# Insights and Visualizations from the Twitter Data

After successfully wrangling the datasets, I began to pose some questions I thought I could investigate. Using the cleaned WeRateDogs Twitter data, I was able to come up with some interesting analyses, alongside visualizations that would help communicate my insights better.

WeRateDogs is popular for humorously rating dogs. Their ratings always have a denominator of 10 (at least that was what I thought at first before cleaning the data!) The numerators are often greater than 10 as they believe almost all dogs deserve a 10 or more than that. So what could be the most common rating given to dogs? Do Twitter users engage more with tweets with higher ratings? Let's see!

What are the five most common ratings?

From the plot below, the five most common ratings are 12, 10, 11, 13, and 9.
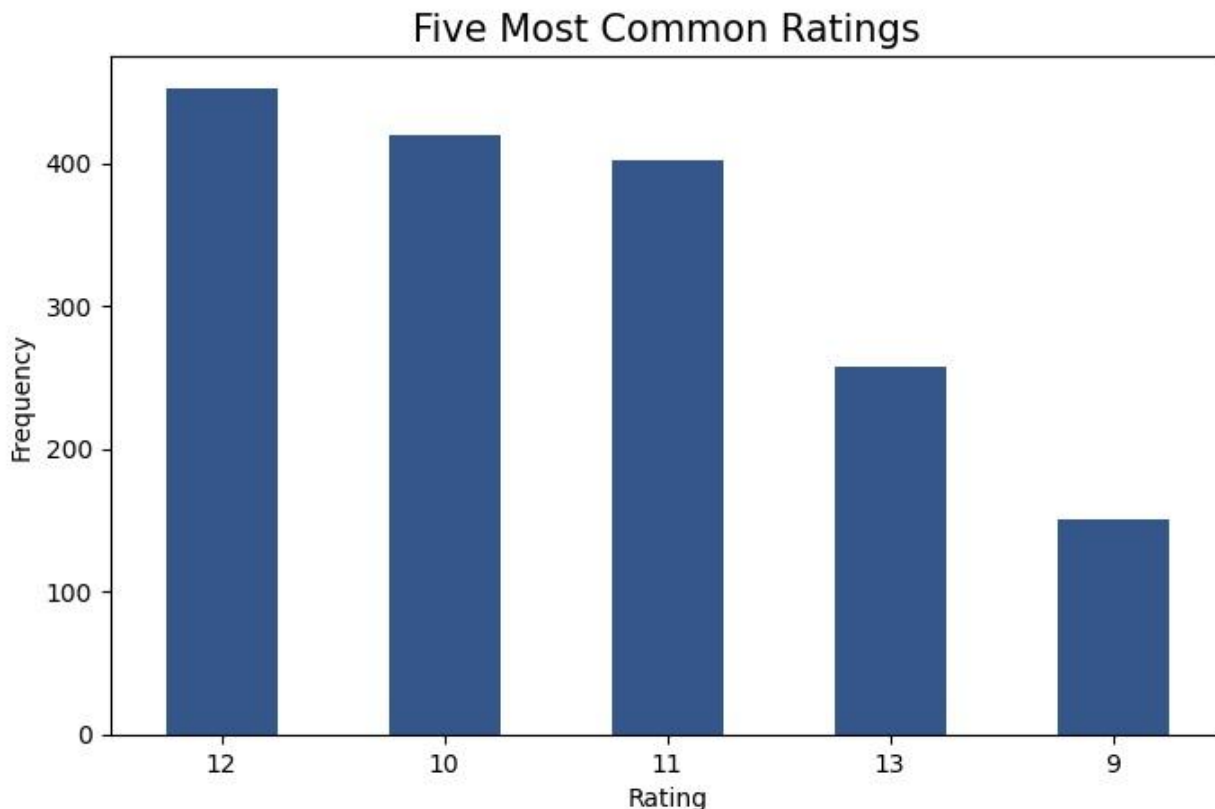
What is the average number of likes for each rating? Do higher ratings attract more user engagements?

Before making the plots, I had to first define what could constitute more user engagements. I decided to use the average number of likes for each rating.

