

Advanced Charts and Graphs Cheat Sheet

Creating Charts

- 1) To create a chart, select a cell of your data that you would like to chart.
- 2) Click the Insert tab and select your chart.
- 3) Excel will recommend a chart for you to use and provide previews if you are not sure what you want. Go to the Insert tab, and select Recommended Charts.

When Good Charts Go Bad

If you get a chart that is a total mess (or even one you just do not like), there are a number of ways to fix it.

First, try the easy way. Select only the data that you want to chart. To do this, left click on the cell that will include the top left portion of your data. Then hold and drag your mouse to grab all of the data you want to chart (see drawing below). Your data should be highlighted. Then, click the Insert tab and select the chart type that you want. This should generate a much better looking chart.

- 1) Left click upper most range of your data to be charted

	A	B	C	D
1		2013	2014	2015
2	Jan	20	12	17
3	Feb	12	15	9
4	Mar	14	15	23
5	Apr	20	20	25
6	May	22	17	15
7	Jun	16	20	23
8	Jul	19	14	11
9	Aug	16	21	22
10	Sept	14	19	17
11	Oct	19	17	17
12	Nov	19	22	18
13	Dec	10	17	19
14	Total	201	209	216

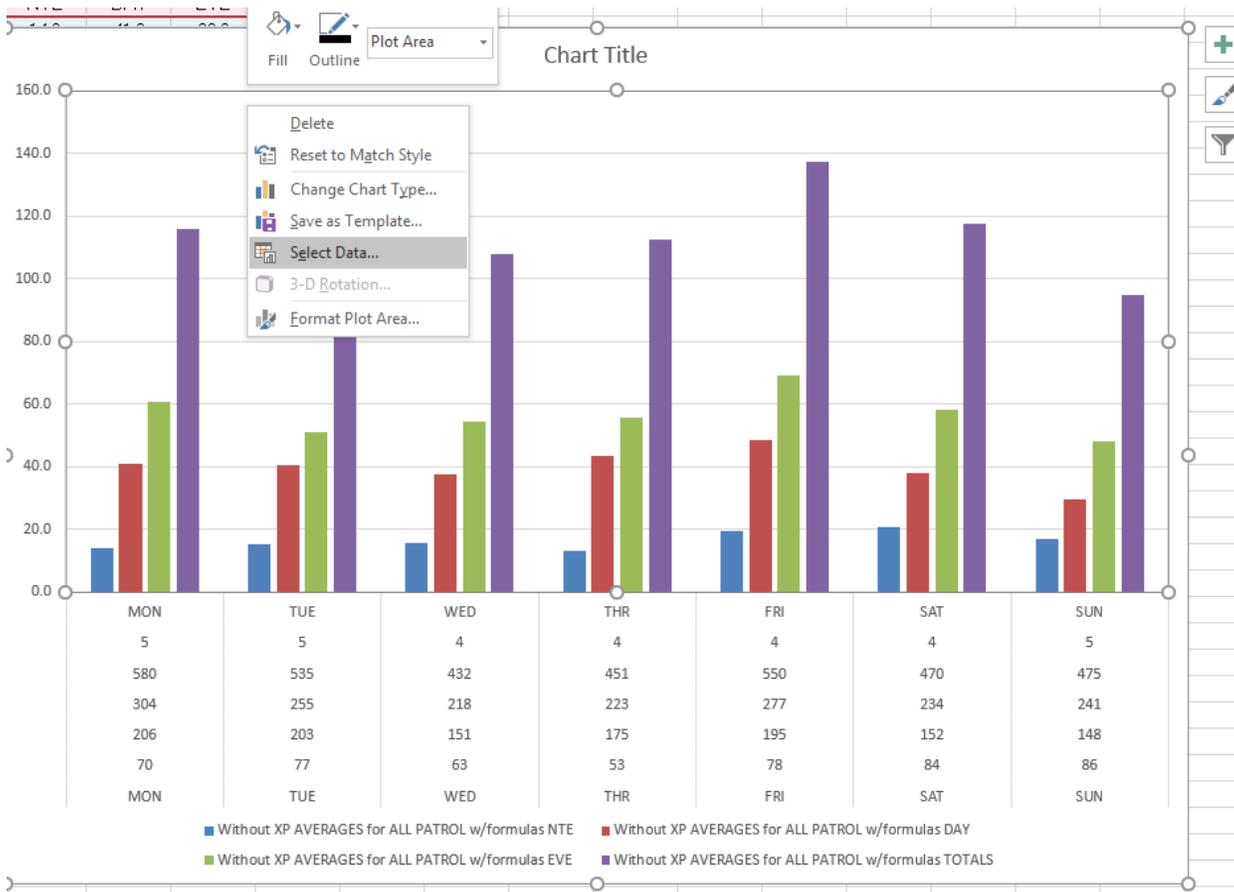
- 2) Hold left click and drag to incorporate all data that you would like to be charted.

