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BIDD 330A

Module 06

GitHub BIDD 330_Spring2024 Link: https://github.com/Phillips094/BIDD330_Spring2024

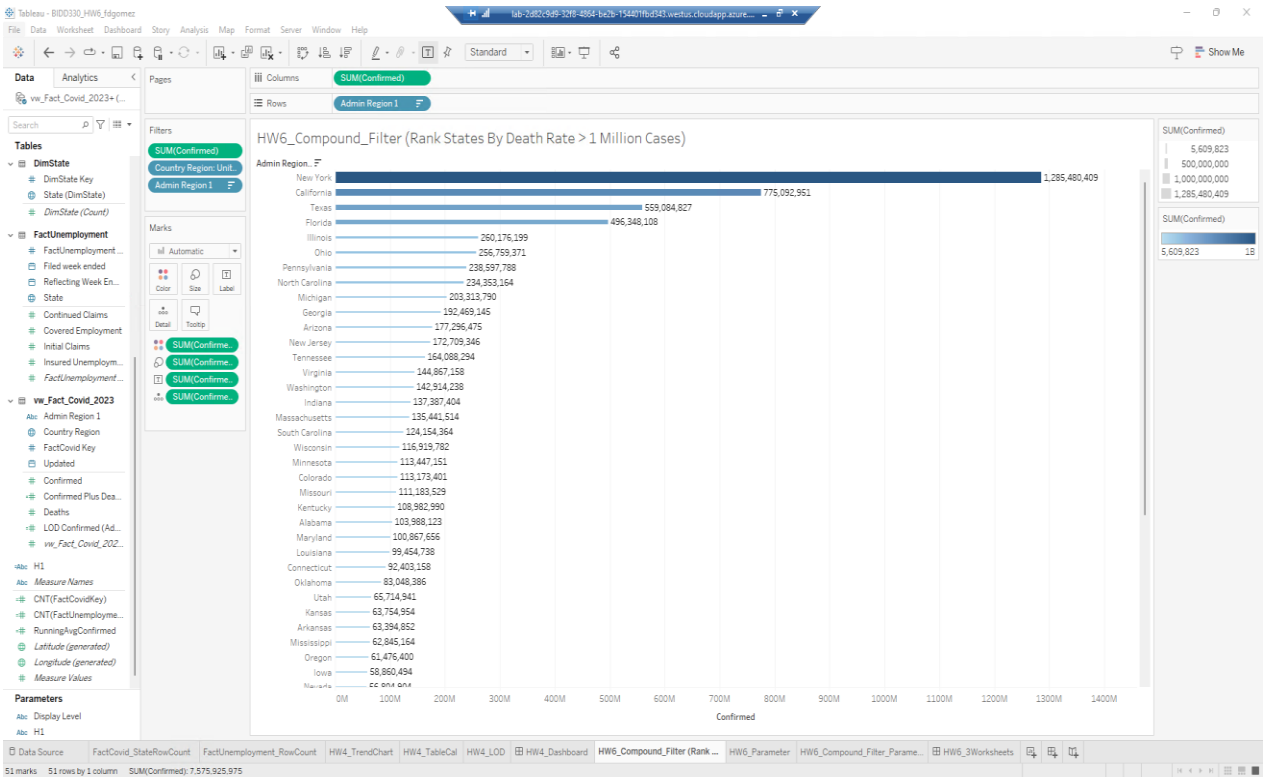
Intermediate Tableau

Introduction:

For module 06, we focus on developing an Advanced Tableau report using our previous submitted Tableau assignment from module 04. We further develop our previous report and enhance our visuals by expanding our measures with compound filters, parameters and dimensions (involving calculated columns and parameters). The assignment is more about understanding advanced topics in Tableau that are most common in the professional world. By developing on top of our Intermediate Tableau report, we get to enhance our report and develop a final Dashboard where we combine 3 of our worksheets. For our data, we continue connecting to our UW server using our credentials which were provided at the beginning of the course. We utilize the same Database, Black_Unemployment, in SQL Server and continue with our previous data model from assignment 2. This data model focuses Covid cases and has the ability to dissect our data with 3 dimensions, DimState, DimDate and DimCountry. We developed 3 reports in this Tableau assignment which are HW6_Compound_Filter (Rank States By Death Rate > 1 Million Cases), HW6_Parameter, HW6_Compound_Filter_Parameter and HW6_3Worksheets.

