

1. The SQL Query to extract data:

Write a SQL query to extract the city level data. Export to CSV

SELECT *

FROM city_data

WHERE city = 'New York'

Write a SQL query to extract the global data. Export to CSV.

SELECT *

FROM global_data

2. What tools did you use for each step?

I used EXCEL to calculate the moving average.

I used EXCEL to visualized the data in the line chart

3. How did you calculate the moving average?

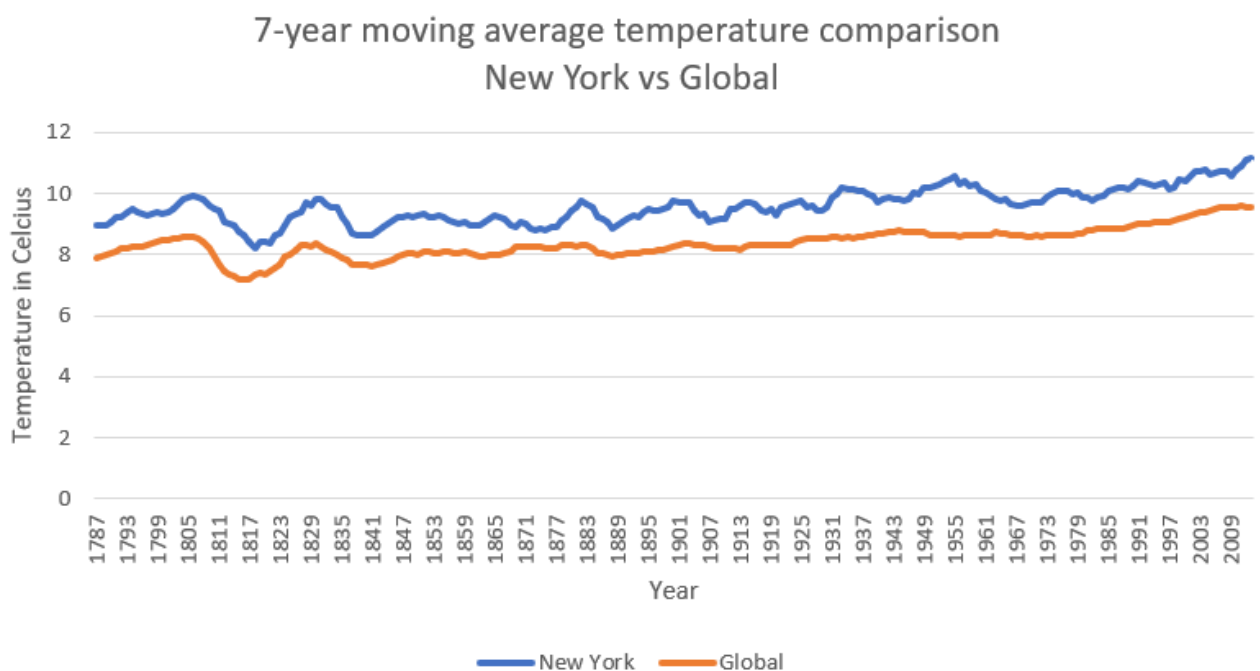
I calculated the moving average by using 7-years moving average

B15							
=AVERAGE(D9:D15)							
	A	B	C	D	E	F	G
1	year	7 years MA New York	7 years MA Global	New York avg_temp	Global avg_temp		
14	1793	9.36	8.19	9.88	8.23		
15	1794	9.48	8.26	9.83	8.53		
16	1795	9.40	8.25	9.21	8.35		
17	1796	9.34	8.24	8.97	8.27		
18	1797	9.26	8.32	8.85	8.51		
19	1798	9.31	8.38	9.71	8.67		
20	1799	9.38	8.44	9.19	8.51		
21	1800	9.33	8.47	9.58	8.48		
22	1801	9.36	8.48	10	8.59		
23	1802	9.51	8.52	10.29	8.58		
24	1803	9.67	8.55	10.07	8.50		
25	1804	9.79	8.60	9.69	8.84		
26	1805	9.89	8.58	10.43	8.56		
27	1806	9.92	8.57	9.38	8.43		
28	1807	9.86	8.54	9.17	8.28		
29	1808	9.80	8.40	9.57	7.63		
30	1809	9.60	8.19	8.87	7.08		
31	1810	9.49	7.96	9.35	6.92		
32	1811	9.46	7.68	9.43	6.86		
33	1812	9.08	7.46	7.8	7.05		
34	1813	9.02	7.37	8.93	7.74		
35	1814	8.95	7.27	8.7	7.59		
36	1815	8.76	7.21	8.27	7.24		
37	1816	8.63	7.19	7.92	6.94		

4. What were your key considerations when deciding how to visualize the trends?

I should be able to see the trend. The trend will be visualized by 7-years moving average. I should be able to see similarities and differences between the world averages and my city's averages.

5. Line chart with local and global temperature trends



6. Observation

1. New York is hotter on average compared to the global average.
New York temperature has been in the range of 8 °C and 11°C in the time period 1787-2009. Where as globak temperature has been colder, in the range of 6 °C and 9 °C at the same time period.
2. The average temperature difference between New York temperature and global temperature has been 2 °C consistent over time throughout the time period 1787 to 2009.
Global temperature rose from
3. Since 1835, the world is getting hotter. The New York is also getting hotter.
The world temperature rose from 7 °C in 1835 to 9 °C in 2010.
New York temperature rose from 9 °C in 1835 to 11 °C in 2010

4. The trend has been consistent over the last 100 year.

7-year Moving Average of Global temperature and 7-year moving average of New York temperature going upward since 1900