NI	0	44	7	
IN	U		=}	

Facing RHH, Ragans mainly uses 4S/CH & mixes in O/S w/ FC/KC/SL. 4S is I–Zone over 50% and in Heart–Zone 32% of the time. CH is danger pitch w/ 41% Chase and 50% whiff (60% O–Whiff). CH thrown I–Zone also have a 40% whiff rate. CH do not get hit hard overall 20% Hard–Hit, only 8% O–Zone Hard–Hit. 4S/FC hit hard especially in–zone. CH/SL proven to be effective w/ xwOBA. KC has overall best results w/ .178 wOBA. For pitches w/in zone CH has best xwOBA at .221 which means if he needs to go in–zone best option is the CH to limit damage. KC/SL outside–zone best pitch both xwOBA < .140. Inside zone best pitch has been CH .221 xwOBA, even if he misses .177 xwOBA over heart. Mainly uses 4S 1st Pitch & will be in–zone over 50%. When he uses KC/CH in–zone ~40%. After 1st pitch will go CH and 2K CH will be outside the zone. Will still throw 2K 4S in zone ~50%. After 1st pitch tends to throw away KC & use FC/CH. Zone KC 1st pitch only have 14% swing rate, might be an option to get ahead early. 4S–CH seq. gets 44% chase w/ 43% whiff. 4S lives up in the zone but not outside the box. When he is behind, will bring 4S over the heart. CH tend to live on the outside lower half of the plate. When he is ahead, does drop KC up in the zone will be dangerous to throw vs Judge. Induces weak contact vs 4S when it is low & away. Mainly stays up or away on RHH, will come in w/ FC/SL. Overall 1st pitch will dictate how the PA goes, can drop a BB/OS in for a called strike but cannot be over the middle. CH away to start then back again w/ CH. 4S should be placed up outside the zone. KC/FC/SL will be smashed if thrown too early in zone.

ndde

Facing LHP, Judge has seen 4S/CH frequently but CH thrown to him In–Zone < 30%. Stays discipline vs CH w/ 20% Chase, but has 51% Overall whiff. When he does chase CH, 60% Whiff. CH only have 38% Hard–Hit compared to 4S w/ 70% Hard–Hit. Does not perform vs LHP SL w/ 0% Hard–Hit. Lights up all pitches in xwOBA, most success vs 4S w/in zone .479 xwOBA and a .366 ISO. Does well vs FC in zone .444 Z–xwOBA & .444 Z–ISO. When he does chase, only does a lot of damage vs 4S with .200 O–ISO. Rest have high xwOBA but low ISO & BABIP. Will take most O/S 1st pitch but will swing if I–Zone (barely gets 1st pitch in–zone). 0–2 does not chase but 1–2 can get more chases especially on O/S. For 2–Pitch seq. FB to O/S will not chase but has a 52% whiff. When he is ahead he has .523 wOBA. Likes to swing at the high 4, does whiff when its up out of the zone. CH in the bottom corner away big whiff zone. Hard–Hits vs LHP come vs the 4S/FC and anything over the middle and up getting hit hard. Jump on him early, tends to start off in–zone early then works the outer half of the plate later. Either jump on 1st pitch 4S or if wait for a BB to enter the zone. KC/FC live over the middle and can be hit hard. Outside CH is tough to hit but would expect him to throw a lot.

	Cole Ragans vs RHH										
Pitch	Usage	Zone %	Z–Swing %	Heart %	H-Swing %	O-Zone %	Chase %	Whiff %	Z-Whiff %	H–Whiff %	O-Whiff %
4-Seam	41%	55%	72%	32%	77%	45%	27%	22%	22%	21%	25%
Changeup	29%	41%	82%	20%	85%	59%	41%	47%	39%	37%	57%
Cutter	12%	53%	66%	26%	82%	47%	28%	21%	11%	8%	50%
Kn.Curve	11%	43%	32%	20%	33%	57%	21%	35%	24%	11%	48%
Slider	7%	34%	90%	18%	97%	66%	41%	30%	7%	6%	56%
ALL	80%	48%	71%	25%	77%	52%	32%	32%	25%	22%	46%

	Aaron Judge vs LHP										
Pitch	Usage	Zone %	Z–Swing %	Heart %	H-Swing %	O-Zone %	Chase %	Whiff %	Z–Whiff %	H–Whiff %	O-Whiff %
4-Seam	32%	57%	68%	21%	76%	43%	17%	14%	12%	8%	24%
Changeup	22%	27%	71%	13%	86%	73%	20%	51%	44%	42%	60%
Cutter	7%	52%	68%	24%	92%	48%	27%	38%	26%	8%	71%
Kn.Curve	1%	45%	80%	27%	67%	55%	33%	33%	25%	0%	50%
Slider	10%	33%	62%	23%	61%	67%	17%	64%	50%	55%	89%
ALL	26%	45%	63%	22%	71%	55%	19%	31%	21%	18%	59%

	Cole Ragans vs RHH										
Pitch	Strike %	Ball %	O-Strike %	BIP %	Z-BIP %	O-BIP %	Hard-Hit %	Z-H-Hit %	O-H-Hit %	Heart-H-Hit %	
4-Seam	68%	32%	68%	26%	26%	27%	42%	45%	33%	48%	
Changeup	65%	35%	65%	26%	29%	23%	20%	28%	8%	31%	
Cutter	64%	36%	64%	37%	46%	13%	48%	49%	40%	58%	
Kn.Curve	54%	46%	54%	25%	39%	9%	44%	47%	33%	45%	
Slider	61%	39%	61%	27%	43%	10%	28%	33%	0%	35%	
ALL	65%	35%	65%	28%	31%	21%	35%	40%	20%	45%	

	Aaron Judge LHP										
Pitch	Strike %	Ball %	O-Strike %	BIP %	Z-BIP %	O-BIP %	Hard-Hit %	Z-H-Hit %	O-H-Hit %	Heart-H-Hit %	
4-Seam	58%	42%	58%	32%	34%	18%	71%	72%	67%	93%	
Changeup	40%	60%	40%	23%	31%	12%	38%	50%	0%	50%	
Cutter	65%	35%	65%	35%	42%	14%	67%	75%	0%	83%	
Kn.Curve	64%	36%	64%	17%	25%	0%	100%	100%		100%	
Slider	41%	59%	41%	4%	6%	0%	0%	0%		0%	
ALL	53%	47%	53%	29%	36%	10%	67%	72%	25%	78%	

