

# How to Get Descriptive and Summary Statistics Using Excel

## Getting Started: Installing Data Analysis Toolpak

Check to see if it is already installed. Go to Tools and if Data Analysis is listed you, are all set. If not, go to Tools/Add-Ins and select Analysis ToolPak and then hit OK. You may be directed to insert a Microsoft Office or Excel disk for personal computers. If so, follow the directions on screen. You only need to do this once on a given computer.

## Displaying Toolbars in Excel

1. Go to View/Toolbars/Standard (To display icons for commonly used commands)
2. Go to View/Formula Bar (Allows you to see cell entries and formulas)

## Getting Descriptive Statistics

Use to obtain a bunch of summary statistics for a numerical variable (e.g., mean, median, mode, standard deviation, variance, minimum value, maximum value, range and number of data points).

1. Select Tools/Data Analysis. In the table, choose Descriptive Statistics and hit OK.
2. Where it says Input Range, you can enter the cells that contain your data (say, A1:A18). Another way to enter in the cells is to click on the space next to Input Range and then highlight the cells containing your data. Assuming the data is in a column, keep the Grouped By option on Column. Obviously, if you entered your data in a row (across) you should check Row. You should also check the Label in First Row box, if you labeled your data and included the label in the input range.
3. For the Output Options you can choose either the Output Range and enter in an empty cell (say C1). With this option, the summary statistics will be put in cells starting in C1. Or, you could choose New Worksheet and the output will be put on a new sheet.
4. Lastly, you should check Summary Statistics and then hit OK.

## Individual Functions (Use to calculate individual summary statistics of a numerical variable)

Click in a blank cell and type the appropriate command. For most commands you will need to enter or highlight a range of cells for the data you want to summarize. In the examples below cell ranges C1:C26 and D1:D26 will be used to represent the cell ranges of interest.

<b>Function</b>	<b>Command</b>
Mean or Average of the data in cells C1:C26	=average(C1:C26)
Median of the data in cells C1:C26	=median(C1:C26)
Standard Deviation of the data in cells C1:C26	=stdev(C1:C26)
Variance of the data in cells C1:C26	=var(C1:C26)
Minimum of the data in cells C1:C26	=min(C1:C26)
Maximum of the data in cells C1:C26	=max(C1:C26)
Number of observations in cells C1:C26	=count(C1:C26)
Correlation between the data in cells C1:C26 and D1:D26	=correl(C1:C26, D1:D26)

There are many other mathematical and statistical functions. You can access them by clicking on the insert function icon ( $f_x$ ) in the main toolbar.