Chris Flexen End of Season Report

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Introduction

Vitals	Pitch Type	Avg MPH	$\overline{\mathrm{Usg}\%}$
Throws: RHP	4-Seam	92.6	61.8%
Age: 26	Cutter	87.2	16.9%
DOB: 7/01/1994	Curveball	76.1	12.5%
Height: 6' 3"	Changeup	81.1	8.8%
Weight: 249 lbs			

In his first KBO season, Chris Flexen, a former New York Mets pitcher and prospect, turned in a fantastic season with the Doosan Bears. Over 116.2 regular-season innings and 28.1 playoff innings (145 total IP), Flexen flashed his swing and miss ability and increased confidence in some of his secondary pitches, and helped pull the Bears to the Korean Series, where they fell to the dominant NC Dinos in six games.

Flexen was the second-hardest throwing starting pitcher in the KBO in 2020 (behind teammate Raúl Alcántara), which has always been a strength for him. In a bullpen role with the Mets, Flexen's fastball averaged around 94 mph; with Doosan, he averaged about 92.6 mph on his 4-seam, getting stronger as the season continued. He was able to ride that velocity to the highest K% in the KBO among starting pitchers. Flexen's stellar season in the KBO, which included an IL stint partway through, was likely good enough to draw MLB interest in him as a potential reliever/swing-man or from a team interested in developing him as a starter.

However, at just 26 years old and turning 27 mid-way through the 2021 season, I wouldn't be surprised if Flexen returns to the KBO (or NPB) in 2021 to continue to hone his craft and approach as a starter. If he chooses that route, I'd like to see him start to incorporate his cutter, curveball, and changeup more into his approach. We know that his fastball velocity plays well against KBO hitters, but continuing to develop his curveball and cutter as go-to pitches (and his changeup against LHH) is crucial to potentially returning to MLB as a starter.

There haven't been any pitchers similar to Flexen to make the jump from KBO back to MLB in the last few years (Merill Kelly would likely be the closest, but he's five years older and didn't have as much KBO success). His MLB average velocity stands out, as does his swing-and-miss ability. One problem that plagued Flexen in MLB was an unsightly 16% BB%, which he cut down to 6.4% in the KBO. He also went from a allowing 1.47 HR/9 in MLB to 0.46 HR/9 in the KBO. Compared to his 2019 stint with the New York Mets Triple-A team, he performed better across the board and threw a professional career-high for innings pitched (including the playoffs).

If he's interested in returning to MLB in a starting capacity, I wouldn't be surprised to see him remain in Korea for 2021 to hone his secondary stuff. It also would not be a shock if a savvy team jumped on him this offseason to try and continue to develop him themselves. The velocity is there, but the only question is whether or not he's able to develop secondary pitches that he's willing to throw more.

He has had a checkered injury history, with Tommy John surgery in 2014 and knee surgery in 2017 to remove a bone chip. He did miss about two months of the KBO season due to a broken foot that resulted from a hard groundball up the middle. Once he returned, he showed no adverse side-effects from the broken bone and pitched better than he did pre-injury.

Stats and Graphics

Table 2: Stats from FanGraphs Chris Flexen

Season	Team	IP	HR/9	К%	BB%	K-BB%	AVG	WHIP	BABIP	LOB%	ERA	FIP
2020	Bears	116.2	0.46	28	6.4	21.6	0.22	1.09	0.301	71.3	3.01	2.74

Pitch locations for Chris Flexen. Data for pitches from starts was manually charted from ESPN/Twitch broadcasts.

Pitcher Perspective

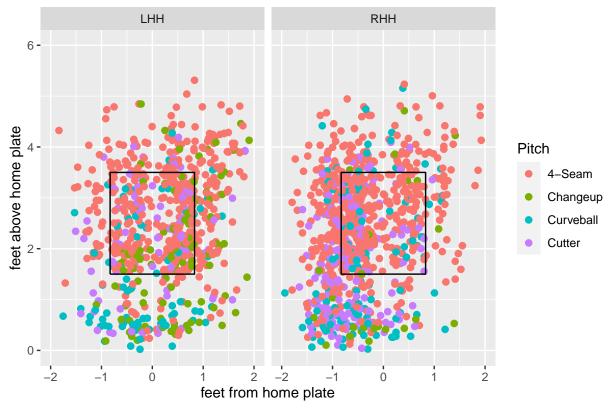


Table 3: Overall Charted Stats for Chris Flexen

Pitcher	Pitches	wOBA	ExwOBA	ExwOBACON	$\mathbf{CSW}\%$	$\mathbf{SwStr}\%$	$\mathbf{Whiff}\%$	$\mathbf{CS}\%$	$\mathbf{Swing}\%$	Contact%
Flexen	1710	0.247	0.286	0.360	30.8	14.0	28.6	16.8	48.9	71.4
KBO	29734	0.337	0.338	0.361	27.6	10.4	22.2	17.2	47.1	77.8

Table 4: Overall Charted Batted Ball Event Data for Chris Flexen

Pitcher	\mathbf{BBEs}	GB%	$\mathbf{FB}\%$	LD%	$\mathbf{PU}\%$	$\mathbf{Soft}\%$	$\mathbf{Medium}\%$	$\mathbf{Hard}\%$	$\mathbf{Pull}\%$	$\mathbf{Straight}\%$	$\mathbf{Oppo}\%$
Flexen	251	50.2	21.1	17.9	10.8	38.0	38.0	23.9	29.2	44.0	26.8
KBO		51.2	26.0	14.0	8.7	30.4	40.8	28.7	34.1	42.8	23.1

Chris Flexen Velocity Distribution

4-Seam ~ 92.6, Cutter ~ 87.2, Curve ~ 76.1, Changeup ~ 81.1

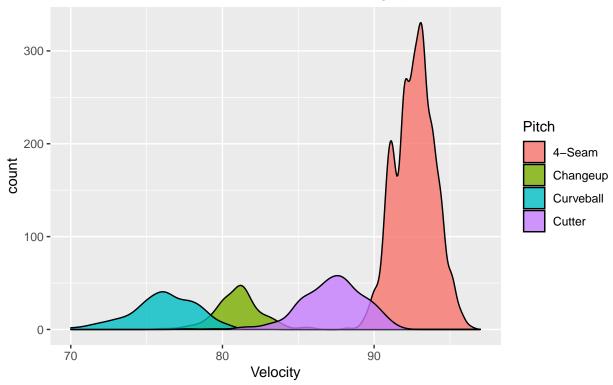


Table 5: Chris Flexen Average Velocity Pre vs Post Injury

Pitch	\mathbf{Pre}	Post	Diff
4-Seam	91.8	92.8	1.0
Cutter	86.3	87.6	1.3
Curveball	75.1	76.4	1.3
Changeup	81.3	81.0	-0.3

