

A linear regression was conducted using the Political Ads data on only US Presidential candidates. This regression can be found on the sheet titled "Spend," it used data from Spending and Impression. From this regression, the  $R^2$  value was found to be 0.6277. This refers to how closely the data points fit to a regression line. As seen in the scatter plot, there was a wide variance in Impressions for the same amount of money spent. This brings us back to the question of: Can you get more for spending less? Yes, but you have to curate your ad to be one that is encouraged to get served more.

A multiple linear regression was also conducted using the same data, but this time also including the Age targeted for the candidate's ads. This regression can be found on the sheet labelled "Multiple Linear Regression." The P-value of this variable is 0.76760262 which means it is not a good predictor of how many impressions a Snapchat ad will get. Instead, those ads that had a pre-determined age range to target tend to see more Impressions than those who would target "17+." Knowing your audience may be more effective than spending more money in this case.