



A blue banner at the bottom of the slide features the names of the contributors on either side of a central graphic. The central graphic is a blue baseball diamond shape with a red border, containing the title text.

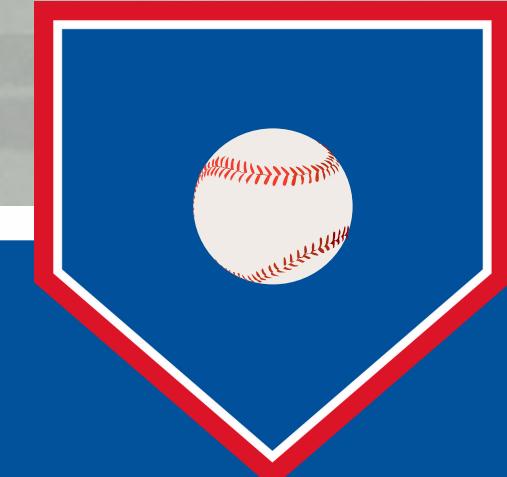
CALEB MEINKE
ADAM LOUX

MONICA MITRY
REVANO HARAHAP

MLB DATA 2019-2022

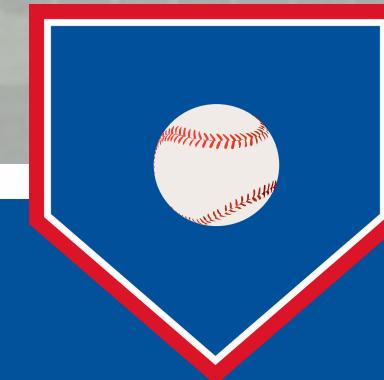


PURPOSE OF PROJECT



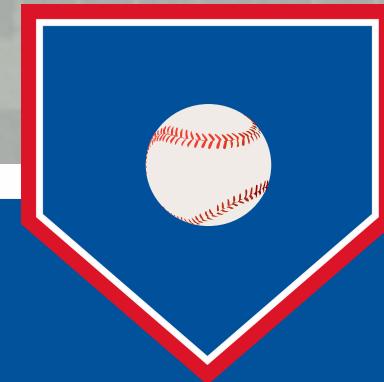
To explore hitting trends and statistical relationships for MLB teams and players from 2019 – 2022.

DATA & DATA CLEANING



- Two datasets to combine.
- Sync team abbreviations and names in the hitting leaders csv.
- Update column names.
- Drop duplicates.

MAJOR QUESTIONS



- What team had the most home runs per year?
- What is the correlation between strikeouts and home runs?
- Was total home runs due to overall team contributions or was a player the highest contributor?
- Does the geographical location effect the team statistics?
- Is there a correlation between the different baseball statistics?

DATA VISUALIZATIONS

MLB Data Dashboard

Select a year and explore MLB data from 2019 through 2022!

Select Year:

2019

Number of Home Runs in 2019

This bar chart displays the total number of home runs for each Major League Baseball team in 2019. The Y-axis represents the 'Total Home Runs' ranging from 0 to 150. The X-axis lists the teams. The highest number of home runs is recorded by the Boston Red Sox (BOS) at approximately 175.

Team	Total Home Runs
DET	~10
TOR	~45
MIA	~48
SD	~55
SEA	~58
SF	~70
TB	~95
TEX	~98
CIN	~100
BAL	~102
KC	~105
LAA	~108
PIT	~112
NYY	~115
PHI	~118
CWS	~118
STL	~122
AZ	~130
MIN	~132
MIL	~152
ATL	~155
LAD	~160
CLE	~162
CHC	~165
HOU	~168
BOS	~175

MLB Team Statistics Heatmap (2019)

This heatmap visualizes team statistics for the 2019 season. The Y-axis represents the 'Statistics' category, including SO (Strikeouts), R (Runs), HR (Home Runs), and AVG (Average). The X-axis lists the teams. A color scale on the right indicates values from 100 (blue) to 800 (red). The heatmap shows that HR and AVG values are generally higher for teams like Boston Red Sox (BOS) and New York Yankees (NYY), while SO and R values are more spread out.

