

NC Voter Registration Pie Chart in Excel

By Robert Allison

Another example in my series showing how to create graphs “on the cheap” – this time I’ll be using Microsoft Excel to create a pie chart of North Carolina’s voter registration data.

Getting the Data

You can find the NC voter registration data on the NC State Board of Elections [website](#) – they add a snapshot of the data ~weekly, and I chose the latest snapshot (07/26/2022). The report is an html table, and shows the number of registered voters in each county by various groupings (such as party, race, and sex). Here’s a screen-capture of the top of the table:

County	Democratic	Republican	Green	Constitution	Libertarian	Unaffiliated
ALAMANCE	38,239	36,464	0	0	698	37,181
ALEXANDER	4,566	11,938	0	0	126	8,287
ALLEGHANY	1,908	3,135	0	0	38	2,617
ANSON	9,136	2,962	0	0	46	3,828
ASHE	4,052	9,062	0	0	109	6,665
AVERY	1,337	7,190	0	0	56	3,910
BEAUFORT	10,713	12,261	0	0	130	10,082

Preparing the Data

Scroll to the bottom of the html table, to see the state totals ...

WILSON	25,745	13,776	0	0	230	15,463
YADKIN	3,239	14,089	0	0	128	7,336
YANCEY	4,054	5,457	0	0	71	4,843
Totals	2,491,507	2,209,952	0	0	49,343	2,574,093

And then copy-n-paste the totals into an Excel spreadsheet. Note that I only want my pie chart to show the major political parties, therefore I leave out the Green, Constitution, and Libertarian parties. The order of the data rows controls the order of the pie slices – starting at the 12 o’clock position and going clockwise, I want the Republican slice, then the Unaffiliated, and then the Democrat. This way the Republican pie slice is on the ‘right’ and the Democrat slice is on the ‘left’ (with Unaffiliated being in between) – “see what I did there!?”

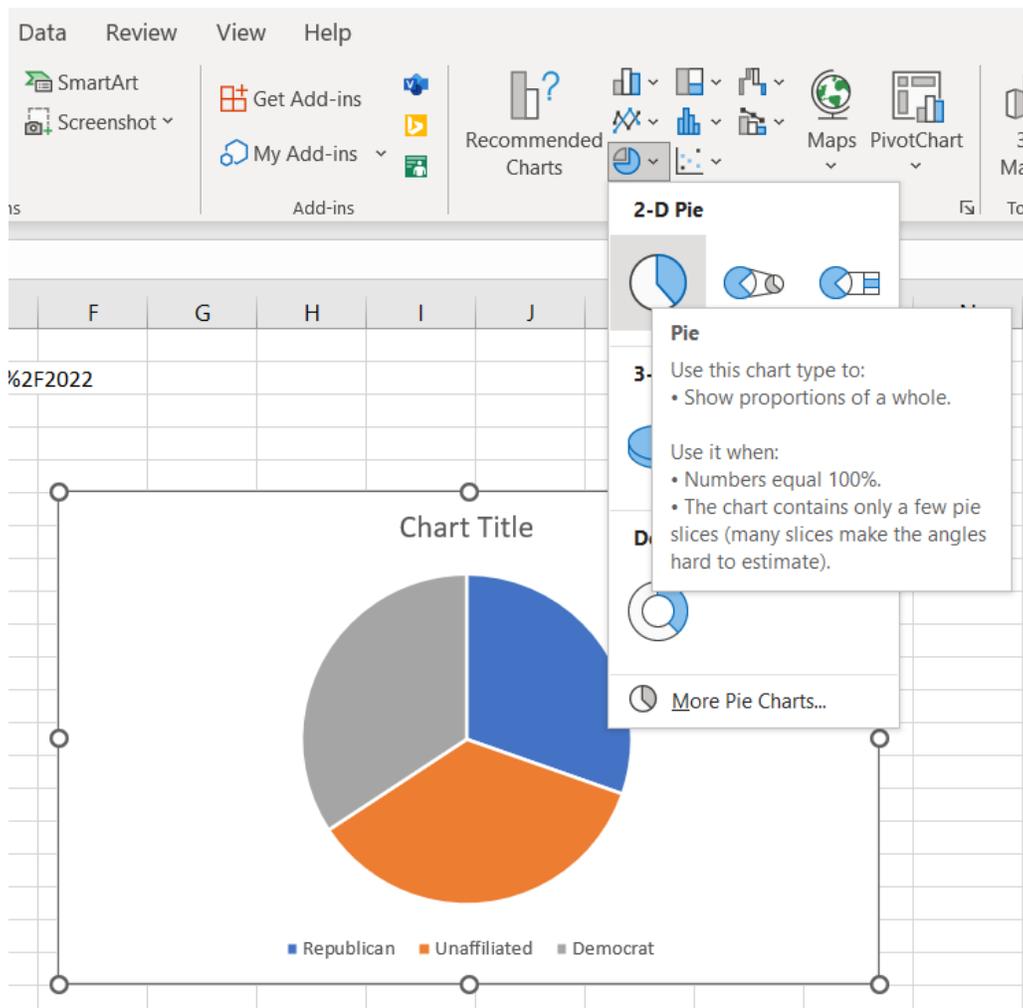
	A	B	C	D	E	F
1	Using North Carolina voter registration data from:					
2	https://vt.ncsbe.gov/RegStat/Results/?date=07%2F26%2F2022					
3						
4	Republican	2,209,952				
5	Unaffiliated	2,574,093				
6	Democrat	2,491,507				
7						

