# MS Office Excel (Project 3A)

Hey everyone - welcome back! In my first two tutorials, I created a simple worksheet and chart. I also created formulas using relative and absolute cell references. Additionally, I went more in depth and applied complex calculations to my data. I also added sort and filter features to my data, based on certain criteria. Then, I created a summary sheet with sparklines. But in this next tutorial, I created a pie chart. A pie chart is used to show parts of a whole and always equals 100%.

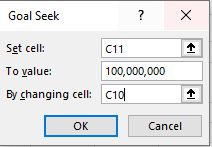
Pacifica Bay is a coastal city in south San Francisco. The city’s access to major transportation gives residents and businesses an opportunity to compete in the global marketplace. The city’s mission is to create a beautiful, useful economical community for its residents. Each year, the city welcomes tourists, who enjoy exploring the city. The city encourages best environmental practices and partners with cities in other countries. Michael Larsen is the City Manager for Pacifica Bay. He wants to analyze the adjusted figures for Enterprise Fund Expenditures for the next fiscal year. So, I created a pie chart for him.

In cell D5, I typed “=C5/$C$11”. I made C11 as an absolute cell reference because I didn’t want the cell reference to change. I used the fill-down tool to copy the formula down vertically. Then, I highlighted the range from D5 to D11, center aligned the text, and formatted the range as percentages with zero places after the decimal point.

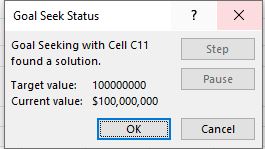
After I calculated my percentages, I created my pie chart. I highlighted the range from A15 to A10, pressed “Ctrl”, selected the range from C5 to C10, navigated to the “Insert” tab, went to the “Charts” group, and clicked on “Recommended Charts”. In the “Recommended Charts” pop-up window, I clicked on the “All Charts” tab, chose “Pie” and selected the “3-D Pie” option. I selected my “Pie Chart”, navigated to the “Design” tab, went to the “Location” group, and clicked “Move Chart”. In the “Move Chart” pop-up window, I selected the “New sheet” option and typed “Expenditures Chart”. I set my chart title to “Enterprise Fund Expenditures”. I highlighted the chart title, navigated to the “Format” tab, went to the “WordArt Styles” group, and selected the last style in the first row, “Fill - Gold, Accent 4, Soft Bevel”. Then, I set the font size to “32”.

Since I calculated the percent of the total in column D, I figured it would be best to add those percentages to the pie slices as labels. I clicked on “Chart Elements” and chose “Data Labels”. In the “Data Labels” side-view drop-down menu, I set the position to “Center”. When I clicked on “Format Data Labels” under “Label Options”, I selected “Category Name” and “Percentage” and unchecked “Values”. I right clicked on the labels, selected “Font”, set the size to “11” and the style to “Bold Italic”. I right clicked on the pie chart, selected “Format Data Series” and clicked on the “Effects” pentagon icon. In the “3D Format” section, I clicked the top bevel arrow and selected the first bevel, “Circle”, under the “Bevel” section. I set the “Width” & “Height” to “512”. Then, I repeated this step for the bottom bevel too. In the “Material” section, I chose the third material, “Plastic”. Under “Shadow”, I set the “Preset” to “Perspective”. I selected the “Waterfront” slice, right clicked, and chose “Format Data Point”. Under “Angle of first slice”, I typed 250 to rotate the chart 250 degrees to the right. The last step I did was to format the chart area. I selected the chart, right clicked, and chose “Format Chart Area”. Under “Fill”, I chose the “Gradient fill option” and set the “Preset gradients arrow” to the first gradient in the fourth row, “Bottom Spotlight, Accent 1”. Under “Border”, I clicked “Solid line” and set the color to the first color in the fourth column, “Blue Gray, Text 2”. Then, I set the “Width” to “5” and removed my legend. Next, I went to the “Enterprise Fund Expenditures” worksheet and updated cell C5 to “18,121.67”.

After I updated my value, my final step was to see how the change affected the outcome of my formulas in my worksheet. This is called “What-IF Analysis”. The main “What-IF Analysis” tool in Excel is called “Goal Seek”, which finds the value needed in one cell to come to the result in another cell. In the “Enterprise Fund Expenditures” worksheet, I selected cell C11, navigated to the “Data” tab, went to the “Forecast” group, clicked on “What-IF Analysis”, and chose “Goal Seek”. When I clicked on “Goal Seek”, I got a “Goal Seek” pop-up window.



I set the value to “100,000,000” and the “By changing cell” field to C10. This means that C11 is the cell I set a specific value. $100,000,000 is the total expenditures budgeted for the Enterprise Fund. The “Set cell” field contains the formula that calculates the information I want. When I clicked “OK”, I got a “Goal Seek Status” pop-up window.



When I clicked “OK”, on the “Goal Seek Status” pop-up window, my value changed from “$10,945.369” to $9,794,189”.

So, this is how I created a pie chart. Hope this tutorial was helpful and I’ll see you in the next one!