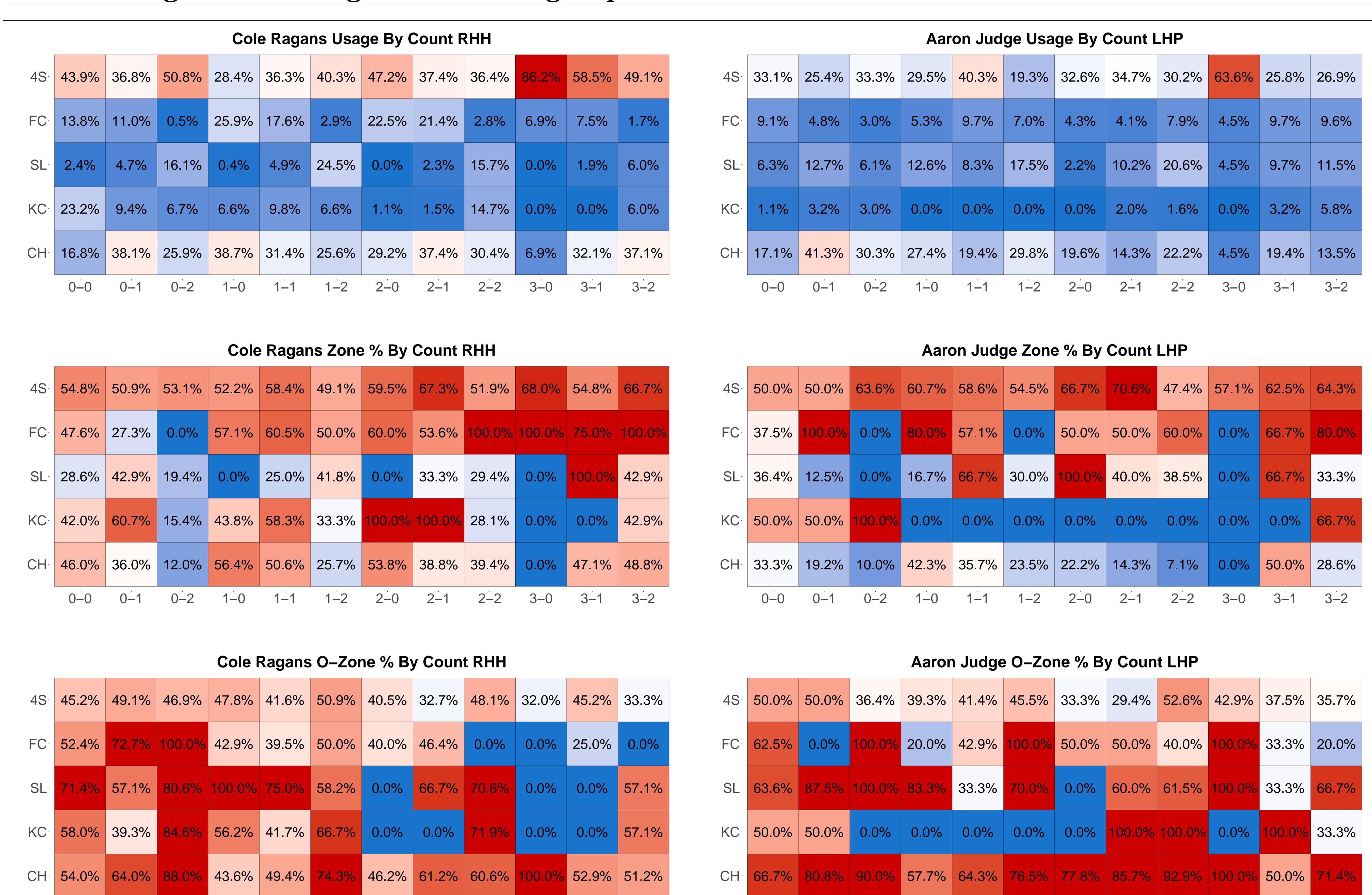
	Cole Ragans vs RHH										
Pitch	wOBA	xwOBA	xBA	BABIP	ISO	Z-woba	Z-xwOBA	Z-xBA	Z-BABIP	Z-ISO	
4-Seam	.272	.297	.319	.123	.130	.203	.246	.305	.127	.145	
Changeup	.263	.253	.283	.150	.086	.241	.221	.268	.187	.121	
Cutter	.389	.351	.353	.345	.127	.392	.357	.362	.340	.140	
Kn.Curve	.178	.236	.346	.135	.054	.236	.308	.374	.227	.091	
Slider	.239	.217	.345	.131	.148	.379	.371	.367	.207	.276	

	Aaron Judge vs LHP										
Pitch	wOBA	xwOBA	xBA	BABIP	ISO	Z-woba	Z-xwOBA	Z-xBA	Z-BABIP	Z-ISO	
4-Seam	.510	.494	.428	.180	.311	.474	.479	.415	.244	.366	
Changeup	.343	.388	.394	.103	.138	.296	.404	.431	.143	.286	
Cutter	.396	.410	.355	.143	.286	.461	.444	.351	.222	.444	
Kn.Curve	.000	.234	.491	.000	.000	.000	.351	.491	.000	.000	
Slider	.300	.306	.157	.000	.000	.000	.039	.157	.000	.000	

	Cole Ragans vs RHH										
Pitch	O-wOBA	O-xwOBA	O-xBA	O-BABIP	O-ISO	H-wOBA	H-xwOBA	H-xBA	H-BABIP	H-ISO	
4-Seam	.403	.393	.362	.114	.102	.221	.269	.328	.136	.182	
Changeup	.284	.284	.309	.115	.052	.203	.177	.203	.125	.125	
Cutter	.360	.298	.270	.400	.000	.436	.391	.363	.394	.152	
Kn.Curve	.093	.131	.204	.000	.000	.358	.460	.391	.333	.167	
Slider	.111	.078	.238	.062	.031	.511	.504	.430	.278	.444	

	Aaron Judge vs LHP										
Pitch	O-wOBA	O-xwOBA	O-xBA	O-BABIP	O-ISO	H-wOBA	H-xwOBA	H-xBA	H-BABIP	H-ISO	
4-Seam	.583	.524	.562	.050	.200	.797	.672	.428	.267	.867	
Changeup	.387	.373	.270	.067	.000	.406	.496	.474	.125	.500	
Cutter	.280	.348	.383	.000	.000	.542	.520	.336	.167	.667	
Kn.Curve	.000	.000	<u>—</u>	.000	.000	.000	.702	.491	.000	.000	
Slider	.420	.413		.000	.000	.000	.052	.157	.000	.000	

