# Excel – Working with Charts

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# Working with Charts

We have certainly come a long way in our exploration of Excel! In the final two lessons of this section, we will explore the last major component to help you complete your workbook – how to create and modify charts. After completing these two lessons, you are well on your way to being able to create functional and attractive worksheets worthy of any quarterly report or boardroom meeting!

If you look at a large table of figures, it can be very hard to figure out what is happening with the data. Conditional formatting will help, but sometimes a picture really is worth a thousand words. Excel features powerful charting tools to help you create a more meaningful representation of your data. In this lesson, we will learn how to create, format, and manipulate a chart.

## Creating a Chart

It used to take a bit of work to analyze your data, but now it only takes a few steps. You can instantly create different types of charts, including line and column charts, or add miniature graphs (called sparklines). You can also apply a table style, create PivotTables, quickly insert totals, and apply conditional formatting all by using something called **Quick Analysis.**



1.  Select the cells that contain the data you want to analyze.

2.  Click the **Quick Analysis** button that appears to the bottom right of your selected data (or press CRTL + Q).

3.  In the **Quick Analysis** gallery, select a tab you want. For example, choose **Charts** to see your data in a chart.

FORMATTING    **CHARTS**    TOTALS    TABLES    SPARKLINES

Clustered   Clustered    Line     Pie     More
Column    Bar                Charts

Recommended Charts help you visualize data.
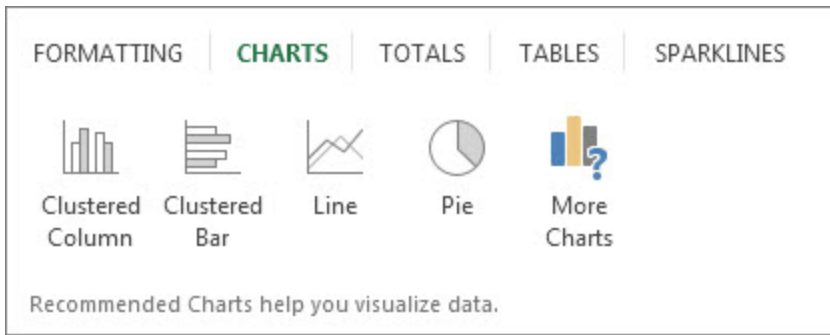
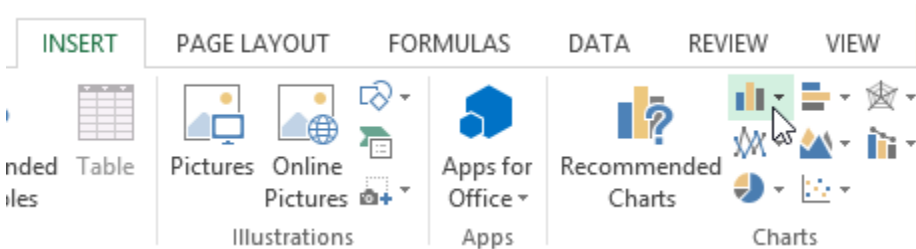4. Pick an option, or just point to each one to see a preview.

You might notice that the options you can choose from aren't always the same. That's because the options change based on the type of data you have selected in your workbook.
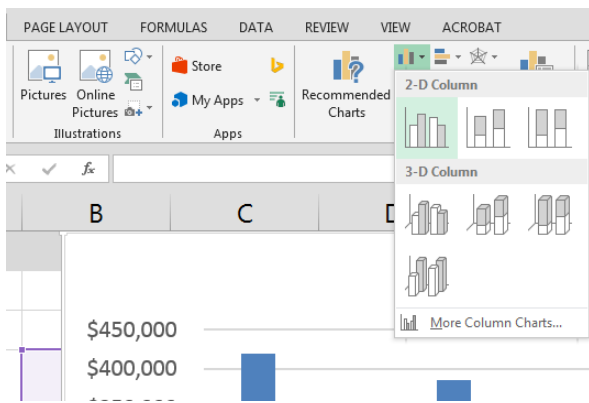
## To insert a chart:

1. Select the **cells** you want to chart, including the **column titles** and **row labels**. These cells will be the **source data** for the chart. In our example, we'll select cells A4:E7.

| | | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | |
|---|---|---|---|---|---|---|
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | Greens Fees | $ 420,000 | $ 385,000 | $ 227,000 | $ 362,000 | $ |
| 6 | Golf Lessons | 98,000 | 54,800 | 61,900 | 78,200 | |
| 7 | Pro Shop Sales | 55,000 | 48,600 | 35,200 | 123,400 | |
| 8 | | | | | | |
| 9 | Total Revenue | $ 573,000 | $ 488,400 | $ 324,100 | $ 563,600 | $ |

2. From the **Insert** tab, click the desired **Chart** command. In our example, we'll select **Column**.



INSERT    PAGE LAYOUT    FORMULAS    DATA    REVIEW    VIEW

nded   Table    Pictures   Online        Apps for   Recommended
les                Pictures     Office     Charts

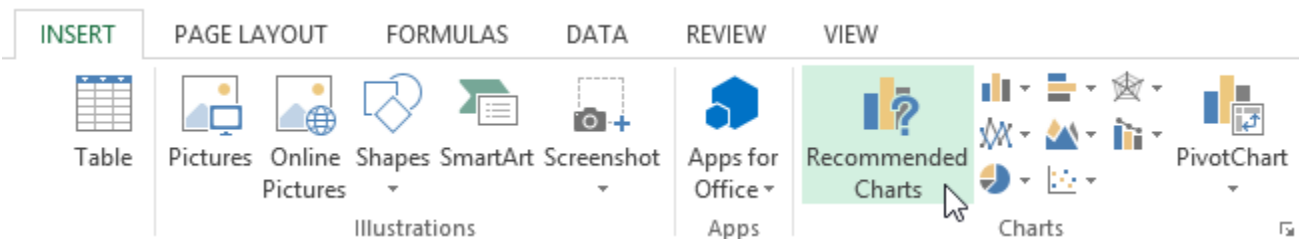Illustrations      Apps             Charts

3. Choose the desired **chart type** from the drop-down menu.



4. The selected chart will be inserted in the worksheet.
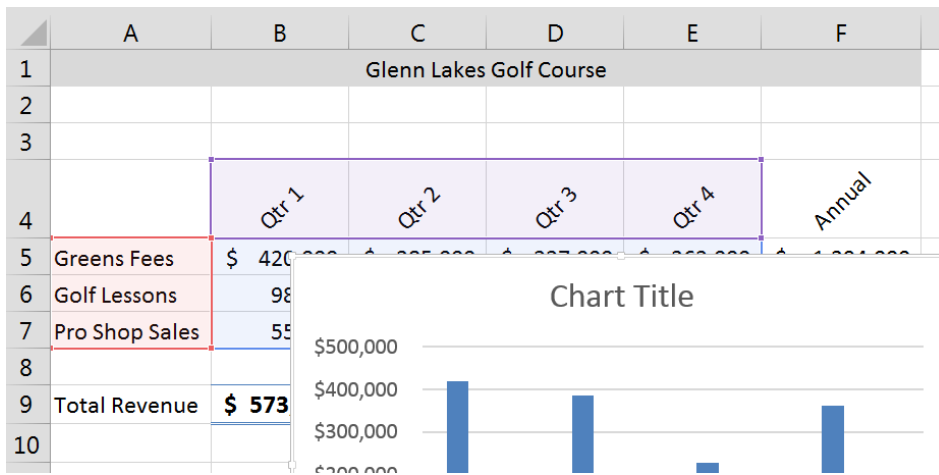


If you're not sure which type of chart to use, the **Recommended Charts** command will suggest several different charts based on the source data.

## Chart layout and style

After inserting a chart, there are several things you may want to change about the way your data is displayed. It's easy to edit a chart's **layout** and **style** from the **Design** tab.

