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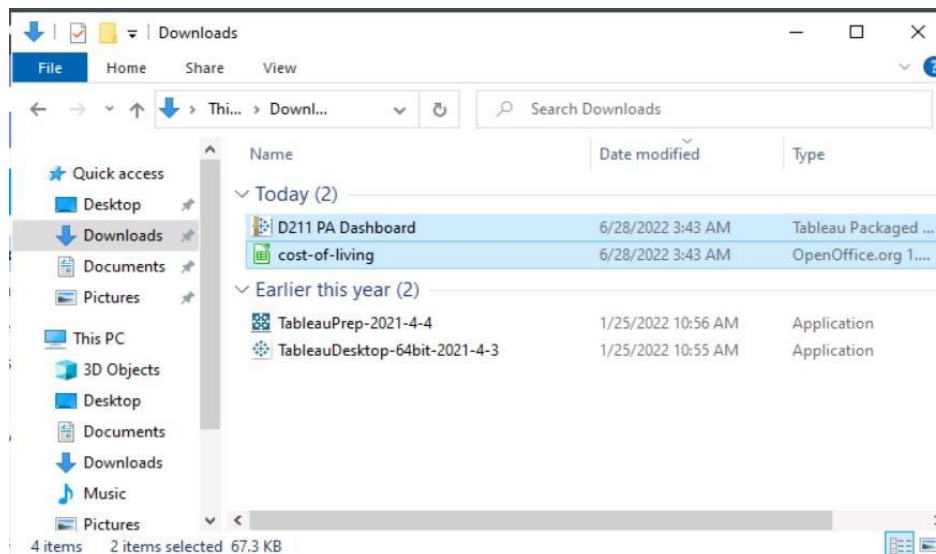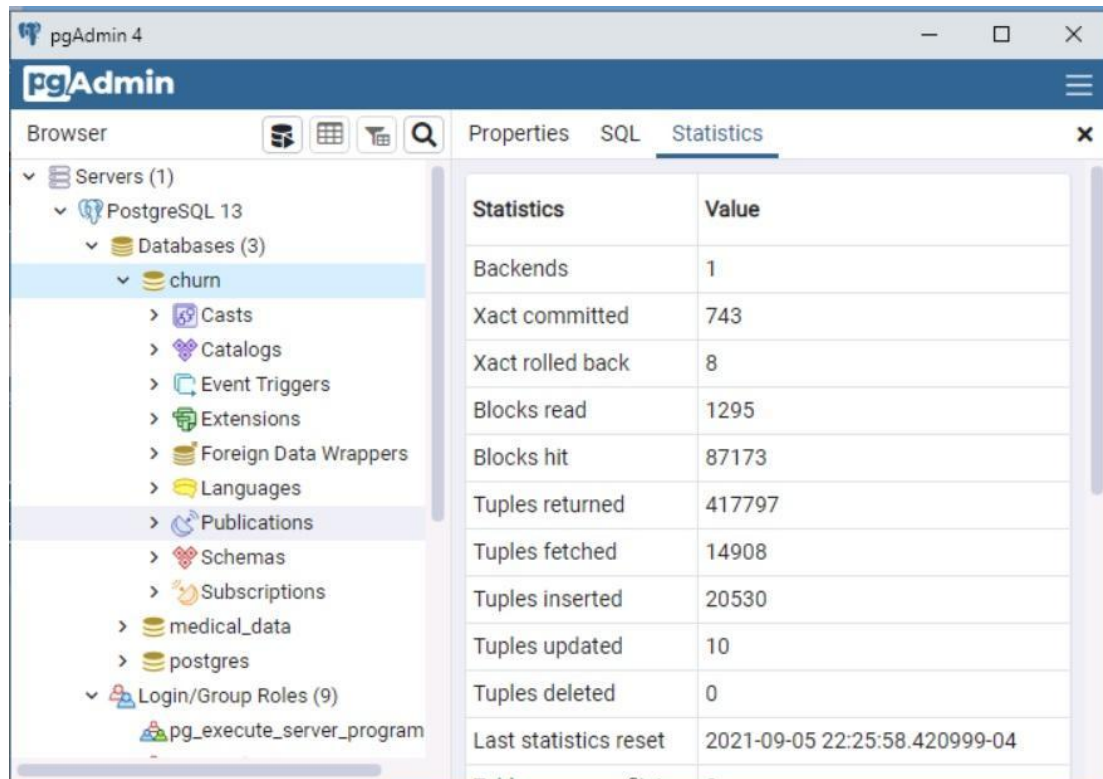
Dashboard Installation

