Filters
and
Calculated Fields.

Sleeper Ch. 11, 12

Agenda

1. Dimension Filters
2. Measure Filters
3. ‘Global’ Filters

4. Three Calculated Fields help answer our business question:

- How is the average order value (AOV) **for the product sub-categories we manage** compares to the rest of the company.

Filtering can serve a variety of purposes, including:

- minimizing the size of the data for efficiency purposes;
- cleaning up underlying data;
- removing irrelevant dimension members, and
- setting measure or date ranges for what you want to analyze.

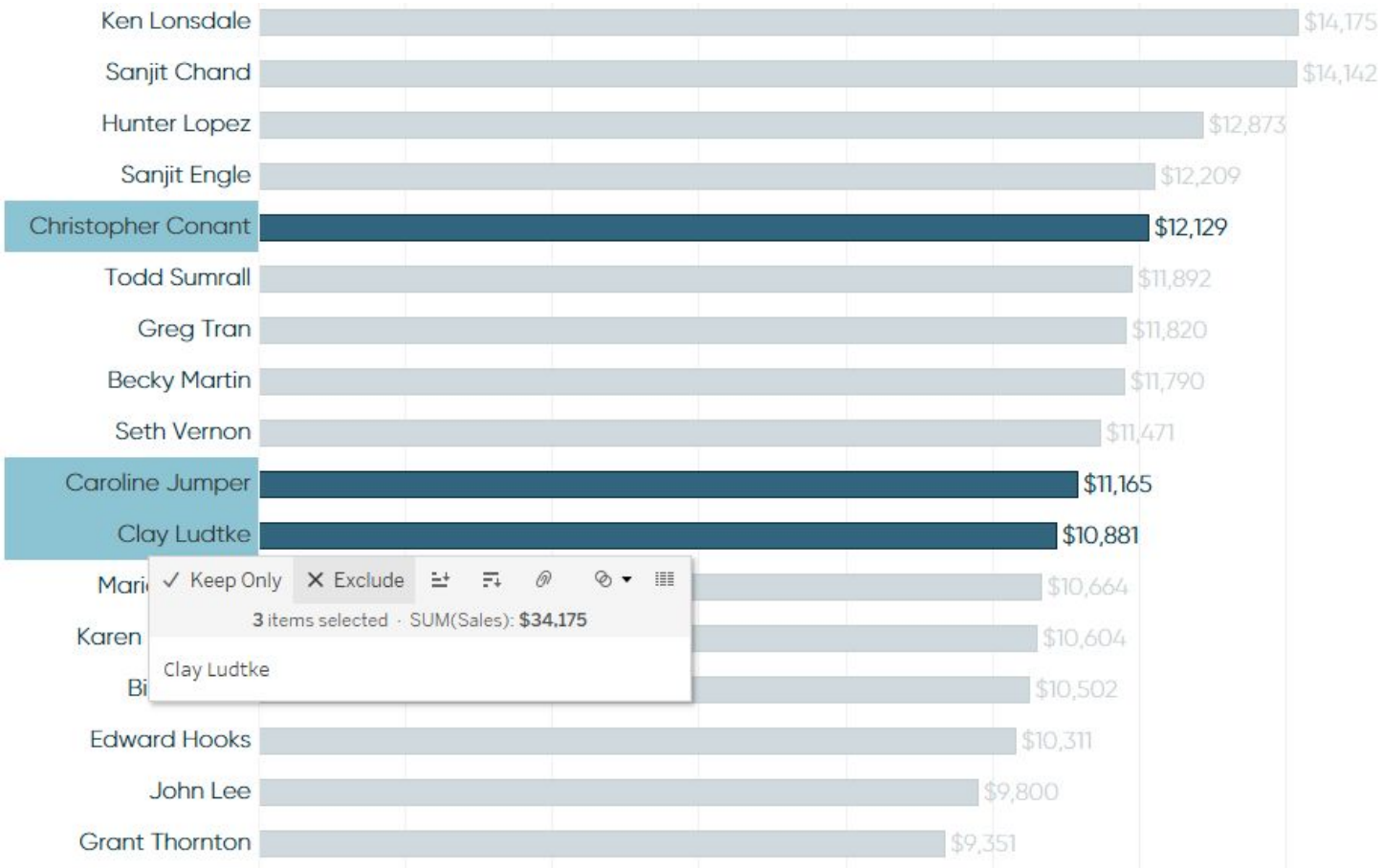
Dimension Filters - Option I

Create a Customer Sales Bar Chart:

- Columns: Sum(Sales)
- Rows: Customer Name

Sort Customer Names in Descending order by Sales:

To create a filter for the **Customer Name** dimension, select a bar(s), right-click and choose **Exclude** / **Keep Only** (see the screenshot on the next page)



https://learning.oreilly.com/library/view/practical-tableau/9781491977309/ch11.html

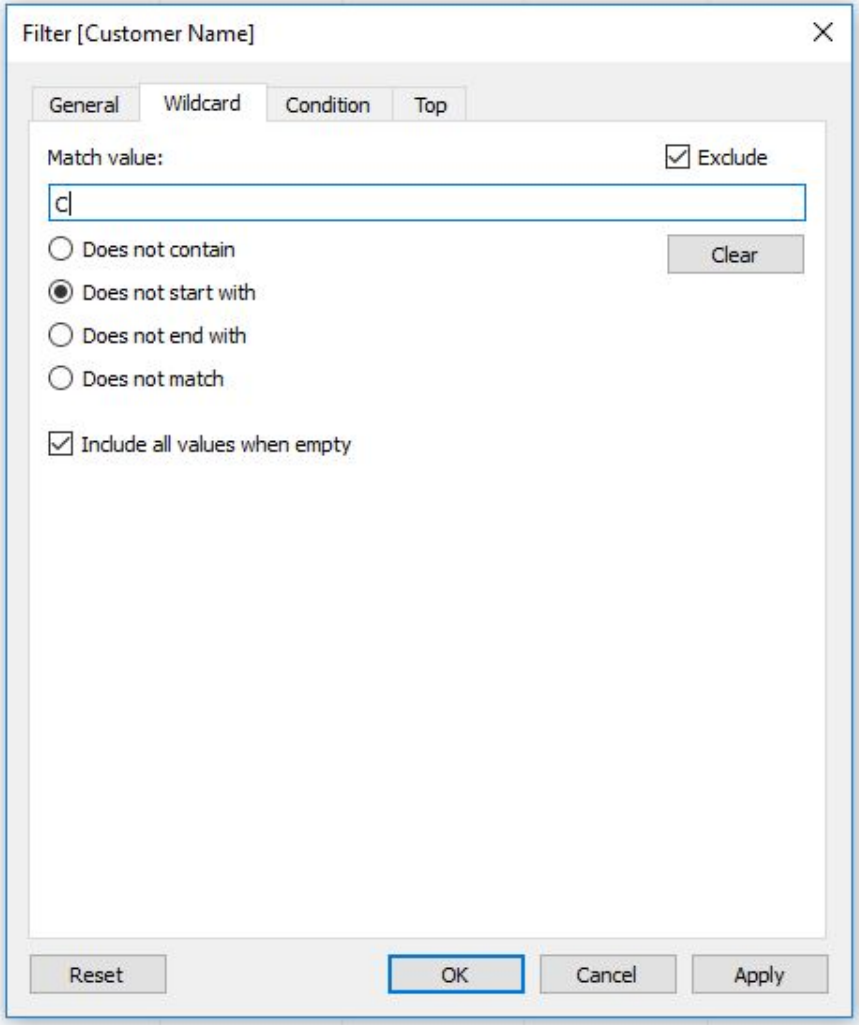
Dimension Filters - Option II

Click on a **Customer Name** dimension and drag it to the **Filters** shelf

Dimension Filter (cont)

Customer Name does not start with ***C***:

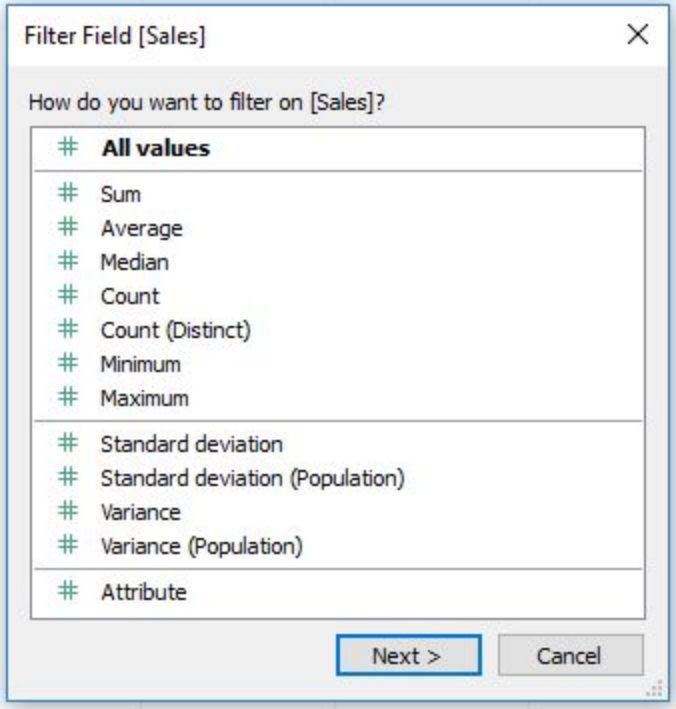
Each rule acts as an **AND** statement, meaning each dimension must meet **all of the criteria** to be included or excluded from the view.



