

# The Ken Power Index

Personal Analytical Example  
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# Overview

The Ken Power Index was created to get a glimpse at how good a Major League Baseball team is really doing (and the Mariners chances of finally returning to the playoffs!) by stripping out some of the luck that can happen on a baseball field. (Batted ball luck, sequencing luck).

Using advanced stats proven to be better predictors of future team success than simply counting wins, the KPI determines a team's 'true' talent level, and simulates the rest of the season 100,000+ times to estimate the odds of making the playoffs.

You can find the link here: <https://2skupz.github.io/mlbPlayoffOdds.html>

*\* The real purpose is actually for self-amusement*

# Ken Power Index – Brief Explanation

Playoff Odds KPI Methodology							
Estimated talent playoff odds							
American League							
Team	W-L	GB	PO%	TAL	AV	Mx	Mn
Astros	43-25	--	99.0	.550	95.5	115	73
Mariners	31-39	13.0	14.5	.517	79.4	100	58
Rangers	33-35	10.0	14.3	.489	79.2	100	57
Angels	34-38	11.0	11.5	.495	78.7	100	57
Athletics	23-47	21.0	0.0	.429	61.4	83	43
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Guardians	36-28	--	77.6	.522	88.0	108	65
Twins	38-32	1.0	60.8	.514	85.5	109	67
White Sox	33-34	4.5	30.1	.495	81.8	102	59
Royals	25-43	13.0	0.0	.448	67.1	90	48
Tigers	26-43	12.5	0.0	.422	65.5	88	45
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Yankees	51-18	--	100.0	.578	104.5	123	83
Blue Jays	39-30	12.0	83.2	.537	89.0	111	69
Red Sox	39-31	12.5	64.0	.525	86.0	104	66
Rays	37-32	14.0	43.6	.510	83.6	103	63
Orioles	31-39	20.5	1.5	.469	73.3	94	53

W-L is the actual record for each team as of the time the website is accessed. Currently the Astros lead their division.

PO% is the probability a given team will make the Playoffs based on the Talent (TAL) rating. The Astros have a 99% probability of making the playoffs.

TAL is the talent rating for each team and drives the likelihood that a team will win games, increasing their odds of making the playoffs.

# Basic Methodology

Estimating a team's true talent involves 3 main pieces.

1. Removing luck from the offensive stats to estimate runs scored
2. Removing luck from the defensive stats to estimate runs allowed
3. Regression to the mean

These combine to give us a value of a team's true likelihood of winning any individual game, which is then fed into the program that plays the rest of the season 100,000+ times

# Ken Power Index – Brief Example

KPI: June 1st, 2022

Team	W-L	GB	P0%	TAL	AV	Mx	Mn
Astros	32-18	--	93.9	.537	92.3	115	66
Angels	27-23	5.0	67.6	.533	86.3	108	65
Rangers	24-24	7.0	27.0	.500	80.8	105	59
Mariners	21-28	10.5	18.4	.514	79.2	102	58
Athletics	20-32	13.0	0.4	.457	69.1	93	46
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Twins	30-21	--	85.6	.524	88.5	110	67
Guardians	21-24	6.0	30.1	.504	80.8	105	56
White Sox	23-24	5.0	14.6	.470	77.9	100	56
Tigers	19-30	10.0	0.5	.441	69.0	92	47
Royals	16-32	12.5	0.4	.462	68.8	90	46
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Yankees	34-15	--	97.6	.545	95.0	118	73
Rays	28-21	6.0	71.6	.527	87.0	109	64
Blue Jays	28-20	5.5	64.4	.508	85.9	107	62
Red Sox	23-27	11.5	24.9	.517	80.5	103	58
Orioles	21-30	14.0	2.9	.476	73.6	96	46

KPI: July 1, 2022

Team	W-L	GB	P0%	TAL	AV	Mx	Mn
Astros	48-27	--	99.6	.551	97.2	119	77
Mariners	37-41	12.5	21.3	.515	80.9	101	61
Rangers	36-38	11.5	14.6	.495	79.5	100	61
Angels	37-41	12.5	13.3	.502	79.4	99	59
Athletics	25-53	24.5	0.0	.427	59.7	80	41
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Twins	43-36	--	66.4	.512	85.8	104	67
Guardians	39-34	1.0	56.9	.503	84.8	105	64
White Sox	35-39	5.5	21.5	.493	80.3	99	60
Tigers	29-45	11.5	0.0	.422	66.7	86	48
Royals	27-47	13.5	0.0	.446	66.3	87	46
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Yankees	56-21	--	100.0	.574	104.4	122	86
Blue Jays	43-33	12.5	86.4	.539	89.5	108	70
Red Sox	43-33	12.5	75.7	.531	87.6	107	68
Rays	40-35	15.0	42.5	.512	83.6	104	64
Orioles	35-42	21.0	1.6	.470	74.0	94	53

# Takeaways

- Teams with an estimated talent above .500 but a W-L below .500 (SEA, CLE, BOS) won 65% of their games in June. While this also contains a fair amount of noise and obviously would not be expected to repeat itself, this fact does indicate the talent estimate could be a better tool than winning %
- In spite of the talent estimate being regressed somewhat heavily (74 games), estimated talent was more correlated with June wins and self-correlated better than W-L through May
- Regression to the mean still supposes the Yankees are not a threat to challenge the 2001 Mariners for all-time victories. However, as more and more games get played and their performance continues, the threat becomes more real every week. A 22-6 June kept their winning percentage high and their true talent estimate jumped .029 to increase their average simulation wins from 95 to 105!
- While the Mariners were actually a game back of the Rangers on July 1, due to the system estimating luck (specifically the pitching has been unlucky) they are actually estimated to have higher playoff odds than the Rangers
- Room for Improvement: The KPI does not know about very real data points such as prospects or trades or injuries or past performance that could reasonably be expected to change a team's talent level. It also ignores clutchiness, players-only meetings, manager mohawks and other variables not proven to impact team success. It only knows what happened *this season* on the field.
- The KPI does not take home ballpark into account when estimating runs scored. This is by design but with more data perhaps that will need an update. After all, T-Mobile Park is not Coors Field.

# Thank you!

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