

Customize dimensions and measures in Looker Studio

So far, you've learned that a data model is a concept for organizing data elements and how they relate to one another. Data models can be represented visually to show how data is structured and how different data relates to each other. These visual representations rely on data attributes, including dimensions and measures. Dimensions are the properties of data tables, and measures are any calculated fields in your data tables. In this reading, you'll learn how to customize properties and create calculated fields in Looker Studio.

Data attributes

You've learned about two types of data attributes: dimensions and measures. When modeling data, you'll work with both of these attributes to create visual representations of it. Dimensions provide you with the framework for data organization, and measures allow you to combine data or create calculations to draw conclusions.

Review these attributes:

Attribute	Definition	Example
Dimension	Unique attributes of the data that help you to describe data	In a table about local restaurants, dimensions include column listing name, cuisine, address, phone number, and hours of operation.
Measures	Aggregations, like count or average, of one or more dimensions	In a table about local restaurants, calculating the total number of pizza restaurants is a measure.

Customizing properties and calculated fields

Working with data allows for customization that makes your data and reports easier to read and reference. When customizing properties or dimensions, you can create descriptive and clear names for your data columns. When working with measures, you can create customized calculations that enhance your data analysis, and create connections between your data.

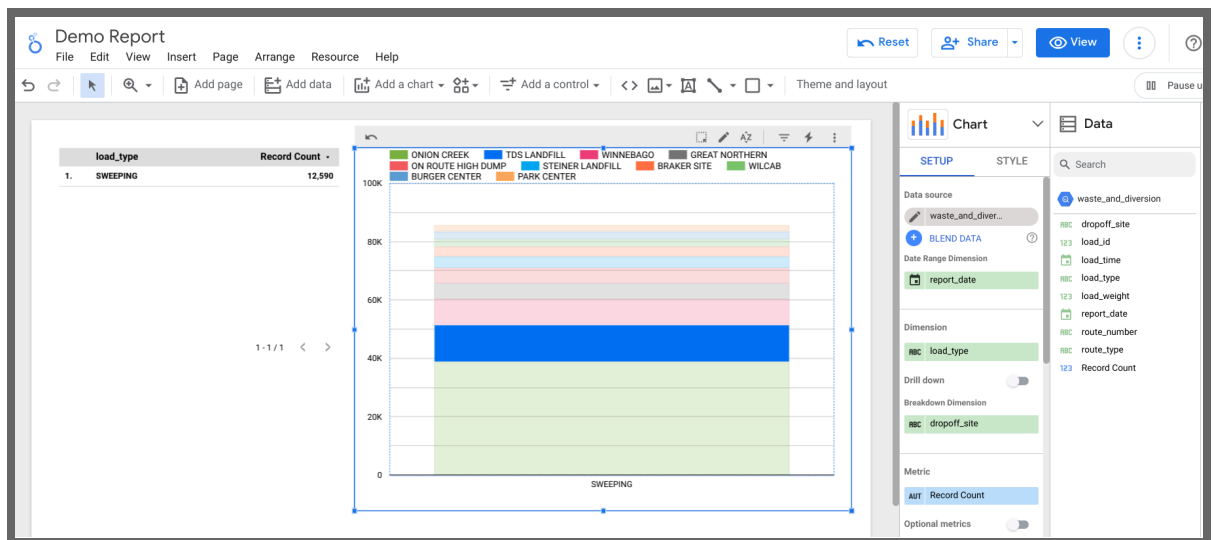
Looker Studio is one tool that can assist with modeling data. You can edit dimensions and create measures in Looker Studio to create the graphics you need.

Consider a waste management company. As an analyst for the company, you need to create a chart that shows the number of routes and drop-off sites that are used for waste disposal in a city. To do this, you need to add the `dropoff_site` dimension to your dashboard.

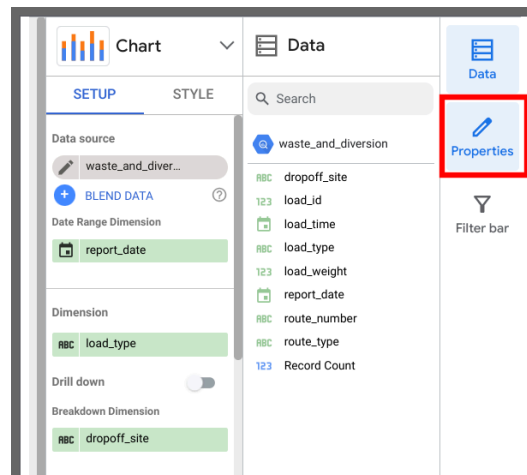
Edit dimensions

To edit dimensions, follow these steps:

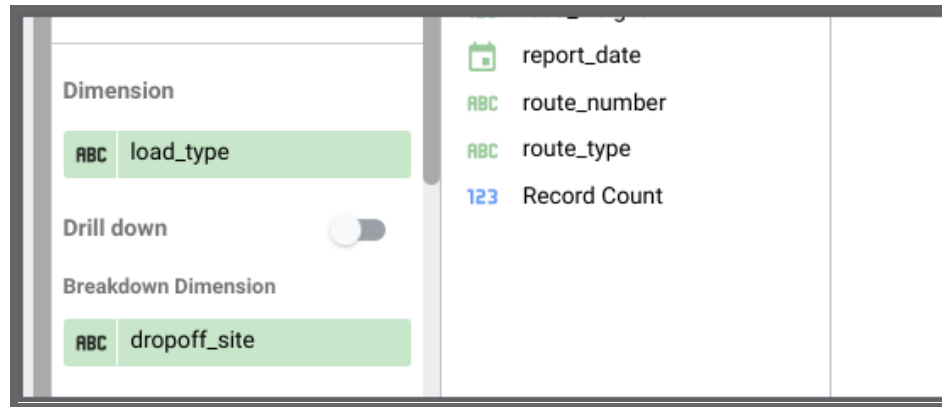
1. Select the graph you're working on in Looker Studio.



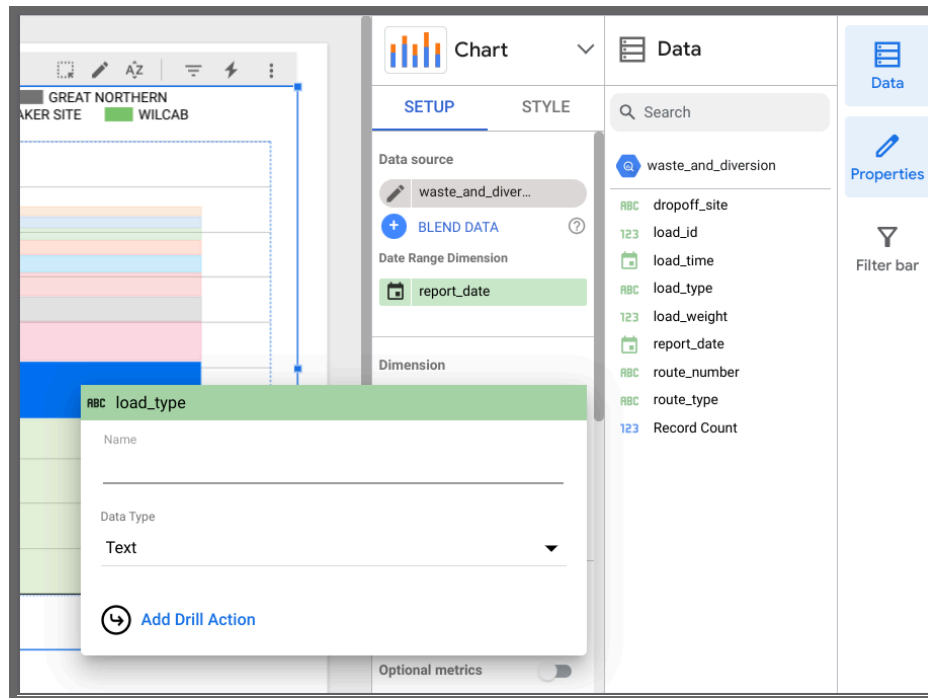
2. Click the Properties icon on the right side.



3. Drag any data from the Data column into the Dimension field.



4. Hover over the ABC option to click the pen icon to change the Dimension attributes.



Editing the dimension allows you to change the data that's featured in the graph. Within the dimension, you can also change the label of the dimension and the type of data. For example, Text, Numeric, or Date & Time.

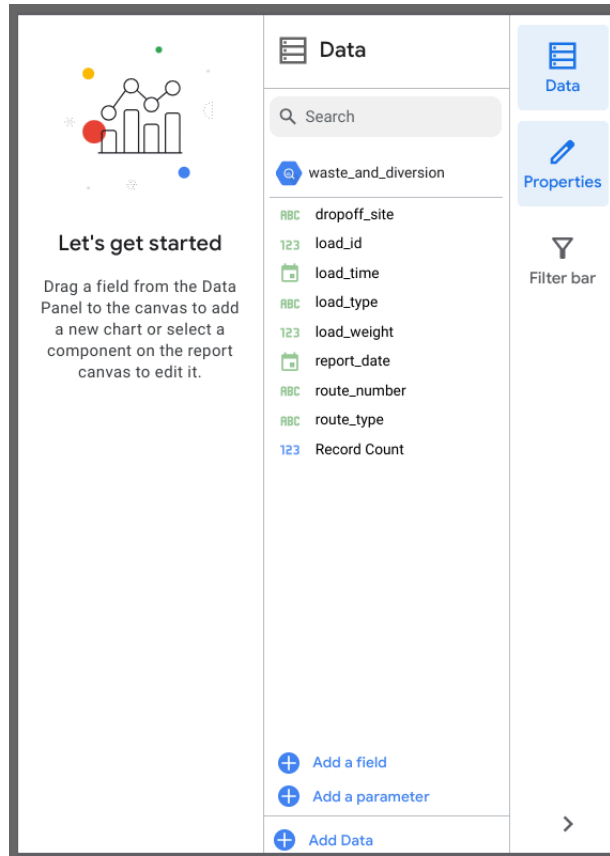
Create measures in calculated fields

You now have drop-off sites and can add those to the number of routes. If you want to add a total count, you can create a formula and add together two or more fields. You can create a

