

The Lahman Baseball Database

2016 Version

Release Date: February 25, 2017

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0.1 Copyright Notice & Limited Use License

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If you're interested in contributing to the maintenance of this database or making suggestions for improvement, please consider joining our mailinglist at:

<http://groups.yahoo.com/group/baseball-databank/>

If you are interested in similar databases for other sports, please vist the Open Source Sports website at <http://OpenSourceSports.com>

1.0 Release Contents

This release of the database can be downloaded in several formats. The contents of each version are listed below.

MS Access Versions:

- lahman2016.mdb
- 2016readme.txt

SQL version

- lahman2016.sql
- 2016readme.txt

Comma Delimited Version:

- 2016readme.txt
- AllStarFull.csv
- Appearances.csv
- AwardsManagers.csv
- AwardsPlayers.csv
- AwardsShareManagers.csv
- AwardsSharePlayers.csv
- Batting.csv
- BattingPost.csv
- CollegePlaying.csv
- Fielding.csv
- FieldingOF.csv
- FieldingPost.csv
- FieldingOFsplit
- HallOfFame.csv
- HomeGames.csv
- Managers.csv
- ManagersHalf.csv
- Master.csv
- Parks.csv
- Pitching.csv
- PitchingPost.csv
- Salaries.csv
- Schools.csv
- SeriesPost.csv
- Teams.csv
- TeamsFranchises.csv
- TeamsHalf.csv

1.1 Introduction

readme2016.txt

This database contains pitching, hitting, and fielding statistics for Major League Baseball from 1871 through 2016. It includes data from the two current leagues (American and National), the four other "major" leagues (American Association, Union Association, Players League, and Federal League), and the National Association of 1871-1875.

This database was created by Sean Lahman, who pioneered the effort to make baseball statistics freely available to the general public. What started as a one man effort in 1994 has grown tremendously, and now a team of researchers have collected their efforts to make this the largest and most accurate source for baseball statistics available anywhere. (See Acknowledgements below for a list of the key contributors to this project.)

None of what we have done would have been possible without the pioneering work of Hy Turkin, S.C. Thompson, David Neft, and Pete Palmer (among others). All baseball fans owe a debt of gratitude to the people who have worked so hard to build the tremendous set of data that we have today. Our thanks also to the many members of the Society for American Baseball Research who have helped us over the years. We strongly urge you to support and join their efforts. Please visit their website (www.sabr.org).

If you have any problems or find any errors, please let us know. Any feedback is appreciated

1.2 What's New in 2016

Player stats have been updated through 2016 season.

Three new tables have been introduced: FieldingOFsplit, Parks, and HomeGames

Other notable changes include:

- * Improvements to appearances table based on Retrosheet data
- * Created a new table FieldingOFsplit, and migrated the LF/CF/RF entries from Fielding to it.
- * Deleted all DH entries from Fielding.
- * Re-built all regular season batting/pitching/fielding from 2000 forward.
- * Filled in NULL values for 1973-1999 in batting for pitchers who did not have a PA due to the DH rule.
- * Added Parks and HomeGames to better track major league ballparks, including neutral sites

1.3 Acknowledgements

Much of the raw data contained in this database comes from the work of

readme2016.txt

Pete Palmer, the legendary statistician, who has had a hand in most of the baseball encyclopedias published since 1974. He is largely responsible for bringing the batting, pitching, and fielding data out of the dark ages and into the computer era. Without him, none of this would be possible. For more on Pete's work, please read his own account at: <http://sabr.org/cmsfiles/PalmerDatabaseHistory.pdf>

Three people have been key contributors to the work that followed, first by taking the raw data and creating a relational database, and later by extending the database to make it more accesible to researchers.

Sean Lahman launched the Baseball Archive's website back before most people had heard of the world wide web. Frustrated by the lack of sports data available, he led the effort to build a baseball database that everyone could use. He created the first version of the database and began to make it available for free download from his website in 1995.

The work of Sean Forman to create and maintain an online encyclopedia at Baseball-Reference.com was a quantum leap for both fans and researchers. The website launched in 2000, provding a user-friendly interface to the Lahman Baseball Database. Forman and Lahman launched the Baseball Databank in 2001, a group of researchers whose goal was to update and maintain the database as an open source collection available to all.

Ted Turocy has done the lion's share of the work to updating the main data tables since 2012, automating the work of annual updates and linking historical data to play-by-play accounts compiled by Retrosheet.

