



Get Connected. Get Help.™

Welcome!

January 2025
Deeper Dive into Looker
Training

JOURNEY 100 TO



Agenda

1. Looker Best Practices Reminder
2. Custom Screen Fields
3. Custom Dimensions
4. Custom Measures
5. Table Calculations
6. Visualizations

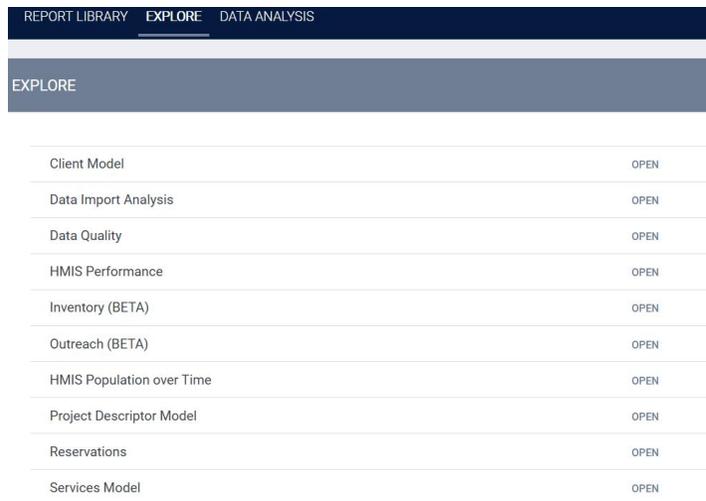
Training materials and recording will be available on the [OC HMIS website](#).

Looker Best Practices



Looker Best Practices for ...

Looker Models



The screenshot shows the Looker interface with the 'EXPLORE' tab selected. Below the navigation bar, there is a list of models with their status:

Model Name	Status
Client Model	OPEN
Data Import Analysis	OPEN
Data Quality	OPEN
HMIS Performance	OPEN
Inventory (BETA)	OPEN
Outreach (BETA)	OPEN
HMIS Population over Time	OPEN
Project Descriptor Model	OPEN
Reservations	OPEN
Services Model	OPEN

HMIS Performance

- Best choice for most report
- Clients must have an enrollment to appear

Client Model

- Includes deleted

Use with Caution

not available in
HMIS Model

Services Model

- Gives you access to data about services provided

Project Descriptor

- Gives you information about your project setup, bed inventory, and staff

Looker Best Practices for ...

Creating Looks

- Keep Looks simple. Use available dimensions and measures as much as possible.
- Use table calculations as much as you want.
- Don't use more than 30 fields in your Look.
- Remove non-critical dimensions or measures.
- Apply filters to limit data.
- Select fields according to the screen where the data is collected.
- Use pivots strategically, and avoid over-using.
- Don't use the word "date" or "time" in a dimension group name.
- Please do not save over Looks you did not create or that were created by the HMIS Team.

Custom Screen Fields



Custom Screen Fields

- Custom Questions in a program enrollment, assessment, or exit screen are called custom screen fields.
- Use the [Custom Field Request Form](#) to request any new fields for your screens.

OC CUSTOM QUESTIONS		
What city were you in immediately prior to entry into this project?	Santa Ana	▼
What state were you born in?	CA - California	▼
What country were you born in?	United States	▼
Employment Status	Unemployed	▼

Custom Screen Fields

- **Custom Screen fields** are located in the following Looker views:
 - Program Enrollment Screen fields are published to the **Entry Custom** view.
 - Assessments Screen are published to the **Client Assessment Custom** view.
 - Program Exit Screen fields are published to the **Update/Exit Custom** view.

The screenshot displays the Looker interface for the 'Entry Custom' view. On the left sidebar, the 'Entry Custom' view is selected. The main area shows a filter for 'Enrollments Reporting Period' set to 'is in the last 1 quarters' and another filter for 'Programs Full Name' set to 'is A Springfield Agency - Springfield Homeless Shelter'. Below the filters, there is a 'Visualization' section and a 'Data' tab. The data table shows the following columns: 'Programs Full Name', 'Clients Unique Identifier', 'Entry Custom What city were you in immediately prior to entry into this project?', 'Entry Custom What state were you born in?', 'Entry Custom What country were you born in?', and 'Entry Custom Employment Status'. The table contains 13 rows of data.

