

Aaron Brooks End of Season Report

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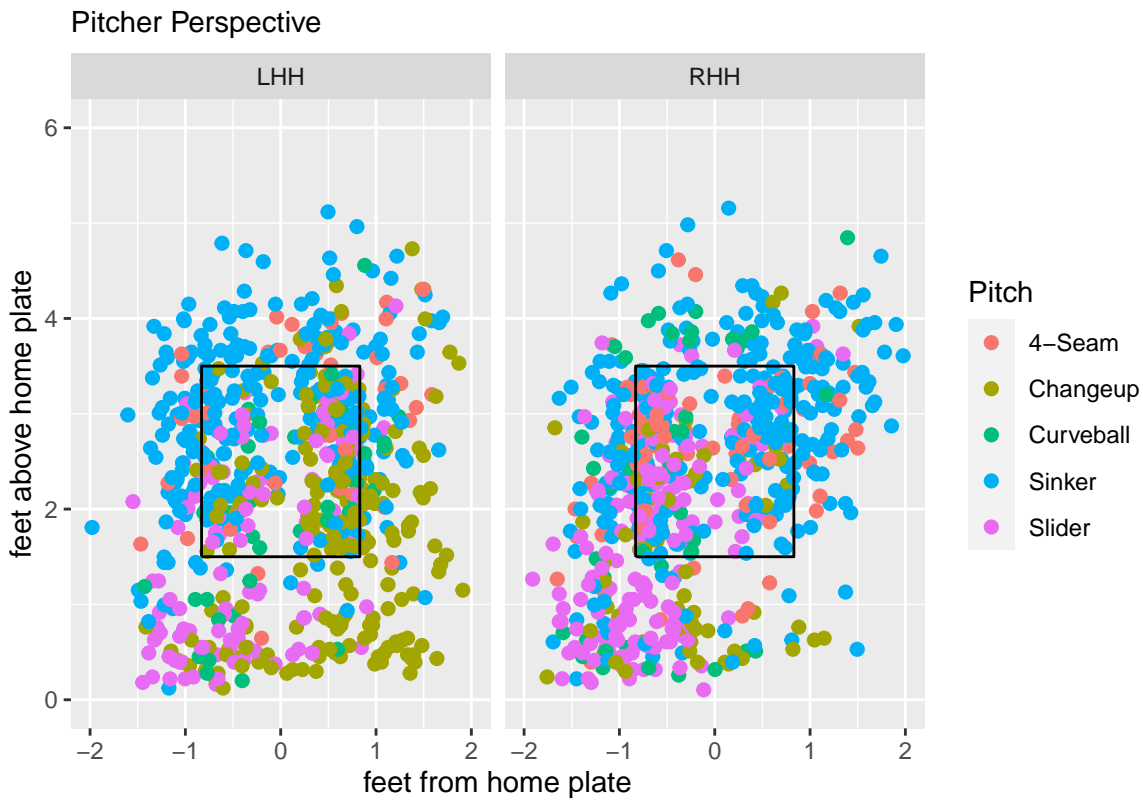
Introduction

In his first season for the Kia Tigers, Aaron Brooks displayed excellent control and usage of his three main pitches, a sinker, slider, and changeup, with an intriguing approach with his curveball. He was the best pitcher in the KBO, with top three swinging strike numbers, as well as being the best ground ball pitcher in the league. He displayed the ability to mix and match approaches, with pitches that neutralized both RHH and LHH. It was an impressive performance from Brooks and one that I believe positions him well to make a successful return to Major League Baseball.

Based on his revamped swing and miss stuff and ability to induce ground balls, I believe that Aaron Brooks can succeed in MLB, similarly to Merrill Kelly, with the Arizona Diamondbacks, and Kwang Hyun-kim, with the St. Louis Cardinals, who have recently gone from the KBO to MLB.

Vitals	Pitch Type	Avg MPH	Usg%
Throws: RHP	Sinker	92.3	40.3%
Age: 30	Slider	86.6	23.4%
DOB: 4/27/1990	Changeup	84.6	20.7%
Height: 6' 4"	4-Seam	93.6	8.8%
Weight: 229 lbs	Curveball	80.2	6.8%

Pitch Locations for Aaron Brooks. Data for 1484 pitches from June 4th and June 28th to September 19th starts manually charted from KBO Twitch and ESPN Broadcasts.



Stats from FanGraphs for entire season (2218 pitches, 151.1 IP) for Aaron Brooks

Season	Team	K%	BB%	K-BB%	AVG	WHIP	BABIP	LOB%	ERA	FIP
2020	Kia Tigers	22.2%	4.1%	18.1%	0.234	1.02	0.299	75.5%	2.5	2.72

Overall Charted Stats for Aaron Brooks

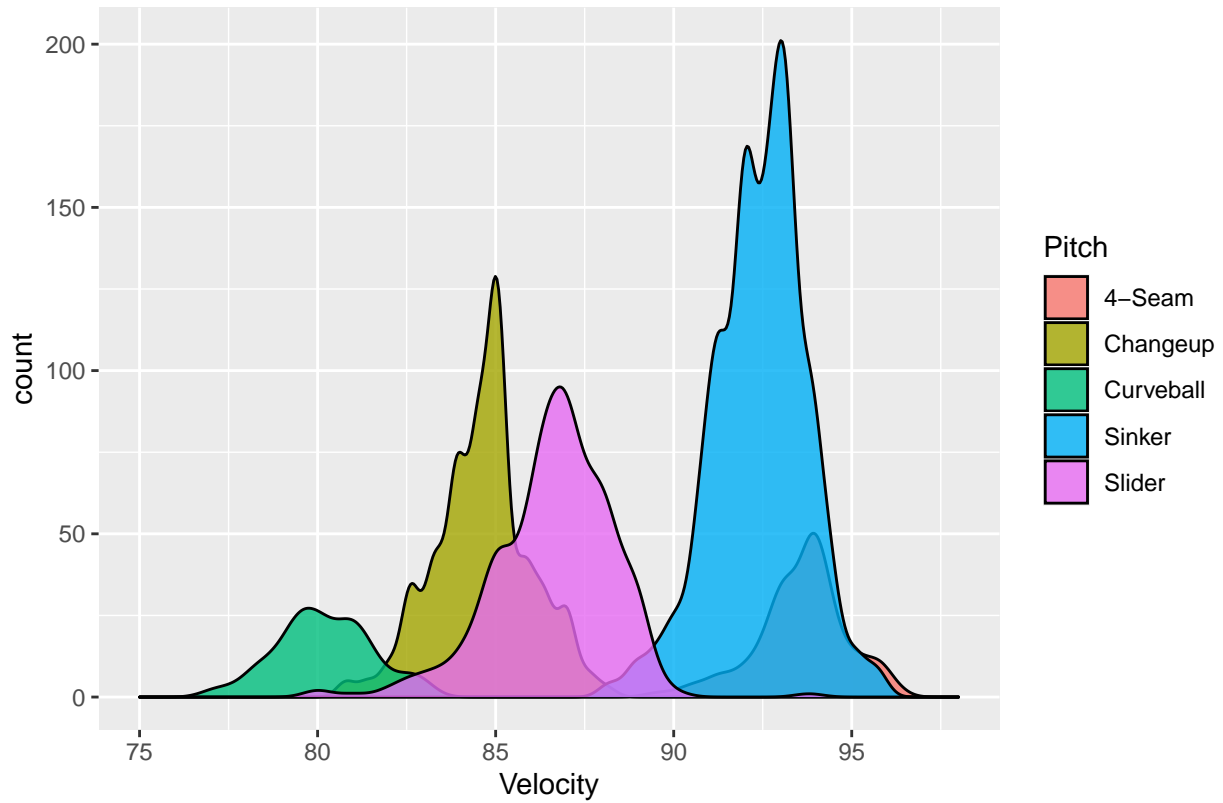
Pitcher	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Brooks	1484	69.8	24.8	12.7	18.4	31.1	51.4	75.2
KBO		64.1	22.0	10.3	17.2	27.5	46.9	78.0

Overall Charted Batted Ball Event Data for Aaron Brooks

Pitcher	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%	Pull%	Strght%	Oppo%
Brooks	295	72.5	12.5	7.8	7.1	44.8	40.8	14.4	32.5	43.1	24.4
KBO		51.2	26.7	13.6	8.6	30.1	40.8	29.2	34.4	42.3	23.2

Brooks Velocity Distribution

Sinker ~ 92, Slider ~ 87, Changeup ~ 85, 4-Seam ~ 94, Curveball ~ 80



Pitch Type Charted Stats for Aaron Brooks

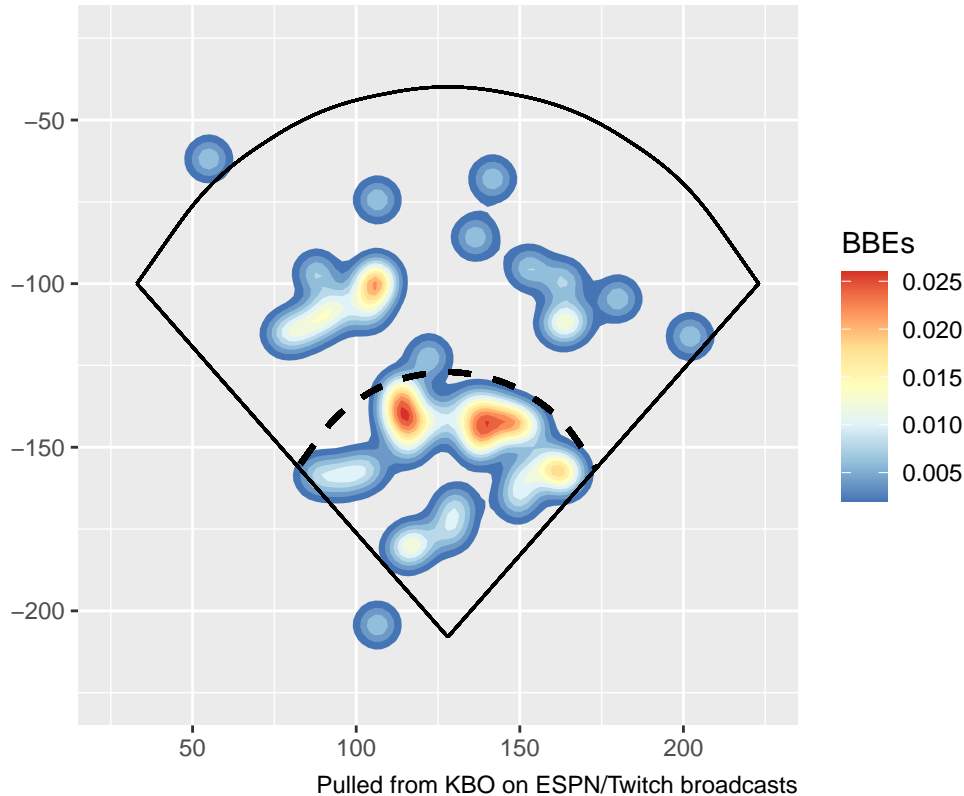
Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Sinker	92.3	40.3	597	67.8	17.1	8.2	19.9	28.1	47.9	82.9
Slider	86.6	23.4	346	77.7	36.6	23.7	13.0	36.7	64.7	63.4
Changeup	84.6	20.7	307	69.4	25.8	13.7	16.3	30.0	53.1	74.2
4-Seam	93.6	8.8	130	66.9	11.1	5.4	18.5	23.8	48.5	88.9
Curveball	80.2	6.8	101	59.4	34.6	8.9	33.7	42.6	25.7	65.4

