



# MONEYBALL

 "People in both fields operate with beliefs and biases. To the extent you can eliminate both and replace them with data, you gain a clear advantage."

— <u>Michael Lewis</u>, <u>Moneyball: The Art of Winning an</u> <u>Unfair Game</u>

STATISTICS	STANDINGS	SCHEDULES/80XSCORES	TRANS/INJURIES	PLAYERS	TEAN		MANAGERS
Contraction of the	Contraction (Contraction)	scarbotray boxacoara	Thomas includes	PLATERS	(LA)		Print Pa
David Or	Caller and	on an and the	Player Searchi			Ga	all shares a
Height: 6-3 -1 Born: Novemb College: None Debut Date: 9 Pronunciation:				Select Other Re	ed Sce 🔻	De	

Career Stata	Gan	na Loga Haver	Splits	Bat vs Pit	Player Trands	In	ma/Ini		
		illers	Time Span						
Top 25 Pitchers		Sort By Rest		Seators	Career 7	Regular Si	eeson 🔻		
Select Current Team		Select Throsting Hand		Easton F	lange: Years V to	Yuar2 *	Submit		

2009 - Pitch Type Data for <u>Derrek Lee</u>															
vs. RHP	Total			First Pitch		Ahead		Behind			Two Strikes				
	Tot	SW90	II.A	Tat	54996	BA	Tot	Ser-90	BA	Tot	Sw9b	BA	Tot	Seven	BA
Fastball	825	44.4	.328	224	32.1	,486	206	43.2	,487	263	50.2	.198	210	59.0	.147
Cut Fastball	37	43.2	.400	B	12.5	-	11	36.4	1,000	10	50.0	.000	10	50.0	.000
Curveball	149	41.6	.171	39	23.1	.000	15	33.3	,667	78	50.0	.077	64	59.4	.133
Changeup	46	60.9	.143	4	75.0	,000	11	63.6	.000	23	52.2	.222	19	62.2	.200
Slider	308	44.5	.319	80	23.8	.333	77	49.4	.571	106	52.8	.265	90	62.2	.220
Split-Finger	20	40.0	.125	1	0.0		2	0.0	+	14	\$2.9	.000	11	45.5	.000
Total	1385	44.5	.294	356	29.2	.426	322	44.4	,525	494	50.8	179	404	59.4	160

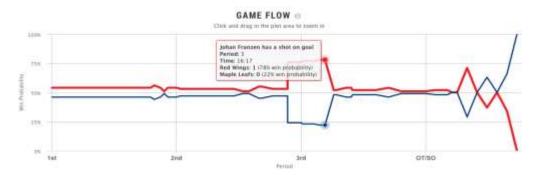
			2	009	Pitch	Type	Data	for <u>Der</u>	rrek L	88					
VN. LHP	Total			First Pitch		Ahead			Behind			Two Strikes			
	Tot	Sw98	BA.	Tot	Sw9h	BA	Tot	Serlio	BA	Tot	Sw90.	BA	Tot	Swab	RA.
Fastball	228	36.0	.314	61	21.3	.667	71	29.6	,273	63	44.4	.077	60	61.7	.375
Cut Fastball	16	25.0	:200	2	0.0		8	37.5	,333	5	0.0	.006	3	0.0	.000
Curveball	40	25.0	.222	14	0.0		6	16.7		16	42.8	.143	11	63.6	.286
Changeup	78	47.4	.333	12	25.0		25	36.0	,400	28	60.7	.300	1.9	57.9	333
Slider	37	40.5	.250	7	0.0		7	14.3	-	13	61.5	.250	13	61.5	.167
Split-Finger	7	0.0		1	0.0	-	4	0.0	· + ·	0	1.4	-	0	1.1	
Total	406	36.5	.293	97	16.5	.667	121	26.9	.316	125	48.0	-167	106	59.4	- 300

