Applies to: Tableau Desktop

Build a Histogram

A histogram is a chart that displays the shape of a distribution. A histogram looks like a bar chart but groups values for a continuous measure into ranges, or bins.

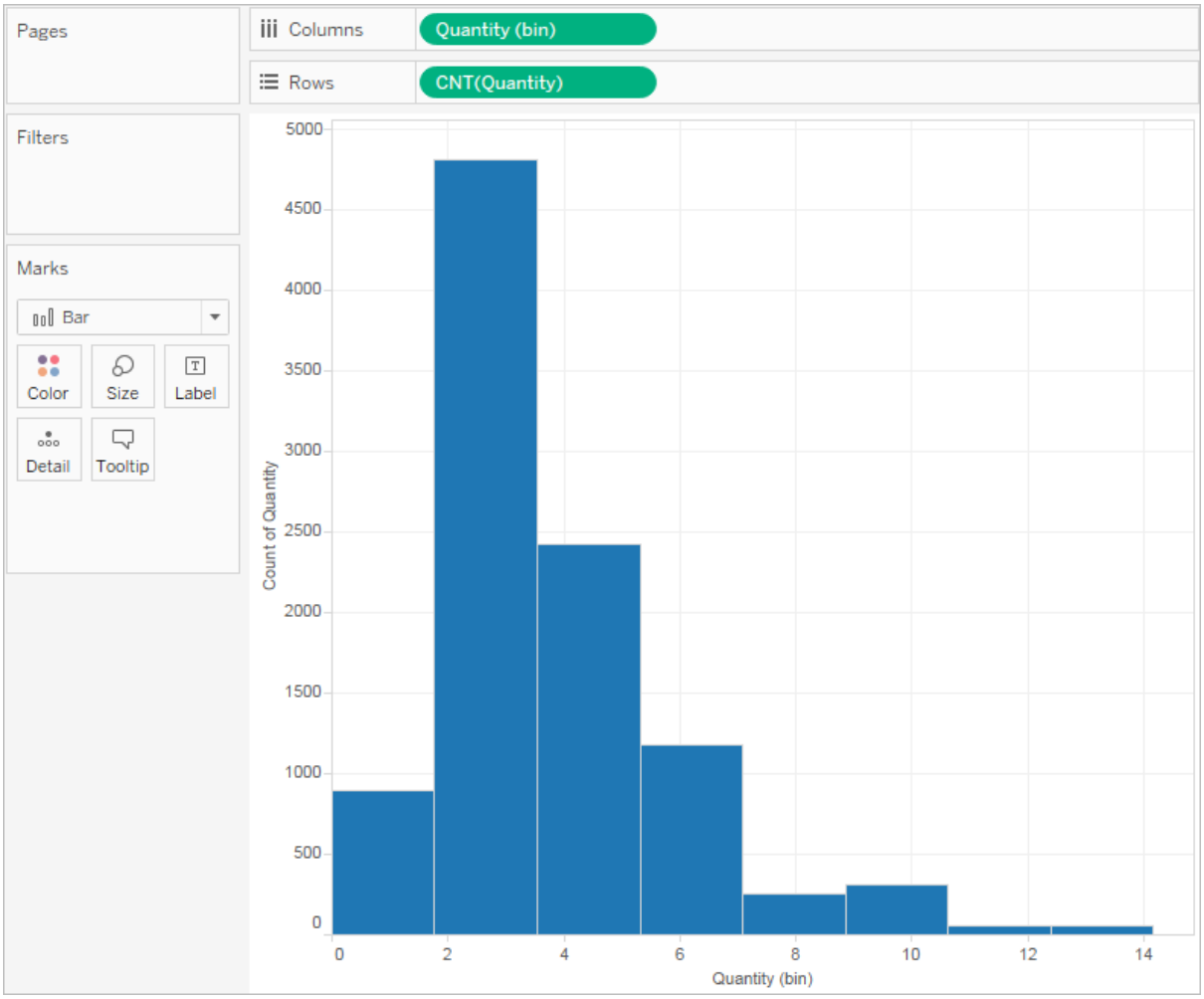
In Tableau you can create a histogram using **Show Me**.

