

Post01

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Intro: Baseball, Statistics, and R Programming

So far, in this course we have learned the basics of R coding and various methods of sorting, manipulating and analyzing large sources of data. Most of the real-world learning applications, we have learned, have been by using NBA data and sorting out statistics. While Basketball fans and professional's alike enjoy this data, I believe, Baseball is the one true sport that pushes R coding to its full limits.

For over a century, baseball scouts and managers largely relied on the eye test to assess the potential of baseball players. During this time, Statistics were always viewed as a collection of player per-game performances and only the traditional statistics such as: Hits, Homeruns, Walks, At-Bats, Strikeouts (For hitters); Strikeouts, Hits, ERA, WHIP, Walks (for Pitchers) were the traditional Stats. However, baseball statistics and talent evaluation/scouting would forever change with the introduction of Sabermetrics (applied statistical analysis) that would revolutionize the way teams evaluated their talent.

With that being said, the purpose of this post is to provide a brief introduction to Baseball Sabermetrics and various R packages that can be used to synthesize such data for specific analysis for either hitting, pitching and even fielding performances. In this post I have included to specific packages (Lahman & Pitch Rx) that are useful in searching player statistics and analyzing pitching performances, respectively. Of course, this is just an introduction and if you want to dive into more Sabermetric tools I recommend reading the Package dictionaries or go on the Fangraphs website that you can find below under my references.

Background:

To begin with, the background for this research begins with the infamous story of Oakland A's GM, Billy Beane, who began to use sabermetrics as the sole method of picking out and soring out talent. His methods, ultimately, led the Oakland A's to an improbable record during the 2002 season, which saw them set a then-record of 22 consecutive wins—a record that lasted until this year. Beane's story would later be turned in a successful motion picture film. While the A's did not win a championship, Billy Beane's methods would have a deep impact in the league and inspire other to follow suit. For example, Beane's former assistant, Theo Epstein, would take his sabermetric talents to the Red Sox where he would end the Red Sox's 86 championship drought; as of late, Epstein would also be responsible for assembling the Cubs 2016 championship team that ended a 100-year drought—the longest in all of sports. The legacy of Sabermetrics, although fairly new, continue to make it's impact today. For example, in this year's Dodgers GM Farhan Zaidi, is also a prodigy of Billy Beane's infamous Moneyball team and tactics, and is now widely-renowned for using Sabermetrics to turn once looked-over players into premier players and all stars.

Motivation:

The main motivation of this post stems from my own passion for Baseball. I have followed the sport since a young age and had a deep interest in researching the origins of baseball sabermetrics, the way it has affected the sport, and how I could possibly use R packages and methods to manipulate and analyze large sources of baseball data. As aforementioned, the topic of this post was also largely inspired by the infamous "Moneyball" story and the profound impact of Sabemetrics on contemporary baseball.

Examples:

First of all, the examples below were found in an article called "A Short Introduction to using R Packages for Baseball Research" in sports statistics website, Fangraphs. The article showed various examples and all of the examples below are derived from the article. I use them here to elucidate the intersection of baseball sabermetrics and r.

Finally, the essence of using R tactics to create Sabermetrics begins with R package: Lahman. The Lahman Packages provides various data frames for data on pitching, hitting and fielding performance for players for baseball players from 1871-2015. An example of this package can be found in the code chunk below. This is very similar to the NBA statistics data that we have used in class; however, this baseball data is much more comprehensive because it contains over 100 years of baseball data.

Ex1) The Lahman package:

```
library(Lahman)
```

```
head(Master)
```

```
##      playerID birthYear birthMonth birthDay birthCountry birthState
## 1 aardsda01      1981          12        27          USA           CO
## 2 aaronha01      1934           2         5          USA           AL
## 3 aaronto01      1939           8         5          USA           AL
## 4 aasedo01       1954           9         8          USA           CA
## 5 abadan01       1972           8        25          USA           FL
## 6 abadfe01       1985          12        17          D.R.      La Romana
##      birthCity deathYear deathMonth deathDay deathCountry deathState
## 1      Denver      NA          NA        NA      <NA>          <NA>
## 2      Mobile      NA          NA        NA      <NA>          <NA>
## 3      Mobile     1984           8        16          USA           GA
## 4      Orange      NA          NA        NA      <NA>          <NA>
## 5 Palm Beach      NA          NA        NA      <NA>          <NA>
## 6 La Romana      NA          NA        NA      <NA>          <NA>
##      deathCity nameFirst nameLast      nameGiven weight height bats throws
## 1      <NA>      David   Aardsma      David Allan   215    75    R      R
## 2      <NA>      Hank   Aaron      Henry Louis    180    72    R      R
## 3 Atlanta Tommie   Aaron      Tommie Lee     190    75    R      R
## 4      <NA>      Don    Aase      Donald William  190    75    R      R
## 5      <NA>      Andy   Abad      Fausto Andres  184    73    L      L
## 6      <NA> Fernando Abad Fernando Antonio  220    73    L      L
##      debut finalGame retroID  bbrefID  deathDate  birthDate
## 1 2004-04-06 2015-08-23 aarodd001 aardsda01      <NA> 1981-12-27
## 2 1954-04-13 1976-10-03 aaroh101 aaronha01      <NA> 1934-02-05
## 3 1962-04-10 1971-09-26 aarot101 aaronto01 1984-08-16 1939-08-05
## 4 1977-07-26 1990-10-03 aasedo001 aasedo01      <NA> 1954-09-08
## 5 2001-09-10 2006-04-13 abada001 abadan01      <NA> 1972-08-25
## 6 2010-07-28 2016-09-25 abadf001 abadfe01      <NA> 1985-12-17
```

Ex2) PitchRx and Dplyr in Sabermetrics

The next example I would like to highlight is the R package “pitchRx”. With the help of the Lahman database, this package allows you to analyzing the data of pitchers on a per-start basis. It organizes the type of pitch, the speed of the pitch, the outcome, and other miscellaneous pitching statistics. With the help of the Dplyr package, you can take the analysis even farther by sorting out specific game performances.

The code chunk below, for example, displays which players saw the greatest increase in their home run rate in the decade between 2000-10. This example uses filter in order to manipulate the data to those who had at least 400 at-bats in their first two seasons.

```
library(pitchRx)
```

```
## Loading required package: ggplot2
```

```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##      filter, lag
```

```
## The following objects are masked from 'package:base':
##
##      intersect, setdiff, setequal, union
```

```
hr_y2y <- filter(Lahman::Batting, yearID >= 2000, yearID < 2011) %>% left_join(Lahman::Master, by = "playerID") %>%
  arrange(desc(yearID)) %>% mutate(Player = paste(nameLast, nameFirst, sep = ", ")) %>% select(Player, yearID, tea
mID, HR, AB, SO, SF) %>% mutate(HR_rate = round((HR/(AB+SF-SO)*600),1)) %>% filter(AB >= 400) %>% mutate(Season_ne
xt = yearID + 1) %>% left_join(., ., by = c("Season_next" = "yearID", "Player" = "Player")) %>% filter(!is.na(HR.y
)) %>% mutate(HR_rate_change = (HR_rate.y - HR_rate.x)) %>% arrange(desc(HR_rate_change)) %>% select(Player, yearI
D, teamID.x, HR.x, HR_rate.x, Season_next, teamID.y, HR.y, HR_rate.y, HR_rate_change)
```

```
hr_y2y
```

```
##
##      Player yearID teamID.x HR.x HR_rate.x Season_next
## 1 Bonds, Barry 2000      SFN   49    71.7      2001
## 2 Beltran, Carlos 2005     NYN   16    19.5      2006
## 3 Ensberg, Morgan 2004     HOU   10    16.3      2005
## 4 Gonzalez, Luis 2000     ARI   31    34.1      2001
## 5 Hall, Bill 2005     MIL   17    25.4      2006
## 6 Thome, Jim 2000     CLE   37    56.8      2001
## 7 Fielder, Prince 2006     MIL   28    37.2      2007
## 8 Green, Shawn 2000     LAN   24    29.1      2001
## 9 Ibanez, Raul 2008     SEA   23    26.0      2009
## 10 Varitek, Jason 2002     BOS   10    16.0      2003
## 11 Tracy, Chad 2004     ARI    8    11.3      2005
## 12 Konerko, Paul 2003     CHA   18    27.1      2004
## 13 Beltre, Adrian 2003     LAN   23    29.9      2004
## 14 Lee, Derrek 2008     CHN   20    23.6      2009
```

## 15	Berkman, Lance	2005	HOU	24	36.2	2006
## 16	Mauer, Joe	2008	MIN	9	10.9	2009
## 17	Wright, David	2009	NYN	10	15.0	2010
## 18	Reynolds, Mark	2008	ARI	28	49.3	2009
## 19	Edmonds, Jim	2002	SLN	28	48.3	2003
## 20	Cameron, Mike	2003	SEA	18	27.1	2004
## 21	Koskie, Corey	2003	MIN	14	23.0	2004
## 22	Jones, Andruw	2004	ATL	29	40.9	2005
## 23	Hart, Corey	2009	MIL	12	21.8	2010
## 24	Jacobs, Mike	2007	FLO	17	31.3	2008
## 25	Martinez, Tino	2000	NYA	16	19.3	2001
## 26	Hernandez, Jose	2000	MIL	11	20.4	2001
## 27	Matsui, Hideki	2003	NYA	16	17.7	2004
## 28	Sosa, Sammy	2000	CHN	50	67.6	2001
## 29	Rodriguez, Alex	2006	NYA	35	48.1	2007
## 30	Young, Eric	2002	MIL	3	3.9	2003
## 31	Huff, Aubrey	2001	TBA	8	14.2	2002
## 32	Wells, Vernon	2009	TOR	15	16.4	2010
## 33	Koskie, Corey	2000	MIN	9	14.5	2001
## 34	Beltre, Adrian	2009	SEA	8	12.7	2010
## 35	Grissom, Marquis	2000	MIL	14	16.8	2001
## 36	LaRoche, Adam	2005	ATL	20	32.4	2006
## 37	Pena, Carlos	2008	TBA	31	55.9	2009
## 38	Durham, Ray	2005	SFN	12	16.2	2006
## 39	Valentin, Jose	2000	CHA	25	32.2	2001
## 40	Soriano, Alfonso	2001	NYA	18	23.8	2002
## 41	Hafner, Travis	2005	CLE	33	54.0	2006
## 42	Sexson, Richie	2002	MIL	29	39.7	2003
## 43	Cameron, Mike	2007	SDN	21	30.4	2008
## 44	Inge, Brandon	2005	DET	16	19.9	2006
## 45	Bartlett, Jason	2008	TBA	1	1.5	2009
## 46	Dye, Jermaine	2005	CHA	31	43.1	2006
## 47	Sanders, Reggie	2002	SFN	23	35.3	2003
## 48	Hernandez, Ramon	2002	OAK	7	12.3	2003
## 49	Roberts, Brian	2004	BAL	4	4.3	2005
## 50	Alou, Moises	2003	CHN	22	26.3	2004
## 51	Rasmus, Colby	2009	SLN	16	25.2	2010
## 52	Huff, Aubrey	2007	BAL	15	19.3	2008
## 53	Lowell, Mike	2002	FLO	24	27.9	2003
## 54	Thomas, Frank	2002	CHA	28	40.2	2003
## 55	Damon, Johnny	2005	BOS	10	10.6	2006
## 56	Youkilis, Kevin	2007	BOS	16	22.4	2008
## 57	Nixon, Trot	2000	BOS	12	20.7	2001
## 58	Kent, Jeff	2001	SFN	22	25.2	2002
## 59	Nevin, Phil	2000	SDN	31	44.2	2001
## 60	Morneau, Justin	2008	MIN	23	25.2	2009
## 61	Konerko, Paul	2009	CHA	28	36.2	2010
## 62	DeRosa, Mark	2007	CHN	10	14.5	2008
## 63	Lee, Derrek	2004	CHN	32	39.8	2005
## 64	Zimmerman, Ryan	2008	WAS	14	23.3	2009
## 65	Crisp, Coco	2003	CLE	3	4.9	2004
## 66	Rodriguez, Alex	2004	NYA	36	45.3	2005
## 67	Fielder, Prince	2008	MIL	34	44.0	2009
## 68	Posada, Jorge	2002	NYA	20	32.3	2003
## 69	Young, Michael	2008	TEX	12	13.3	2009
## 70	Swisher, Nick	2005	OAK	21	35.7	2006
## 71	Jones, Adam	2008	BAL	9	14.4	2009
## 72	Gonzalez, Alex	2001	FLO	9	13.1	2002
## 73	Atkins, Garrett	2005	COL	13	17.3	2006
## 74	Castilla, Vinny	2003	ATL	22	28.6	2004
## 75	Pena, Carlos	2003	DET	18	32.4	2004
## 76	Encarnacion, Edwin	2007	CIN	16	23.0	2008
## 77	Monroe, Craig	2005	DET	20	24.8	2006
## 78	Ibanez, Raul	2005	SEA	20	23.2	2006
## 79	Teixeira, Mark	2003	TEX	26	38.0	2004
## 80	Finley, Steve	2001	ARI	14	19.5	2002
## 81	Blake, Casey	2003	CLE	17	22.4	2004
## 82	Nixon, Trot	2002	BOS	24	33.5	2003
## 83	Ortiz, David	2002	MIN	20	36.0	2003
## 84	Ortiz, David	2005	BOS	47	58.0	2006
## 85	Soriano, Alfonso	2005	TEX	36	41.8	2006
## 86	Valentin, Jose	2003	CHA	28	43.0	2004
## 87	Molina, Bengie	2002	ANA	5	7.5	2003
## 88	Santiago, Benito	2001	SFN	6	8.9	2002
## 89	Grieve, Ben	2001	TBA	11	17.1	2002
## 90	Kinsler, Ian	2008	TEX	18	23.6	2009
## 91	Jones, Jacque	2001	MIN	14	21.9	2002
## 92	Rios, Alex	2004	TOR	1	1.8	2005
## 93	Uggla, Dan	2007	FLO	31	39.1	2008
## 94	Pujols, Albert	2005	SLN	41	46.5	2006
## 95	Klesko, Ryan	2004	SDN	9	16.0	2005
## 96	Vizquel, Omar	2001	CLE	2	2.2	2002
## 97	Boone, Bret	2002	SEA	24	28.1	2003
## 98	Castilla, Vinny	2002	ATL	12	15.0	2003
## 99	Delgado, Carlos	2007	NYN	24	33.8	2008