	Programs Full Name	Clients Unique Identifier	Entry Custom What city were you in immediately prior to entry into this project?	Entry Custom What state were you born in?	Entry Custom What country were you born in?	Entry Custom Employment Status
7	A Springfield Agency - Springfield Homeless Shelter	888B83466	Data not collected	AR - Arkansas		0
8	A Springfield Agency - Springfield Homeless Shelter	8E94FB0F2	Client prefers not to answer	Client prefers not to answer		0
9	A Springfield Agency - Springfield Homeless Shelter	9247972CA	Client doesn't know	Client doesn't know		0
10	A Springfield Agency - Springfield Homeless Shelter	28E5955C0	Client doesn't know	KS - Kansas		0
11	A Springfield Agency - Springfield Homeless Shelter	89434BFA9	Client doesn't know	ID - Idaho		0
12	A Springfield Agency - Springfield Homeless Shelter	FBC58BE7B	Santa Ana	CA - California	US	0
13	A Springfield Agency - Springfield Homeless Shelter	AC96884DB	Santa Ana	CA - California	US	0

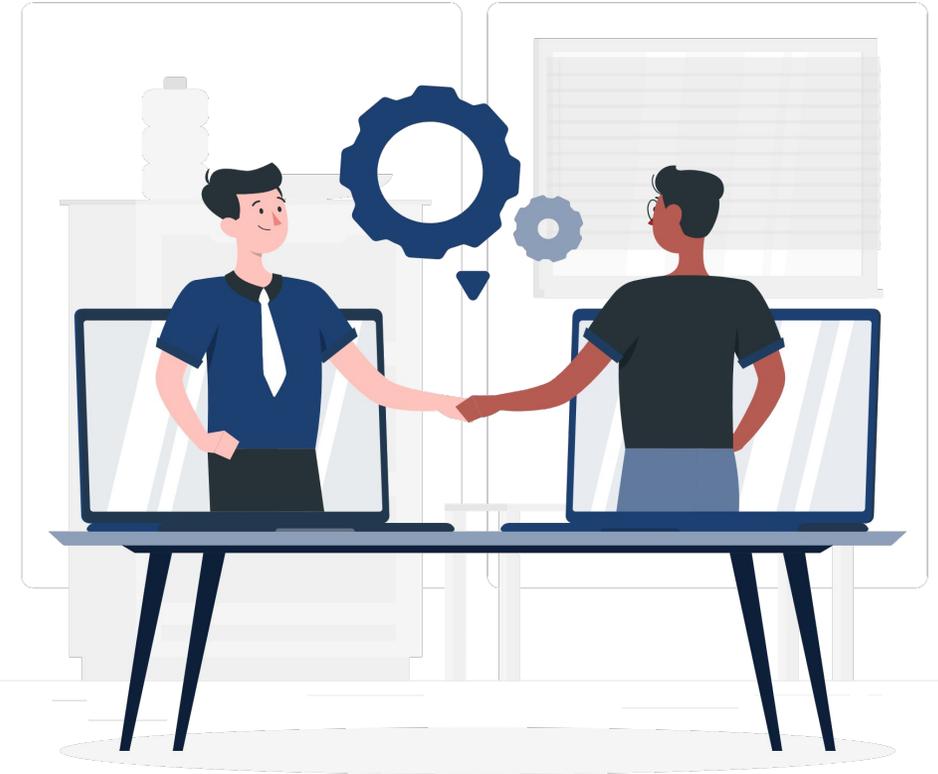
Custom Dimensions



Custom Dimensions

- Custom dimensions allow you to create new ad hoc fields for your reports.
- Dimensions may be several different data types, such as:
 - strings (text)
 - numbers
 - dates
 - Boolean values

* NOTE: These fields may only be used within the report you are creating.



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Custom Dimensions

- You may create a custom dimension based on
 - an existing field (grouping)
 - a Looker expression (If statements, Case statements, or simple text or numerical assignments)
- Dimensions may be aggregated (e.g. sum, avg. etc.) or non-aggregated.