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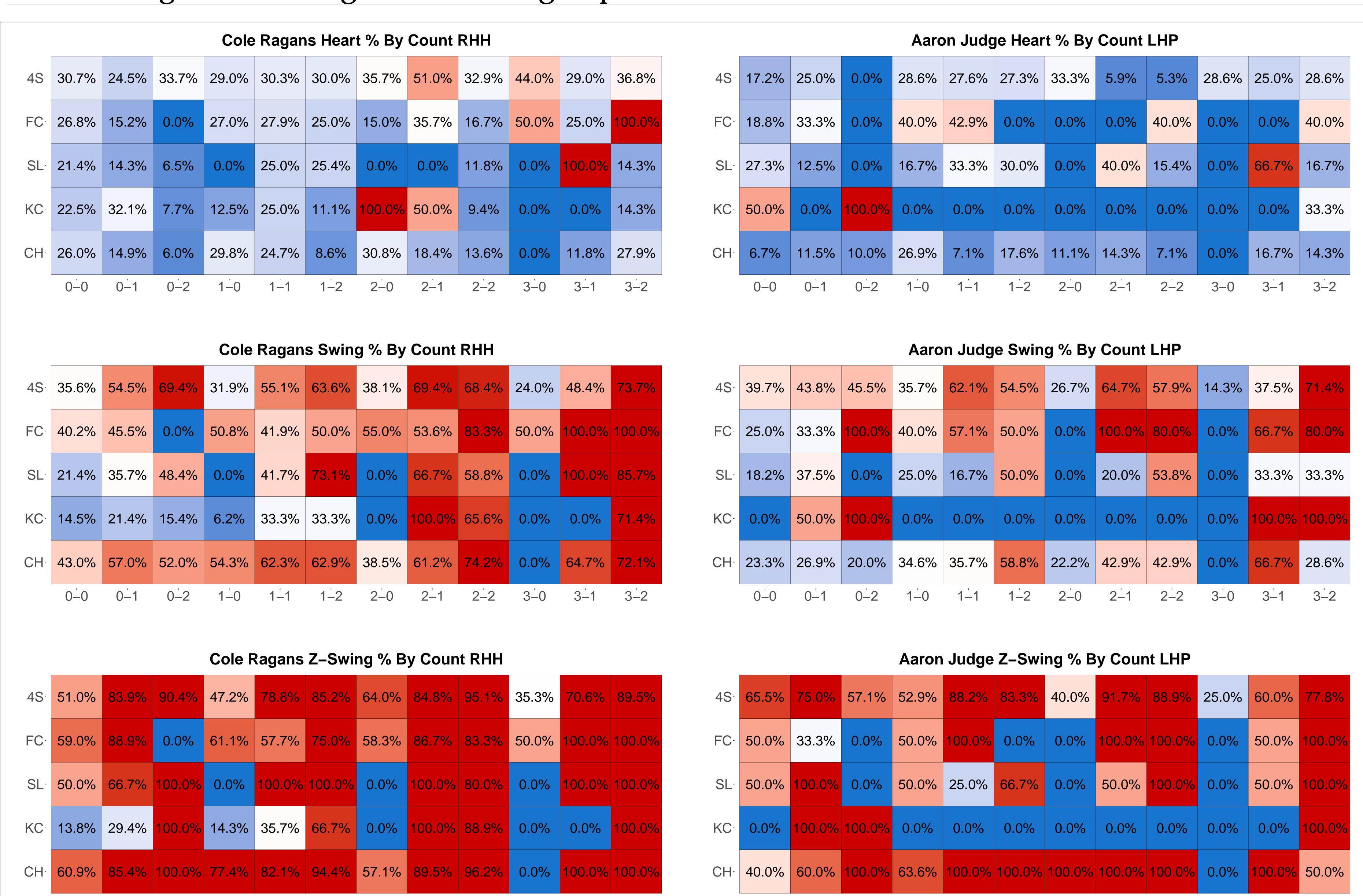
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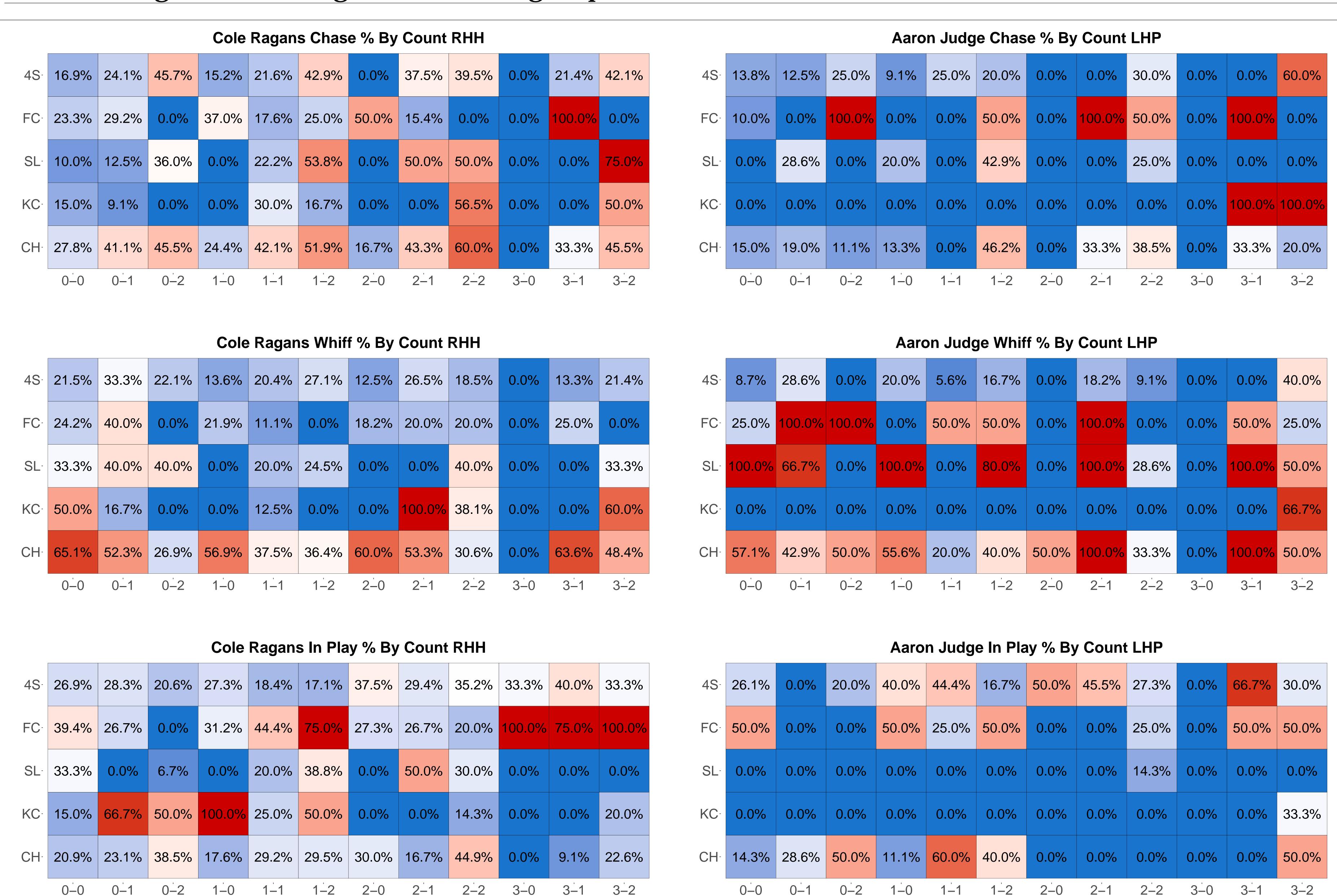
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