- Excel allows you to add **chart elements**—such as **chart titles**, **legends**, and **data labels**—to make your chart easier to read. To add a chart element, click the **Add Chart Element** command on the **Design** tab, then choose the **desired element** from the drop-down menu.



> Or utilize the Chart Element option on the chart
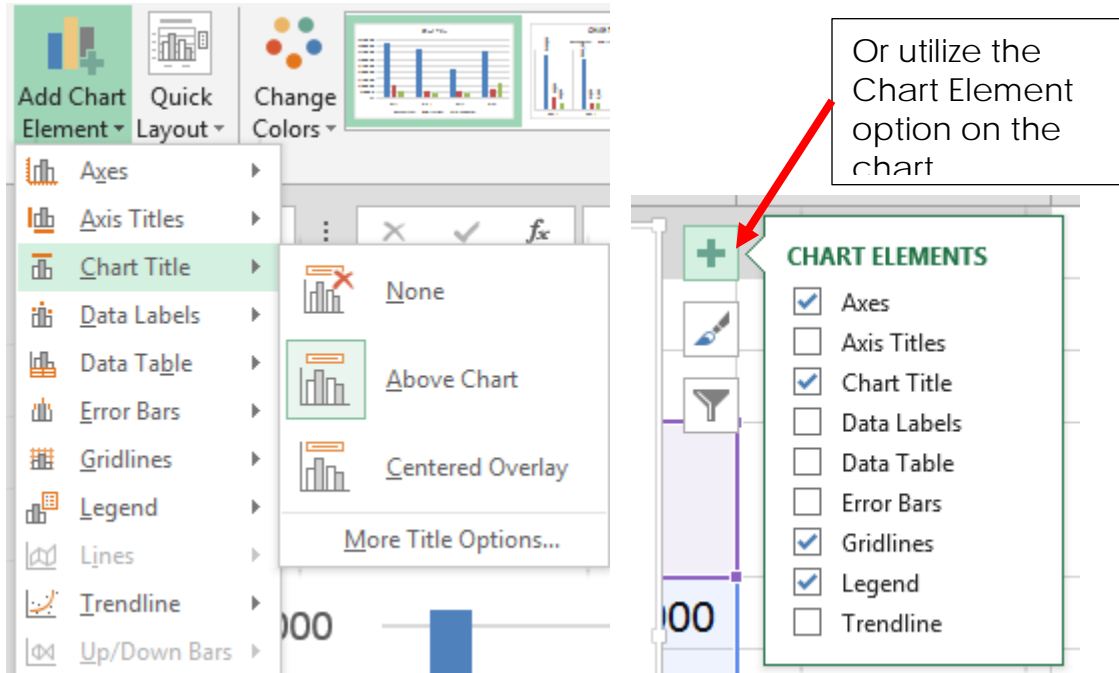
- To **edit** a chart element, like a **chart title,** simply double-click the **placeholder** and begin typing.

- If you don't want to add chart elements individually, you can use one of Excel's predefined layouts. Simply click the **Quick Layout** command, then choose the **desired layout** from the drop-down menu.
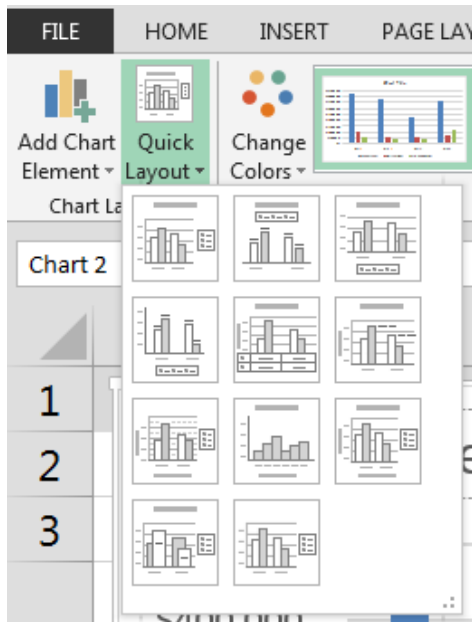


