

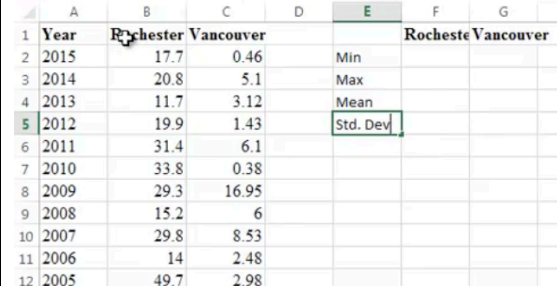
## Create a Summary Statistics Table (Descriptive Summary)

### Excel Step-by-Step How-to

**Instructions:** Use this guide to create a table of summary statistics.

**Data requirement:** one variable, quantitative data

**Sample Data:** yearly snowfall in Rochester and Vancouver

| Step   | Instructions + Screen Shot  | MAC Variations |
|--|---|----------------|
| 1. Type-in descriptions of the summary statistics you want to include in your table. | <p>Typically, these values include:</p> <ul style="list-style-type: none"> <li>– minimum value</li> <li>– maximum value</li> <li>– mean value</li> <li>– standard deviation</li> </ul>  |                |

2. Use an Excel formula to calculate the summary statistic for each variable.

For each summary statistic, enter the corresponding Excel formula and then select all data values (i.e. a range of cells) for each variable (in this example, Rochester and Vancouver are the variables).

Common Excel formulas:

=MIN(range...)  
 =MAX(range...)  
 =AVERAGE(range...)  
 =STDEV(range...)

A range is written simply as A:B such that A is the starting row/column, and B is the finishing row and column. In Excel you can simply select the cell to have an expression fill with the correct row and column.

|    | A    | B         | C         | D | E              | F                 | G         |
|----|------|-----------|-----------|---|----------------|-------------------|-----------|
| 1  | Year | Rochester | Vancouver |   |                | Rochester         | Vancouver |
| 2  | 2015 | 17.7      | 0.46      |   | Min            | 4                 | 0.12      |
| 3  | 2014 | 20.8      | 5.1       |   | Max            | 61.3              |           |
| 4  | 2013 | 11.7      | 3.12      |   | Mean           | =aver(B\$2:B\$77) |           |
| 5  | 2012 | 19.9      | 1.43      |   | Std. Deviation |                   | Returns t |
| 6  | 2011 | 31.4      | 6.1       |   |                |                   |           |
| 7  | 2010 | 33.8      | 0.38      |   |                |                   |           |
| 8  | 2009 | 29.3      | 16.95     |   |                |                   |           |
| 9  | 2008 | 15.2      | 6         |   |                |                   |           |
| 10 | 2007 | 29.8      | 8.53      |   |                |                   |           |
| 11 | 2006 | 1.1       | 3.46      |   |                |                   |           |

**TIP:** To quickly select a range of cells in a column:



**TIP:** To quickly replicate formulas across cells:



3. Decrease the number of decimal places for all the values in your summary statistics table to one or two; this makes it easier to read.

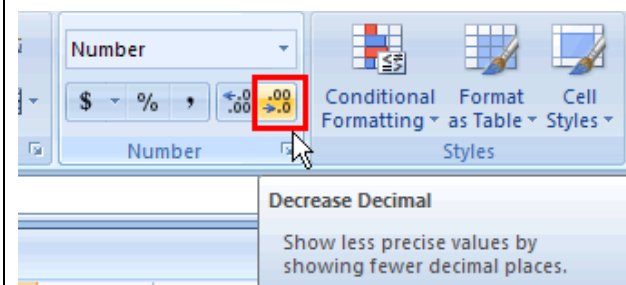
Replace the range with the column letter. For example, if you want all of the data in column B, your range can be B:B.

Select the first cell in the column you would like to select and press CMD+Shift+Down

First, it is important to lock the appropriate values in your formula. Locking a value makes the formula always reference the locked cell instead of changing based on location. You can lock the values in each formula by placing a “\$” in front of each coordinate. For example, by representing the formula as B\$24+C\$35, the value will always calculate using rows 24-35 no matter where that formula is placed. Note that if you also place a “\$” in front of the column letter, that will also lock the column.

Then, highlight the cell with the formula you want to copy, and drag the cursor across to the next cell.

To do this quickly, use the decimal button on the top toolbar.



4. Format your finished summary statistics table as desired.

Simple things like making the column and row titles bold can help you and others more easily read and interpret the data.

|                 | <b>Rochester</b> | <b>Vancouver</b> |
|-----------------|------------------|------------------|
| <b>Min</b>      | 4                | 0.12             |
| <b>Max</b>      | 61.3             | 28.2             |
| <b>Mean</b>     | 24.4             | 7.0              |
| <b>Std. Dev</b> | 12.3             | 6.1              |