Washington vs Global Weather Trends

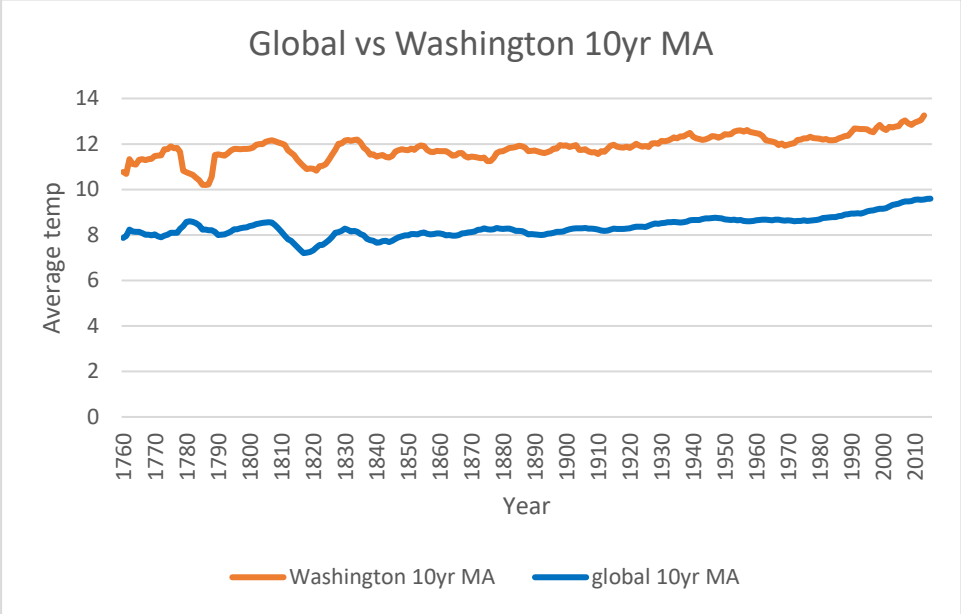
Extraction of Data:

To extract the data from the workspace, the below SQL queries are used:

1. SELECT * FROM global_data;
2. SELECT * FROM city_data WHERE city = 'Washington';

Analysis:

1. The moving average was calculated from the collected data in the excel sheet. To calculate moving average for 10 years the function 'average' is used and the avg_temp data for 10 years was selected. The below line chart is produced by using both the city and global data 10 years moving average.



2. Correlation coefficient was calculated through using excels 'Correl' function and by selecting the data for both the city and global temp 10 years moving average.
   Correlation coefficient = 0.75

Observations:

1. Washington city average temp is hotter than global average temp but the difference between Washington and the global temp has been consistent from 1800.
2. The average temp from 1775- 1790 is not very consistent in both the Washington city and the global. The global temp was hotter in this period where in the Washington city temp is cooler compared to overall trend.
3. The overall temp changes have been consistent and the temp remained under 9 for global and under 12 for Washington until 1900. After 1900 we can see the steady rise in temp for both global and Washington, which means the world is getting hotter.
4. The correlation coefficient for the global and the Washington temp is 0.75(positive), which means because of positive correlation the changes will be similar in both Washington temp and the global temp.