



How to Independently Conditionally Format Table Columns in Tableau

APRIL 25, 2017



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TABLEAU

When I first got started in digital marketing circa 2007, Hibox was still one of the many Web Analytics tools popular on the market and THE dominant analytic/reporting tool of the day. Fast forward 10 years and my how things have changed! Google & Adobe now dominate the analytics market while several new analytic reporting tools, including Tableau, have come onto the scene giving Excel a run for its money. For someone that cut my analytics teeth (and spent countless hours building reports) in Excel, these new reporting tools have come as not only a blessing, but also a challenge. As is the case with most change, making the transition to a new tool can also come with some challenges. For me, one of the biggest pain-points, when first getting started in Tableau, was trying to independently apply conditional formatting to my different measures in a summary table like this:

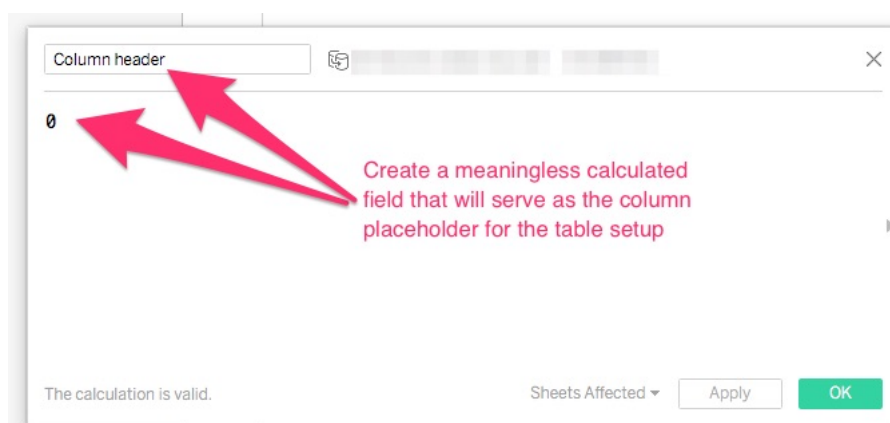
Channel	Sessions	Bounce Rate	Avg Pageviews	Avg Duration
Organic Search	255,701	32.6%	3.60	2.7
Direct	85,155	41.7%	3.15	2.4
Referral	31,067	41.4%	3.02	2.3
Social	8,518	36.6%	3.02	2.9
Self Referral	4,943	38.1%	3.32	3.1
Paid Search	23	52.2%	4.00	1.0
Email	279	76.7%	1.44	1.4
(Other)	23	56.5%	1.52	0.4
	385,709	35.5%	3.43	2.6

I personally use Summary tables in reporting quite often. I find it is a good way to visualize and compare relevant performance metric various segments of data (i.e. marketing channel, landing page, etc) all in one single chart. However, for Summary tables to be truly in reporting, it is often necessary to make certain data points “pop-out” using conditional formatting to highlight particularly meaningful is relatively easy and intuitive to accomplish in Excel but is actually quite difficult for the new user to figure out in Tableau. That is because conditionally formatting table views in Excel and Tableau are two very different processes. In Excel, you have the ability to independently format each and every cell within the spreadsheet view, while in Tableau the formatting functionality was built with a more “all or nothing” approach. Nevertheless, there is a workaround in Tableau using a dummy calculated metric and the Marks Card that will allow you to achieve similar conditional formatting capabilities to what is available in Excel.

So if you want to create a Summary table in Tableau that uses independent conditional formatting in each column, then today is your lucky day. Just follow these steps (and accompanying screenshots to help visually guide you through the process), and you’ll be well on your way to creating customized Summary tables that will wow your reporting stakeholders.

STEPS TO CREATING CONDITIONAL FORMATTING IN A SUMMARY TABLE

1. In your Tableau worksheet, first create a dummy calculated field that will be used as the base for each individual column in the table setup.



2. Start dragging the placeholder dummy calculated field to the Column shelf, adding a new pill for each column to be included in the table setup. Also, add any of the applicable segmenting dimensions in the table setup to the Row shelf, as well.

