

**The Box Score in Baseball**  
**Timeline for the Rules of Baseball**  
**Umpire History**

**Chapter 2**

*Chapter 2* talks about the first box score used to describe a game. The next section discusses record keeping in baseball. The inventor of the box score is acknowledged. In order to have record keeping there must be rules. The evolution of the rules of baseball will be provided. The section concludes with a discussion of the enforcers of the rules, the umpires.

**Record Keeping**

**First Record Keeping in Baseball**

Alan Schwarz , in his book *The Numbers Game* states, “In 1837, the Constitution of the Olympic Ball Club of Philadelphia, which played a variety called town ball, mandated that a scorer must record in a book an accurate account of all the games played on Club days, date of the game, names of the players, the number of points made by each....” Eight years later, Alexander Cartwright and his New York Knickerbockers codified the first set of modern baseball rules: Bases were set 42 paces (approximately today’s 90 feet) apart, batters got three strikes and teams three outs, and the game ended when one team scored its 21<sup>st</sup> run. It took mere weeks before the first primitive box score appeared in the New York Morning News on October 22, 1845.

**Henry Chadwick – Inventor of the Box Score (1824-1908):**

Henry Chadwick was born in England and came to this country in 1837 at the age of 13. He was a sportswriter for over 50 years. He is credited with designing the first box score and writing the first rule book for baseball in 1850. He is also the first writer to compile reference books on baseball, and instructional manuals on how to play the game. In 1872, he assembled the first listing of professional baseball players, containing their heights, weights, and other pertinent demographic data.

Beginning in 1881, Chadwick edited the *Spalding Official Baseball Guide*. The guide provided individual baseball statistics for players and for teams for each year. The guide contained batting, pitching, and fielding statistics.

Through his writings he is responsible for many of the words and expressions used today to describe baseball events.

### **A Box Score from an Accounting Point of View:**

A box score is in balance when the following equation is satisfied:

*[The total of a team's times at-bats **plus** the total of a team's base-on-balls **plus** the total of a team's hit batters **plus** the total of a team's sacrifice hits **plus** the total of a team's sacrifice flies **plus** the total of a team's batters awarded first base due to interference or obstruction] **is equal to** [the total of a team's runs **plus** the total of a team's players left on base **plus** the total of the other team's putouts].*

### The evolution of the rules of baseball

#### **Brief Timeline for the Rules of Baseball:**

Most of the rules of baseball that were instituted in the 19<sup>th</sup> century are still current today. The rules, listed below, came into existence after the first set of rules was compiled by Alexander Cartwright in 1845.

- 1857 – The game, previously determined by the first team to score 21 points, became a nine-inning game.
- 1858 – Called strikes are introduced; a batter is out on a batted ball, fair or foul, if caught on the fly or after one bounce.
- 1863 – Bat size is first regulated.
- 1864 – Henry Chadwick introduced the first scoring system.
- 1867 – The batter was given the privilege of calling for a high or low pitch. The first curve ball was introduced.

- 1872 – The current dimensions of a ball were introduced.
- 1877 – Canvas bases 15 inches square were introduced. These same dimensions are used today.
- 1880 – Base-on-balls reduced to eight called balls. The catcher had to catch the pitch on a fly in order to register an out on the third strike.
- 1881 – Pitchers are allowed to throw overhand.
- 1888 – A base-on-balls was excluded from a time at-bat. A batter was given a hit if his batted ball hit a runner.
- 1889 – Four balls became a base-on-balls. A sacrifice bunt was statistically identified.
- 1891 – Large padded gloves were permitted for catchers.
- 1893 – The pitching distance increased from 50 feet to 60 feet six inches, where it is today. The story behind the six inches was that the person who originally measured the distance misread the number zero as a six.
- 1894 – Foul bunts were considered strikes.
- 1895 – The current dimensions of the bat (2.5 inches in diameter not to exceed 42 inches in length) were adopted. The infield-fly rule was adopted.