State Thin: New 12						_										
1			Batte	97 YS	Pitch	er (I	Caree	r) - T	op 2!	5						
Elaxer	The	68	H	28	30	218	REI	8.8	SD	SH	SE	HEP	GDP	AVG	QRE	SLG
Roy Heliaday	8	35	27	. 6	0	6	24	7	16	0	1	2	2	.273	.330	.915
Mark Buightle	10 M	- 66	28	11	6	- 4	15	62	20	0	- 0	0	5	.326	.370	.593
CC Sabathia	1.	70	16	- 3	0	- 2	- 7	5	27)	0	1	(함)	3	:129		.357
Andy Pettilite	K .	65	23		0	1	3.2	12	36	0	- 2	0	- 3	.354	. 412	.523
Mile Mutains	R	62	15	0	0	: 6	12	10	21	0	0	0	2	.242		.387
James Shields	- N	60	10		ci.	1	16	- 61		0	2	0	- 2			.000
Scott Kazmir	10	345	12	2	oi.	2			12	D	- 21		-4	.235	.339	.352
Bartolo Colon	8	50		2	- 61	1	2	4	16 8	D	0	0	2	.140		240
Rodrigo Lopez	8	45	15	14	2	- 6	t		8	0	0	0	- 0	.333		.511
A.J. Sumatt	8	1.44	13	. 6	ā	- 4	11	- 61	12	0	0	18	3	-295		.682
Freddy Gartie		44	14	- R	1	1.1		- 4	12	0	0	- 6	1.1	-348		614
Jeremy Guthrie.	8	44	15		- Gi	- 31	- 6		- 3	0	- S	- 6	1	-341		.659
Disaid Frice	£	344	10	1	6	0				D D		E	- 6	227	120	.295
Sidney Ponson	10	40	10	1			10	12	- 2	D	1		- 2	.475		025
Fails: Hernandez		194	18	- 69		- 5	1	8	- 2	D	3	- 3	2	.410		.615
Jamie Moyer	- F	38	15	- 2			12	- 10	- 36	- 0	- 6	: B	1.1	.395	.489	
Chien-Ming Wang	2	57	14			- 5	11	100	- 2	6	ñ	1.2		.432		
Jered Weaver	6	37	16 12			: 3	10	- 2		6		- 21		.324	.381	.622
Mark Hendrickson	£	35 35 34		- 7		6	1	- 2		6	- 51		1.1	.200		
Phil Hughes		100	12	1.00		- 9	- 2	- 2	- 2	- 20	- 2	0	1.2	.343		.657
R.A. Dickey	2	122	12	- H	- 2	- 3		- 21	- 2	- 2	- 6	- 2	22	.265		580
Tim Hudson	G	1.20	10	- 2	- 2	- 5	- 2		- 2	- ñ	1 3	- 2	- 64	.294		500
John Lacker	6	24 33	10	- T		- 3	10	- 21	- 2	1	2	- 2	- 4	.333	.405	.667
Ted Lifty	S	23	**	1			10	- 2	10	<u>ୁ</u> ଅ	2	- 31	1	111		.455
Chris Tillman	6	- 53	2	12	2	17	1.5	- 2	10		8	- 3			209	303
State Latton	12		- M.				-				- V.		+1	1.000		1.1004



# **BIG DATA**

• Not about the data, it's about the insights.





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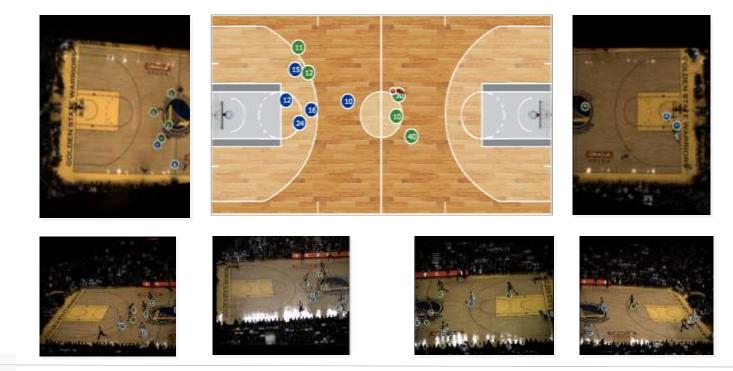
Appendix Sciences



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# What is **# SPORT///**?

- 6 camera system which tracks positional location of players, referees and ball during game action
- Integration with event data allows for a new layer of player and team analysis for player development and personnel decisions







## JAMES HARDEN – DRIVE EFFICIENCY BY HAND

Left Hand		Right Hand
37.4	% of Drives	62.6
1.2	Team PPP	1.0
46.6	Shot %	36.1
6.9	Pass %	12.4



## LEADERBOARD – AVERAGE TIME TO INSIDE 3PT ARC

Opponent Possession Result	Fastest Team	Average Time to Arc (sec)
Field Goal Made	Warriors	9.9
Field Goal Missed	Wizards	6.4
All Field Goal Attempts	Wizards 🚳	8.1
Free Throw Made	Clippers	6.9
Free Throw Missed	Pelicans	7.8
Live TOV	Thunder & Rockets	4.6



## LEADERBOARD – SPORTVU PLAYER RATEP

	Production Rating Per Poss (2014-15)
Russell Westbrook	1.31
Chris Paul	1.25
LeBron James	1.22
Stephen Curry	1.22
James Harden	1.21







FGA Heat Map



## HOW DOES THIS EXTEND TO HORSERACING?

- Data. Lots of it.
  Need to make sense of it.
- Players within the industry make wagering decisions based on the data.