Pitch Type Charted Batted Ball Data for Aaron Brooks

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
Sinker	92.3	40.3	114	69.3	13.2	7.9	9.6	44.3	40.6	15.1
Slider	86.6	23.4	74	60.8	20.3	9.5	9.5	41.4	42.9	15.7
Changeup	84.6	20.7	72	90.3	2.8	6.9	0.0	49.3	40.6	10.1
4-Seam	93.6	8.8	25	72.0	12.0	8.0	8.0	39.1	39.1	21.7
Curveball	80.2	6.8	10	70.0	20.0	0.0	10.0	55.6	33.3	11.1

Aaron Brooks Charted BBE Plot

Data for charted BBEs from ~ 9/03 to Present



Aaron Brooks, a 30-year-old RHP with 170.2 IP of MLB experience split between the Kansas City Royals, Oakland Athletics, and Baltimore Orioles, made the jump to the Korean Baseball Organization (KBO) in 2020, pitching for the KIA Tigers. Brooks established himself as the best pitcher in the league in 2020, displaying good swing and miss stuff as well as doing an excellent job of killing hard contact and keeping the ball on the ground. Brooks' season came to an early end when he returned to the States to be with his family following an accident.

Brooks threw five different pitches in the KBO, the same five he threw in MLB action. His primary pitch is his sinker, which comes in around 92.3 mph, but can get up to 95 mph. He also throws a 4-Seam fastball at a much lower rate, which comes in around 93.6 mph, again touching 95-96 mph when he wants to push it for a swing and miss. His slider serves as his primary swing and miss pitch with a 23.7% SwStr% and averages about 86.6 mph. Brooks' changeup, almost exclusively a weapon against LHH, averages about 84.6 mph but has been up to about 86-87 mph at times with some pretty impressive vertical drop and horizontal movement. His fifth pitch is his curveball, coming in around 80.2 mph, but he rarely throws it, only using it in one certain situation.

As he's transitioned to the KBO, Brooks has made a few adjustments to his pitching approach. Most notably, he's seen his velocity tick up by 1-2 mph on most of his pitches. His Sinker went from 91.8 mph to 92.3 mph, his Slider went from 85.6 mph to 86.6 mph, his Changeup stayed around 84.7 mph, his Curveball jumped from 78.6 mph to 80.2 mph, and his 4-Seam jumped from 92 mph to 93.6 mph. Those aren't huge differences on average, but at 30 years old, it's notable, especially with his fastballs trending higher than when he was in MLB, where his FB velocity was in just the 34th percentile.

He also altered his pitch usage, throwing his sinker ~ 40.3% of the time and dropping his 4-Seam usage to about 8.8%, a drastic change from his 28% sinker%, and 25.7% 4-seam% during his last MLB stint in 2019. His slider and changeup usage% stayed relatively even, but he compensated for that extra room by

doubling his curveball% up to 6.8%. His curveball usage has been interesting because a lot of it has come in 0-0 counts; against LHH, throwing early curveballs helps steal a first-pitch strike, while and against RHH it serves to set up his slider/sinker.

Aaron Brooks Pitch Usage by Batter Handedness and Count

Side	Count	Pitches	Sinker%	Slider%	Changeup%	4-Seam%	Curveball%
RHH	00	198	42.9	23.7	4.0	8.6	20.2
RHH	01	103	51.5	22.3	14.6	7.8	3.9
RHH	02	70	40.0	35.7	4.3	18.6	0.0
RHH	10	73	24.7	38.4	32.9	1.4	2.7
RHH	11	63	41.3	33.3	12.7	9.5	3.2
RHH	12	71	43.7	29.6	4.2	18.3	4.2
RHH	20	18	50.0	22.2	11.1	16.7	0.0
RHH	21	32	34.4	34.4	18.8	9.4	3.1
RHH	22	59	35.6	32.2	6.8	20.3	5.1
RHH	30	5	80.0	0.0	20.0	0.0	0.0
RHH	31	17	52.9	17.6	17.6	11.8	0.0
RHH	32	38	60.5	23.7	2.6	13.2	0.0

Side	Count	Pitches	Sinker%	Slider%	Changeup%	4-Seam%	Curveball%
LHH	00	201	36.8	9.0	30.3	7.0	16.9
LHH	01	108	30.6	19.4	40.7	4.6	3.7
LHH	02	53	35.8	30.2	26.4	7.5	0.0
LHH	10	63	38.1	7.9	49.2	4.8	0.0
LHH	11	89	28.1	22.5	38.2	3.4	7.9
LHH	12	95	42.1	27.4	17.9	12.6	0.0
LHH	20	12	75.0	16.7	8.3	0.0	0.0
LHH	21	33	48.5	12.1	36.4	3.0	0.0
LHH	22	47	44.7	36.2	12.8	4.3	2.1
LHH	31	11	63.6	9.1	27.3	0.0	0.0
LHH	32	25	44.0	20.0	24.0	12.0	0.0

Over 151.1 IP, Brooks posted a 2.50 ERA (2nd in the KBO) and a FIP of 2.72 (1st in the KBO). His 22.2% K% and WHIP of 1.02 ranked 2nd in the KBO, while his BB% of 4.1% and K-BB% of 18.1% were the third-lowest marks in the KBO. Brooks established himself as an excellent strike-thrower with Kia, with a 69.8% Strike% (1st) and a 65.7% First-pitch strike% that is a marked improvement over his MLB career F-Strike% of 60.5%. Over the 399 at-bats that I saw Brooks pitch, he faced a 3-0 count just 5 times, each coming against RHH, signaling his ability to throw strikes and induce advantageous contact.

Brooks' whiff% jumped from 19% in MLB to 24.8% in the KBO, despite the KBO average whiff% of 21.8% over 25000 pitches ranking a few points below the MLB average of 24.5%. His 12.7% SwStr% would rank 15th in MLB over the last two seasons, slotting right behind Charlie Morton and ahead of German Marquez, Noah Syndergaard, and Trevor Bauer. His 31.1% Called Strike + Whiff% (CSW%),

ranks first in the KBO and would slot in at 17th in MLB over the last two seasons, tied with Stephen Strasburg and just ahead of Charlie Morton.

Brooks has made tangible improvements to increase his swing and miss stuff, with his numbers showing that improvement even in a league with lower strikeout numbers than MLB. However, Brooks' calling card and biggest strength remain his ability to get ground balls and eliminate hard contact. His GB%, over 295 BBEs, was 72.5%, the best in the KBO, and over 20 points higher than the average KBO GB%, with another 7.1% of his BBEs allowed resulting in easy pop-ups. His hard contact% of 14.4% is minuscule, the lowest in the KBO. The best GB% in MLB over the last two seasons belongs to Luis Castillo at 56.1%, which is far below Brooks' 72.5% GB% in the KBO; some of that is partly due to differing hitter approaches, but a lot of it remains Brooks' approach and attack plan.

Aaron Brooks Pitch Usage by Batter Handedness

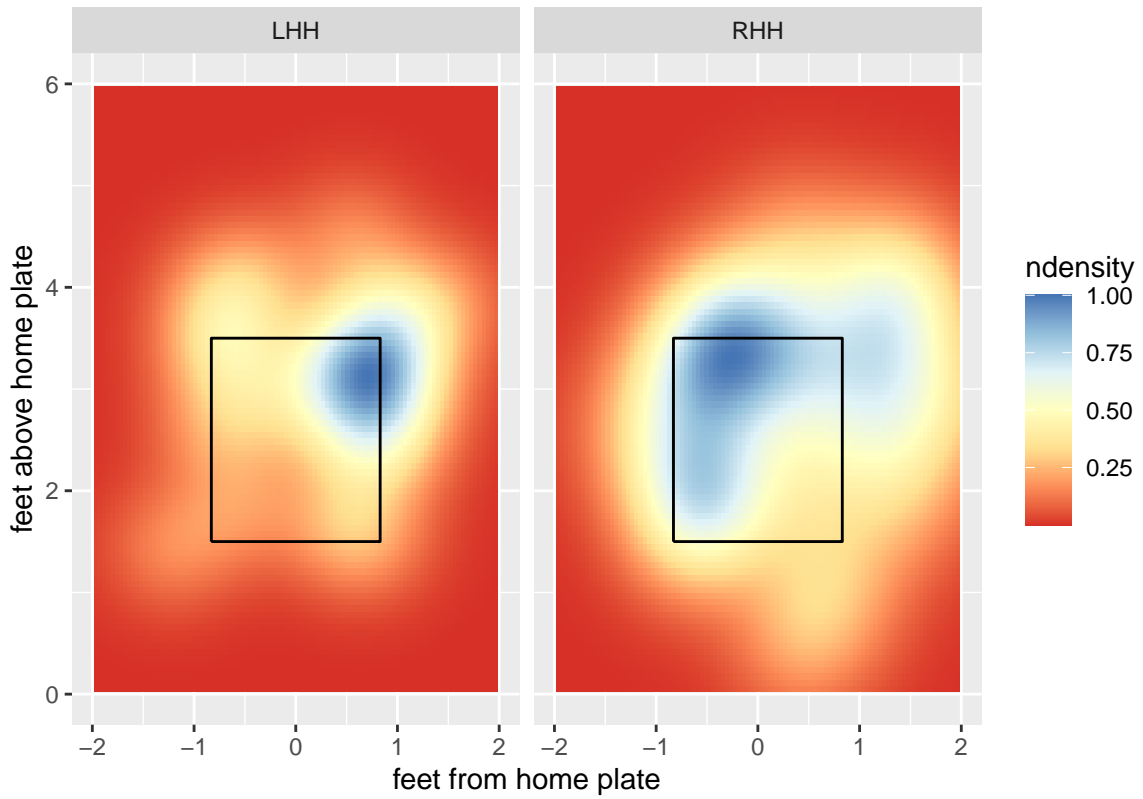
Bats	Pitches	Sinker%	Slider%	Changeup%	4-Seam%	Curveball%
RHH	747	42.6	28.2	10.4	11.1	7.4
LHH	737	37.9	18.3	31.1	6.4	6.2

His slider is his best swing and miss weapon, against both RHH and LHH (while still maintaining a GB% of 60.8%). He primarily uses his sinker and changeup as groundball pitches, with his changeup almost exclusively used against LHH. His **changeup is a phenomenal ground ball weapon, with a GB% of 90.3% and soft contact% of 49.3%**, both marks that top individual KBO pitches. Brooks' sinker ranks 2nd in each of those categories, with a GB% of 69.3% and soft contact% of 44.3%.