	A	B	C	D
1		2013	2014	2015
2	Jan	20	12	17
3	Feb	12	15	9
4	Mar	14	15	23
5	Apr	20	20	25
6	May	22	17	15
7	Jun	16	20	23
8	Jul	19	14	11
9	Aug	16	21	22
10	Sept	14	19	17
11	Oct	19	17	17
12	Nov	19	22	18
13	Dec	10	17	19
14	Total	201	209	216

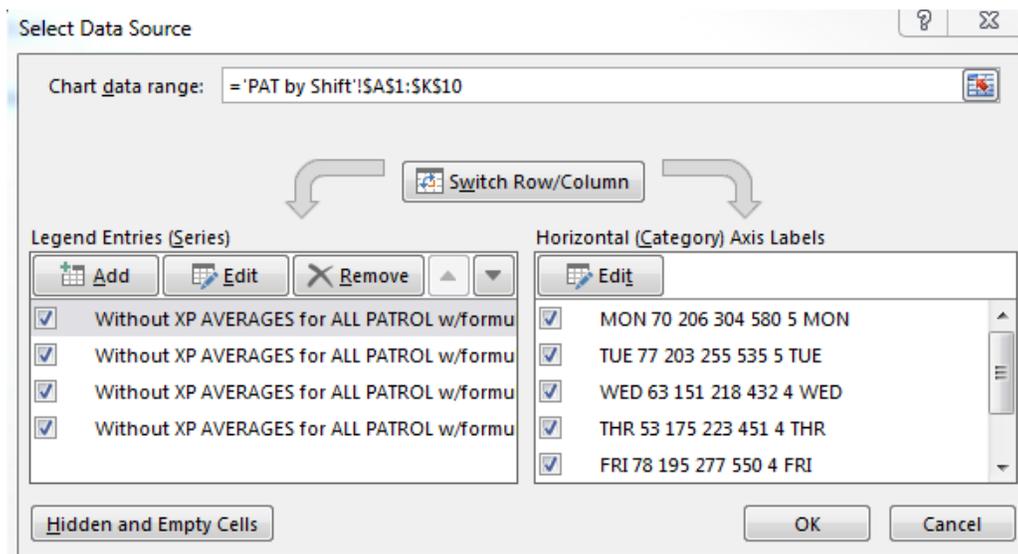
- 3) Click Insert tab and select the graph you want.

Now the hard way (follow along with pictures).

- 1) Right click on your chart and select "Select Data"



2) When you do this, the following screen will appear



3) Start with the highlighted section below first (Horizontal Axis Labels). This section just tells Excel what you want your horizontal axis labels to be (in this case, Days of the Week). Click the Edit button, and a box indicating your label range will appear. It is denoted by a moving broken line ("marching ants"). To select a new range, left click on the starting point of your label range (in this case, "MON"), and drag your cursor down to incorporate all of the labels you want for your data (in this case, "SUN"). Click OK. This will adjust your horizontal range.