1. Connect to the **Sample - Superstore** data source.
2. Drag **Quantity** to **Columns**.
3. Click **Show Me** on the toolbar, then select the histogram chart type.

The histogram chart type is available in **Show Me** when the view contains a single measure and no dimensions.

Three things happen after you click the histogram icon in **Show Me**:

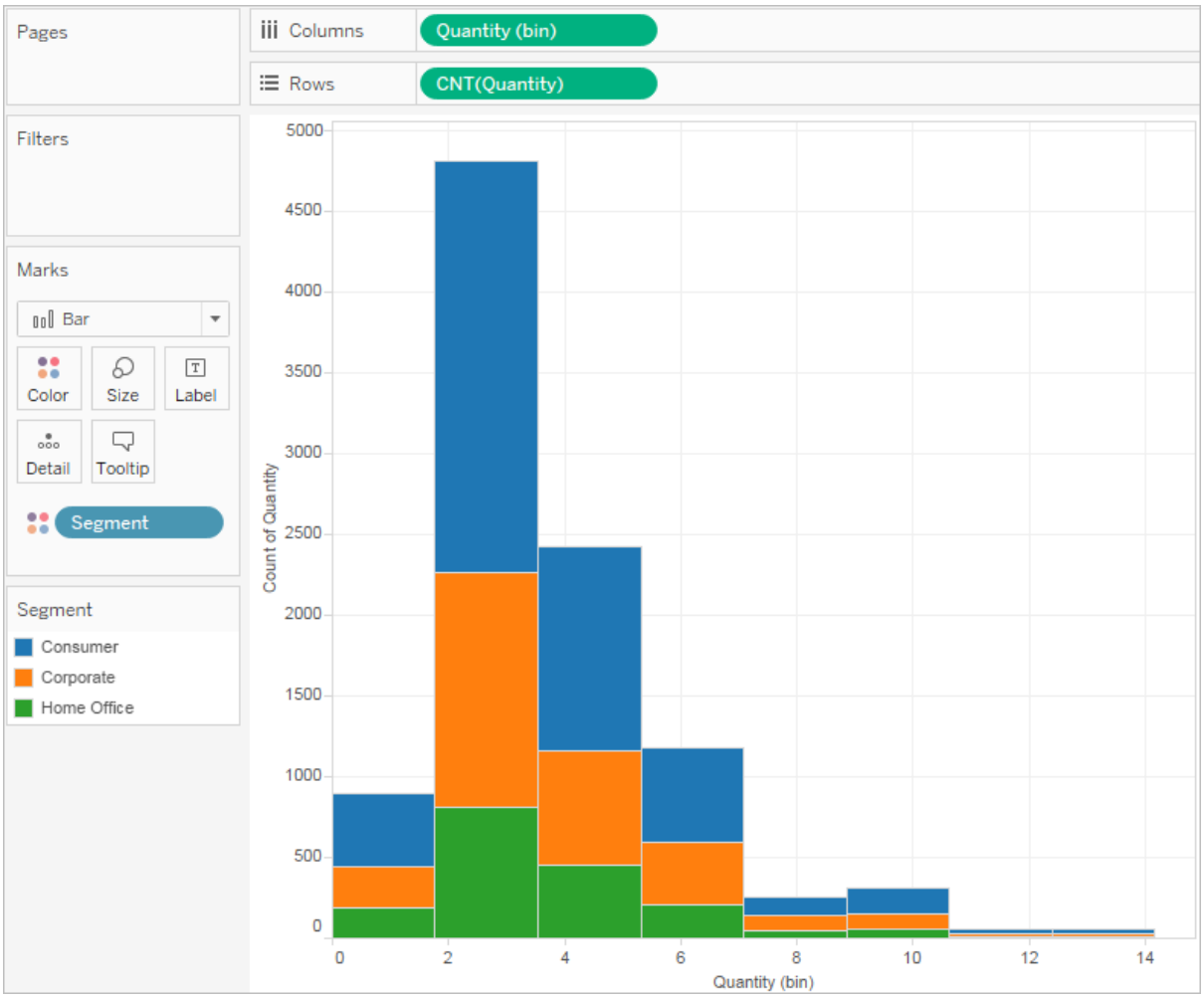
- The view changes to show vertical bars, with a continuous x-axis (1 – 14) and a continuous y-axis (0 – 5,000).
- The **Quantity** measure you placed on the **Columns** shelf, which had been aggregated as SUM, is replaced by a continuous **Quantity (bin)** dimension. (The green color of the field on the **Columns** shelf indicates that the field is continuous.)
- The **Quantity** measure moves to the **Rows** shelf and the aggregation changes from SUM to CNT (Count).