- Excel also includes several different **chart styles**, which allow you to quickly modify the look and feel of your chart. To change the chart style, select the **desired style** from the **Chart styles** group.
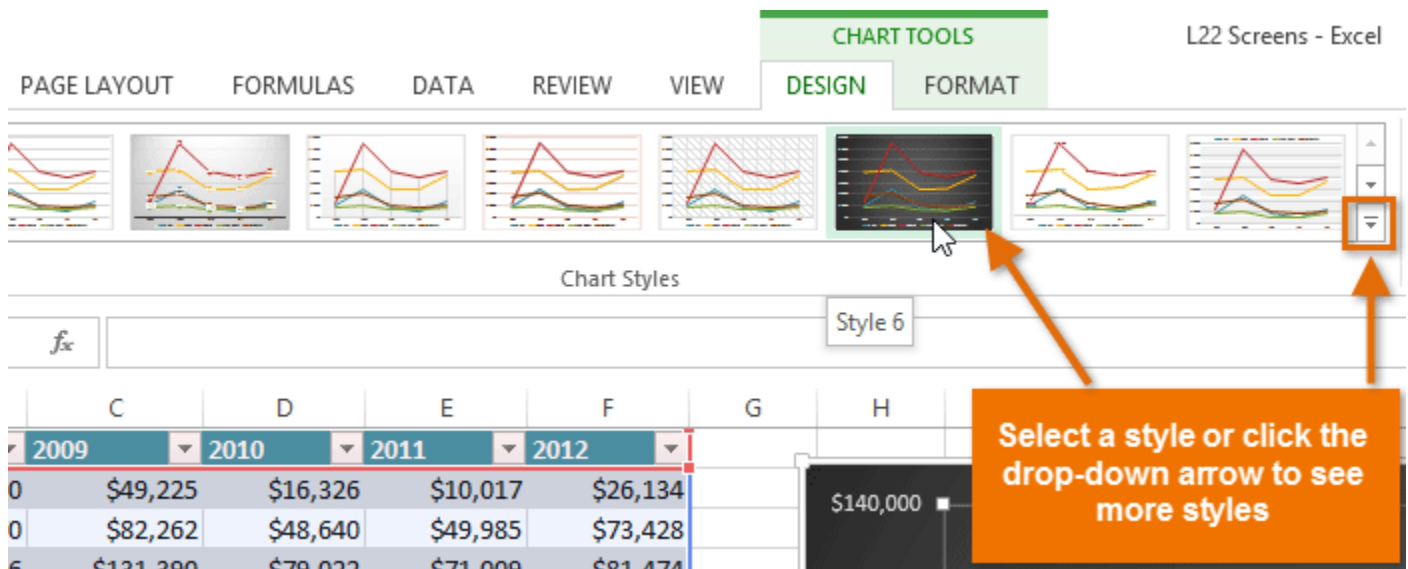
You can also use the chart formatting shortcut buttons to quickly **add chart elements**, change the **chart style**, and **filter** the chart data.



## Other chart options

There are lots of other ways to customize and organize your charts. For example, Excel allows you to **rearrange** a chart's data, change the **chart type**, and even **move** the chart to a different location in the workbook.

### To switch row and column data:

Sometimes you may want to change the way charts **group** your data. For example, in the chart below, the Book Sales data are grouped **by year**, with columns for **each genre**. However, we could switch the rows and columns so the chart will group the data **by genre**, with columns for **each year**. In both cases, the chart contains the same data—it's just organized differently.

1. Select the **chart** you wish to modify.

2. From the **Design** tab, select the **Switch Row/Column** command.
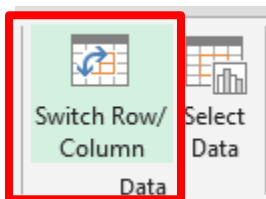
3. The rows and columns will be **switched**.



## To change the chart type

If you find that your data isn't well suited to a certain chart, it's easy to switch to a new **chart type**. In our example, we'll change our chart from a **Column** chart to a **Line** chart.

