Data Visualization Assignment 2 Notebook

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Data: UFO Sightings as reported by the National UFO Reporting Center (United States Organization) www.quandl.com/data/NUFORC/SIGHTINGS-UFO-Sightings

Question: Do UFO sightings increase around months that have holidays with fireworks?

Data Exploration: The data is sufficient to answer my question. Though, it would be more ideal if the data were on a day-by-day or week-by-week basis rather than a month-by-month basis. However, it is not a very detailed collection of data, which makes it a little easier for me to digest. The first bit of information that popped out to me are the larger numbers in the data set (2014-07-31, 2013-08-31, 2013-07-31). The data was pre-sorted in an easy to read way. Before graphing, my initial guess would be that the frequency of reports of UFO sightings would go up during months with fireworks. Upon looking at the raw data and trying to visualize it in my head, it seems that my theory may be debunked.

General Holidays with Fireworks:
January 1: New Year's Day
February 19: Chinese New Year
July 4: Independence Day
November 11: Diwali
December 31: New Year's Eve

Thoughts on Visualization: My initial thoughts on how to represent these parameters:
Amount of reports of UFO sightings: line chart, color, brightness, bar chart.
Date: timeline.
Holidays/Months with fireworks: color, brightness.

I don't think that a 3d graph would be a good idea to represent this group of data. However, I think a good way to represent the data would be a line graph with either brightness or color representing the holiday months with fireworks.

Post-visualization:
I have come to find that UFO sightings seem to be pretty random, and have nothing to do with holidays with fireworks. If I were to further explore this data set, I might try to find more data on government balloon testing, aircraft testing, or military testing.