The **Quantity** measure captures the number of items in a particular order. The histogram shows that about 4,800 orders contained two items (the second bar), about 2,400 orders contained 4 items (the third bar), and so on.

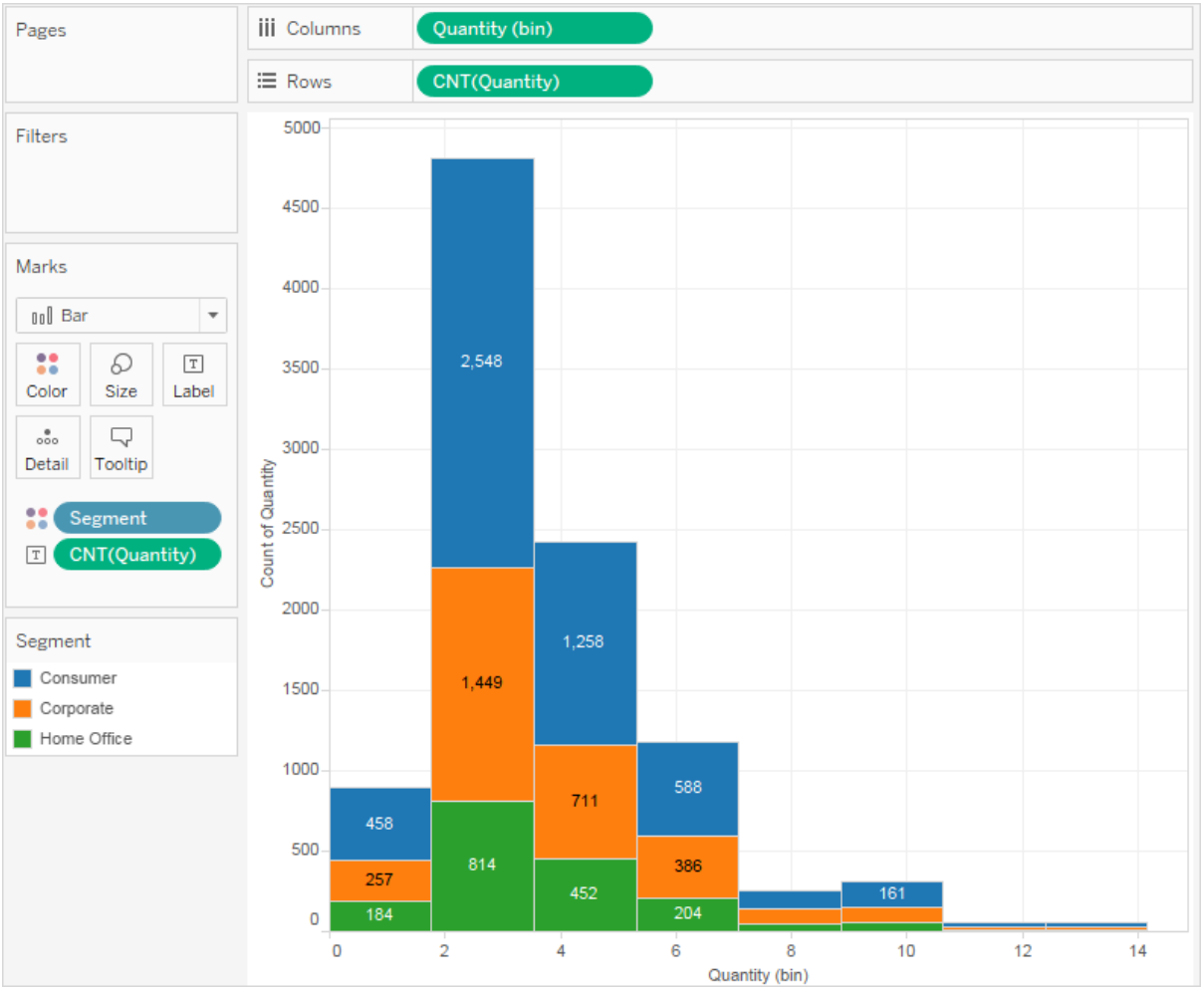
Let's take this view one step further and add **Segment** to **Color** to see if we can detect a relationship between the customer segment (consumer, corporate, or home office) and the quantity of items per order.