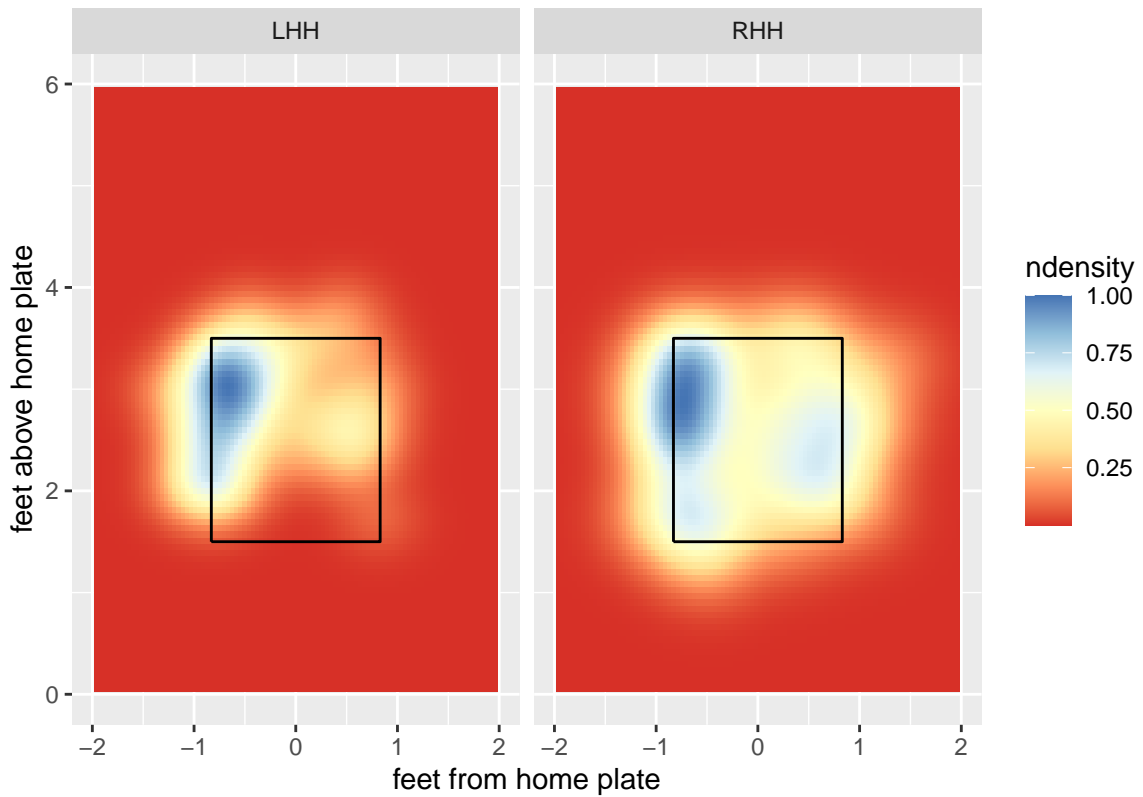
Aaron Brooks had some of the most remarkable performances in the KBO this season. Against the Hanwha Eagles, he induced 26 whiffs and got 11 called strikes on 94 pitches, a stellar 39.4% CSW%. He has 6 of the top 7 games in terms of total groundouts, with his 17 groundouts against the Samsung Lions on September 1st leading the way. He's also tied for the most called strikes in a game, netting 28 on August 23rd against the Kiwoom Heroes. He had multiple eight-inning, 1 run starts and was an extremely reliable workhorse for the Tigers, averaging ~ 6.2 IP per start. It was a remarkable run for Brooks, showing control over all his pitches and what makes them special.

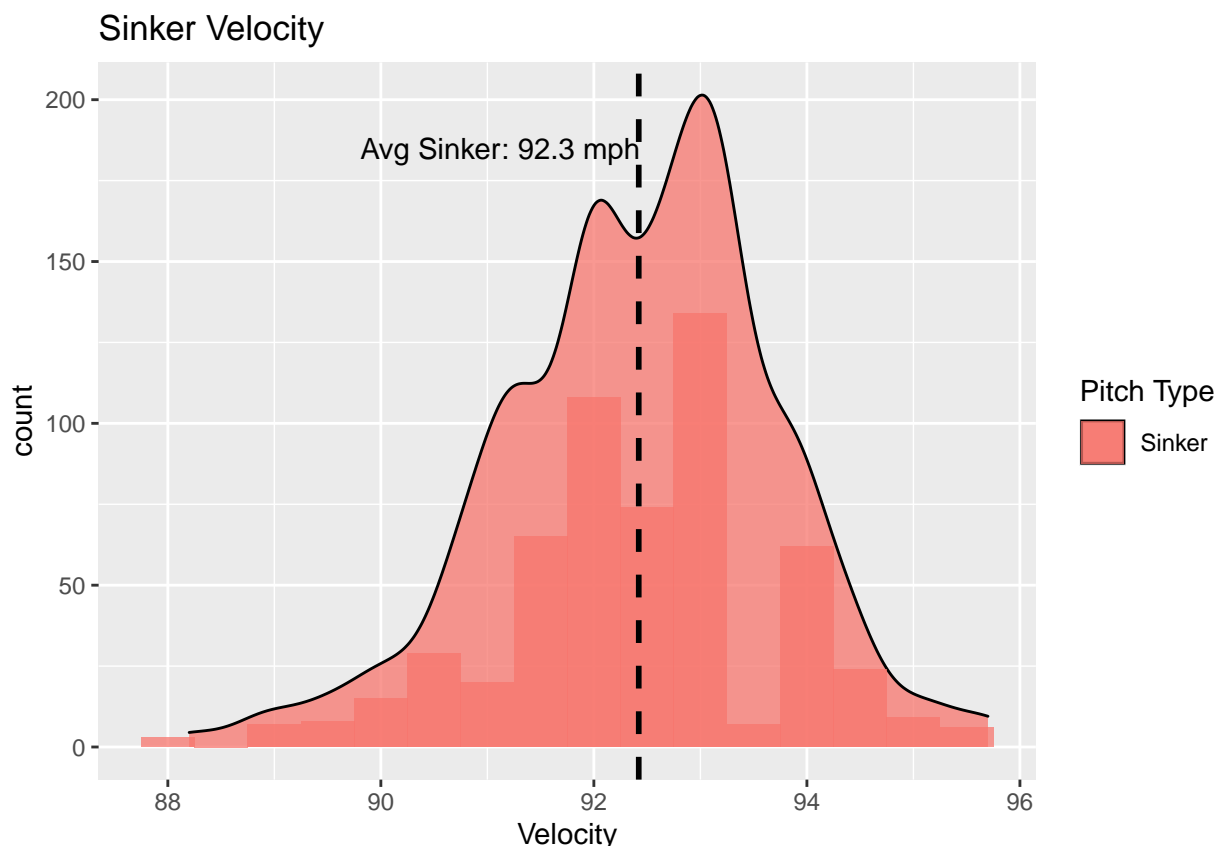
Aaron Brooks Sinker

Swinging Strikes



Called Strikes





Aaron Brooks Sinker Stats

Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Sinker	92.3	40.3	597	67.8	17.1	8.2	19.9	28.1	47.9	82.9

Aaron Brooks Sinker BBEs

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
Sinker	92.3	40.3	114	69.3	13.2	7.9	9.6	44.3	40.6	15.1

Aaron Brooks' main pitch is his sinker, which he throws around 40% of the time at about 92.3 mph. In 2019, with the Baltimore Orioles and Oakland Athletics, he threw it just 28% of the time and at 91.8 mph. Trackman numbers for his KBO stint are hard to come by publicly, but in 2019, his sinker averaged 17.2 inches of horizontal movement, 2.7 more than average, or 19% more. Based on what I saw over the nearly 600 sinkers that I saw Brooks throw, there was no indication that his sinker is moving any less in the KBO.

His sinker locations reflect that; his sinker is primarily for getting called strikes early in the count and ground balls later. His sinker called strike hotspots are inside to LHH and away from RHH, utilizing the late arm side break that his sinker creates to get called strikes and takes. Of his main pitches (sinker, slider, changeup), his sinker has the highest CS% of 19.9%. His sinker frequently starts outside of the strike zone before it breaks late and catches the edge of the strike zone. It's his go-to pitch when he needs a strike, illustrated by his heavy use of it hitters counts, like 2-0, 3-1, 3-2 counts.

He does an excellent job of keeping his sinker up in the zone, working it on the up-and-in & up-and-away corners against both RHH and LHH where he gets swinging strikes. Coming in a 92-94 mph with ~ 17 inches of horizontal movement, nobody else in the KBO throws a comparable pitch, part of the reason that his whiff% on his sinker has jumped to 17.1%, nearly doubling the 8.8% whiff% it had in MLB.