The screenshot displays the Tableau interface with the following components:

- Data Source:** Data Analytics
- Dimensions:** Channel, Channel Source, Date, Default Channel Grouping, firstOfMonth, Hostname, Landing Page Content Type..., Medium, Month, Monthly Report Filter, Source, Year, Measure Names.
- Measures:** calcMetrics1_Report Month, calcMetrics2_MoM, calcMetrics3_YoY, calcMetrics4_MetricFilter, rawMetrics (Avg Duration, Avg Pageviews, Bounce Rate, Bounces, Pageviews, Session Duration, Sessions), **Column header** (highlighted with a red box), Number of Records, Measure Values.
- Columns Shelf:** Columns
- Rows Shelf:** Rows
- Filters:** (Empty)
- Marks:** Automatic (Dropdown), Color, Size, Text, Detail, Tooltip.
- Worksheet View:** Sheet 2, Drop field here

A red arrow points from the 'Column header' pill in the Measures list to the Columns shelf.

Drag placeholder calculated field to the Columns shelf of the worksheet view, adding a new pill for each column of the table

This is what the Tableau worksheet should look like after you've added all the appropriate pills to the Columns & Rows shelves.

Dimensions

- Channel
- Channel Source
- Date
- Default Channel Grouping
- firstOfMonth
- Hostname
- Landing Page Content Typ...
- Landing Page Content T...
- Landing Page
- Medium
- Month
- Monthly Report Filter
- Source
- Year
- Measure Names

Measures

- calcMetrics1_Report Month
- calcMetrics2_MoM
- calcMetrics3_YoY
- calcMetrics4_MetricFilter
- rawMetrics
 - Avg Duration
 - Avg Pageviews
 - Bounce Rate
 - Bounces
 - Pageviews
 - Session Duration
 - Sessions
 - Column header

Columns Shelf: SUM(Column header) SUM(Column header) SUM(Column header) SUM(Column header)

Rows Shelf: Channel

Marks Shelf: SUM(Column header) SUM(Column header) (2) SUM(Column header) (3) SUM(Column header) (4)

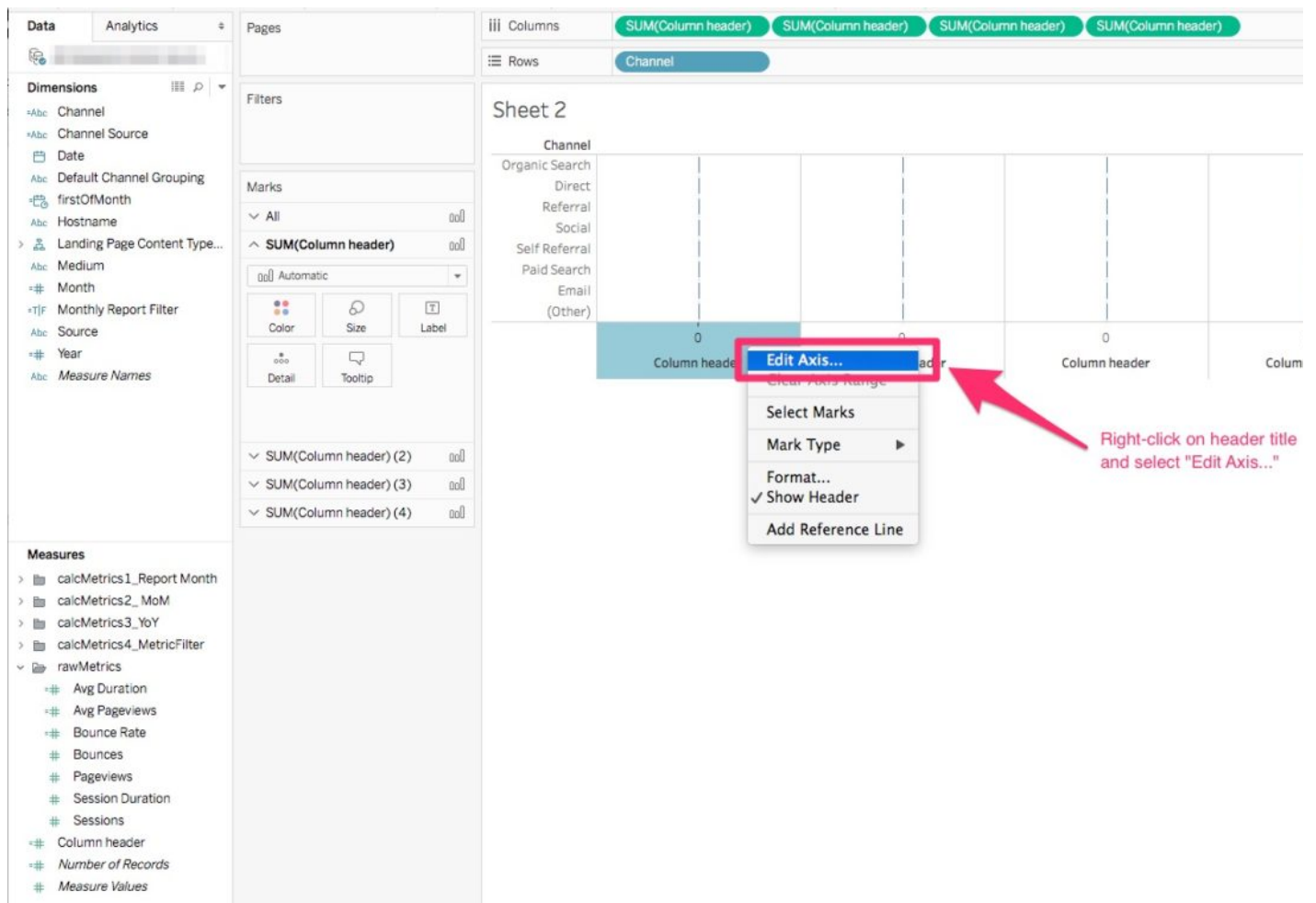
Table View:

Channel	Column header	Column header	Column header	Column header
Organic Search	0	0	0	0
Direct	0	0	0	0
Referral	0	0	0	0
Social	0	0	0	0
Self Referral	0	0	0	0
Paid Search	0	0	0	0
Email	0	0	0	0
(Other)	0	0	0	0

Annotations:

- Also add any segmenting dimensions in the table setup to the Rows shelf
- There should be separate placeholder p Columns shelf for each column in the tal
- There should be separate Marks Cards for each placeholder column in the table setup

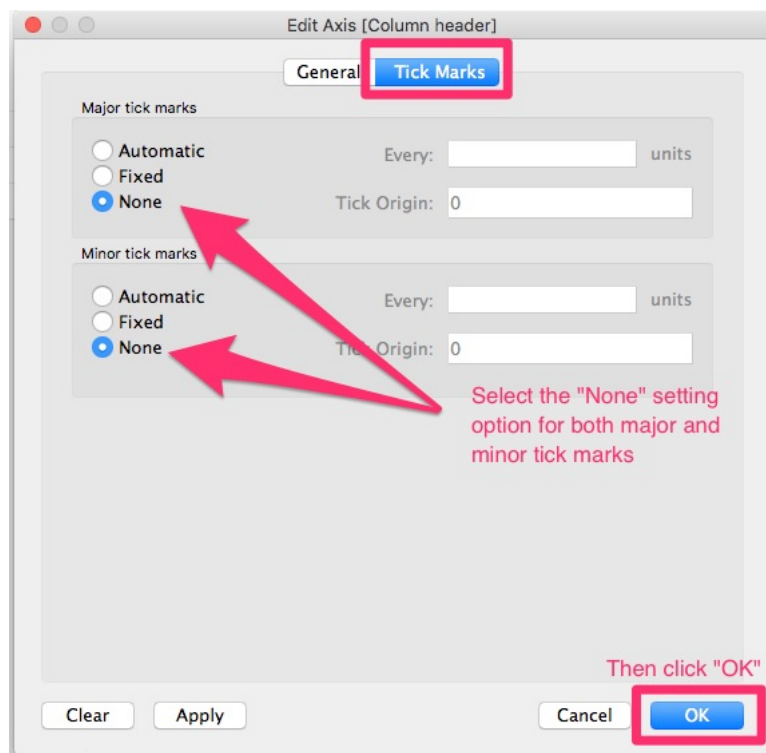
3. Right-click on a column header title and select “Edit Axis...”



- Once the Edit Axis pop-up screen appears, change the 'Title' field entry to give the column a reasonable label name.