## 100	Martinez, Tino	2003	SLN	15	21.8	2004
## 101	Reyes, Jose	2005	NYN	7	6.8	2006
## 102	Mora, Melvin	2001	BAL	7	11.9	2002
## 103	Jones, Chipper	2003	ATL	27	33.9	2004
## 104	Holliday, Matt	2005	COL	19	28.2	2006
## 105	Wilkerson, Brad	2003	MON	19	32.4	2004
## 106	Rolen, Scott	2003	SLN	28	36.4	2004
## 107	Pierzynski, A. J.	2004	SFN	11	14.8	2005
## 108	Jenkins, Geoff	2006	MIL	17	28.4	2007
## 109	Helton, Todd	2000	COL	42	47.6	2001
## 110	Hill, Aaron	2006	TOR	6	7.4	2007
## 111	Upton, Melvin	2009	TBA	11	16.1	2010
## 112	Rollins, Jimmy	2005	PHI	12	11.8	2006
## 113	Abreu, Bobby	2003	PHI	20	26.2	2004
## 114	Lowell, Mike	2005	FLO	8	10.6	2006
## 115	Green, Shawn	2003	LAN	19	22.6	2004
## 116	Aurilia, Rich	2005	CIN	14	23.2	2006
## 117	Rios, Alex	2005	TOR	10	15.6	2006
## 118	Zeile, Todd	2001	NYN	10	13.9	2002
## 119	Wells, Vernon	2007	TOR	16	19.2	2008
## 120	Ramirez, Hanley	2006	FLO	17	20.1	2007
## 121	Boone, Bret	2000	SDN	19	30.6	2001
## 122	Cuddyer, Michael	2005	MIN	12	21.7	2006
## 123	Aurilia, Rich	2000	SFN	20	28.4	2001
## 124	Ethier, Andre	2008	LAN	20	27.0	2009
## 125	Gonzalez, Juan	2000	DET	22	34.9	2001
## 126	Burrell, Pat	2003	PHI	21	33.1	2004
## 127	Chavez, Eric	2003	OAK	29	34.7	2004
## 128	Millar, Kevin	2005	BOS	9	14.1	2006
## 129	Votto, Joey	2009	CIN	25	41.2	2010
## 130	LaRoche, Adam	2007	PIT	21	28.9	2008
## 131	Martinez, Victor	2006	CLE	16	19.2	2007
## 132	Ramirez, Manny	2003	BOS	37	46.2	2004
## 133	Konerko, Paul	2000	CHA	21	27.6	2001
## 134	Rowand, Aaron	2006	PHI	12	21.8	2007
## 135	Cora, Alex	2003	LAN	4	5.7	2004
## 136	Huff, Aubrey	2009	BAL	13	21.6	2010
## 137	Cabrera, Miguel	2006	FLO	26	33.1	2007
## 138	Phillips, Brandon	2006	CIN	17	22.5	2007
## 139	Casey, Sean	2003	CIN	14	16.2	2004
## 140	Cano, Robinson	2008	NYA	14	15.6	2009
## 141	Victorino, Shane	2009	PHI	10	10.8	2010
## 142	Hawpe, Brad	2006	COL	22	34.9	2007
## 143	Peralta, Jhonny	2006	CLE	13	18.6	2007
## 144	Sheffield, Gary	2002	ATL	25	33.9	2003
## 145	Cameron, Mike	2000	SEA	19	27.4	2001
## 146	Damon, Johnny	2008	NYA	17	21.5	2009
## 147	Teahen, Mark	2007	KCA	7	10.0	2008
## 148	Ortiz, David	2009	BOS	28	40.6	2010
## 149	Ramirez, Hanley	2007	FLO	29	31.8	2008
## 150	Berkman, Lance	2001	HOU	34	44.2	2002
## 151	Durham, Ray	2003	SFN	8	14.5	2004
## 152	Jeter, Derek	2003	NYA	10	15.2	2004
## 153	Gonzalez, Adrian	2007	SDN	30	35.2	2008
## 154	Giles, Brian	2001	PIT	37	43.3	2002
## 155	Kennedy, Adam	2002	ANA	7	10.6	2003
## 156	Lee, Derrek	2001	FLO	21	28.6	2002
## 157	Lopez, Jose	2008	SEA	17	17.4	2009
## 158	Jones, Jacque	2003	MIN	16	23.0	2004
## 159	Johnson, Nick	2005	WAS	15	24.5	2006
## 160	Pujols, Albert	2002	SLN	34	38.9	2003
## 161	Cabrera, Orlando	2002	MON	7	8.2	2003
## 162	Lee, Carlos	2007	HOU	32	33.3	2008
## 163	Wilson, Preston	2002	FLO	23	37.0	2003
## 164	Dye, Jermaine	2004	OAK	23	33.7	2005
## 165	Hafner, Travis	2004	CLE	28	44.6	2005
## 166	Kemp, Matt	2008	LAN	18	23.7	2009
## 167	Uribe, Juan	2005	CHA	16	23.2	2006
## 168	Utley, Chase	2007	PHI	22	29.5	2008
## 169	Wigginton, Ty	2009	BAL	11	18.6	2010
## 170	Baldelli, Rocco	2003	TBA	11	12.8	2004
## 171	Cirillo, Jeff	2000	COL	11	12.3	2001
## 172	Daubach, Brian	2000	BOS	21	34.1	2001
## 173	Cabrera, Miguel	2009	DET	34	40.4	2010
## 174	Pujols, Albert	2007	SLN	32	37.3	2008
## 175	Biggio, Craig	2003	HOU	15	17.5	2004
## 176	Mora, Melvin	2007	BAL	14	21.6	2008
## 177	Grudzielanek, Mark	2000	LAN	7	7.8	2001
## 178	Kubel, Jason	2008	MIN	20	31.7	2009
## 179	Kubel, Jason	2007	MIN	13	22.7	2008
## 180	Ordonez, Magglio	2001	CHA	31	35.4	2002
## 181	Drew, Stephen	2007	ARI	12	16.0	2008
## 182	Sizemore, Grady	2007	CLE	24	30.3	2008
## 183	White, Rondell	2002	NYA	14	22.5	2003
## 184	Ventura, Robin	2001	NYN	21	35.1	2002

## 185	Pujols, Albert	2008	SLN	37	46.4	2009
## 186	Byrd, Marlon	2008	TEX	10	17.5	2009
## 187	Molina, Bengie	2008	SFN	16	19.1	2009
## 188	Gonzalez, Adrian	2008	SDN	36	45.3	2009
## 189	Hatteberg, Scott	2005	OAK	7	10.2	2006
## 190	Damon, Johnny	2003	BOS	12	13.3	2004
## 191	Suzuki, Kurt	2008	OAK	7	9.1	2009
## 192	Victorino, Shane	2006	PHI	6	9.9	2007
## 193	Martin, Russell	2006	LAN	10	16.6	2007
## 194	Bay, Jason	2005	PIT	32	41.4	2006
## 195	Overbay, Lyle	2008	TOR	15	20.8	2009
## 196	Burrell, Pat	2001	PHI	27	42.5	2002
## 197	DeJesus, David	2007	KCA	7	8.0	2008
## 198	Gonzalez, Alex	2001	TOR	17	20.5	2002
## 199	Abreu, Bobby	2000	PHI	25	32.4	2001
## 200	Randa, Joe	2002	KCA	11	13.4	2003
## 201	Hunter, Torii	2008	LAA	21	28.4	2009
## 202	Millar, Kevin	2002	FLO	16	25.9	2003
## 203	Butler, Billy	2008	KCA	11	17.0	2009
## 204	Soriano, Alfonso	2004	TEX	28	34.0	2005
## 205	Burnitz, Jeromy	2000	MIL	31	41.2	2001
## 206	Rollins, Jimmy	2008	PHI	11	13.1	2009
## 207	Cruz, Deivi	2002	SDN	7	9.1	2003
## 208	Roberts, Brian	2008	BAL	9	10.5	2009
## 209	Finley, Steve	2003	ARI	22	31.1	2004
## 210	Swisher, Nick	2007	OAK	22	31.7	2008
## 211	Lieberthal, Mike	2003	PHI	13	17.3	2004
## 212	Paulino, Ronny	2006	PIT	6	9.9	2007
## 213	Votto, Joey	2008	CIN	24	33.8	2009
## 214	Palmeiro, Rafael	2000	TEX	39	47.3	2001
## 215	Counsell, Craig	2004	MIL	2	3.1	2005
## 216	Belliard, Ronnie	2004	CLE	12	14.3	2005
## 217	Sizemore, Grady	2005	CLE	22	25.9	2006
## 218	Posada, Jorge	2005	NYA	19	29.7	2006
## 219	Lee, Travis	2002	PHI	13	18.0	2003
## 220	Olerud, John	2000	SEA	14	17.5	2001
## 221	Renteria, Edgar	2005	BOS	8	9.1	2006
## 222	Abreu, Bobby	2009	LAA	15	19.6	2010
## 223	Cruz, Jose	2000	TOR	31	39.0	2001
## 224	Giambi, Jason	2002	NYA	41	54.3	2003
## 225	Jones, Andruw	2001	ATL	34	41.5	2002
## 226	Morneau, Justin	2005	MIN	22	32.9	2006
## 227	Young, Michael	2003	TEX	14	14.7	2004
## 228	Theriot, Ryan	2008	CHN	1	1.1	2009
## 229	Jeter, Derek	2008	NYA	11	12.8	2009
## 230	Suzuki, Ichiro	2004	SEA	8	7.5	2005
## 231	Young, Chris	2009	ARI	15	29.8	2010
## 232	Beltre, Adrian	2005	SEA	19	22.8	2006
## 233	Granderson, Curtis	2008	DET	22	29.8	2009
## 234	Ethier, Andre	2007	LAN	13	20.2	2008
## 235	Glanville, Doug	2000	PHI	8	8.5	2001
## 236	Casey, Sean	2002	CIN	6	9.4	2003
## 237	Swisher, Nick	2008	CHA	24	39.3	2009
## 238	Wells, Vernon	2002	TOR	23	26.0	2003
## 239	Pedroia, Dustin	2007	BOS	8	10.0	2008
## 240	Kinsler, Ian	2006	TEX	14	23.0	2007
## 241	Grace, Mark	2000	CHN	11	13.5	2001
## 242	Scott, Luke	2008	BAL	23	36.7	2009
## 243	Bagwell, Jeff	2002	HOU	31	41.3	2003
## 244	Jordan, Brian	2000	ATL	17	24.6	2001
## 245	Batista, Tony	2003	BAL	26	29.2	2004
## 246	Lo Duca, Paul	2006	NYN	5	6.3	2007
## 247	Wilson, Jack	2006	PIT	8	9.9	2007
## 248	Hall, Bill	2007	MIL	14	25.4	2008
## 249	Crawford, Carl	2003	TBA	5	5.6	2004
## 250	Uggla, Dan	2006	FLO	27	32.7	2007
## 251	Lee, Derrek	2002	FLO	27	38.5	2003
## 252	Winn, Randy	2001	TBA	6	10.3	2002
## 253	Rodriguez, Alex	2001	TEX	52	61.2	2002
## 254	Delgado, Carlos	2005	FLO	33	48.8	2006
## 255	Lee, Carlos	2001	CHA	24	30.3	2002
## 256	Tejada, Miguel	2003	OAK	27	28.0	2004
## 257	Jeter, Derek	2000	NYA	15	18.1	2001
## 258	Rios, Alex	2008	TOR	15	17.0	2009
## 259	Kotsay, Mark	2003	SDN	7	10.5	2004
## 260	Gonzalez, Alex	2003	FLO	18	25.3	2004
## 261	Higginson, Bobby	2002	DET	10	14.8	2003
## 262	Delgado, Carlos	2002	TOR	33	51.2	2003
## 263	McCann, Brian	2007	ATL	18	24.8	2008
## 264	Furcal, Rafael	2002	ATL	8	9.2	2003
## 265	Guillen, Carlos	2001	SEA	5	8.0	2002
## 266	Crede, Joe	2003	CHA	19	24.5	2004
## 267	Long, Terrence	2001	OAK	12	13.5	2002
## 268	Rodriguez, Alex	2000	SEA	41	55.4	2001
## 269	Suzuki, Ichiro	2008	SEA	6	5.8	2009
## 270	Palmeiro, Rafael	2000	TEX	39	47.3	2001