Sinker Stats by Batter Handedness

Bats	Usg%	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
RHH	42.6	69.8	15.9	8.2	18.2	26.4	51.6	84.1
LHH	37.9	65.6	18.9	8.2	21.9	30.1	43.7	81.1

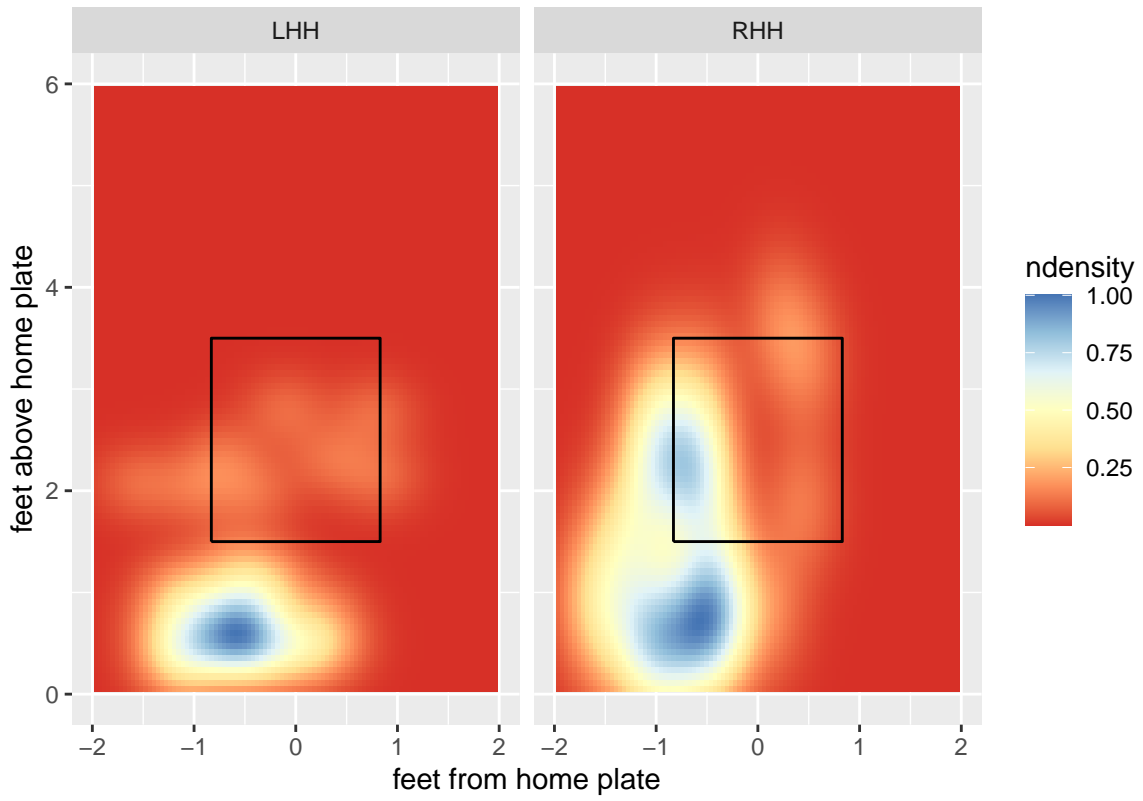
Locating heavily on the edge of the zone, both inside and outside is a big reason that his sinker has been able to induce such favorable contact. That ~ 17 inches of horizontal movement either induces a late swing as the hitter realizes the ball is tracking to be a strike or it jams the hitter/goes off the end of the bat (depending on LHH vs RHH), hence his GB% of 69.3% on his sinker, the second-highest GB% of any pitch in the KBO, only behind his changeup.

He throws his sinker only about 38% of the time against LHH vs about 43% of the time against RHH; it's a small difference in usage but, when combined with the movement of the pitch that dives away from LHH, I believe that accounts for the (slight) differences in whiff%. However, RHH swing more frequently at his sinker so it has an equal 8.2% SwStr% against both RHH and LHH.

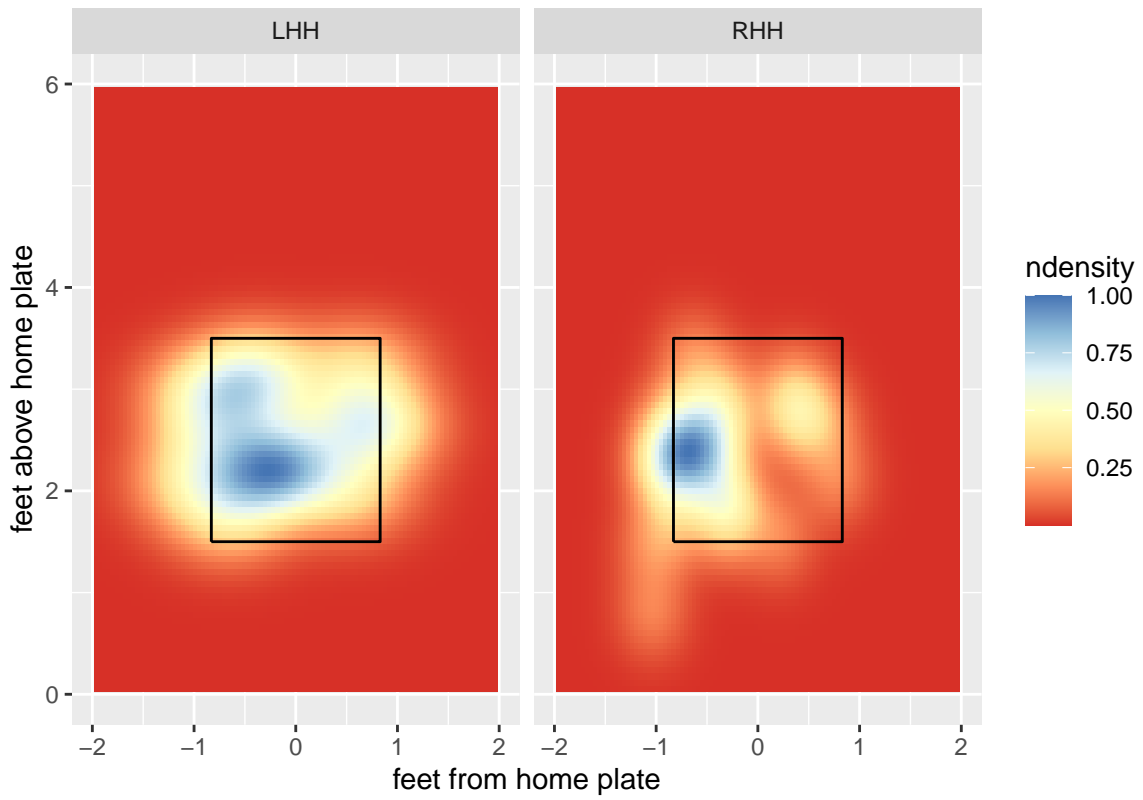
Aaron Brooks' sinker is a very good pitch, with a stellar combination of location and ability to induce soft contact. Against MLB hitters, I'd look for his sinker usage to remain pretty similar to the way that he used it, keeping it up in the zone against working inside against RHH and away from LHH.

Aaron Brooks Slider

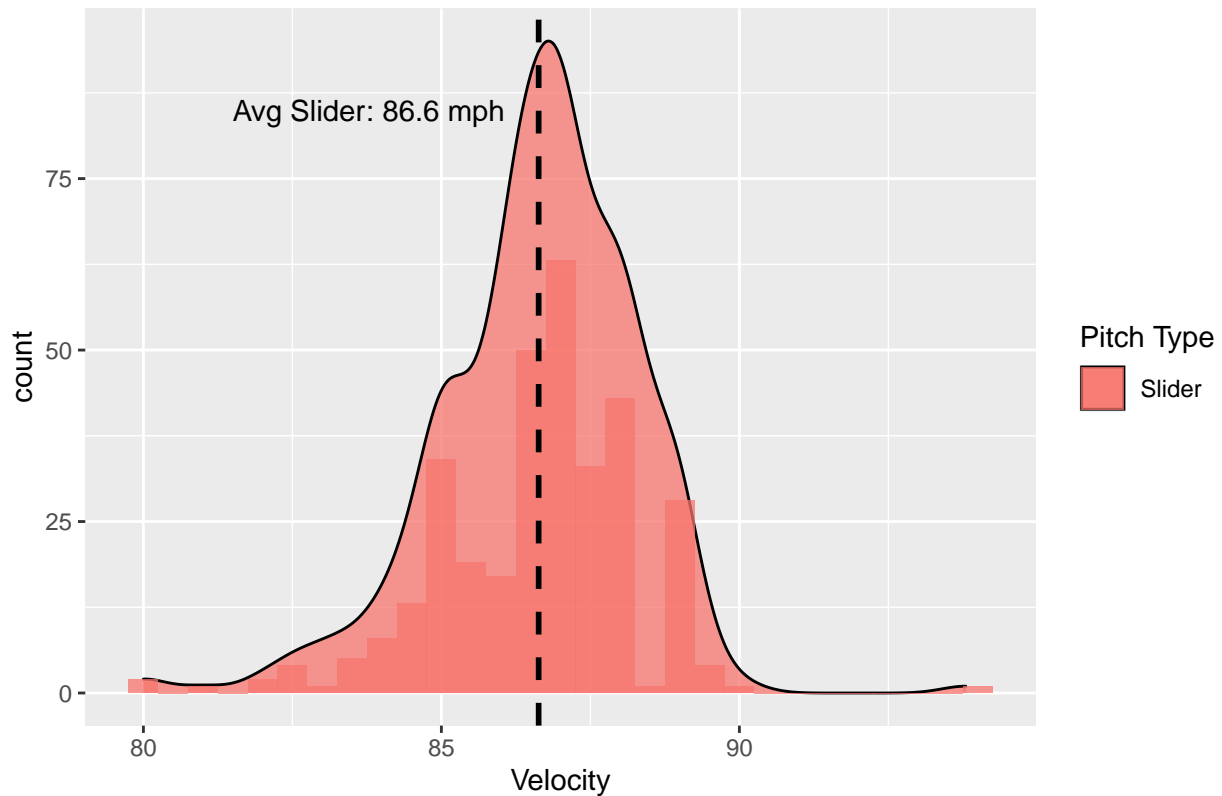
Swinging Strikes



Called Strikes



Slider Velocity



Aaron Brooks Slider Stats

Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Slider	86.6	23.4	346	77.7	36.6	23.7	13	36.7	64.7	63.4

Aaron Brooks Slider Stats by Batter Handedness

Bats	Usg%	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
RHH	28.2	77.3	32.6	20.4	14.7	35.1	62.6	67.4
LHH	18.3	78.5	42.4	28.9	10.4	39.3	68.1	57.6

Aaron Brooks Slider BBEs

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
Slider	86.6	23.4	74	60.8	20.3	9.5	9.5	41.4	42.9	15.7

Aaron Brooks' slider is arguably the best pitch in the KBO; at the very least it is in the conversation with Dan Straily's slider and Koo Chang-mo's splitter. It's a phenomenal weapon with multiple uses and he uses it well against both RHH and LHH. In MLB, his slider didn't move very much, with his slider's most effective season coming in 2019 when it averaged 36 inches of drop and just 1.5 inches of horizontal movement. Off of the eye test, that looks similar to the 12-6 movement Brooks has gotten in the KBO,

inducing vertical drop, but not much side-to-side movement. Fortunately, that works really well for him because it's distinct from his sinker and changeup. With both of those pitches breaking so much arm side, something that doesn't move much horizontally can be just as tough to get a read on. At 86-87 mph, his slider comes in fast and has multiple uses against LHH and RHH.

The most impressive thing about his slider is the sheer number of swings and misses that it induces. A whiff% of 42.4% against LHH and 32.6% against RHH combine for a 36.6% whiff%, a few points about his 33.7% whiff% on his slider in 2019 in MLB action. But that translates into a KBO pitch-type leading swinging strike% of 23.7%, thanks to a ridiculous 64.7% swing%. So, not only does it miss bats when hitters swing at it, but it's deceptive enough and works wonderfully with his other pitches to get more swings than any other pitch in the KBO.