The screenshot shows the 'Edit Axis [Column header]' dialog box. The 'General' tab is selected. Under the 'Range' section, 'Automatic' is selected, and 'Include zero' is checked. The 'Titles' section has the 'Title' field set to 'Sessions', which is highlighted with a red box and a red arrow. The 'Subtitle' field is empty, and 'Automatic' is checked for the subtitle. At the bottom, there are 'Clear', 'Apply', 'Cancel', and 'OK' buttons. A red arrow points to the 'Title' field with the text: 'Change the column header Title to give it a reasonable column name'.

- Then click over to the "Tick Marks" menu at the top of the pop-up screen, update tick mark settings to "None", and click "OK".



After updating the Axis settings for every column, your Tableau worksheet should now look something like this:

Sheet 2

Channel	Sessions	Bounce Rate	Avg Pageviews	Avg t
Organic Search				
Direct				
Referral				
Social				
Self Referral				
Paid Search				
Email				
(Other)				

- Update the "All" Marks Card to text format.

Data | Analytics | Pages

Columns | SUM(Column header) | SUM(Column header) | SUM(Column header) | SUM(Column header)

Rows | Channel

Dimensions

- Channel
- Channel Source
- Date
- Default Channel Grouping
- firstOfMonth
- Hostname
- Landing Page Content Type...
- Medium
- Month
- Monthly Report Filter
- Source
- Year
- Measure Names

Filters

Marks

^ All

Text

Automatic

Bar

Line

Area

Square

Circle

Shape

Text

Filled Map

Pie

Gantt Bar

Polygon

Measures

- calcMetrics1_Report Month
- calcMetrics2_MoM
- calcMetrics3_YoY
- calcMetrics4_MetricFilter
- rawMetrics
 - Avg Duration
 - Avg Pageviews
 - Bounce Rate
 - Bounces
 - Pageviews
 - Session Duration
 - Sessions
 - Column header
 - Number of Records
 - Measure Values

Sheet 2

Channel				
Organic Search	Abc	Abc	Abc	A
Direct	Abc	Abc	Abc	A
Referral	Abc	Abc	Abc	A
Social	Abc	Abc	Abc	A
Self Referral	Abc	Abc	Abc	A
Paid Search	Abc	Abc	Abc	A
Email	Abc	Abc	Abc	A
(Other)	Abc	Abc	Abc	A
	Sessions	Bounce Rate	Avg Pageviews	Avg D

Selecting the "Text" format in the drop-down menu of the All Marks card updates all the columns in the table setup to a text format

7. Add the appropriate metric to the corresponding Text & Color marks in the Marks Card for each column in the table setup. Note: in this example, I'm using the same metric for the Text & Color marks for the sake of simplicity. However, you can also choose to create separate calculated field(s) to control the Color formatting for each column.

The screenshot shows the Tableau Desktop interface. On the left, the 'Dimensions' pane lists various fields like Channel, Channel Source, Date, etc. The 'Measures' pane at the bottom left lists metrics like Avg Duration, Avg Pageviews, Bounce Rate, etc. The 'Marks' card in the center has 'Color' and 'Text' marks. The 'Columns' shelf at the top has four 'SUM(Column header)' pills. The 'Rows' shelf has a 'Channel' pill. The main view shows 'Sheet 2' with a table of data. The table has columns for Channel, Sessions, Bounce Rate, Avg Pageviews, and Avg Duration. The 'Sessions' column is highlighted in green. Red arrows point from the 'Sessions' measure in the Measures list to the 'Color' and 'Text' marks in the Marks card.

Dimensions

- Channel
- Channel Source
- Date
- Default Channel Grouping
- firstOfMonth
- Hostname
- Landing Page Content Typ...
- Landing Page Content T...
- Landing Page
- Medium
- Month
- Monthly Report Filter
- Source
- Year
- Measure Names

Measures

- calcMetrics1_Report Month
- calcMetrics2_MoM
- calcMetrics3_YoY
- calcMetrics4_MetricFilter
- rawMetrics
 - Avg Duration
 - Avg Pageviews
 - Bounce Rate
 - Bounces
 - Pageviews
 - Session Duration
 - Sessions**
 - Column header
 - Number of Records

