Statistics in Baseball

How do players perform under different counts?

Introduction

- Goal
- League averages
- Sample size
- What can we see from this?

Why batters love 2-1 counts

Joey Votto

- Background
- Data collected
    - Splits

Joey Votto Splits

2015 1-2 count batting average	2015 2-1 count batting average	2012-2015 batting average after 1-2 count (on base percentage)	2012-2015 batting average after 2-1 count (on base percentage)
.192	.459	.216 (.332)	.294 (.521)

Data to Keep in Mind

- League average for pitchers getting ahead is 60%.

- Votto had 310 plate appearances behind in the count and 315 ahead.

- Votto uses his eye to his advantage.

- .279 after 0-1. .324 after 1-0 in 2015.

Brett Gardner

- Outfielder for New York Yankees.

- Swings at first pitch only 8.4% of the time.

- How does this affect his stats?

Brett Gardner Splits 2015

- 308 plate appearances when ahead. 302 Plate appearances when behind. Gets ahead more than league average.

- .234 after 0-1. .271 after 1-0. All players rely on getting ahead.

Batting Average on 0-0 count 2015

Brett Gardner	Joey Votto	Bryce Harper	Mike Trout	Chris Davis
.382	.418	.417	.192	.486

0-0 Count Results

- Why don't more players swing at the first pitch?

- League average in 2014 on 0-0 pitch was .342.

- Pitch has to be perfect to swing at.

Ahead vs. Behind 2015

- Collecting data from 2015 is difficult.
- At least 100 at bats.

Ahead in count 2015 leaders (2015/2016 batting average)

Ender Inciarte	Bryce Harper	Salvador Perez	Dee Gordon	Francisco Lindor
.444 (.303/.219)	.417 (.330/.246)	.394 (.260/.276)	.390 (.333/.266)	.385 (.313/.318)

Ahead in count underperformers (2015/2016 batting average)

Hanley Ramirez	Chase Utley	Jordy Mercer	Joc Pederson	Zack Cozart
.222 (.249/.311)	.237 (.212/.291)	.233 (.244/.307)	.232 (.210/.254)	.217 (.258/.312)

How can we use this model to make predictions?

- Assess data to draw conclusions.

- Steven Souza jr. batting .656 when ahead in the count leading to a .273 batting average with 9 home runs in 2016.

- Brandon Phillips batting just .067. Batting .241 with 6 home runs in 2016.

Conclusions

- Plate discipline and patience are extremely important.

- These stats can lead to somewhat accurate predictions.