4. Drag **Segment** to **Color**.



The colors don't show a clear trend. Let's show the percentage of each bar that belongs to each segment.

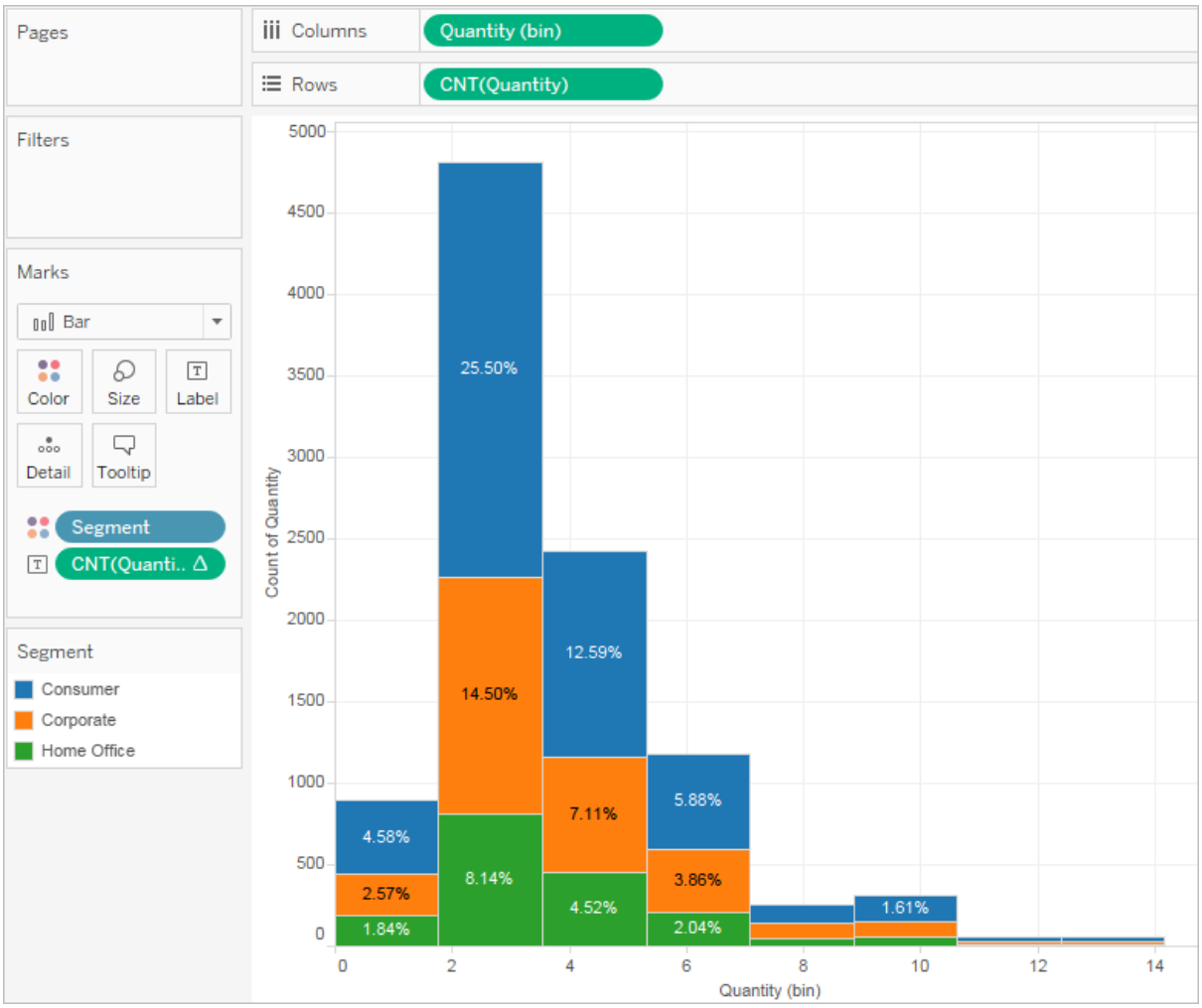
5. Hold down the Ctrl key and drag the **CNT(Quantity)** field from the **Rows** shelf to **Label**.



