CGT 270 Data Visualization Fall 2021

Module 1

Week 4

**Lab 4: Filter & Represent**

The goal of this lab is to filter and visually represent your **Tableau Training Data**. In this lab you will list two questions you want to answer with your Tableau Training data, filter the data to extract only the data needed to answer the two questions and generate visualizations of the filtered data.

By the end of this lab you should be able to:

|  |  |
| --- | --- |
| Remember | ***Describe*** what happens in the **represent** stage. |
| Understand | ***Describe*** what stages are impacted by the **represent** stage and how. |
| Apply | ***Demonstrate*** the ability to use the appropriate visualization tool/chart/layout for the task. |
| Evaluate | ***Determine*** if the data is sufficient or if additional data is needed. |
| Analysis | ***Determine*** if sufficient data is available to visually represent the data. |
| Create | ***Plan, generate, and produce*** insightful visualizations. |

You should create two visualizations. For each visualization provide a paragraph to support the visualization. You may use any visualization tool of your choosing. Make sure you use data visualization best practices (See Data Visualization Check list).

Take a screen capture of your visualizations and save each visualization as a separate .jpg file:

LastnameFirstInitial\_Fig1.jpg

LastnameFirstInitial\_Fig2.jpg

**(PNG files WILL NOT be graded)**

Upload your supportive paragraphs in this file.

**Question**: Which city in the UK has the highest percent change in job employment rate between 2011 and 2014?

Fig1 Caption: Highest Percent Change in Job Employment Rates Between 2011 and 2014 by City

Chart, bar chart

Description automatically generated

This visualization shows the percent change in job employment rates between 2011 and 2014 in each city in the UK that came in the dataset. If the percent change is positive, it means that the employment rate increased overall in that specific city between 2011 and 2014. If the percent change is negative, it means that the employment rate decreased overall in the specific city between 2011 and 2014. As we can see, the city with the highest positive percent change is London with an overall percent change of 1.771%. This means that London was the city that increased their employment rate the most between 2011 and 2014. The city with the lowest negative percent change is Glasgow 3ith an overall percent change of -0.435. This means that Glasgow was the city that decreased their employment rate the most between 2011 and 2014.

**Question:** What Industry in the UK has the highest percent change in job employment rate between 2011 and 2014?

Fig2 Caption: Highest Percent Change in Job Employment Rates Between 2011 and 2014 by City

Chart, waterfall chart

Description automatically generated

This visualization shows the percent change in job employment rates between 2011 and 2014 for each specific Industry categorization in the UK. Similar to the last visualization, a positive percent change means the employment rate increased and a negative percent change means the employment rate decreased between 2011 and 2014. The industry with the highest percent change in job employment rates between 2011 and 2014 was mining and quarrying with a percent change of 3.291%. The industry with the lowest percent change in job employment rates between 2011 and 2014 was electricity, gas, steam, and air conditioning supply with a percent change of -1.087%.