Creating the Pie Chart

Creating a pie chart is pretty simple ... first, select the data:

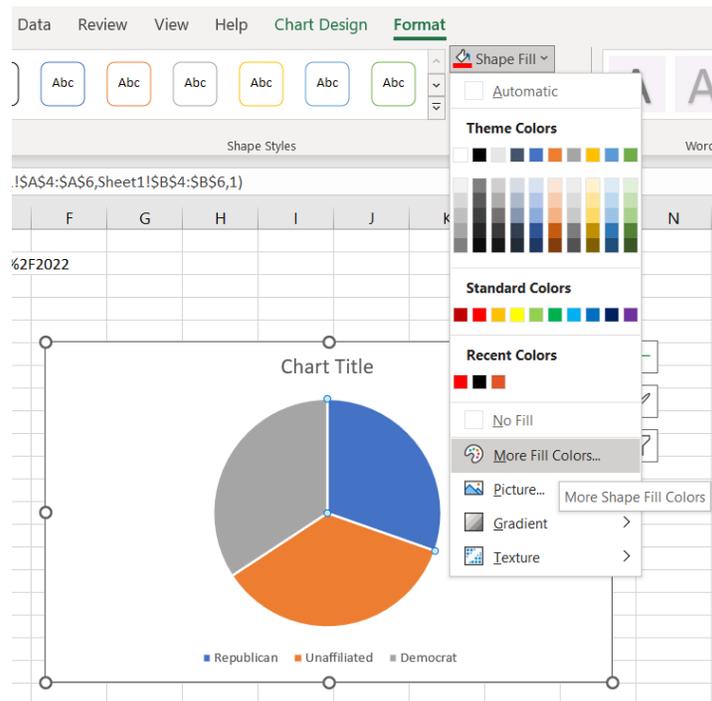
3		
4	Republican	2,209,952
5	Unaffiliated	2,574,093
6	Democrat	2,491,507
7		
8		

And then go to the Insert tab, and select the 2-D Pie Chart.