Table 6: Chris Flexen Pitch Usage by Batter Handedness

Bats	Pitches	4-Seam $%$	Cutter%	Curveball%	Changeup%
RHH	999	63.2	19.6	13.6	3.6
LHH	693	61.3	10.8	11.3	16.6

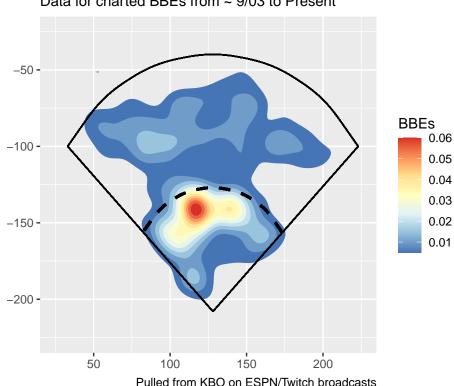
Table 7: Pitch Type Charted Stats for Chris Flexen

Pitch	Velo	Usg $\%$	Pitches	wOBA	ExwOBA	$\mathbf{CSW}\%$	$\mathbf{SwStr}\%$	$\mathbf{Whiff}\%$	$\mathbf{CS}\%$	$\mathbf{Swing}\%$	$\mathbf{Contact}\%$
4-Seam	92.6	61.8	1056	0.250	0.303	29.8	12.2	24.7	17.6	49.4	75.3
Cutter	87.2	16.9	288	0.273	0.311	32.6	12.2	25.9	20.5	46.9	74.1
Curveball	76.1	12.5	213	0.196	0.197	31.0	22.1	42.7	8.9	51.6	57.3
Changeup	81.1	8.8	151	0.272	0.283	33.8	18.5	40.6	15.2	45.7	59.4

Table 8: Pitch Type Charted Batted Ball Data for Chris Flexen

Pitch	Velo	Usg %	ExwOBACON	BBEs	GB%	FB%	LD%	PU%	Soft%	$\mathrm{Med}\%$	Hard%
4-Seam	92.6	61.8	0.381	144	43.1	25.7	18.8	12.5	30.9	39.7	29.4
Cutter	87.2	16.9	0.322	54	64.8	13.0	16.7	5.6	46.9	36.7	16.3
Curveball	76.1	12.5	0.385	27	51.9	18.5	25.9	3.7	44.0	44.0	12.0
Changeup	81.1	8.8	0.299	26	57.7	15.4	7.7	19.2	54.2	25.0	20.8

Chris Flexen Charted BBE Plot Data for charted BBEs from ~ 9/03 to Present



Pulled from KBO on ESPN/Twitch broadcasts

Chris Flexen, a 26-year-old RHP with 68 IP of MLB experience with the New York Mets, made his KBO debut in 2020 with the Doosan Bears and turned in one of the best seasons in KBO history. His 28% K% is the fourth-highest in the KBO since 2002, and his FIP of 2.74 is the 13th-lowest mark in the same span. His 2020 is only the second season since 2002 in the KBO to post a K% higher than 28% and a FIP below 3.00, joining Ryu Hyun-jin's 2012 season at 25-years-old.

Flexen threw 116.2 regular-season IP in 2020, striking out 28% of batters (10.18 K/9) and walking just 6.4% of batters (2.31 BB/9). He posted a 2.74 FIP (second in the KBO) and a 3.01 ERA (fifth in the KBO). In the playoffs, he went to another level, throwing 28.1 IP with an ERA of 1.91. He struck out batters at a 10.8 K/9 rate with a 2.22 BB/9. He helped pull Doosan's lineup into the Korean Series, where they fell to the NC Dinos in six games, losing the series 4-2. Over their playoff run, Flexen did everything that Bears needed; he started multiple games in each series, came out of the bullpen, and pitched on short rest when asked. He competed on every pitch, and that's the mentality that MLB teams are looking for in their pitchers.

Flexen did only throw 116.2 IP over 21 games started, far fewer than some of the other top starters in the KBO, due to a fluke injury. In his July 16th start against the SK Wyverns, Flexen took a ground ball up the middle off of his foot, which resulted in a broken foot. He missed nearly the next two months, returning on September 9th to face the KT Wiz. After that three-inning return, Flexen was back to throwing 90+ pitches and 6+ innings per start regularly.

After returning from his injury, Flexen closed the KBO regular season on a tear. He posted a 2.71 ERA over his last 49.2 IP and was striking out 13.2 batters per 9 IP with a 1.63 BB/9. On the season as a whole (including the playoffs), Flexen posted a 14% SwStr% and a Called Strike + Whiff% (CSW%) of 30.8%, the second and fourth-best marks in the KBO. He allowed a wOBA of 0.247 (lowest in the KBO) and an ExwOBA (Estimated xwOBA) of 0.286 (second lowest in the KBO). His batted ball profile was around the league-average, with an ExwOBACON of 0.360 and a BABIP of 0.301, but his high K% helped offset that.

Flexen's GB% of 50% was about average while he held opponents to a 38% soft-contact% and a 24% hard-contact%, marks that were both better than the KBO average. However, his LD% allowed of 18% was higher than the KBO average, which adversely affected his ExwOBACON (Estimated xwOBA on Contact). Based on my observations, that's a minor concern since he kept most of his batted balls on the infield and did a decent job of limiting hard-contact.

Table 9: Chris Flexen Pitch Usage by Count vs RHH and LHH

Side	Count	Pitches	$4 ext{-Seam}\%$	${\rm Cutter}\%$	${\rm Changeup}\%$	Curveball%
RHH	00	239	62.8	24.3	5.4	7.5
RHH	01	120	63.3	21.7	2.5	12.5
RHH	02	59	47.5	18.6	3.4	30.5
RHH	10	83	67.5	28.9	2.4	1.2
RHH	11	115	55.7	25.2	2.6	16.5
RHH	12	113	52.2	10.6	1.8	35.4
RHH	20	23	78.3	21.7	0.0	0.0
RHH	21	62	67.7	21.0	6.5	4.8
RHH	22	83	62.7	12.0	7.2	18.1
RHH	30	8	87.5	12.5	0.0	0.0
RHH	31	31	80.6	12.9	0.0	6.5
RHH	32	63	85.7	4.8	1.6	7.9