## 270	Eckstein, David	2004	ANA	2	2.3	2005
## 271	Damon, Johnny	2001	OAK	9	9.3	2002
## 272	Beltre, Adrian	2001	LAN	13	19.6	2002
## 273	Wilson, Jack	2002	PIT	4	5.3	2003
## 274	Damon, Johnny	2007	NYA	12	15.8	2008
## 275	Pierzynski, A. J.	2002	MIN	6	9.4	2003
## 276	O'Neill, Paul	2000	NYA	18	22.2	2001
## 277	Sanchez, Freddy	2006	PIT	6	6.7	2007
## 278	Rowand, Aaron	2008	SFN	13	18.3	2009
## 279	Hinske, Eric	2004	TOR	15	19.3	2005
## 280	Beltran, Carlos	2001	KCA	24	28.7	2002
## 281	Ellis, Mark	2006	OAK	11	17.7	2007
## 282	Berkman, Lance	2003	HOU	25	34.6	2004
## 283	Lowell, Mike	2001	FLO	18	22.4	2002
## 284	Guzman, Cristian	2000	MIN	8	9.0	2001
## 285	Soriano, Alfonso	2007	CHN	33	43.8	2008
## 286	Guzman, Cristian	2003	MIN	3	3.9	2004
## 287	Cano, Robinson	2009	NYA	25	26.0	2010
## 288	Youkilis, Kevin	2006	BOS	13	17.0	2007
## 289	Molina, Bengie	2005	LAA	15	24.0	2006
## 290	Crede, Joe	2004	CHA	21	30.4	2005
## 291	Salmon, Tim	2001	ANA	17	28.7	2002
## 292	Greene, Khalil	2006	SDN	15	27.5	2007
## 293	Wells, Vernon	2005	TOR	28	31.0	2006
## 294	Crawford, Carl	2008	TBA	8	12.4	2009
## 295	Crawford, Carl	2009	TBA	15	17.6	2010
## 296	Alou, Moises	2002	CHN	15	21.1	2003
## 297	Kemp, Matt	2009	LAN	26	33.0	2010
## 298	Gonzalez, Luis	2006	ARI	15	16.9	2007
## 299	Rowand, Aaron	2005	CHA	13	16.7	2006
## 300	Varitek, Jason	2004	BOS	18	32.0	2005
## 301	Soriano, Alfonso	2009	CHN	20	33.2	2010
## 302	Scutaro, Marco	2008	TOR	7	9.2	2009
## 303	Byrnes, Eric	2003	OAK	12	20.9	2004
## 304	Rollins, Jimmy	2003	PHI	8	9.3	2004
## 305	Williams, Bernie	2003	NYA	15	23.3	2004
## 306	Jones, Chipper	2000	ATL	36	41.1	2001
## 307	Crawford, Carl	2005	TBA	15	15.9	2006
## 308	Fullmer, Brad	2001	TOR	18	24.5	2002
## 309	Bell, David	2000	SEA	11	16.8	2001
## 310	Jones, Jacque	2005	MIN	23	33.9	2006
## 311	Murphy, David	2008	TEX	15	25.6	2009
## 312	Cabrera, Melky	2008	NYA	8	13.4	2009
## 313	Suzuki, Ichiro	2002	SEA	8	8.1	2003
## 314	Escobar, Yunel	2008	ATL	10	13.2	2009
## 315	Abreu, Bobby	2007	NYA	16	19.3	2008
## 316	Overbay, Lyle	2004	MIL	16	21.0	2005
## 317	McLemore, Mark	2000	SEA	3	4.4	2001
## 318	Burrell, Pat	2005	PHI	32	47.2	2006
## 319	Spiezio, Scott	2002	ANA	12	16.2	2003
## 320	Beltre, Adrian	2002	LAN	21	25.4	2003
## 321	Thome, Jim	2001	CLE	49	85.5	2002
## 322	Kent, Jeff	2003	HOU	22	31.2	2004
## 323	Conine, Jeff	2001	BAL	14	18.4	2002
## 324	Castillo, Luis	2002	FLO	2	2.3	2003
## 325	Biggio, Craig	2004	HOU	24	26.6	2005
## 326	Hudson, Orlando	2003	TOR	9	13.8	2004
## 327	Figgins, Chone	2008	LAA	1	1.6	2009
## 328	Ortiz, David	2004	BOS	41	53.8	2005
## 329	Podsednik, Scott	2005	CHA	0	0.0	2006
## 330	Young, Dmitri	2000	CIN	18	22.8	2001
## 331	Granderson, Curtis	2009	DET	30	36.6	2010
## 332	Youkilis, Kevin	2008	BOS	29	39.6	2009
## 333	Polanco, Placido	2006	DET	4	5.5	2007
## 334	Matthews, Gary	2006	TEX	19	21.6	2007
## 335	Gonzalez, Adrian	2006	SDN	24	31.2	2007
## 336	Ordonez, Magglio	2006	DET	24	28.2	2007
## 337	Lowell, Mike	2007	BOS	21	24.0	2008
## 338	Ramirez, Manny	2004	BOS	43	57.2	2005
## 339	Durham, Ray	2000	CHA	17	19.7	2001
## 340	Rollins, Jimmy	2006	PHI	25	24.4	2007
## 341	Reyes, Jose	2007	NYN	12	11.9	2008
## 342	Mauer, Joe	2005	MIN	9	12.6	2006
## 343	Crawford, Carl	2004	TBA	11	12.0	2005
## 344	Chavez, Eric	2000	OAK	26	37.9	2001
## 345	Sweeney, Mike	2000	KCA	29	30.9	2001
## 346	Grissom, Marquis	2003	SFN	20	23.5	2004
## 347	Eckstein, David	2001	ANA	4	4.6	2002
## 348	Encarnacion, Juan	2000	DET	14	18.2	2001
## 349	Drew, Stephen	2009	ARI	12	15.9	2010
## 350	Vina, Fernando	2000	SLN	4	5.3	2001
## 351	Overbay, Lyle	2007	TOR	10	17.1	2008
## 352	Anderson, Garret	2006	LAA	17	22.4	2007
## 353	Mora, Melvin	2006	BAL	16	18.0	2007
## 354	Knoblauch, Chuck	2000	NYA	5	8.4	2001
## 355	Winn, Randy	2006	SFN	11	12.8	2007

## 355	Kotsay, Mark	2001	SDN	10	17.1	2002
## 357	Werth, Jayson	2008	PHI	24	47.7	2009
## 358	Wright, David	2006	NYN	26	32.7	2007
## 359	Castillo, Luis	2004	FLO	2	2.4	2005
## 360	Cabrera, Melky	2007	NYA	8	9.9	2008
## 361	Hillenbrand, Shea	2004	ARI	15	17.3	2005
## 362	Valentin, Jose	2002	CHA	25	39.5	2003
## 363	Durazo, Erubiel	2003	OAK	21	28.8	2004
## 364	Pence, Hunter	2007	HOU	17	28.2	2008
## 365	Bell, David	2001	SEA	15	21.7	2002
## 366	Polanco, Placido	2003	PHI	14	18.3	2004
## 367	Guerrero, Vladimir	2007	LAA	27	31.3	2008
## 368	Gordon, Alex	2007	KCA	15	22.1	2008
## 369	Rodriguez, Ivan	2003	FLO	16	22.6	2004
## 370	Vidro, Jose	2003	MON	15	19.4	2004
## 371	Young, Michael	2007	TEX	9	10.1	2008
## 372	Fowler, Dexter	2009	COL	4	7.5	2010
## 373	Rios, Alex	2009	TOR	14	23.1	2010
## 374	Markakis, Nick	2006	BAL	16	22.8	2007
## 375	Greene, Khalil	2004	SDN	15	22.6	2005
## 376	Giambi, Jason	2001	OAK	38	51.1	2002
## 377	Schneider, Brian	2006	WAS	4	6.9	2007
## 378	Young, Michael	2002	TEX	9	11.6	2003
## 379	Choo, Shin-Soo	2009	CLE	20	27.3	2010
## 380	Lopez, Jose	2007	SEA	11	14.3	2008
## 381	Giles, Brian	2006	SDN	14	15.3	2007
## 382	Ibanez, Raul	2003	KCA	18	20.1	2004
## 383	Ortiz, David	2003	BOS	31	50.7	2004
## 384	Jackson, Conor	2006	ARI	15	21.5	2007
## 385	Young, Michael	2004	TEX	22	21.8	2005
## 386	Blalock, Hank	2003	TEX	29	36.8	2004
## 387	GarciaParra, Nomar	2002	BOS	24	24.7	2003
## 388	Kendall, Jason	2002	PIT	3	3.5	2003
## 389	Jones, Andruw	2000	ATL	36	38.5	2001
## 390	Hatteberg, Scott	2003	OAK	12	14.7	2004
## 391	Lopez, Jose	2006	SEA	10	11.4	2007
## 392	Hudson, Orlando	2005	TOR	10	14.9	2006
## 393	Zimmerman, Ryan	2006	WAS	20	24.1	2007
## 394	Blake, Casey	2005	CLE	23	33.5	2006
## 395	Guerrero, Vladimir	2001	MON	34	39.7	2002
## 396	Burrell, Pat	2004	PHI	24	44.4	2005
## 397	Furcal, Rafael	2005	ATL	12	13.3	2006
## 398	Kapler, Gabe	2000	TEX	14	21.5	2001
## 399	Kennedy, Adam	2005	LAA	2	3.4	2006
## 400	Izturis, Cesar	2003	LAN	1	1.2	2004
## 401	Upton, Melvin	2008	TBA	9	13.4	2009
## 402	Ramirez, Alexei	2009	CHA	15	18.6	2010
## 403	Kent, Jeff	2006	LAN	14	24.6	2007
## 404	Jenkins, Geoff	2004	MIL	27	34.4	2005
## 405	Burrell, Pat	2000	PHI	18	39.9	2001
## 406	Figgins, Chone	2004	ANA	5	6.2	2005
## 407	Granderson, Curtis	2006	DET	19	26.6	2007
## 408	Gonzalez, Alex	2003	CHN	20	28.8	2004
## 409	Patterson, Corey	2005	CHN	13	23.4	2006
## 410	Floyd, Cliff	2000	FLO	22	38.0	2001
## 411	Helton, Todd	2006	COL	15	18.4	2007
## 412	Cano, Robinson	2005	NYA	14	18.4	2006
## 413	Ausmus, Brad	2003	HOU	4	6.2	2004
## 414	Berkman, Lance	2008	HOU	29	38.6	2009
## 415	Winn, Randy	2003	SEA	11	13.3	2004
## 416	Cameron, Mike	2001	SEA	25	37.7	2002
## 417	Hillenbrand, Shea	2001	BOS	12	17.5	2002
## 418	Kotsay, Mark	2000	FLO	12	14.8	2001
## 419	Hunter, Torii	2001	MIN	27	36.8	2002
## 420	Barrett, Michael	2004	CHN	16	24.0	2005
## 421	Scott, Luke	2009	BAL	25	43.4	2010
## 422	Alomar, Roberto	2000	CLE	19	21.3	2001
## 423	McCann, Brian	2009	ATL	21	30.7	2010
## 424	Schumaker, Skip	2009	SLN	4	5.2	2010
## 425	Williams, Bernie	2005	NYA	12	17.3	2006
## 426	Ramirez, Aramis	2004	CHN	36	43.9	2005
## 427	Walker, Todd	2002	CIN	11	12.4	2003
## 428	Wright, David	2007	NYN	30	36.3	2008
## 429	Fukudome, Kosuke	2008	CHN	10	14.9	2009
## 430	Berroa, Angel	2004	KCA	8	11.2	2005
## 431	Podsednik, Scott	2003	MIL	9	11.5	2004
## 432	Cedeno, Roger	2001	DET	6	8.1	2002
## 433	Kennedy, Adam	2001	ANA	6	8.7	2002
## 434	Owens, Eric	2000	SDN	6	6.9	2001
## 435	Pierre, Juan	2003	FLO	1	0.9	2004
## 436	Giambi, Jason	2005	NYA	32	62.1	2006
## 437	Iguchi, Tadahito	2005	CHA	15	22.3	2006
## 438	Lee, Carlos	2003	CHA	31	34.5	2004
## 439	Chavez, Eric	2001	OAK	32	41.7	2002
## 440	Klesko, Ryan	2000	SDN	26	37.4	2001

## 441	Beltre, Adrian	2006	SEA	25	29.7	2007
## 442	Vazquez, Ramon	2002	SDN	2	3.5	2003
## 443	Figgins, Chone	2005	LAA	8	8.8	2006
## 444	Anderson, Garret	2005	LAA	17	20.6	2006
## 445	Huff, Aubrey	2002	TBA	23	34.4	2003
## 446	Eckstein, David	2006	SLN	2	2.6	2007
## 447	Roberts, Brian	2006	BAL	10	12.0	2007
## 448	Greene, Khalil	2005	SDN	15	25.8	2006
## 449	Furcal, Rafael	2003	ATL	15	15.2	2004
## 450	Olerud, John	2001	SEA	21	24.8	2002
## 451	Chavez, Eric	2005	OAK	27	32.1	2006
## 452	Helton, Todd	2003	COL	33	38.2	2004
## 453	Pujols, Albert	2003	SLN	43	48.6	2004
## 454	Belliard, Ronnie	2003	COL	8	12.7	2004
## 455	Womack, Tony	2001	ARI	3	4.2	2002
## 456	Dunn, Adam	2006	CIN	40	64.9	2007
## 457	Polanco, Placido	2008	DET	8	8.9	2009
## 458	Betancourt, Yuniesky	2006	SEA	8	9.5	2007
## 459	Guillen, Carlos	2006	DET	19	24.8	2007
## 460	Millar, Kevin	2006	BAL	15	25.1	2007
## 461	Holliday, Matt	2004	COL	14	26.7	2005
## 462	Loretta, Mark	2003	SDN	13	14.7	2004
## 463	Anderson, Garret	2001	ANA	28	29.1	2002
## 464	Palmeiro, Rafael	2001	TEX	47	54.7	2002
## 465	Boone, Aaron	2002	CIN	26	31.3	2003
## 466	Young, Chris	2008	ARI	22	28.4	2009
## 467	Overbay, Lyle	2005	MIL	19	25.7	2006
## 468	Harvey, Ken	2003	KCA	13	19.8	2004
## 469	Dunn, Adam	2009	WAS	38	61.5	2010
## 470	Utley, Chase	2008	PHI	33	38.7	2009
## 471	Kent, Jeff	2004	HOU	27	35.6	2005
## 472	Dunn, Adam	2005	CIN	40	63.7	2006
## 473	Feliz, Pedro	2005	SFN	20	25.4	2006
## 474	Kendall, Jason	2005	OAK	0	0.0	2006
## 475	Gonzalez, Luis	2005	COL	9	15.7	2006
## 476	Williams, Bernie	2002	NYA	19	22.1	2003
## 477	Ausmus, Brad	2001	HOU	5	8.3	2002
## 478	Jones, Jacque	2004	MIN	24	32.8	2005
## 479	Giles, Brian	2000	PIT	35	42.2	2001
## 480	Vizquel, Omar	2005	SFN	3	3.5	2006
## 481	Renteria, Edgar	2002	SLN	11	13.4	2003
## 482	Hernandez, Jose	2001	MIL	25	41.6	2002
## 483	Renteria, Edgar	2006	ATL	14	16.4	2007
## 484	Wilson, Jack	2005	PIT	8	9.0	2006
## 485	Cabrera, Miguel	2007	FLO	34	43.6	2008
## 486	Lowell, Mike	2006	BOS	20	23.1	2007
## 487	Kouzmanoff, Kevin	2007	SDN	18	27.3	2008
## 488	Berroa, Angel	2005	KCA	11	13.1	2006
## 489	Holliday, Matt	2006	COL	34	41.2	2007
## 490	Crede, Joe	2005	CHA	22	35.7	2006
## 491	Young, Kevin	2001	PIT	14	25.1	2002
## 492	Pierre, Juan	2005	FLO	2	2.0	2006
## 493	Cruz, Jose	2003	SFN	20	28.2	2004
## 494	Vidro, Jose	2001	MON	15	20.5	2002
## 495	Beltran, Carlos	2002	KCA	29	34.2	2003
## 496	Overbay, Lyle	2009	TOR	16	29.0	2010
## 497	Prado, Martin	2009	ATL	11	16.7	2010
## 498	Ortiz, David	2008	BOS	23	40.0	2009
## 499	Granderson, Curtis	2007	DET	23	29.2	2008
## 500	Wells, Vernon	2004	TOR	23	30.4	2005
## 501	Long, Terrence	2002	OAK	16	19.4	2003
## 502	Delgado, Carlos	2000	TOR	41	52.5	2001
## 503	Vizquel, Omar	2006	SFN	4	4.5	2007
## 504	Suzuki, Ichiro	2001	SEA	8	7.5	2002
## 505	Molina, Yadier	2009	SLN	6	8.1	2010
## 506	Kendall, Jason	2008	MIL	2	2.5	2009
## 507	Pierzynski, A. J.	2008	CHA	13	16.6	2009
## 508	Cano, Robinson	2006	NYA	15	20.8	2007
## 509	Loretta, Mark	2006	BOS	5	5.2	2007
## 510	Anderson, Garret	2002	ANA	29	30.6	2003
## 511	Cedeno, Roger	2002	NYN	7	10.0	2003
## 512	Tejada, Miguel	2001	OAK	31	34.6	2002
## 513	Lee, Carlos	2000	CHA	24	29.8	2001
## 514	Burks, Ellis	2001	CLE	28	46.3	2002
## 515	Grudzielanek, Mark	2006	KCA	7	8.7	2007
## 516	Loretta, Mark	2005	SDN	3	4.8	2006
## 517	Cruz, Deivi	2000	DET	10	11.0	2001
## 518	DeJesus, David	2008	KCA	12	16.0	2009
## 519	Beltre, Adrian	2007	SEA	26	31.5	2008
## 520	Hardy, J. J.	2007	MIL	26	30.0	2008
## 521	Millar, Kevin	2007	BAL	17	26.6	2008
## 522	Hunter, Torii	2003	MIN	26	32.4	2004
## 523	Erstad, Darin	2001	ANA	9	10.3	2002
## 524	Wilson, Jack	2003	PIT	9	11.0	2004
## 525	Gonzalez, Alex	2002	CHN	18	28.5	2003