Select Data Source

Chart data range:

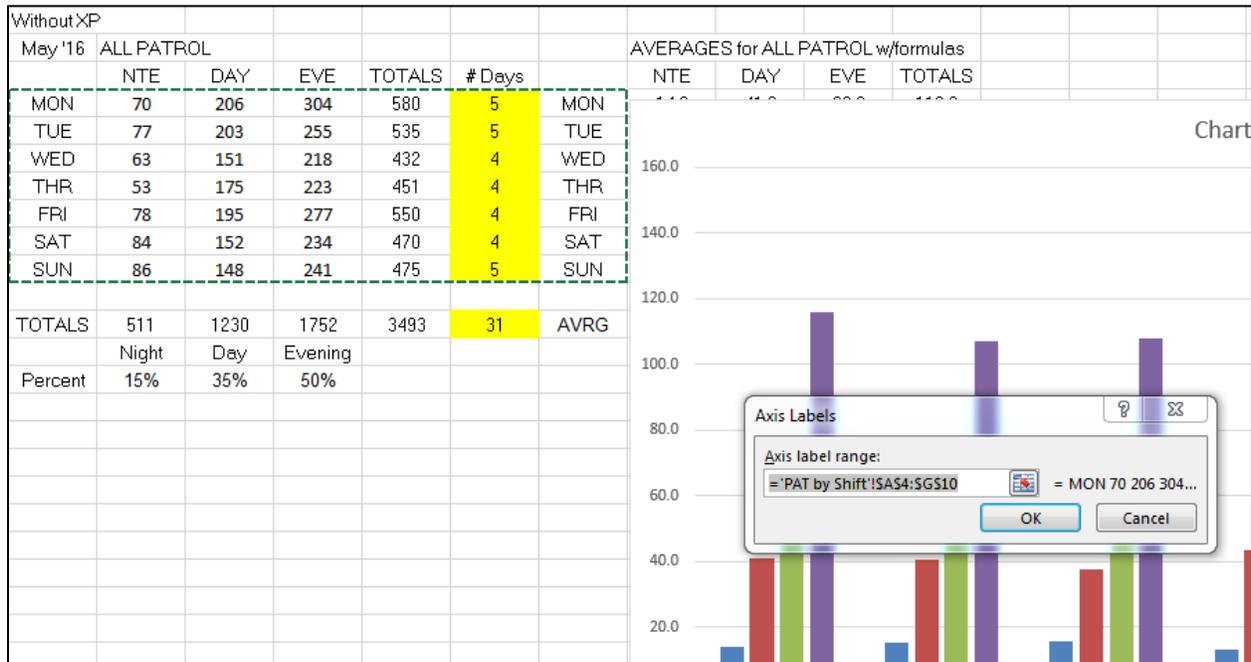
Switch Row/Column

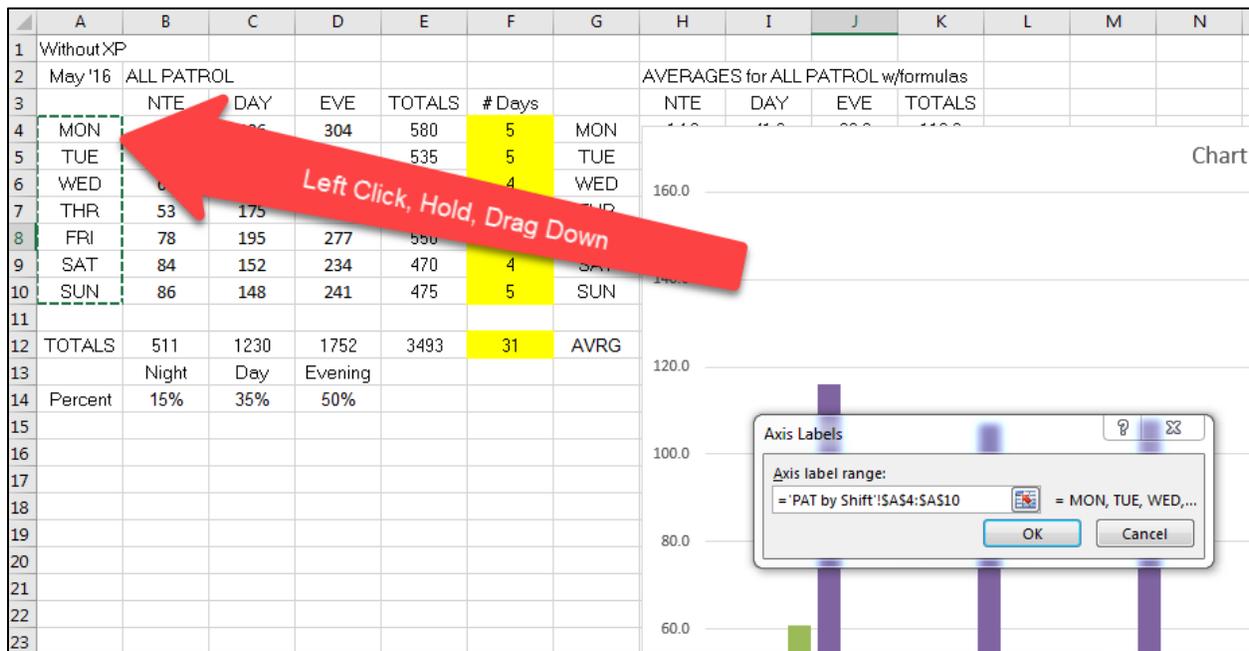
Legend Entries (Series)

