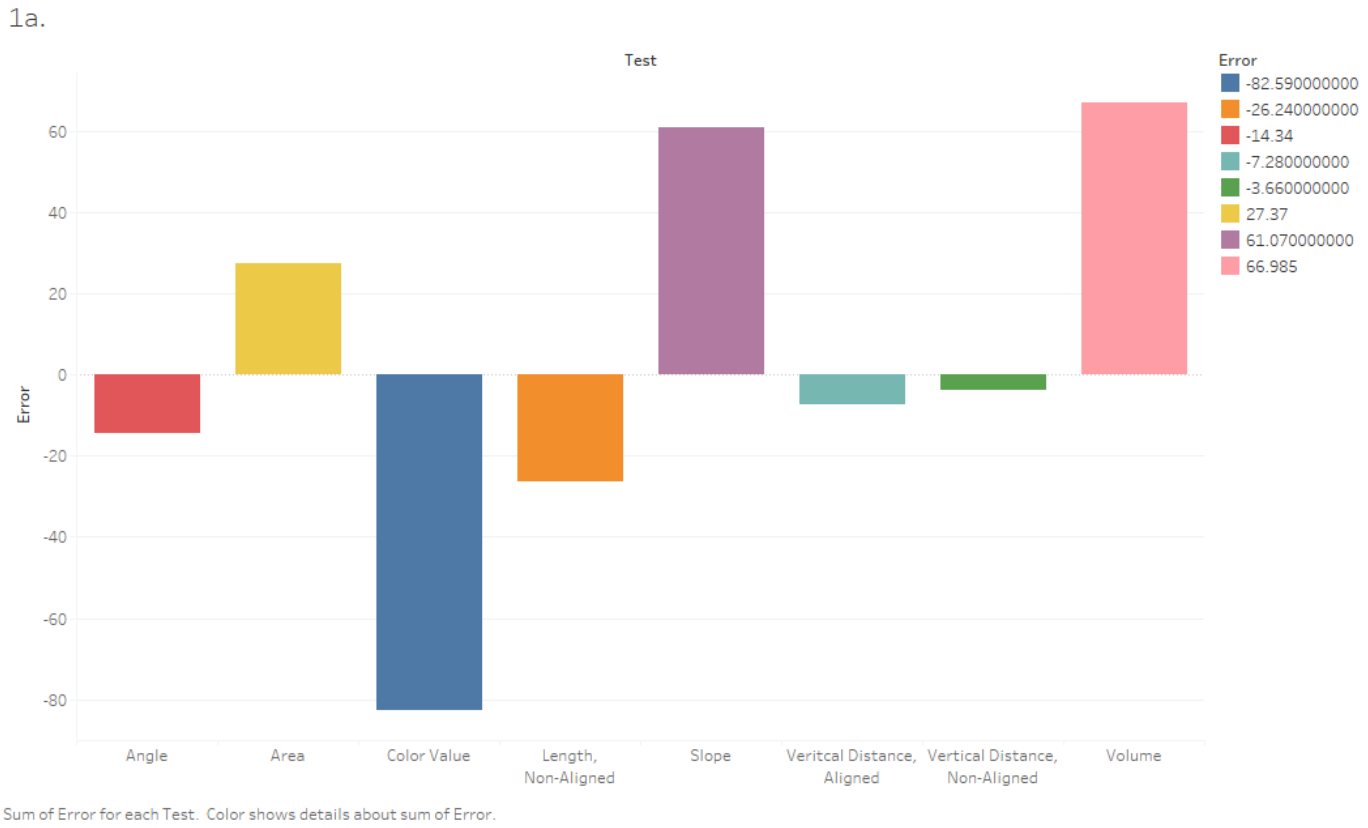
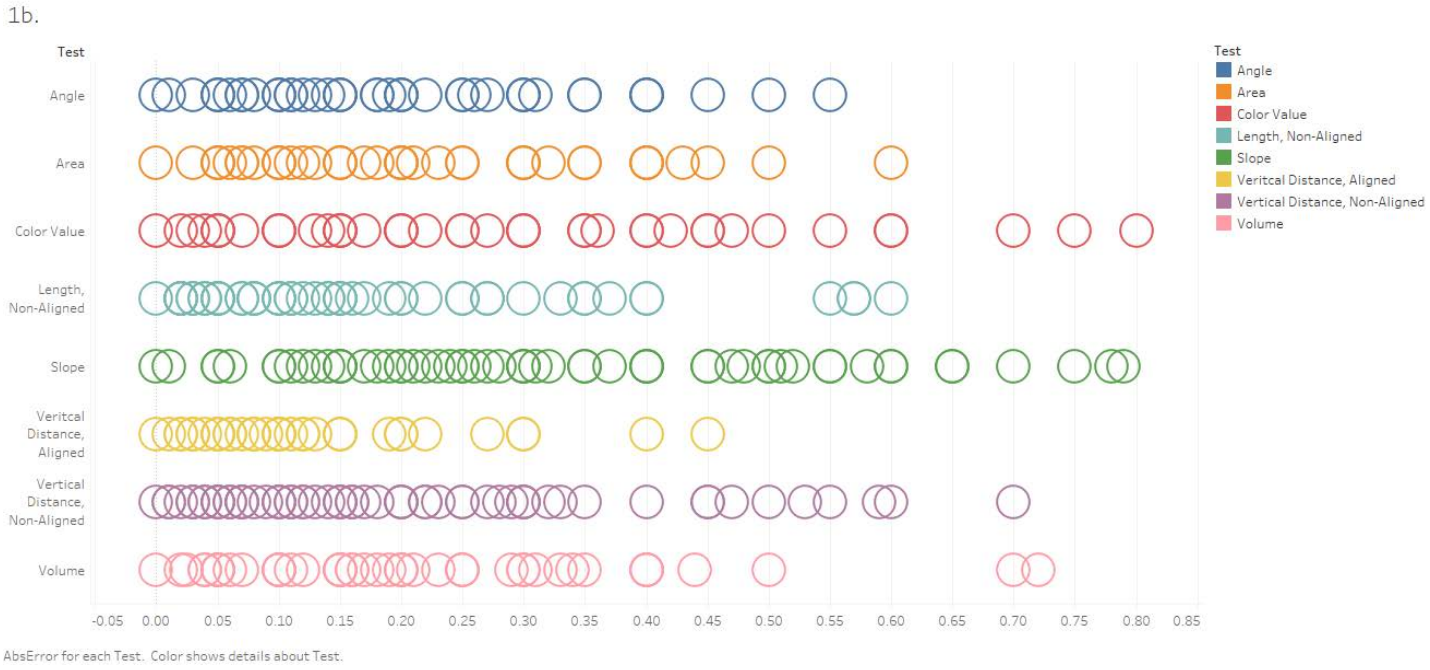
Keiland Pullen


**1.a)**




The above bar chart can be used to graph the calculated Error vs the Test. It displays that “Color Value” was greatly underestimated, while “Slope” and “Volume” were greatly overestimated.

