

Run Prevention Analysis

Pitcher B Breakdown & Game plan vs Position Player A

Dasol Shin

Data: Pitch-by-pitch data, 2024-2025 seasons

1. Objective

The goal of this analysis is to evaluate Pitcher B from a run prevention perspective, focusing on his pitching repertoire, pitch quality, and control. Using pitch-by-pitch data from the 2024 and 2025 seasons, we will identify significant changes in Pitcher B's pitching style and propose data-driven adjustments to his pitching strategy. Finally, we will develop a customized game strategy for facing Player A, based on the interaction between Pitcher B's strengths and Player A's weaknesses.

2. Pitcher B Breakdown

2.1 Arsenal (Pitch Mix)

Pitcher B's pitching repertoire underwent significant structural changes between the 2024 and 2025 seasons

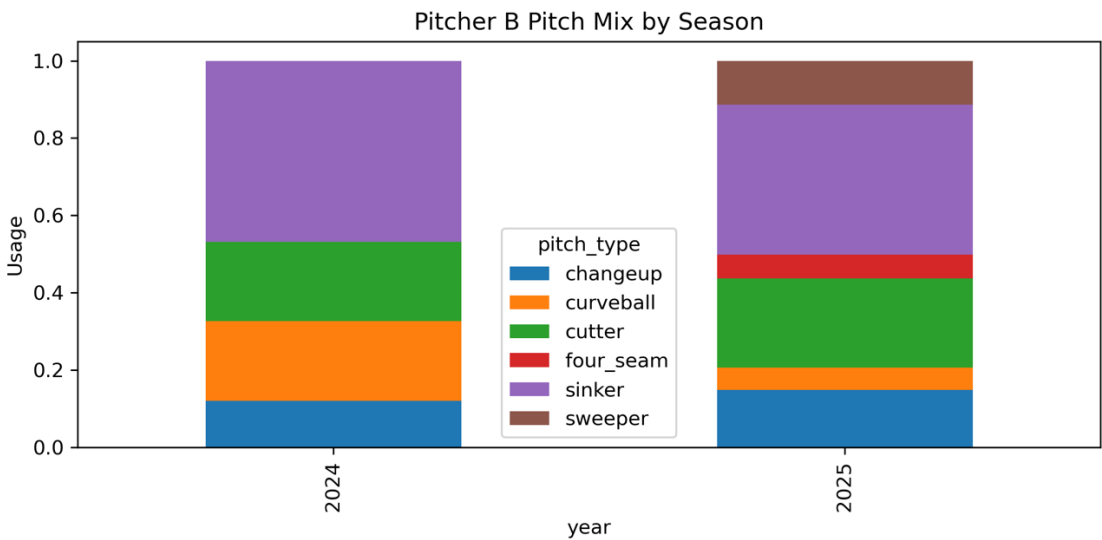


Figure 1. Pitcher B Pitch Mix by Season

Pitcher B’s repertoire in 2024 included a sinker-dominant strategy, as the sinker represented 46.84% of the overall pitches. The use of the cutter and curveballs was evenly distributed at 20.57% each, followed by the changeup at 12.02%. Pitch Mix Entering 2025, there is more diversity in the pitch mix in 2025. There is less usage of sinkers, from 47.37% to 38.85%. There

is an increase in the usage of cutters (23.01%) and changeups (14.78%). What is more apparent is that Pitcher B added sweepers (11.31%) and four-seam fastballs (6.20%) to their pitch repertoire. There is also less usage of curveballs (5.85%).