Side	Count	Pitches	4-Seam%	Cutter%	Changeup%	Curveball%
LHH	00	163	53.4	17.8	23.3	5.5
LHH	01	99	60.6	11.1	21.2	7.1
LHH	02	54	66.7	5.6	7.4	20.4
LHH	10	48	64.6	8.3	27.1	0.0
LHH	11	72	59.7	13.9	23.6	2.8
LHH	12	99	53.5	5.1	8.1	33.3
LHH	20	14	78.6	7.1	14.3	0.0
LHH	21	23	69.6	8.7	17.4	4.3
LHH	22	73	63.0	6.8	11.0	19.2
LHH	30	2	100.0	0.0	0.0	0.0
LHH	31	9	77.8	22.2	0.0	0.0
LHH	32	37	89.2	8.1	0.0	2.7

Flexen threw four different pitches in the KBO and stopped throwing the rare sinker as he did in MLB. His 4-seam fastball is easily his most used pitch. Flexen threw it around 92.6 mph on the season and used it about 62% of the time, one of the highest usage rates on a 4-seam fastball from a KBO starter (basically tied again with his teammate Raúl Alcántara). It is interesting to see that Flexen's average 4-seam velocity was 91.8 mph pre-injury hiatus and jumped up to 92.8 mph post-injury. That's a promising sign and indicates that he's can ramp it up more if he switches back to the bullpen or an opener type role in MLB.

He throws his cutter around 17% of the time and uses it more against RHH than LHH, with his average velocity around 87.2 mph but touching 91 mph at times. Before Flexen's injury, I tagged his cutter as a slider, matching what Baseball Savant and Statcast assigned when Flexen pitched with the Mets. However, after Flexen's injury and return, his cutter velocity also ticked up, going from 86.3 mph pre-injury to 87.6 mph post-injury; given the flatter shape of his cutter and how close it runs to his 4-seam, I decided to tag his slider as a cutter over the second half of the season and combined the two. I was able to get a look at his grip from a broadcast replay, and it appears to be a cutter grip more than a slider.

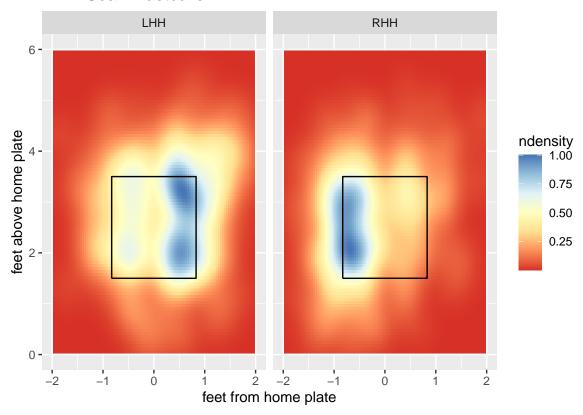
His curveball was an extremely effective pitch, with a SwStr% of 22.1%, but he only threw it 13% of the time around 76.1 mph. With the Mets, his curveball was a high spin pitch, averaging about 2700-2800 rpm, in the 84th percentile, but he only threw his curveball about 4% of the time. He does a good job of locating his curveball down in the zone and playing well off of his 4-seam up in the strike zone. In 2019, his curveball averaged about 59.8 inches of drop, which was above-average for MLB curveballs and foiled many KBO hitters in 2020. Without a look at Flexen's Trackman data, it's not possible to know what his spin/break looked in 2020, but I saw no reason to believe that anything drastically changed from 2019 to 2020.

Flexen threw a changeup only 9% of the time, overall, but 16.6% of the time against LHH. Coming in around 81.1 mph, his changeup's average velocity is nestled right in between his cutter and curveball. His changeup was very effective against LHH, and he rarely threw it against RHH.

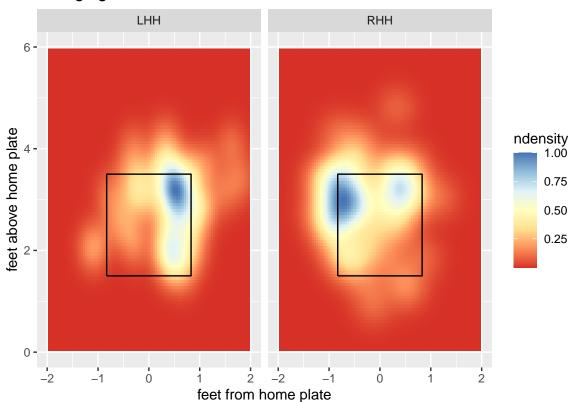
Chris Flexen is incredibly confident in his fastball and knows that he can blow it by KBO hitters whenever he needs to. His cutter, curveball, and changeup all show some good potential, but I'd like to see him work on developing them into pitches that he's confident in throwing more so that he can reduce his reliance on his 4-seam fastball.

