These stats benchmarks are pulled from:

<https://www.mlb.com/news/mlb-players-vote-for-stats-they-value-most-c274986480>

We took this as a metric that would be used to determine how well a player performs as believed by professional players. Since we do not inherently know the votes and their influence we can assume that the following factors may encourage the hall of fame judges to file their vote for a certain player.

<https://en.wikipedia.org/wiki/On-base_plus_slugging>

Baseball

## Batting best players

### OPS = OBP + SLG (weight 10)

OPS = (AB \* (H + BB + HBP) )+ (TB \* (AB + BB + SF + HBP)) / (AB \* (AB + BB + SF + HBP))

 *H* = hits – safely reaches base 1 without any penalty bonus

 *BB* = [bases on balls](https://en.wikipedia.org/wiki/Base_on_balls) - a free walk to base 1 if the baller gives 4 bad balls

 *HBP* = times [hit by pitch](https://en.wikipedia.org/wiki/Hit_by_pitch) - batter is hit by a ball gets one free base

 *AB* = [at bats](https://en.wikipedia.org/wiki/At_bat) - times batter battles a pitcher

 *SF* = [sacrifice flies](https://en.wikipedia.org/wiki/Sacrifice_fly) -

 *TB* = [total bases](https://en.wikipedia.org/wiki/Total_bases) –

Master

From Master pick all players eligible for hall of fame in part A

Take their debut dates and finalGame

Batting

For each player sum up all of their league stats by the following

* AB
* HBP
* BB
* H
* SF
* TB = 1B + 2 \* 2B + 3 \* 3B + 4 \* HR. where 1B = H – (2B + 3B + HR)

### OBP (weight of 6)

* Take from state above

### RBI (weight of 5)

Batting

For each player sum up all of their league stats by the following

* + RBI

### Total Runs (weight of 4)

Batting

For each player sum up

* + Runs R

### Batting Average (weight of 3)

H/AB

### Games Played (weight of 3)

G

## Pitchers

### Innings and/or appearances (weight 10)

Pitching Table

IP = IPOuts/3

* Sum of all IP

### ERA (weight 7)

Lower the better!

Measured by

Runs given up / (total innings) \* 9

Pitching Table

* Sum of all ( R ) / (Sum of all (IPOuts /3) ) \* 9

### WHIP (weight seven)

= (BB + H ) / IP

BB = walks allowed