EXPLORE WEATHER TRENDS
GLOBAL vs NEW YORK

UDACITY
Data Analyst Nanodegree Program

John Estefano Ortiz
Date: 01/22/2018

OUTLINE

Tools used:
SQL was used to extract the data pertaining to both GLOBAL and NEW YORK Temperatures. Below are the statements used to extract and create the CSV's:

```
SELECT *
FROM global_data;
```

```
SELECT *
FROM city_data
WHERE city = 'New York';
```

Tableau was used to access the CSV, JOIN and Visualize the data. An INNER JOIN was performed between the data sets.

Moving Average Calculation:
To calculate the moving average in Tableau a table calculation of type "Moving Calculation" was added. It took the average of the previous 19 temperature values and current value.

Key Considerations to visualize trends:
- Changes over time is usually depicted best as a time series line chart.
- A comparison between two sets of data over time can benefit from a plot of their differences, this aids in getting a sense of a trend between the data sets.
- Different data sets usually call for color coding, this aids in readability.

LINE CHART

Temperature: Global vs New York
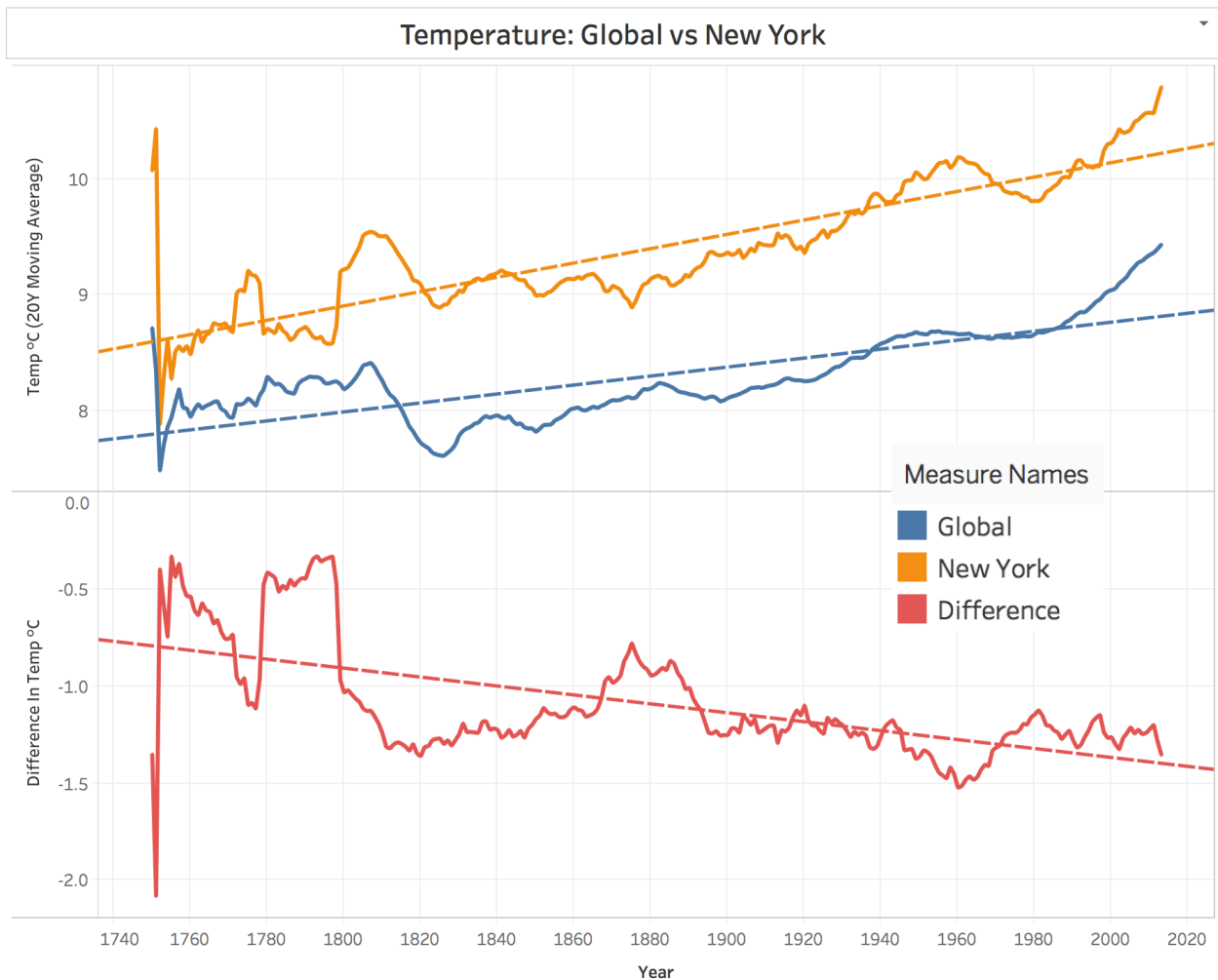
OBSERVATIONS:

- Both New York/Global Temperatures have been steadily rising.
- New York's overall temperatures are hotter when compared to Global temperatures.
- New York's trend line is visually steeper compared to the Global trend line, suggesting that New York may be increasing in temperature at a faster rate. The same conclusion can be said when observing the "Difference" trend line; the absolute value of the difference is increasing.
- Despite the differences between the two, both lines (Global and New York) appear to be very similar to one another in shape, suggesting that most temperature shifts throughout time for New York and Global will occur in the same direction, which makes sense since New York's temperature is a component of Global temperatures.