Since 1900, there have been relatively few changes to the rules of baseball. The most glaring change was the adoption of the designated hitter by the American League in 1973. Some other post 1900 rules changes were:

- 1900 – Home plate changed from a 12” square to its pentagon shape of today.
- 1901 – Catchers were required to remain continuously under the bat.
- 1904 – The height of the pitcher’s mound is established to be no higher than 15 inches above home plate.
- 1906 – The umpire gets authority over the groundskeeper.
- 1910 – The cork center was added to the center of the ball.
- 1920 – The spitball was outlawed, with a “grandfather clause” imposed. The batter was given credit for a home run in the last of the ninth inning if the winning run was on base when the ball was hit over the fence. Australian yarn, said to be stronger than its

American equivalent, was used in the construction of the ball. It was thought the ball could be wound tighter, making it harder and livelier. The ball had its gloss removed by the umpire before the start of the game.

- 1925 – The minimum home run distance was set at 250 feet. Pitchers are allowed to use a rosin bag.
- 1932 - A fair ball that bounces over the fence is called a ground-rule double instead of a home run.
- 1934 – Both leagues must use the same brand of ball.
- 1939 – A batter is credited with a sacrifice fly, and not charged with a time at-bat if he hits a fly ball that is caught and a runner scores on the catch.
- 1940 – A batter is no longer credited with a sacrifice fly. A ball that clears the fence fair is a home run regardless of whether it lands in fair or foul territory.
- 1950 – A player must have at least 400 at-bats to qualify for the batting title.
- 1953 – Players were to remove their gloves from the field when batting and no equipment was to show on the field at any time.
- 1954 – The sacrifice fly rule is brought back.
- 1958 – A player must have a total of at least 3.1 plate appearances for every scheduled game to qualify for the batting title.
- 1959 – The minimum boundaries for a new stadium were set at 325-400-325.
- 1969 – The pitcher's mound was dropped five inches. The strike zone was shrunk from the armpits to the top of the batter's knees. The save rule was added for pitchers.
- 1971 – All Major League players were required to wear helmets when batting.
- 1973 – The American League began using the designated hitter in place of the pitcher in the batting order as an experiment.
- 1976 – The American League accepts the designated hitter as a permanent rule.

**The rules of baseball can and often do change.**

- In 1954, Ted Williams lost the batting title because he fell 14 at-bats short of the required 400 at-bats for a season. That year, Williams hit .345, four points higher than Bobby Avila. Unfortunately for Williams, he received 136 walks that year. Subsequently, the

rules for the batting title changed to count all plate appearances.

- Rules regarding the sacrifice fly changed many times. In 1908, the present sacrifice rule was instituted; no time at-bat is charged for a fly ball that enables a runner to score from third base. In 1926, the rule was expanded to include any runners moving up a base. The rule was discontinued in 1939. The original rule (1908) was restored in 1954.
- Until 1932, a ball that bounced over the fence was considered a home run. At least four of Babe Ruth's home runs bounced over the fence. As of 1932, a ball that bounced over the fence was ruled a ground-rule double. This rule was beneficial to Ruth. Henry Aaron started his career in 1954 and Barry Bonds started his career in 1986. For both Aaron and Bonds, a ball that cleared the fence fair but landed in foul territory was considered a home run. In Ruth's time before 1940, such a ball was considered just a long foul strike.

**The rules of baseball were designed to correspond to the fairness of our democratic form of government.**

- They are designed not to favor anyone because of height or weight.
- Since there is no clock involved, both teams have an equal opportunity to win.
- They are setup to discourage any form of cheating. The doctoring of a ball or bat is not allowed. Gambling on baseball is not allowed for people employed by baseball.
- An appeal process exists. Certain calls during a game can be appealed after the game has concluded.

## **Umpires**

### **Original Reason for Umpires**

Some historians say the original reason umpires were used in baseball in the 19<sup>th</sup> century was not to make calls but to reduce various forms of cheating. Some forms of cheating included holding a base-runner's shirt, pushing a base-runner off a base, and taking shortcuts on the base-paths.

After the cheating was controlled, the umpires remained to enforce the rules of baseball.