Contents

Files Location

Before working with pgAdmin4 and Tableau, place these two files in the **Downloads** folder: **cost-of-living.csv** and **D211 PA Dashboard.twbx**.

pgAdmin4 Instructions

1. Start pgAdmin4, double click **Servers** then double click **churn** to start the database.

2. Right click **churn** and select **Query Tool** to start the SQL query.

3. Create **cost** table with following query:

```
CREATE TABLE cost (
    rank SMALLINT PRIMARY KEY,
    state TEXT,
    index NUMERIC,
    grocery NUMERIC,
    housing NUMERIC,
    utilities NUMERIC,
    transportation NUMERIC,
    health NUMERIC,
    misc NUMERIC
);
```

4. On the directory tree on the left, double click on **Schemas**. Then scroll down and double click on **Tables** to show all tables:
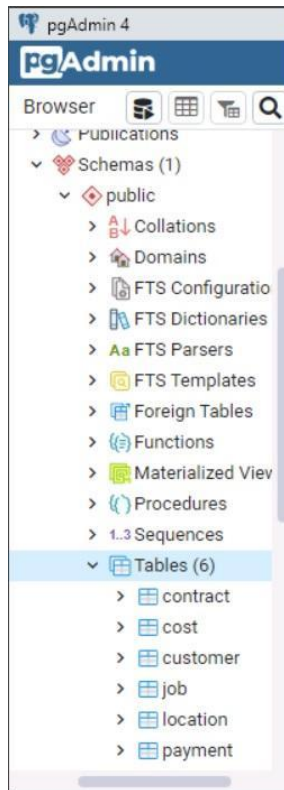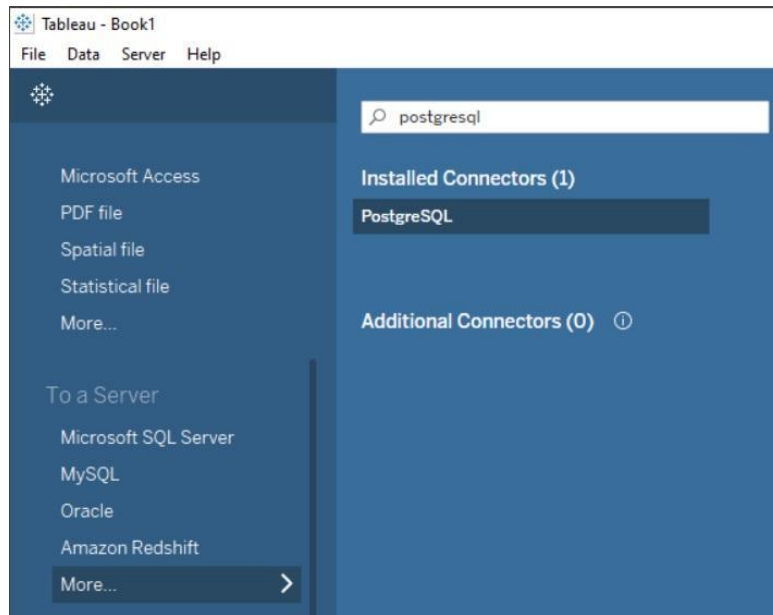
5. Right click on the **cost** table and choose *Import/Export data*. A new window will appear, make sure the options are the same as below and click **OK**:
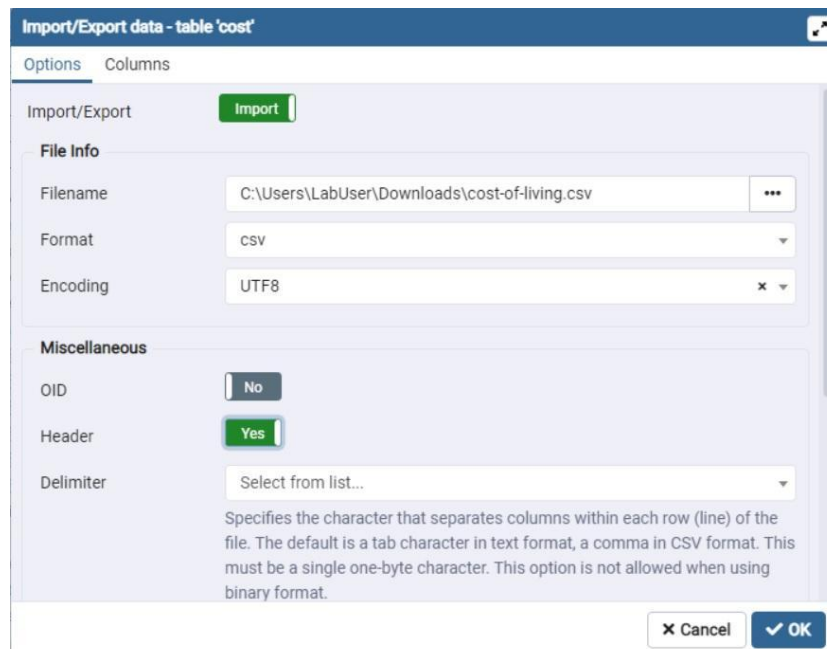
6. After the table is imported successfully, close pgAdmin4.