**1b.)**

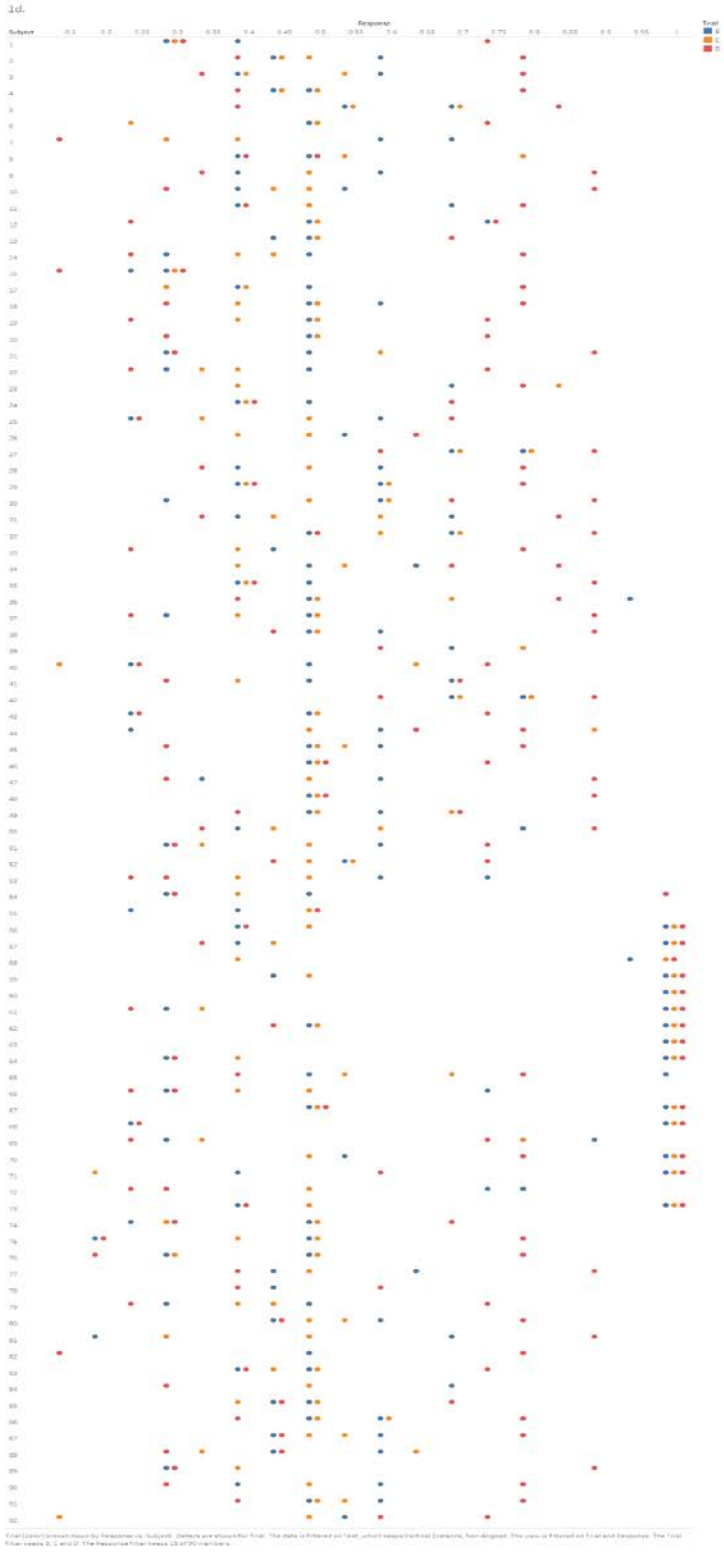



The above univariate scatter plot was created by graphing the Test variable vs. the Absolute Error. The scatterplot easily displays the groupings of errors and potential 'outliers', whereas the bar chart does not display the data separately. The scatter plot allows for more detail, for example, the individual circles may indicate one data point or a small amount of data points, where as the clumps indicate a larger number of data points. One observation is that the areas of clumps on the scatter plot may be equal to the areas on the bar chart.

**1c.)**


The above univariate scatter plot was created by graphing the Response variable vs the Display variable and filtering on the Subject variable, for subjects 56 – 73. The data points are colored coded by the Test Number variable. In this graph, for the Display 1, there is some grouping about the Responses, maybe 2 clumps compared to a single clump in Display 2. In Display 2, with the exception of 1 clump, it seems that the responses are separated, which may indicate that there was some improvement.