Marks

- All
- SUM(Column header)
- Color
- Size
- Text
- Tooltip

Columns

- SUM(Column header)
- SUM(Column header)
- SUM(Column header)
- SUM(Column header)

Rows

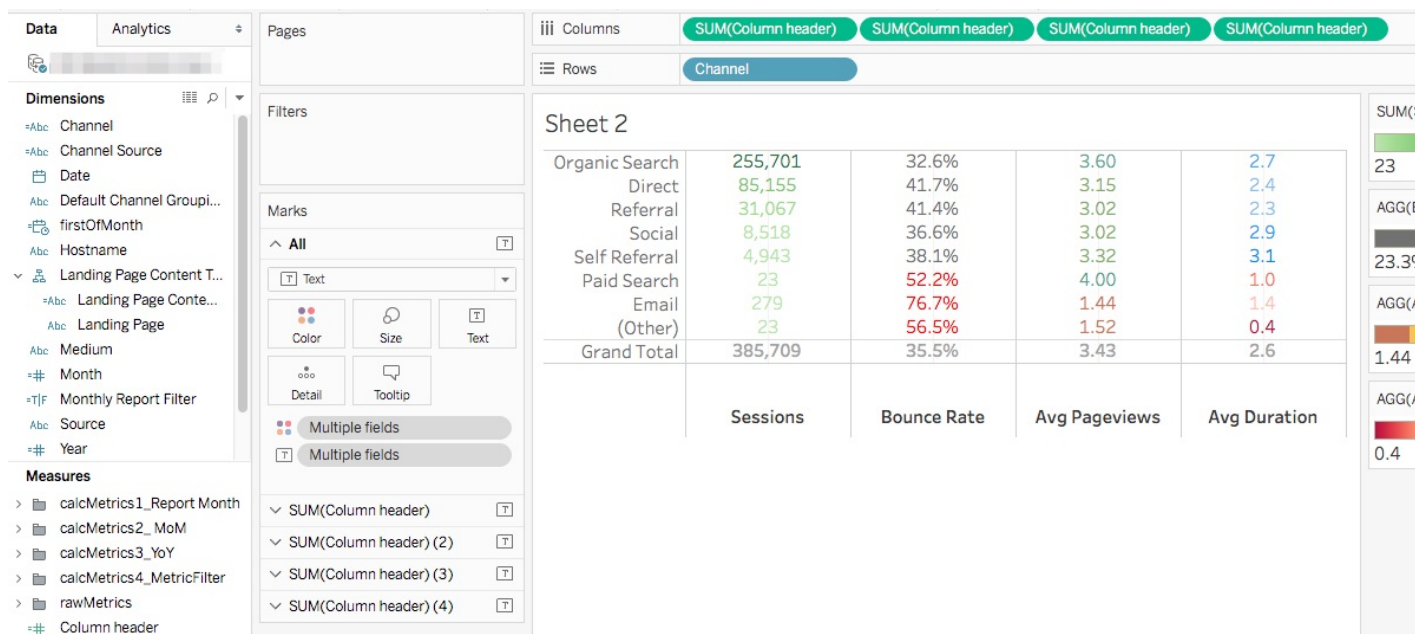
- Channel

Sheet 2

Channel	Sessions	Bounce Rate	Avg Pageviews	Avg D
Organic Search	Abc	Abc	Abc	
Direct	Abc	Abc	Abc	
Referral	Abc	Abc	Abc	
Social	Abc	Abc	Abc	
Self Referral	Abc	Abc	Abc	
Paid Search	Abc	Abc	Abc	
Email	Abc	Abc	Abc	
(Other)	Abc	Abc	Abc	

