Table A

**Data Prep Outline**

1. Extracted the city data using the following SQL query:
   * 1. SELECT\*
     2. FROM city\_data
     3. WHERE city = 'San Francisco'
2. Extracted the global data using the following SQL query:
   * 1. SELECT\*
     2. FROM global\_data
3. Export CSV to Excel-
   1. Gathered basic statistical data (i.e. Mean, Min/Max. for each data set)
   2. Calculated a 10 year moving average for both data sets.
   3. Created line charts for both data sets, and a line chart comparing the city data to the global data. I chose to include the actual yearly average data in all of the charts in a lighter color. I believe it helps interpret the moving average correctly.

**Data Interpretation & Observations**

* San Francisco temperatures, on average, are 5.89°C higher than the global averages.
* Average temperatures in San Francisco appear to fluctuate in line with average global temperatures. However the correlation coefficient is 0.536 which indicates there is not really a positive or negative correlation.
* The average temperature in San Francisco increases over time as does the gradual average temperature globally- Which could be used in an argument supporting global warming.
* When the San Francisco data and the Global data charts are viewed in more detail there is a steeper incline in average temperatures over the last 100 or so years. [See Tables B & C] According to the US Energy Information Administration consumption of fossil fuels for energy production has increased significantly over the last 100 years, accounting for producing upwards of 80% of our energy (Source 1). Fossil Fuels release ‘greenhouse gasses’ that ultimately lead to the ‘greenhouse effect’ that is so highly debated in politics today.

Source1. U.S. Energy Information Administration - EIA - Independent Statistics and Analysis. (n.d.). Retrieved from <https://www.eia.gov/todayinenergy/detail.php?id=26912>

Table B

Table C