Observations on Latitude and Weather

Conclusions:

1. Latitude vs Temperature
   1. Apparent trend resembles a bell curve that peaks at a range of 90-95o F between latitudes -20o and 40o
   2. Cities in latitudes 20 o below and above the equator occupy a temperature range of 60-80o F.
   3. Cities in latitudes south of the equator between -20o  and -60 o occupy a temperature range of 40o F- 95 oF. We see a drop in the minimum temperature further from the equator.
   4. Cities in latitudes north of the equator between 20 o and 40 o  occupy a temperature range of 40o F- 90 oF, with an outlier around 20o F
   5. Cities in latitudes north of the equator between 40 o and 60 o  occupy a temperature range of 10o F- 70 oF
   6. At latitudes 60o  80o north of the equator, the temperature range is the lowest, between -5o F and -60 oF.
2. Latitude vs Humidity
   1. Across latitudes this distributions is the same:
      1. Majority of cities in range of 40-100% humidity
      2. Minority of cities have humidity in the range of 10-40%.
   2. Latitude is not a strong determinant of humidity.
3. Latitude vs Cloudiness:
   1. There is an even distribution of cities across latitude in the spectrum of cloudiness 0-100%.
   2. There is no visible trend showing any correlation between latitude and cloudiness
4. Latitude vs Wind Speed
   1. Across latitudes this distribution is the same:
      1. Majority of cities are in the range of 0-15 mph wind speed
      2. Minority of cities have wind speeds 15 – 30 mph
   2. Highest Wind Speed
      1. Cities with a wind speed beyond 30 mph are plotted on the 40 o and 60 o latitudes north of the equator.
   3. Latitudes furthest from equator
      1. At latitudes south of the equator between -40o and- 60 o and latitudes north of the equator between 40o and- 80 o, cities have wind speeds on the higher end from 20 – 30 mph and even extreme speed above 30 mph.
   4. There could be a trend that demonstrates that cities in latitudes 40 - 60 o north and south of the equator have the highest peak wind speeds.