Joseph L

Explore Weather Trends

1. Obtain Data

To extract the data I needed I used SQL.

```
SELECT * FROM city_data

WHERE city = 'San Francisco';
```

Data on San Francisco's average temperature

NOTE: I didn't use city and country. If there were thousands of rows of information I wouldn't have selected *.

```
SELECT * FROM global_data;
```

Data on global average temperature

Downloaded both in to a CSV file

2. Moving Average

Opened the CSV in Excel and calculated the moving average.

I used a 5-year moving average.

An example of how I did that was I took the first 5 years of average temperatures and averaged them.

=AVERAGE(8.72 + 7.98 + 5.78 + 8.39 + 8.47)

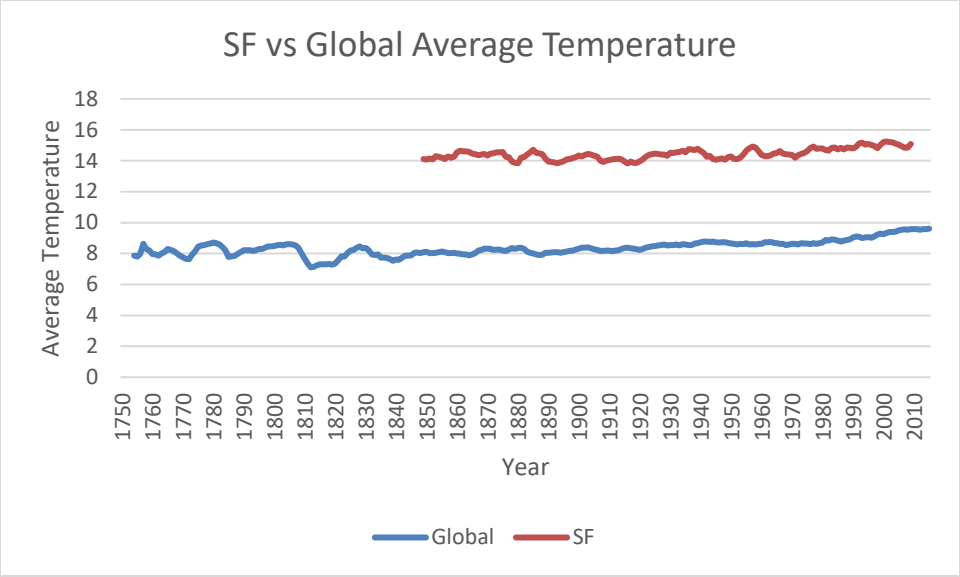
After I dragged down with the dark square in the corner of the cell where I typed the formula.

3. Line chart

I used Excel to create my line chart

I selected both the year, SF moving average, and global moving average.

NOTE: Since I included the data for global average temp before 1849, I had to place SF next to year 1849 in order to create my chart correctly. The data before 1849 didn't have a significant impact in this project.



4. Observations

- San Francisco is hotter on average then the global average. SF has been consistently hotter than the global average.
- Both SF and the global average increased about 2 degrees Celsius from 1850 - 2010 (60years).
- Overall there is an upward trend for average temperature for both SF and global. The world is getting hotter and will continue to get hotter. The last few hundred years, show that global average temperature is consistently increasing.
- Global average temperature seems to be increasing more compared to SF average temperature.