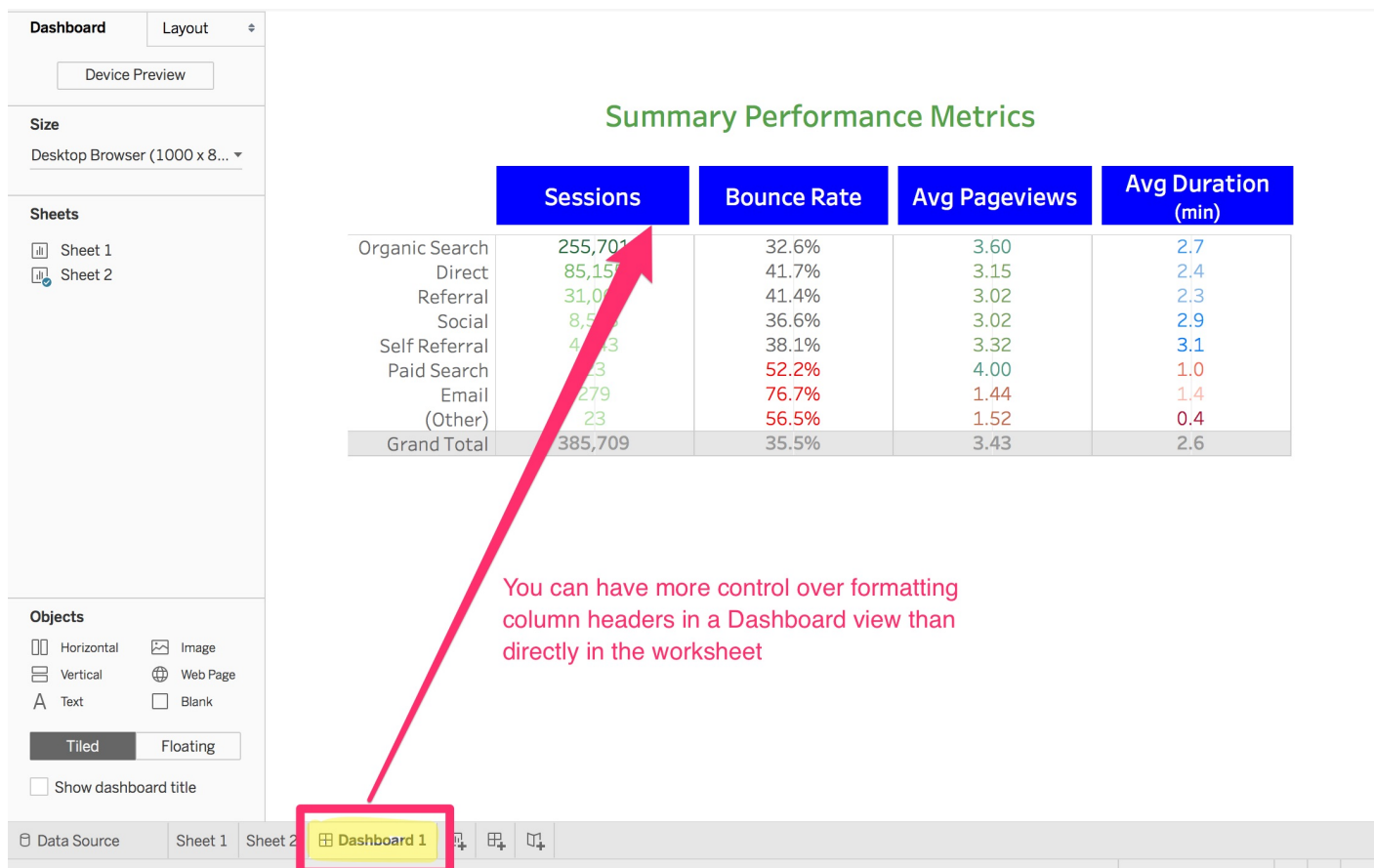
Your Worksheet should now look something like this with the only single-column displaying the metric and color pills you added to the Marks Card.

9. Repeat the previous two steps for all columns in the table set up in which you desire to apply conditional formatting, and your table now look something like this:



At this point, you've essentially recreated the above Excel summary table in Tableau. Great job!

However, if you are a stickler for formatting like I am, you too might be (excessively?) bothered by the positioning of the column labels at the bottom of the table rather than at the top, as is typically the standard. Tableau's default positioning here would be great if we were doing charts, but it is not so wonderful for displaying column labels for a table! So if you are similarly annoyed by this tool quirk, you can uncheck the "Show Header" setting by right-clicking in the header and then manually adding the column labels in your Dashboard view to give you far more control over formatting those particular visual elements.



And if you made it this far, I hope you found this tutorial helpful. I've created a [sample dashboard file](#) for you to download and interact with. Happy reporting! 😊

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