A handful of researchers have made substantial contributions to maintain this database over years. Listed alphabetically, they are: Derek Adair, Mike Crain, Kevin Johnson, Rod Nelson, Tom Tango, and Paul Wendt. These folks did much of the heavy lifting, and are largely responsible for the improvements made since 2000.

Others who made important contributions include: Dvd Avins, Clifford Blau, Bill Burgess, Clem Comly, Jeff Burk, Randy Cox, Mitch Dickerman, Paul DuBois, Mike Emeigh, F.X. Flinn, Bill Hickman, Jerry Hoffman, Dan Holmes, Micke Hovmoller, Peter Kreutzer, Danile Levine, Bruce Macleod, Ken Matinale, Michael Mavrogiannis, Cliff Otto, Alberto Perdomo, Dave Quinn, John Rickert, Tom Ruane, Theron Skyles, Hans Van Slooten, Michael Westbay, and Rob Wood.

Many other people have made significant contributions to the database over the years. The contribution of Tom Ruane's effort to the overall quality of the underlying data has been tremendous. His work at retrosheet.org integrates the yearly data with the day-by-day data, creating a reference source of startling depth.

Sean Holtz helped with a major overhaul and redesign before the 2000 season. Keith Woolner was instrumental in helping turn a huge collection of stats into a relational database in the mid-1990s. Clifford Otto & Ted Nye also helped provide guidance to the early versions. Lee Sinnis, John Northey & Erik Greenwood helped supply key pieces of data. Many others have written in with corrections and suggestions that made each subsequent version even better than what preceded it.

The work of the SABR Baseball Records Committee, led by Lyle Spatz has been invaluable. So has the work of Bill Carle and the SABR Biographical Committee. David Vincent, keeper of the Home Run Log and other bits of hard to find info, has always been helpful. The recent addition of colleges to player bios is the result of much research by members of SABR's Collegiate Baseball committee.

Salary data was first supplied by Doug Pappas, who passed away during the summer of 2004. He was the leading authority on many subjects, most significantly the financial history of Major League Baseball. We are grateful that he allowed us to include some of the data he compiled. His work has been continued by the SABR Business of Baseball committee.

Thanks is also due to the staff at the National Baseball Library in Cooperstown who have been so helpful over the years, including Tim Wiles, Jim Gates, Bruce Markusen, and the rest of the staff.

A special debt of gratitude is owed to Dave Smith and the folks at Retrosheet. There is no other group working so hard to compile and share baseball data. Their website (www.retrosheet.org) will give you a taste of the wealth of information Dave and the gang have collected.

Thanks to all contributors great and small. What you have created is a wonderful thing.

1.4 Using this Database

This version of the database is available in Microsoft Access format, SQL files or in a generic, comma delimited format. Because this is a relational database, you will not be able to use the data in a flat-database application.

Please note that this is not a stand alone application. It requires a database application or some other application designed specifically to interact with the database.

If you are unable to import the data directly, you should download the database in the delimited text format. Then use the documentation in section 2.0 of this document to import the data into your database application.

1.5 Revision History

Version	Date	Comments
1.0	December 1992	Database ported from dBase
1.1	May 1993	Becomes fully relational
1.2	July 1993	Corrections made to full database
1.21	December 1993	1993 statistics added
1.3	July 1994	Pre-1900 data added
1.31	February 1995	1994 Statistics added
1.32	August 1995	Statistics added for other leagues
1.4	September 1995	Fielding Data added
1.41	November 1995	1995 statistics added
1.42	March 1996	HOF/All-Star tables added
1.5-MS	October 1996	1st public release - MS Access format
1.5-GV	October 1996	Released generic comma-delimited files
1.6-MS	December 1996	Updated with 1996 stats, some corrections
1.61-MS	December 1996	Corrected error in MASTER table
1.62	February 1997	Corrected 1914-1915 batters data and updated
2.0	February 1998	Major Revisions-added teams & managers
2.1	October 1998	Interim release w/1998 stats
2.2	January 1999	New release w/post-season stats & awards added
3.0	November 1999	Major release - fixed errors and 1999 statistics
added		
4.0	May 2001	Major release - proofed & redesigned tables
4.5	March 2002	Updated with 2001 stats and added new biographical
data		
5.0	December 2002	Major revision - new tables and data
5.1	January 2004	Updated with 2003 data, and new pitching
categories		
5.2	November 2004	Updated with 2004 season statistics.
5.3	December 2005	Updated with 2005 season statistics.
5.4	December 2006	Updated with 2006 season statistics.
5.5	December 2007	Updated with 2007 season statistics.
5.6	December 2008	Updated with 2008 season statistics.
5.7	December 2009	Updated for 2009 and added several tables.
5.8	December 2010	Updated with 2010 season statistics.
5.9	December 2011	Updated for 2011 and removed obsolete tables.
2012	December 2012	Updated with 2012 season statistics
2013	December 2013	Updated with 2013 season statistics
2014	December 2014	Updated with 2014 season statistics
2015	December 2015	Updated with 2015 season statistics
2016	February 2017	Updated for 2016 and added several tables

