



Free Training Transcript: Pareto Charts

Welcome to this How-to video on creating Pareto Charts. You can download the Exercise workbook to follow along in your own copy of Tableau.

What is a Pareto Chart?

A Pareto chart is used to see how many dimension items, such as products, are contributing to what percentage of an overall measure, such as Sales. Pareto charts are often used in conjunction with the 80/20 rule, which states that 80% of sales come from 20% of customers, or 80% of value comes from 20% of content, etc.

To make a Pareto chart, we'll use table calculations to compute the percent of total of the running total for both the measure and the count distinct of the dimension.

Building a Pareto Chart – the line

Our Pareto will deal with products and sales. Bring Product ID to Columns and choose All Members. Bring Sales to Rows. Sort sales descending, and fit the width. Next, we want to calculate the running percent of total sales. Right click on the Sales pill on the Rows shelf and add a quick table calculation for Running Total. Right click again on the same pill and select Edit Table Calc. Click "Specific Dimensions" and make Sure Product ID is checked, to make this an addressing field. Check the box to Perform a secondary calculation on the result. For the secondary type of calculation, choose "Percent of Total".

Now we need to change the x axis from a sorted list of Product IDs to display a percent of total as well. Control click drag a copy of Product ID from Columns to the Detail shelf. Right click on the Product ID pill on Columns change the aggregation to Count Distinct. We'll now do the same thing we did for Sales, calculating the percent of running total. Right click again and add a quick table calculation for Running Total. Right click again and select Edit Table Calc. Click Specific Dimensions and check Product ID to make this an addressing field, and perform a secondary calculation, of type Percent of Total. Finally, change the mark type to line. This is the core of the Pareto chart.

Building a Pareto Chart – the bars

A true Pareto chart has both the line as well as a bar chart. To add the bar chart: bring a new copy of sales to the Rows shelf, right click on this second copy of Sales and choose Dual Axis. Change the mark type for Sum of Sales to a bar. We may want to resize the

bars to be tiny. Right click on the right-hand Sales axis and select Move Marks to Back, then again and Uncheck Show Header and we'll edit our colors so the line is blue.

Building a Pareto Chart – the reference lines

Finally, we can add reference lines to illustrate the 80/20 rule. Click on the Analytics tab and bring out a constant line to count distinct of Product ID. Set the value to 0.2. Bring out another constant line to the Sum of Sales with the table calc, indicated by the delta symbol. Set the value to 0.8. As we can see, in this data set, we need closer to 28% of our product IDs to get 80% of our sales.

Summary of Steps

As a quick recap, to make a Pareto chart:

1. Use table calculations to compute the percent of total of the running total for both the measure and the count distinct of the dimension
2. Bring a new copy of Sales out and make it a bar chart underneath the line
3. Add reference lines for 20% of the dimension (count distinct) and 80% of the measure

Conclusion

Thank you for watching this How to video on Pareto Charts. We invite you to continue with the Free Training videos to learn more about using Tableau.