Tableau Instructions

1. Start Tableau. On the **Connect** screen, go down to **To a Sever** and select **More**. Then use the search bar at the top to type in **PostgreSQL** and select it.

2. When the new window appears, enter the following information to connect to the **churn** database. The password is **Passw0rd!**
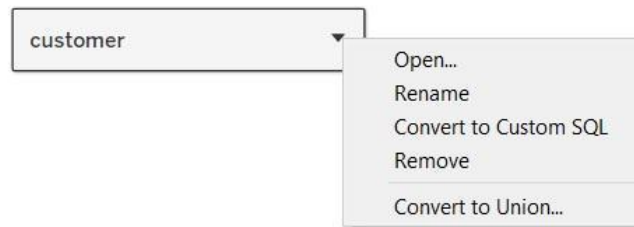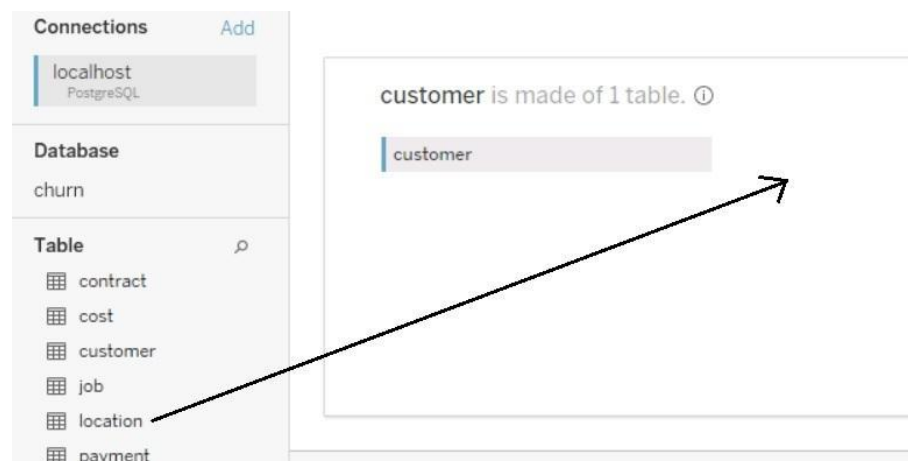