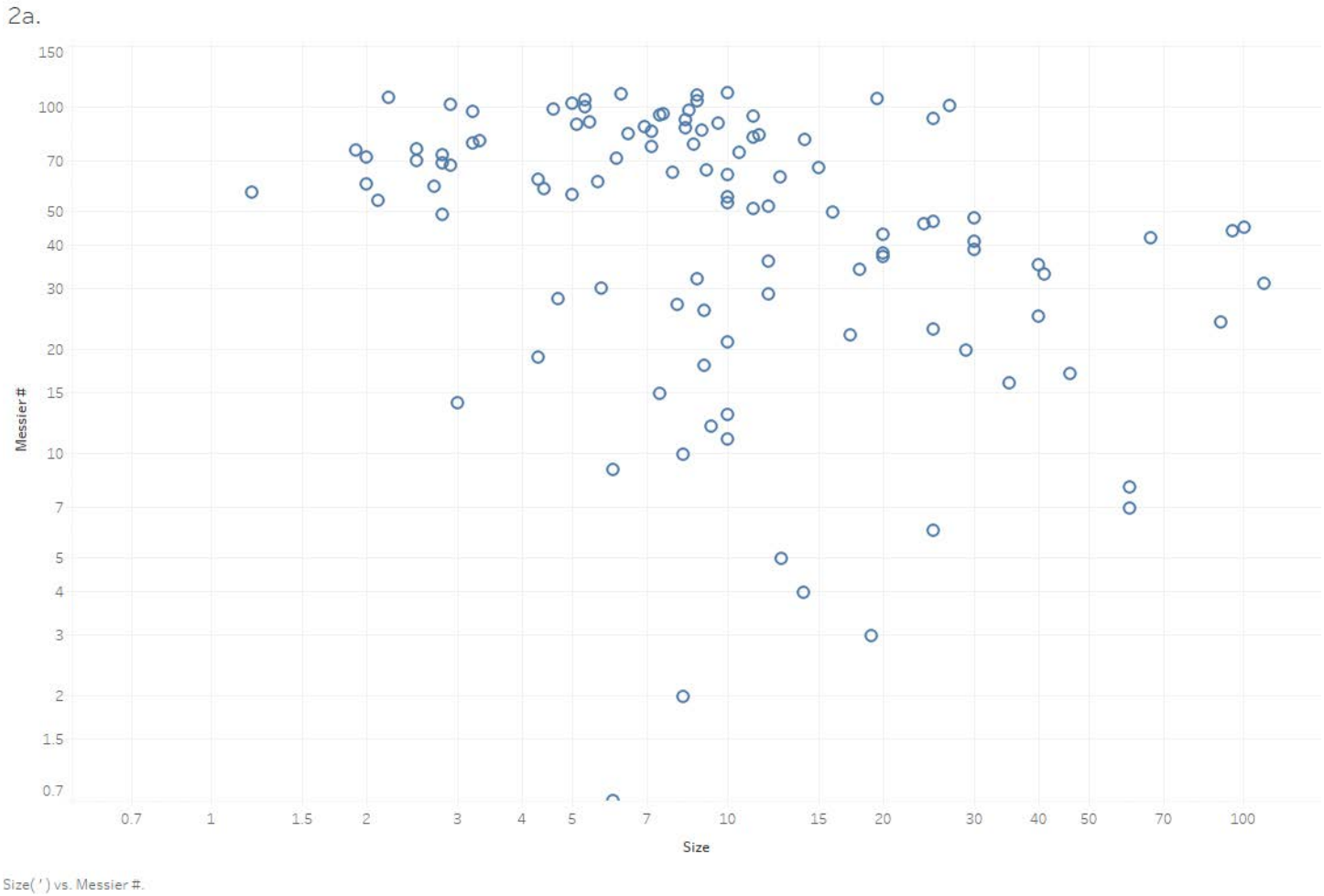
**1d.)**



The above univariate scatter plot was created by graphing the Response variable vs the Subject variable. The "Test" variable with a value of "vertical distance, non-aligned" was used as a filter. The Trial variable was also used as a filter to distinguish the data points, see the legend.

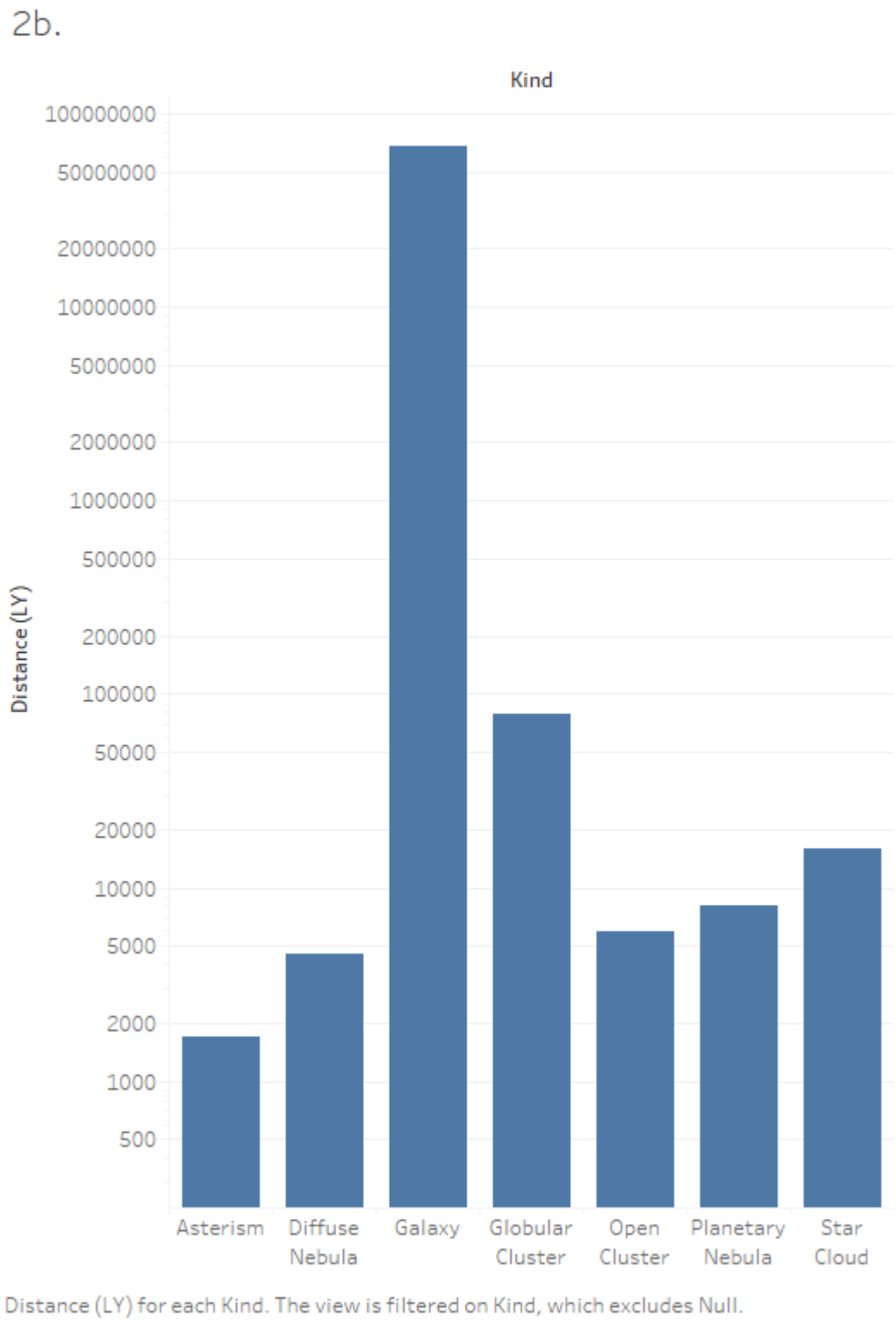
The following is a snippet of the original graph which indicates that users 54 – 73 were affected by the stimulus.