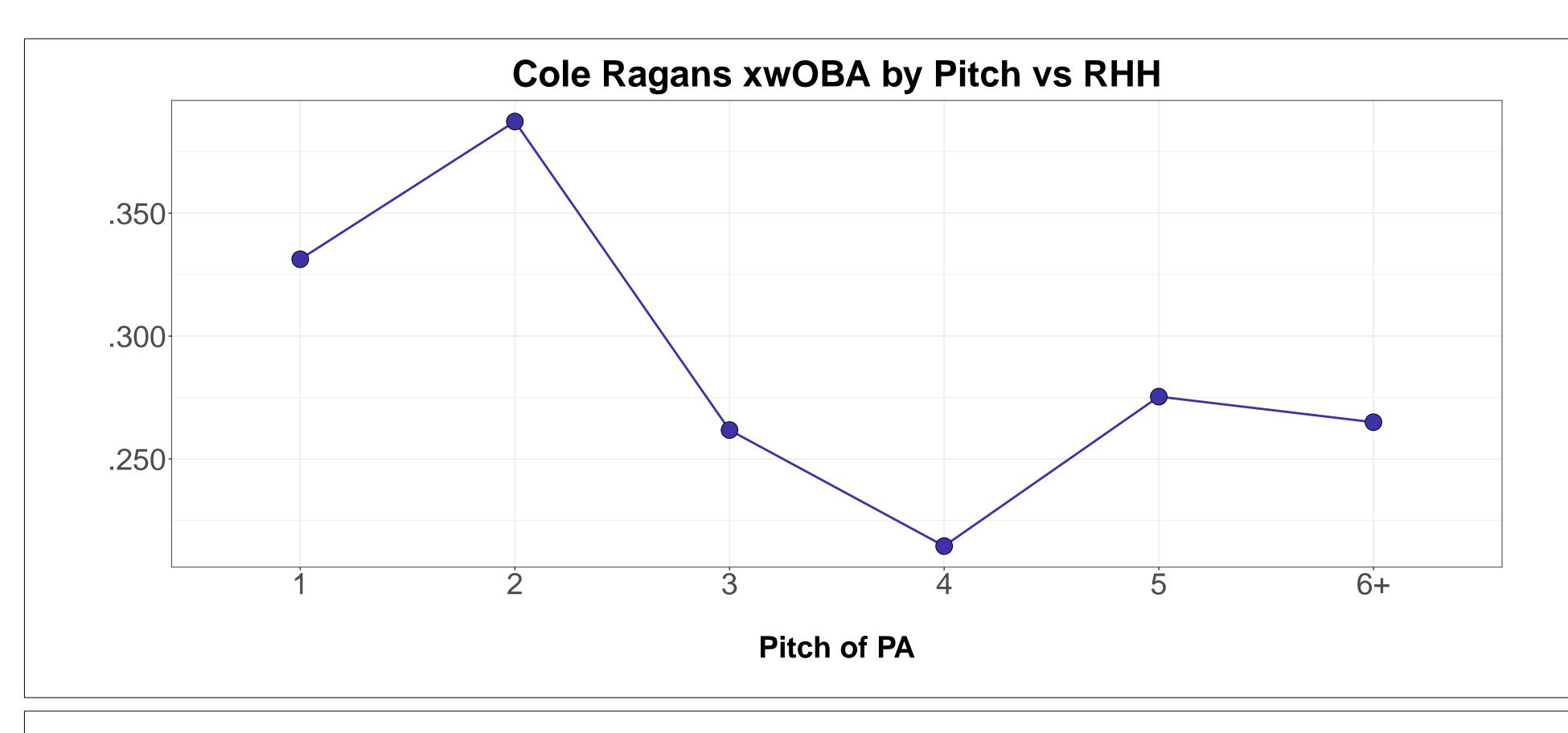
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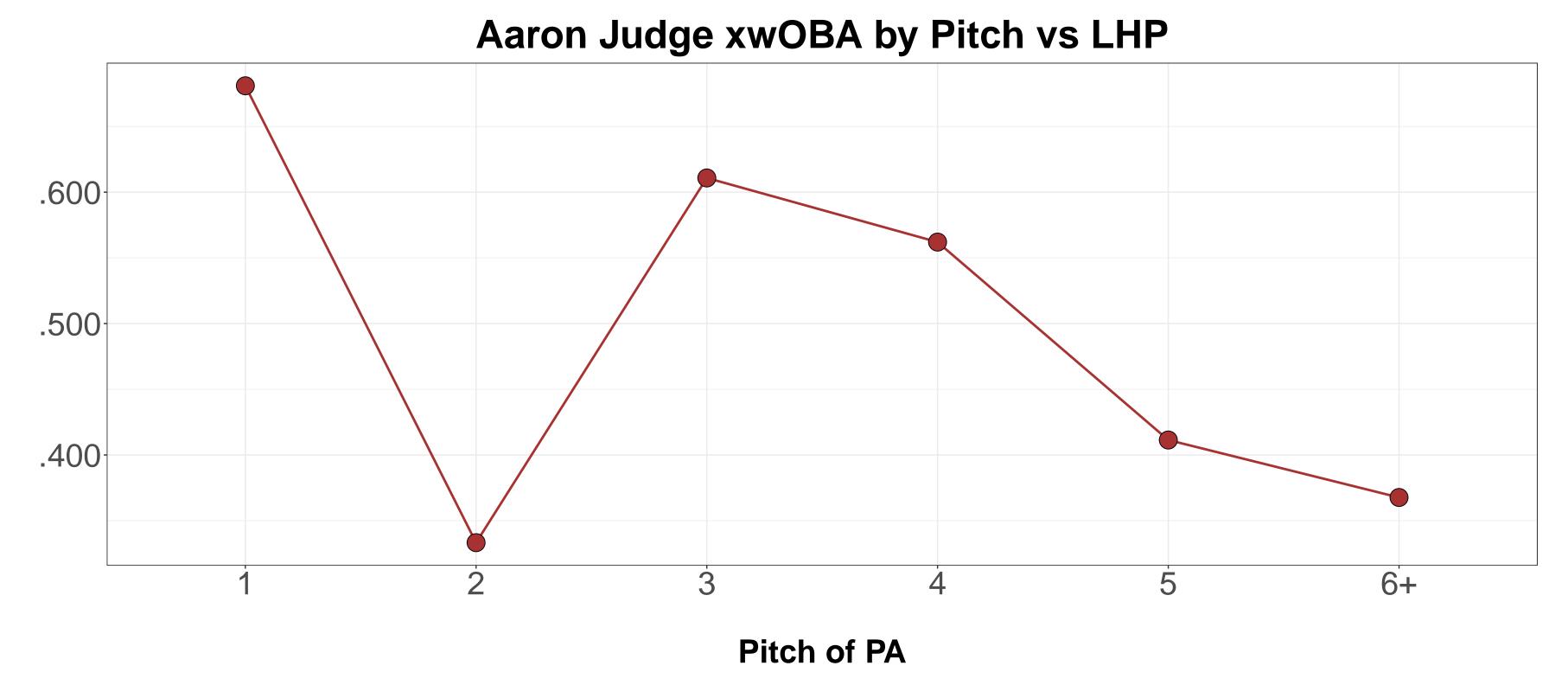
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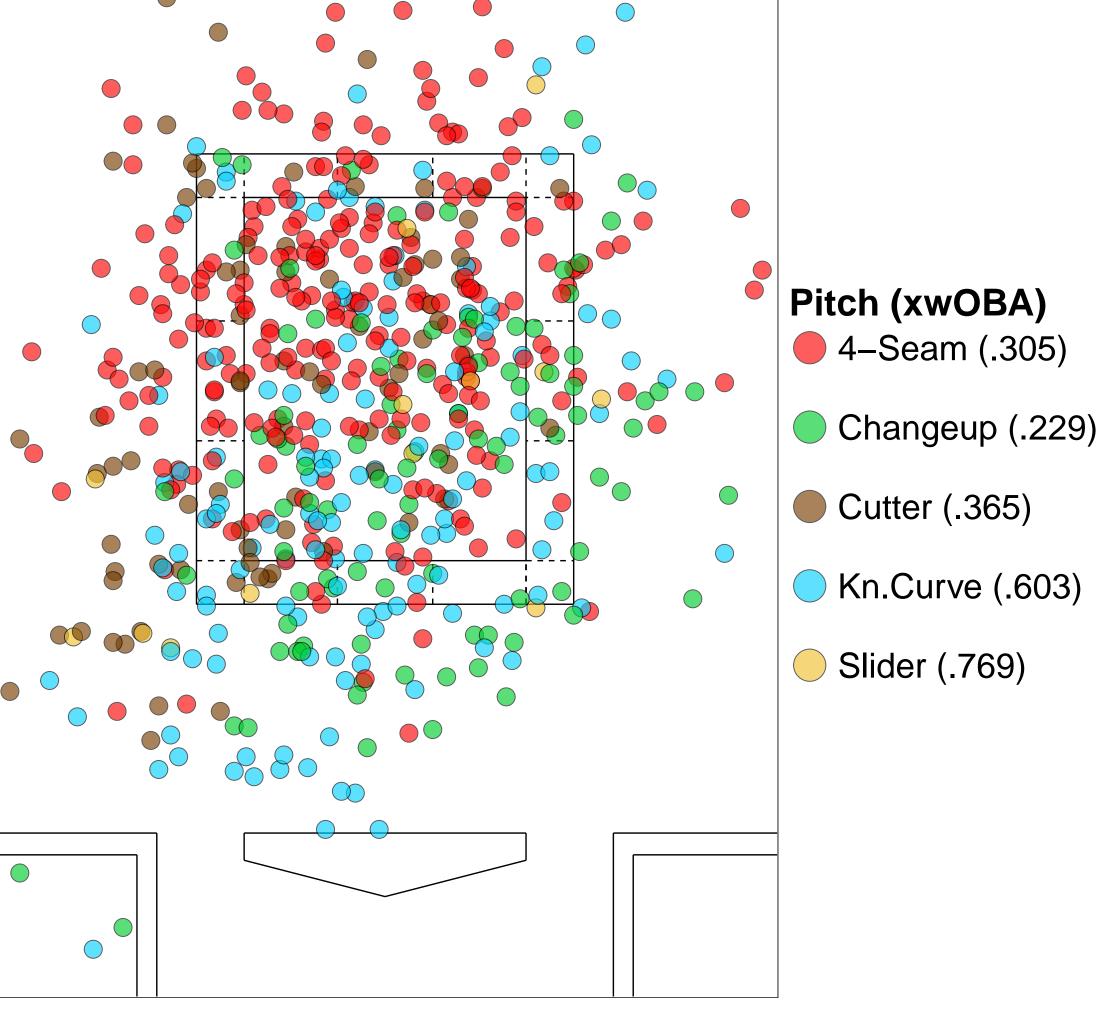




