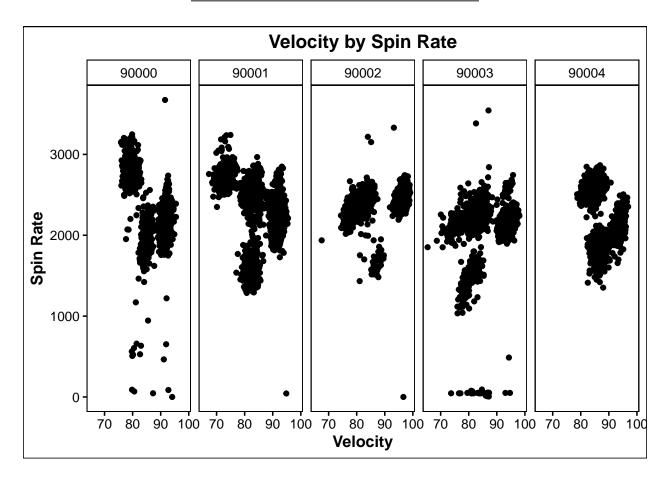
Reds Technical Assignment

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Pitcher	Strike Rate	Swining Strike Rate	Poor Contact Rate
90002	50.3%	14.8%	58.3%
90000	48.5%	14.7%	55.3%
90004	46.0%	14.4%	64.2%
90003	45.8%	11.3%	59.2%
90001	45.4%	11.2%	60.6%



My preferred order of these Pitchers would be:

#### 1) Pitcher 90002

Pitcher 90002 had the highest Strike Rate and Swinging Strike Rate out of the 5 pitchers. This helps make up for the fact that he ranked fourth in Poor Contact Rate (the percentage of times poor contact was made by the hitter compared to all the times contact was made). This was the overall difference between pitchers 90004 and 90002 for me. From the graph, his velocity is elite as well as enhanced even further by his change in velocity between the fastball and the off speed and breaking pitches.

# 2) Pitcher 90004

For me, comparing pitchers 90004 and 90002 was the toughest. Pitcher 9004 has the third highest Strike and Swinging Strike Rates. However, Pitcher 90004 does very well at drawing weak contact, the best of all the pitchers in the data set. He's good enough to be elusive to draw swings and misses/ get strikes called but even when contact is made, it's not strong contact. The difference for me ended up being that Pitcher 90002 consistently threw the ball harder

#### 3) Pitcher 90000

Pitcher 90000 has the second highest Strike Rate of all the pitchers in the test set, but what makes him really interesting is that his Swinging Strike Rate is nearly equal to Pitcher 90002 while his fastest pitches are a little bit slower. Although when he is hit he is hit hard, his high breaking pitch helps keep hitters off balance enough for that not to be as big of an issue.

### 4) Pitcher 90001

The biggest thing going for Pitcher 90001 is that he has the second highest Poor Contact Rate out of all the pitchers in the data set. His Strike Rate is below 50% which means he throws more balls than strikes on balls not hit. His peak velocity isn't that high either, maxing out around 95.5 mph. Looking at his Velocity by Spin Rate plot, he appears to throw 4 different pitches.

## 5) Pitcher 90003

Pitcher 9003 was consistently in the lower ranks across all three metrics. In addition, while looking at his Velocity vs Spin Rate graph, there were a few pitches that spin rates really close to 0. These of course be due to mistakes in the data but if that's a real pitch such as a knuckle ball that could be interesting to look into further.