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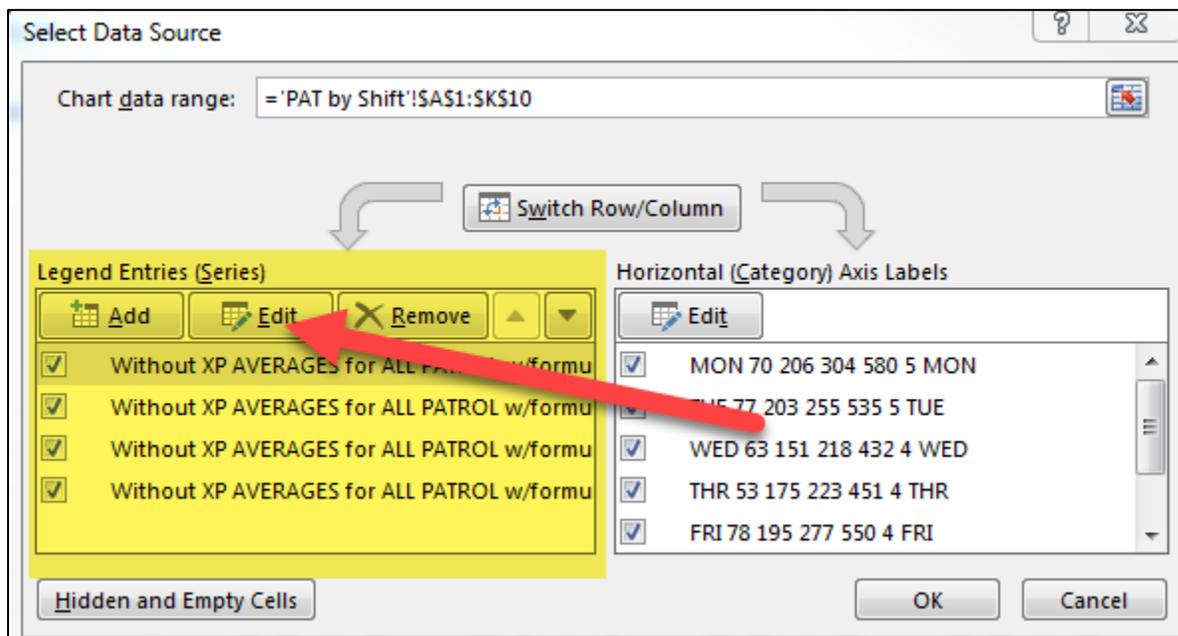
Horizontal (Category) Axis Labels