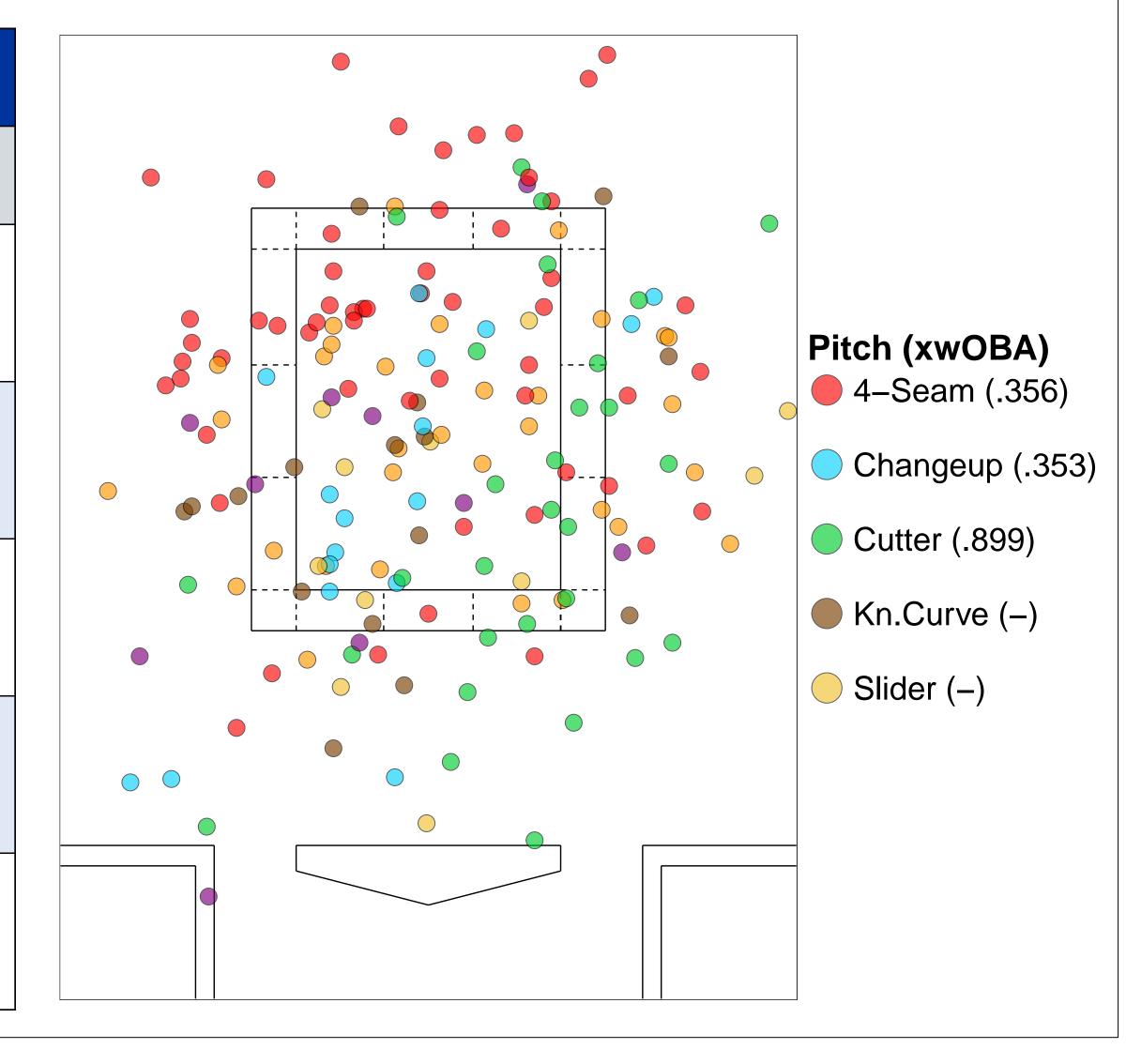
	Cole Ragans 1st–Pitch Usage vs RHH										
Most	After	After	After Field Out	After	Men in						
Frequent	Strikeout	Walk		Hit	Scoring						
4-Seam	4-Seam	4-Seam	4-Seam	4-Seam	4-Seam						
(43.9%)	(45.9%)	(39.2%)	(43.8%)	(42.0%)	(32.0%)						