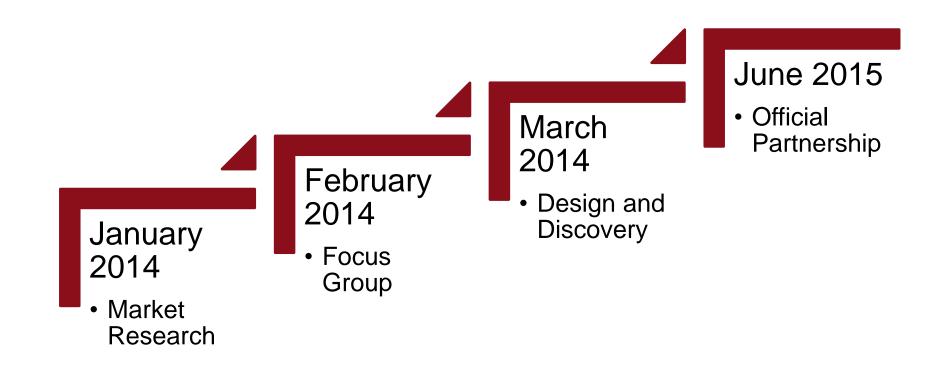
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	C	90) ester		Res	Rating 15		_	Ŧ
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:2308	:4602	1:1096	1:1768	1	2	521	541	531	53
:2218	:4492	1:1024	1:2320	5	1	541	521	431	46
:2162	:4517	:5812	1:0496	2	3	43	531	311	11
:2265	:4605	1:1081	1:1728					53I	561



## **STATS & EQUIBASE**







# CORE PRODUCT FEATURES





- Backtest
- Advanced Search
- Customization
- Race Projection
- Multi-Platform Design



#### CORE THEMES: BACK TEST YOUR ANGL

Ability to input your angle and back test instantaneously to see how well it would have performed over a period of time.

#### **Backtest Your Angles** 8 Your Selected Angles Track: Aqueduct Turf Condition: Grass Gelded: Yes Post Position: Between 1 and 4 Horse Age: Between 1 and 3 **Choose Your Time Frame Then Click Analyze** 1 Month 6 Months ANALYZE 2 Weeks 1 Year **Results of Your Angles and Selected Time Frame** Total Races Total Starts Place Success Score ROI Win Show 10 15 4% 14% 24% 5 2.9% Like Your Results? Go Back to Edit Your Angles Search Upcoming Races \*Success Score measures your level of success from a scale from 0 to 100, you get weighted success for winners, and no score fo everything else. The higher the score, the more success you would have had in picking winners



### CORE THEMES: ADVANCED SEARCH



- Ask the application a question and receive an answer
- Sift through mass amounts of historical data, locating betting opportunities based on their handicapping angle.
- Saved customized search and set alerts when new events happen that meet your criteria

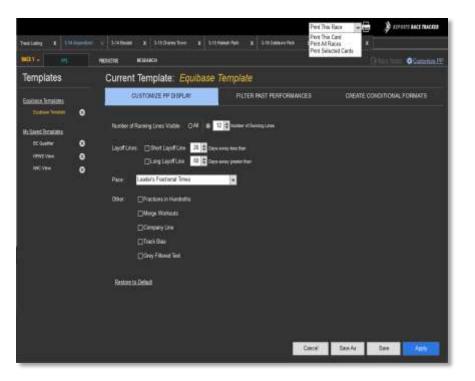




#### CORE THEMES: CUSTOMIZABLE PP



Create customized PP allowing the handicapper to select what data **they want to see** 





#### CORE THEMES: PREDICTIVE ANALYTICS PREDICTIVE +

STATS Data Science teams are creating win probabilities and other new views that will allow the handicapper to weigh the importance of the Probability Factors







#### CORE THEMES: MULTI-PLATFORM









#### WHAT'S NEXT? – ACROSS ALL SPORTS

- More Data Tracking (Position and Physical), Weather
- Data Science More focus on analysis, machine learning
- Technology Increased compute power in the cloud
- Make Sense of the Data Automated Insights









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