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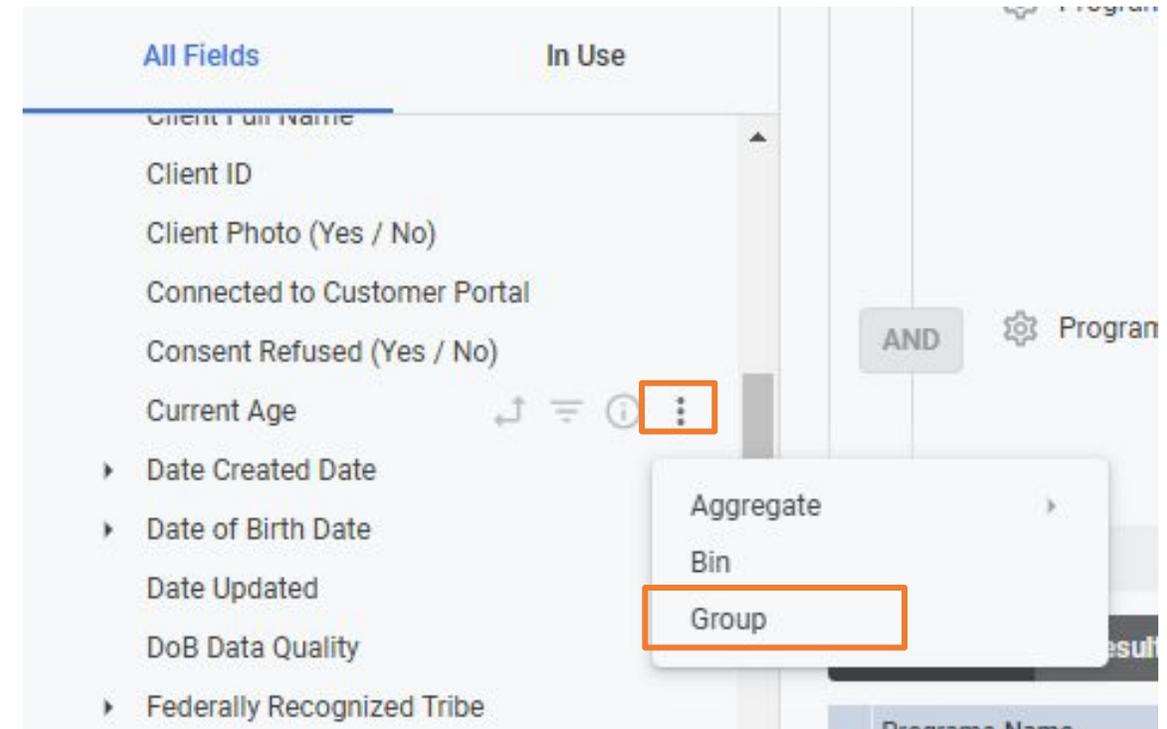
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Creating Custom Dimensions with Groupings

Step 1: Locate the field in the field pane.

Step 2: Click on the 3 dots to display the dropdown menu.

Step 3: Click on “Group”.



Creating Custom Dimensions

Step 4: Create a name for your dimension.

Step 5: Enter a group name in the “Group Name” box.

Step 6: Enter a group value in the “Group value” box.

Group By Current Age

Define the criteria for each group. Each value will be included in the first group it matches.