## 526	Mientkiewicz, Doug	2002	MIN	10	14.8	2003
## 527	Jones, Chipper	2002	ATL	26	33.6	2003
## 528	Taveras, Willy	2008	COL	1	1.5	2009
## 529	Tejada, Miguel	2008	HOU	13	13.9	2009
## 530	Encarnacion, Juan	2005	FLO	16	23.7	2006
## 531	Kotsay, Mark	2004	OAK	15	16.6	2005
## 532	Abreu, Bobby	2002	PHI	20	26.0	2003
## 533	Edmonds, Jim	2001	SLN	30	48.1	2002
## 534	Hudson, Orlando	2007	ARI	10	13.7	2008
## 535	Helton, Todd	2002	COL	30	38.1	2003
## 536	Young, Eric	2000	CHN	6	6.3	2001
## 537	Miles, Aaron	2006	SLN	2	3.1	2007
## 538	Punto, Nick	2006	MIN	1	1.5	2007
## 539	Castillo, Luis	2000	FLO	2	2.6	2001
## 540	Loney, James	2008	LAN	13	15.1	2009
## 541	Stevens, Lee	2000	MON	22	38.2	2001
## 542	Aybar, Erick	2009	LAA	5	6.6	2010
## 543	Uggla, Dan	2009	FLO	31	44.5	2010
## 544	Dye, Jermaine	2007	CHA	28	41.5	2008
## 545	Olivo, Miguel	2006	FLO	16	29.1	2007
## 546	Ibanez, Raul	2004	SEA	16	23.2	2005
## 547	Suzuki, Kurt	2009	OAK	15	17.4	2010
## 548	McCann, Brian	2008	ATL	23	30.8	2009
## 549	Ibanez, Raul	2007	SEA	21	26.1	2008
## 550	Cabrera, Orlando	2007	LAA	8	8.2	2008
## 551	Hernandez, Ramon	2000	OAK	14	23.3	2001
## 552	Pierre, Juan	2002	COL	1	1.1	2003
## 553	Suzuki, Ichiro	2007	SEA	6	6.0	2008
## 554	Cabrera, Orlando	2005	LAA	8	9.8	2006
## 555	Ordonez, Magglio	2000	CHA	32	35.6	2001
## 556	Konerko, Paul	2008	CHA	22	36.5	2009
## 557	Glaus, Troy	2005	ARI	37	55.8	2006
## 558	Bell, Jay	2000	ARI	18	22.4	2001
## 559	Pierzynski, A. J.	2003	MIN	11	15.1	2004
## 560	Izturis, Cesar	2002	LAN	1	1.5	2003
## 561	Pence, Hunter	2008	HOU	25	31.6	2009
## 562	Lofton, Kenny	2000	CLE	15	18.8	2001
## 563	Ramirez, Aramis	2007	CHN	26	35.1	2008
## 564	Anderson, Garret	2008	LAA	15	18.5	2009
## 565	Sanchez, Freddy	2005	PIT	5	7.1	2006
## 566	Castillo, Luis	2001	FLO	2	2.7	2002
## 567	Jeter, Derek	2007	NYA	12	13.3	2008
## 568	Peralta, Jhonny	2007	CLE	21	29.0	2008
## 569	Cabrera, Melky	2006	NYA	7	10.4	2007
## 570	Chavez, Endy	2003	MON	5	7.0	2004
## 571	McCutchen, Andrew	2009	PIT	12	20.3	2010
## 572	Byrd, Marlon	2007	TEX	10	18.1	2008
## 573	Rodriguez, Ivan	2006	DET	13	16.8	2007
## 574	Polanco, Placido	2007	DET	9	9.6	2008
## 575	Broussard, Ben	2004	CLE	17	31.4	2005
## 576	Renteria, Edgar	2001	SLN	10	14.1	2002
## 577	Dye, Jermaine	2008	CHA	34	41.5	2009
## 578	Mauer, Joe	2007	MIN	7	11.7	2008
## 579	Randa, Joe	2000	KCA	15	16.2	2001
## 580	Pierre, Juan	2004	FLO	3	2.8	2005
## 581	White, Rondell	2003	SDN	18	31.3	2004
## 582	Sheffield, Gary	2003	ATL	39	44.2	2004
## 583	Wilson, Preston	2001	FLO	23	37.9	2002
## 584	Tejada, Miguel	2000	OAK	30	35.5	2001
## 585	Cabrera, Orlando	2009	OAK	4	6.3	2010
## 586	Pierre, Juan	2001	COL	2	2.0	2002
## 587	Bourn, Michael	2009	HOU	3	3.8	2010
## 588	Izturis, Cesar	2004	LAN	4	4.0	2005
## 589	Lee, Carlos	2004	CHA	31	36.4	2005
## 590	Stewart, Shannon	2001	TOR	12	12.7	2002
## 591	Ausmus, Brad	2000	DET	7	9.4	2001
## 592	Reese, Pokey	2000	CIN	12	16.5	2001
## 593	Eckstein, David	2009	SDN	2	2.6	2010
## 594	Sheffield, Gary	2007	DET	25	35.0	2008
## 595	Blake, Casey	2009	LAN	18	28.5	2010
## 596	Markakis, Nick	2007	BAL	23	26.0	2008
## 597	Jacobs, Mike	2006	FLO	20	32.5	2007
## 598	Rios, Alex	2006	TOR	17	27.5	2007
## 599	Gonzalez, Alex	2000	TOR	15	21.7	2001
## 600	Payton, Jay	2006	OAK	10	11.8	2007
## 601	Burrell, Pat	2007	PHI	30	50.0	2008
## 602	Higginson, Bobby	2003	DET	14	20.9	2004
## 603	Klesko, Ryan	2001	SDN	30	39.3	2002
## 604	Lee, Carlos	2009	HOU	26	27.5	2010
## 605	Hinske, Eric	2003	TOR	12	20.6	2004
## 606	Pedroia, Dustin	2008	BOS	17	16.7	2009
## 607	Rodriguez, Alex	2008	NYA	35	52.8	2009
## 608	Victorino, Shane	2007	PHI	12	18.2	2008
## 609	Pierzynski, A. J.	2006	CHA	16	21.9	2007
## 610	Cabrera, Orlando	2006	LAA	9	9.6	2007

## 611	Cameron, Mike	2006	SDN	22	31.8	2007
## 612	Sweeney, Mike	2001	KCA	29	34.7	2002
## 613	Crawford, Carl	2007	TBA	11	13.9	2008
## 614	Erstad, Darin	2004	ANA	7	9.9	2005
## 615	Conine, Jeff	2003	BAL	15	20.2	2004
## 616	Aurilia, Rich	2002	SFN	15	19.8	2003
## 617	Cruz, Jose	2002	TOR	18	29.7	2003
## 618	Koskie, Corey	2002	MIN	15	24.5	2003
## 619	Kennedy, Adam	2000	ANA	9	10.2	2001
## 620	Hart, Corey	2008	MIL	20	23.4	2009
## 621	Halter, Shane	2001	DET	12	20.2	2002
## 622	Offerman, Jose	2000	BOS	9	14.1	2001
## 623	Hill, Aaron	2009	TOR	36	36.7	2010
## 624	Tejada, Miguel	2006	BAL	24	25.0	2007
## 625	Soriano, Alfonso	2002	NYA	39	42.9	2003
## 626	Biggio, Craig	2002	HOU	15	19.2	2003
## 627	Cabrera, Orlando	2008	CHA	8	8.0	2009
## 628	Thome, Jim	2003	PHI	47	70.3	2004
## 629	Anderson, Marlon	2002	PHI	8	10.2	2003
## 630	Damon, Johnny	2002	BOS	14	15.1	2003
## 631	Harris, Brendan	2008	MIN	7	12.3	2009
## 632	Lowell, Mike	2008	BOS	17	28.0	2009
## 633	Sanchez, Freddy	2007	PIT	11	12.3	2008
## 634	Vidro, Jose	2002	MON	19	21.2	2003
## 635	Brosius, Scott	2000	NYA	16	24.1	2001
## 636	Burrell, Pat	2006	PHI	29	51.9	2007
## 637	Utley, Chase	2005	PHI	28	38.1	2006
## 638	Mora, Melvin	2004	BAL	27	35.4	2005
## 639	Wilkerson, Brad	2002	MON	20	34.3	2003
## 640	Delgado, Carlos	2001	TOR	39	53.1	2002
## 641	Molina, Yadier	2008	SLN	7	10.0	2009
## 642	Edmonds, Jim	2003	SLN	39	72.7	2004
## 643	Pence, Hunter	2009	HOU	25	31.3	2010
## 644	Hudson, Orlando	2008	ARI	8	13.8	2009
## 645	Feliz, Pedro	2007	SFN	20	24.5	2008
## 646	Howard, Ryan	2006	PHI	58	85.7	2007
## 647	Grudzielanek, Mark	2005	SLN	8	10.7	2006
## 648	Ramirez, Manny	2005	BOS	45	61.2	2006
## 649	Randa, Joe	2001	KCA	13	15.4	2002
## 650	Wright, David	2005	NYN	27	34.8	2006
## 651	Anderson, Garret	2004	ANA	14	22.7	2005
## 652	Lugo, Julio	2004	TBA	7	8.7	2005
## 653	Eckstein, David	2003	ANA	3	4.4	2004
## 654	Feliz, Pedro	2006	SFN	22	26.6	2007
## 655	Lee, Carlos	2002	CHA	26	36.6	2003
## 656	Konerko, Paul	2004	CHA	41	53.4	2005
## 657	Piazza, Mike	2001	NYN	36	51.8	2002
## 658	Tejada, Miguel	2005	BAL	26	27.2	2006
## 659	Lo Duca, Paul	2005	FLO	6	8.5	2006
## 660	Thome, Jim	2006	CHA	42	72.0	2007
## 661	Taveras, Willy	2005	HOU	3	3.7	2006
## 662	Ramirez, Hanley	2009	FLO	24	30.0	2010
## 663	Young, Delmon	2007	TBA	13	14.9	2008
## 664	Wilson, Jack	2004	PIT	11	11.3	2005
## 665	Cruz, Deivi	2001	DET	7	11.4	2002
## 666	Jackson, Damian	2000	SDN	6	9.9	2001
## 667	Wells, Vernon	2003	TOR	33	32.7	2004
## 668	Guzman, Cristian	2008	WAS	9	10.3	2009
## 669	Hairston, Jerry	2001	BAL	8	10.4	2002
## 670	Teahen, Mark	2008	KCA	15	20.3	2009
## 671	Scutaro, Marco	2009	TOR	12	14.2	2010
## 672	Estrada, Johnny	2006	ARI	11	17.3	2007
## 673	Catalanotto, Frank	2005	TOR	8	12.9	2006
## 674	DeJesus, David	2005	KCA	9	13.8	2006
## 675	Renteria, Edgar	2004	SLN	10	11.6	2005
## 676	Rollins, Jimmy	2004	PHI	14	14.3	2005
## 677	Alfonzo, Edgardo	2003	SFN	13	16.2	2004
## 678	Castillo, Luis	2005	FLO	4	5.9	2006
## 679	Young, Eric	2001	CHN	6	6.4	2002
## 680	Tejada, Miguel	2009	HOU	14	14.1	2010
## 681	Suzuki, Ichiro	2006	SEA	9	8.6	2007
## 682	Theriot, Ryan	2007	CHN	3	3.7	2008
## 683	Brown, Emil	2005	KCA	17	23.0	2006
## 684	Guerrero, Vladimir	2004	ANA	39	42.9	2005
## 685	Guillen, Jose	2004	ANA	27	34.0	2005
## 686	Conine, Jeff	2002	BAL	15	22.8	2003
## 687	Lo Duca, Paul	2002	LAN	10	10.8	2003
## 688	Quinn, Mark	2000	KCA	20	29.1	2001
## 689	Ventura, Robin	2000	NYN	24	37.7	2001
## 690	Cabrera, Miguel	2004	FLO	33	42.8	2005
## 691	Jeter, Derek	2006	NYA	14	16.0	2007
## 692	Ellis, Mark	2005	OAK	13	20.4	2006
## 693	Crisp, Coco	2004	CLE	15	21.2	2005
## 694	Pierre, Juan	2006	CHN	3	2.7	2007
## 695	Ellsbury, Jacoby	2008	BOS	9	11.3	2009
## 696	Vidro, Jose	2006	PHI	7	10.0	2007

