the display in the Data view.

Measure

- **Scale.** Measurements have a logical or empirical structure.
  - *Example:* Age or income
- **Nominal.** Measurements that have no numerical properties.
  - *Example:* Job category or Department
- **Ordinal.** Measurements form a ranked order on a continuum.
  - *Example:* An answer that requires a “low, medium, or high” answer.

Analyze Your Data

After your variables have been identified and your data has been entered the next step is to analyze your data. To perform any analysis, go to the “Analyze” option on your toolbar and select the analysis structure you are going to use. From there your statistical knowledge will become vital to your use and understanding of the output.
After selecting an analysis tool, a formatting box similar to the one shown above will appear. Each will be unique and specific to attributes connected to the analysis tool. Place close attention to the options that are available within this window.

Highlight the variable or variables that you want to analyze and use the arrow in the center of the analysis tool to put those variables into the variable window.
After you get set-up your analysis and format all the options offered, you will be ready to run your analysis. Select OK to start the analysis process.

After running the analysis, an output window will open showing you the results of your analysis.
You can edit the text in the results by double clicking on the “Title” area, highlight any existing text, and start typing.
You can also add new text by clicking on the area on the output page where you want to add the text, then select “Insert” from the menu bar, and finally select the type of new text you want to add.
To print or save, select “File” > “Print” or “Save”.

You can also export your results into a powerpoint presentation, a word document, or publish an HTML scripted web page.

Select “File” > “Export”

Select the item you want to export from the drop down menu

Choose the place you want to export the file to

Choose whether you want to export all object or just the ones that are visible in the output window

Select the type of file you want your information exported to

If you have questions or need assistance, please call the Help Desk at (805) 493-3698 or send an email to helpdesk@callutheran.edu.