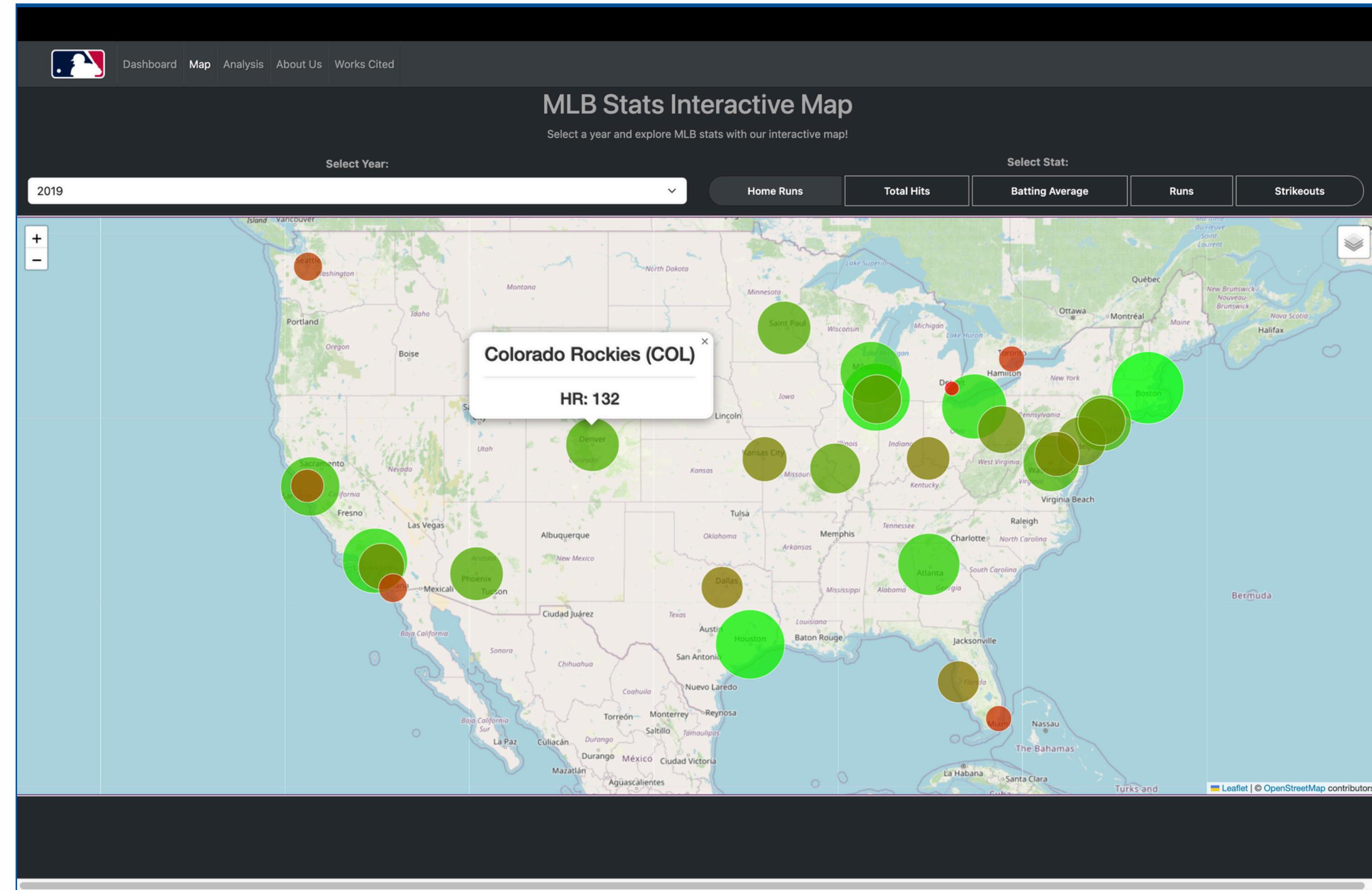
MLB Player Stats

