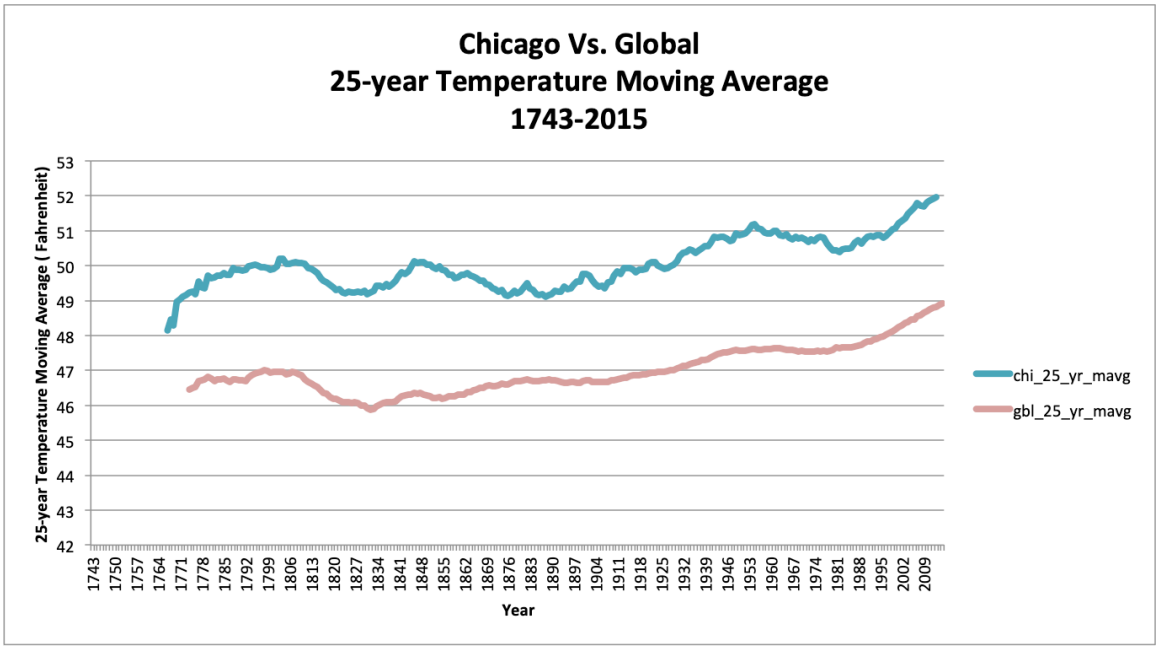
Jesse Moderwell

Udacity Exploring Weather Trends Project

1. Extracting the data from the database
    - First query from the global_data table in the Database Schema:
        - “SELECT * FROM global_data”
    - Second query from the city_data table in the Database Schema:
        - “SELECT city, year, avg_temp FROM global_data
        - WHERE city = "Chicago”
    - Downloaded these as separate .csv files
2. Data Manipulation in Excel
    - Converted yearly temperatures to Fahrenheit as a new column in each csv (more familiar)
        - “=(G(row) * 9/5) + 32”
    - Experimented with different year moving averages. Settled on 25-year moving average, as it was less volatile then 5 and 10, but showed a good amount of detail when charted. Made new column with 25- year moving average for both Chicago and global
        - Ex: “=ROUND(AVERAGE(E2:E26), 2)”

3. Charting in Excel



4. Conclusions

- Chicago's 25- year moving average is generally a little more than 3 degrees Fahrenheit hotter (~3.1) than the global 25- year moving average
- The overall shape of Chicago's 25- year moving average over the years is quite similar to the global shape. For example, both decline slightly from about 1806 to 1834, and both feature a slow general incline from 1976 to the present
- Both lines show that average temperatures have increased on both a local and global level since 1750. Chicago's 25- year average increased by 2.74 degrees over the period, and the global 25- year average increased by 2.37 degrees.

- The correlation coefficient between the two columns is ~.91, indicating a vary strong positive correlation