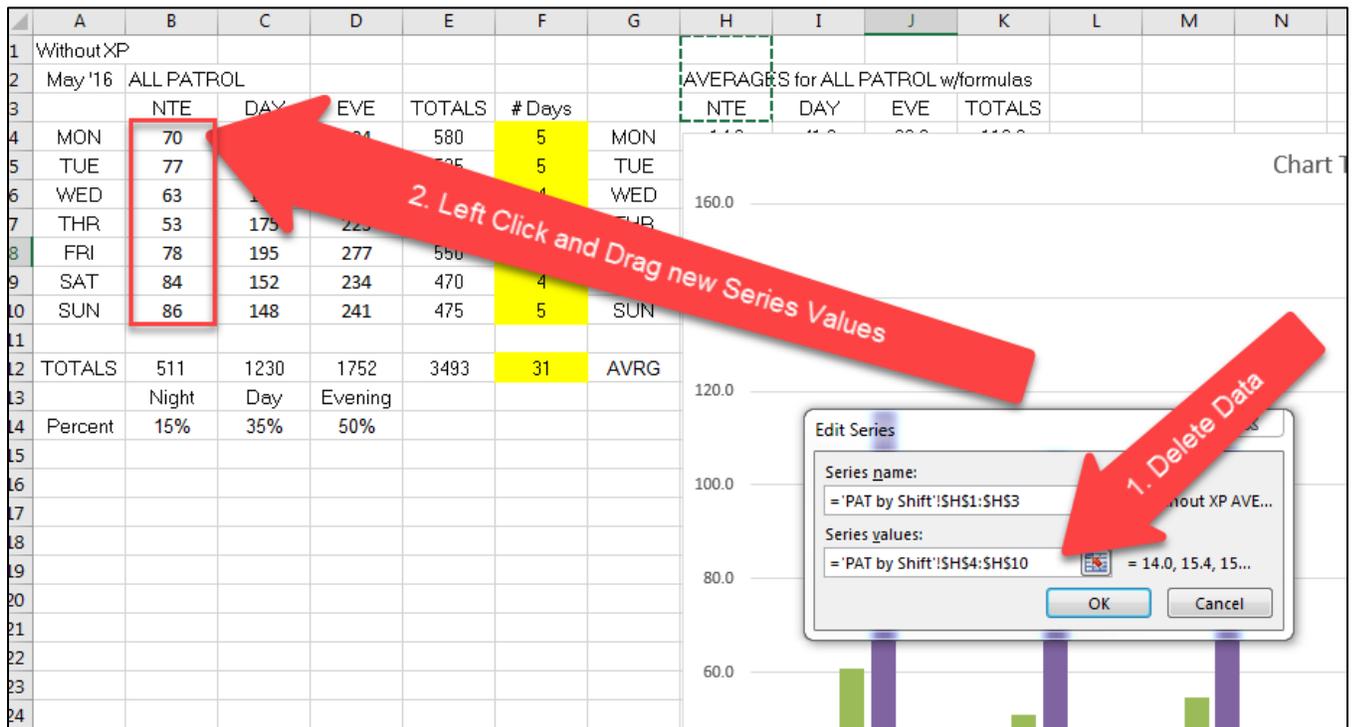
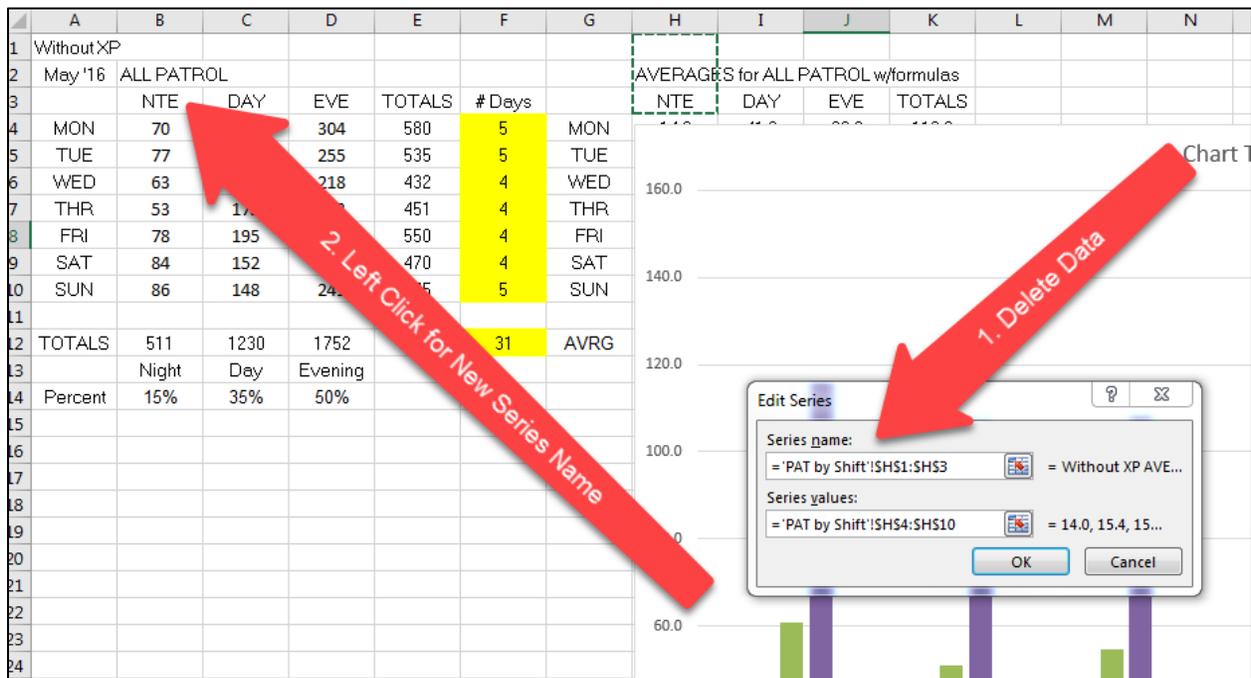
- MON 70 206 304 580 5 MON
- TUE 77 203 255 535 5 TUE
- WED 63 151 218 432 4 WED
- THR 53 175 223 451 4 THR
- FRI 78 195 277 550 4 FRI