Aaron Judge 1st-Pitch Swing % vs LHP									
1st Time2nd Time3rd TimeAfterAfterMen inSeeingSeeingStrikeoutHitScoring									
24%	33%	30%	32%	29%	21%				

Cole Ragans vs RHH									
Pitch	Zone	Heart	Swing	BIP					
4S	55%	31%	36%	27%					
СН	46%	26%	43%	21%					
SL	29%	21%	21%	33%					
СТ	48%	27%	40%	39%					
KC	42%	22%	14%	15%					



	Aaron Judge vs LHP									
	Pitch	Zone	Heart	Swing	BIP					
	4S	50%	17%	40%	26%					
)	SL	36%	27%	18%	0%					
	СН	33%	7%	23%	14%					
	СТ	38%	19%	25%	50%					
	KC	50%	50%	0%	_					



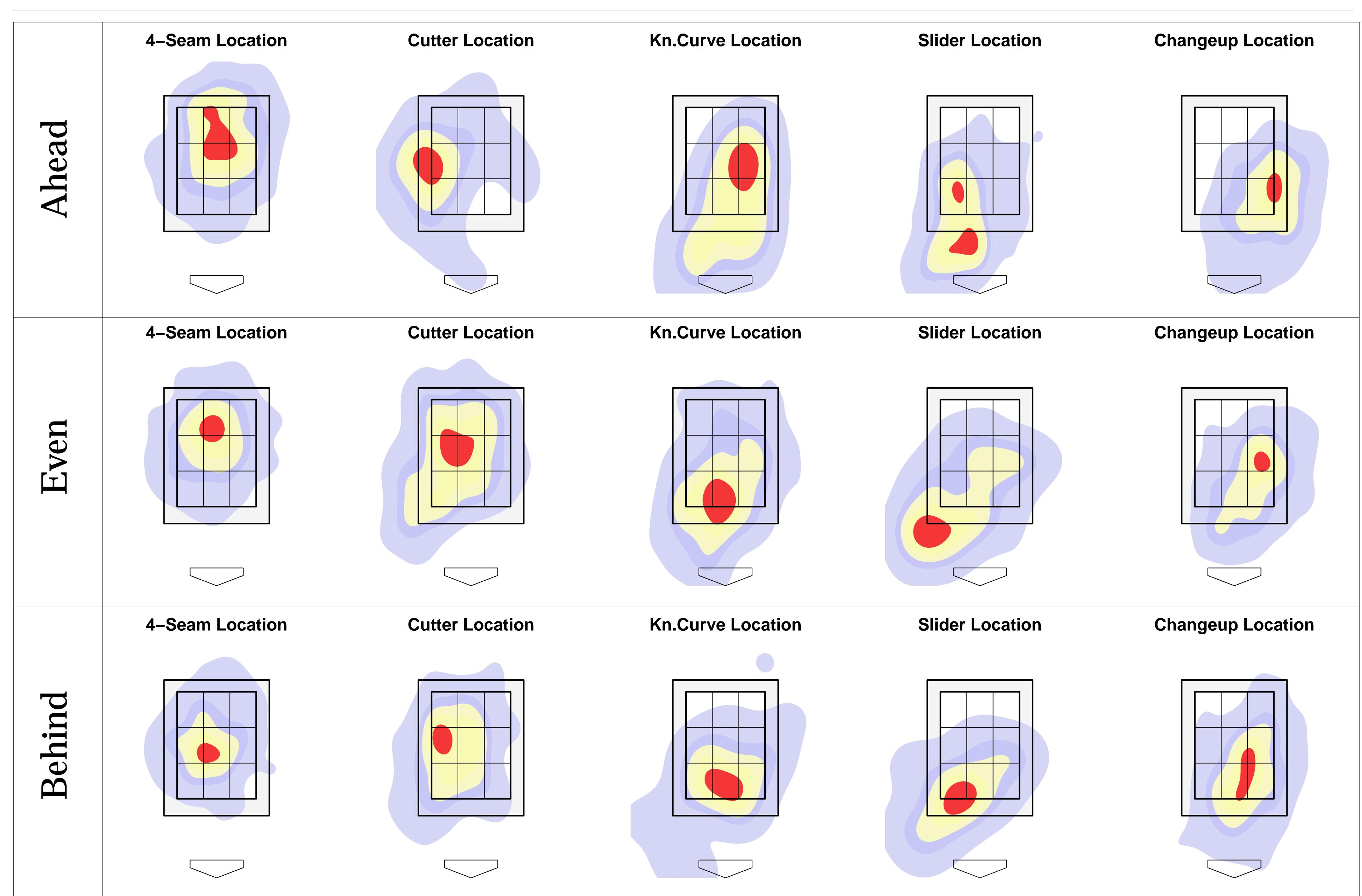
Cole Ragans Two Pitch Sequences vs RHH									
Sequence	Usage	Swing % Whiff %		Chase %	Zone %				
4S-4S	17.4%	48.6%	23.9%	23.6%	60.2%				
CH-4S	11.9%	58.3%	17.3%	26.6%	60.8%				
4S-CH	9.5%	56.8%	42.9%	43.4%	38.7%				
CH-CH	7.7%	58.7%	45.7%	40.2%	40.2%				
4S-CT	4.9%	43.5%	24.0%	22.0%	48.7%				