Group Name Group value − +

Group remaining values

Field name

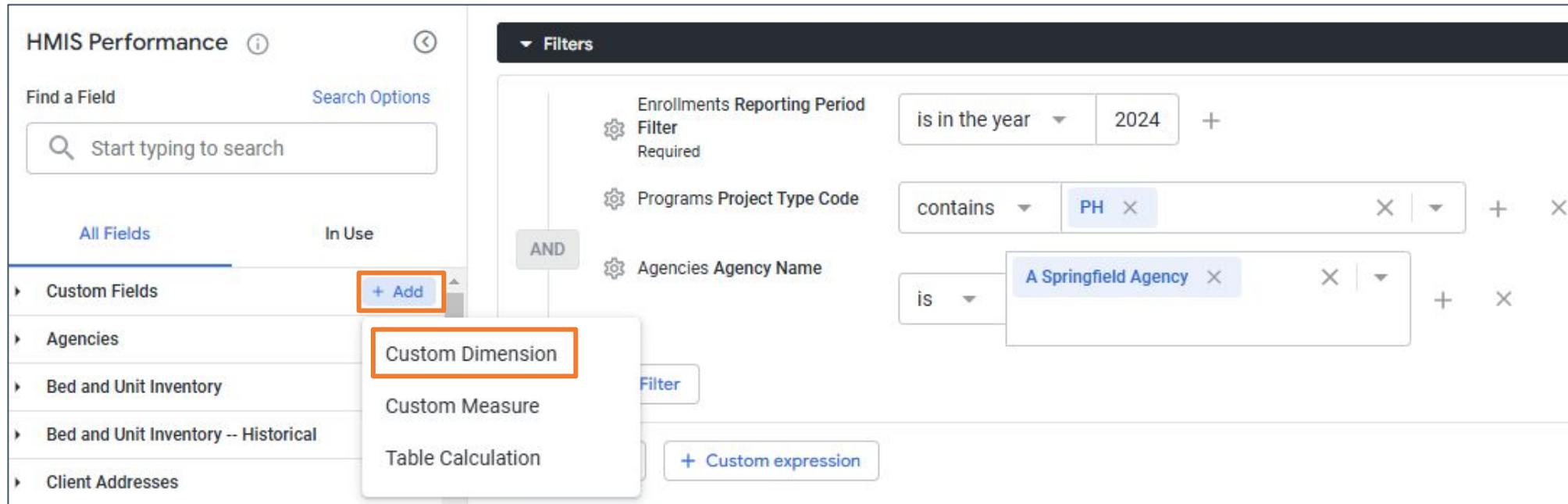
[+ Add description](#)

Cancel Save

Creating Custom Dimensions with Expressions

Step 1: Locate the “Custom Fields” view and click on the “+ Add” button to reveal the dropdown menu.

Step 2: Select “Custom Dimension”.



Creating Custom Dimensions

Step 3: Create a name for your dimension.

Step 4: Enter criteria in the “Expression” box.

Create custom dimension

Expression

```
1 concat($users.first_name, " ", $users.last_name)
```

As you type, assistance for writing correct expressions will appear here. Keyboard only users: Press Shift and Escape to escape text editor.

Format
Default formatting

Name *

[+ Add description](#)

Cancel **Save**

HMIS Performance ⓘ ⏪

Find a Field Search Options

All Fields In Use

Unique Identifier

Enrollments

Reporting Period Filter ⌵

Entry Custom

- Employment Status
- What city were you in immediately p...
- What country were you born in?
- What state were you born in?

Programs

▼ Filters

⚙️

Enrollments Reporting Period Filter Required

is in the last ▼ 1 quarters ▼ +

AND

⚙️

Programs Full Name

is ▼ A Springfield Agency - Spri... × × ▼ + ×

▶ Visualization

▼ Data Results SQL Add calculation
Row Limit 500 ■ Totals ■ Subtotal

	Programs Full Name ↑ ⚙️	Clients Unique Identifier ⚙️	Entry Custom What city were you in immediately prior to entry into this project? ⚙️	Entry Custom What state were you born in? ⚙️	Entry Custom What country were you born in? ⚙️	Entry Custom Employment Status ⚙️
7	A Springfield Agency - Springfield Homeless Shelter	888B83466	Data not collected	AR - Arkansas		∅
8	A Springfield Agency - Springfield Homeless Shelter	8E94FB0F2	Client prefers not to answer	Client prefers not to answer		∅
9	A Springfield Agency - Springfield Homeless Shelter	9247972CA	Client doesn't know	Client doesn't know		∅
10	A Springfield Agency - Springfield Homeless Shelter	28E5955C0	Client doesn't know	KS - Kansas		∅
11	A Springfield Agency - Springfield Homeless Shelter	894348FA9	Client doesn't know	ID - Idaho		∅
12	A Springfield Agency - Springfield Homeless Shelter	FBC58BE7B	Santa Ana	CA - California	US	∅
13	A Springfield Agency - Springfield Homeless Shelter	AC96884DB	Santa Ana	CA - California	US	∅



Custom Dimensions (Demo)