Against RHH, Brooks throws his slider about 28% of the time, usually locating down and away from hitters. He gets most of his swinging strikes on his slider against RHH below the zone, while he sometimes goes for the edge of the zone, getting called strikes as well. He's confident in his ability to throw his slider for a strike whenever he needs to, evidenced by his 77.7% strike% and his willingness to throw it in any situation. He throws it in 0-2 counts 35.7% of the time against RHH, but also 38.4% of the time in 1-0 counts.

Throwing his slider so much against RHH decreases the % of whiffs that he could get, but he compensates with getting a solid 14.7% CS% on his slider against RHH. Almost all of the sliders that he throws against RHH are on the outside edge of the zone, whether it's up and in the zone for a called strike or down for a swing and miss.

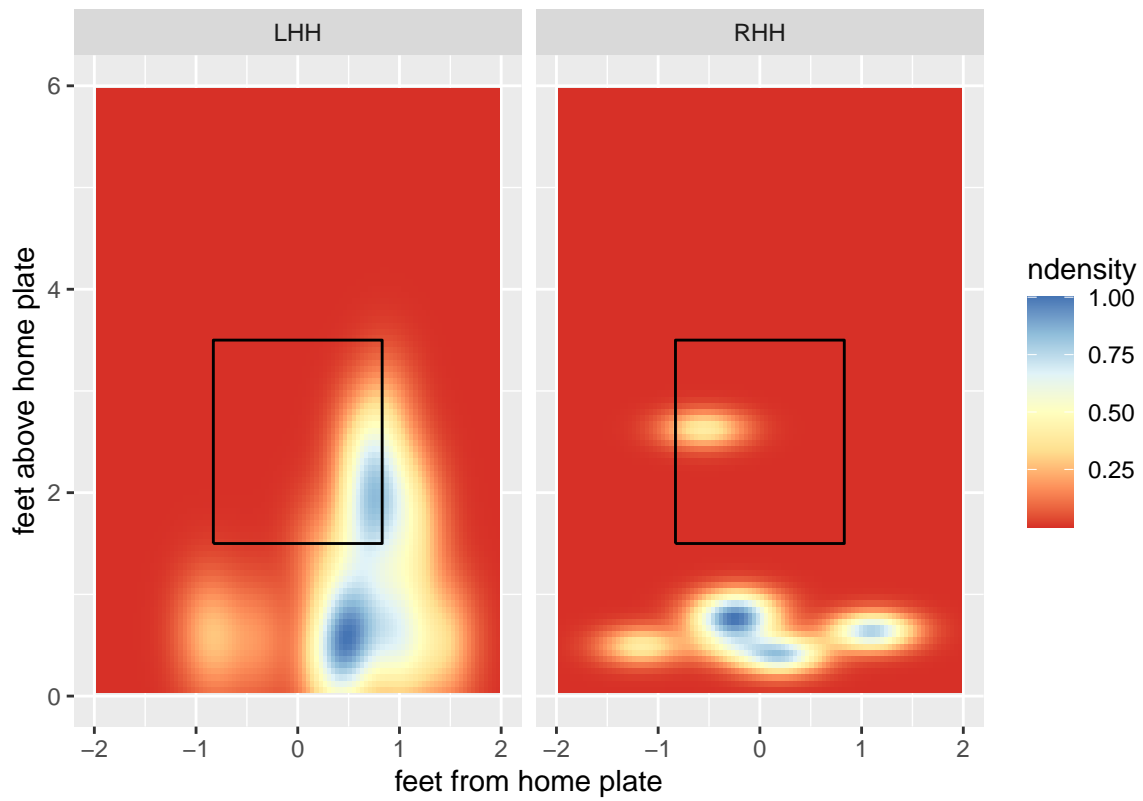
His approach shifts against LHH; most of his slider usage against LHH comes in 0-2 counts (30.2% usage), 1-2 counts (27.4%), and 2-2 counts (36.2%). That's because he likes to use his slider as a put-away pitch against LHH, which works because he throws his changeup heavily against LHH. With his sinker usage relatively stable against LHH and RHH, that leaves fewer situations to throw his slider, which increases its effectiveness immensely.

Against LHH, Aaron Brooks only throws his slider about 18.3% of the time, but gets a strike 78.5% of the time, with a whiff% of 42.4% and swinging strike% of 28.9% (42.4% is the same whiff% that Gerrit Cole had on his slider in 2020, on 24.7% usage). LHH receive a steady dose of backfoot sliders and inside sliders for called strikes.

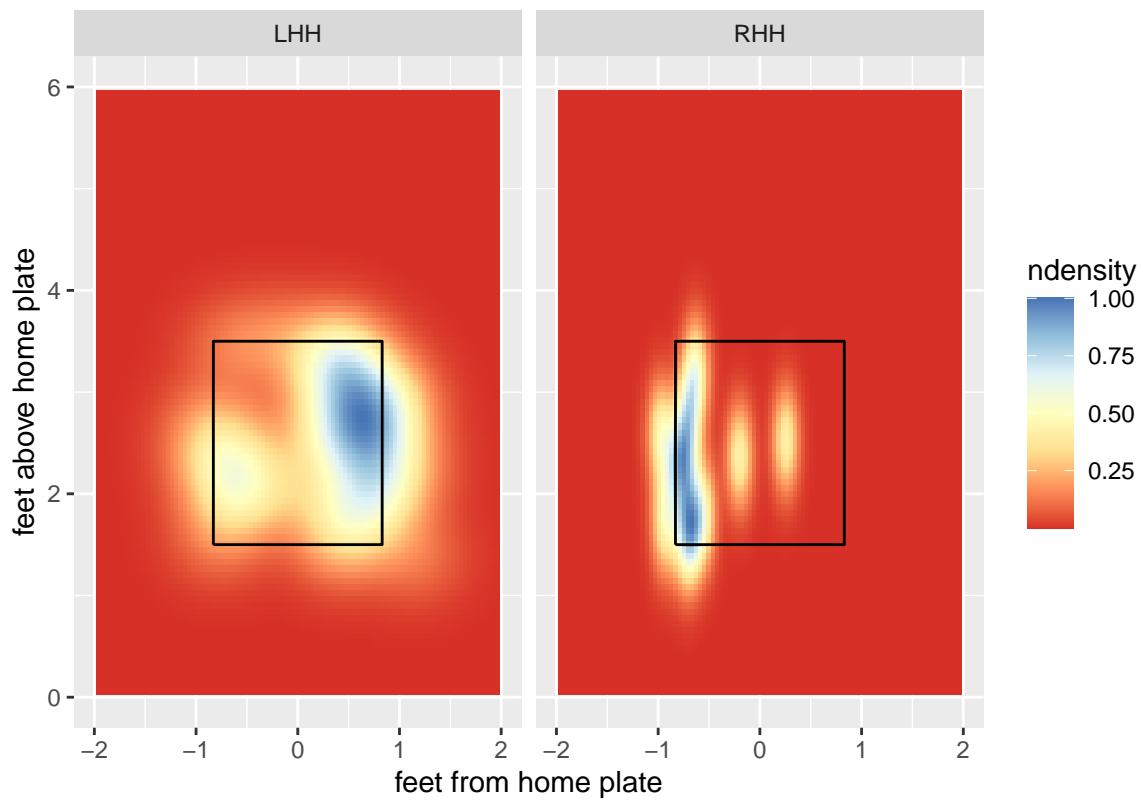
As with everything Aaron Brooks throws, his slider is a fantastic contact killer, which brings everything together. Relative to his changeup and sinker, a 60.8% GB% might be considered low, but it's still the 9th best GB% on an individual pitch. It's really hard to find a flaw with Aaron Brooks' slider and it's usage this season in the KBO. Projecting forward, against MLB hitters, I don't think there's much of anything to change with this pitch. It's work phenomenally with his sinker and changeup and is an extremely effective swing-and-miss pitch with its usage of 23.4%.

Aaron Brooks Changeup

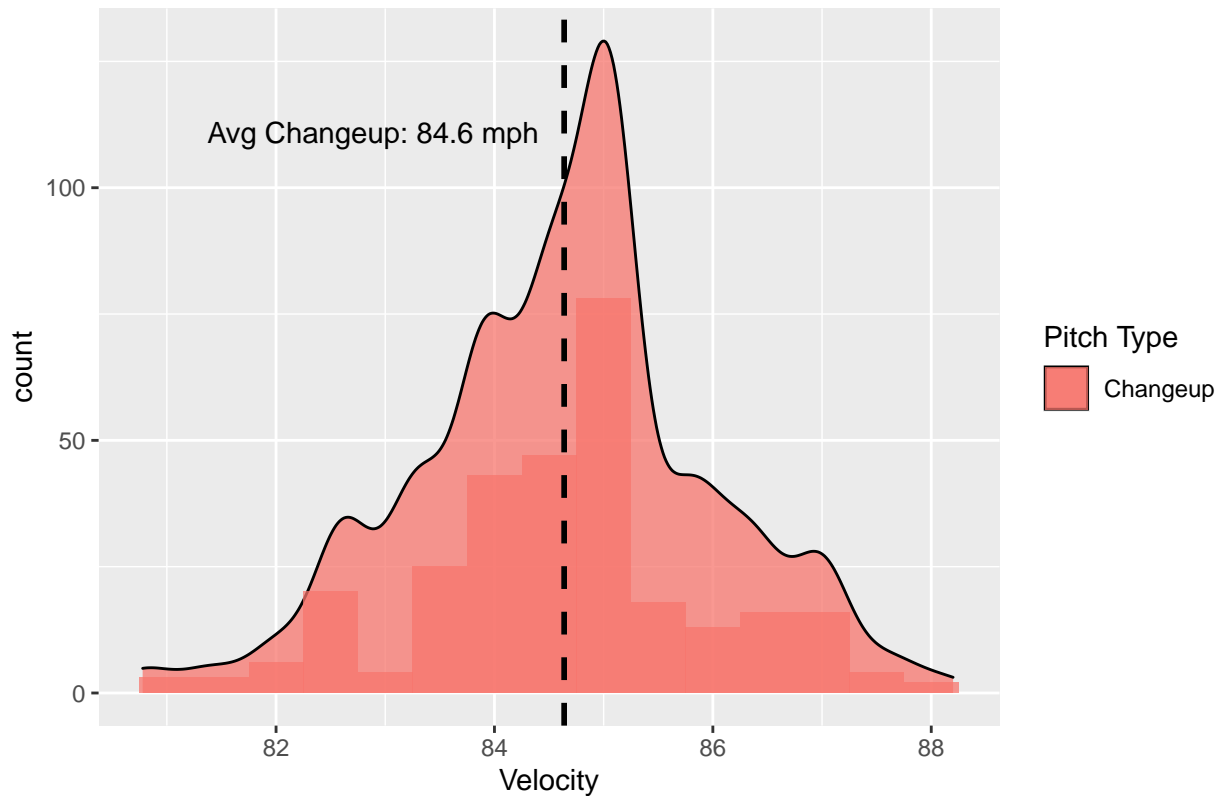
Swinging Strikes



Called Strikes



Changeup Velocity



Aaron Brooks Changeup Stats

Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Changeup	84.6	20.7	307	69.4	25.8	13.7	16.3	30	53.1	74.2

Aaron Brooks Changeup Stats by Batter Handedness

Bats	Usg%	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
LHH	31.1	70.3	26.2	14.0	17.0	31.0	53.3	73.8
RHH	10.4	66.7	24.4	12.8	14.1	26.9	52.6	75.6

Aaron Brooks Changeup BBEs

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
Changeup	84.6	20.7	72	90.3	2.8	6.9	0	49.3	40.6	10.1

Aaron Brooks' slider has been special in 2020, but his changeup deserves just as much as attention as a one of a kind type pitch in the KBO. Brooks uses his changeup almost exclusively against LHH, throwing it 31.1% of the time vs just 10.4% of the time against RHH. He locates it away from LHH on the outer edge of the strike zone and down in the dirt. Doing so takes advantage of the arm side break he induces, giving him a stellar weapon for neutralizing LHH.