Measure Filter - Option II

Select the **Sale** measure from the Measures area of the Data pane and drag it to the **Filters** shelf.

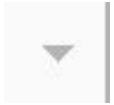
Next, select the criteria:



Dimension / Measure Filters - Option III

To see the filter on the upper right corner of the screen, right-click on the **Customer Name** dimension and select **Show Filter.**

You may change the filter appearance by clicking on the down arrow in the upper right corner of the filter being shown.



‘Global’ Filters - Two Options

Option I: apply filters to **one or more worksheets**:

- Right-click the filter pill on the **Filters** shelf > **Apply to Worksheets**

Option II: apply filters **to the entire datasource**:

- Click the **Data Source** tab of the authoring interface;
- **Add Filters** to the live data source or data extract in the top-right corner of the screen

Tableau Calculated Fields

If your underlying data doesn't include all of the fields you need to answer your questions, you can create new fields in Tableau using calculations and then save them as part of your data source. These fields are called c**alculated fields**.

Calculated fields can be used to create new dimensions (e.g. segments) or measures (e.g. ratios).

Calculated fields are used for various reasons: to segment data, to aggregate data and to calculate ratios.

In our next example, we will be evaluating the average order value (AOV) **for the product sub-categories we manage** compared to the rest of the company.

How to Create a Calculated Field

Click the down arrow in the upper-right corner of the Dimensions area of the Data pane and pick **Create Calculated Field**.

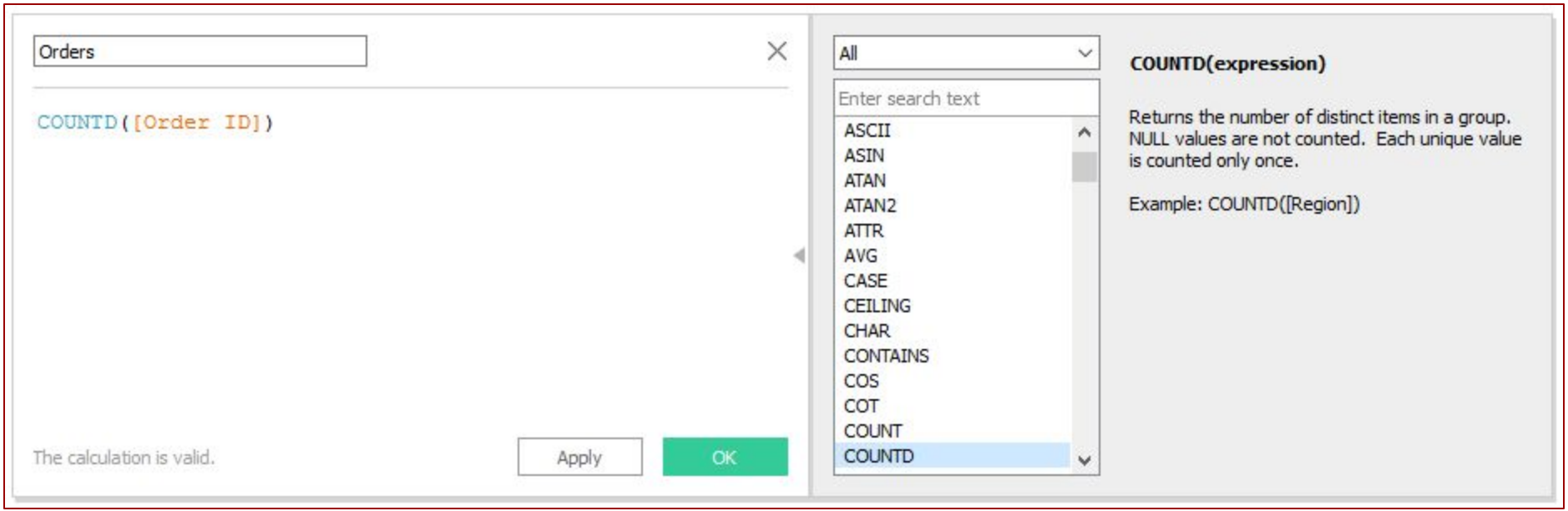
Right-click a blank space on the left sidebar and choose **Create Calculated Field**.