1. From the **Design** tab, click the **Change Chart Type** command.



2. The **Change Chart Type** dialog box will appear. Select a new chart **type** and **layout**, then click **OK**. In our example, we'll choose a **Line** chart.
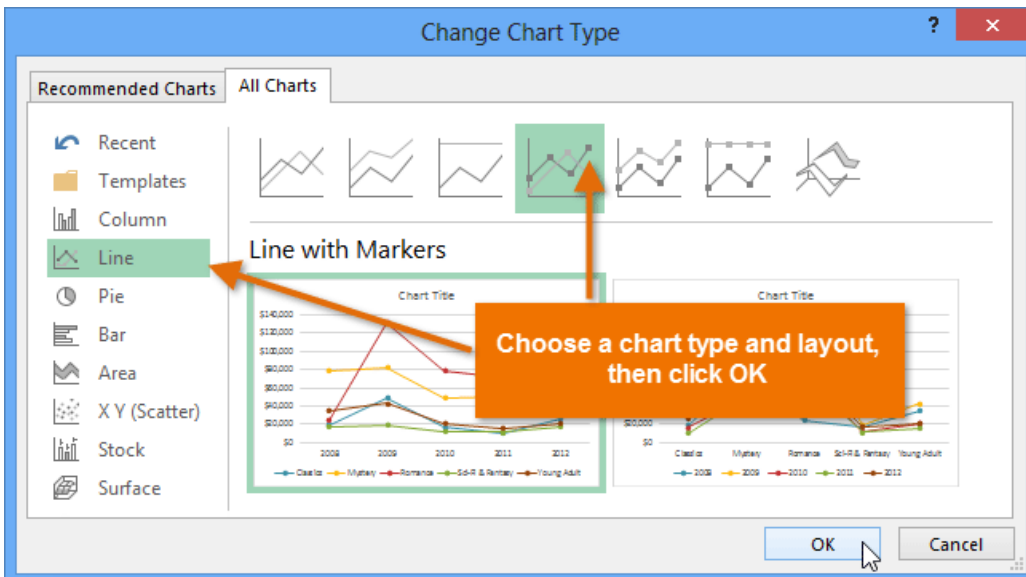
3. The selected chart type will appear. In our example, the Line chart makes it easier to see trends in the sales data over time.



## To move a chart

Whenever you insert a new chart, it will appear as an object on the same worksheet that contains its source data. Alternatively, you can **move** the chart to a **new worksheet** to help keep your data organized.

1. Select the **chart** you wish to move.

2. Click the **Design** tab, then select the **Move Chart** command.



3. The **Move Chart** dialog box will appear. Select the **desired location** for the chart. In our example, we'll choose to move it to a **New sheet**, which will create a new worksheet.
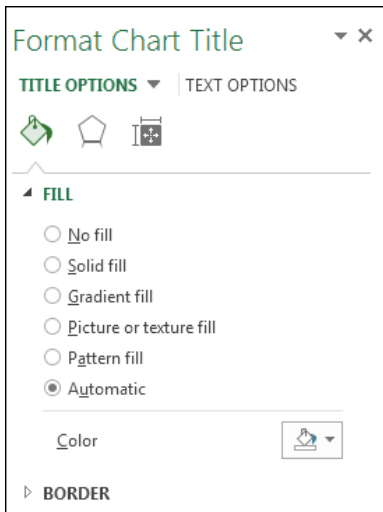
4. Click **OK**.
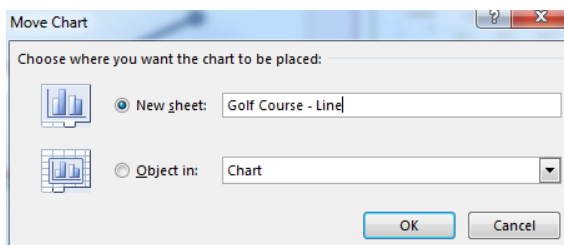
5. The chart will appear in the selected location. In our example, the chart now appears on a new worksheet.