## 696	Vigoro, Jose	2000	WAS	1	10.0	2001
## 697	Renteria, Edgar	2003	SLN	13	14.4	2004
## 698	Tulowitzki, Troy	2009	COL	32	43.6	2010
## 699	Uribe, Juan	2006	CHA	21	32.5	2007
## 700	Rollins, Jimmy	2001	PHI	14	15.2	2002
## 701	Ordonez, Rey	2001	NYN	3	4.3	2002
## 702	Kouzmanoff, Kevin	2008	SDN	23	28.1	2009
## 703	Sizemore, Grady	2006	CLE	28	33.2	2007
## 704	Inge, Brandon	2004	DET	13	22.8	2005
## 705	Kendall, Jason	2009	MIL	2	3.0	2010
## 706	Betancourt, Yuniesky	2007	SEA	9	11.0	2008
## 707	Sosa, Sammy	2003	CHN	40	63.3	2004
## 708	Rollins, Jimmy	2002	PHI	11	12.3	2003
## 709	Guzman, Cristian	2004	MIN	8	9.3	2005
## 710	Green, Shawn	2006	ARI	11	18.6	2007
## 711	Delgado, Carlos	2003	TOR	42	57.3	2004
## 712	Giles, Brian	2005	SDN	15	18.4	2006
## 713	Loney, James	2009	LAN	13	15.2	2010
## 714	Kendall, Jason	2003	PIT	6	6.5	2004
## 715	Counsell, Craig	2001	ARI	4	6.2	2002
## 716	Roberts, Brian	2003	BAL	5	7.4	2004
## 717	Hudson, Orlando	2009	LAN	9	11.8	2010
## 718	Piazza, Mike	2000	NYN	38	54.9	2001
## 719	Hawpe, Brad	2007	COL	29	45.3	2008
## 720	Roberts, Brian	2007	BAL	12	13.7	2008
## 721	Gonzalez, Alex	2002	CHN	18	28.5	2003
## 722	Hudson, Orlando	2004	TOR	12	18.2	2005
## 723	Ausmus, Brad	2002	HOU	6	9.5	2003
## 724	Figgins, Chone	2007	LAA	3	4.9	2008
## 725	Phillips, Brandon	2009	CIN	20	23.2	2010
## 726	DeJesus, David	2006	KCA	8	11.3	2007
## 727	Rodriguez, Ivan	2005	DET	14	20.1	2006
## 728	Conine, Jeff	2000	BAL	13	21.7	2001
## 729	Huff, Aubrey	2003	TBA	34	36.1	2004
## 730	Jones, Andruw	2002	ATL	35	48.7	2003
## 731	Morneau, Justin	2006	MIN	34	40.0	2007
## 732	Finley, Steve	2002	ARI	25	34.5	2003
## 733	Winn, Randy	2002	TBA	14	16.7	2003
## 734	Jordan, Brian	2001	ATL	25	31.2	2002
## 735	Kendall, Jason	2004	PIT	3	3.4	2005
## 736	Polanco, Placido	2009	DET	10	10.4	2010
## 737	Lugo, Julio	2000	HOU	10	18.3	2001
## 738	Phillips, Brandon	2008	CIN	21	26.7	2009
## 739	Konerko, Paul	2006	CHA	35	44.6	2007
## 740	Ramirez, Aramis	2005	CHN	31	45.9	2006
## 741	Santiago, Benito	2002	SFN	16	23.3	2003
## 742	Spiezio, Scott	2001	ANA	13	19.7	2002
## 743	Womack, Tony	2000	ARI	7	7.7	2001
## 744	Furcal, Rafael	2004	ATL	14	16.9	2005
## 745	Headley, Chase	2009	SDN	12	17.5	2010
## 746	Johnson, Reed	2003	TOR	10	17.2	2004
## 747	Sheffield, Gary	2004	NYA	36	43.4	2005
## 748	Alfonzo, Edgardo	2001	NYN	17	25.5	2002
## 749	Zimmerman, Ryan	2007	WAS	24	27.0	2008
## 750	Biggio, Craig	2001	HOU	20	22.9	2002
## 751	Atkins, Garrett	2006	COL	29	32.6	2007
## 752	Teixeira, Mark	2004	TEX	38	53.0	2005
## 753	Molina, Bengie	2006	TOR	19	29.4	2007
## 754	Guerrero, Vladimir	2005	LAA	32	40.3	2006
## 755	Blake, Casey	2004	CLE	28	37.3	2005
## 756	Pujols, Albert	2004	SLN	46	50.3	2005
## 757	Green, Shawn	2001	LAN	49	56.9	2002
## 758	Iwamura, Akinori	2007	TBA	7	11.0	2008
## 759	Renteria, Edgar	2007	ATL	12	17.3	2008
## 760	Young, Michael	2006	TEX	14	13.9	2007
## 761	Hall, Toby	2003	TBA	12	16.8	2004
## 762	Fick, Robert	2002	DET	17	21.7	2003
## 763	Hawpe, Brad	2008	COL	25	42.1	2009
## 764	Pierzynski, A. J.	2007	CHA	14	20.5	2008
## 765	Berkman, Lance	2004	HOU	30	40.1	2005
## 766	Eckstein, David	2002	ANA	8	8.4	2003
## 767	Lieberthal, Mike	2002	PHI	15	21.4	2003
## 768	Jeter, Derek	2001	NYA	21	24.4	2002
## 769	Cabrera, Miguel	2008	DET	37	44.5	2009
## 770	DeRosa, Mark	2006	TEX	13	18.6	2007
## 771	Hudson, Orlando	2006	ARI	15	17.8	2007
## 772	Biggio, Craig	2005	HOU	26	31.0	2006
## 773	Ellis, Mark	2007	OAK	19	23.2	2008
## 774	Encarnacion, Edwin	2006	CIN	15	27.2	2007
## 775	Jeter, Derek	2004	NYA	23	25.3	2005
## 776	Hermida, Jeremy	2008	FLO	17	27.9	2009
## 777	Giles, Brian	2007	SDN	13	18.4	2008
## 778	Gutierrez, Ricky	2000	CHN	11	16.7	2001
## 779	Kouzmanoff, Kevin	2009	SDN	18	25.2	2010
## 780	Giles, Marcus	2005	ATL	15	19.0	2006
## 781	Monroe, Craig	2004	DET	18	29.1	2005

## 782	Castillo, Luis	2003	FLO	6	6.7	2004
## 783	Abreu, Bobby	2008	NYA	20	24.0	2009
## 784	Nixon, Trot	2001	BOS	27	37.9	2002
## 785	Anderson, Marlon	2001	PHI	11	14.6	2002
## 786	Johjima, Kenji	2006	SEA	18	23.3	2007
## 787	Jones, Andruw	2003	ATL	36	45.4	2004
## 788	Young, Kevin	2000	PIT	20	29.6	2001
## 789	Harris, Brendan	2007	TBA	12	16.9	2008
## 790	Crisp, Coco	2005	CLE	16	18.5	2006
## 791	Kennedy, Adam	2003	ANA	13	20.5	2004
## 792	Bourn, Michael	2008	HOU	5	8.4	2009
## 793	Longoria, Evan	2008	TBA	27	48.5	2009
## 794	Guillen, Jose	2007	SEA	23	28.8	2008
## 795	Konerko, Paul	2007	CHA	31	41.1	2008
## 796	Jones, Chipper	2007	ATL	29	39.3	2008
## 797	Atkins, Garrett	2007	COL	25	28.9	2008
## 798	Matthews, Gary	2005	TEX	17	26.3	2006
## 799	Vizquel, Omar	2004	CLE	7	8.2	2005
## 800	Guzman, Cristian	2001	MIN	10	14.5	2002
## 801	Figgins, Chone	2009	LAA	5	5.9	2010
## 802	Pierzynski, A. J.	2009	CHA	13	17.1	2010
## 803	Posada, Jorge	2001	NYA	22	37.0	2002
## 804	Griffey, Ken	2006	CIN	27	45.9	2007
## 805	Winn, Randy	2007	SFN	14	16.4	2008
## 806	Schumaker, Skip	2008	SLN	8	10.0	2009
## 807	Mauer, Joe	2006	MIN	13	16.5	2007
## 808	Zimmerman, Ryan	2009	WAS	33	39.6	2010
## 809	Hunter, Torii	2007	MIN	28	33.3	2008
## 810	Grudzielanek, Mark	2001	LAN	13	16.9	2002
## 811	Mientkiewicz, Doug	2001	MIN	15	19.7	2002
## 812	Ross, Cody	2008	FLO	22	37.7	2009
## 813	Martinez, Victor	2004	CLE	23	30.2	2005
## 814	Konerko, Paul	2002	CHA	27	32.1	2003
## 815	Hermida, Jeremy	2007	FLO	18	33.0	2008
## 816	Jeter, Derek	2005	NYA	19	21.1	2006
## 817	Lee, Derrek	2003	FLO	31	44.9	2004
## 818	Jeter, Derek	2002	NYA	18	20.3	2003
## 819	Pujols, Albert	2001	SLN	37	44.0	2002
## 820	Cabrera, Orlando	2000	MON	13	19.6	2001
## 821	Clayton, Royce	2000	TEX	14	19.8	2001
## 822	Jones, Adam	2009	BAL	19	29.8	2010
## 823	Guerrero, Vladimir	2006	LAA	33	36.5	2007
## 824	Lee, Derrek	2007	CHN	22	28.9	2008
## 825	Renteria, Edgar	2000	SLN	16	19.4	2001
## 826	Bartlett, Jason	2007	MIN	5	6.8	2008
## 827	Markakis, Nick	2008	BAL	20	24.8	2009
## 828	Suzuki, Ichiro	2003	SEA	13	12.8	2004
## 829	Swisher, Nick	2009	NYA	29	46.0	2010
## 830	Sweeney, Mike	2004	KCA	22	35.8	2005
## 831	Delgado, Carlos	2004	TOR	32	54.2	2005
## 832	Suzuki, Ichiro	2009	SEA	11	11.6	2010
## 833	Eckstein, David	2005	SLN	8	8.1	2006
## 834	Hall, Toby	2004	TBA	8	13.0	2005
## 835	Cordova, Marty	2001	CLE	20	36.4	2002
## 836	Glanville, Doug	2001	PHI	14	15.3	2002
## 837	Vizquel, Omar	2000	CLE	7	7.7	2001
## 838	Posada, Jorge	2004	NYA	21	35.2	2005
## 839	Ethier, Andre	2009	LAN	31	38.4	2010
## 840	Pierzynski, A. J.	2005	CHA	18	27.5	2006
## 841	Millar, Kevin	2001	FLO	20	31.5	2002
## 842	Figgins, Chone	2006	LAA	9	10.6	2007
## 843	Alfonzo, Edgardo	2002	NYN	16	21.9	2003
## 844	Alfonzo, Edgardo	2000	NYN	25	31.2	2001
## 845	Cano, Robinson	2007	NYA	19	21.3	2008
## 846	Trammell, Bubba	2001	SDN	25	36.1	2002
## 847	Rodriguez, Ivan	2004	DET	19	25.9	2005
## 848	Crisp, Coco	2006	BOS	8	13.9	2007
## 849	Feliz, Pedro	2004	SFN	22	31.2	2005
## 850	Jones, Jacque	2000	MIN	19	27.7	2001
## 851	Ramirez, Manny	2000	CLE	38	69.9	2001
## 852	Teixeira, Mark	2009	NYA	39	46.8	2010
## 853	Renteria, Edgar	2008	DET	10	13.5	2009
## 854	Suzuki, Ichiro	2005	SEA	15	14.5	2006
## 855	Guzman, Cristian	2002	MIN	9	9.8	2003
## 856	Hatteberg, Scott	2002	OAK	15	20.6	2003
## 857	Victorino, Shane	2008	PHI	14	16.8	2009
## 858	Griffey, Ken	2005	CIN	35	51.9	2006
## 859	Martinez, Victor	2005	CLE	20	25.2	2006
## 860	Daubach, Brian	2001	BOS	22	43.3	2002
## 861	Kendall, Jason	2000	PIT	14	16.7	2001
## 862	Vidro, Jose	2000	MON	24	26.5	2001
## 863	Wilson, Preston	2000	FLO	31	43.9	2001
## 864	Kinsler, Ian	2007	TEX	20	29.7	2008
## 865	Huff, Aubrey	2004	TBA	29	32.8	2005
## 866	Clayton, Royce	2003	MIL	11	16.7	2004

## 867	Rolen, Scott	2000	PHI	26	40.4	2001
## 868	Markakis, Nick	2009	BAL	18	19.5	2010
## 869	Young, Michael	2009	TEX	22	29.0	2010
## 870	Higginson, Bobby	2001	DET	17	21.0	2002
## 871	Phillips, Brandon	2007	CIN	30	33.0	2008
## 872	Cabrera, Orlando	2001	MON	14	14.5	2002
## 873	Jones, Chipper	2006	ATL	26	45.6	2007
## 874	Pujols, Albert	2009	SLN	47	55.1	2010
## 875	Rivera, Juan	2009	LAA	25	31.4	2010
## 876	Span, Denard	2009	MIN	8	9.7	2010
## 877	Molina, Bengie	2007	SFN	19	25.6	2008
## 878	Konerko, Paul	2001	CHA	32	38.6	2002
## 879	Damon, Johnny	2000	KCA	16	15.8	2001
## 880	Ordonez, Magglio	2007	DET	28	32.2	2008
## 881	Varitek, Jason	2007	BOS	17	32.2	2008
## 882	Gonzalez, Luis	2002	ARI	28	36.9	2003
## 883	Martinez, Tino	2002	SLN	21	28.4	2003
## 884	Martin, Russell	2008	LAN	13	16.5	2009
## 885	Everett, Adam	2005	HOU	11	14.7	2006
## 886	Cantu, Jorge	2005	TBA	28	32.2	2006
## 887	Konerko, Paul	2005	CHA	40	51.2	2006
## 888	Hunter, Torii	2002	MIN	29	39.0	2003
## 889	Utley, Chase	2006	PHI	32	36.2	2007
## 890	Ortiz, David	2007	BOS	35	46.8	2008
## 891	Drew, J. D.	2009	BOS	24	41.9	2010
## 892	Burroughs, Sean	2003	SDN	7	9.4	2004
## 893	Crawford, Carl	2006	TBA	18	20.9	2007
## 894	Cabrera, Miguel	2005	FLO	33	40.1	2006
## 895	Batista, Tony	2002	BAL	31	36.2	2003
## 896	Hunter, Torii	2009	LAA	22	36.3	2010
## 897	Tejada, Miguel	2004	BAL	34	34.3	2005
## 898	Casey, Sean	2001	CIN	13	16.5	2002
## 899	Tejada, Miguel	2002	OAK	34	35.1	2003
## 900	Rodriguez, Ivan	2001	TEX	25	40.5	2002
## 901	Williams, Bernie	2000	NYA	30	39.5	2001
## 902	Howard, Ryan	2008	PHI	48	69.1	2009
## 903	Kendall, Jason	2001	PIT	10	10.7	2002
## 904	Lopez, Javy	2000	ATL	24	35.5	2001
## 905	Johnson, Kelly	2007	ATL	16	23.6	2008
## 906	Soriano, Alfonso	2003	NYA	38	41.2	2004
## 907	Ramirez, Aramis	2006	CHN	38	42.4	2007
## 908	Giles, Brian	2004	SDN	23	25.7	2005
## 909	Lowell, Mike	2000	FLO	22	29.7	2001
## 910	Hatteberg, Scott	2004	OAK	15	17.6	2005
## 911	Sosa, Sammy	2002	CHN	49	70.7	2003
## 912	Anderson, Garret	2007	LAA	16	26.0	2008
## 913	Kotsay, Mark	2005	OAK	15	16.8	2006
## 914	Abreu, Bobby	2004	PHI	30	38.7	2005
## 915	Clark, Brady	2005	MIL	13	14.3	2006
## 916	Willingham, Josh	2006	FLO	26	39.1	2007
## 917	Patterson, Corey	2004	CHN	24	31.0	2005
## 918	Berkman, Lance	2007	HOU	34	46.3	2008
## 919	Butler, Billy	2009	KCA	21	24.8	2010
## 920	Giles, Marcus	2006	ATL	11	14.7	2007
## 921	Clayton, Royce	2004	COL	8	10.6	2005
## 922	Long, Terrence	2000	OAK	18	21.2	2001
## 923	Grudzielanek, Mark	2002	LAN	9	12.0	2003
## 924	Holliday, Matt	2007	COL	36	42.0	2008
## 925	Anderson, Garret	2000	ANA	35	36.9	2001
## 926	Sizemore, Grady	2008	CLE	33	39.1	2009
## 927	Posada, Jorge	2006	NYA	23	37.0	2007
## 928	Surhoff, B. J.	2000	BAL	13	21.3	2001
## 929	Hunter, Torii	2006	MIN	31	41.1	2007
## 930	Ramirez, Manny	2001	BOS	41	64.1	2002
## 931	Gutierrez, Franklin	2009	SEA	18	24.3	2010
## 932	Jones, Chipper	2008	ATL	22	34.6	2009
## 933	Vina, Fernando	2001	SLN	9	9.0	2002
## 934	Beltre, Adrian	2000	LAN	20	27.6	2001
## 935	Green, Shawn	2005	ARI	22	26.7	2006
## 936	Infante, Omar	2004	DET	16	24.2	2005
## 937	Braun, Ryan	2009	MIL	32	37.1	2010
## 938	Salmon, Tim	2002	ANA	22	34.0	2003
## 939	Reyes, Jose	2006	NYN	19	20.1	2007
## 940	Reynolds, Mark	2009	ARI	44	73.7	2010
## 941	Millar, Kevin	2003	BOS	25	33.7	2004
## 942	Alou, Moises	2000	HOU	30	43.1	2001
## 943	Uggla, Dan	2008	FLO	32	52.9	2009
## 944	Martin, Russell	2007	LAN	19	24.9	2008
## 945	Lee, Travis	2001	PHI	20	26.4	2002
## 946	Reese, Pokey	2001	CIN	9	15.4	2002
## 947	Durham, Ray	2004	SFN	17	24.6	2005
## 948	Green, Shawn	2004	LAN	28	35.1	2005
## 949	Anderson, Garret	2003	ANA	29	31.1	2004
## 950	Francoeur, Jeff	2007	ATL	19	21.9	2008
## 951	Ford, Lew	2004	MIN	15	18.0	2005