3. In the new screen, drag **customer** table to the right.
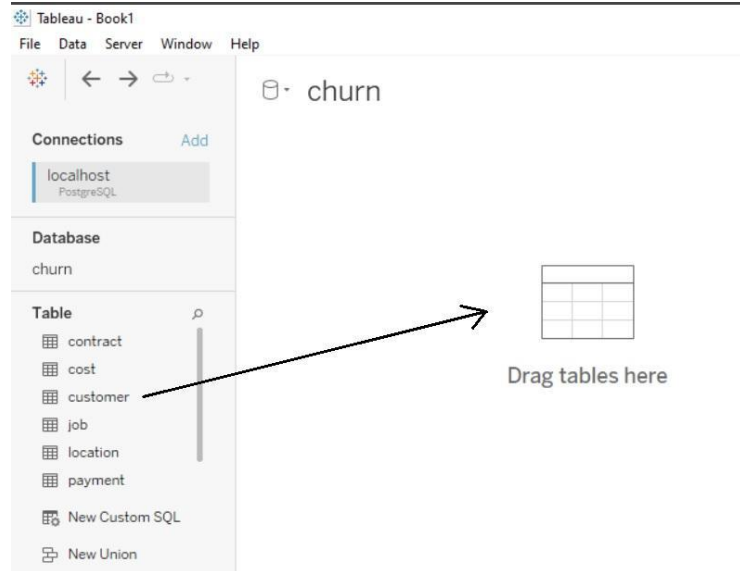
4. Hover on the **customer** box, click on the down arrow on the right and select **Open**.
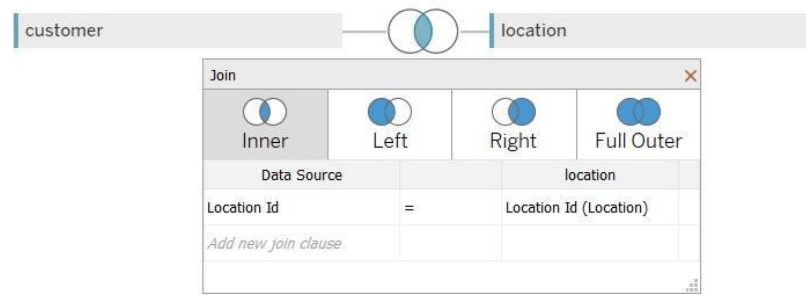

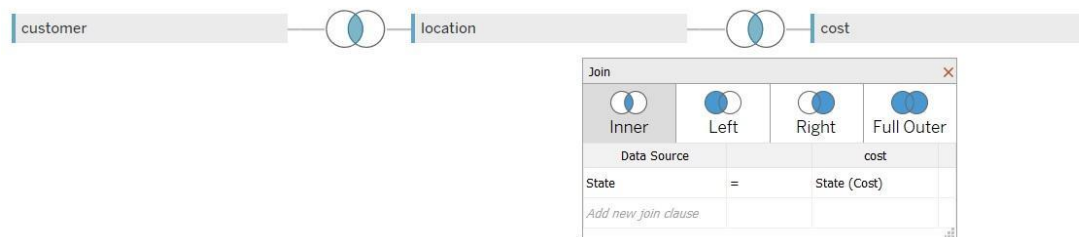5. In the new **join** screen, drag **location** table to the right of **customer**.

6. A join representation will show up, click on it to make sure that the join type is **Inner** and the clause is **Location Id**.

customer is made of 2 tables. ⓘ

7. Drag **cost** table to the right of location. Make sure join type is **Inner** and the clause is **State**.

customer is made of 3 tables. ⓘ

8. The **churn** database and **cost-of-living** external data has been joined together. Go to **Sheet 1** at the bottom to see the combined dataset.
9. Import the workbook by going to **File**, select **Import Workbook**. Go to the Downloads folder then click on **D211 PA Dashboard.twbx**.
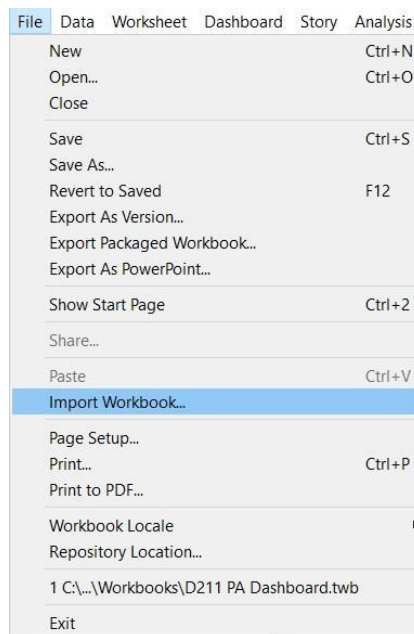
10. Wait a few seconds for the dashboard to load and you can start using it.

Dashboard Navigation

The main approach to navigate the dashboard is to use the dropdown that says **Select State**. From there, you can either scroll and click on the state, or type in the state's abbreviation in the search bar.