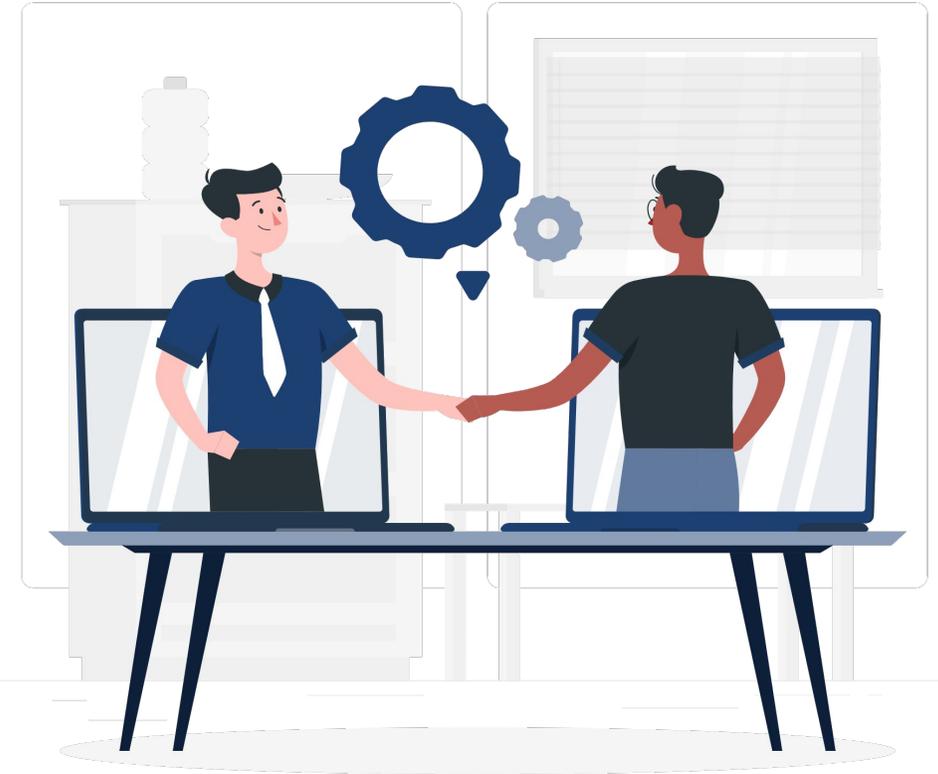
Custom Measures



Custom Measures

- Measures are aggregations of one or more existing dimension such as a count or average.
- You may create a custom measure based on an existing dimension.

* NOTE: These fields may only be used within the report you are creating.



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Creating Custom Measures

Step 1: Locate the “Custom Fields” view and click on the “+ Add” button to reveal the dropdown menu.

Step 2: Select “Custom Measure”.

The screenshot displays the HMIS Performance interface. On the left, the 'Custom Fields' view is active, showing a search bar and a list of fields. The '+ Add' button is highlighted with an orange box, and a dropdown menu is open, with 'Custom Measure' selected and highlighted with an orange box. The main area shows the 'Filters' section with three filters: 'Enrollments Reporting Period Filter' (is in the year 2024), 'Programs Project Type Code' (contains PH), and 'Agencies Agency Name' (is A Springfield Agency). A '+ Custom expression' button is visible at the bottom.

Creating Custom Measures

Step 3: Create a name for your Measure in the “Name” box.

Step 4: Enter the field you wish to measure “Field to Measure” box.

Create custom measure

Field to measure *

Name *

[Filters](#) [Field details](#)

Narrow the results returned by adding filters.

Filter name	Filter value
<input type="text" value="Select a field..."/>	<input type="button" value="-"/> <input type="button" value="+"/>

▶ Custom filter

Cancel

Custom Measure (Demo)