**2a.)**




The above is a scatter plot of the Messier # variable versus the Size variable

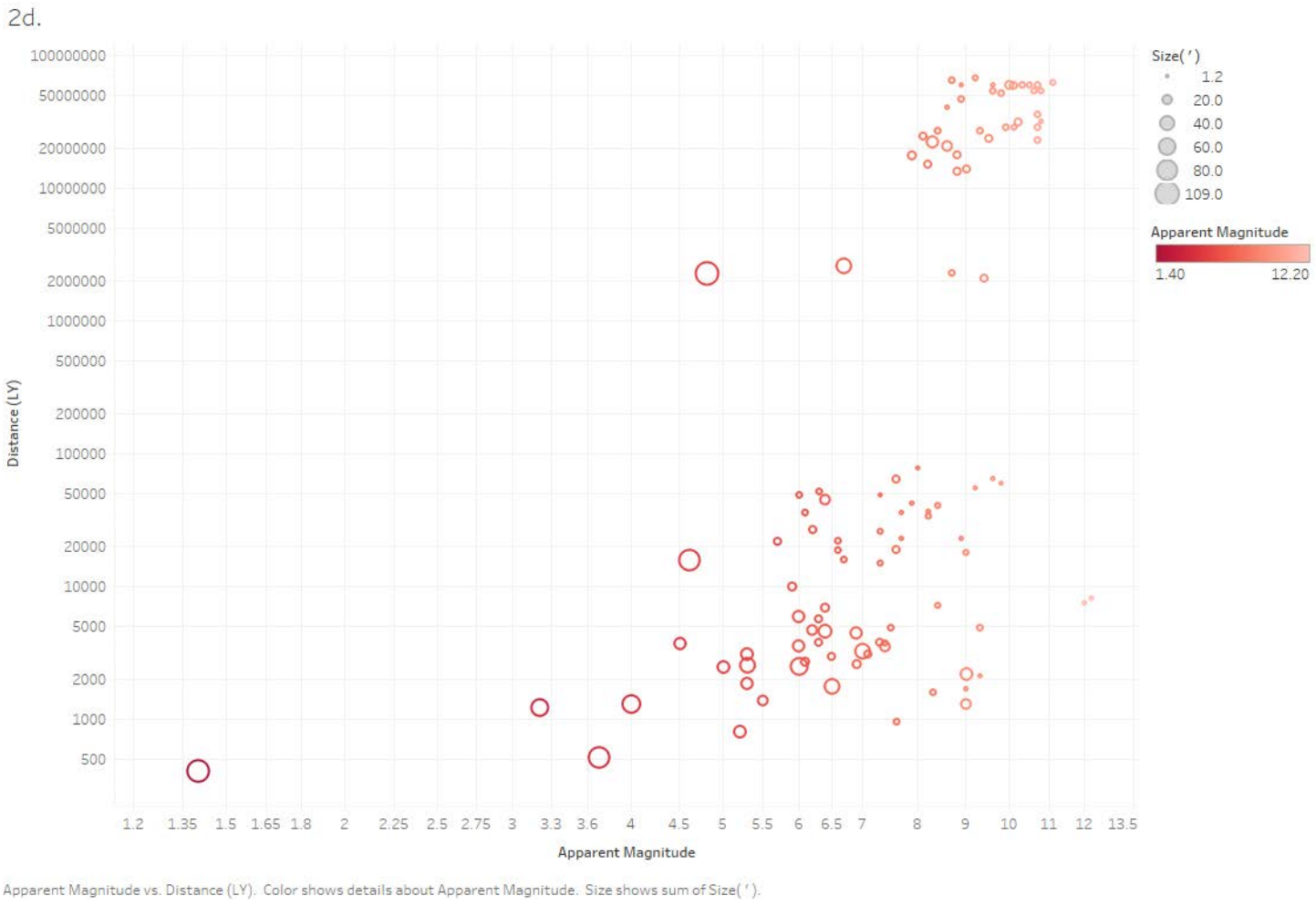
**2b.)**


2b.
Kind
Distance (LY)
100000000
50000000
20000000
10000000
5000000
2000000
1000000
500000
200000
100000
50000
20000
10000
5000
2000
1000
500
Asterism
Diffuse Nebula
Galaxy
Globular Cluster
Open Cluster
Planetary Nebula
Star Cloud
Distance (LY) for each Kind. The view is filtered on Kind, which excludes Null.