Aaron Judge Two Pitch Sequences vs LHP									
Sequence	Usage	Swing %	Whiff %	Chase %	BIP %				
FAST-FAST	28.2%	43.6%	18.1%	20.7%	33.3%				
OFF-FAST	13.2%	48.1%	21.6%	34.3%	32.4%				
FAST-BRK	12.5%	34.2%	48.0%	18.2%	8.0%				
FAST-OFF	11.8%	36.2%	52.0%	14.9%	16.0%				
BRK-FAST	10.8%	57.1%	25.0%	34.5%	33.3%				

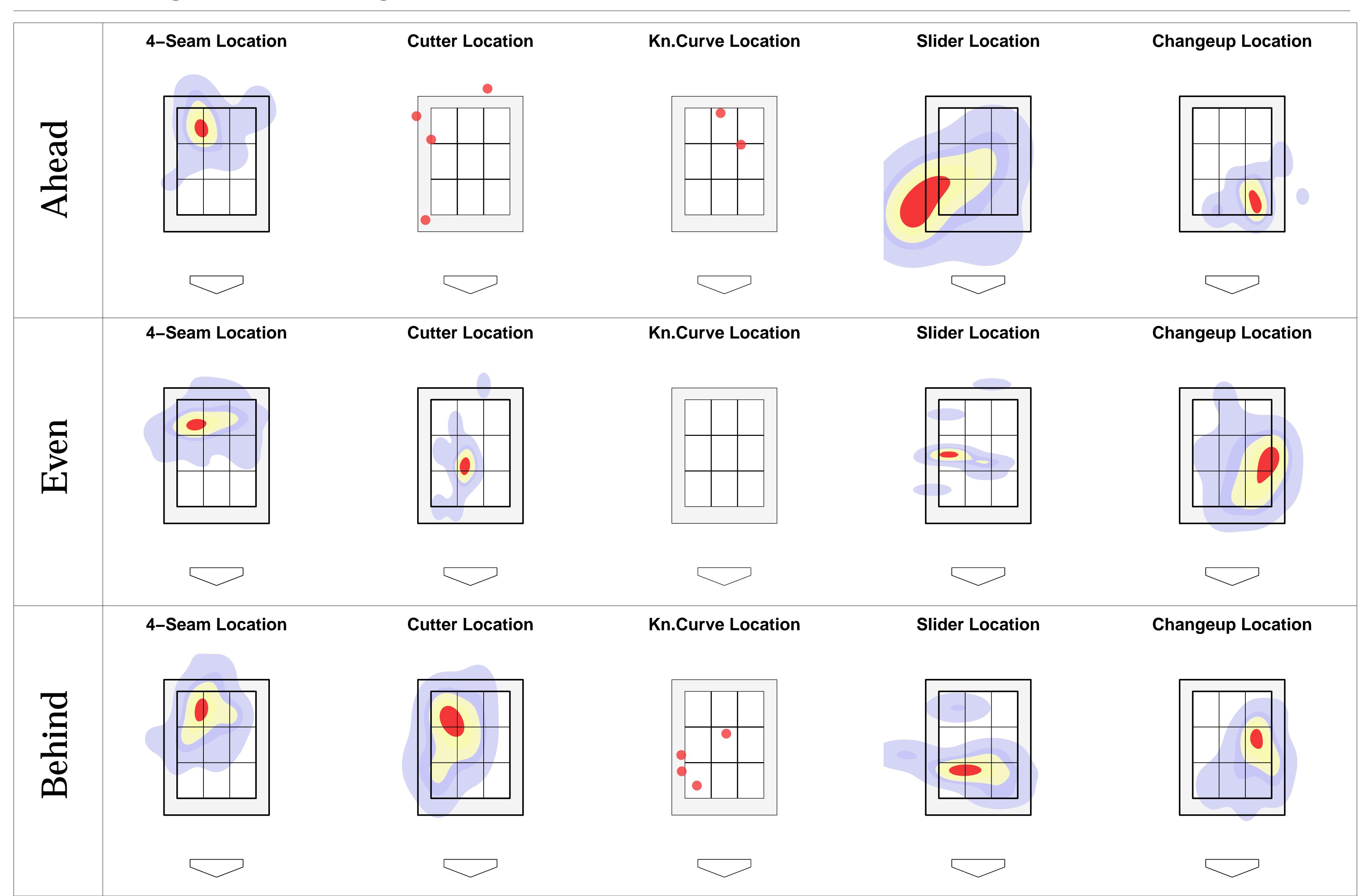
Cole Ragans Situational Results vs RHH								
Pitch	Situation	Usage	Zone %	Heart %	Chase %	Whiff %	BIP %	wOBA
	Ahead	42%	51%	29%	37%	27%	22%	.167
4-Seam	Even	41%	55%	31%	22%	20%	27%	.247
	Behind	41%	61%	37%	21%	19%	33%	.411
	Ahead	5%	31%	17%	28%	32%	37%	.225
Cutter	Even	12%	54%	27%	22%	20%	39%	.360
	Behind	18%	59%	29%	35%	20%	35%	.476
	Ahead	8%	42%	20%	9%	7%	57%	.309
Kn.Curve	Even	18%	42%	21%	25%	39%	16%	.050
	Behind	4%	50%	19%	15%	62%	25%	.287
	Ahead	15%	36%	19%	43%	29%	29%	.208
Slider	Even	6%	28%	17%	35%	36%	29%	.269
	Behind	2%	42%	17%	57%	22%	11%	.400
	Ahead	31%	28%	11%	46%	42%	28%	.216
Changeup	Even	23%	46%	22%	42%	44%	32%	.222
	Behind	35%	50%	26%	33%	55%	19%	.357
	Ahead	31%	40%	21%	38%	32%	27%	.198
Total	Even	43%	49%	26%	28%	30%	29%	.237
	Behind	27%	56%	30%	28%	34%	27%	.396