## Formatting Chart Titles in Excel 2016

Excel 2016 users won't see a dialogue box. Instead, you'll see a panel appear on the right of the screen. This one:
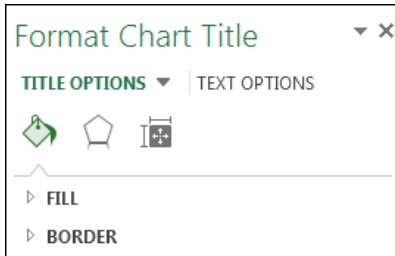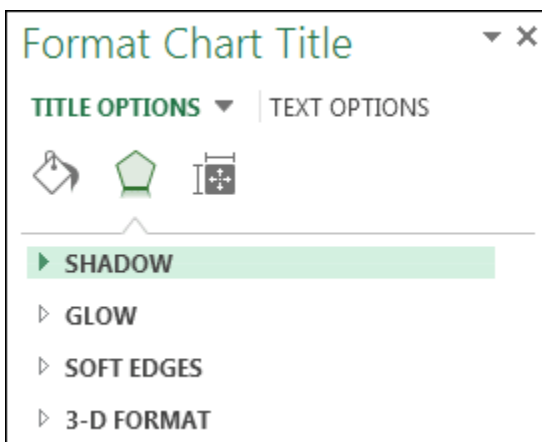


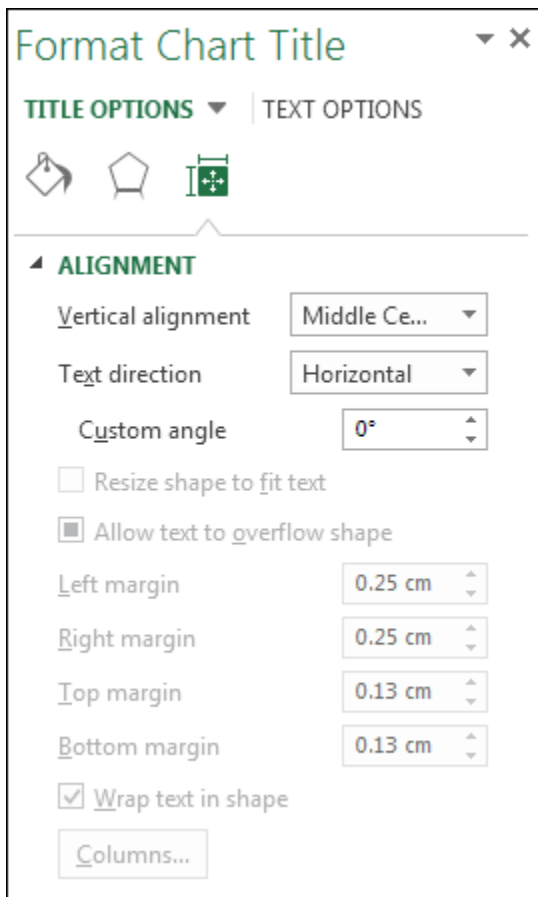Click an arrow to see further options. Here are the options for Fill:



You can also click the icons at the top. There are three of them: a paint bucket, an Hexagon, and a resize symbol.
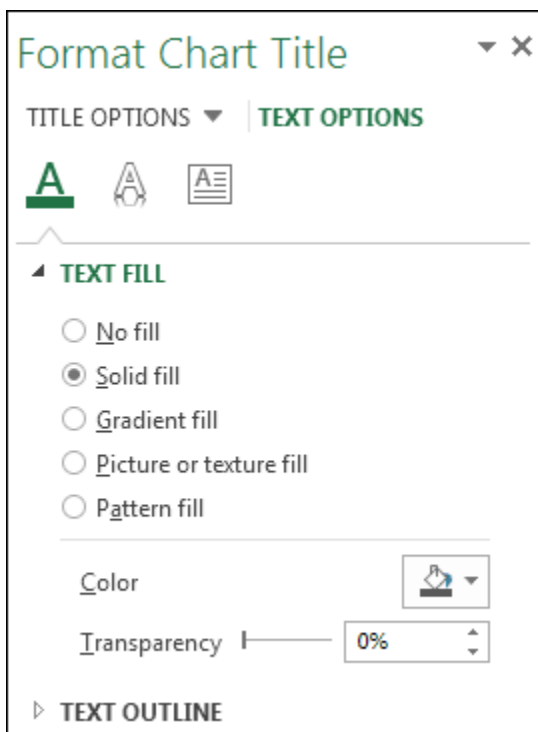
Click the Hexagon and you'll see these options:

Click the Rezise symbol and the options will change to these:

**Format Chart Title** ▾ ✕

TITLE OPTIONS ▾ | TEXT OPTIONS

🖊 ⬠ ▣

◢ **ALIGNMENT**

| Vertical alignment | Middle Ce... ▾ |
| Text direction | Horizontal ▾ |
| Custom angle | 0° ⬍ |

☐ Resize shape to fit text

▣ Allow text to overflow shape

| Left margin | 0.25 cm ⬍ |
| Right margin | 0.25 cm ⬍ |
| Top margin | 0.13 cm ⬍ |
| Bottom margin | 0.13 cm ⬍ |

☑ Wrap text in shape

Columns...

As well as the three symbols, you can click the Text Options, you to the right of Title Options at the top. You'll then see even more options, this time to change the text itself:

**Format Chart Title** ▾ ✕

TITLE OPTIONS ▾ | **TEXT OPTIONS**

**A** Ⓐ A≡

◢ **TEXT FILL**

○ No fill
◉ Solid fill
○ Gradient fill
○ Picture or texture fill
○ Pattern fill

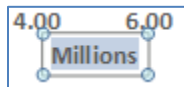| Color | 🖍 ▾ |
| Transparency ├──── | 0% ⬍ |

▷ **TEXT OUTLINE**

In Excel 2016, select **Primary Horizontal** on the **Axis Titles** menu of **Add Chart Elements**:
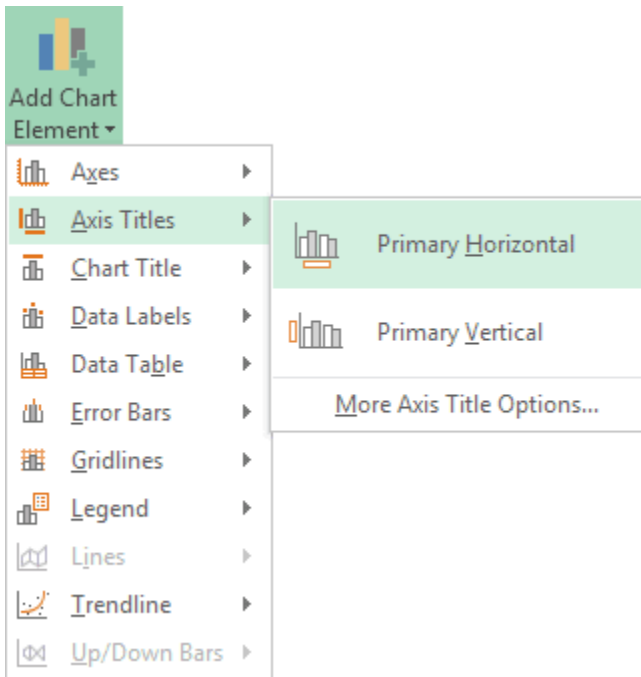


When you click **Title Below Axis** or **Primary Horizontal**, a new title will be added to the chart:
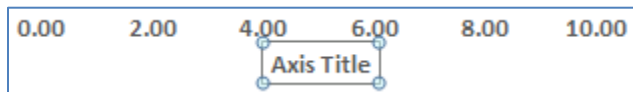


Highlight the default text, and type your own:



Click away from the chart to see what it looks like:



We now have some explanation for what the numbers represent. You can add a Vertical Axis, as well. Click on **Primary Vertical Axis** Title and see how it works.

## Adding Data Labels to an Excel Chart

A Data Label is information overlaid on the chart bars. In our chart below, we have numbers overlaid on the orange bars: