First of all, I use SQL to query temperature data. The code is:

SELECT \* FROM city\_data WHERE city='Taipei'

SELECT \* FROM global\_data

Second, I use Tableau, a famous data visualization software to observe the average temperature trend. A custom calculation is defined in Tableau to calculate 5 and 20 years moving average:

WINDOW\_AVG(MAX([Sales]),-13,0)

Note that MAX function is also used here just because Tableau requires aggregation function to plot this chart. I didn’t affect the result. When visualizing the data, since the data I get is average temperature over past decades, usually I will plot a temperature line chart to observe the trend. Furthermore, since I have both global and local temperature data, so I can plot them separately to compare the two. (See figures in the next two pages.)

Here are some interesting observations:

* Generally speaking, Taipei is hotter on average compared to global due to its geographical location.
* In 186 and 1917, both Taipei City and Global suffered dramatically temperature drop.
* In 1998, temperature in Taipei shoot up, but global temperature is sluggish in the meantime. We should consider it as a local event.
* From 20 years moving average’s view, both local and global temperature rise.