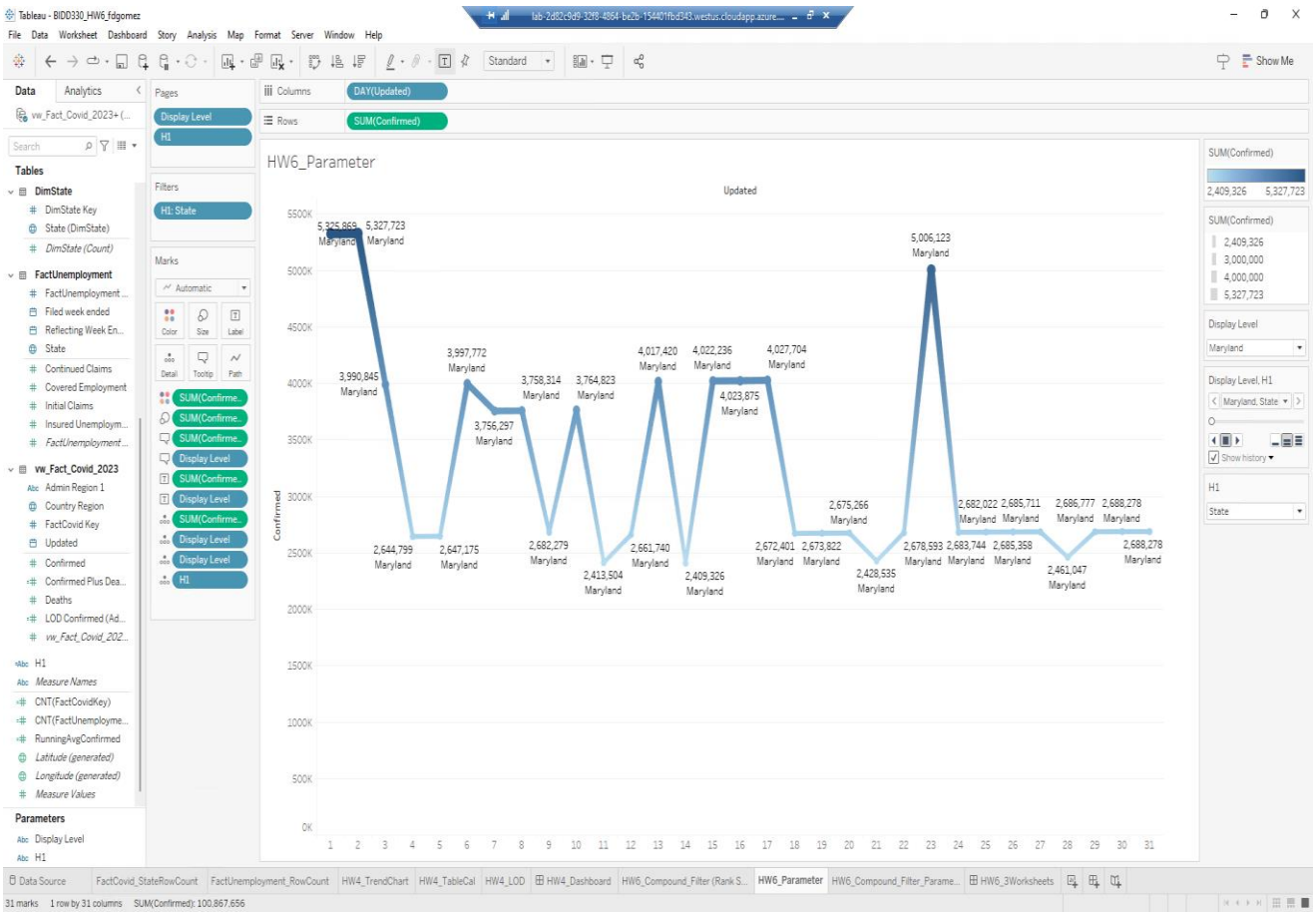
Our first worksheet is dedicated to utilizing a Compound Filter, where we focus on illustrating multiple filters on a page based on certain criteria. In this instance, we are filtering for states that have a at least 1 million confirmed cases. We use a bar chart and we include the confirmed cases for each state by included labels, details, color and fix the size of the bars based on the number of confirmed cases for each state. We also sort our bar charts by the SUM(Confirmed) for each state. We notice that our top 5 states include states with the highest populations (New York, California, Texas, Florida, Illinois). The color changes from dark to light blue as we go down the list of states. We add additional filters for the country to equal United States. We include Admin Region 1 in our rows section and SUM(Confirmed) for our columns axis. One interesting aspect from this worksheet is noticing how New York had almost double the amount of confirmed cases than California.