In 2019, Brooks' changeup displayed above-average movement, with 37.7 inches of vertical movement (7.1 inches and 23% above average) with 14.5 inches of horizontal break (1.5 inches and 11% above average) all at about 84.6 mph, just about MLB average. His changeup appeared to move very similarly in the KBO, dropping off the table at times against LHH, leaving them to swing and miss or weakly tap a ground ball to the infield. While the 25.8% whiff% and 13.7 SwStr% on his changeup are a nice touch, the batted ball profile of his changeup is what makes it special.

On 72 batted ball events off of his changeup, 90.3% of them were ground balls and 49.3% of them were hit softly, marks that both lead the KBO by wide margins. His changeup's movement profile and usage are perfect for Brooks' approach. With a sinker like his that maximizes horizontal break, his changeup can mimic that movement well, before dropping even further as it approaches the plate. It's the same thing with his slider, which works well because of its lack of horizontal movement makes it tough to differentiate from his changeup before it's too late and the pitches break in opposite directions. Those similarities are the main reason that Brooks can focus on throwing his just his sinker, slider, and changeup against LHH.

Against LHH, Brooks used his changeup for whiffs down and away, which netted the pitch a 14.0% SwStr%. More effectively, his changeup had a called strike% of 17.0%; with the above-average vertical drop and horizontal movement that Brooks gets, his changeup would start above the zone, looking like a ball, before dropping and catching the outside corner. That's a really tough adjustment for a hitter to make late in the ball flight.

Most of the time that Brooks threw his changeup, against RHH and LHH, it was early in the count. In 1-0 counts to RHH, he threw his changeup 32.9% of the time, easily his highest usage against RHH. Against LHH, 1-0, 0-1, and 1-1 counts were frequent changeup counts for Brooks. Throwing his changeup early in the count like this led to a lot of those poor swings (as first-pitch swings are rare in the KBO) and a lot of weak contact. Throwing a changeup and getting an easy ground ball is a great way to end an at-bat early and remain efficient with your pitch count.

Brooks Pitch% Against RHH by start (data from June 4th and June 28th-September 19th starts)

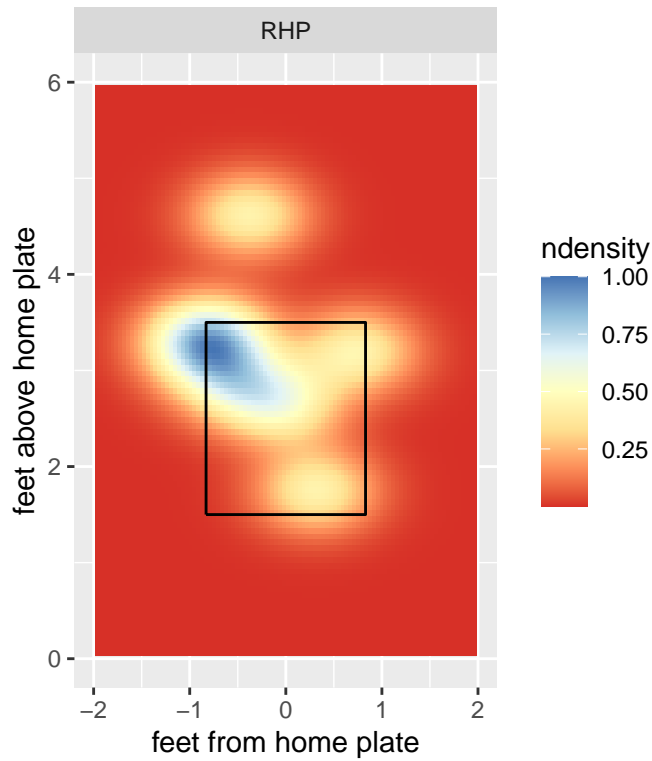
Date	Against	Bats	Pitches	Sinker%	Slider%	Changeup%	4-Seam%	Curveball%
6.04	Lotte	RHH	69	43.5	34.8	2.9	13.0	5.8
6.28	Kiwoom	RHH	44	40.9	29.5	6.8	13.6	9.1
7.05	NC	RHH	54	44.4	33.3	13.0	1.9	7.4
7.11	Kiwoom	RHH	53	56.6	28.3	5.7	5.7	3.8
7.17	Doosan	RHH	18	38.9	11.1	16.7	16.7	16.7
7.25	Samsung	RHH	47	44.7	27.7	8.5	12.8	6.4
7.31	Lotte	RHH	86	29.1	34.9	12.8	18.6	3.5
8.06	LG	RHH	42	42.9	23.8	14.3	7.1	11.9
8.12	LG	RHH	39	46.2	15.4	17.9	7.7	12.8
8.18	LG	RHH	48	54.2	14.6	16.7	8.3	6.2
8.23	Kiwoom	RHH	43	51.2	18.6	16.3	4.7	9.3
9.01	Samsung	RHH	52	26.9	32.7	11.5	17.3	11.5
9.06	Hanwha	RHH	43	30.2	39.5	2.3	20.9	7.0
9.13	NC	RHH	64	54.7	23.4	9.4	4.7	6.2
9.19	Hanwha	RHH	45	37.8	35.6	8.9	13.3	4.4

As mentioned, his changeup usage drops drastically against RHH, although it did pick up a little bit as the season continued. I started to notice him incorporate his changeup more against RHH, when he faced the LG Twins three starts in a row from August 6th - August 18th (KBO scheduling quirks with just 10 teams). Three of his five highest RHP on RHH changeup rates came those weeks, along with the two highest rates of his season. It's interesting to look at, especially as his slider% decreased in those consecutive weeks and he relied more on his other pitches while facing the same lineup 3 weeks in a row.

I would be very interested to see him incorporate his changeup more against RHH in MLB, especially if he decreases his sinker usage to throw his best pitches more frequently. In the KBO, he did get some RHP on RHH whiffs on his changeup in the dirt or located it so that it broke back over the outside edge of the zone for a called strike. RHP on RHH changeups can be hard to hit when thrown inside and breaking to the back foot of the hitter, similarly to backfoot sliders against LHH from an RHP. I think that RHH would have a tough time trying to differentiate his slider and changeup, making that potentially a potent combination. His changeup has also done a fantastic job of killing contact and that's never a bad thing to do more of.