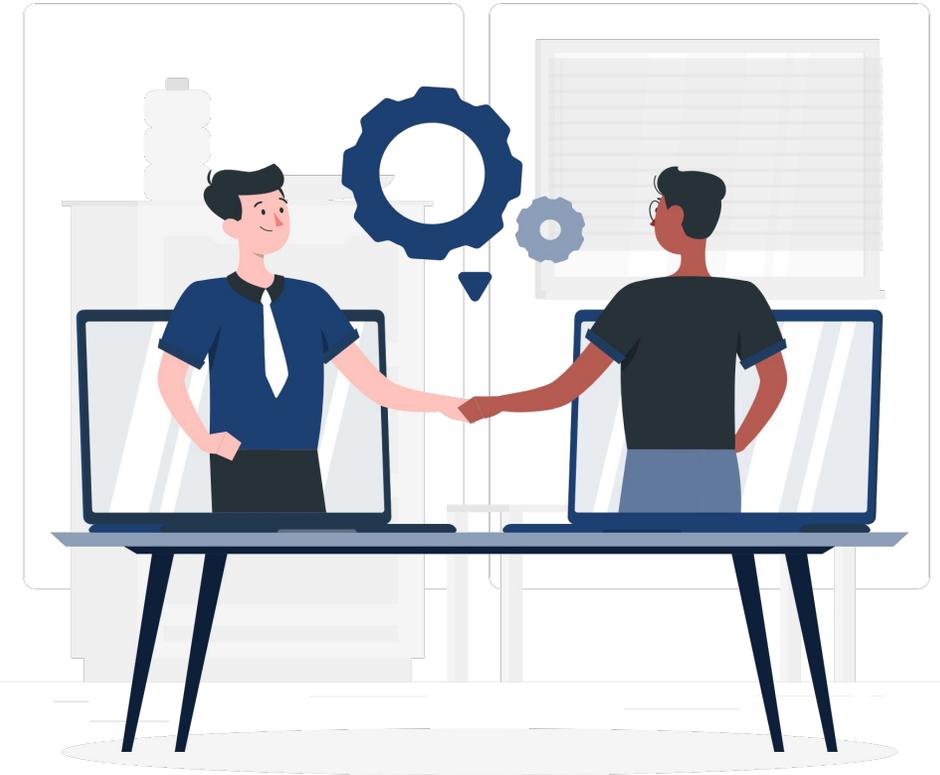
Table Calculations



Table Calculations

- Table Calculations calculate values based upon any custom or pre-defined numerical fields.
- Calculations are performed only on fields already existing in your Look.

* NOTE: These fields may only be used within the report you are creating.



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Creating Table Calculations

Step 1: Locate the “Custom Fields” view and click on the “+ Add” button to reveal the dropdown menu.

Step 2: Select “Table Calculation”.

The screenshot displays the HMIS Performance interface. On the left, the 'Custom Fields' view is active, showing a search bar and a list of fields. The '+ Add' button is highlighted with an orange box, and a dropdown menu is open, with 'Table Calculation' selected and highlighted with an orange box. The main area shows the 'Filters' section with three filters: 'Enrollments Reporting Period Filter Required' (is in the year 2024), 'Programs Project Type Code' (contains PH), and 'Agencies Agency Name' (is A Springfield Agency). The 'Table Calculation' option is also visible at the bottom of the filters section.

Creating Table Calculations

Step 3: Create a name for your Table Calculation in the “Name” box.

Step 4: Looker provides several calculations to choose. Click the arrow in the “Calculation” box to see the different types.

The screenshot shows the 'Create table calculation' dialog. The 'Calculation' dropdown is set to 'Custom expression' and is highlighted with an orange box. Below it, a list of calculation types is visible, including '% of row', '% of column', '% of previous row', '% of previous column', '% change from previous row', '% change from previous column', 'Running row total', 'Running column total', 'Rank of column', and 'Custom expression'. The 'Name' field is also highlighted with an orange box. A callout box on the right shows the expanded list of calculation options, with 'Custom expression' selected at the bottom. The dialog includes a 'Format' dropdown set to 'Default formatting', a '+ Add description' link, and 'Cancel' and 'Save' buttons at the bottom.

Table Calculations (Demo)