## 952	Bagwell, Jeff	2001	HOU	39	49.8	2002
## 953	Feliz, Pedro	2008	PHI	14	22.5	2009
## 954	Gonzalez, Alex	2000	TOR	15	21.7	2001
## 955	Braun, Ryan	2008	MIL	37	45.7	2009
## 956	Jenkins, Geoff	2005	MIL	25	37.0	2006
## 957	Jones, Andruw	2005	ATL	51	63.6	2006
## 958	Easley, Damion	2000	DET	14	21.8	2001
## 959	Sexson, Richie	2006	SEA	34	46.3	2007
## 960	Kent, Jeff	2007	LAN	20	27.3	2008
## 961	Bagwell, Jeff	2000	HOU	47	58.6	2001
## 962	Chavez, Eric	2002	OAK	34	43.6	2003
## 963	Andrus, Elvis	2009	TEX	6	8.9	2010
## 964	Drew, Stephen	2008	ARI	21	24.8	2009
## 965	Winn, Randy	2008	SFN	10	11.6	2009
## 966	Byrnes, Eric	2006	ARI	26	32.7	2007
## 967	Jeter, Derek	2009	NYA	18	19.8	2010
## 968	Furcal, Rafael	2006	LAN	15	16.1	2007
## 969	Rios, Alex	2007	TOR	24	26.3	2008
## 970	Weeks, Rickie	2007	MIL	16	32.5	2008
## 971	Karros, Eric	2001	LAN	15	26.5	2002
## 972	Tejada, Miguel	2007	BAL	18	23.4	2008
## 973	Guillen, Carlos	2007	DET	21	26.3	2008
## 974	Blalock, Hank	2005	TEX	25	28.9	2006
## 975	Helton, Todd	2005	COL	20	27.9	2006
## 976	Palmeiro, Rafael	2002	TEX	43	56.2	2003
## 977	Jackson, Conor	2007	ARI	15	24.5	2008
## 978	Rodriguez, Alex	2002	TEX	57	67.6	2003
## 979	Kubel, Jason	2009	MIN	28	40.7	2010
## 980	Murphy, David	2009	TEX	17	30.4	2010
## 981	Randa, Joe	2003	KCA	16	21.4	2004
## 982	Posada, Jorge	2000	NYA	28	46.9	2001
## 983	Vaughn, Greg	2000	TBA	28	50.1	2001
## 984	Rodriguez, Alex	2009	NYA	30	51.4	2010
## 985	Overbay, Lyle	2006	TOR	22	27.1	2007
## 986	Ramirez, Manny	2002	BOS	33	56.2	2003
## 987	Giambi, Jason	2000	OAK	43	61.1	2001
## 988	Koskie, Corey	2001	MIN	26	34.6	2002
## 989	Teixeira, Mark	2005	TEX	43	49.3	2006
## 990	Kotsay, Mark	2002	SDN	17	20.7	2003
## 991	Dunn, Adam	2004	CIN	46	74.0	2005
## 992	Williams, Bernie	2001	NYA	26	32.4	2002
## 993	Berroa, Angel	2003	KCA	17	21.5	2004
## 994	Roberts, Brian	2005	BAL	18	22.4	2006
## 995	Alomar, Roberto	2001	CLE	20	23.4	2002
## 996	Uribe, Juan	2004	CHA	23	33.6	2005
## 997	Boone, Bret	2003	SEA	35	41.7	2004
## 998	Hardy, J. J.	2008	MIL	24	30.4	2009
## 999	Upton, Justin	2009	ARI	26	39.7	2010
## 1000	Varitek, Jason	2003	BOS	25	42.6	2004
## 1001	Mench, Kevin	2004	TEX	26	41.2	2005
## 1002	Rodriguez, Ivan	2002	TEX	19	33.4	2003
## 1003	Roberts, Dave	2005	SDN	8	13.5	2006
## 1004	Hernandez, Ramon	2001	OAK	15	23.1	2002
## 1005	Blalock, Hank	2004	TEX	32	39.8	2005
## 1006	Young, Michael	2005	TEX	24	24.8	2006
## 1007	Williams, Bernie	2004	NYA	22	28.3	2005
## 1008	Jenkins, Geoff	2003	MIL	28	45.4	2004
## 1009	Kent, Jeff	2002	SFN	37	42.3	2003
## 1010	Damon, Johnny	2004	BOS	20	21.7	2005
## 1011	Bell, David	2004	PHI	18	23.3	2005
## 1012	Ramirez, Alexei	2008	CHA	21	29.8	2009
## 1013	Byrd, Marlon	2009	TEX	20	26.1	2010
## 1014	Matthews, Gary	2007	LAA	18	25.7	2008
## 1015	Matsui, Hideki	2009	NYA	28	43.9	2010
## 1016	Francoeur, Jeff	2006	ATL	29	33.3	2007
## 1017	Loretta, Mark	2004	SDN	16	16.2	2005
## 1018	Bagwell, Jeff	2003	HOU	39	47.9	2004
## 1019	Barfield, Josh	2006	SDN	13	16.8	2007
## 1020	Millar, Kevin	2004	BOS	18	25.5	2005
## 1021	Morneau, Justin	2007	MIN	31	36.6	2008
## 1022	Lind, Adam	2009	TOR	35	43.7	2010
## 1023	Hart, Corey	2007	MIL	24	34.9	2008
## 1024	Sheffield, Gary	2000	LAN	43	59.2	2001
## 1025	Fick, Robert	2001	DET	19	33.2	2002
## 1026	Finley, Steve	2005	LAA	12	21.2	2006
## 1027	Monroe, Craig	2003	DET	23	40.7	2004
## 1028	Cuddyer, Michael	2006	MIN	24	33.3	2007
## 1029	McCann, Brian	2006	ATL	24	36.5	2007
## 1030	Martinez, Edgar	2000	SEA	37	47.3	2001
## 1031	Mackowiak, Rob	2004	PIT	17	26.6	2005
## 1032	Ordonez, Magglio	2002	CHA	38	44.2	2003
## 1033	Valentin, Jose	2001	CHA	28	51.4	2002
## 1034	Ramirez, Hanley	2008	FLO	33	42.0	2009
## 1035	Garko, Ryan	2007	CLE	21	32.1	2008
## 1036	Helton, Todd	2004	COL	32	39.9	2005

## 1037	Cabrera, Melky	2009	NYA	13	18.1	2010
## 1038	Bautista, Jose	2006	PIT	16	32.7	2007
## 1039	Ibanez, Raul	2006	SEA	33	38.2	2007
## 1040	Walker, Larry	2002	COL	26	38.2	2003
## 1041	Stewart, Shannon	2000	TOR	21	24.8	2001
## 1042	Tracy, Chad	2005	ARI	27	37.6	2006
## 1043	Martinez, Tino	2001	NYA	34	40.6	2002
## 1044	Kent, Jeff	2005	LAN	29	36.9	2006
## 1045	Ordonez, Magglio	2008	DET	21	25.7	2009
## 1046	Biggio, Craig	2006	HOU	21	26.9	2007
## 1047	Damon, Johnny	2006	NYA	24	28.1	2007
## 1048	Gonzalez, Luis	2005	ARI	24	29.2	2006
## 1049	Beltran, Carlos	2007	NYN	33	43.7	2008
## 1050	Werth, Jayson	2009	PHI	36	51.3	2010
## 1051	Soriano, Alfonso	2006	WAS	46	56.3	2007
## 1052	Kennedy, Adam	2004	ANA	10	15.9	2005
## 1053	Jones, Chipper	2001	ATL	38	46.1	2002
## 1054	Cameron, Mike	2008	MIL	25	49.2	2009
## 1055	Rodriguez, Alex	2003	TEX	47	57.9	2004
## 1056	Hinske, Eric	2002	TOR	24	33.3	2003
## 1057	Jones, Jacque	2002	MIN	27	35.7	2003
## 1058	Karros, Eric	2000	LAN	31	39.2	2001
## 1059	Posada, Jorge	2003	NYA	30	48.0	2004
## 1060	Drew, J. D.	2006	LAN	20	30.5	2007
## 1061	Bay, Jason	2004	PIT	26	54.4	2005
## 1062	Cameron, Mike	2002	SEA	25	40.1	2003
## 1063	Guerrero, Vladimir	2000	MON	44	52.7	2001
## 1064	Thome, Jim	2007	CHA	35	69.8	2008
## 1065	Cirillo, Jeff	2001	COL	17	21.5	2002
## 1066	Sexson, Richie	2005	SEA	39	59.4	2006
## 1067	Casey, Sean	2000	CIN	20	29.6	2001
## 1068	Rodriguez, Alex	2005	NYA	48	61.4	2006
## 1069	Blake, Casey	2006	CLE	19	36.4	2007
## 1070	Podsednik, Scott	2004	MIL	12	13.4	2005
## 1071	Braun, Ryan	2007	MIL	34	59.3	2008
## 1072	Matsui, Hideki	2004	NYA	31	38.3	2005
## 1073	Chavez, Eric	2004	OAK	29	45.8	2005
## 1074	Gibbons, Jay	2002	BAL	28	39.3	2003
## 1075	Ibanez, Raul	2002	KCA	24	33.9	2003
## 1076	Alou, Moises	2001	HOU	27	34.9	2002
## 1077	Utley, Chase	2009	PHI	31	40.0	2010
## 1078	Sheffield, Gary	2001	LAN	36	47.7	2002
## 1079	Patterson, Corey	2006	BAL	16	25.9	2007
## 1080	Olerud, John	2002	SEA	22	26.5	2003
## 1081	Bartlett, Jason	2009	TBA	14	20.2	2010
## 1082	Peralta, Jhonny	2008	CLE	23	28.5	2009
## 1083	Cintron, Alex	2003	ARI	13	18.7	2004
## 1084	Sanders, Reggie	2003	PIT	31	53.9	2004
## 1085	Glaus, Troy	2000	ANA	47	70.3	2001
## 1086	Ross, Cody	2009	FLO	24	32.8	2010
## 1087	Boone, Bret	2001	SEA	37	42.2	2002
## 1088	Anderson, Brady	2000	BAL	19	27.8	2001
## 1089	Rowand, Aaron	2007	PHI	27	32.6	2008
## 1090	Cantu, Jorge	2008	FLO	29	33.2	2009
## 1091	Sandoval, Pablo	2009	SFN	25	30.4	2010
## 1092	Abreu, Bobby	2001	PHI	31	40.4	2002
## 1093	Wells, Vernon	2008	TOR	20	30.9	2009
## 1094	Fletcher, Darrin	2000	TOR	20	32.0	2001
## 1095	Howard, Ryan	2007	PHI	47	83.7	2008
## 1096	Glaus, Troy	2001	ANA	41	56.3	2002
## 1097	Zeile, Todd	2000	NYN	22	28.6	2001
## 1098	Erstad, Darin	2000	ANA	25	25.1	2001
## 1099	Lowell, Mike	2003	FLO	32	45.7	2004
## 1100	Howard, Ryan	2009	PHI	45	61.9	2010
## 1101	Higginson, Bobby	2000	DET	30	35.9	2001
## 1102	Gonzalez, Adrian	2009	SDN	40	53.7	2010
## 1103	Alou, Moises	2004	CHN	39	44.4	2005
## 1104	Beltran, Carlos	2006	NYN	41	58.9	2007
## 1105	Longoria, Evan	2009	TBA	33	43.9	2010
## 1106	Rollins, Jimmy	2007	PHI	30	28.3	2008
## 1107	Jacobs, Mike	2008	FLO	32	52.9	2009
## 1108	Kent, Jeff	2000	SFN	33	40.5	2001
## 1109	Berkman, Lance	2006	HOU	45	61.6	2007
## 1110	Lee, Carlos	2008	HOU	28	42.9	2009
## 1111	Mora, Melvin	2005	BAL	27	33.5	2006
## 1112	Casey, Sean	2004	CIN	24	26.6	2005
## 1113	Inge, Brandon	2006	DET	27	38.7	2007
## 1114	Ramirez, Aramis	2001	PIT	34	40.2	2002
## 1115	Huff, Aubrey	2008	BAL	32	37.2	2009
## 1116	Rodriguez, Alex	2007	NYA	54	68.6	2008
## 1117	Lopez, Jose	2009	SEA	25	27.2	2010
## 1118	Young, Chris	2007	ARI	32	44.3	2008
## 1119	Soriano, Alfonso	2008	CHN	29	49.2	2009
## 1120	Burnitz, Jeromy	2001	MIL	34	49.0	2002
## 1121	Felder, Prince	2009	MIL	46	59.7	2010
## 1122	Garcia-Parras, Nomar	2006	TAM	20	27.1	2007