2.0 Data Tables

The design follows these general principles. Each player is assigned a unique number (playerID). All of the information relating to that player is tagged with his playerID. The playerIDs are linked to names and birthdates in the MASTER table.

The database is comprised of the following main tables:

- MASTER - Player names, DOB, and biographical info
- Batting - batting statistics
- Pitching - pitching statistics
- Fielding - fielding statistics

It is supplemented by these tables:

- AllStarFull - All-Star appearances
- HallofFame - Hall of Fame voting data
- Managers - managerial statistics
- Teams - yearly stats and standings
- BattingPost - post-season batting statistics
- PitchingPost - post-season pitching statistics
- TeamFranchises - franchise information
- FieldingOF - outfield position data
- FieldingPost - post-season fielding data
- FieldingOFsplit - LF/CF/RF splits
- ManagersHalf - split season data for managers
- TeamsHalf - split season data for teams
- Salaries - player salary data
- SeriesPost - post-season series information
- AwardsManagers - awards won by managers
- AwardsPlayers - awards won by players
- AwardsShareManagers - award voting for manager awards
- AwardsSharePlayers - award voting for player awards
- Appearances - details on the positions a player appeared at
- Schools - list of colleges that players attended
- CollegePlaying - list of players and the colleges they attended
- Parks - list of major league ballparks
- HomeGames - Number of homegames played by each team in each ballpark

2.1 MASTER table

readme2016.txt

playerID	A unique code assigned to each player. The playerID links the data in this file with records in the other files.
birthYear	Year player was born
birthMonth	Month player was born
birthDay	Day player was born
birthCountry	Country where player was born
birthState	State where player was born
birthCity	City where player was born
deathYear	Year player died
deathMonth	Month player died
deathDay	Day player died
deathCountry	Country where player died
deathState	State where player died
deathCity	City where player died
nameFirst	Player's first name
nameLast	Player's last name
nameGiven	Player's given name (typically first and middle)
weight	Player's weight in pounds
height	Player's height in inches
bats	Player's batting hand (left, right, or both)
throws	Player's throwing hand (left or right)
debut	Date that player made first major league appearance
finalGame	Date that player made first major league appearance (blank if still active)
retroID	ID used by retrosheet
bbrefID	ID used by Baseball Reference website

2.2 Batting Table

playerID	Player ID code
yearID	Year
stint	player's stint (order of appearances within a season)
teamID	Team
lgID	League
G	Games
AB	At Bats
R	Runs
H	Hits
2B	Doubles
3B	Triples
HR	Homeruns
RBI	Runs Batted In
SB	Stolen Bases
CS	Caught Stealing
BB	Base on Balls
SO	Strikeouts
IBB	Intentional walks

HBP	Hit by pitch
SH	Sacrifice hits
SF	Sacrifice flies
GIDP	Grounded into double plays

2.3 Pitching table

playerID	Player ID code
yearID	Year
stint	player's stint (order of appearances within a season)
teamID	Team
lgID	League
W	Wins
L	Losses
G	Games
GS	Games Started
CG	Complete Games
SHO	Shutouts
SV	Saves
IPOuts	Outs Pitched (innings pitched x 3)
H	Hits
ER	Earned Runs
HR	Homeruns
BB	Walks
SO	Strikeouts
BAOpp	Opponent's Batting Average
ERA	Earned Run Average
IBB	Intentional Walks
WP	Wild Pitches
HBP	Batters Hit By Pitch
BK	Balks
BFP	Batters faced by Pitcher
GF	Games Finished
R	Runs Allowed
SH	Sacrifices by opposing batters
SF	Sacrifice flies by opposing batters
GIDP	Grounded into double plays by opposing batter