**2c.)**

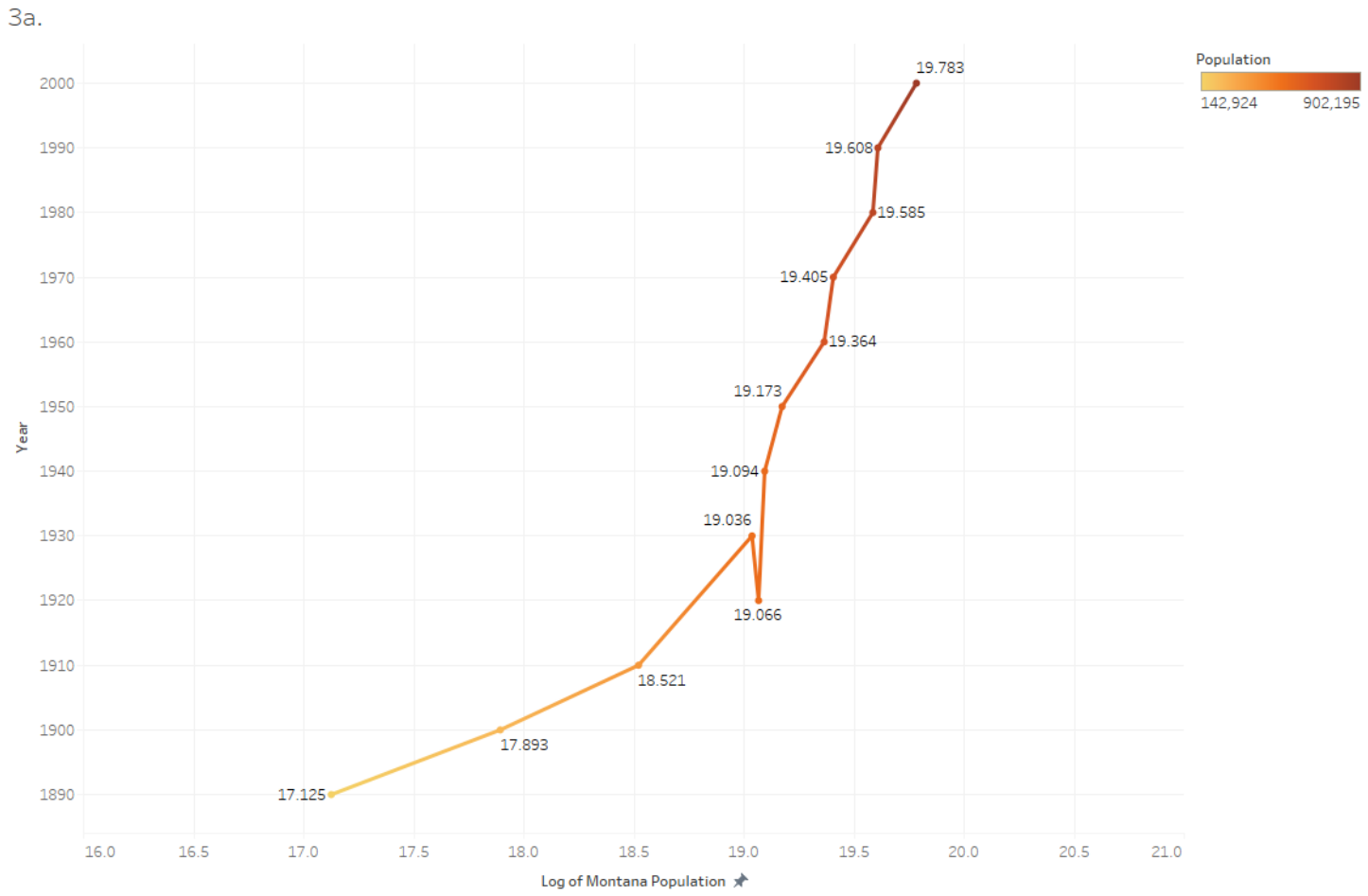

2c.
Apparent Magnitude
1.40
12.20
Distance (LY)
100000000
50000000
20000000
10000000
5000000
2000000
1000000
500000
200000
100000
50000
20000
10000
5000
2000
1000
500
1.2 1.35 1.5 1.65 1.8 2 2.25 2.5 2.75 3 3.3 3.6 4 4.5 5 5.5 6 6.5 7 8 9 10 11 12 13.5
Apparent Magnitude
Apparent Magnitude vs. Distance (LY). Color shows details about Apparent Magnitude.