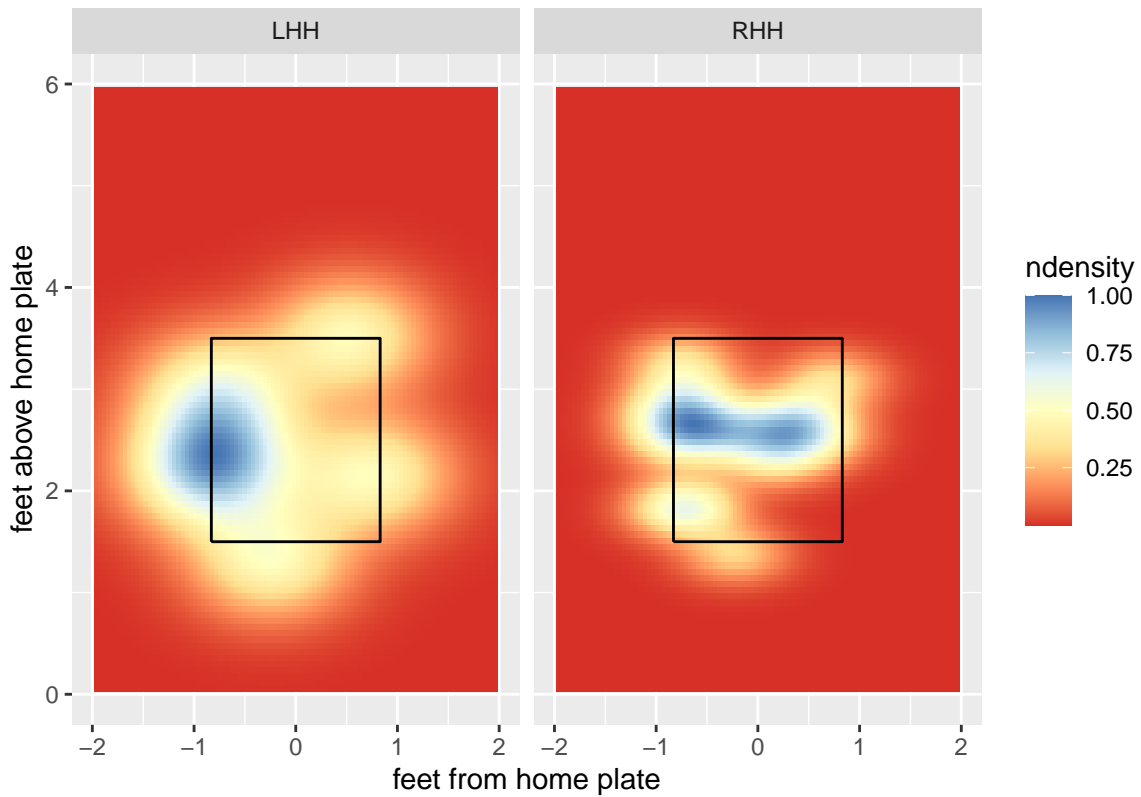
Aaron Brooks 4-Seam Fastball

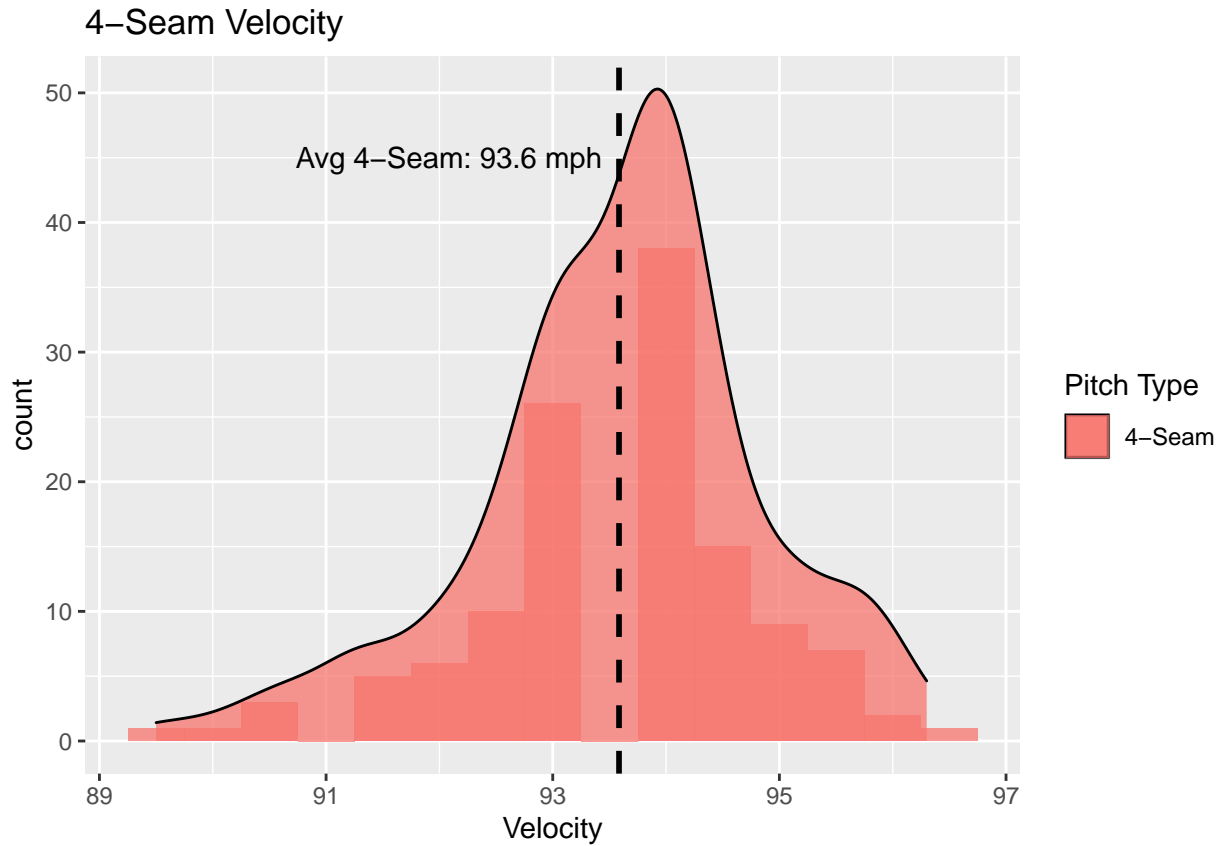
Swinging Strikes



LHH and RHH combined due to just 7 total whiffs

Called Strikes





Aaron Brooks 4-Seam Stats

Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
4-Seam	93.6	8.8	130	66.9	11.1	5.4	18.5	23.8	48.5	88.9

Aaron Brooks 4-Seam Stats by Batter Handedness

Bats	Usg%	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
RHH	11.1	71.1	9.5	4.8	20.5	25.3	50.6	90.5
LHH	6.4	59.6	14.3	6.4	14.9	21.3	44.7	85.7

Aaron Brooks 4-Seam BBEs

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
4-Seam	93.6	8.8	25	72	12	8	8	39.1	39.1	21.7

Aaron Brooks primarily throws his 4-Seam fastball against RHH, using it 11.1% of the time against RHH versus just 6.4% of the time against LHH. Again, that's compensation for the discrepancy in changeup usage between RHH and LHH that leaves more room for Brooks to fill with his 4-Seam/Curveball against RHH. Averaging 93.6 mph, his 4-seam is his fastest pitch, but it mostly serves as a change of pace pitch.

He most frequently throws his 4-seam in 0-2 (18.6%), 1-2 (18.3%), and 2-2 (20.3%) counts. He locates it in the upper half of the zone, which does lead to some swings and misses up in the zone, but primarily gets called strikes painted on the outside edge against RHH and inside to LHH (18.0% CS% vs 5.4% SwStr%). The extra 1.5 mph is nice compared to his sinker since it gives him the ability to blow some fastballs by hitters, but it remains his least effective pitch by CSW% at just 23.8% of pitches resulting in a called strike or whiff.

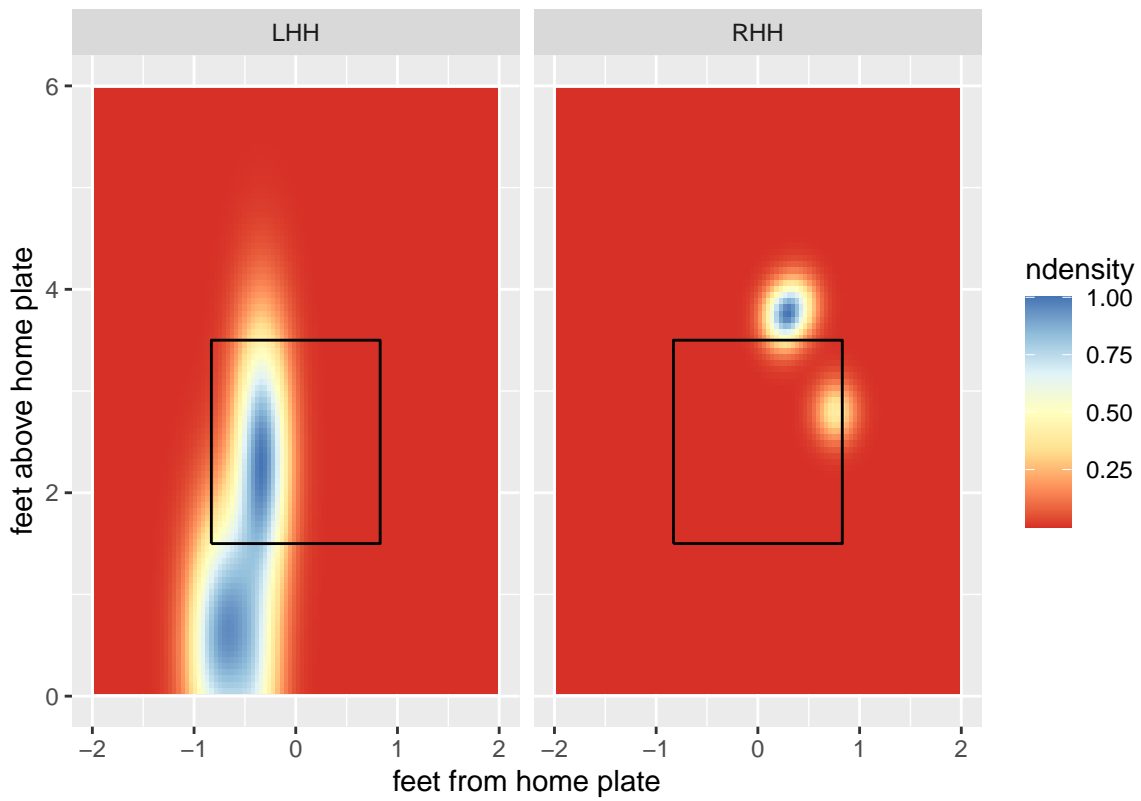
Like the rest of his pitches, his 4-seam maintains an excellent 72% GB% but was his hardest hit pitch at 21.7% hard-hit%. That 21.7% is below the KBO hard-hit% average, but it's the same thing that happened in 2019 with Brooks' 4-seam. On 60 batted balls off of his 4-seam, hitters had an xSLG of 0.687, an xwOBA of 0.437, an average exit velocity of 92.6 mph, and an average launch angle of 22 degrees. That's a lot of hard contact for just one pitch.

In the future, I think that continuing to throw his sinker significantly more than his 4-seam is a good idea; his 4-seam averaged 17.9 inches of vertical break and 12.4 inches of horizontal break in 2019 which is 84% more horizontal break than average, but I wonder if that makes his 4-seam run too close to his sinker.

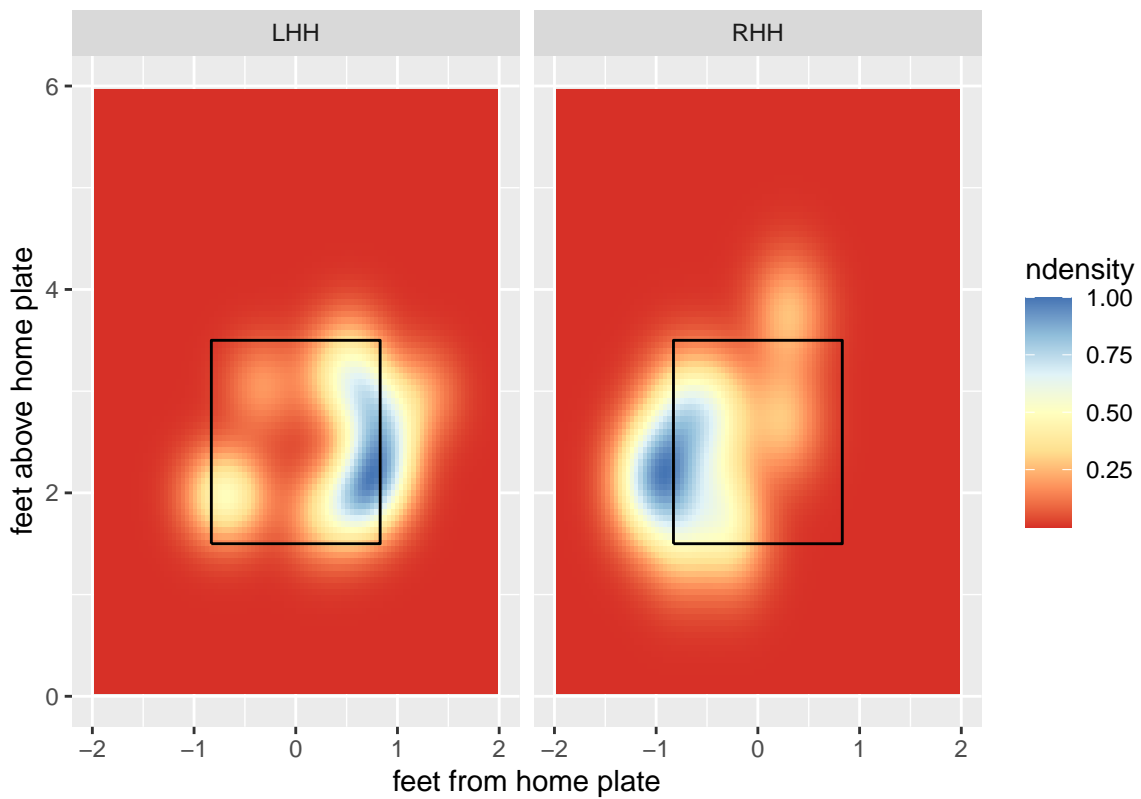
Based on Brooks Baseball's spin axis numbers for Aaron Brooks' 2019, his 4-seam spin axis averaged about 222 degrees while his sinker averaged about 240 degrees. Converting that to tilt and you get an average of 1:24 tilt on his 4-seam and 2:00 for his sinker. In 2019, his 4-seam was a less-effective sinker that moved less. Sans Trackman data for Brooks' 2020 season, I don't know if Brooks made any adjustments to his 4-seam, but I'd want to focus on getting his 4-seam more upright, closer to a spin axis ~ 200, giving him a tilt somewhere around 12:30-12:45 to create a more distinct 4-seam.