- From the plot below, it is clear that for ratings 10 upward, the average number of likes increases continuously, with a rating of 14 having the highest average likes. Interestingly, 14 is not among the five most common ratings that WeRateDogs used between 2015 and 2017. In fact, using the cleaned dataset, 14 occurs just 35 times.
- On the other hand, most of the ratings below 10 struggle to earn less than 3,500 likes on average.
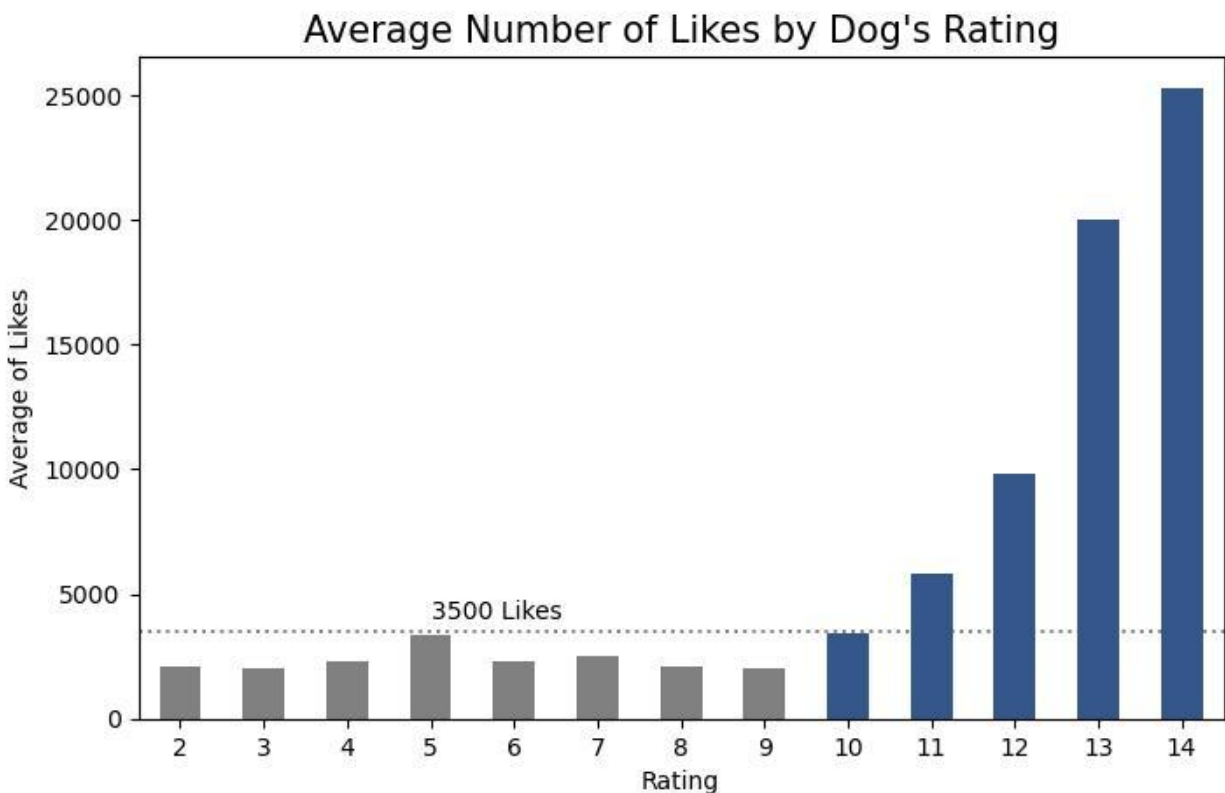
Is there a relationship between the number of retweets and the number of likes? If so, what is the strength of this relationship?

To investigate this question I made a scatter plot of the number of likes ("favorite_count") against the number of retweets ("retweet_count"). I found out that there was indeed a strong positive relationship between these two parameters. The pearson correlation was also found to be **0.93** My conclusion was that the more retweets a tweet gets, the more popular it becomes.

And the more popular it becomes, the more Twitter users can view it and like it. The plot is shown below.

Number of Likes vs Number of Retweets