

PROJECT 1- GLOBAL WEATHER TRENDS

1. OUTLINE OF STEPS TAKEN TO EXTRACT AND PREPARE DATA

SQL Query used to pull the data are as follows:

```
select * from city_data where city in (select city from city_list where city in('Las Vegas','Detroit'))
```

```
select * from global_data
```

(Raw data extracted using the SQL Query)

year	city	country	avg_temp
1743	Detroit	United States	2.21
1744	Detroit	United States	10.92
1745	Detroit	United States	-0.8
1746	Detroit	United States	
1747	Detroit	United States	
1748	Detroit	United States	
1749	Detroit	United States	
1750	Detroit	United States	9.08
1751	Detroit	United States	9.77
1752	Detroit	United States	1.69
1753	Detroit	United States	8.5
1754	Detroit	United States	8.73

2. HOW DO YOU CALCULATE THE MOVING AVERAGE?

12 year Moving Average is calculated.

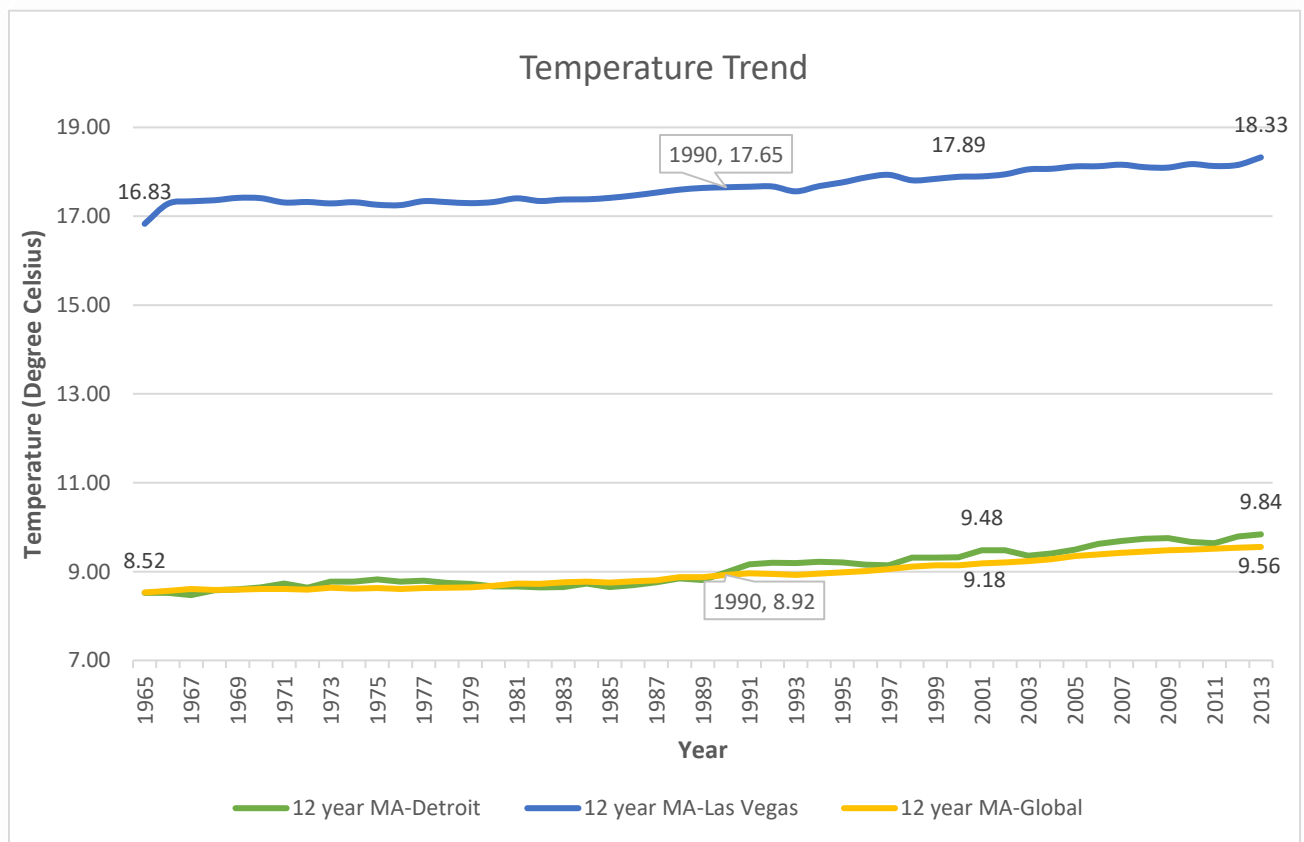
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2		X	✓	f _x	=average(D2:D13
A	B	C	D	E	F
year	city	country	avg_temp	12 year MA_temp	
1743	Detroit	United States	2.21		
1744	Detroit	United States	10.92		
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1747	Detroit	United States			
1748	Detroit	United States			
1749	Detroit	United States			
1750	Detroit	United States	9.08		
1751	Detroit	United States	9.77		
1752	Detroit	United States	1.69		
1753	Detroit	United States	8.5		
1754	Detroit	United States	8.73	=average(D2:D13	
1755	Detroit	United States	5.59	AVERAGE(number1, [numbe	
1756	Detroit	United States	9.07		
1757	Detroit	United States	7.92		

3. KEY CONSIDERATIONS ON DECIDING “HOW TO VISUALIZE THE TRENDS?”

12 year Moving Average is calculated for all 3 categories i.e Detroit, Las Vegas and Global

year	12 year MA-Detroit	12 year MA-Las Vegas	12 year MA-Global
1965	8.52	16.83	8.53
1966	8.52	17.28	8.57
1967	8.47	17.34	8.61
1968	8.58	17.36	8.59
1969	8.60	17.41	8.59
1970	8.64	17.41	8.61
1971	8.73	17.31	8.61
1972	8.63	17.32	8.59
1973	8.78	17.29	8.63
1974	8.77	17.32	8.62
1975	8.82	17.26	8.63
1976	8.77	17.25	8.61

LINE CHART WITH LOCAL AND GLOBAL TEMPERATURE TRENDS:



At least **four observations** about the similarities and/or differences in the trends

Data considered from year 1965-2013.

1. Temperature of Las Vegas is very high (almost double) as compared to Global and Detroit's Temperature.
2. Temperature in all 3 categories have increased since 1965.
3. Ever since 1991, the temperatures of Detroit is higher than the Global temperatures.
4. The Temperature of Detroit has moved away from its median (8.85) by 0.99 degree Celsius and Global temperature too as it moved away from its median (8.88) by 0.68 degree Celsius.