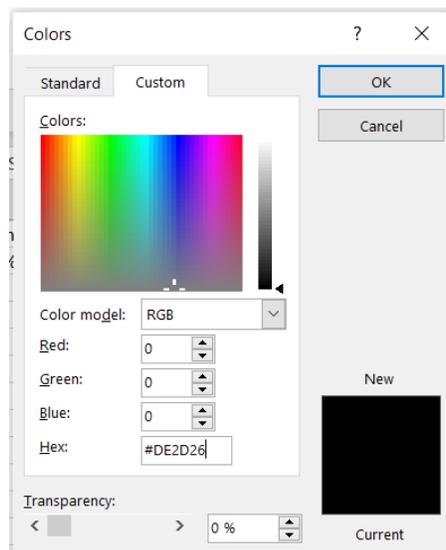


Controlling the Colors

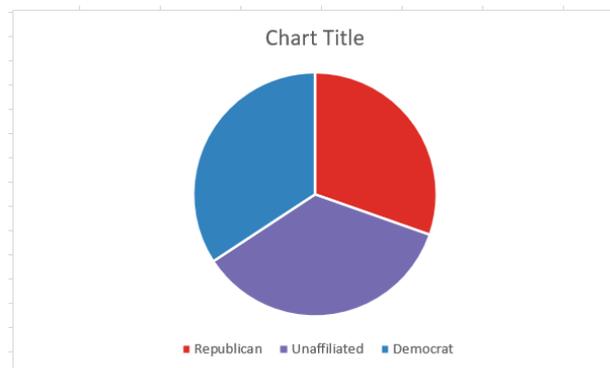
Rather than using the pre-defined color schemes, I want to use specific colors for specific slices (red for Republican, blue for Democrat, and purple for Unaffiliated). To assign a specific color to a specific slice, select that slice (by clicking on it twice), go to the Format tab, click the Shape Fill pull-down menu, and select More Fill Colors...



In the Colors window, select the Custom tab, and then enter the Hex (#rrggbb) code for the desired color. I'm using red=#de2d26, purple=#756bb1, blue=#3182bd.

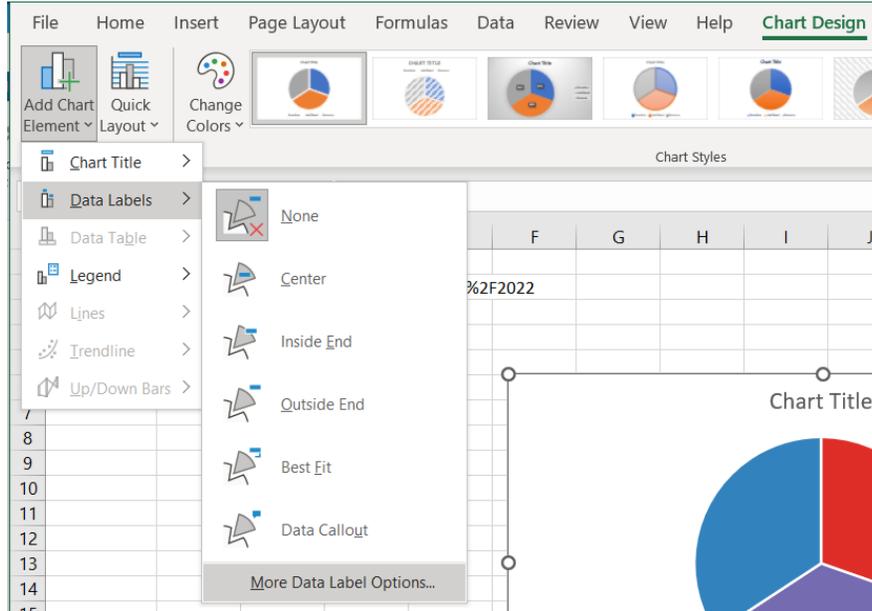


And I now each slice is the desired color:

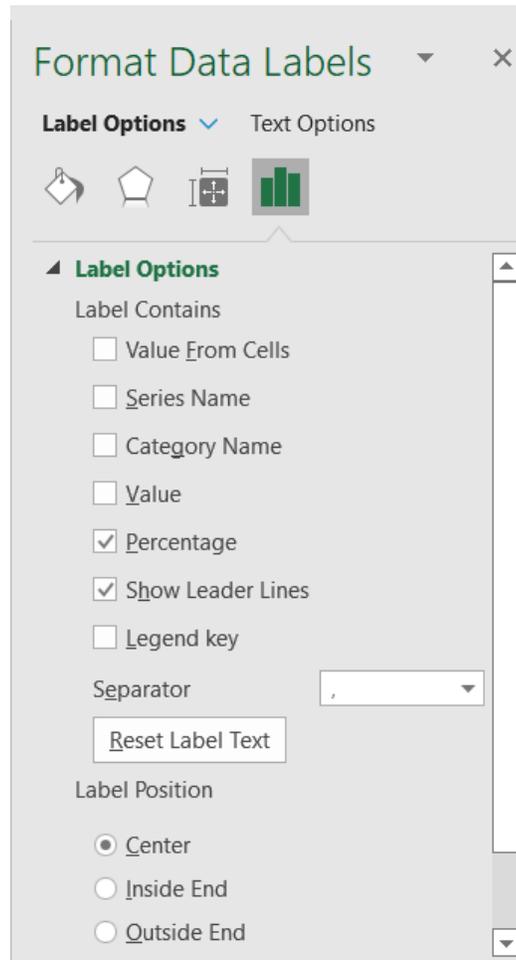


Controlling Pie Slice Labels

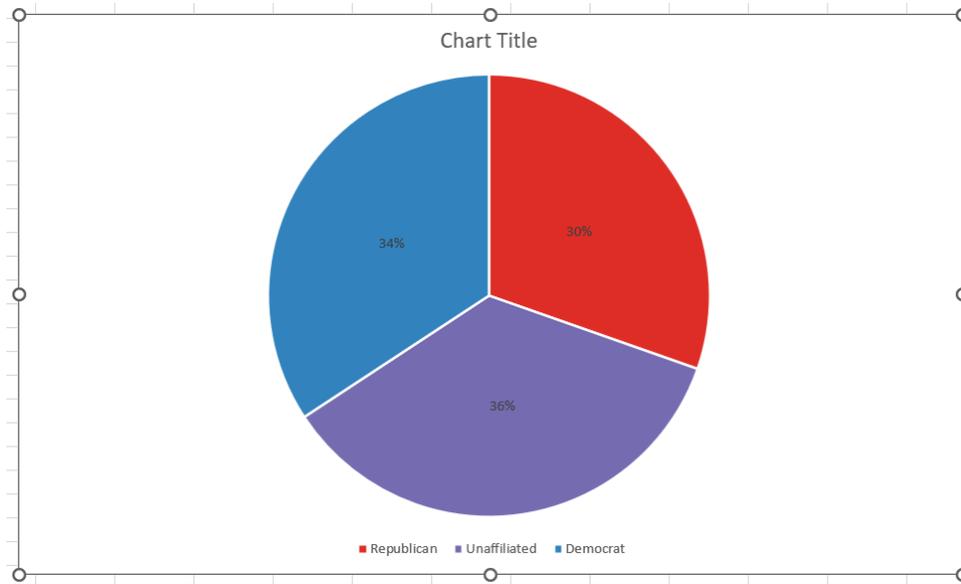
Although the relative sizes of the pie slices are somewhat intuitive, I like to also show the percentage values. To do this, go to the Chart Design tab, select Add Chart Element -> Data Labels -> More Data Label Options...



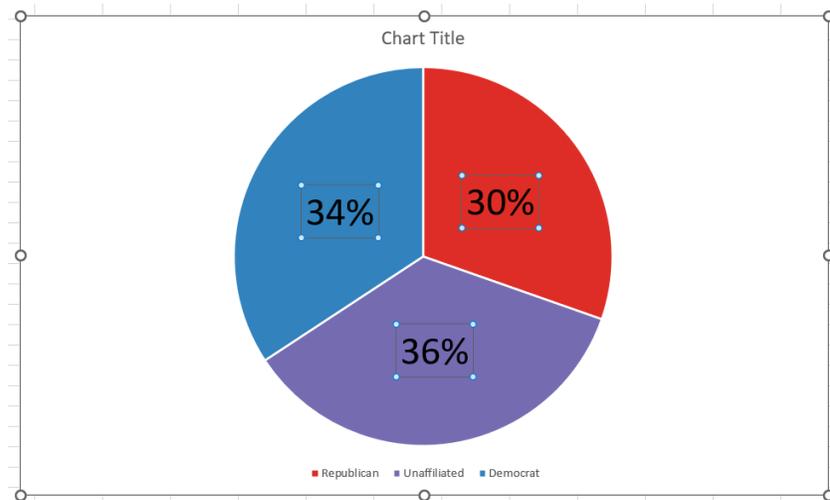
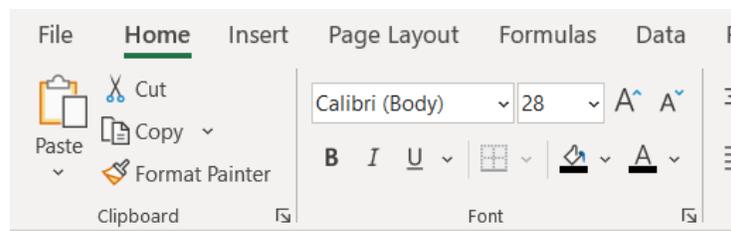
Then, in the panel on the right side of the spreadsheet, turn on Percentage, turn off Value, and select Center as the Label Position.