Chris Flexen 4-Seam Fastball

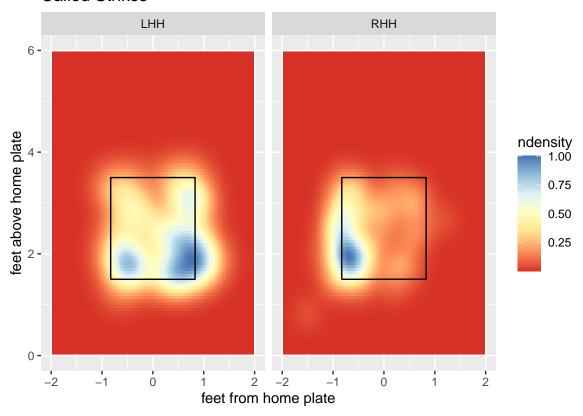
All 4-Seam Fastballs



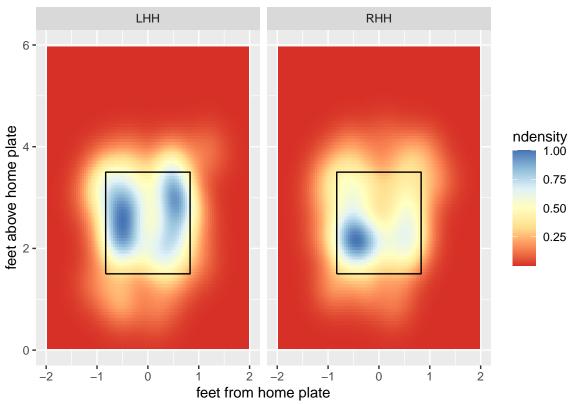
Swinging Strikes



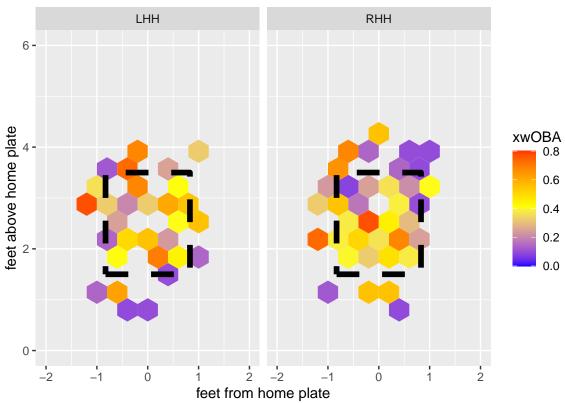
Called Strikes



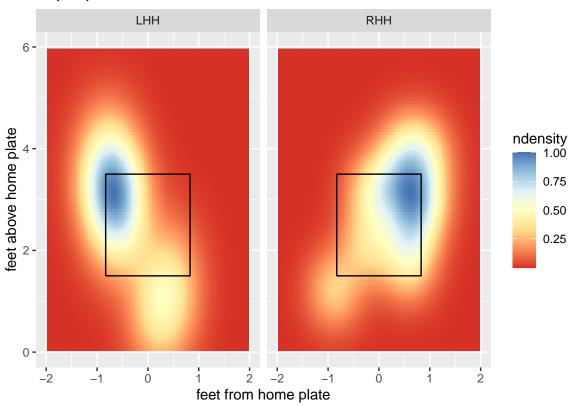
Balls in Play

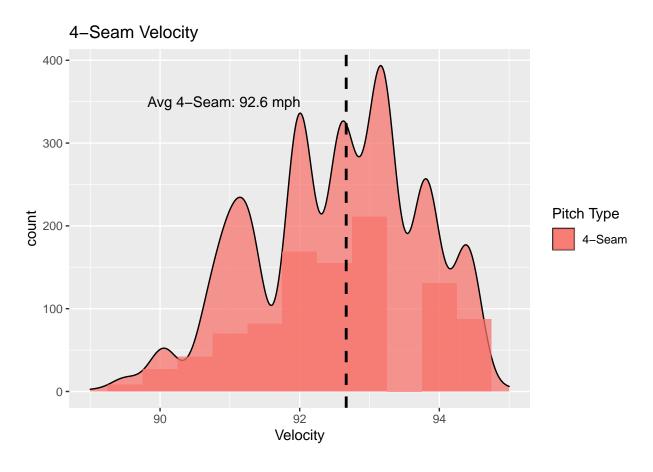


xwOBA on Balls in Play by Pitch Location



Pop-up locations





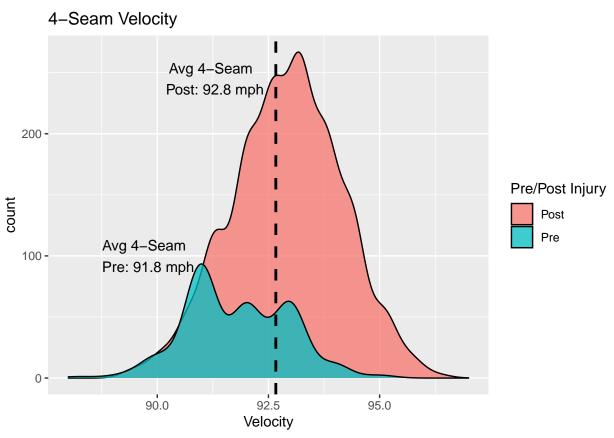


Table 10: Chris Flexen 4-Seam Stats

Pitch	Velo	Usg %	wOBA	ExwOBA	CSW%	$\mathbf{SwStr}\%$	Whiff%	$\mathbf{CS}\%$	$\mathbf{Swing}\%$	Contact%
4-Seam	92.6	61.8	0.25	0.303	29.8	12.2	24.7	17.6	49.4	75.3

Table 11: 4-Seam Stats by Batter Handedness

Bats	$\mathrm{Usg}\%$	CSW%	SwStr%	Whiff%	CS%	Swing%	Contact%	Strike%
RHH	63.2	29.6	11.6	24.0	18.1	48.2	76.0	66.2
LHH	61.3	30.1	13.2	25.7	16.9	51.3	74.3	68.2

Table 12: Chris Flexen 4-Seam BBEs

Pitch	Velo	Usg $\%$	ExwOBACON	BBEs	GB%	FB%	LD%	PU%	$\mathbf{Soft}\%$	$\mathbf{Med}\%$	Hard%
4-Seam	92.6	61.8	0.381	144	43.1	25.7	18.8	12.5	30.9	39.7	29.4

Chris Flexen is extremely reliant on his 4-seam fastball, throwing it 61.8% of the time, using it against both RHH and LHH. Averaging around 92.6 mph (92.8 post-injury versus 91.8 mph pre-injury), his 4-seam fastball was the second-hardest in the KBO among starting pitchers (behind his teammate, Raúl Alcántara). Flexen used his 4-seam against all hitters, throwing it 63.2% of the time against RHH and 61.3% of the time against LHH.

He tends to work his fastball in the zone, working away from both RHH and LHH. Up-and-away, his 4-seam netted swings-and-misses while working down-and-away was where he got a lot of called strikes. He does a good job of getting those swings-and-misses; his 4-seam's 12.2% SwStr% was the highest of any fastball in the KBO. His 4-seam had a 17.6% CS% which gave him a 29.8% CSW%, the second-highest CSW% on a fastball in the KBO (behind Tyler Wilson's 87.8 mph fastball that's fueled by a 29.7% CS% and an abysmal SwStr%).

His 4-seam does play a little better against LHH than RHH as a swing-and-miss pitch, with a 13.2% SwStr% against LHH versus an 11.6% SwStr% against RHH. Working up and away against left-handed hitters maximizes his vertical ride. When he throws his fastball against RHH and is working away from them as an RHP, they have a little more time to recognize the pitch. He makes up for that difference in SwStr% by locating well down-and-away against RHH for a CS% of 18.1%. Overall, against RHH his 4-seam has a 29.6% CSW% and a 30.1% CSW% against LHH. I wouldn't be surprised to see his 4-seam whiff% go up as he transitioned from KBO to MLB.

Flexen's 4-seam does have the worst batted ball profile of any of his pitches when you adjust for how much he throws it. He has a low GB% of 43% while allowing an LD% of 19% and FB% of 26%. His contact strength allowed, a 31% soft-contact%, a 40% medium-contact%, and a 29% hard-contact%, are all about the KBO average. However, it all results in an EwOBACON of 0.381. While that mark is worse than the KBO average ExwOBACON of 0.361, it places Flexen in the middle of the pack for fastballs where the average ExwOBACON is 0.378.

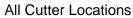
However, his 4-Seam batted ball profile isn't all negative. His PU% of 12.5% is interesting and a good sign. As illustrated on his xwOBA on Balls in Play and the location of all of his pop-ups, Flexen did a good job of limiting opponents when he pitched up-and-in. When he started to deviate from that path, his 4-seam fastball got hit hard in the heart of the zone.