## 1122	Salciapaglia, Romual	2000	MAN	20	27.1	2007
## 1123	Martinez, Edgar	2003	SEA	24	35.2	2004
## 1124	Gerut, Jody	2003	CLE	22	32.0	2004
## 1125	Cruz, Jose	2001	TOR	34	46.3	2002
## 1126	Wells, Vernon	2006	TOR	32	36.2	2007
## 1127	Lugo, Julio	2003	TBA	15	25.9	2004
## 1128	Sosa, Sammy	2001	CHN	64	88.1	2002
## 1129	Grieve, Ben	2000	OAK	27	34.5	2001
## 1130	Burrell, Pat	2002	PHI	37	50.6	2003
## 1131	Finley, Steve	2004	ARI	23	38.7	2005
## 1132	Edmonds, Jim	2004	SLN	42	70.8	2005
## 1133	Mora, Melvin	2008	BAL	23	30.7	2009
## 1134	Bay, Jason	2006	PIT	35	49.6	2007
## 1135	Walker, Larry	2001	COL	38	56.7	2002
## 1136	Salmon, Tim	2000	ANA	34	47.3	2001
## 1137	Lee, Derrek	2000	FLO	28	47.2	2001
## 1138	Durham, Ray	2006	SFN	26	35.5	2007
## 1139	Palmeiro, Rafael	2003	TEX	38	46.7	2004
## 1140	Beltre, Adrian	2008	SEA	25	31.9	2009
## 1141	Lee, Derrek	2009	CHN	35	49.2	2010
## 1142	Peralta, Jhonny	2005	CLE	24	37.9	2006
## 1143	Swisher, Nick	2006	OAK	35	51.2	2007
## 1144	Rowand, Aaron	2004	CHA	24	36.2	2005
## 1145	Thome, Jim	2002	CLE	52	89.9	2003
## 1146	Jones, Andruw	2006	ATL	41	55.0	2007
## 1147	Berkman, Lance	2002	HOU	42	54.4	2003
## 1148	Payton, Jay	2003	COL	28	31.9	2004
## 1149	Aurilia, Rich	2001	SFN	37	39.9	2002
## 1150	Dye, Jermaine	2006	CHA	44	61.7	2007
## 1151	Lowell, Mike	2004	FLO	27	30.9	2005
## 1152	Burrell, Pat	2008	PHI	33	48.8	2009
## 1153	Inge, Brandon	2009	DET	27	41.0	2010
## 1154	Edmonds, Jim	2000	SLN	42	68.9	2001
## 1155	Damon, Johnny	2009	NYA	24	31.8	2010
## 1156	Ludwick, Ryan	2008	SLN	37	55.5	2009
## 1157	Fullmer, Brad	2000	TOR	32	45.7	2001
## 1158	Delgado, Carlos	2006	NYN	38	55.1	2007
## 1159	Pena, Carlos	2007	TBA	46	77.5	2008
## 1160	Fielder, Prince	2007	MIL	50	65.8	2008
## 1161	Helton, Todd	2001	COL	49	60.2	2002
## 1162	LaRoche, Adam	2006	ATL	32	51.8	2007
## 1163	Pujols, Albert	2006	SLN	49	60.2	2007
## 1164	Gonzalez, Alex	2004	FLO	23	31.4	2005
## 1165	Castilla, Vinny	2001	HOU	23	38.0	2002
## 1166	Wright, David	2008	NYN	33	38.2	2009
## 1167	Lo Duca, Paul	2001	LAN	25	34.2	2002
## 1168	Cust, Jack	2008	OAK	33	68.8	2009
## 1169	Sexson, Richie	2001	MIL	45	63.8	2002
## 1170	Burnitz, Jeromy	2004	COL	37	53.0	2005
## 1171	Pena, Carlos	2009	TBA	39	75.2	2010
## 1172	Mauer, Joe	2009	MIN	28	36.1	2010
## 1173	Thomas, Frank	2006	OAK	39	59.8	2007
## 1174	Cuddyer, Michael	2009	MIN	32	40.7	2010
## 1175	Everett, Carl	2000	BOS	34	52.6	2001
## 1176	Ortiz, David	2006	BOS	54	72.6	2007
## 1177	Finley, Steve	2000	ARI	35	45.6	2001
## 1178	Castilla, Vinny	2004	COL	35	43.9	2005
## 1179	Zobrist, Ben	2009	TBA	27	40.4	2010
## 1180	Sanders, Reggie	2001	ARI	33	62.3	2002
## 1181	Gonzalez, Luis	2001	ARI	57	64.4	2002
## 1182	Ramirez, Manny	2006	BOS	35	59.2	2007
## 1183	Wilkerson, Brad	2004	MON	32	45.4	2005
## 1184	Hall, Bill	2006	MIL	35	55.4	2007
## 1185	Hidalgo, Richard	2000	HOU	44	57.8	2001
## 1186	Green, Shawn	2002	LAN	42	53.1	2003
## 1187	Jones, Jacque	2006	CHN	27	38.7	2007
## 1188	Upton, Melvin	2007	TBA	24	44.4	2008
## 1189	Ibanez, Raul	2009	PHI	34	52.8	2010
## 1190	Beltre, Adrian	2004	LAN	48	55.9	2005
## 1191	Bonds, Barry	2001	SFN	73	113.8	2002
## 1192	Nevin, Phil	2001	SDN	41	61.2	2002
## 1193	Hafner, Travis	2006	CLE	42	73.0	2007
## 1194	Lopez, Javy	2003	ATL	43	70.1	2004
##	teamID.y	HR.y	HR_rate.y	HR_rate_change		
## 1	SFN	73	113.8	42.1		
## 2	NYN	41	58.9	39.4		
## 3	HOU	36	52.4	36.1		
## 4	ARI	57	64.4	30.3		
## 5	MIL	35	55.4	30.0		
## 6	CLE	49	85.5	28.7		
## 7	MIL	50	65.8	28.6		
## 8	LAN	49	56.9	27.8		
## 9	PHI	34	52.8	26.8		
## 10	BOS	25	42.6	26.6		
## 11	ARI	27	37.6	26.3		
## 12	CHA	41	53.4	26.3		

## 13	LAN	48	55.9	26.0
## 14	CHN	35	49.2	25.6
## 15	HOU	45	61.6	25.4
## 16	MIN	28	36.1	25.2
## 17	NYN	29	39.7	24.7
## 18	ARI	44	73.7	24.4
## 19	SLN	39	72.7	24.4
## 20	NYN	30	51.0	23.9
## 21	MIN	25	46.3	23.3
## 22	ATL	51	63.6	22.7
## 23	MIL	31	44.0	22.2
## 24	FLO	32	52.9	21.6
## 25	NYA	34	40.6	21.3
## 26	MIL	25	41.6	21.2
## 27	NYA	31	38.3	20.6
## 28	CHN	64	88.1	20.5
## 29	NYA	54	68.6	20.5
## 30	MIL	15	24.3	20.4
## 31	TBA	23	34.4	20.2
## 32	TOR	31	36.5	20.1
## 33	MIN	26	34.6	20.1
## 34	BOS	28	32.7	20.0
## 35	LAN	21	36.7	19.9
## 36	ATL	32	51.8	19.4
## 37	TBA	39	75.2	19.3
## 38	SPN	26	35.5	19.3
## 39	CHA	28	51.4	19.2
## 40	NYA	39	42.9	19.1
## 41	CLE	42	73.0	19.0
## 42	MIL	45	58.7	19.0
## 43	MIL	25	49.2	18.8
## 44	DET	27	38.7	18.8
## 45	TBA	14	20.2	18.7
## 46	CHA	44	61.7	18.6
## 47	PIT	31	53.9	18.6
## 48	OAK	21	30.7	18.4
## 49	BAL	18	22.4	18.1
## 50	CHN	39	44.4	18.1
## 51	SLN	23	43.1	17.9
## 52	BAL	32	37.2	17.9
## 53	FLO	32	45.7	17.8
## 54	CHA	42	57.9	17.7
## 55	NYA	24	28.1	17.5
## 56	BOS	29	39.6	17.2
## 57	BOS	27	37.9	17.2
## 58	SPN	37	42.3	17.1
## 59	SDN	41	61.2	17.0
## 60	MIN	30	42.0	16.8
## 61	CHA	39	52.7	16.5
## 62	CHN	21	31.0	16.5
## 63	CHN	46	56.1	16.3
## 64	WAS	33	39.6	16.3
## 65	CLE	15	21.2	16.3
## 66	NYA	48	61.4	16.1
## 67	MIL	46	59.7	15.7
## 68	NYA	30	48.0	15.7
## 69	TEX	22	29.0	15.7
## 70	OAK	35	51.2	15.5
## 71	BAL	19	29.8	15.4
## 72	CHN	18	28.5	15.4
## 73	COL	29	32.6	15.3
## 74	COL	35	43.9	15.3
## 75	DET	27	47.6	15.2
## 76	CIN	26	38.1	15.1
## 77	DET	28	39.9	15.1
## 78	SEA	33	38.2	15.0
## 79	TEX	38	53.0	15.0
## 80	ARI	25	34.5	15.0
## 81	CLE	28	37.3	14.9
## 82	BOS	28	48.3	14.8
## 83	BOS	31	50.7	14.7
## 84	BOS	54	72.6	14.6
## 85	WAS	46	56.3	14.5
## 86	CHA	30	57.5	14.5
## 87	ANA	14	22.0	14.5
## 88	SPN	16	23.3	14.4
## 89	TBA	19	31.4	14.3
## 90	TEX	31	37.6	14.0
## 91	MIN	27	35.7	13.8
## 92	TOR	10	15.6	13.8
## 93	FLO	32	52.9	13.8
## 94	SLN	49	60.2	13.7
## 95	SDN	18	29.7	13.7
## 96	CLE	14	15.9	13.7
## 97	SEA	35	41.7	13.6

## 98	ATL	22	28.6	13.6
## 99	NYN	38	47.3	13.5
## 100	TBA	23	35.3	13.5
## 101	NYN	19	20.1	13.3
## 102	BAL	19	25.2	13.3
## 103	ATL	30	47.0	13.1
## 104	COL	34	41.2	13.0
## 105	MON	32	45.4	13.0
## 106	SLN	34	49.2	12.8
## 107	CHA	18	27.5	12.7
## 108	MIL	21	41.0	12.6
## 109	COL	49	60.2	12.6
## 110	TOR	17	20.0	12.6
## 111	TBA	18	28.7	12.6
## 112	PHI	25	24.4	12.6
## 113	PHI	30	38.7	12.5
## 114	BOS	20	23.1	12.5
## 115	LAN	28	35.1	12.5
## 116	CIN	23	35.1	11.9
## 117	TOR	17	27.5	11.9
## 118	COL	18	25.7	11.8
## 119	TOR	20	30.9	11.7
## 120	FLO	29	31.8	11.7
## 121	SEA	37	42.2	11.6
## 122	MIN	24	33.3	11.6
## 123	SPN	37	39.9	11.5
## 124	LAN	31	38.4	11.4
## 125	CLE	35	46.3	11.4
## 126	PHI	24	44.4	11.3
## 127	OAK	29	45.8	11.1
## 128	BAL	15	25.1	11.0
## 129	CIN	37	52.2	11.0
## 130	PIT	25	39.9	11.0
## 131	CLE	25	30.2	11.0
## 132	BOS	43	57.2	11.0
## 133	CHA	32	38.6	11.0
## 134	PHI	27	32.6	10.8
## 135	LAN	10	16.4	10.7
## 136	SPN	26	32.2	10.6
## 137	FLO	34	43.6	10.5
## 138	CIN	30	33.0	10.5
## 139	CIN	24	26.6	10.4
## 140	NYA	25	26.0	10.4
## 141	PHI	18	21.2	10.4
## 142	COL	29	45.3	10.4
## 143	CLE	21	29.0	10.4
## 144	ATL	39	44.2	10.3
## 145	SEA	25	37.7	10.3
## 146	NYA	24	31.8	10.3
## 147	KCA	15	20.3	10.3
## 148	BOS	32	50.9	10.3
## 149	FLO	33	42.0	10.2
## 150	HOU	42	54.4	10.2
## 151	SPN	17	24.6	10.1
## 152	NYA	23	25.3	10.1
## 153	SDN	36	45.3	10.1
## 154	PIT	38	53.3	10.0
## 155	ANA	13	20.5	9.9
## 156	FLO	27	38.5	9.9
## 157	SEA	25	27.2	9.8
## 158	MIN	24	32.8	9.8
## 159	WAS	23	34.2	9.7
## 160	SLN	43	48.6	9.7
## 161	MON	17	17.9	9.7
## 162	HOU	28	42.9	9.6
## 163	COL	36	46.6	9.6
## 164	CHA	31	43.1	9.4
## 165	CLE	33	54.0	9.4
## 166	LAN	26	33.0	9.3
## 167	CHA	21	32.5	9.3
## 168	PHI	33	38.7	9.2
## 169	BAL	22	27.8	9.2
## 170	TBA	16	22.0	9.2
## 171	COL	17	21.5	9.2
## 172	BOS	22	43.3	9.2
## 173	DET	38	49.5	9.1
## 174	SLN	37	46.4	9.1
## 175	HOU	24	26.6	9.1
## 176	BAL	23	30.7	9.1
## 177	LAN	13	16.9	9.1
## 178	MIN	28	40.7	9.0
## 179	MIN	20	31.7	9.0
## 180	CHA	38	44.2	8.8
## 181	ARI	21	24.8	8.8
## 182	CLE	33	39.1	8.8

