

St. Mary Maternity Hospital: Introduction to SPSS and Statistical Analysis

Layout and Interface: Data Editor, Syntax Editor, and Output Viewer

Thecasesolutions.com

SPSS consists of three parts:
■ The Data Editor
■ The Syntax Editor
■ Output Viewer

Always use CTRL+Q to close the Data Editor window when you finish.

The Data Editor window allows you to create your data set and perform statistical operations interactively using point-and-click menus. The Data Editor window has two sheets:
■ Worksheet: The Data View sheet when you open the Data Editor. It contains your actual data set. There are also tabs when you are displayed in the program right below the Data View sheet representing a data and each column represents a variable.

Exporting your output

Thecasesolutions.com

To export outputs, go to File > Export.

A dialog box pops up. Specify the type of output you want to export from the Export drop-down menu. Specify your file destination and name in the File Name box. Specify your file type from the File Type drop-down menu. You can export the outputs in HTML, Text, Excel, Word, and PowerPoint format. Then click OK.

If you only want one or two tables or charts, you can select them in the output viewer and press CTRL+C.



What columns mean

Thecasesolutions.com

Name: The name of the variable. Names will appear in all column headers in the Data View.

Type: The type of data in a variable. Which column type depends on the variable's properties. Variable types are: Number, Editable numeric, Date and Time, Text, and Logical.

Measure: Tells the computer how many responses to display. For example, you can set a logical variable to display 0 and 1, or a text variable to display 100 characters.

Labels: The labels in a variable are used for identifying what the variable is measuring. You can add labels to the variable in the Data Editor.

Values: These labels are used to represent the data. Depending on the data, you can add labels to the variable.

Important Menu Commands

Thecasesolutions.com

The Data Editor: The Data Editor provides techniques for defining and manipulating variables or conducting the analysis. It displays data sets, representing data, or single variables, and allows you to edit the data file.

The Syntax Editor: The Syntax Editor allows you to create and edit syntax files. It provides a list of commands and options that you can use to create and edit syntax files.

The Output Viewer: The Output Viewer displays the results of the analysis. It provides a list of commands and options that you can use to create and edit output files.

The File Menu: The File menu contains a number of options that allow you to manage the data set, including saving, opening, and printing.

Basic measurements

Thecasesolutions.com

Standard Deviation: The standard deviation is a measure of dispersion that is calculated based on the values of the data. It allows us to see how spread out the data is around the mean.

Skewness: Skewness is a measure of whether the peak is centered in the middle of the distribution. A positive value indicates that the peak is shifted to the left, and a negative value suggests that it is shifted to the right.

Kurtosis: Kurtosis is a measure of the extent to which data are concentrated in the peak versus the tail. A positive value indicates that data are concentrated in the peak, and a negative value indicates that data are concentrated in the tail.

The Mean: The mean is defined as the sum of a series of observations divided by the number of observations in the series. It is commonly used to describe the central tendency of a variable.

The Median: The median is the middle value in a series of values. It is the observation that divides the sample into two sub-samples of the same size.

Thecasesolutions.com

St. Mary Maternity Hospital: Introduction to SPSS and Statistical Analysis

Layout and Interface: Data Editor, Syntax Editor, and Output Viewer

Thecasesolutions.com

SPSS consists of three parts:
■ The Data Editor
■ The Syntax Editor
■ Output Viewer

Always use CTRL+Q to close the Data Editor window opened by default.

The Data Editor window allows you to create your data set and perform statistical operations interactively using point-and-click menus. The Syntax Editor window shows the commands that you use to create your data set.

By default, the Data Editor opens whenever you open the SPSS program. It contains your current data set. When other data sets are displayed in the program, they are shown in a Data Editor window separate from the Data Editor window.

Exporting your output

Thecasesolutions.com

To export outputs, go to File > Export.

A dialog box pops up. Specify the type of output you want to export from the Export drop-down menu. Specify your file destination and name in the File Name box. Specify your file type from the File Type drop-down menu. You can export the outputs in HTML, Text, Excel, Word, and PowerPoint format. Then click OK.

If you only want one or two tables or charts, you can select them in the output viewer and press CTRL+C.



What columns mean

Thecasesolutions.com

Mean: The mean is the average value of a variable. It is calculated by adding up all the values of the variable and dividing the total by the number of cases. The mean is a measure of central tendency.

Standard Deviation: The standard deviation is a measure of the spread of the data. It is calculated by taking the square root of the variance. The standard deviation is a measure of dispersion.

Variance: The variance is a measure of the spread of the data. It is calculated by taking the average of the squared deviations from the mean. The variance is a measure of dispersion.

