

How Well Do You Really Know Baseball?

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Overview

Baseball is a team game, but the individual confrontation between the pitcher and hitter has the greatest effect on which team wins or loses. Whoever wins the pitcher/hitter confrontation usually wins the game. Over the years, you have heard hundreds of theories on how to be more successful as a hitter or a pitcher. While there are no absolutes in baseball, it is my belief that a player can gain a tremendous advantage by having a calculated anticipation on what is about to happen. A player who knows the percentages will greatly enhance his chances for success.

For the past four seasons I have gathered data from every pitch thrown in every Stanford game using Competitive Edge Decision Systems' amazing software system **ChartMine™**. The data covers 262 NCAA Division 1 college baseball games. My database contains 76,098 pitches from 20,435 plate appearances (which, by the way, tells you the average pitches per plate appearance is 3.7 pitches). With the help of ChartMine, I have uncovered information that should help any baseball player or coach.

Take The Test

For simplicity, I will use the following abbreviations:

- RHP = Right handed pitcher, LHP = Left handed pitcher
- RHH = Right handed hitter, LHH = Left handed hitter
- FB = Fastball, BR = Breaking ball (curveballs and sliders combined), CH = Changeup

If you are ready for the challenge, take the following test to see How Well You Really Know Baseball.

1. How often does a pitcher throw the first pitch (0-0 count) for a strike?

- A. 51%
- B. 56%
- C. 61%
- D. 66%

2. What is the most productive 2-2 pitch for a RHP vs. a RHH?

- A. Fastball
- B. Breaking Ball
- C. Changeup
- D. All pitches are equally productive

3. You are the hitter. It is the first pitch of an at-bat. What percentage of the time do you get a fastball?

- A. 47%
- B. 57%
- C. 67%
- D. 77%

4. Last year my team swung and missed 804 times. What percentage of the time were the pitches we swung and missed at out of the strike zone?

- A. 33%
- B. 43%
- C. 53%
- D. 63%

5. ChartMine™ has an amazing category called “Pitch to Hit.” It analyzes how often a type of pitch is thrown and then multiplies it by the by the percentage of time that type of pitch is thrown for a strike. In simple terms, it tells you the percentage of the time a batter is getting a particular pitch (FB, BR, CH) in the strike zone. Here is the question. The count is 0-0. You are the batter. What percentage of the time are you getting a FB in the strike zone on an on a 0-0 count?

- A. 30%
- B. 40%
- C. 50%
- D. 60%

6. You are a coach, and you like to get an off speed pitch (breaking ball or changeup) on which to steal. What are the three most non-fastball counts in Division I college baseball?

- A. 0-1, 0-2, 1-2
- B. 0-2, 1-1, 2-1
- C. 0-1, 1-1, 1-2
- D. 1-1, 1-2, 2-2

7. You are the batter. The count is 0-0. You are thrown a strike. What percentage of the time do you take it?

- A. 30%
- B. 40%
- C. 50%
- D. 60%

8. When a batter makes fair ball contact (he puts it into play), what percentage of the time is it a hit?

- A. 49%
- B. 44%
- C. 38%
- D. 33%

9. If a batter swings and misses at a breaking pitch, what percentage of the time does the pitcher throw a breaking ball on the next pitch? (Obviously, the count has to with less than two strikes, as a two strike swing and miss would result in a strikeout)

- A. 42%
- B. 52%
- C. 62%
- D. 72%

10. On a 0-0 count, the pitcher throws a breaking ball for a ball. The count goes to 1-0. What percentage of the time does a pitcher throw another breaking ball?

- A. 16%
- B. 26%
- C. 36%
- D. 46%

11. On which two counts is the batter most likely to get a hit off a pitch thrown for a strike?

- A. 0-0, 1-1
- B. 1-0, 2-0
- C. 2-1, 3-1
- D. 1-2, 3-2

12. What fraction of batters that have a 1-0 count eventually reach base?

- A. 44%
- B. 54%
- C. 34%
- D. 24%

13. How often does a pitcher throw a FB for a strike? A BR for a strike? A CH for a strike?

- A. FB-51%, BR-48%, CH-49%
- B. FB-57%, BR-52%, CH-54%
- C. FB-62%, BR-57%, CH-58%
- D. FB-68%, BR-64%, CH-65%

Bonus question: I logged 33 pitchouts in last year's games. One count made up 13 of those pitchouts. What count was it?