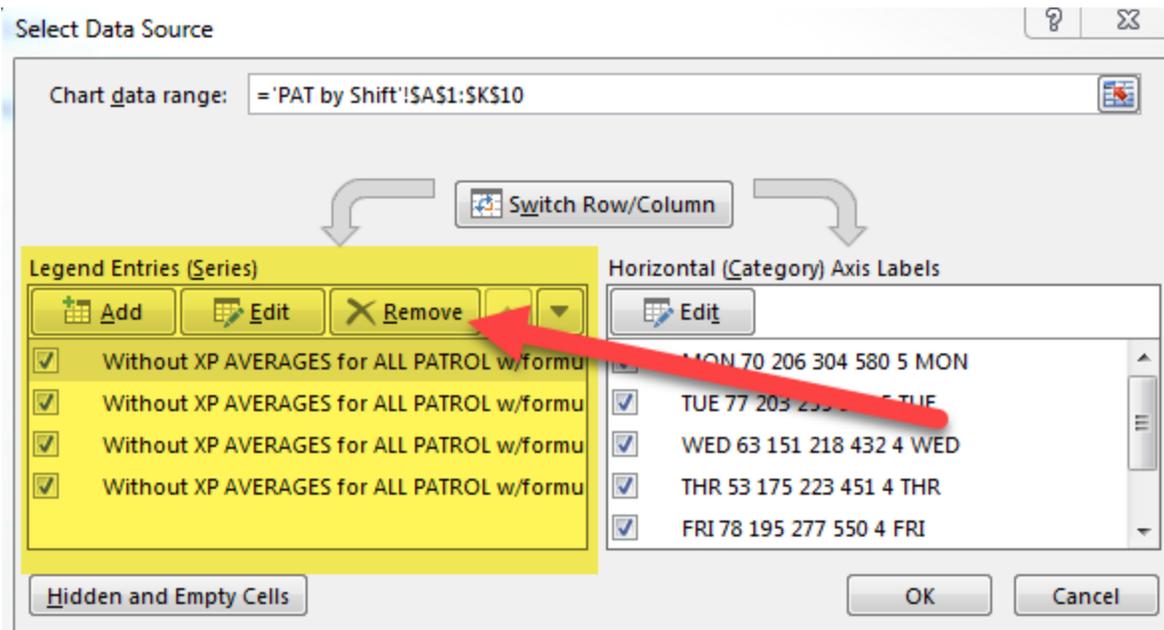


- 4) Now to deal with the Legend Entries. The Legend Entries come in two part: the names of each of your series (in this case NTE, DAY, and EVE) and the values that are attributed to each of those series (in this case the raw data for MON-SUN for each shift). The name that appears in the highlighted portion is the name current assigned to your series. To change this, select Edit. You will see a box that has options for "Series Name" (the name that will appear in the legend) and Series Values (the actual data being charted). The moving dotted line will denote where the box is pulling the values. To change the values, left click in the box and delete the current information for Series Name. Then, left click on the cell that you would like to contain the new series name. After that, click in the box and erase the information in the Series Values box. Then left click and drag to select the new series values that you would like to appear in the chart. Then Click OK. Do this for each of the series you want to change. You can also remove an unnecessary series by selecting the legend entry and clicking Remove.