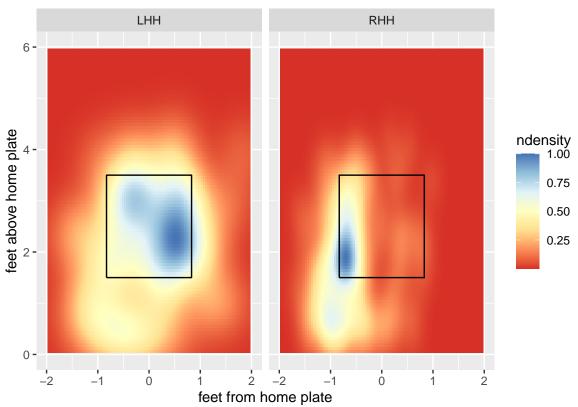
Flexen's average 4-seam velocity was about 92.6 mph on the season but varied pre-and-post injury. Before

he broke his foot, his 4-seam velocity was averaging around 91.8 mph and maxing out around 93 mph. After he returned from injury, Flexen's velocity averaged 92.8 mph, and he was maxing out closer to 96 mph. For a guy that averaged about 94 mph out of the bullpen in MLB, this shows that his peak velocity has probably increased a little bit and that he could probably average more like 95-96 out of the pen.

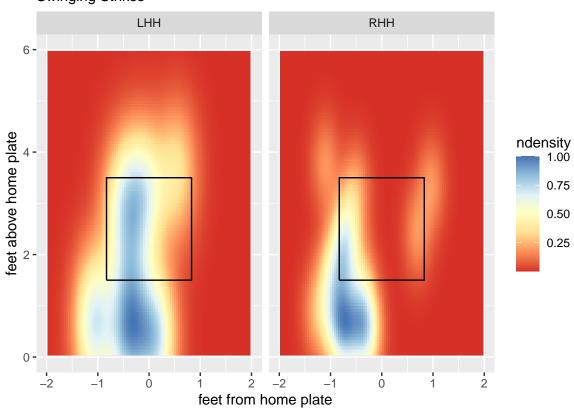
I do have some concerns about how pitching up in the zone may translate to MLB for Flexen. He's not a high-spin guy, with his average fastball spinning around 2150 rpm in 2019, which landed in the 23rd percentile of MLB 4-seam spin rates. His 4-seam did average 13.9 inches of vertical drop, which was just above average as his velocity helped counteract his lower spin rate. As a starter throwing about 93 mph with a lower spin rate, living up in the zone may be a dangerous proposition for Flexen and his 4-seam against MLB hitters, especially if he's still throwing his 4-seam $\sim 60\%$ of the time. As a reliever or opener, I think that Flexen's fastball usage and approach is manageable, but I'd still like to see him continue to develop his cutter/curveball.

Chris Flexen Cutter





Swinging Strikes

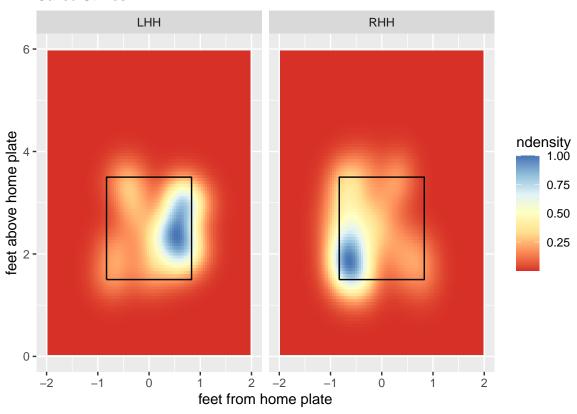


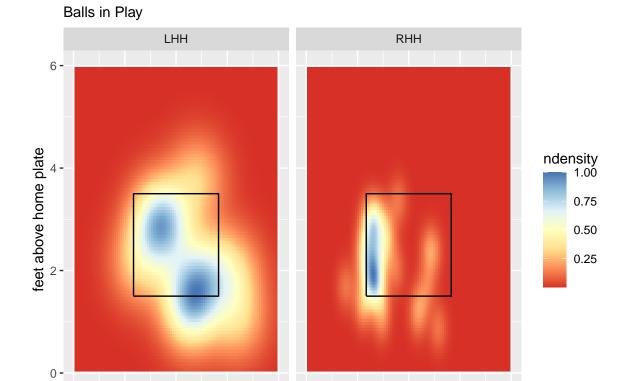
Called Strikes

-1

0

-2



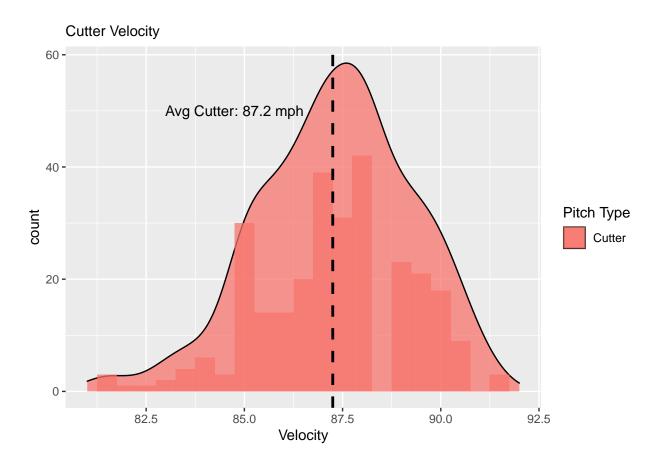


1 2 -2 -1 feet from home plate

2

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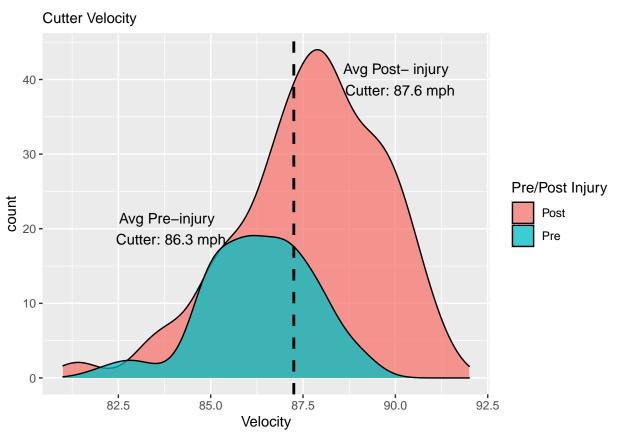


Table 13: Chris Flexen Cutter Stats

Pitch	Velo	Usg %	wOBA	ExwOBA	CSW%	SwStr%	Whiff%	CS%	Swing%	Contact%
Cutter	87.2	16.9	0.273	0.311	32.6	12.2	25.9	20.5	46.9	74.1