10 entries per page

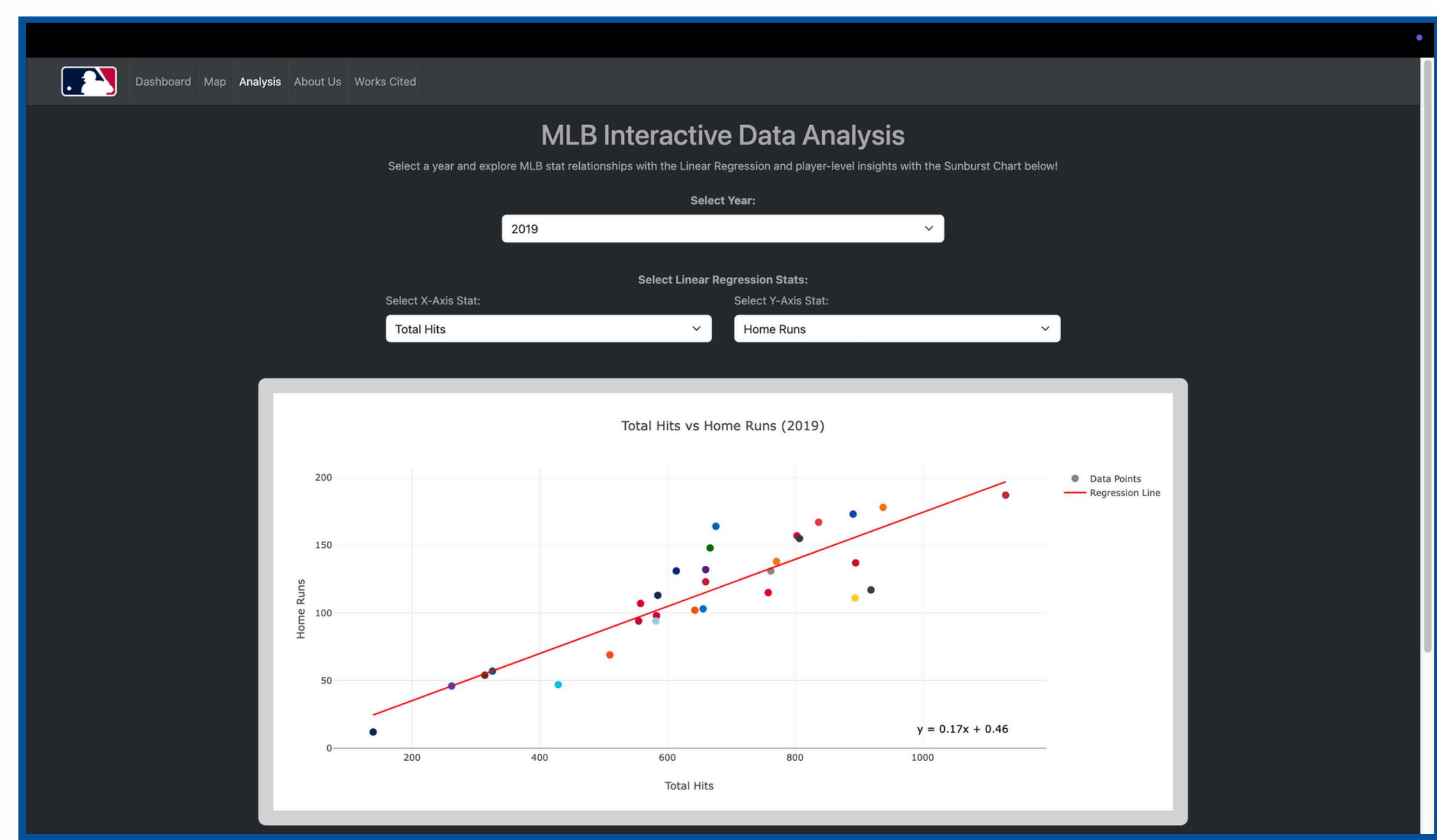
Search:

Year	Player Name	Player Position	Team	Team ABV	G	AB	R	H	HR	RBI	BB	SO	Avg	League	Division
2019	Adam Eaton	RF	Washington Nationals	WSH	151	566	103	158	15	49	65	106	0.279	MLB	NL East
2019	Adam Frazier	2B	Pittsburgh Pirates	PIT	152	554	80	154	10	50	40	75	0.278	MLB	NL Central
2019	Adam Jones	RF	Arizona Diamondbacks	AZ	137	485	66	126	16	67	31	101	0.26	MLB	NL West
2019	Albert Pujols	1B	Los Angeles Angels	LAA	131	491	55	120	23	93	43	68	0.244	MLB	AL West
2019	Alex Bregman	3B	Houston Astros	HOU	156	554	122	164	41	112	119	83	0.296	MLB	AL West
2019	Alex Gordon	LF	Kansas City Royals	KC	150	556	77	148	13	76	51	100	0.266	MLB	AL Central
2019	Armed Rosario	SS	New York Mets	NYM	157	616	75	177	15	72	31	124	0.287	MLB	NL East
2019	Andrew Benintendi	LF	Boston Red Sox	BOS	138	541	72	144	13	68	59	140	0.266	MLB	AL East
2019	Anthony Rendon	3B	Washington Nationals	WSH	146	545	117	174	24	126	90	86	0.219	MLB	NL East

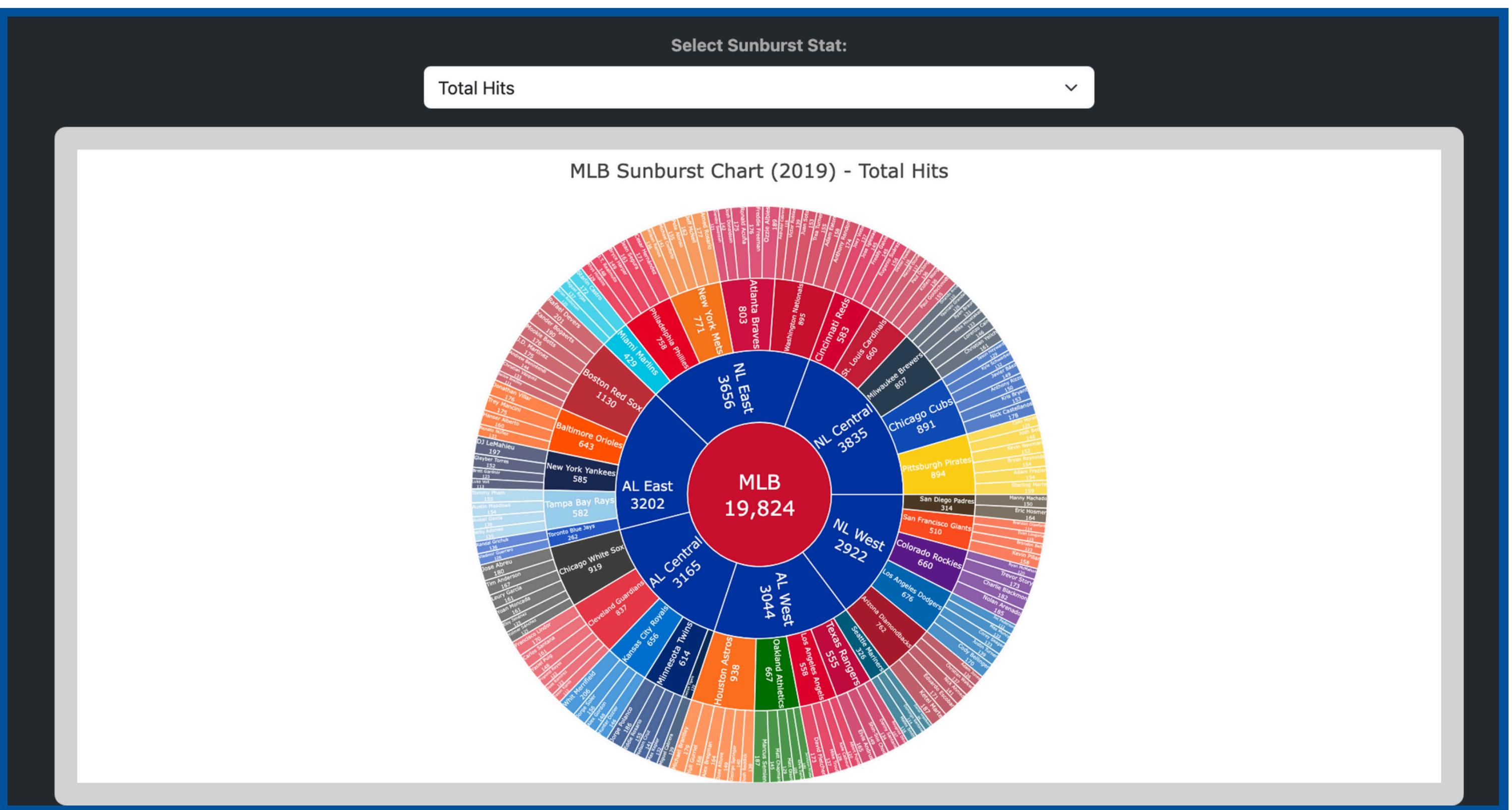
DATA VIS. CONT.