2.2 Stuff (Bat-Missing Ability)

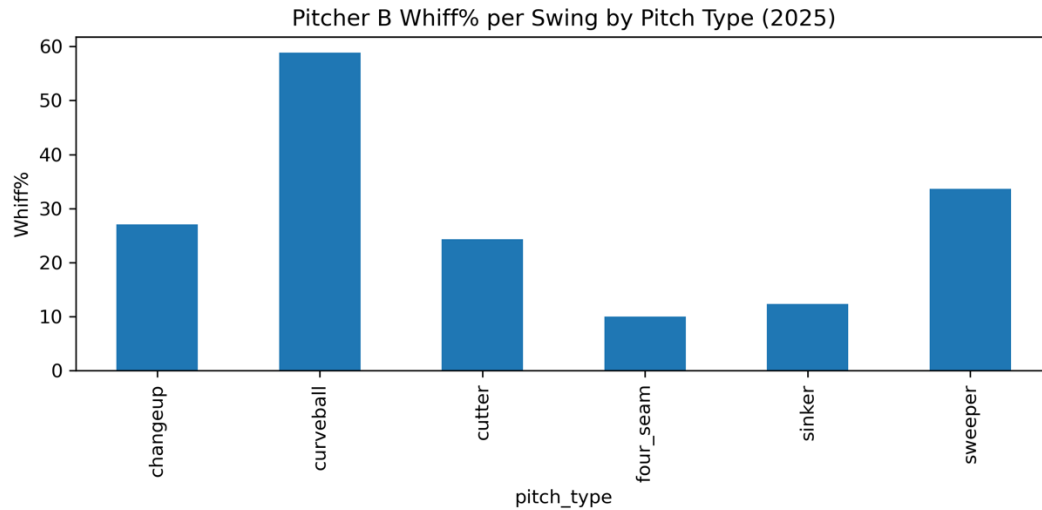


Figure 2. Pitcher B Whiff% per Swing by Pitch Type (2025)

The effectiveness of a pitch can be judged based on Whiff% per Swing, wherein a whiff is a swinging strike when a hitter swings at a pitch that is offered. In 2025, a curve, a sweeper, and a sinker followed by a four-seam fastball had low whiff percentages, reflecting that these pitches are most successful as a tool for count management.

2.3 Command (Location & Intent)

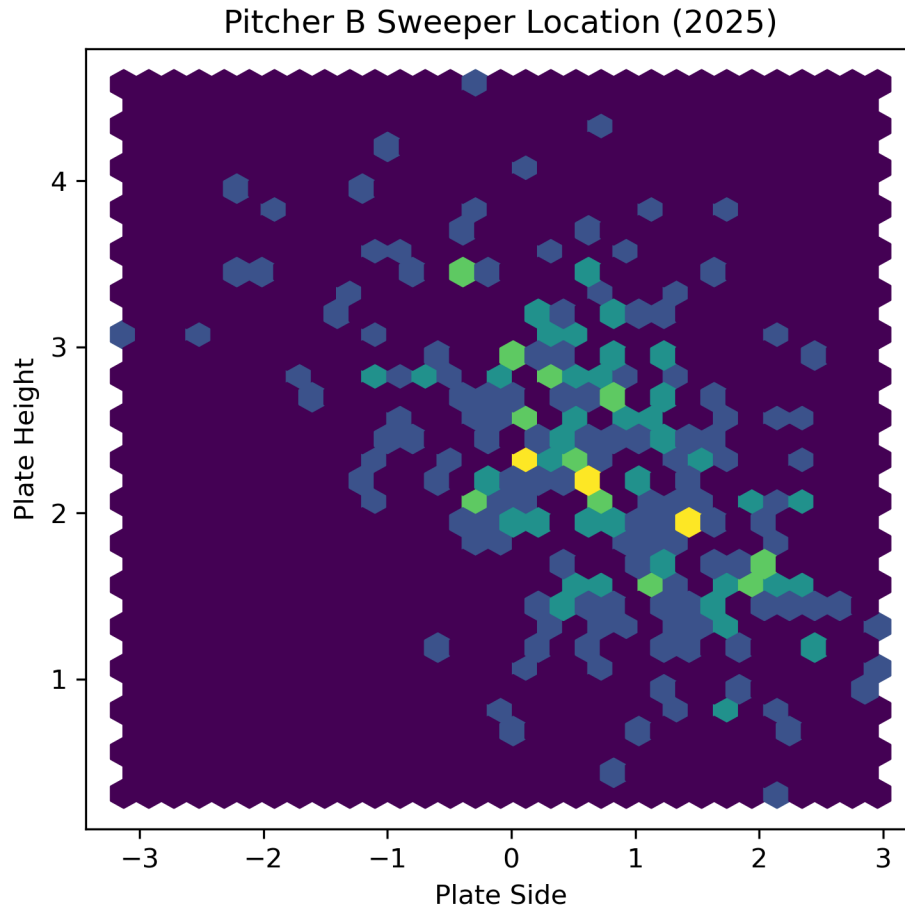


Figure 3. pitcher B sweeper pitch location distribution (2025)

The 2025 sweeper location pattern shows consistent targeting toward the glove-side edge and just off the plate. This distribution suggests intentional use as a chase pitch rather than a strike-stealing offering, aligning with the pitch's elevated whiff and chase rates. The lack of frequent misses in the heart of the zone indicates adequate command despite aggressive location targets.

