I have chosen Unemployment in the U.S from public data in the link provided in the module. This data consists of monthly estimate of employment and unemployment for all states, metropolitan areas, counties, and cities. National employment and unemployment of the population classified by age, sex, race, and other characteristics.

Now after choosing the dataset, I have considered different ways to approach the dataset to visualize and convey the exact information to the audience what I wanted to convey through these visualizations.

Let us try to convey the information present in the dataset in two different ways to the audiences. So, I have chosen to compare the employment and unemployment with different states in the United States and compare with the growth of male and female in both employment and unemployment.

**Data Visualization Using Different States Comparision:**

Let us take the comparison between different states in united states. For the below visualization of data, I have considered bubble chart, in which I have highlighted 3 states to measure the Employment and unemployment which are in x-axis and y-axis, respectively. As you can see the employment rate is increasing month by month but there is also slightest increment in unemployment rate as well. In the recent times due to pandemic the employment has decreased, and unemployment has increased. As you can see in the link below:

<https://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_&ctype=b&strail=false&bcs=d&nselm=s&met_y=unemployed&fdim_y=seasonality:S&scale_y=lin&ind_y=false&met_x=employed&fdim_x=seasonality:S&scale_x=lin&ind_x=false&idim=state:ST0600000000000:ST5600000000000:ST5300000000000&ifdim=state&tunit=M&pit=1589083200000&ind=false&icfg>

This is different way of visualizing the same data as mentioned for the above links. But the variation is in the graphs is this is a map chart which shows the employment with the change in intensity of the color as the employment rate increases. And for unemployment as the size of the circle is increased as the unemployment increased. <https://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_&ctype=m&strail=false&bcs=d&nselm=s&met_s=unemployed&fdim_s=seasonality:S&scale_s=lin&ind_s=false&met_c=employed&fdim_c=seasonality:S&scale_c=lin&ind_c=false&idim=state:ST0600000000000:ST5600000000000:ST5300000000000&ifdim=state&tunit=M&pit=1589083200000&ind=false&xMax=-6.010815500000013&xMin=143.75480949999996&yMax=9.792452563398701&yMin=67.20276429327684&mapType=t&icfg&iconSize=0.23>

**Data Visualization Using Gender Comparison:**

For the same dataset I have considered a different audience, which has unemployment as well as employment and compared with the variation based on the sex/gender in bubble chart. Unemployment in y-axis and employment in x-axis as the years pass by there is fluctuations in very year but the recent times due to the pandemic there is a vast hike in the unemployment rate in both genders. In past two months the unemployment rate has reduced a bit. This visualization is done in this link below:

<https://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_&ctype=b&strail=true&bcs=d&nselm=s&met_x=employed&fdim_x=country:US&fdim_x=seasonality:S&scale_x=lin&ind_x=false&met_y=unemployed&fdim_y=country:US&fdim_y=seasonality:S&scale_y=lin&ind_y=false&idim=sexs_code:1:2&ifdim=sexs_code&tunit=M&pit=1591848000000&ind=false&icfg=z1ebjpgk2654c1_%253A1706%253Asexs_code%26%261:::1948%7Cz1ebjpgk2654c1_%253A1706%253Asexs_code%26%262:::1948>

This is the different representation for the above information. I considered bar chart as shown below, the information about both Men and Women’s unemployment in y-axis and employment variation in color intensity filled in the bar represented for men and women. If you play the visualization in the link below, we can see the variation in the bar representation for every month.

<https://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_&ctype=c&strail=false&bcs=d&nselm=s&met_y=unemployed&fdim_y=country:US&fdim_y=seasonality:S&scale_y=lin&ind_y=false&met_c=employed&fdim_c=country:US&fdim_c=seasonality:S&scale_c=lin&ind_c=false&idim=sexs_code:1:2&ifdim=sexs_code&tunit=M&pit=463636800000&ind=false&icfg>

From the above 2 implementations of unemployment vs employment with the considerations main in gender/sex, I found the bubble chart is more efficient that the bar chart because we can define the path of the past statistics as well. We can analyze at what point women has intersected with the men’s path and to reach the equality level with men. Whereas in bar graph we can see the variation between the men and women bars clearly at that point at one glance.

**References:**

<https://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_>