**2d.)**



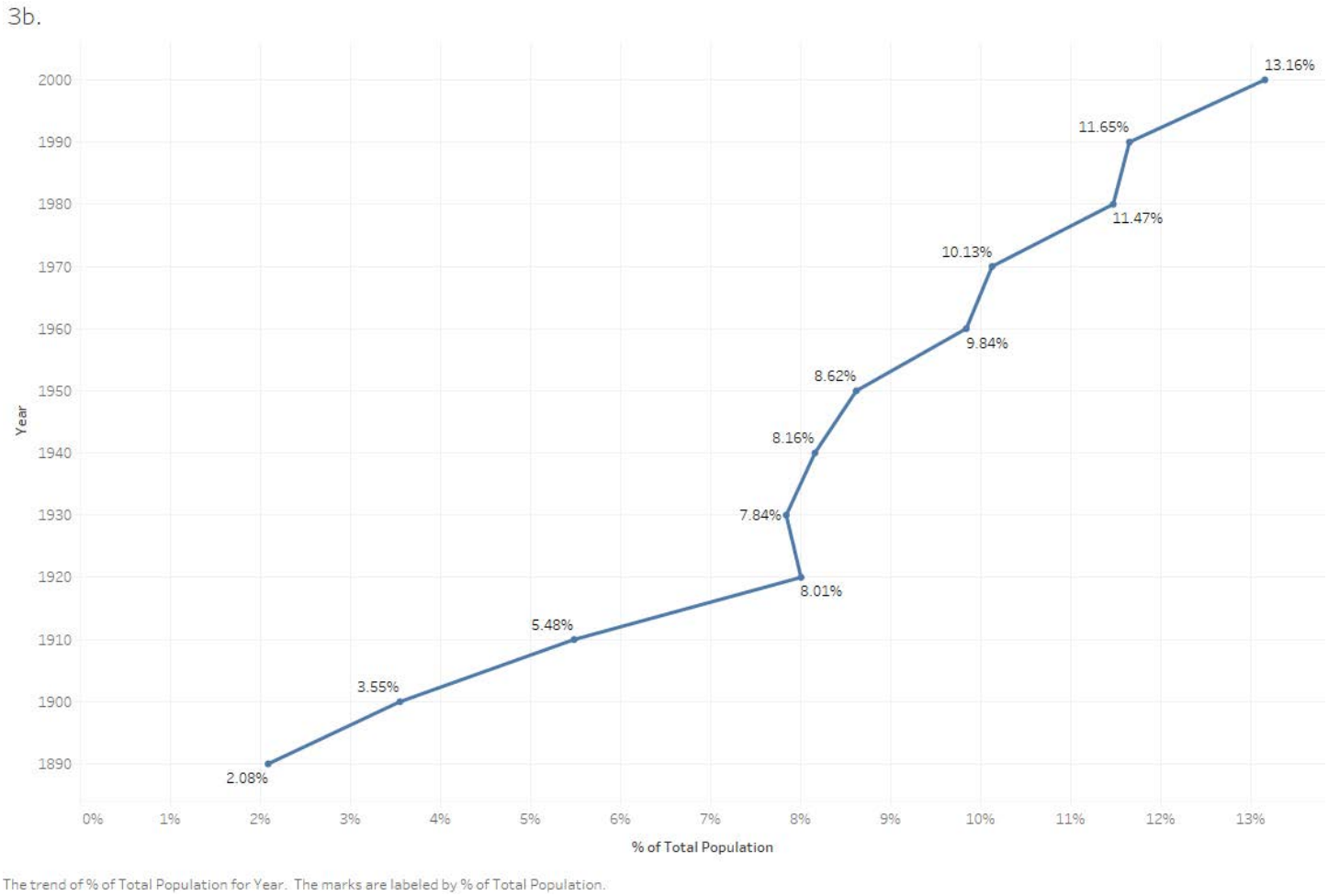

Apparent Magnitude vs. Distance (LY). Color shows details about Apparent Magnitude. Size shows sum of Size( ' ).

**3a.)**




The above graph, with the population scaled to a Log Base 2, should illustrate that the population doubled close to three times.

**3b.)**



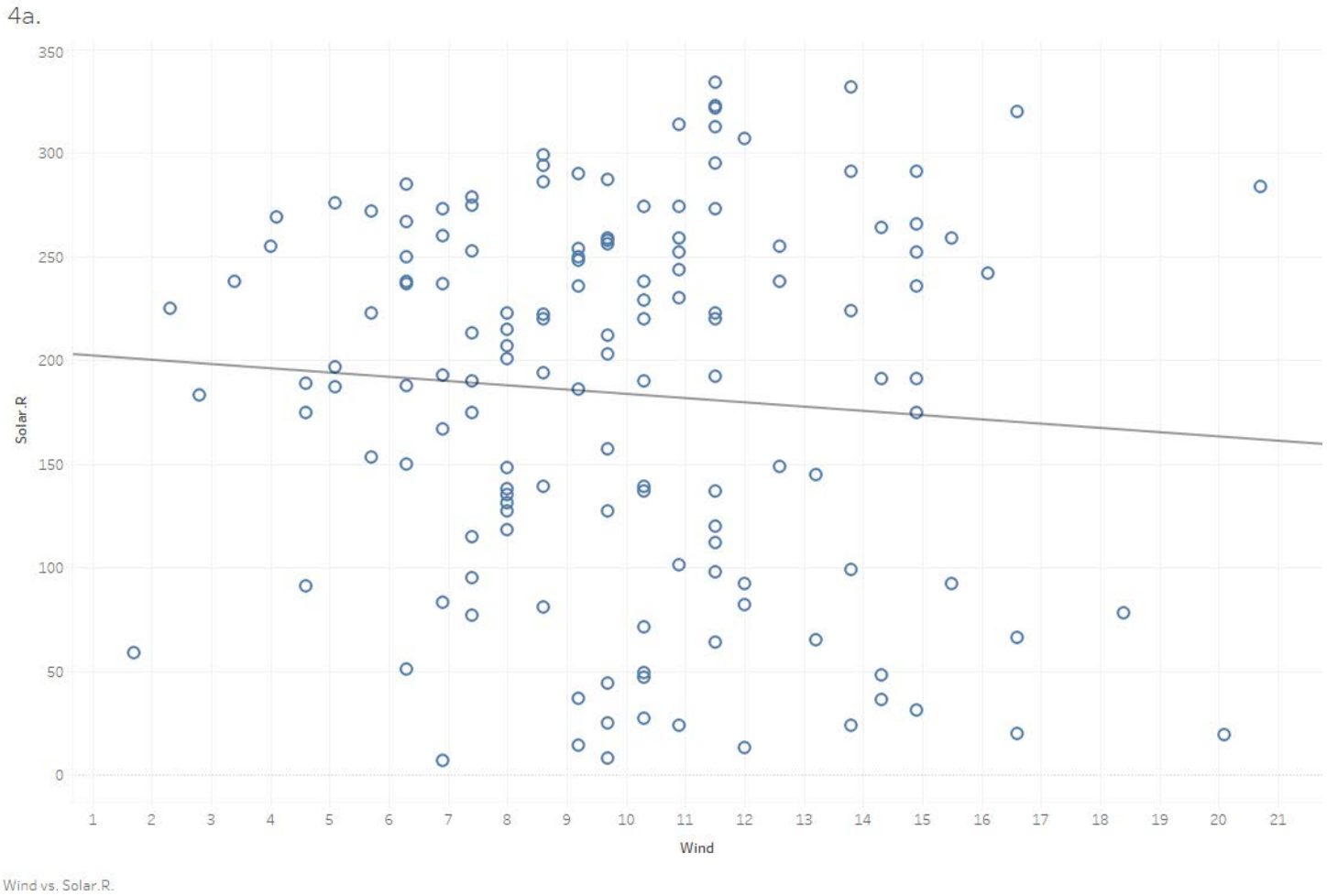

The above graphs explains that the percentage rate of the population has steadily increased over the years, with the biggest increase occurring between the years of 1890 and 1920.