Click Analysis in the top navigation and choose **Create Calculated Field**.

Right-click one of the fields you want to use as part of your calculated field, hover over **Create**, and choose **Calculated Field**.

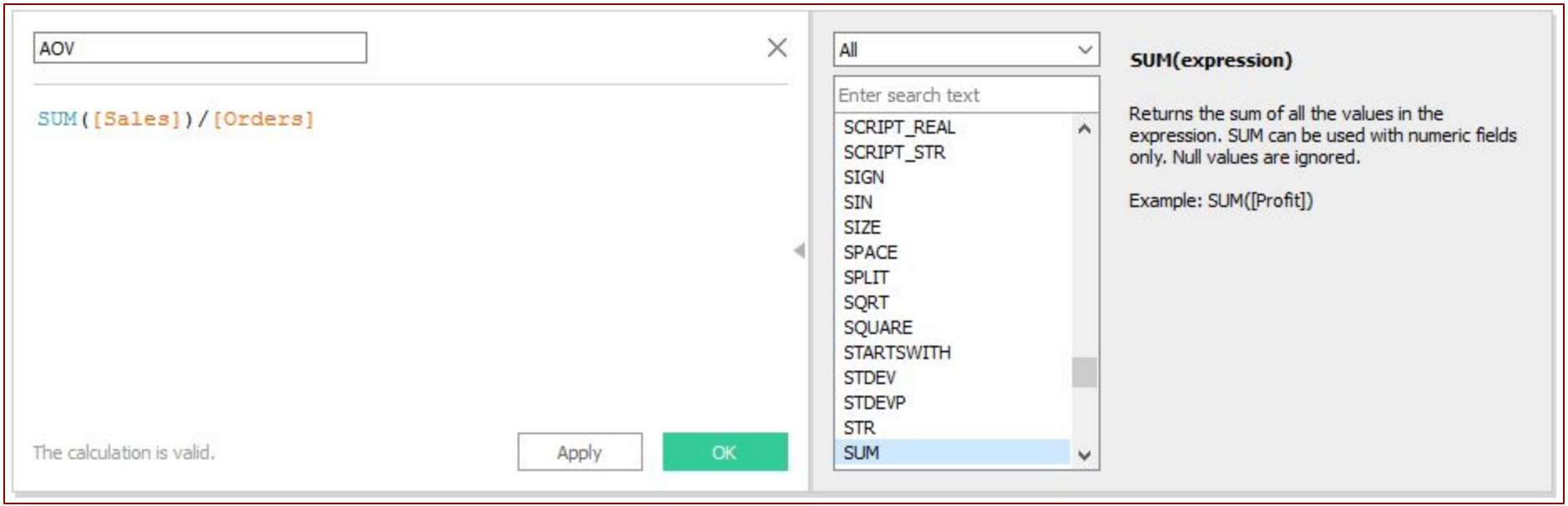
Create a Calculated Field

Orders returns the number of orders:



Create a Second Calculated Field

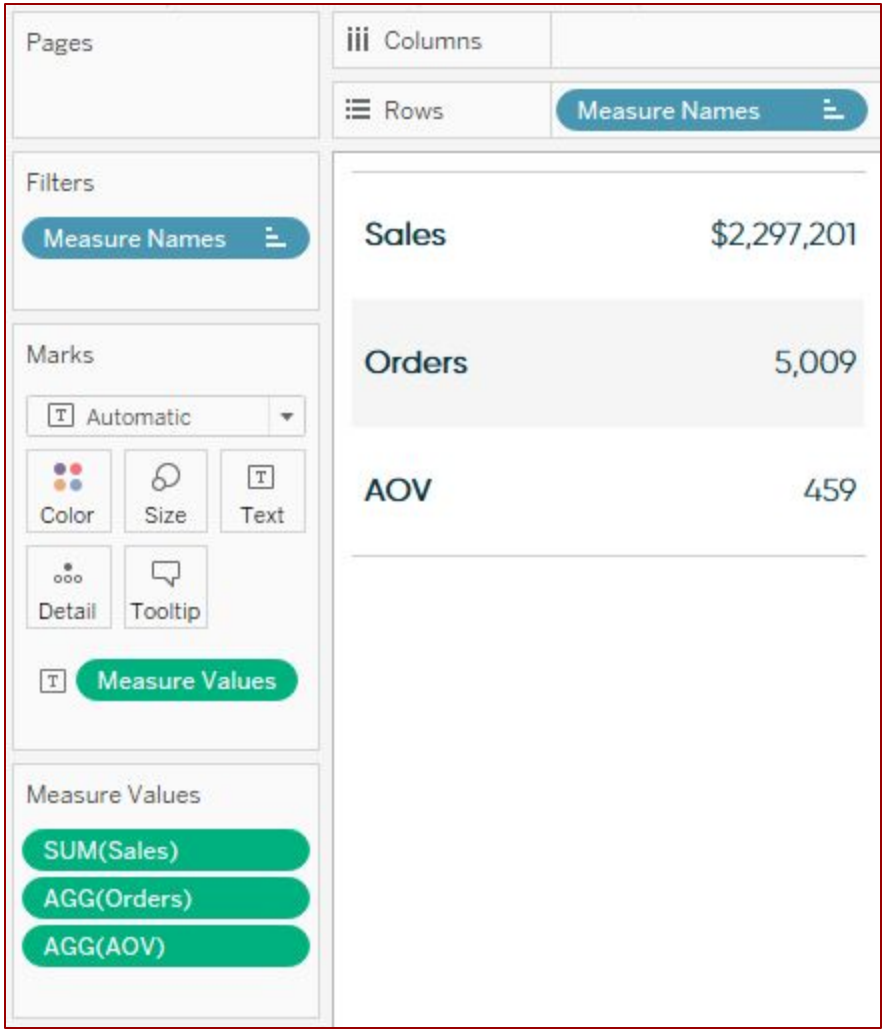
AOV is Average Order Value:



Let's Check

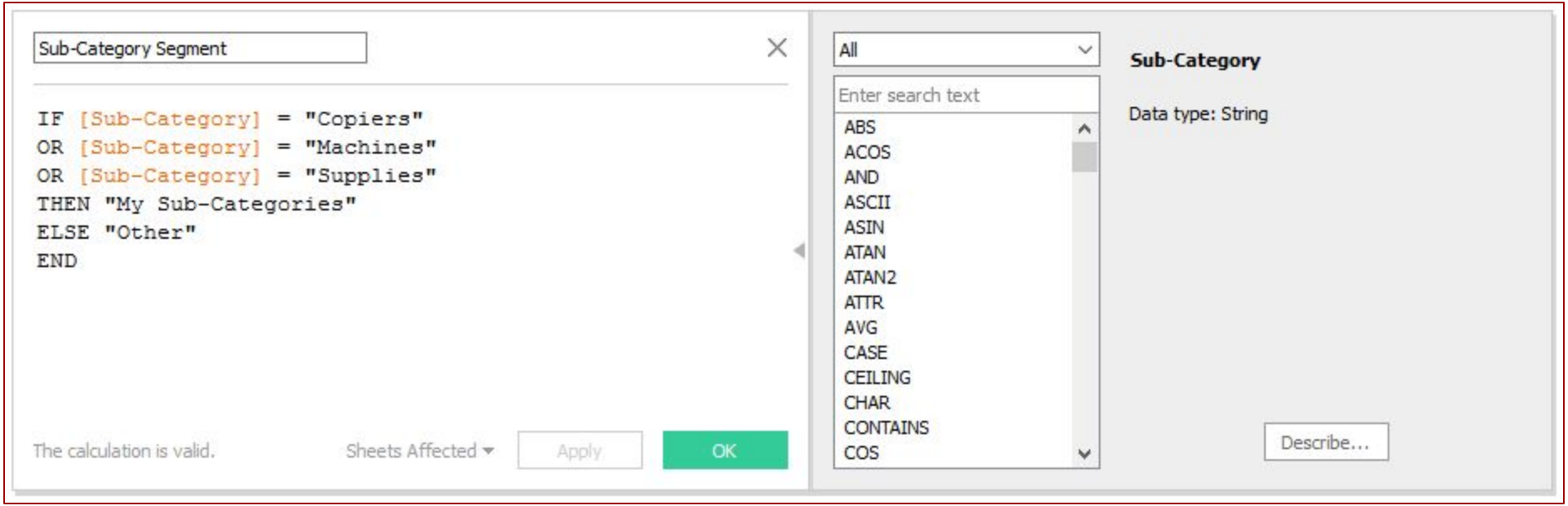
It looks like Tableau has calculated the correct answer: $2,297,201 in total sales divided by 5,009 total orders equals an average order value of $459.