This action will zoom in on the specified state on the map and give you its general information. The information included are the cost of living index, state churn rate, price difference, and income by churn category. I will use Utah as an example below.
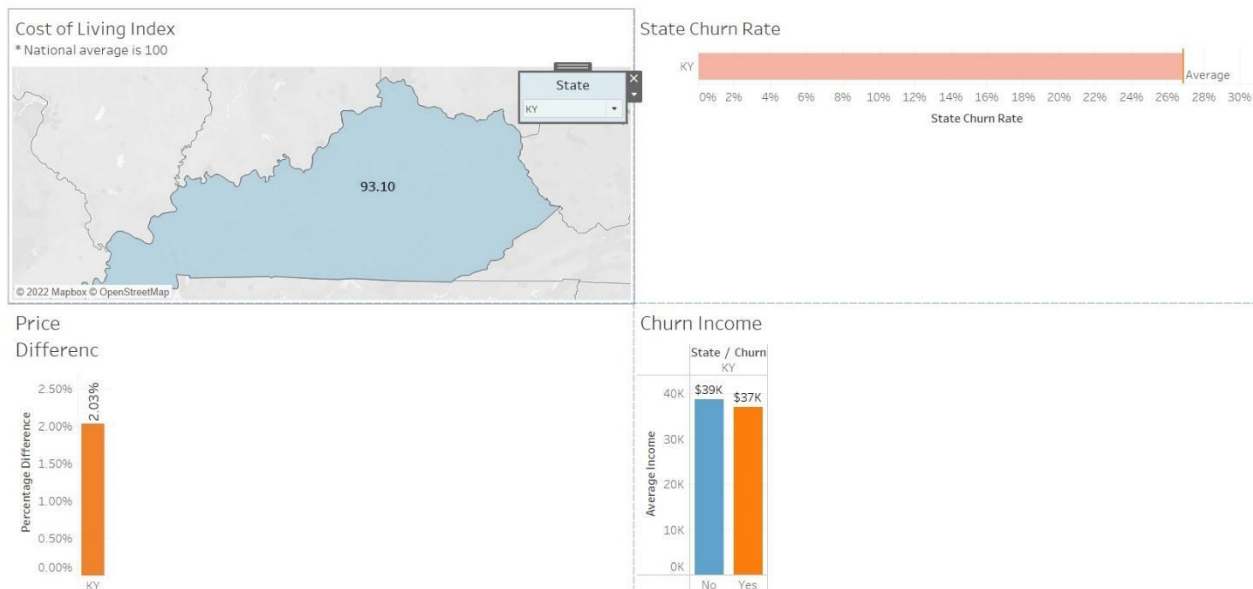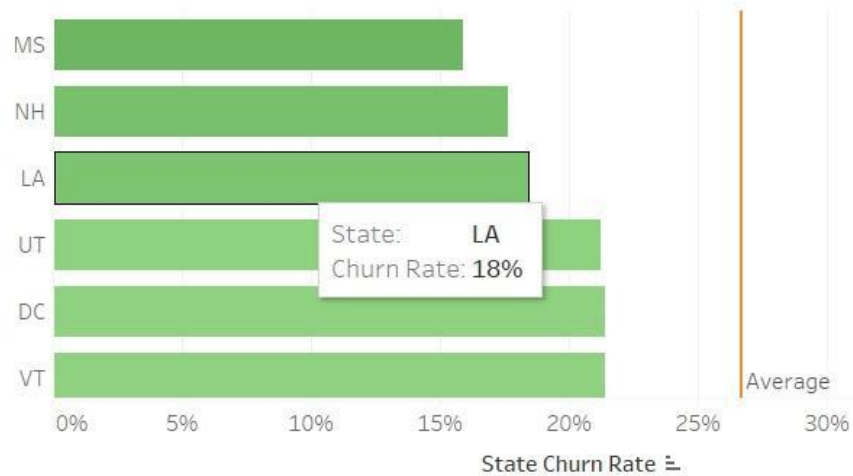

Each representation in the dashboard can also be used for navigation. In the **Cost of Living Index,** you can select specific state from the map to zoom in and filter out other states.