**3c.)**

If my calculations are correct:

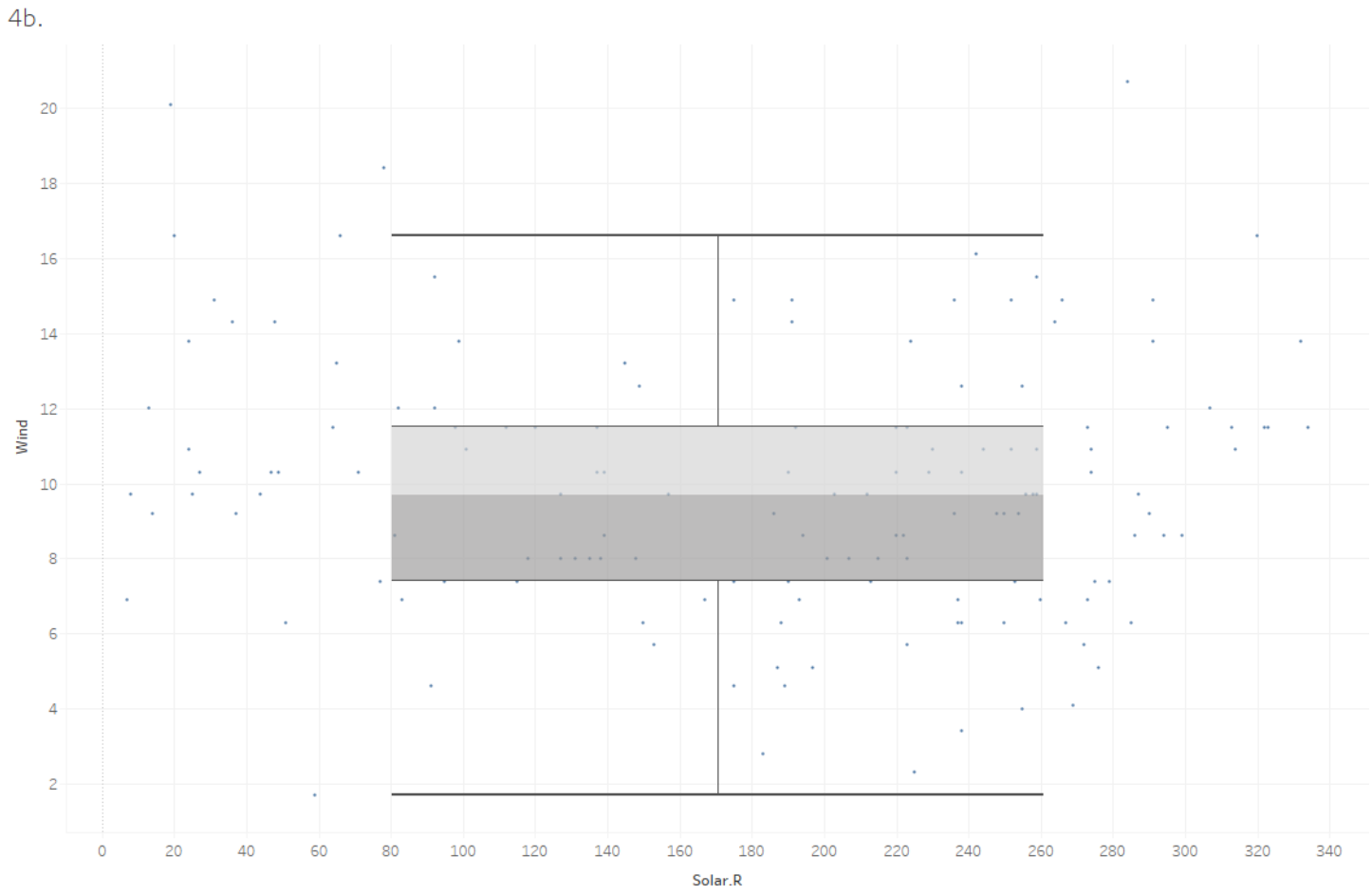
1890 – 1900 showed a 70% increase
1900 – 1910 showed a 54% increase
1910 – 1920 showed a 46% increase
1990 – 2000 showed a 17% increase

**4a.)**




The above graph illustrates the best fit for the data points for Wind vs Solar.