We now have percentage labels, but they're a bit small and difficult to read.

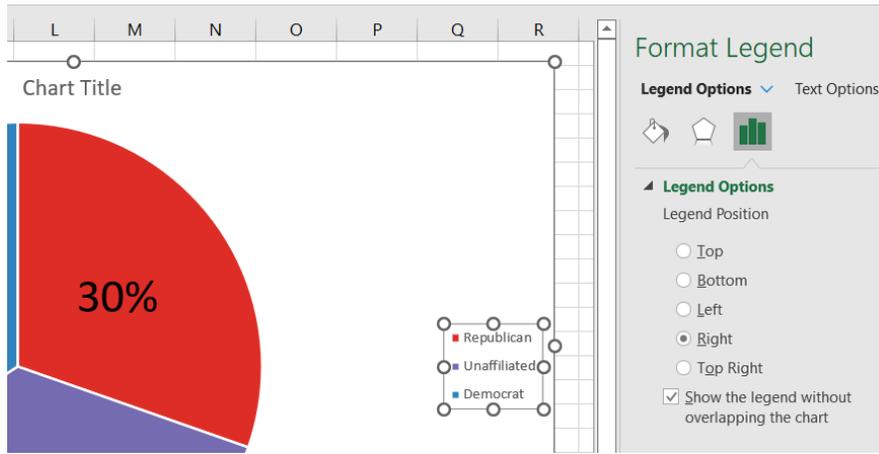


To make the labels bigger, go to the Home tab, select the labels on the pie slices, and select a font size and color that looks good.

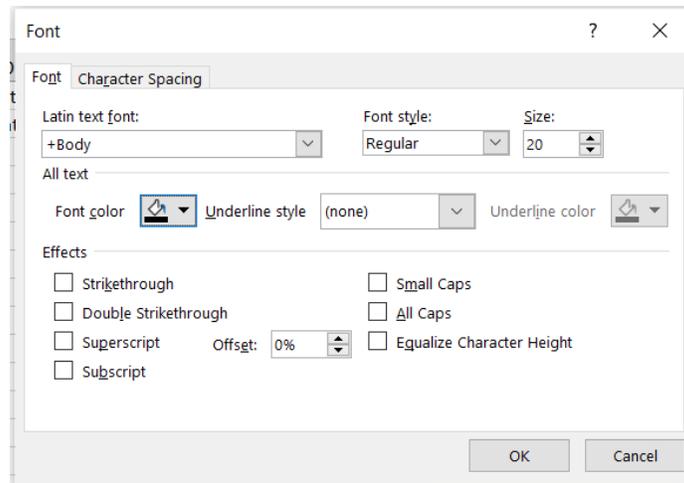


Controlling Legend

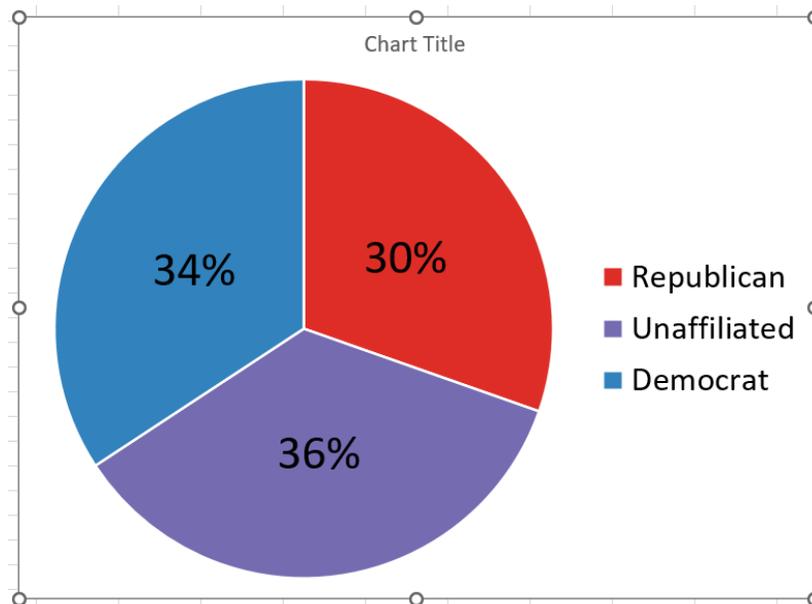
I want the legend to the right of the chart, and larger. Select the legend, right-click, and select Format Legend. The Format Legend box will appear to the right of the spreadsheet. Change the Legend Position from Bottom to Right.