Aaron Judge Situational Results vs LHP								
Pitch	Situation	Usage	Zone %	Heart %	Chase %	Whiff %	BIP %	wOBA
	Ahead	25%	55%	18%	18%	17%	11%	.812
4-Seam	Even	34%	52%	18%	20%	8%	33%	.454
	Behind	33%	64%	25%	11%	20%	40%	.512
	Ahead	5%	38%	12%	60%	75%	25%	.000
Cutter	Even	9%	46%	29%	13%	25%	33%	.812
	Behind	6%	67%	22%	33%	40%	40%	.329
	Ahead	2%	67%	33%	0%	0%	0%	_
Kn.Curve	Even	1%	33%	33%	0%	_		_
	Behind	2%	40%	20%	67%	50%	25%	.000
	Ahead	13%	20%	20%	31%	75%	0%	.000
Slider	Even	10%	43%	23%	12%	40%	10%	.000
	Behind	9%	32%	25%	11%	86%	0%	.600
	Ahead	35%	19%	13%	26%	42%	37%	.271
Changeup	Even	19%	28%	7%	19%	39%	22%	.300
	Behind	19%	34%	20%	16%	70%	10%	.445
	Ahead	20%	35%	20%	27%	39%	24%	.387
Total	Even	41%	45%	23%	17%	19%	31%	.546
	Behind	39%	50%	24%	16%	38%	29%	.523

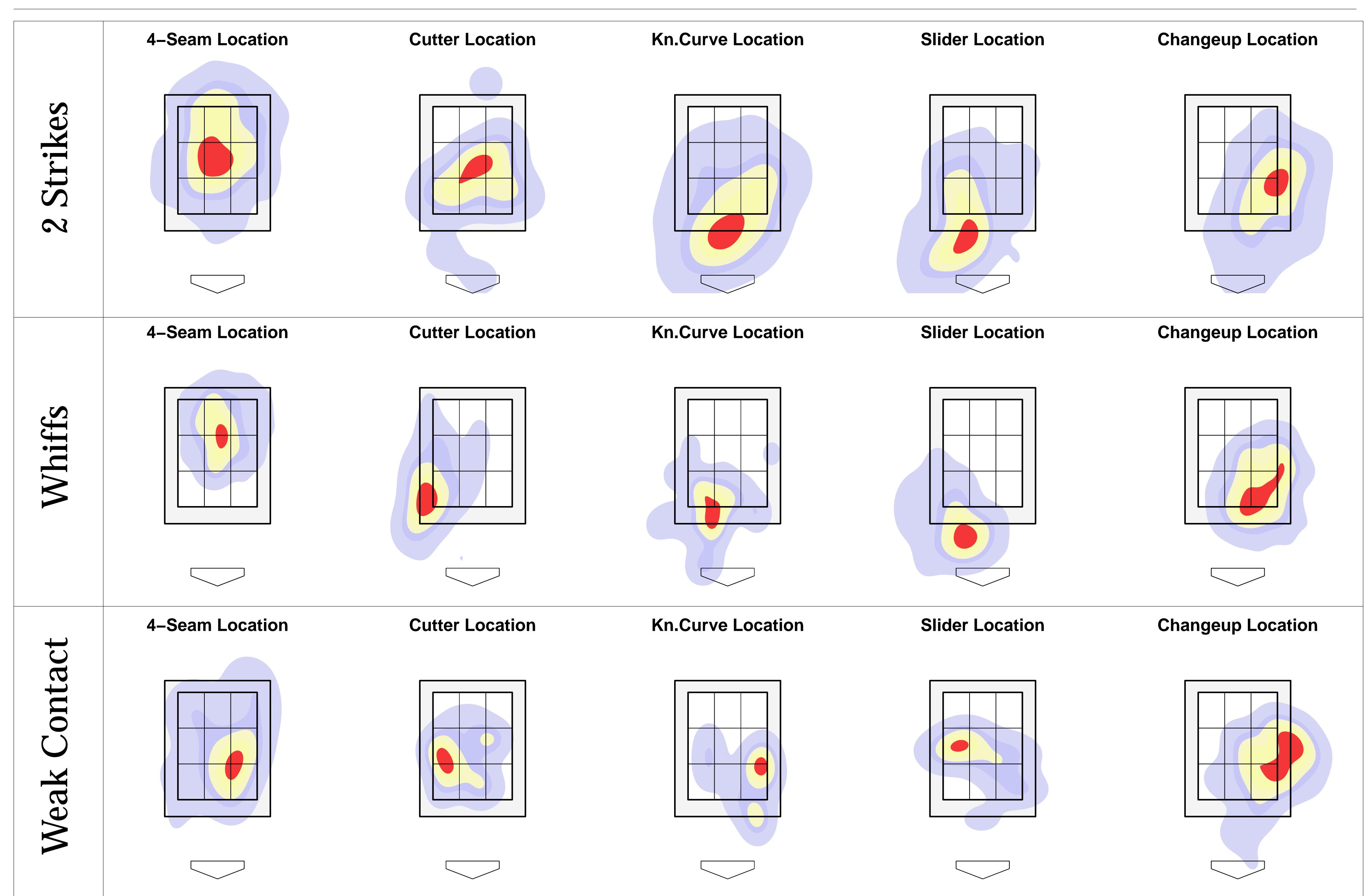
Cole Ragans vs RHH Pitch Location



Aaron Judge vs LHP Swing Location



Cole Ragans vs RHH Pitch Location



Aaron Judge vs LHP Swing Location