Skewness: The skewness is a measure of the asymmetry of the distribution. It is calculated by dividing the third moment by the cube of the standard deviation. A positive skewness indicates a right-skewed distribution, while a negative skewness indicates a left-skewed distribution.

Important Menu Commands

Thecasesolutions.com

The Data Editor: The Data Editor window allows you to create your data set and perform statistical operations interactively using point-and-click menus. The Syntax Editor window shows the commands that you use to create your data set.

The Output Viewer: The Output Viewer window displays the results of the statistical analyses that you perform. It contains the output of the analyses that you perform.

The File Menu: The File menu contains commands for opening, saving, and printing files. It also contains commands for exporting data to other formats.

The Edit Menu: The Edit menu contains commands for editing the data in the Data Editor window. It includes commands for copying, pasting, and deleting data.

The View Menu: The View menu contains commands for changing the way that the data is displayed. It includes commands for showing and hiding columns and rows.

The Analyze Menu: The Analyze menu contains commands for performing statistical analyses. It includes commands for calculating means, standard deviations, and correlations.

The Graphs Menu: The Graphs menu contains commands for creating graphs and charts. It includes commands for bar charts, line graphs, and scatter plots.

The Windows Menu: The Windows menu contains commands for managing the windows in the SPSS program. It includes commands for opening, closing, and maximizing windows.

The Help Menu: The Help menu contains commands for accessing the SPSS help system. It includes commands for opening the help files and searching for help topics.

Basic measurements

Thecasesolutions.com

Standard Deviation: The standard deviation is a measure of the spread of the data. It is calculated by taking the square root of the variance. The standard deviation is a measure of dispersion.

Skewness: The skewness is a measure of the asymmetry of the distribution. It is calculated by dividing the third moment by the cube of the standard deviation. A positive skewness indicates a right-skewed distribution, while a negative skewness indicates a left-skewed distribution.

Kurtosis: The kurtosis is a measure of the 'tailedness' of the distribution. It is calculated by dividing the fourth moment by the square of the variance. A high kurtosis indicates a distribution with heavy tails, while a low kurtosis indicates a distribution with light tails.

The Mean: The mean is the average value of a variable. It is calculated by adding up all the values of the variable and dividing the total by the number of cases. The mean is a measure of central tendency.

The Median: The median is the middle value in a series of values. It is the value that divides the sample into two equal halves. The median is a measure of central tendency.

The Mode: The mode is the most frequent value in a series of values. It is the value that appears most often. The mode is a measure of central tendency.

Thecasesolutions.com

Layout and Interface: Data Editor, Syntax Editor, and Output Viewer

Thecasesolutions.com

SPSS consists of three parts:

- ☒ *The Data Editor*
- ☒ *The Syntax Editor*
- ☒ *Output Viewer*

When you start SPSS, the Data Editor window opens by default.

The Data and Variable Editors

The Data Editor allows you to create your data set and perform statistical operations interactively, using pull-down menus. The Data Editor window has two sheets: 2

By default the Data View opens whenever you open the Data Editor. It contains your actual data set. Here, the variable names are displayed in the grey row right above line 1. Each white row represents a case, and each column represents a variable.

What columns mean

Name: Is the name of the variable. These will appear in the column headers in the Data View.
In SPSS variable names may not have spaces.

Type: Is the type of data in a variable. String refers to data stored as text; usually proper names. Numeric variables store data as a number. Other useful options are

Tip: SPSS cannot perform statistical functions on data stored as strings.

Width: Tells the computer how much space each case needs to take up. This is measured in characters. Thus a width for country means that country names can be n letters long.

Decimals: Tells the computer how many decimals to display. If you do not want to see a decimal point at all enter a zero here.

Labels: This column is useful for explaining what the variable is measuring. You may use spaces here.

Values: These allow you to display certain labels depending on the data in each case.

Thecasesolutions.com

Important Menu Commands

Thecasesolutions.com

The Data Menu

The Data menu provides techniques for defining variables, inserting variables or cases, sorting files, splitting files, merging data sets, aggregating data, or using a select command to look at a subgroup within the data file.

The Transform Menu

The Transform menu allows you to transform your data set on the basis of existing variables. Among other things, you can recode your variables and compute new variables from existing ones.

The Analyze Menu

With the Analyze menu you perform statistical operations on your data set, the output of which will be displayed in the Output Viewer. In this tutorial we will be exploring descriptive statistics using this menu.

The Graphs Menu

The Graphs menu contains a number of graph options that allow you to visually display descriptive statistics in the Output Viewer.