To change the font of the legend, select the legend, right-click, and select Font... I changed the size to 20, and the color to black.

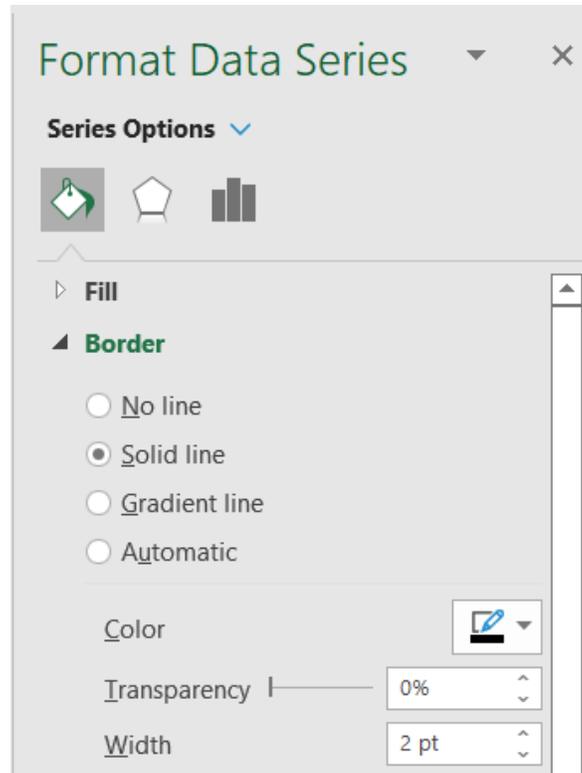


And here's what the pie chart looks like so far:



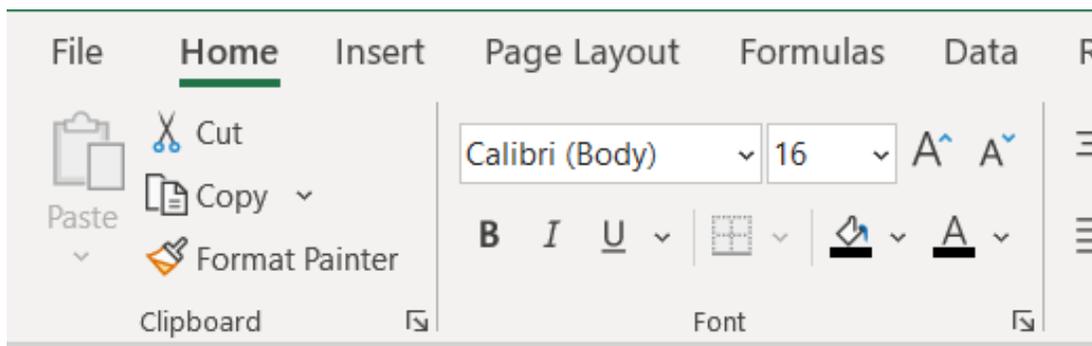
Controlling Slice Outline

By default, the pie slices have a thin white outline. To get a thicker black outline, select the pie, right-click and select Format Data Series. In the panel that pops up to the right of the chart, select the paint bucket, and expand Border to see the selections. Select Solid Line, change the color to black, and width to 2pt.