Answers

- 1. B** 56%. RHP vs. RHH has the highest percentage of first pitch strike at 60%. On the 0-0 count, a FB is thrown for a strike 58%, a BR 52%, and a CH 51%.
- 2. B** Breaking Ball. 26% of all RHH thrown a breaking ball by a RHP on 2-2 eventually reach base--while 31% of batters thrown a fastball and 34% of batters thrown a changeup eventually got on. That is a difference of at least 5%. Since about 7% of all pitches thrown on 2-2 count, a 5% difference over the course of the college season (about 17,000 pitches) could mean that up to 60 runners could be kept off base by better pitch selection. That is over 20 perfect innings. Since your team will throw half of these pitches, that is over 10 innings!
- 3. C** 67%. Only the RHP versus the RHH matchup is below 67%. (63%). Amazingly a LHP starts off the LHH with a FB 69% of the time. For you left handed hitters that don't handle a BR very well from a LHP, look to be swinging early in the count. A batter sees a BR on the first pitch only 21% of the time!
- 4. B** 43%. The more disciplined the batter, the tougher he is to get out. There are big rewards for contact in the game of baseball.
- 5. B** 40%. On the 0-0 count, when the pitcher is a different handedness from the batter (LHP vs. RHH or RHP vs. LHH), the percentage of time you get a breaking pitch in the strike zone is only 7%! Generally speaking, on the 0-0 count, a batter is about two and a half times more likely to get a FB to hit than a non-FB (BR & CH)!
- 6. D** 1-2, 1-1, 2-2. I bet you did not realize that 1-1 and 2-2 are greater non-fastball counts than 0-1 and 0-2. In fact, 0-2 is a fairly high FB count. How high? I can't give you all the answers!
- 7. D** 50%. Half of all 0-0 pitches thrown for strikes are taken. Only the 3-0 pitch is taken more often. In fact, ChartMine™ will almost instantaneously inform you about opposing batters who take the first pitch as much as 90% of the time, or as little as 20% of the time. You will be absolutely astonished at how many there are.
- 8. D** 33% of all balls put into play result in hits! 4% result in errors. Therefore, batters reach base about 37% of the time they put the ball into play. This explains why it is very beneficial to take the 2-0, 3-0, 3-1 pitch in specific cases. How? See Competitive Edge's website (www.edgedec.com) for more details on this situation.
- 9. B** 52%. There is a big exception to this 52%. When a LHP faces a LHH, and the hitter swings and misses at a breaking pitch, he gets another breaking ball 62% on the next pitch. If a batter swings and misses at a fastball he, gets a fastball on the next pitch 68% of the time!
- 10. B** 26%. I was very surprised by this number. I thought it would be much lower. Ironically, on a 1-1 count (another even count) if a pitcher throws a breaking ball for a ball (count goes to 2-1), he follows with another breaking pitch only 15% of the time.
- 11. D!** Batters get a hit off 13% of all 1-2 pitches thrown for strikes and 14% off a 3-2 pitch. Batters are more likely to get a hit off a strike in these counts because they are more likely to swing. But, you thought batting averages were over 100 points lower with two strikes? That is true, but that does not mean batters hit poorly with two strikes. A contradiction? No. See Eric Bickel and Dean Stotz "Batting Average: Fact and Fallacy" on our website (www.edgedec.com) for more detail.

12. A 44% of all batters that have a 1-0 count eventually reach base. Conversely, 23% of all batters that have an 0-1 count eventually reach base. That is a spread of 21% by simply getting an 0-0 strike! Remember, batters are taking 50% of the time on 0-0.

13. C FB-62%, BR-57%, CH-58%. To my surprise, a LHP throws a breaking ball for a strike to a LHH only 52% of the time. However, a RHP throws the breaking ball for a strike to a RHH 59% of the time. Why the huge difference?

Bonus: 0-0 count. Not one pitchout came on a two-ball count!

Summary

I hope this article has deepened your understanding of this great game of baseball. In my 25 years of coaching, ChartMine is one of the greatest teaching tools I have ever seen. If you are interested in learning more about ChartMine, please contact Competitive Edge Decision Systems (Phone: (888) 329-0722, email: info@edgedec.com, website: www.edgedec.com).

Competitive Edge Decision Systems is the leading provider of electronic pitch/hit charting and data mining software to amateur and professional baseball and softball. For more information please visit www.edgedec.com or call (888) 329-0722.