Holding down the Ctrl key copies the field to the new location without removing it from the original location.

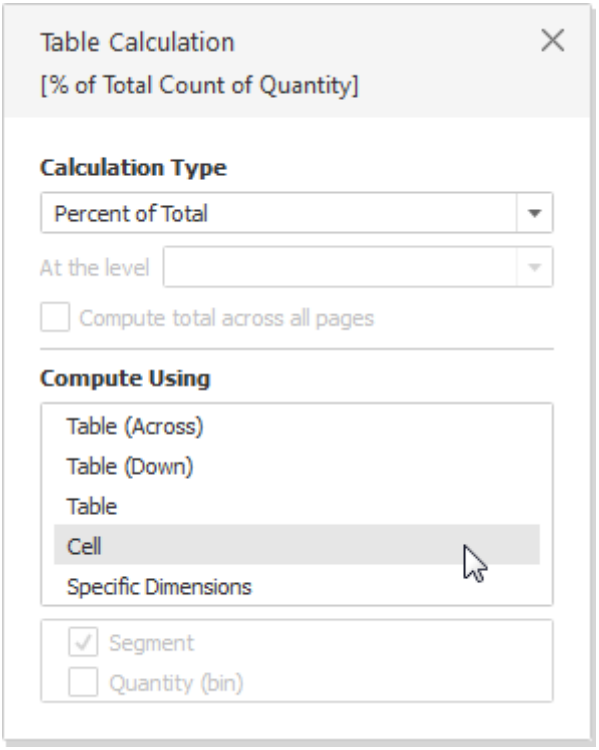
6. Right-click (Control-click on a Mac) the **CNT(Quantity)** field on the **Marks** card and select **Quick Table Calculation** > **Percent of Total**.

   Now each colored section of each bar shows its respective percentage of the total quantity:

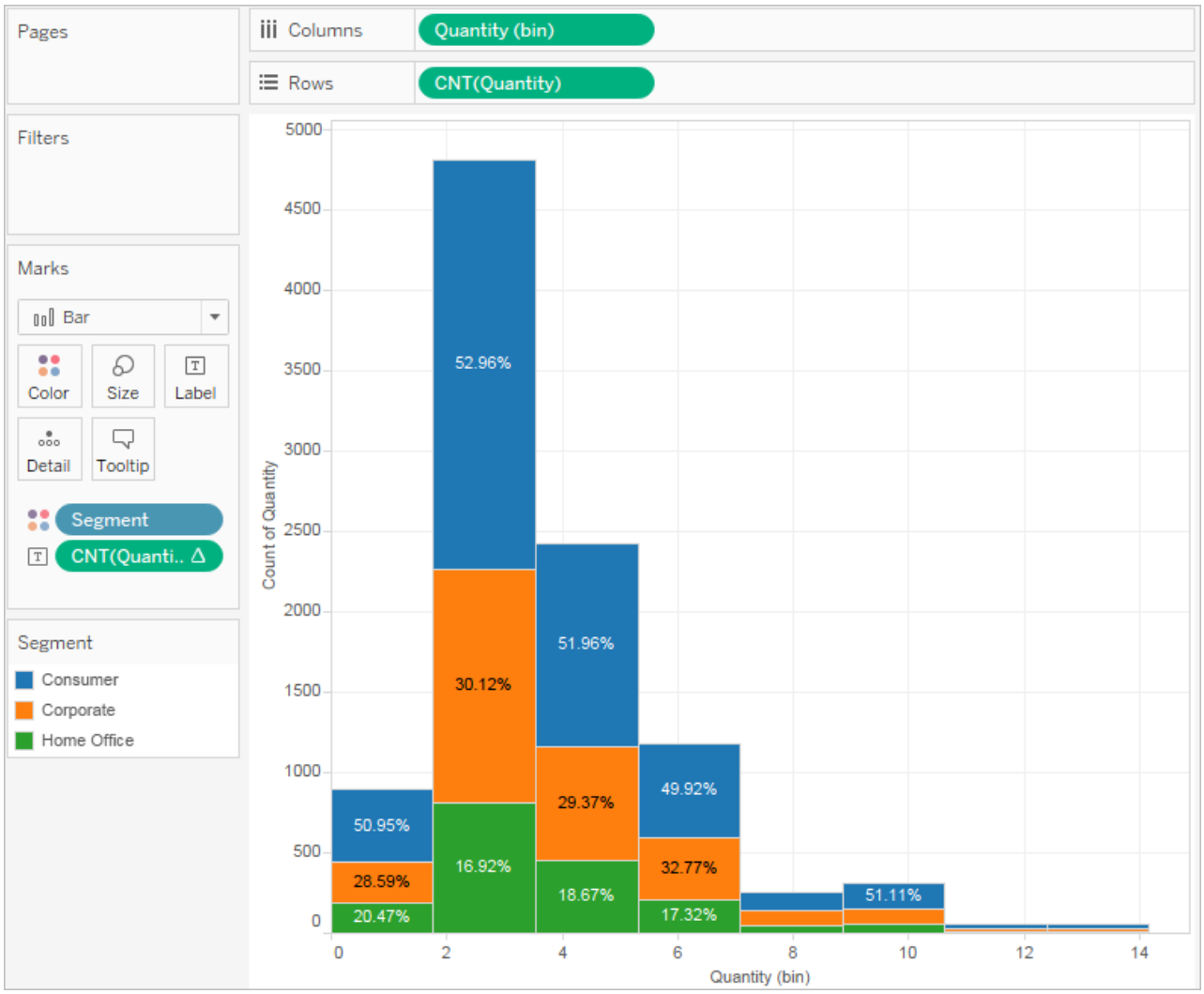


But we want the percentages to be on a per-bar basis.

7. Right-click the **CNT(Quantity)** field on the **Marks** card again and select **Edit Table Calculation**.
8. In the Table Calculation dialog box, change the value of the **Compute Using** field to **Cell**.



Now we have the view that we want:



There is still no evidence that the percentages by customer segment show any trend as the number of items in an order increases.

For information on how to create a binned dimension from a continuous measure, see Create Bins from a Continuous Measure. If you create a binned dimension, place it on **Columns**, and then place the initial measure that you used as the basis for the binned dimension on **Rows**. Set the aggregation to **Count (Distinct)** to create a histogram.