2.4 Fielding Table

playerID	Player ID code
yearID	Year
stint	player's stint (order of appearances within a season)
teamID	Team
lgID	League
Pos	Position
G	Games

GS	Games Started
InnOuts	Time played in the field expressed as outs
PO	Putouts
A	Assists
E	Errors
DP	Double Plays
PB	Passed Balls (by catchers)
WP	Wild Pitches (by catchers)
SB	Opponent Stolen Bases (by catchers)
CS	Opponents Caught Stealing (by catchers)
ZR	Zone Rating

2.5 AllstarFull table

playerID	Player ID code
YearID	Year
gameNum	Game number (zero if only one All-Star game played that season)
gameID	Retrosheet ID for the game idea
teamID	Team
lgID	League
GP	1 if Played in the game
startingPos	If player was game starter, the position played

2.6 HallOfFame table

playerID	Player ID code
yearID	Year of ballot
votedBy	Method by which player was voted upon
ballots	Total ballots cast in that year
needed	Number of votes needed for selection in that year
votes	Total votes received
inducted	Whether player was inducted by that vote or not (Y or N)
category	Category in which candidate was honored
needed_note	Explanation of qualifiers for special elections

2.7 Managers table

playerID	Player ID Number
yearID	Year
teamID	Team
lgID	League
inseason	Managerial order. Zero if the individual managed the team the entire year. Otherwise denotes where the manager appeared in the managerial order (1 for first manager, 2 for second, etc.)
G	Games managed
W	Wins
L	Losses

rank	Team's final position in standings that year
plyrMgr	Player Manager (denoted by 'Y')

2.8 Teams table

yearID	Year
lgID	League
teamID	Team
franchID	Franchise (links to TeamsFranchise table)
divID	Team's division
Rank	Position in final standings
G	Games played
GHome	Games played at home
W	Wins
L	Losses
DivWin	Division Winner (Y or N)
WCWin	Wild Card Winner (Y or N)
LgWin	League Champion(Y or N)
WSWin	World Series Winner (Y or N)
R	Runs scored
AB	At bats
H	Hits by batters
2B	Doubles
3B	Triples
HR	Homeruns by batters
BB	Walks by batters
SO	Strikeouts by batters
SB	Stolen bases
CS	Caught stealing
HBP	Batters hit by pitch
SF	Sacrifice flies
RA	Opponents runs scored
ER	Earned runs allowed
ERA	Earned run average
CG	Complete games
SHO	Shutouts
SV	Saves
IPOuts	Outs Pitched (innings pitched x 3)
HA	Hits allowed
HRA	Homeruns allowed
BBA	Walks allowed
SOA	Strikeouts by pitchers
E	Errors
DP	Double Plays
FP	Fielding percentage
name	Team's full name
park	Name of team's home ballpark

attendance	Home attendance total
BPF	Three-year park factor for batters
PPF	Three-year park factor for pitchers
teamIDBR	Team ID used by Baseball Reference website
teamIDlahman45	Team ID used in Lahman database version 4.5
teamIDretro	Team ID used by Retrosheet

2.9 BattingPost table

yearID	Year
round	Level of playoffs
playerID	Player ID code
teamID	Team
lgID	League
G	Games
AB	At Bats
R	Runs
H	Hits
2B	Doubles
3B	Triples
HR	Homeruns
RBI	Runs Batted In
SB	Stolen Bases
CS	Caught stealing
BB	Base on Balls
SO	Strikeouts
IBB	Intentional walks
HBP	Hit by pitch
SH	Sacrifices
SF	Sacrifice flies
GIDP	Grounded into double plays

2.10 PitchingPost table

playerID	Player ID code
yearID	Year
round	Level of playoffs
teamID	Team
lgID	League
W	Wins
L	Losses
G	Games
GS	Games Started
CG	Complete Games
SHO	Shutouts
SV	Saves

IPOuts	Outs Pitched (innings pitched x 3)
H	Hits
ER	Earned Runs
HR	Homeruns
BB	Walks
SO	Strikeouts
BAOpp	Opponents' batting average
ERA	Earned Run Average
IBB	Intentional Walks
WP	Wild Pitches
HBP	Batters Hit By Pitch
BK	Balks
BFP	Batters faced by Pitcher
GF	Games Finished
R	Runs Allowed
SH	Sacrifice Hits allowed
SF	Sacrifice Flies allowed
GIDP	Grounded into Double Plays