In the **State Churn Rate** representation, you can select the bar chart of the churn rate to dive into that state.
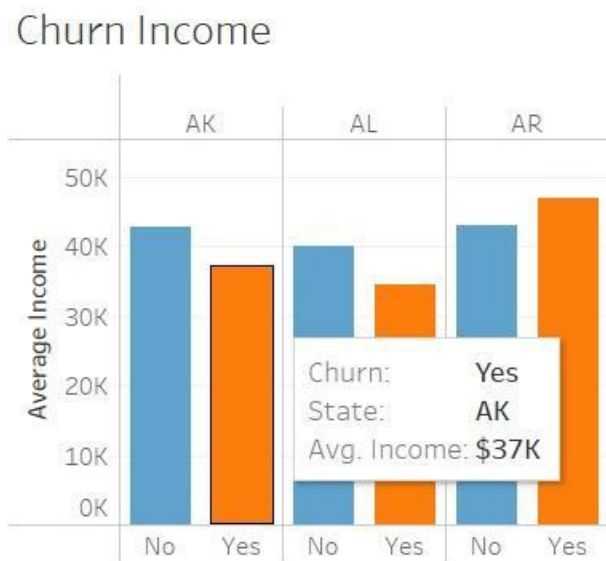

The same thing could be done for the **Price Difference** representation.

For the **Income by Churn Category** representation, you can select either the **Yes** or **No** bar for the churn category. Note that this only give you the information regarding that category. To see both categories at once, you can unselect the one you have already selected.

It is possible to select multiple states to compare them against each other. To select multiple elements, hold down the **Ctrl** button while selecting them. You can do multiple select on any of the representation. In the example below, I selected Missouri, Louisiana, and Utah from the **State Churn Rate** representation.
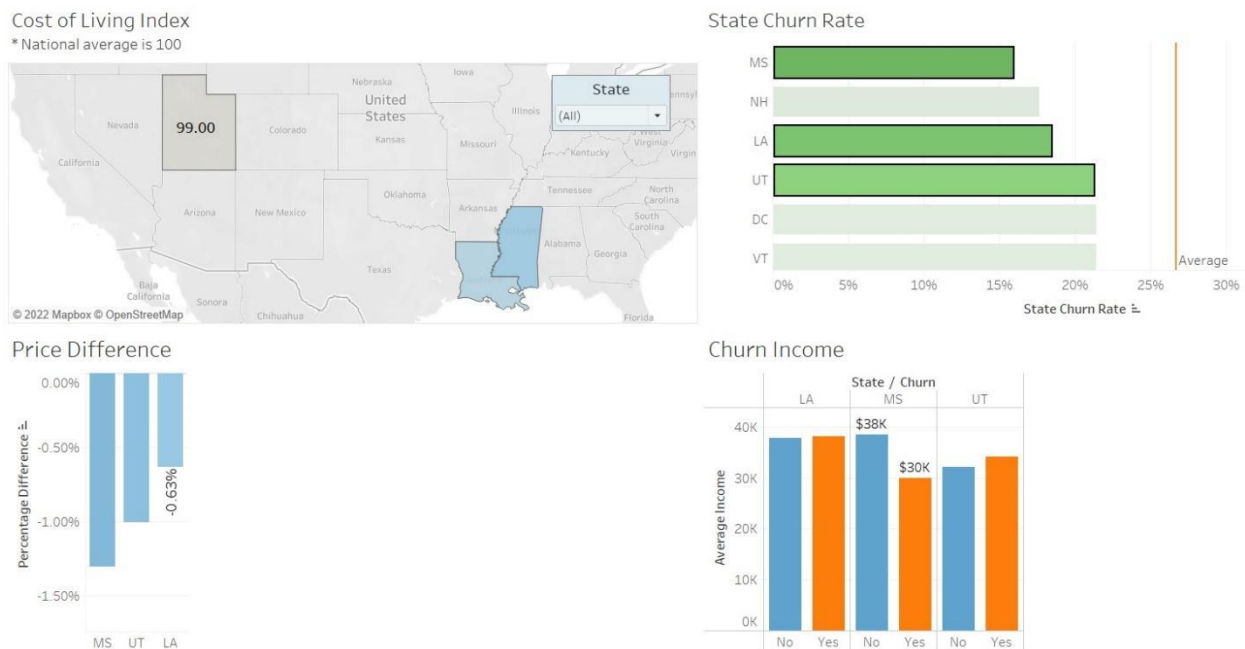
Each representation is designed with simplicity and ease of use in mind. You will find the dashboard navigation to be intuitive. The only thing to note is that if you have already selected

an element in a representation, you need to clear the chart by clicking on that element again. Otherwise, you will limit your dashboard to only showing information for that state.