Aaron Brooks Curveball

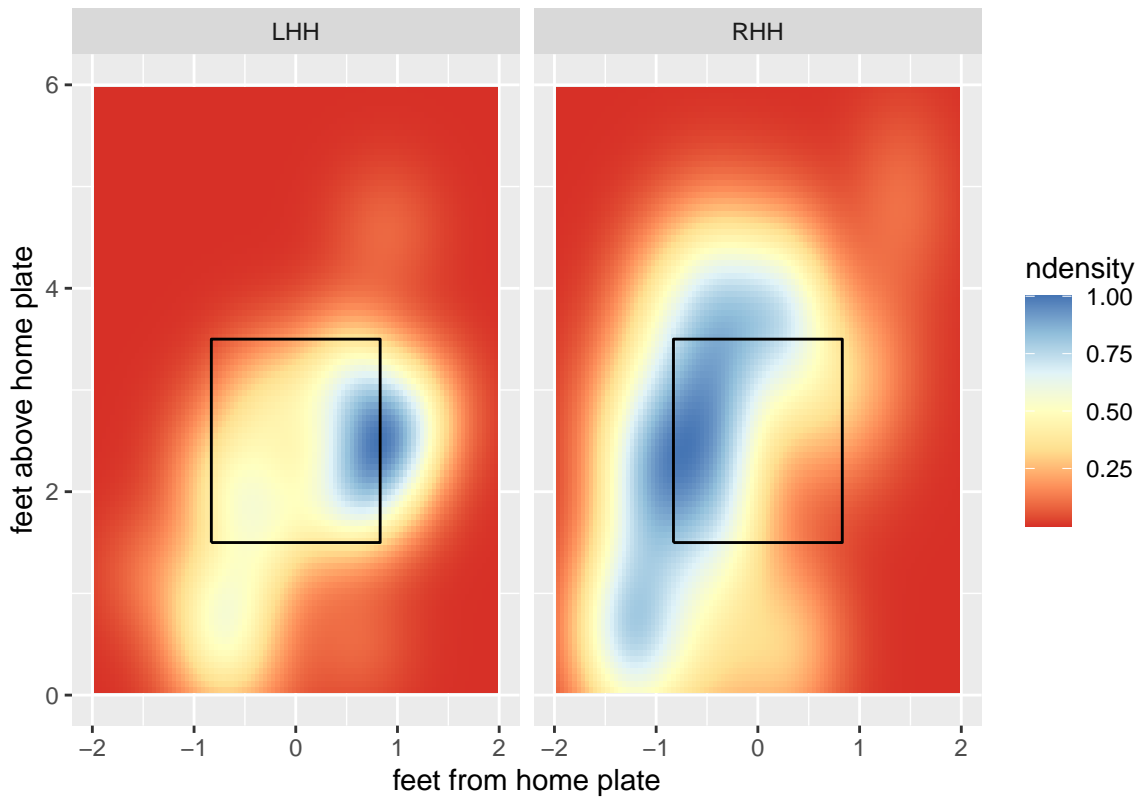
Swinging Strikes



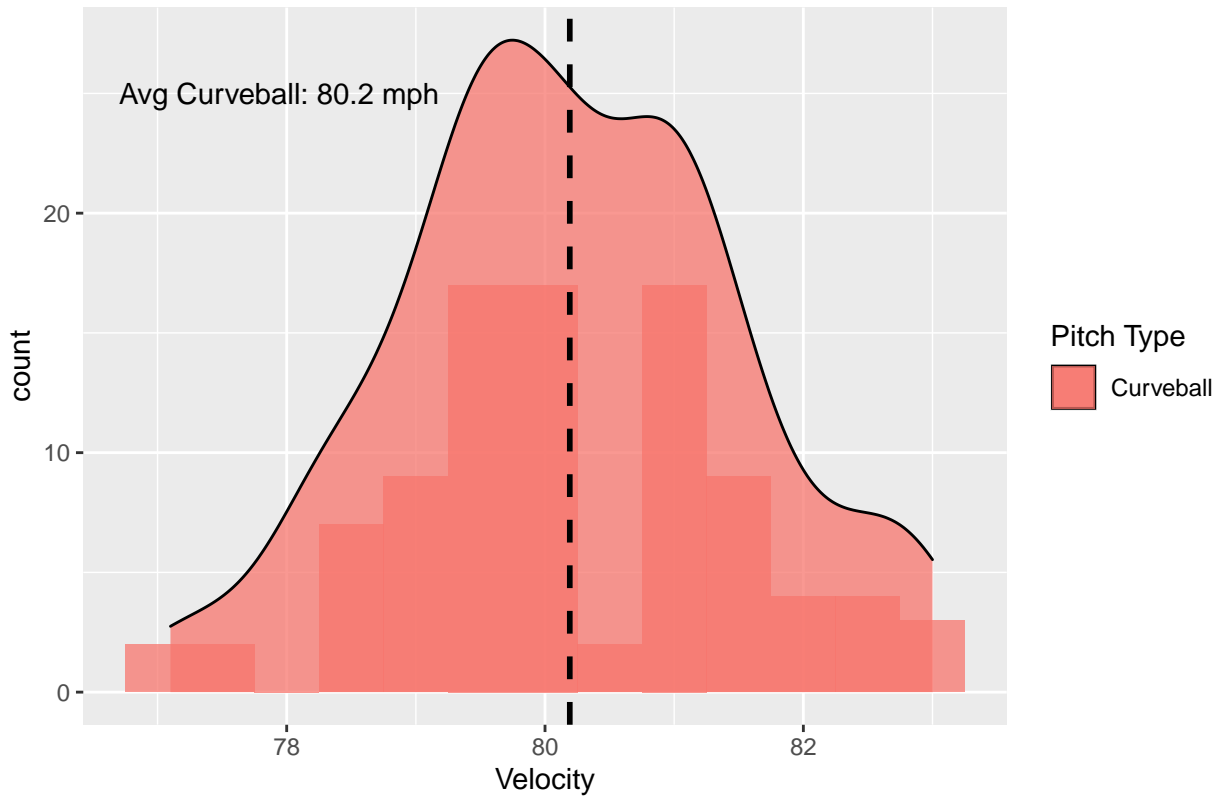
Called Strikes



All Curveballs



Curveball Velocity



Aaron Brooks Curveball Stats

Pitch	Velocity	Usg %	Pitches	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
Curveball	80.2	6.8	101	59.4	34.6	8.9	33.7	42.6	25.7	65.4

Aaron Brooks Curveball Stats by Batter Handedness

Bats	Usg%	Strike%	Whiff%	SwStr%	CS%	CSW%	Swing%	Contact%
RHH	7.4	49.1	30.8	7.3	25.5	32.7	23.6	69.2
LHH	6.2	71.7	38.5	10.9	43.5	54.3	28.3	61.5

Aaron Brooks Curveball BBEs

Pitch	Velocity	Usg %	BBEs	GB%	FB%	LD%	PU%	Soft%	Med%	Hard%
Curveball	80.2	6.8	10	70	20	0	10	55.6	33.3	11.1

Aaron Brooks' curveball is interesting. He's thrown it just 6.8% of the time this season, split fairly equally against both RHH and LHH. It's not a heavy-usage pitch, but what's interesting is when he throws his curveball. Brooks throws his curveball almost exclusively in 0-0 counts, with his curve accounting for 20.2% of his pitches in 0-0 counts vs RHH and 16.9% of pitches in 0-0 counts against LHH. There are just two other situations where his curveball usage scrapes above 5%, with those being 1-1 counts vs LHH (7.9%) and 2-2 counts against RHH (5.1%). So it's pretty safe to say that Brooks has a specific use for his curveball and sticks to that rigorously.

Throwing his curveball in 0-0 counts has allowed him to pad that first-pitch strike% of 65.7% and get ahead in the count against hitters. With the appearance of his curveball a rare occurrence, hitters rarely swing at it, as Brooks' curveball swing% of 25.7% indicates and leading to his whopping 33.7% called strike% on curveballs. It is interesting, however, that there is a pretty big discrepancy in his RHH vs LHH results. Against LHH, his curve has a 71.7% strike%, 43.5% CS%, and 54.3% CSW% while those numbers drop to 49.1% strike%, 25.5% CS%, and a 32.7% CSW% against RHH. That's a result of differing approaches versus LHH and RHH.

Looking at all of Brooks' curveball locations, he concentrates his curveballs against LHH in the strike zone, whether it's away for a called strike or down and in for a whiff. Against RHH, he consistently works away, but locates all over, above the zone, in the zone, and down and away. I think that working inside early against LHH sets up his sinker and changeup, while the same is true against RHH, but setting up his sinker and slider to break in opposite directions.

Working his curveball early is a good way to unsettle a hitter, potentially steal a strike, and set up to use his best stuff to put them away. Upping his first-pitch curveball usage is a change that I believe is worth exploring more against MLB hitters.

Resources

- KBO Wizard to host 25,000 charted KBO pitches
- Mid-season scouting report on Aaron Brooks
- Breaking down Aaron Brooks' July 17th start against the Doosan Bears
- Breaking down Aaron Brooks' curveball usage
- Aaron Brooks' Baseball Savant page
- Aaron Brooks' FanGraphs page
- Aaron Brooks' Brooks Baseball page
- Aaron Brooks' changeup
- Aaron Brooks' slider
- Aaron Brooks' slider/changeup + overlay