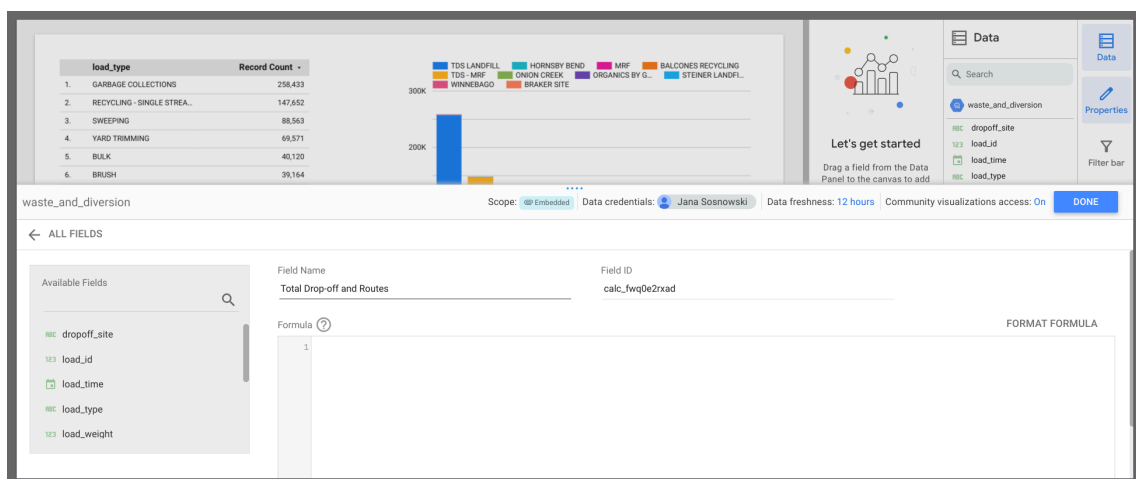
count of several fields and add them together using the `COUNT()` function. Then, you can add together the number of routes and the number of drop-off sites.

To create this measure:

1. Click Add a field in the Data column.



2. Enter a name in the Field Name area.



3. In the Formula section, add the `COUNT() + COUNT()` to include both `dropoff_site` and `route_number`.

Note: You need to add the `COUNT` function to let the formula know to count the total number of entries in each dataset.

The screenshot shows the Google Cloud Data Studio interface. At the top, there's a table titled 'load_type' with columns 'load_type' and 'Record Count'. The table lists six categories: GARBAGE COLLECTIONS (258,433), RECYCLING - SINGLE STREA... (147,652), SWEEPING (88,563), YARD TRIMMING (49,571), BULK (40,120), and BRUSH (39,164). To the right of the table is a bar chart. Below the table, there's a section titled 'waste_and_diversion' with a scope of 'Embedded', data credentials for 'Jana Sosnowski', and a data freshness of '12 hours'. The 'Formula' section is active, showing the formula `COUNT(dropoff_site) + COUNT(route_number)`. The 'Available Fields' list on the left includes `dropoff_site`, `load_id`, `load_time`, `load_type`, and `load_weight`. The 'Data' panel on the right shows the 'waste_and_diversion' dataset with fields `dropoff_site`, `load_id`, `load_time`, `load_type`, `load_weight`, `report_date`, `route_number`, `route_type`, and `Record Count`. The 'Total Drop-off and Routes' measure is highlighted.

4. Once you save the formula, it'll appear as a new measure in your Data column.

The screenshot shows the Google Cloud Data Studio interface. The 'Data' panel on the right now includes the 'Total Drop-off and Routes' measure, which is highlighted in blue. The 'Formula' section is still active, showing the formula `COUNT(dropoff_site) + COUNT(route_number)`. The 'Available Fields' list on the left remains the same. The 'Data' panel on the right shows the 'waste_and_diversion' dataset with fields `dropoff_site`, `load_id`, `load_time`, `load_type`, `load_weight`, `report_date`, `route_number`, `route_type`, and `Record Count`. The 'Total Drop-off and Routes' measure is highlighted, and a button labeled 'Total Drop-off and Routes' is visible below it.

Once you've created a measure, you can use the value in your dashboard, and represent it using graphs.

Key takeaways

Data modeling provides visual evidence of the relationships between data. When modeling data, you'll often work with dimensions and measures to customize the properties of your data, and create customized calculations. Tools like Looker Studio can help you to model your data and customize it for presentation.

Resources for more information

Editing dimensions and creating measures are just a couple of ways that you can modify Looker Studio dashboards. Review Looker's documentation to learn other options for editing:

- Looker Studio Help provides a "How to" guide with basic tutorials for creating Looker dashboards:

https://support.google.com/looker-studio/answer/12270349?hl=en&sjid=16569620455421975990-NA&visit_id=638334277554178016-2938313717&ref_topic=12141289&rd=1