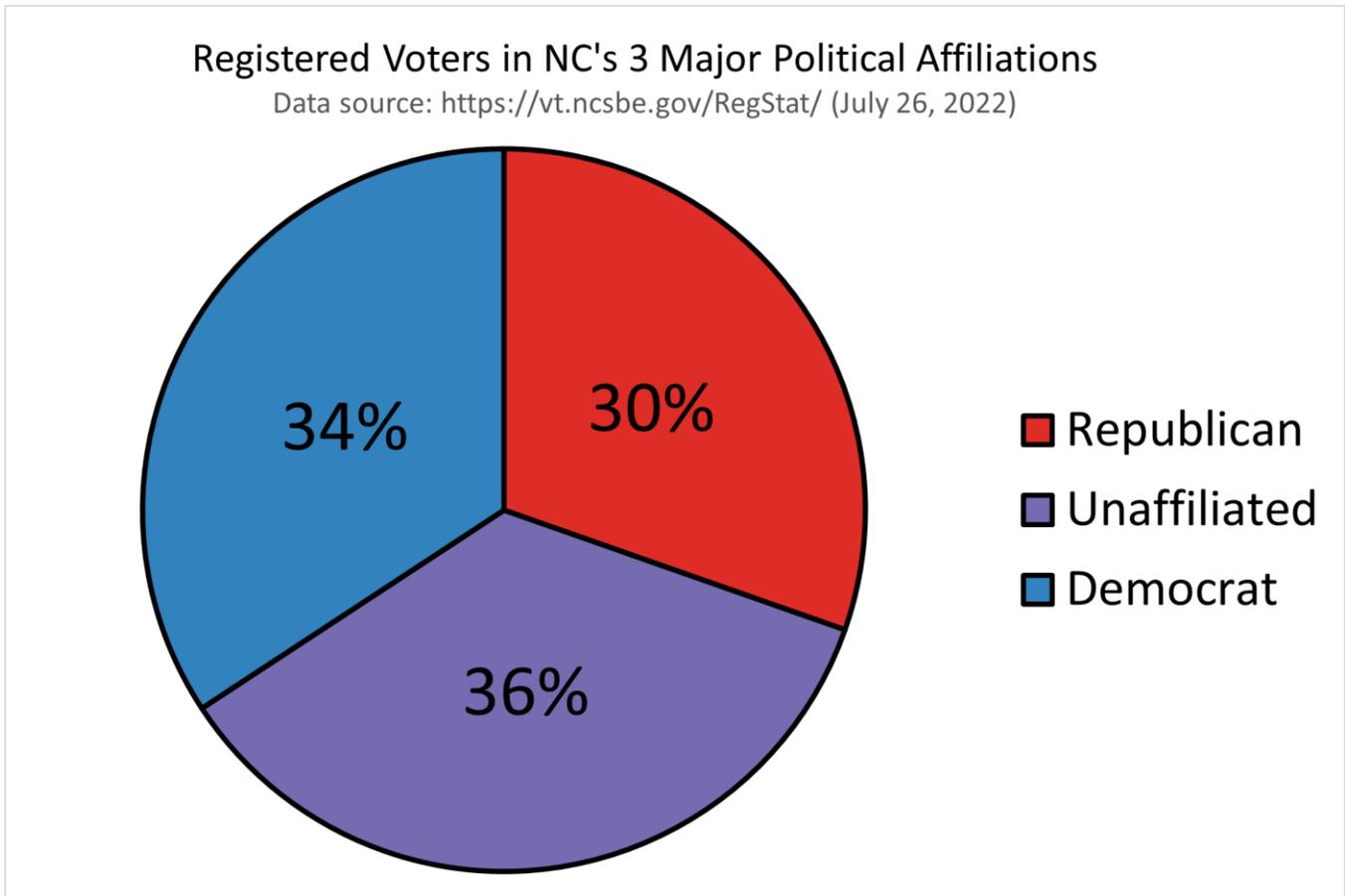


Controlling Title Text

This is the easy part! Go to the Home tab, select the default Chart Title, click on the text in the title, and then you can delete the default text and add your own. You can then highlight the text, and control the font/size/bold using the menus under the Home tab.



Here's the final Excel pie chart:



Wow! – That looks even better than the pie charts I used to create with SAS Software (notice how the Excel pie slice borders are nice and smooth, whereas the SAS pie borders were more jagged and irregular) ... and I only had to spend \$50 on an Excel license! 😊