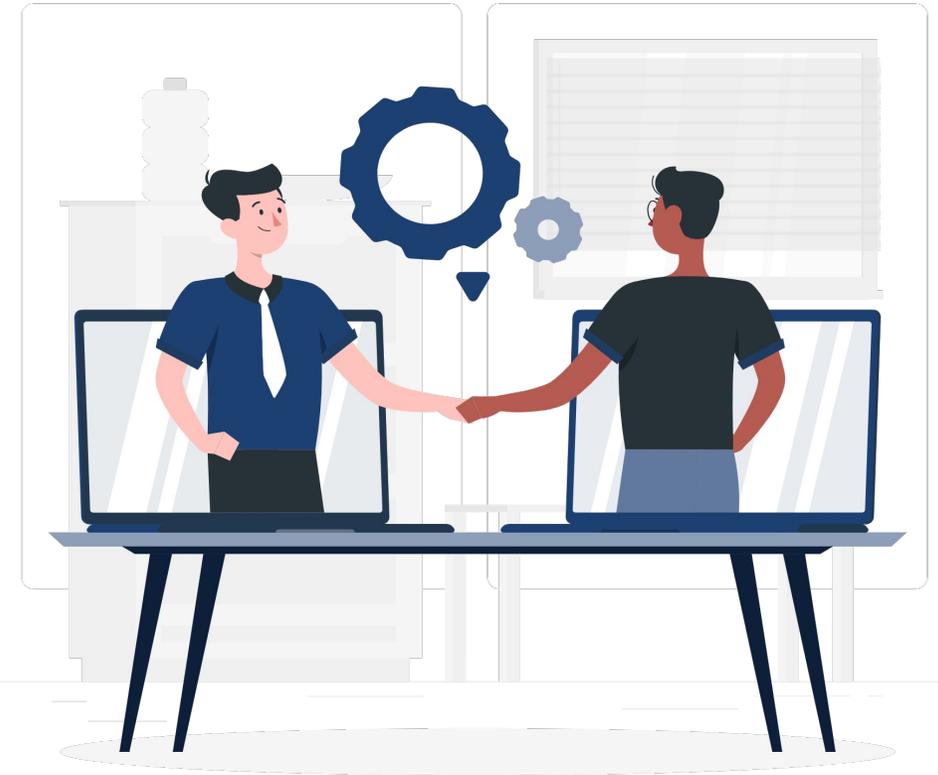


Visualizations



Visualizations

- Visualizations are charts and graphs that visually represent your data.
- Keep in mind that not all visualizations may work with the data in your Look.



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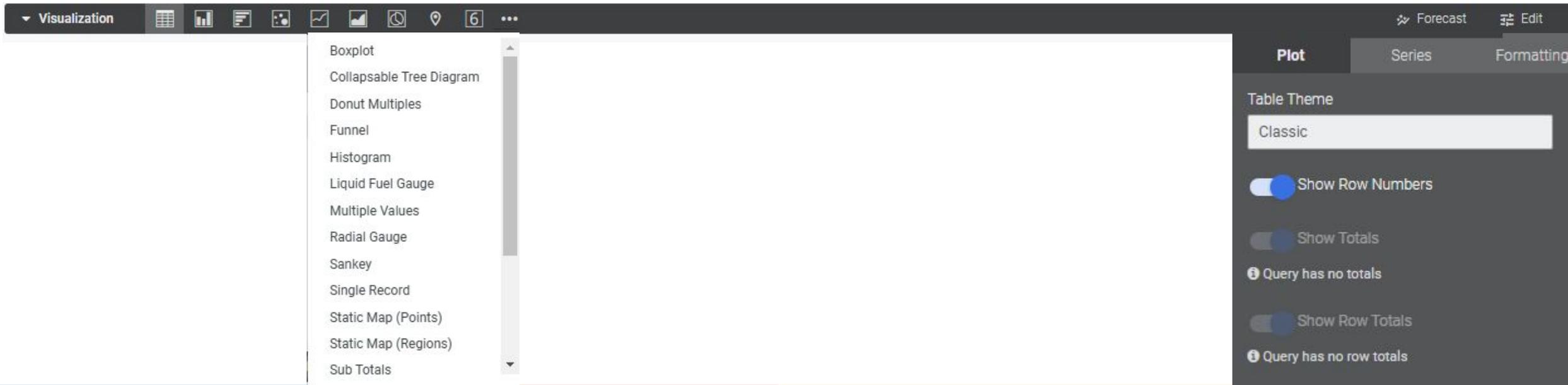
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Creating Visualizations

Step 1: Click on the Visualization pane.

Step 2: Select the visualization from the selection on the black bar. Click the 3 dots for additional selections.

Step 3: Click “Edit” on the black bar to customize your visual.



Visualizations (Demo)



Q&A

**Reminder: Please enter your agency name and email
in the chat box for attendance**

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Thank you
Have a great day!

Training materials and recording will
be available on the [OC HMIS website](#).



**United
Way**



Orange County United Way

Looker Best Practices for ...

Creating Dashboards

- Keep Dashboards as simple as possible
- Apply filters to dashboards.
- Many small Dashboards are better than one giant Dashboard
- All dashboards must contain no more than 25 queries per dashboard.



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Looker Best Practices for ...

Creating Dashboards (continued)

- Don't use more than 3 merged queries
- Use pivots strategically, and avoid over-using pivots within dashboard tiles.
- Select the appropriate visualization type



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