Table 14: Chris Flexen Cutter Stats by Batter Handedness

Bats	$\mathrm{Usg}\%$	CSW%	SwStr%	Whiff%	CS%	Swing%	Contact%	Strike%
RHH	20.5	30.2	11.7	24.5	18.5	47.8	75.5	66.3
LHH	12.0	38.6	13.3	29.7	25.3	44.6	70.3	69.9

Table 15: Chris Flexen Cutter BBEs

Pitch	Velo	Usg %	ExwOBACON	BBEs	GB%	FB%	LD%	PU%	Soft%	$\mathrm{Med}\%$	Hard%
Cutter	87.2	16.9	0.322	54	64.8	13	16.7	5.6	46.9	36.7	16.3

Chris Flexen threw his cutter about 17% of the time in the KBO, and the pitch averaged 87.2 mph. He threw it about 21% of the time against RHH and 12% of the time against LHH. Overall, his cutter was one of his most effective pitches, with a CSW% of 32.6%, an SwStr% of 12.2%, a CS% of 20.5%, and an ExwOBA of 0.311. Flexen trusts the pitch, throwing it frequently in 0-0, 1-0, 1-1, and 2-0 counts where getting a strike is crucial.

Interestingly, his cutter fared better against LHH than RHH. Looking at the locations of all of his cutters, we can see that Flexen uses the entire strike zone against LHH while he stays down and away from RHH. This split approach allows for a lot more called strikes against left-handed hitters as his cutter breaks glove side to catch the outside corner of the strike zone. Locating his cutter down-and-away is effective for inducing swings-and-misses from right-handed hitters, plus a few called strikes on the outside edge of the strike zone. Going to the same spot, down-and-in against LHH has been an effective swing-and-miss option for Flexen's cutter as well.

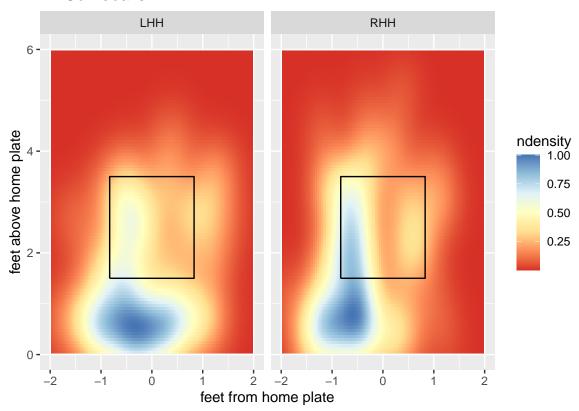
Against LHH, Flexen's cutter had a 38.6% CSW% thanks to his 13.3% SwStr% and whopping 25.3% CS%. Against RHH, he posted a solid 30.2% CSW% off of an 11.7% SwStr% and an 18.5% CS%. Right-handed hitters do swing more, though, with a 47.8% swing% versus the 44.6% mark of left-handed hitters.

His cutter is one of his best pitches at inducing favorable contact with an ExwOBACON of 0.322. The GB% of 65% and FB% of 13% on his cutter are the best marks in those categories for any of his pitches, and its soft-contact% of 47% is the fourth-highest mark in the KBO. Working away from RHH with the horizontal movement that his cutter gets has been effective in getting ground balls off of the end of the bat. Left-handed hitters have tended to make contact on cutters that land in the heart of the zone or down and away. Those down-and-away cutters have usually resulted in ground balls, while those cutters over the heart of the plate are frequently a part of his 16.7% LD%, which is still higher than you'd like to see.

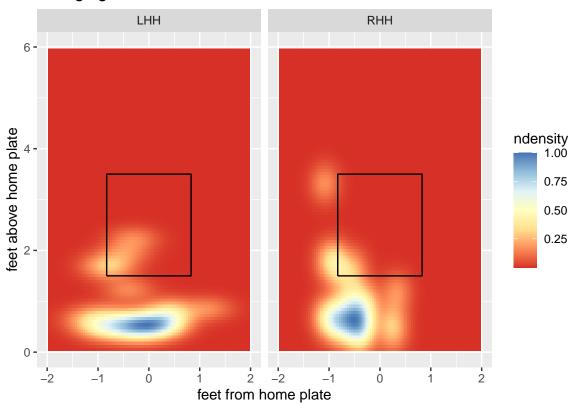
Flexen's cutter performed well against KBO hitters, working in different roles against left-handed and right-handed hitters. Similar to his 4-seam fastball, his cutter saw a velocity boost after returning from injury, averaging 86.3 mph pre-injury and averaging 87.6 mph post-injury, even touching about 92 on a couple of occasions. It's a strong pitch and is effective against LHH and RHH in inducing weak contact and swings-and-misses.

Chris Flexen Curveball

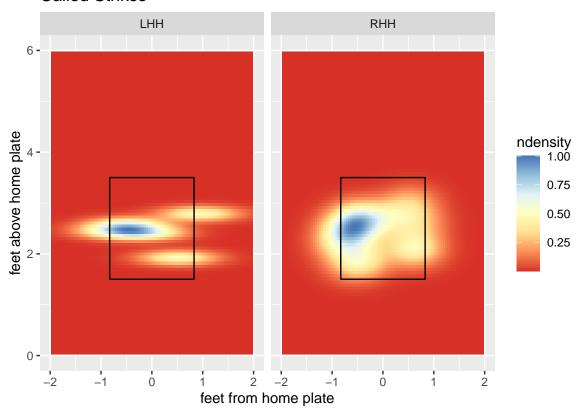
All Curveballs



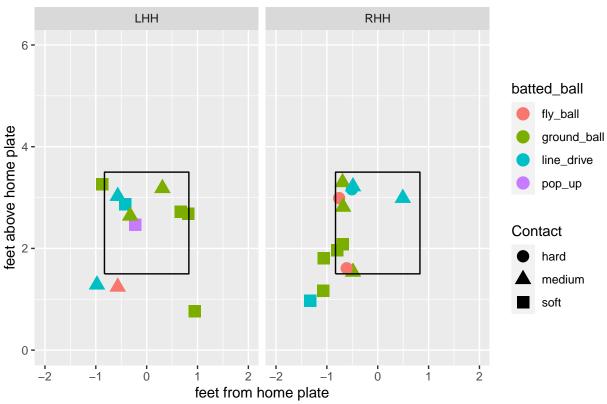
Swinging Strikes



Called Strikes



Curveball Balls in Play



Curveball Velocity 40 - Avg Curveball: 76.1 mph 30 - Pitch Type Curveball Curveball

