Free Training Transcript: Getting Started with Calculations

Welcome to Getting Started with Calculations in Tableau. You can download the Exercise workbook to follow along in your own copy of Tableau.

Similarly to formulas in Excel, calculations allow you to manipulate your data in any number of ways. Creating a calculated field is as easy as right clicking in the data pane and selecting Create Calculated Field.

Types of Calculation Functions

Functions in Tableau fall into one of several main categories: Number, String, Date, etc.

Calculations in Tableau

Calculated fields are created by defining a formula using these functions or basic operations. Let's create a simple logical calculation on our profit field as an example. IF SUM([Profit]) > 0 THEN "positive" ELSE "negative" END. I'm ignoring if Profits are actually zero for simplicity's sake. And we'll name it "sign of profit". Note that there's a little equal sign in front of the field here – this indicates it's a calculated field, not natively from the data source. If we bring this calculated field to color, we see that our profit bars are colored appropriately.

In-Shelf Calculations

If we want to see what our costs are, defined as sales – profit, we can add that to the view very simply by double clicking and typing it into the shelf itself. Note that autocomplete popping up as I type, hit enter to select. We can also drag in a field from the data pane. And hit enter, and there we have the calculation's results visualized, and we have a new pill with that formula. If that's a useful calculation we find useful and want to keep, we can simply drag the pill into the data pane – and we can always rename the field if desired.

Brief Introduction to Table Calculations

When learning about how Tableau handles calculations, a really important concept is the

distinction between regular calculations vs. what we call table calculations. A regular calculation, such as Sales minus Profit, is passed as part of the query that Tableau asks of a data source and the computation is handled by the data source itself with only the result set being returned to Tableau. A table calculation is a secondary calculation that performed on top of the returned result set. This computation is done within Tableau. An example is as Running Total of Sales. A table calculation is indicated by this delta symbol on the pill.

Quick Table Calculations

Table Calculations can either be written like any other calculation, using the Table Calc functions in the calculation editor or there is a set of pre-defined, commonly used computations called Quick Table Calculations. These include options like Running Total, Percent of Total, and Year over Year Growth. Which ones are available depend on the data in your view. See the video on Table Calculations for more specific information.

Conclusion

Thank you for watching this Calculations training video. We invite you to continue with the Free Training videos to learn more about using Tableau.