Basic measurements

Thecasesolutions.com

Standard Deviation

The standard deviation is a measure of dispersion that is calculated based on the values of the data. It allows us to see how widely the data are dispersed around the mean.

Skewness

Skewness is a measure of whether the peak is centered in the middle of the distribution. A positive value means that the peak is off to the left, and a negative value suggests that it is off to the right.

Kurtosis

Kurtosis is a measure of the extent to which data are concentrated in the peak versus the tail. A positive value indicates that data are concentrated in the peak; a negative value indicates that data are concentrated in the tail.

The Mean

The mean is defined as the sum of a series of observations divided by the number of observations in the series. It is commonly used to describe the central tendency of variables.

The Median

The median is the middle value in a series of values. It is the observation that divides the sample into two sub-samples of the same size.

Exporting your output

Thecasesolutions.com

To export outputs, go to File > Export.

A dialog box pops up. Specify the type of output you want to export from the Export drop-down menu. Specify your file destination and name in the File Name box. Specify your file type from the File Type drop-down menu. You can export the outputs in Html, Text, Excel, Word, and PowerPoint format. Then click OK.

If you only want one or two tables or charts, you can select them in the output viewer and press CTRL+C.

St. Mary Maternity Hospital: Introduction to SPSS and Statistical Analysis

Layout and Interface: Data Editor, Syntax Editor, and Output Viewer

Thecasesolutions.com

SPSS consists of three parts:
■ The Data Editor
■ The Syntax Editor
■ Output Viewer

Always use CTRL+Q to close the Data Editor window when you finish.

The Data Editor window allows you to create your data set and perform statistical operations interactively using point-and-click menus. The Syntax Editor window shows the commands that you use to create your data set.

By default, the Data Editor opens whenever you open the Data Editor. It contains your current data set. When other data sets are displayed in the program, they are shown in a Data Editor window. You can also display multiple data sets in a single window.

Exporting your output

Thecasesolutions.com

To export outputs, go to File > Export.

A dialog box pops up. Specify the type of output you want to export from the Export drop-down menu. Specify your file destination and name in the File Name box. Specify your file type from the File Type drop-down menu. You can export the outputs in HTML, Text, Excel, Word, and PowerPoint format. Then click OK.

If you only want one or two tables or charts, you can select them in the output viewer and press CTRL+C.



What columns mean

Thecasesolutions.com

Mean: The mean is the average value of a variable. It is calculated by adding up all the values and dividing by the number of values.

Standard Deviation: The standard deviation is a measure of the spread of the data. It is calculated by taking the square root of the variance.

Variance: The variance is a measure of the spread of the data. It is calculated by taking the average of the squared deviations from the mean.

Skewness: The skewness is a measure of the asymmetry of the distribution. It is calculated by dividing the third moment by the cube of the standard deviation.

Kurtosis: The kurtosis is a measure of the 'tailedness' of the distribution. It is calculated by dividing the fourth moment by the square of the variance.

Important Menu Commands

Thecasesolutions.com

The Data Editor: The Data Editor window allows you to create your data set and perform statistical operations interactively using point-and-click menus. The Syntax Editor window shows the commands that you use to create your data set.

The Output Viewer: The Output Viewer window displays the results of your statistical analyses. You can scroll through the output and save it as a PDF or print it.

The File Menu: The File menu contains commands for opening, saving, and closing files. It also includes options for exporting and importing data.

The Edit Menu: The Edit menu contains commands for editing the data in the Data Editor window. It includes options for copy, paste, and delete.

The View Menu: The View menu contains commands for changing the appearance of the Data Editor window. It includes options for showing and hiding columns and rows.

The Help Menu: The Help menu contains commands for accessing the SPSS help system. It includes options for opening the help files and searching for specific topics.

Basic measurements

Thecasesolutions.com

Standard Deviation: The standard deviation is a measure of the spread of the data. It is calculated by taking the square root of the variance.

Variance: The variance is a measure of the spread of the data. It is calculated by taking the average of the squared deviations from the mean.

Skewness: The skewness is a measure of the asymmetry of the distribution. It is calculated by dividing the third moment by the cube of the standard deviation.

Kurtosis: The kurtosis is a measure of the 'tailedness' of the distribution. It is calculated by dividing the fourth moment by the square of the variance.

The Mean: The mean is the average value of a variable. It is calculated by adding up all the values and dividing by the number of values.

The Median: The median is the middle value in a series of values. It is the value that divides the sample into two equal parts.

The Mode: The mode is the most frequent value in a series of values. It is the value that appears most often.

Thecasesolutions.com

Thecasesolutions.com

SPSS[®]