3. Year-to-Year Changes

Pitcher B's pitching style underwent significant changes between 2024 and 2025. The addition of a sweeper and a four-seam fastball, along with a reduction in the use of the sinker and curveball, indicates a deliberate restructuring of his pitching repertoire. This restructuring has resulted in increased pitch variety and an improved ability to induce swings and misses in crucial situations.

4. Optimizing Pitch Usage for Bat-Missing Efficiency

Based on the pitch performance metrics, adjustments to Pitcher B's usage mix should emphasize aligning pitch selection with bat-missing effectiveness. The sinker remains

valuable in causing strikes and fighting early counts, but it generates a relatively low whiff rate, this suggests that it is less effective as a finishing pitch and should be de-emphasized in two-strike situations. Conversely, the sweeper shows excellent bat-missing and chase potential, essentially making it the most reliable primary put-away option in leverage counts. The four-seam fastball, given its limited whiff performance, would be best utilized when being very selective to provide either an eye-level or timing disruption rather than as a consistent finisher. Collectively, these changes would better apply the strengths of Pitcher B's arsenal and help improve overall run prevention efficiency.

5. Game Plan vs Position Player A

5.1 Player A Weaknesses

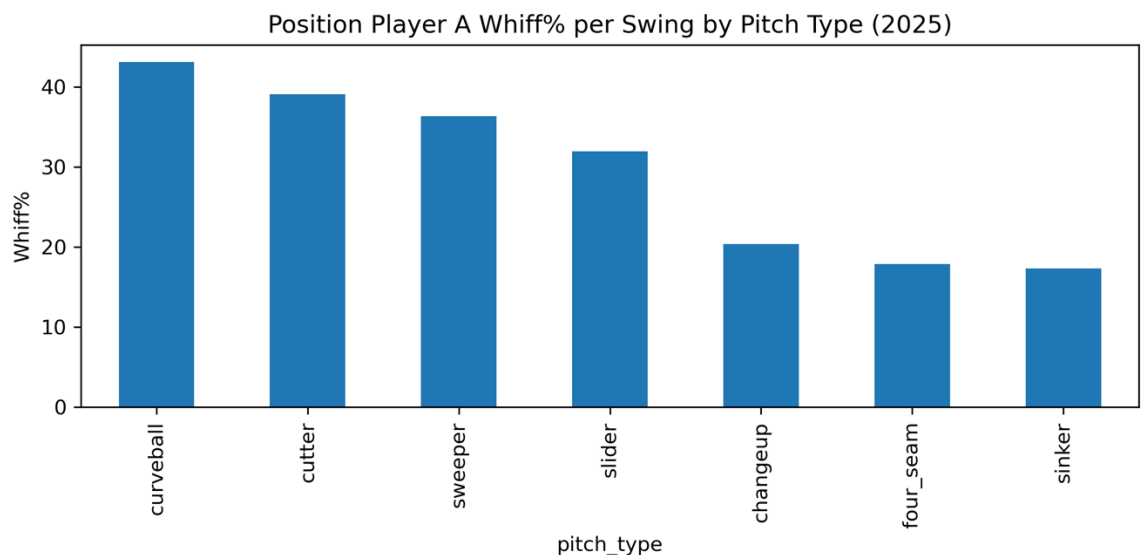


Figure 4. Position Player A Whiff% per Swing by Pitch Type (2025)

Position Player A has a high whiff rate on breaking and cutter pitch classes, including curveballs, cutters, and sweepers, and a lower whiff rate on sinkers and four-seam fastballs. This is indicative of trouble with lateral movement and late break.

5.2 Matchup Strategy

In typical at-bat situations, pitcher B should aim to throw first pitch strikes by using the cutter and occasionally the sinker to pound the edges of the strike zone. With favorable counts or tie situations, the sweeper is used to expand his pitching range horizontally to entice swings and misses from the hitter. The sweeper would be his go-to putaway pitch with two strikes, while a curveball dropping out below the strike zone or a four-seam with sudden movement at eye level of the batter could sometimes be the stuff to get the job done.

6. Conclusion

The case of Pitcher B in 2025 is indicative of an effective adjustment to a new generation pitching style that emphasizes run prevention. Pitcher B's new pitching repertoire, which

features the addition of a sweeper pitch, is beneficial for striking out opponents and complements the weaknesses of batter A. Pitcher B can thus pitch efficiently and avoid giving away an earned run by using the right pitches in vital junctures.