Create this view by dragging **Measure Names** dimension to the **Rows** shelf and **Measure Values** to the **Text** Marks Card. You can then remove extra Measure Values pills from the shelf.



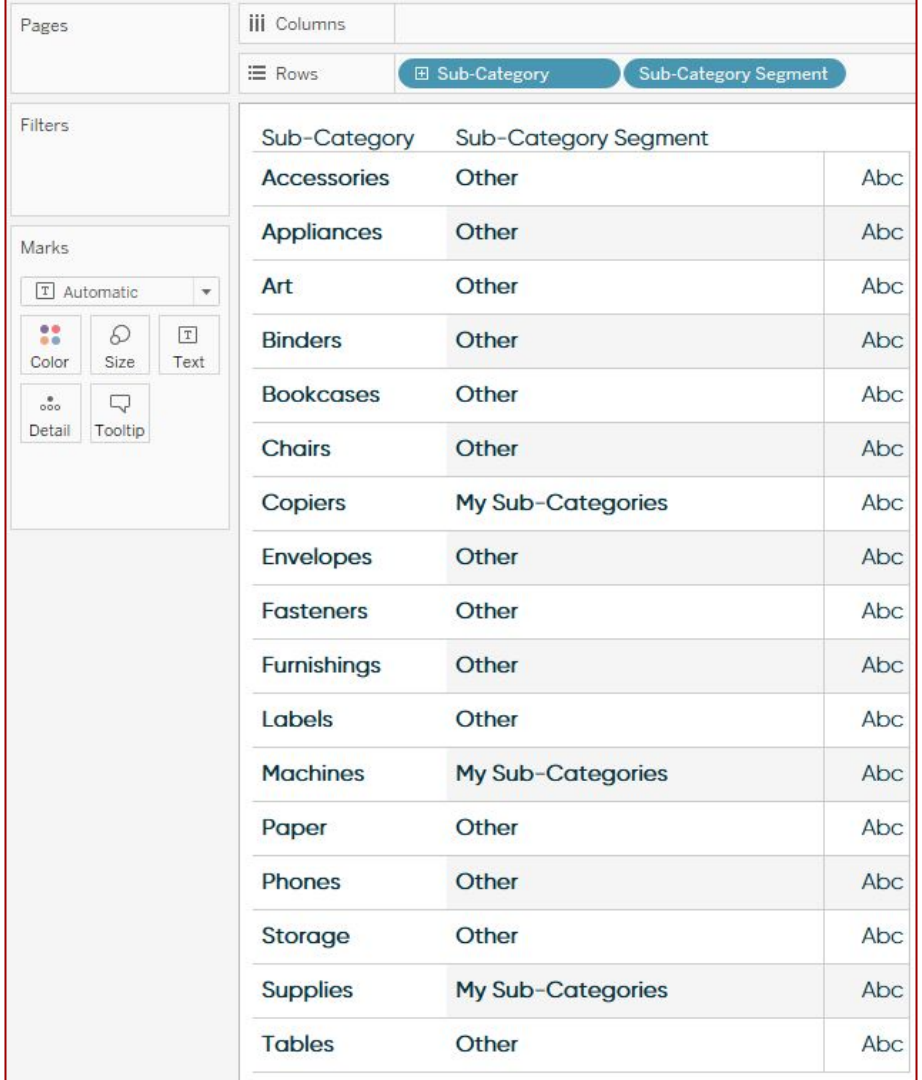
Create a Third Calculated Field

Create segmentation: one segment for the three sub-categories of interest and the other segment for every other sub-category.



Let's Check

Place the original dimension **Sub-Category** on the **Rows** shelf, followed by the newly created calculated field to make sure the dimension members are being properly calculated.



Answer to Our Question

We wanted to evaluate the average order value (AOV) **for the product sub-categories we manage** compared to the rest of the company.

Our AOV is doing well.