2.11 TeamFranchises table

franchID	Franchise ID
franchName	Franchise name
active	Whether team is currently active (Y or N)
NAassoc	ID of National Association team franchise played as

2.12 FieldingOF table

playerID	Player ID code
yearID	Year
stint	player's stint (order of appearances within a season)
GlF	Games played in left field
GcF	Games played in center field
GrF	Games played in right field

2.13 ManagersHalf table

playerID	Manager ID code
yearID	Year
teamID	Team
lgID	League
inseason	Managerial order. One if the individual managed the team the entire year. Otherwise denotes where the manager appeared in the managerial order (1 for first manager, 2 for second, etc.)
half	First or second half of season

G	Games managed
W	Wins
L	Losses
rank	Team's position in standings for the half

2.14 TeamsHalf table

yearID	Year
lgID	League
teamID	Team
half	First or second half of season
divID	Division
DivWin	Won Division (Y or N)
rank	Team's position in standings for the half
G	Games played
W	Wins
L	Losses

2.15 Salaries table

yearID	Year
teamID	Team
lgID	League
playerID	Player ID code
salary	Salary

2.16 SeriesPost table

yearID	Year
round	Level of playoffs
teamIDwinner	Team ID of the team that won the series
lgIDwinner	League ID of the team that won the series
teamIDloser	Team ID of the team that lost the series
lgIDloser	League ID of the team that lost the series
wins	Wins by team that won the series
losses	Losses by team that won the series
ties	Tie games

2.17 AwardsManagers table

playerID	Manager ID code
awardID	Name of award won
yearID	Year
lgID	League
tie	Award was a tie (Y or N)

notes Notes about the award

2.18 AwardsPlayers table

playerID	Player ID code
awardID	Name of award won
yearID	Year
lgID	League
tie	Award was a tie (Y or N)
notes	Notes about the award

2.19 AwardsShareManagers table

awardID	name of award votes were received for
yearID	Year
lgID	League
playerID	Manager ID code
pointsWon	Number of points received
pointsMax	Maximum number of points possible
votesFirst	Number of first place votes

2.20 AwardsSharePlayers table

awardID	name of award votes were received for
yearID	Year
lgID	League
playerID	Player ID code
pointsWon	Number of points received
pointsMax	Maximum number of points possible
votesFirst	Number of first place votes

2.21 FieldingPost table

playerID	Player ID code
yearID	Year
teamID	Team
lgID	League
round	Level of playoffs
Pos	Position
G	Games
GS	Games Started
InnOuts	Time played in the field expressed as outs
PO	Putouts
A	Assists

E	Errors
DP	Double Plays
TP	Triple Plays
PB	Passed Balls
SB	Stolen Bases allowed (by catcher)
CS	Caught Stealing (by catcher)

2.22 Appearances table

yearID	Year
teamID	Team
lgID	League
playerID	Player ID code
G_all	Total games played
GS	Games started
G_batting	Games in which player batted
G_defense	Games in which player appeared on defense
G_p	Games as pitcher
G_c	Games as catcher
G_1b	Games as firstbaseman
G_2b	Games as secondbaseman
G_3b	Games as thirdbaseman
G_ss	Games as shortstop
G_lf	Games as leftfielder
G_cf	Games as centerfielder
G_rf	Games as right fielder
G_of	Games as outfielder
G_dh	Games as designated hitter
G_ph	Games as pinch hitter
G_pr	Games as pinch runner

2.23 Schools table

schoolID	school ID code
schoolName	school name
schoolCity	city where school is located
schoolState	state where school's city is located
schoolNick	nickname for school's baseball team

2.24 CollegePlaying table

playerid	Player ID code
schoolID	school ID code
year	year

2.25 FieldingOFsplit table

playerID	Player ID code
yearID	Year
stint	player's stint (order of appearances within a season)
teamID	Team
lgID	League
Pos	Position
G	Games
GS	Games Started
InnOuts	Time played in the field expressed as outs
PO	Putouts
A	Assists
E	Errors
DP	Double Plays

2.26 Parks table

park.key	ballpark ID code
park.name	name of ballpark
park.alias	alternate names of ballpark
city	city
state	state
country	country

2.27 HomeGames table

year.key	year
league.key	league
team.key	team ID
park.key	ballpark ID
span.first	date of first game played
span.last	date of last game played
games	total number of games
openings	total number of dates played
attendance	total attendaance

<end of file>