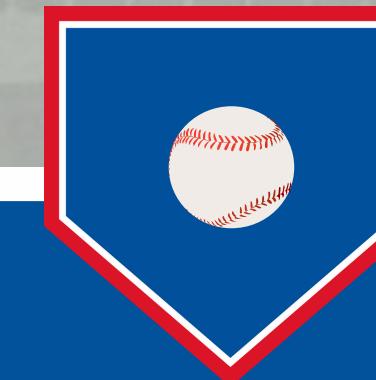
DATA VIS. CONT.



DATA VIS. CONT.

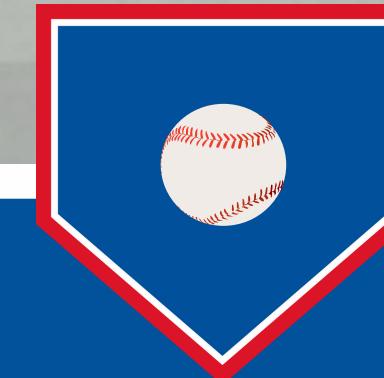


DATA LIMITATIONS & BIAS



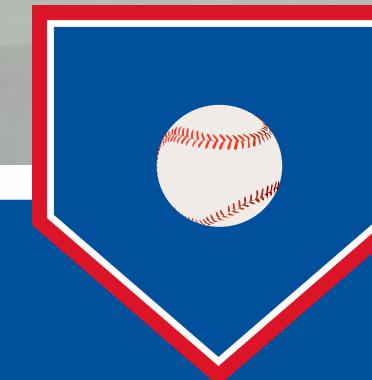
- It was not all players from the teams.
- Not an accurate picture of team data.
- Pandemic year, 2020, had limited data.
- Missing data and duplicates.
- Not a consistent sample size per team.

CONCLUSION



- Many positive relationships within baseball hitting statistics.
- No dynasty team for total home runs between the years.
- Not a strong geographical influence on MLB hitting performance.
- With the increase in focus on home runs there is a direct correlation with strikeouts and a disregard on batting average.

FUTURE WORK



- Work with more recent data that does not include a pandemic year.
- Look at data for a full roster of players.
- Looking at past and current trends for predictive analytics for future season.



QUESTIONS





A background illustration of a baseball field at night. The field is brown with white chalked bases and a blue foul pole. In the background, there are green bushes, a chain-link fence, and several large stadium lights on tall poles. The sky is light blue with a few white clouds.

**THANK
YOU**