Removing Legend Entries:



- 5) When you are finished editing, click “OK” to view your chart.
- 6) You can also change the appearance of your chart by switching the columns and rows. Just click the “Switch Row/Column” button to accomplish this.

Change Colors and Fonts in Excel

Changing the Color in Excel can be accomplished in three ways

- 1) Click on your graph to bring up the Design tab at the top of your screen. To the left of “Chart Styles” is “Change Colors”. Use the dropdown to select the color you want.
- 2) Click the Page Layout tab. On the far left side, there is the option for “Themes”. If you use this option, you can match your chart to whatever PowerPoint theme you are using. You can also use the “Colors” dropdown beside “Themes” to change the color.
- 3) Select the series you would like to change by left clicking on any bar in the series once. This will generate four blue dots around each bar in the series. Go to the Home tab and select the paint bucket icon. This will let you select a color for that series. If you want to change one bar in a particular series, left click on that specific bar twice. The four blue dots will just appear around that bar. Go to the Home tab and select the paint bucket to change the color.

Changing the Font in Excel is very similar to changing the color.

Select the piece of text you want to change. Go to the home tab and select the font size and type under the Font section.

Moving Charts in Excel

To move your chart to another Excel spreadsheet, right click anywhere in the chart area. Find and select “Move Chart”. A box will appear that asks where you would like to move the chart. Select “New sheet” if you want the chart in its own sheet or “Object in” if you want the chart in another sheet with data on it. The chart will continue to be connected to the original data, so any changes you make to that data will be reflected in the moved chart.

Linking vs. Embedding Excel Charts in Microsoft Word and PowerPoint

- 1) To Link or Embed charts, open Microsoft Word. These instructions will work for PowerPoint as well, but for brevity, Word is mentioned here.
- 2) Copy your chart in Excel by clicking Ctrl and the letter C (CTRL C) or by selecting your chart and clicking “Copy” on the Home tab.
- 3) Go to your Word document and click on the “Paste” dropdown arrow. You will be given 5 options:
 - a. Use Destination Theme and Embed Workbook (changes your colors and fonts to match the Word or PowerPoint document and embeds the workbook in your document)
 - b. Keep Source Formatting and Embed Workbook (keeps your chart looking the same while also embedding the workbook in your document)
 - c. Use Destination Theme and Link Data (changes your colors and fonts to match the Word or PowerPoint document and links your Excel workbook with your document)
 - d. Keep Source Formatting and Link Data (keeps your chart looking the same while also linking your workbook with your document)
 - e. Picture (pastes the chart as a picture. No changes can be made to that picture apart from adding outlines or items on top of the picture).
- 4) Use “Picture” if you do not want to make changes to your chart in that Word document after it is pasted. You can still change the Excel chart, but you would have to repaste a new picture into your Word document with the changes.
- 5) Use “Link” if you want your Word document to automatically update with any changes that you make to the Excel document. If you link your documents, any changes you make to either the chart in Word or the chart in Excel will appear in the other linked document. Both documents do not have to be open when you are making changes. Any changes made to the original will appear in the linked document when it is opened. To view the data behind the chart in your Word document, right click anywhere on the chart and select “Edit Data”. This will bring up the Excel sheet behind the chart. **NOTE OF CAUTION: If you link your Excel chart to your Word document and you delete the Excel chart, no further changes can be made to the Word document.**
- 6) Use “Embed” if you want to make changes to the chart in Word but do not want those changes to affect your Excel sheet. Embedded charts operate independently of their original Excel charts. Any changes made to the original Excel document or the Word document will not transfer between the documents. To view the data behind the chart in your Word document, right click anywhere on the chart and select “Edit Data”. This will bring up the Excel sheet behind the chart. If you delete your original Excel document, it will have no impact on your embedded chart.

Thanks everyone for your interest! Please feel free to reach out to me with questions – zawitzj@albemarle.org.