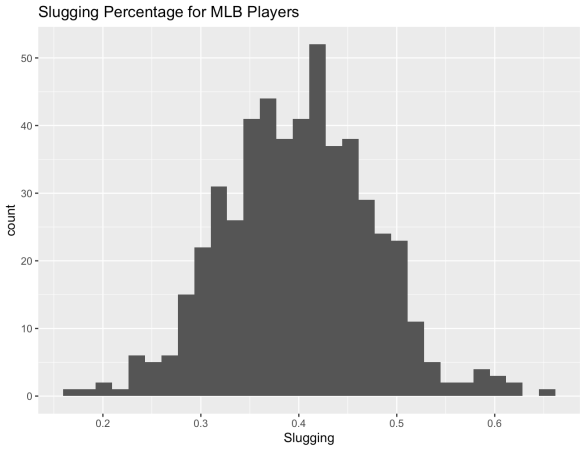
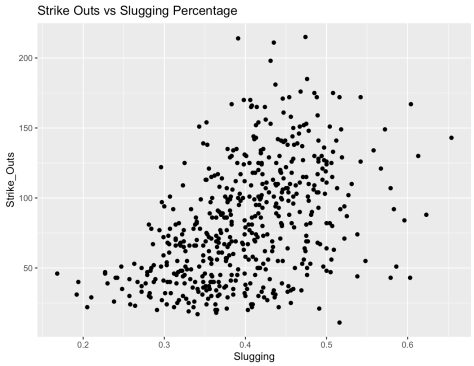
1. The mean of the slugging percentage for the MLB players is .4001 and the standard deviation is 0762. The distribution of slugging percentages is approximately symmetrical.



2. Los Angeles Angels player Shonei Ohtani had the highest slugging percentage in the 2023 season with 65.4% (0.654).
3. Slugging percentage is not very strongly related to the number of strikeouts, as the correlation coefficient is 0.4538 which doesn't show a strong relationship between slugging percentages and the number of strikeouts.



4. There are 258 power hitters. It does make sense that powerhitters (people who have a higher slugging percentage) strikeout more often. This is because the team will want to have the power hitters bat for runs, instead of trying to just get on bases, as they have the highest chance to score the team runs. Thus, it makes sense that powerhitters who want to hit the ball further for home runs will strike out more often because they compromise on accuracy for power. However, according to the data, there is not a strong correlation between the two.
5. There is no relationship between slugging percentage and strikeouts for both groups, power hitter or not. The correlation coefficient for the power hitters was .0154, which shows little to no correlation between slugging percentage and strikeouts. Similarly, the correlation coefficient for non power hitters was .0077 which showed no correlation between strikeouts and slugging percentage. The results from #3 differ from each group,

as they are stratified based on the number of homeruns. Since the correlation in #3 was already weak, dividing the data into 2 groups based on homeruns would make the correlation even weaker, since powerhitters attempt to swing for ‘value plays’ as opposed to base runs.