

Exploring Weather Trends



Extract the data

First, i used a query to extract the city level data by writing:

```
select year, avg_temp from city_data  
where city ='Tokyo'
```

Second, to extract the global data i write a query:

```
select year, avg_temp from  
global_data
```

Open up the CSV

Using excel I create a line graph for temperature from 1845 to 2013 between Tokyo in japan and the global temperature.

" and my line chart in the next page "

Make observations

- 1- Tokyo is a hotter city compared to the global average.
- 2- Tokyo changing a lot by the years and it is going hotter year by year
- 3- There is an upward trend
- 4- The difference in temperatures went from 11.95 to 13.91 for Tokyo
- 5- The difference in temperatures went from 7.85 to 9.03 for global

Moving average

i calculate it using excel sheet and it's fourmla and to be more accurate i use the AVERAGE() function to calculate the moving average by take the days and calculate it. Moving average is in the next page

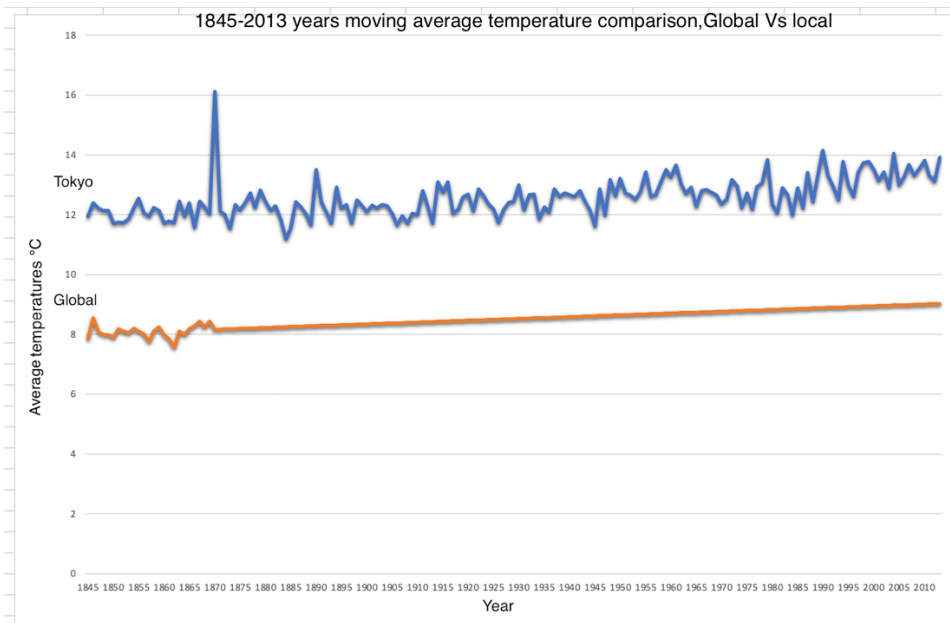
The 44-Moving Average for Tokyo 13.08

It's hotter than Global because the global Moving average is 8.90

And I choose it because it's the last 44 years in my extract data

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the line graph:



The 44-moving average in the local and the global from 2013 to 1970:

	A	B	C	D	E	F	G	H	I
132	1975	12.72	Tokyo		1975	8.79945	Global		
133	1976	12.19	Tokyo		1976	8.80549	Global		
134	1977	12.94	Tokyo		1977	8.81154	Global		
135	1978	13.05	Tokyo		1978	8.81758	Global		
136	1979	13.83	Tokyo		1979	8.82363	Global		
137	1980	12.35	Tokyo		1980	8.82968	Global		
138	1981	12.06	Tokyo		1981	8.83572	Global		
139	1982	12.91	Tokyo		1982	8.84177	Global		
140	1983	12.64	Tokyo		1983	8.84782	Global		
141	1984	11.98	Tokyo		1984	8.85386	Global		
142	1985	12.9	Tokyo		1985	8.85991	Global		
143	1986	12.22	Tokyo		1986	8.86595	Global		
144	1987	13.41	Tokyo		1987	8.872	Global		
145	1988	12.44	Tokyo		1988	8.87805	Global		
146	1989	13.35	Tokyo		1989	8.88409	Global		
147	1990	14.14	Tokyo		1990	8.89014	Global		
148	1991	13.32	Tokyo		1991	8.89618	Global		
149	1992	12.94	Tokyo		1992	8.90223	Global		
150	1993	12.49	Tokyo		1993	8.90828	Global		
151	1994	13.78	Tokyo		1994	8.91432	Global		
152	1995	12.98	Tokyo		1995	8.92037	Global		
153	1996	12.61	Tokyo		1996	8.92642	Global		
154	1997	13.43	Tokyo		1997	8.93246	Global		
155	1998	13.74	Tokyo		1998	8.93851	Global		
156	1999	13.78	Tokyo		1999	8.94455	Global		
157	2000	13.5	Tokyo		2000	8.9506	Global		
158	2001	13.13	Tokyo		2001	8.95665	Global		
159	2002	13.42	Tokyo		2002	8.96269	Global		
160	2003	12.89	Tokyo		2003	8.96874	Global		
161	2004	14.05	Tokyo		2004	8.97478	Global		
162	2005	12.99	Tokyo		2005	8.98083	Global		
163	2006	13.28	Tokyo		2006	8.98688	Global		
164	2007	13.68	Tokyo		2007	8.99292	Global		
165	2008	13.31	Tokyo		2008	8.99897	Global		
166	2009	13.55	Tokyo		2009	9.00502	Global		
167	2010	13.82	Tokyo		2010	9.01106	Global		
168	2011	13.32	Tokyo		2011	9.01711	Global		
169	2012	13.11	Tokyo	Moving aver:	2012	9.02315	Global	Moving average:	
170	2013	13.91	Tokyo	13.07705	2013	9.0292	Global	8.899208	
171									
172									
173									