Below is a screenshot of our first worksheet:



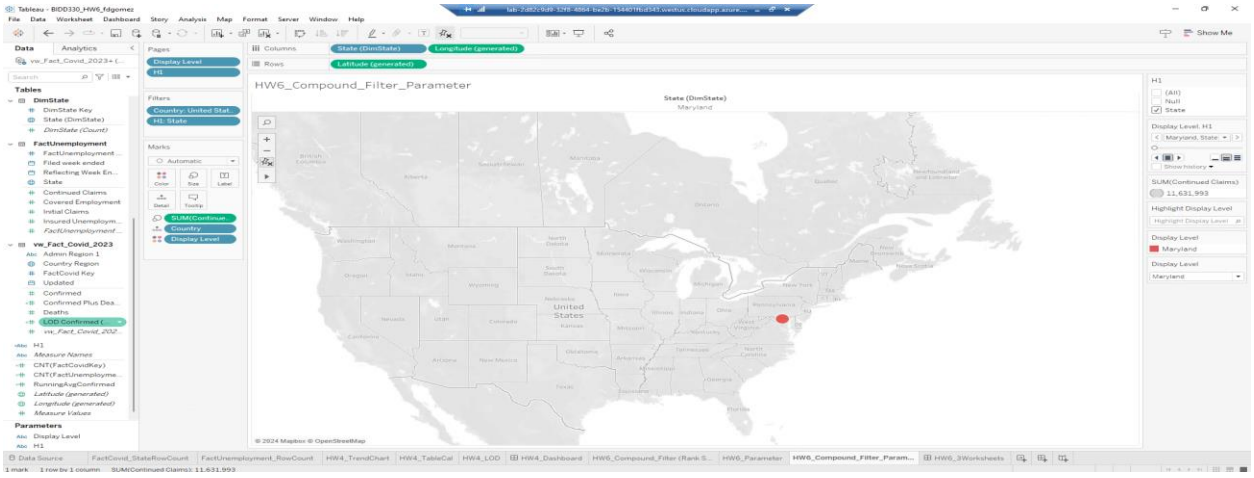
Our second worksheet, HW6_Parameter, utilizes parameters in Tableau. We develop two parameters, “Display Level” and “H1”. Our first parameter, “Display Level” allows us to toggle and switch between different States as well as countries to view their respective confirmed covid cases throughout a period. Our second parameter, H1 is used in combination of a Calculated Column “H1” where we use this to display whether our Display Level parameter is either a State or a Country. We include many Marks for our data and even include a tooltip to be able to display all key information about our data points, including the value of both our new parameters. One interesting part is how the colors also change between each of our data points as our confirmed cases go up. Higher values have darker colors vs light colors for lower values in our range.

Below is a screenshot of our second worksheet:



Continuing off to our third worksheet is our HW6_Compound_Filter_Parameter. Here we use combination of Compound Filters and Parameters to illustrate the United States in a geographic visualization and the number of unemployment claims based on the State selected. This worksheet is essentially illustrating how interactive Tableau can be while also utilizing our compound filters and parameters. Displaying our data using a geographic visualization allows us to have a better idea of how Covid affected unemployment claims over our period.

Below is a screenshot of our worksheet:



Summary

Lastly, we develop a dashboard that combines all of our developed worksheet and it displays them all in one page. I think this assignment really went over important and advanced topics that are important to understand if one goes into a Tableau developer role. Although a bit difficult to grasp at first, I think once one has a solid foundation and understanding of compound filters and parameters, it becomes easier to implement and utilize for Tableau reports. The important part of these two concepts is combining them with our previous concepts involving Level of Detail Calculations. We get a chance to understand how all these concepts interact with one another and how our Level of Detail changes as we switch between our different states and countries.

Our final dashboard looks like this!