On-Demand Training:

Modifying Table

Calculations Transcript

Welcome to this Modifying Table Calculations video.

You can download the Exercises workbook to follow along in your own copy of Tableau. This content builds on the Intro to Table Calculations video and uses the same workbook.

Editing the Table Calculation

Once we have created a Table Calc – either using the calculation editor or with a Quick Table Calc – we can see if the view will answer our question: has Technology had the highest Running Total in each discrete Year? At this point, we can see the Running Total of Profit from 2011 – 2014, not broken down by Year.

To answer this, we may easily modify the Table Calc by clicking the caret to open the menu and selecting Edit Table Calculation. Note that depending on the Table Calc, there may be different options for the Calculation Definition.

In this particular dialog box, we can

- Change the Calculation type,

- Summarize values using a different aggregation,

- alter where the Table Calc is running along,

- and choose when to restart the computation.

In this case, the calculation type has been specified as a Running Total and the aggregation level as a SUM.

Computing Using

Additionally, Tableau has defaulted to have the calculation run along Table (Across), meaning we see the Running Total of Profit across all 4 years. Table specifies the scope and (Across) specifies the direction of the Table Calc – something we'll address in more detail.

Under this particular Running along menu, a number of options appear – each of which will analyze the Field Set differently.

In our case, Pane (Across) will be a more suitable choice for the question we are trying to answer, which will give us the Running Total for each Pane, or Year, as opposed to the Running Total over all the years in our dataset. We now answer our question and see that Technology had the highest Running Total of Profit in each discrete year in our dataset.

We visually saw that Table (Across) and Pane (Across) provided different interpretations of the Field Set by using a different Scope, one being Table and the other being Pane. You can also customize the Table Calc by setting the Direction of computation to be either Down or Across.

A great way to see the distinction between combinations of different Scopes and Directions is to view the data with both row and column totals. The grand totals for each combination of Direction and Scope are slightly different and allow for different questions to be answered. You may want to pause this video and explore this dashboard, as we won't go over it.

The beauty of using a Table Calc is that you may easily change how Tableau processes the Field Set through the Compute Using menu on the pill.

Addressing vs. Partitioning

If altering the Direction and Scope of the Table Calc doesn't give you a result you expect, you have even more fine-tuned control of how the Table Calc is computed. Behind the scenes, Tableau assigns all data in the field set to be either addressing or partitioning.

- Addressing fields are those that Tableau includes in the calculation to determine each result,

- and those fields marked as Partitioning will break the Table Calculation into unique areas or partitions for the calculation to be built within.

Here we have the Percent of Total Sales broken down by Category and Sub- Category with all Sub-Categories totaling 100%. To see which fields have been categorized as addressing or partitioning, we can Edit the Table Calculation and select the Advanced Settings under the Summarize the values from menu.

In this window, we see that both Category and Sub-Category are partitioning the data. This is because Tableau has partitioned the data to see how the Sales for each Category/Sub-Category combination compare to the total.

If we want to see the Percent of Total, partitioned by Category, we can simply move Sub-Category to Addressing, and select OK.

Thanks to our Table Calc, we now can see that Phones provide the largest Percent of Total Sales for Technology with almost 36%, along with the Percent of Total breakdown for all of our other Sub-Categories and Categories.

These methods of compute using and addressing/partitioning have been done with quick Table Calcs – but they also apply to Table Calcs that are created through the editing window.

Conclusion

Thank you for watching this Modifying Table Calculations training video. We invite you to continue with the On-Demand Training videos to learn more about using Tableau.