Table 16: Chris Flexen Curveball Stats

Velocity

Pitch	Velo	Usg $\%$	wOBA	ExwOBA	$\mathbf{CSW}\%$	$\mathbf{SwStr}\%$	Whiff%	CS%	$\mathbf{Swing}\%$	Contact%
Curveball	76.1	12.5	0.196	0.197	31	22.1	42.7	8.9	51.6	57.3

Table 17: Chris Flexen Curveball Stats by Batter Handedness

Bats	$\mathrm{Usg}\%$	CSW%	SwStr%	Whiff%	CS%	$\mathbf{Swing}\%$	Contact%	Strike%
RHH	13.6	27.9	17.6	38.7	10.3	45.6	61.3	55.9
LHH	11.1	36.4	29.9	47.9	6.5	62.3	52.1	68.8

Table 18: Chris Flexen Curveball BBEs

Pitch	Velo	Usg $\%$	ExwOBACON	\mathbf{BBEs}	GB%	$\mathbf{FB}\%$	LD%	$\mathbf{PU}\%$	$\mathbf{Soft}\%$	$\mathbf{Med}\%$	$\mathbf{Hard}\%$
Curveball	76.1	12.5	0.385	27	51.9	18.5	25.9	3.7	44	44	12

Chris Flexen's curveball was his best pitch in 2020, even though he only threw it 12.5% of the time (13.6% against RHH and 11.1% against LHH). In the KBO, his curveball averaged 76 mph; in MLB in 2019, it spun at an average of 2766 rpm (84th percentile) with an average vertical drop of 59.8 inches, 6% more than average. Without Trackman data, I have no way to see how or if things changed in 2020, but I saw no reason that it would have.

Flexen's curveball posted a wOBA of 0.196 and an ExwOBA of 0.197 (second-lowest in the KBO) with an SwStr% of 22.1% (third-highest in the KBO). Overall, the 31% CSW% on his curveball is good, not great, but that's more a function of how Flexen used his curveball. He throws most of his curveballs out of the strike zone as he tried (frequently succeeding) to get swings-and-misses, which leads to his curveball's low CS% of 8.9%.

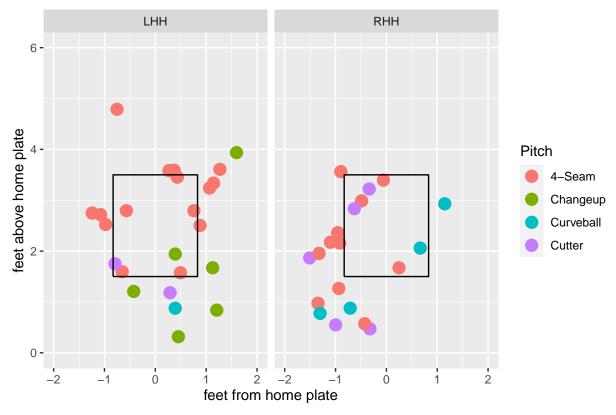
He threw his curveball almost exclusively in two-strike counts. Against RHH, he threw it 31% of the time in 0-2 counts, 35% of the time in 1-2 counts, and 18% of the time in 2-2 counts. Against LHH, it's a similar story, throwing it 20% of the time in 0-2 counts, 33% of the time in 1-2 counts, and 19% of the time in 2-2 counts.

His curveball, like his cutter, has been incredible against LHH with a 36.4% CSW% and a 29.9% SwStr%. That's a whopping 47.9% whiff% and an absurd 62% swing% from LHH on his curveball. Right-handed hitters have "just" a 17.6% SwStr% off of a 38.7% whiff% and 45.6% swing%. Gerrit Cole's curveball had a 48.6% whiff% in 2020 and a 31.9% whiff% in 2019; basically, Chris Flexen's curveball has been close to as good in the KBO as Gerrit Cole's is against MLB hitters. That's a pretty incredible summary of how Flexen's curveball performed against KBO hitters.

Table 19: Pitch Type Thrown Before Curveball Whiff (excludes one 0-0 whiff)

Bats	Pitches	4-Seam%	Cutter%	Curveball%	Changeup%
LHH	24	62	8	4	25
RHH	22	59	23	18	0

Pitch Before Curveball Whiff Locations



He gets that deception a couple of ways. One is off of the high vertical drop and spin rate that Flexen displayed in MLB and likely continued to showcase in the KBO. The other is that it plays well off of the

4-seam fastball that he likes to throw up in the strike zone. Throwing his 4-seam up in the strike zone and curveball in the dirt has proved to be an effective and deceptive combination.

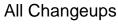
When we isolate the pitch before every curveball whiff (except for the one 0-0 count whiff Na Sung-bum had in the Korean Series), we can see some trends start to emerge. Flexen threw his 4-Seam about 61% of the time and, overall, his pitch usage was similar to his overall numbers. Broken down by batter handedness, the trends are similar to the overall usage numbers but a little more extreme given the small sample.

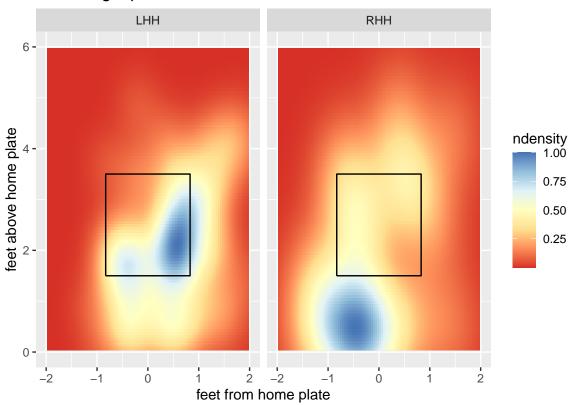
So, pitch usage on the pitch prior doesn't tell us too much. What about where Flexen is throwing those pitches? Against LHH, whom Flexen's curveball had a wicked 47.9% whiff% against, almost all of his 4-seam fastballs are up in the zone with some changeups down-and-away. Against RHH, Flexen pitches are located more to the outside edge rather than up in the strike zone. Overall, it's interesting that not many of these pitches are in the heart of the strike zone. It's hard to draw an exact conclusion of what's been influencing Flexen's curveball whiffs; however, it appears that locating his fastball up in the strike zone or pitches on the edges of the strike zone played a part in inducing his curveball swings-and-misses.

The swing-and-miss ability of his curveball is a big reason that it has a wOBA of 0.196 and ExwOBA of 0.197 despite an ExwOBACON of 0.385. Because his curveball usage is so concentrated in various 2-strike counts, his curveball gets credited with all of those strikeouts. But in terms of contact allowed, his curveball has allowed an LD% of 26%, which is the second-highest LD% on an individual pitch in the KBO. However, Flexen compensates for that (a little bit) with his average GB% of 52% and his hard-contact% of 12%, the fourth-lowest mark on an individual pitch in the KBO. Much of the damage that hitters have done have come on curveballs over the middle half of the plate, while he's induced ground balls on pitches that are down and/or away from hitters.