### **Enforcement of the Rules of Baseball**

The rules of baseball are enforced during a game by the umpires. Until 1910, only one umpire was used. The number of umpires was increased to two in 1910, then to three in 1935, and to four in 1952. Until 2001, each of the leagues regulated their respective umpires. If you observed a game before 2001, you would have noticed that an American League umpire, calling balls and strikes, wore an external chest protector while a National League umpire wore an internal chest protector. Since 2001, the umpires are under the control of the Commissioner's Office and follow the same rules. They are assigned to games in both leagues.

### **An Umpire's Compensation**

The starting salary for a major league umpire is \$120,000. Based on number of years of service, the salary can reach as much as \$350,000. Unlike other sports, Major League umpires are considered full-time employees. Major League umpires receive a per diem allowance of \$340 a day. This amount covers all travel expenses, food, telephone, tips, and hotels. Umpires get four weeks of vacation during the season. Three of the four weeks must be taken by an entire crew at the same time.

### **So You Want to Become a Major League Umpire**

The balls, strikes and outs are recorded in Major League games by 70 umpires working in 17 crews of four (with two rovers). The average apprentice time spent in the minors for an umpire is between 8 and 12 years. A major step in becoming a Major League umpire is to work your way up to becoming a Triple-A umpire. The reason for this is that 15 to 17 Triple-A umpires are used to substitute for the Major League umpires when they go on vacation. Unfortunately, the turnover of Major League umpires is very small. On the average only one new umpire is added each year.

The process of recruiting new umpires begins November 4-11 at the annual MLB Umpire Clinic, which is open to men and women over 18 with a high school diploma. Field instruction takes place at MLB's Urban Youth Academy in Compton, California, with classroom work in Long Beach, California.

### **Evaluation of Major League Umpires:**

After each game, umpires are evaluated through the use of video tapes. One technique used in many parks to evaluate the ball and strike calls is the Questec System. It has been shown that 99% of the baseline calls are correct and 97% of the ball and strike calls are correct. To help the umpires make decisions about home-run calls, Major League Baseball instituted in 2008 an instant replay system.

### **The Future of Umpires**

Some people suggest umpires can be totally replaced by technology. As far as I see, this can never happen. There are many reasons for this statement. Of course, the baseball purist will argue that the men in blue are part of baseball tradition and must remain. I believe a more credible argument is the more technology used the more chance of failure. For example, suppose we used technology to decide safe or out at first-base. Sensors in gloves, cleats, and in the base itself would be needed. You can see that the failure of anyone of these sensors could lead to a situation where the game could not proceed. Even in the case of balls and strikes, situations involving foul tips and the batter being grazed by a foul-ball would be very difficult to evaluate through technology. My suggestion is the grading of the umpires should continue with future classes educating the umpires on their most common errors. Also, instant replay should be expanded to other situations that occur in baseball. **The umpires must stay and four seems the right number.**

### **Umpire Trivia**

- The first umpires sat in rocking chairs 25 feet behind home plate.
- Before 1920, there was only one umpire assigned to a game. An extra umpire was assigned to World Series games. Beginning around 1920, two umpires were used. This number was increased to three in the 1930s. In the 1940s, the number was increased to the current four umpires.
- In 1908, four umpires are assigned to the World Series for the first time. Only two worked in a given game at the same time.
- In 1909, all four umpires were assigned to work in each game of the World Series.
- In 1910, the umpire organizational chart is established with the plate umpire designated as the umpire-in-chief, and the others are field umpires. The captain of a team must notify

the umpire-in-chief of any substitution.

- In 1935, the first umpire school opened in Hot Spring, Arkansas.
- Five umpires have been inducted into the Hall of Fame. The five were Bill Klem, Jocko Conlon, Cal Hubbard, Billy Evans, and Tommy Connolly.
- The most heralded umpire was Bill Klem. Klem began his career in 1905 and had a 35 year career. He originated hand gestures for a strike. He once said, “Baseball is more than a game for me; it is a religion.”

### **Funny Umpire Stories**

- An organist was thrown out of a game for playing the song “Three Blind Mice” when the umpires came out of the dugout.

Umpire Dale Ford threw out Earl Weaver in a ballgame in Baltimore. The very next game, during the “Star Spangled Banner”, Weaver swore at Dale Ford saying, “What are you going \_\_\_ tonight?”