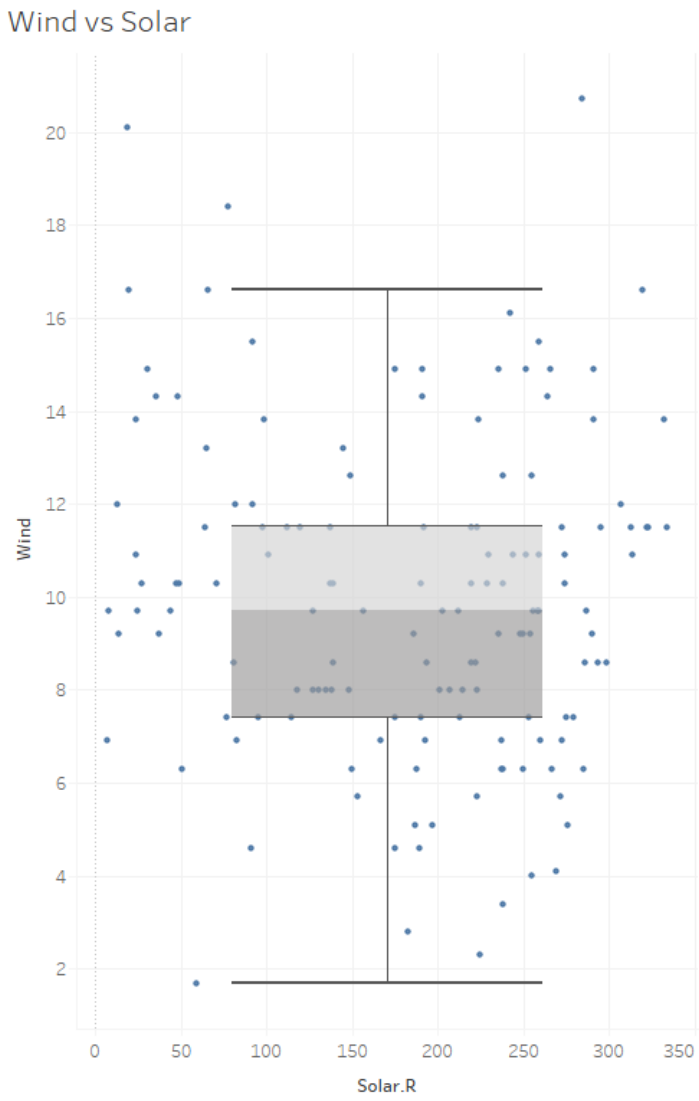
**4b.)**

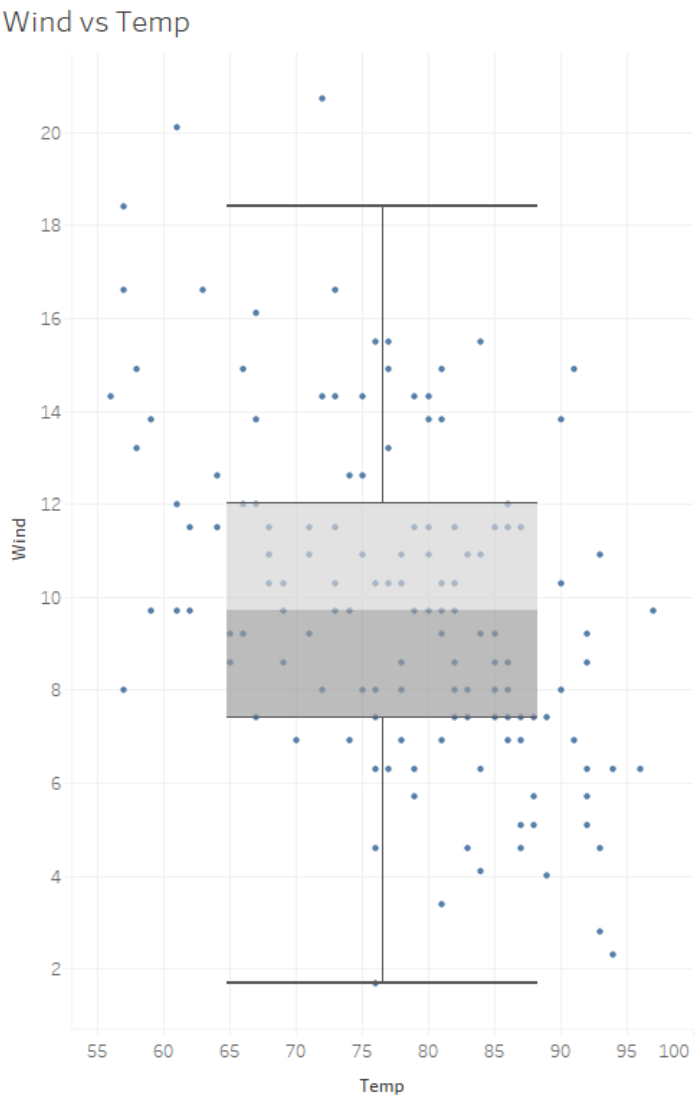


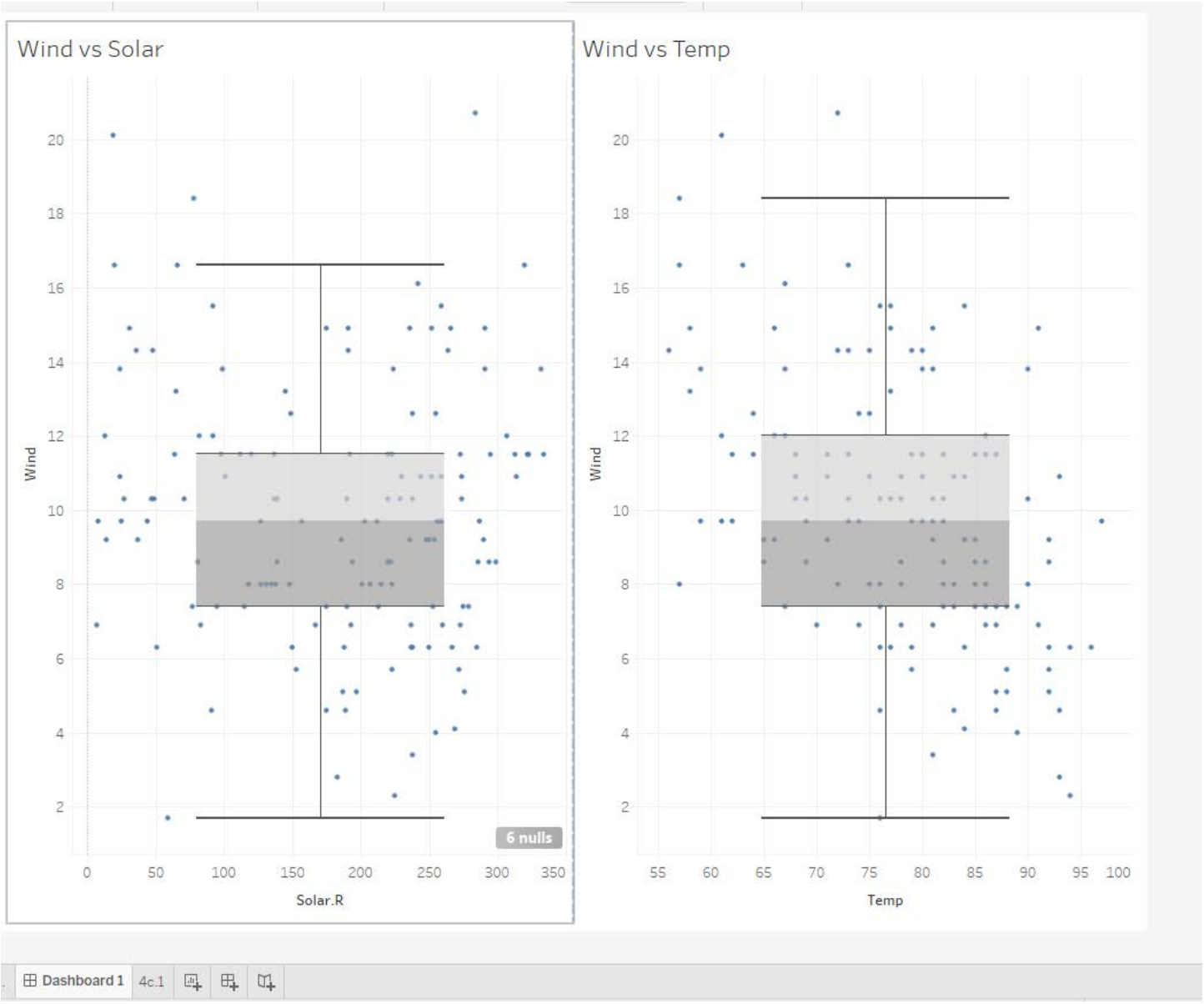

Solar.R vs. Wind.

**4c.)**

The following were built individually in Tableau, and then pulled into a Dashboard:




Wind vs Solar
Wind
Solar.R
6 nulls
Wind vs Temp
Wind
Temp
Dashboard 1
4c.1