## Plan for Logan Webb

Logan's two greatest strengths are that he produces an excellent ground-ball rate and features three high movement pitches (changeup, sinker, slider)<sup>2</sup>. But those high movement pitches are not translating to a healthy combination of strikeouts and walks. During 2020, his 18.7% K rate and his 9.8% BB rate are both worse than average<sup>2</sup>. During 2019, his 21.3% strikeout and 8% walk rates were actually significantly better so his control may have degraded significantly since then<sup>2</sup>.

Thus, my general recommendation is that Logan should focus his offseason work on improving his control. Specifically, I believe that Logan should aim to reduce the "variance" in the release point for each of his pitches to 0.14 feet. For example, reducing the variance for his changeup would mean that if he throws a sample of 100 changeups and computes the average release point as well as the distances of each release point to this average release point, the average of these distances should be 0.14 feet. Concretely, given a pitch type p and a sample of n such pitches called  $S = \{S_1...S_n\}$ , where  $S_i$  is the release point of the ith pitch then

$$variance(p) = \frac{1}{n} \sum_{i=1}^{n} d(S_i, avg(S))$$

A small "variance" means that the release point is consistently at the same place. The below table shows how Logan currently does (each number is a variance)<sup>1</sup>:

	4-seam Fastball	Changeup	Slider	Sinker
Logan Webb 2020	0.19 ft	0.18 ft	0.20 ft	0.16 ft
Logan Webb 2019	0.13 ft	0.12 ft	0.13 ft	0.13 ft
Trevor Bauer 2020	0.14 ft	NA	0.12 ft	NA
League Average	0.18 ft	0.16 ft	0.17 ft	0.17 ft

Logan had excellent consistency in his release point for each of his pitches during 2019, yet saw a 50% increase in variance during 2020<sup>1</sup>. Although 0.14 feet may be an aggressive goal since it's significantly tighter than league average, Logan should be encouraged by the fact that he did even better than 0.14 feet in 2019<sup>1</sup>. Ultimately, this goal is an unbiased way of measuring consistency in Logan's mechanics and is a process-focused goal which can be measured iteratively during the offseason to see his progress. Part of this process will also involve Logan deciding what "average" release point he wants to cluster around in the first place.

As a secondary goal, I would ask Logan to work on consistently locating his slider in the shadow zone (near the corners at the knees) as preparation to use more during two-strike counts. In 2020 during two-strike situations, Logan threw his changeup 35% of the time and his slider 20% of the time where both worked to a subpar 17% putaway rate<sup>1</sup>. I believe that Logan's slider is a better putaway pitch than his changeup; the speed gap with the fastball is 3.2 mph better and it had a strong putaway/whiff rate in 2019 when his command was sharper<sup>2</sup>.

## Citations

- 1. Jupyter notebook named "loganwebb\_calculations" in the same zip file (computed myself with code and data from baseball savant)
- 2. Logan Webb's baseball savant page