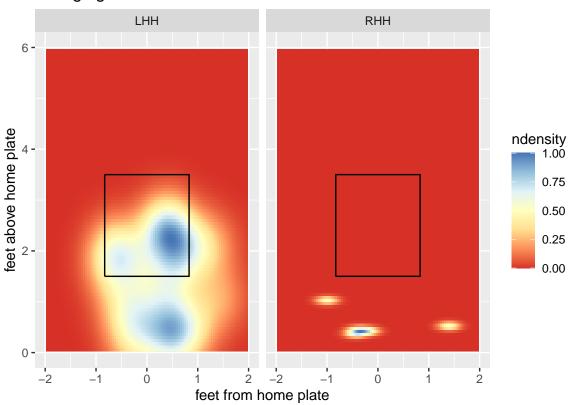
Pairing his fastball up in the zone and curveball down has been an effective combination for Flexen in the KBO. His curveball's usage has tripled since his 2019 stint with the Mets and it has become an effective pitch, with an 0.197 ExwOBA and a 22.1% SwStr%. There is some concern surrounding his high LD%, but keeping his curveball down should help mitigate that against MLB hitters.

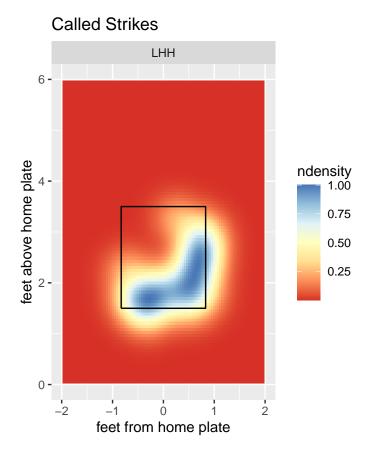
Chris Flexen Changeup





Swinging Strikes





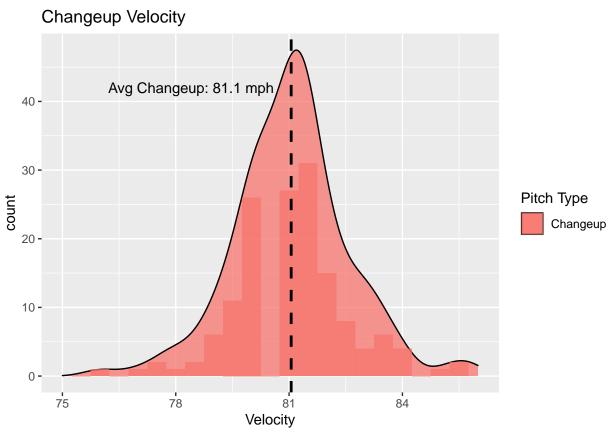


Table 20: Chris Flexen Changeup Stats

Pitch	Velo	Usg %	wOBA	ExwOBA	CSW%	SwStr%	Whiff%	CS%	Swing%	Contact%
Changeup	81.1	8.8	0.272	0.283	33.8	18.5	40.6	15.2	45.7	59.4

Table 21: Chris Flexen Changeup Stats by Batter Handedness

Bats	$\mathrm{Usg}\%$	CSW%	SwStr%	Whiff%	CS%	Swing%	Contact%	Strike%
LHH	16.6	38.3	20.0	41.8	18.3	47.8	58.2	66.1
RHH	3.6	19.4	13.9	35.7	5.6	38.9	64.3	44.4

Table 22: Chris Flexen Changeup BBEs

Pitch	Velo	Usg $\%$	ExwOBACON	BBEs	GB%	FB%	LD%	PU%	Soft%	$\mathrm{Med}\%$	Hard%
Changeup	81.1	8.8	0.299	26	57.7	15.4	7.7	19.2	54.2	25	20.8

Chris Flexen threw his changeup 8.8% of the time against KBO hitters, using it primarily against left-handed hitters with a 16.6% usage against LHH versus a 3.6% mark against RHH. He throws it around 81.1 mph, and it was his only pitch that didn't see a velocity increase after he returned from injury. His average changeup velocity decreased slightly, going from 81.3 mph to 81.0 mph. Regardless, his changeup was incredibly effective against left-handed hitters in 2020.

Overall, Flexen's changeup had a 33.8% SwStr% with a 0.272 wOBA, and a 0.283 ExwOBA. Against LHH, his changeup sported a 38.3% CSW% and a 20% SwStr%, off of a 41.8% whiff%. Right-handed hitters didn't struggle as much with it, posting a 13.9% SwStr% despite their 35.7% whiff%. RHH had a swing% of 39%, so Flexen was not fooling them when he threw his changeup.

Flexen mostly used his changeup early in the count; despite its phenomenal SwStr% against LHH, he rarely threw it in 2-strike situations against them. Using his changeup early in the count helps set up his other pitches and throws hitters off (when we looked at Flexen's curveball, we saw that 25% of the pitches immediately before a curveball whiff against LHH were changeups).

Against left-handed hitters, Flexen works his changeup down-and-away from LHH. He gets his whiffs on changeups that drift out of the strike zone while getting called strikes on the changeups that start over the heart of the plate and catch the outside or bottom edge of the zone; his ability to locate his changeup and keep it out of the heart of the zone is impressive.

As he works his changeup out of the zone, it does a good job of limiting hitters, with an ExwOBA of 0.299. His changeup induced a GB% of 58%, a PU% of 19%, and a soft-contact% of 54% that was the highest-mark in the KBO. In MLB, his changeup was likewise effective (again primarily against LHH), allowing an xwOBA of 0.211 with a whiff% of 35%. I did think that his 19% pop-up% was interesting (it's the highest pop-up% on a single pitch in the KBO), but his changeup averaged a launch angle of 34 degrees in MLB, so it's nothing new. His changeup locations tend to separate into changeups up-and-away, and changeups down-and-away and the ones up in the zone usually turn into those pop-ups/fly balls as they break away from LHH.

Flexen's changeup has been extremely effective against LHH in the KBO and MLB over his short career. In the KBO, Flexen primarily used his changeup early in the count, to induce weak contact or set up his other pitches to net strikeouts. I'm confident that his changeup is a pitch that he can use effectively against MLB left-handed hitters to get them out.

Resources

- Chris Flexen Baseball Savant page
- Chris Flexen FanGraphs page
- Mid-season Scouting Report on Chris Flexen
- Breaking down start against SK Wyverns