## 183	SDN	18	31.3	8.8
## 184	NYA	27	43.9	8.8
## 185	SLN	47	55.1	8.7
## 186	TEX	20	26.1	8.6
## 187	SFN	20	27.6	8.5
## 188	SDN	40	53.7	8.4
## 189	CIN	13	18.6	8.4
## 190	BOS	20	21.7	8.4
## 191	OAK	15	17.4	8.3
## 192	PHI	12	18.2	8.3
## 193	LAN	19	24.9	8.3
## 194	PIT	35	49.6	8.2
## 195	TOR	16	29.0	8.2
## 196	PHI	37	50.6	8.1
## 197	KCA	12	16.0	8.0
## 198	CHN	18	28.5	8.0
## 199	PHI	31	40.4	8.0
## 200	KCA	16	21.4	8.0
## 201	LAA	22	36.3	7.9
## 202	BOS	25	33.7	7.8
## 203	KCA	21	24.8	7.8
## 204	TEX	36	41.8	7.8
## 205	MIL	34	49.0	7.8
## 206	PHI	21	20.8	7.7
## 207	BAL	14	16.8	7.7
## 208	BAL	16	18.2	7.7
## 209	ARI	23	38.7	7.6
## 210	CHA	24	39.3	7.6
## 211	PHI	17	24.8	7.5
## 212	PIT	11	17.4	7.5
## 213	CIN	25	41.2	7.4
## 214	TEX	47	54.7	7.4
## 215	ARI	9	10.5	7.4
## 216	CLE	17	21.7	7.4
## 217	CLE	28	33.2	7.3
## 218	NYA	23	37.0	7.3
## 219	TBA	19	25.3	7.3
## 220	SEA	21	24.8	7.3
## 221	ATL	14	16.4	7.3
## 222	LAA	20	26.9	7.3
## 223	TOR	34	46.3	7.3
## 224	NYA	41	61.5	7.2
## 225	ATL	35	48.7	7.2
## 226	MIN	34	40.0	7.1
## 227	TEX	22	21.8	7.1
## 228	CHN	7	8.2	7.1
## 229	NYA	18	19.8	7.0
## 230	SEA	15	14.5	7.0
## 231	ARI	27	36.7	6.9
## 232	SEA	25	29.7	6.9
## 233	DET	30	36.6	6.8
## 234	LAN	20	27.0	6.8
## 235	PHI	14	15.3	6.8
## 236	CIN	14	16.2	6.8
## 237	NYA	29	46.0	6.7
## 238	TOR	33	32.7	6.7
## 239	BOS	17	16.7	6.7
## 240	TEX	20	29.7	6.7
## 241	ARI	15	20.2	6.7
## 242	BAL	25	43.4	6.7
## 243	HOU	39	47.9	6.6
## 244	ATL	25	31.2	6.6
## 245	MON	32	35.7	6.5
## 246	NYN	9	12.8	6.5
## 247	PIT	12	16.4	6.5
## 248	MIL	15	31.8	6.4
## 249	TBA	11	12.0	6.4
## 250	FLO	31	39.1	6.4
## 251	FLO	31	44.9	6.4
## 252	TBA	14	16.7	6.4
## 253	TEX	57	67.6	6.4
## 254	NYN	38	55.1	6.3
## 255	CHA	26	36.6	6.3
## 256	BAL	34	34.3	6.3
## 257	NYA	21	24.4	6.3
## 258	TOR	14	23.1	6.1
## 259	OAK	15	16.6	6.1
## 260	FLO	23	31.4	6.1
## 261	DET	14	20.9	6.1
## 262	TOR	42	57.3	6.1
## 263	ATL	23	30.8	6.0
## 264	ATL	15	15.2	6.0
## 265	SEA	9	14.0	6.0
## 266	CHA	21	30.4	5.9
## 267	OAK	16	19.4	5.9
## 268	TEX	50	61.0	5.8

## 268	TEX	52	61.2	5.8
## 269	SEA	11	11.6	5.8
## 270	SLN	8	8.1	5.8
## 271	BOS	14	15.1	5.8
## 272	LAN	21	25.4	5.8
## 273	PIT	9	11.0	5.7
## 274	NYA	17	21.5	5.7
## 275	MIN	11	15.1	5.7
## 276	NYA	21	27.8	5.6
## 277	PIT	11	12.3	5.6
## 278	SFN	15	23.9	5.6
## 279	TOR	15	24.9	5.6
## 280	KCA	29	34.2	5.5
## 281	OAK	19	23.2	5.5
## 282	HOU	30	40.1	5.5
## 283	FLO	24	27.9	5.5
## 284	MIN	10	14.5	5.5
## 285	CHN	29	49.2	5.4
## 286	MIN	8	9.3	5.4
## 287	NYA	29	31.4	5.4
## 288	BOS	16	22.4	5.4
## 289	TOR	19	29.4	5.4
## 290	CHA	22	35.7	5.3
## 291	ANA	22	34.0	5.3
## 292	SDN	27	32.8	5.3
## 293	TOR	32	36.2	5.2
## 294	TBA	15	17.6	5.2
## 295	TBA	19	22.8	5.2
## 296	CHN	22	26.3	5.2
## 297	LAN	28	38.1	5.1
## 298	LAN	15	22.0	5.1
## 299	PHI	12	21.8	5.1
## 300	BOS	22	37.1	5.1
## 301	CHN	24	38.3	5.1
## 302	TOR	12	14.2	5.0
## 303	OAK	20	25.9	5.0
## 304	PHI	14	14.3	5.0
## 305	NYA	22	28.3	5.0
## 306	ATL	38	46.1	5.0
## 307	TBA	18	20.9	5.0
## 308	ANA	19	29.4	4.9
## 309	SEA	15	21.7	4.9
## 310	CHN	27	38.7	4.8
## 311	TEX	17	30.4	4.8
## 312	NYA	13	18.1	4.7
## 313	SEA	13	12.8	4.7
## 314	ATL	14	17.9	4.7
## 315	NYA	20	24.0	4.7
## 316	MIL	19	25.7	4.7
## 317	SEA	5	9.1	4.7
## 318	PHI	29	51.9	4.7
## 319	ANA	16	20.8	4.6
## 320	LAN	23	29.9	4.5
## 321	CLE	52	89.9	4.4
## 322	HOU	27	35.6	4.4
## 323	BAL	15	22.8	4.4
## 324	FLO	6	6.7	4.4
## 325	HOU	26	31.0	4.4
## 326	TOR	12	18.2	4.4
## 327	LAA	5	5.9	4.3
## 328	BOS	47	58.0	4.2
## 329	CHA	3	4.2	4.2
## 330	CIN	21	27.0	4.2
## 331	NYA	24	40.8	4.2
## 332	BOS	27	43.8	4.2
## 333	DET	9	9.6	4.1
## 334	LAA	18	25.7	4.1
## 335	SDN	30	35.2	4.0
## 336	DET	28	32.2	4.0
## 337	BOS	17	28.0	4.0
## 338	BOS	45	61.2	4.0
## 339	CHA	20	23.7	4.0
## 340	PHI	30	28.3	3.9
## 341	NYN	16	15.8	3.9
## 342	MIN	13	16.5	3.9
## 343	TBA	15	15.9	3.9
## 344	OAK	32	41.7	3.8
## 345	KCA	29	34.7	3.8
## 346	SFN	22	27.3	3.8
## 347	ANA	8	8.4	3.8
## 348	DET	12	22.0	3.8
## 349	ARI	15	19.7	3.8
## 350	SLN	9	9.0	3.7
## 351	TOR	15	20.8	3.7
## 352	LAA	16	26.0	3.6
## 353	RAT.	14	21.6	3.6

## 353	BAL	17	21.0	3.0
## 354	NYA	9	12.0	3.6
## 355	SFN	14	16.4	3.6
## 356	SDN	17	20.7	3.6
## 357	PHI	36	51.3	3.6
## 358	NYN	30	36.3	3.6
## 359	FLO	4	5.9	3.5
## 360	NYA	8	13.4	3.5
## 361	TOR	18	20.8	3.5
## 362	CHA	28	43.0	3.5
## 363	OAK	22	32.3	3.5
## 364	HOU	25	31.6	3.4
## 365	SFN	20	25.1	3.4
## 366	PHI	17	21.7	3.4
## 367	LAA	27	34.6	3.3
## 368	KCA	16	25.4	3.3
## 369	DET	19	25.9	3.3
## 370	MON	14	22.6	3.2
## 371	TEX	12	13.3	3.2
## 372	COL	6	10.7	3.2
## 373	CHA	21	26.3	3.2
## 374	BAL	23	26.0	3.2
## 375	SDN	15	25.8	3.2
## 376	NYA	41	54.3	3.2
## 377	WAS	6	10.0	3.1
## 378	TEX	14	14.7	3.1
## 379	CLE	22	30.4	3.1
## 380	SEA	17	17.4	3.1
## 381	SDN	13	18.4	3.1
## 382	SEA	16	23.2	3.1
## 383	BOS	41	53.8	3.1
## 384	ARI	15	24.5	3.0
## 385	TEX	24	24.8	3.0
## 386	TEX	32	39.8	3.0
## 387	BOS	28	27.7	3.0
## 388	PIT	6	6.5	3.0
## 389	ATL	34	41.5	3.0
## 390	OAK	15	17.6	2.9
## 391	SEA	11	14.3	2.9
## 392	ARI	15	17.8	2.9
## 393	WAS	24	27.0	2.9
## 394	CLE	19	36.4	2.9
## 395	MON	39	42.6	2.9
## 396	PHI	32	47.2	2.8
## 397	LAN	15	16.1	2.8
## 398	TEX	17	24.3	2.8
## 399	LAA	4	6.2	2.8
## 400	LAN	4	4.0	2.8
## 401	TBA	11	16.1	2.7
## 402	CHA	18	21.3	2.7
## 403	LAN	20	27.3	2.7
## 404	MIL	25	37.0	2.6
## 405	PHI	27	42.5	2.6
## 406	LAA	8	8.8	2.6
## 407	DET	23	29.2	2.6
## 408	FLO	23	31.4	2.6
## 409	BAL	16	25.9	2.5
## 410	FLO	31	40.5	2.5
## 411	COL	17	20.8	2.4
## 412	NYA	15	20.8	2.4
## 413	HOU	5	8.6	2.4
## 414	HOU	25	41.0	2.4
## 415	SEA	14	15.7	2.4
## 416	SEA	25	40.1	2.4
## 417	BOS	18	19.9	2.4
## 418	SDN	10	17.1	2.3
## 419	MIN	29	39.0	2.2
## 420	CHN	16	26.2	2.2
## 421	BAL	27	45.5	2.1
## 422	CLE	20	23.4	2.1
## 423	ATL	21	32.7	2.0
## 424	SLN	5	7.2	2.0
## 425	NYA	12	19.3	2.0
## 426	CHN	31	45.9	2.0
## 427	BOS	13	14.4	2.0
## 428	NYN	33	38.2	1.9
## 429	CHN	11	16.8	1.9
## 430	KCA	11	13.1	1.9
## 431	MIL	12	13.4	1.9
## 432	NYN	7	10.0	1.9
## 433	ANA	7	10.6	1.9
## 434	FLO	5	8.8	1.9
## 435	FLO	3	2.8	1.9
## 436	NYA	37	64.0	1.9
## 437	CHA	18	24.2	1.9
## 438	CHA	31	36.4	1.9

## 439	OAK	34	43.6	1.9
## 440	SDN	30	39.3	1.9
## 441	SEA	26	31.5	1.8
## 442	SDN	3	5.3	1.8
## 443	LAA	9	10.6	1.8
## 444	LAA	17	22.4	1.8
## 445	TBA	34	36.1	1.7
## 446	SLN	3	4.3	1.7
## 447	BAL	12	13.7	1.7
## 448	SDN	15	27.5	1.7
## 449	ATL	14	16.9	1.7
## 450	SEA	22	26.5	1.7
## 451	OAK	22	33.8	1.7
## 452	COL	32	39.9	1.7
## 453	SLN	46	50.3	1.7
## 454	CLE	12	14.3	1.6
## 455	ARI	5	5.8	1.6
## 456	CIN	40	66.5	1.6
## 457	DET	10	10.4	1.5
## 458	SEA	9	11.0	1.5
## 459	DET	21	26.3	1.5
## 460	BAL	17	26.6	1.5
## 461	COL	19	28.2	1.5
## 462	SDN	16	16.2	1.5
## 463	ANA	29	30.6	1.5
## 464	TEX	43	56.2	1.5
## 465	CIN	18	32.8	1.5
## 466	ARI	15	29.8	1.4
## 467	TOR	22	27.1	1.4
## 468	KCA	13	21.1	1.3
## 469	WAS	38	62.8	1.3
## 470	PHI	31	40.0	1.3
## 471	LAN	29	36.9	1.3
## 472	CIN	40	64.9	1.2
## 473	SFN	22	26.6	1.2
## 474	OAK	1	1.2	1.2
## 475	ARI	15	16.9	1.2
## 476	NYA	15	23.3	1.2
## 477	HOU	6	9.5	1.2
## 478	MIN	23	33.9	1.1
## 479	PIT	37	43.3	1.1
## 480	SFN	4	4.5	1.0
## 481	SLN	13	14.4	1.0
## 482	MIL	24	42.6	1.0
## 483	ATL	12	17.3	0.9
## 484	PIT	8	9.9	0.9
## 485	DET	37	44.5	0.9
## 486	BOS	21	24.0	0.9
## 487	SDN	23	28.1	0.8
## 488	KCA	9	13.9	0.8
## 489	COL	36	42.0	0.8
## 490	CHA	30	36.5	0.8
## 491	PIT	16	25.9	0.8
## 492	CHN	3	2.7	0.7
## 493	TBA	21	28.9	0.7
## 494	MON	19	21.2	0.7
## 495	KCA	26	34.9	0.7
## 496	TOR	20	29.6	0.6
## 497	ATL	15	17.3	0.6
## 498	BOS	28	40.6	0.6
## 499	DET	22	29.8	0.6
## 500	TOR	28	31.0	0.6
## 501	OAK	14	20.0	0.6
## 502	TOR	39	53.1	0.6
## 503	SFN	4	5.1	0.6
## 504	SEA	8	8.1	0.6
## 505	SLN	6	8.6	0.5
## 506	MIL	2	3.0	0.5
## 507	CHA	13	17.1	0.5
## 508	NYA	19	21.3	0.5
## 509	HOU	4	5.7	0.5
## 510	ANA	29	31.1	0.5
## 511	NYN	7	10.5	0.5
## 512	OAK	34	35.1	0.5
## 513	CHA	24	30.3	0.5
## 514	CLE	32	46.7	0.4
## 515	KCA	6	9.1	0.4
## 516	BOS	5	5.2	0.4
## 517	DET	7	11.4	0.4
## 518	KCA	13	16.4	0.4
## 519	SEA	25	31.9	0.4
## 520	MIL	24	30.4	0.4
## 521	BAL	20	27.0	0.4
## 522	MIN	23	32.8	0.4
## 523	ANA	10	10.7	0.4

## 524	PIT	11	11.3	0.3
## 525	CHN	20	28.8	0.3
## 526	MIN	11	15.1	0.3
## 527	ATL	27	33.9	0.3
## 528	CIN	1	1.7	0.2
## 529	HOU	14	14.1	0.2
## 530	SLN	19	23.9	0.2
## 531	OAK	15	16.8	0.2
## 532	PHI	20	26.2	0.2
## 533	SLN	28	48.3	0.2
## 534	ARI	8	13.8	0.1
## 535	COL	33	38.2	0.1
## 536	CHN	6	6.4	0.1
## 537	SLN	2	3.2	0.1
## 538	MIN	1	1.6	0.1
## 539	FLO	2	2.7	0.1
## 540	LAN	13	15.2	0.1
## 541	MON	25	38.3	0.1
## 542	LAA	5	6.6	0.0
## 543	FLO	33	44.5	0.0
## 544	CHA	34	41.5	0.0
## 545	FLO	16	29.1	0.0
## 546	SEA	20	23.2	0.0
## 547	OAK	13	17.3	-0.1
## 548	ATL	21	30.7	-0.1
## 549	SEA	23	26.0	-0.1
## 550	CHA	8	8.0	-0.2
## 551	OAK	15	23.1	-0.2
## 552	FLO	1	0.9	-0.2
## 553	SEA	6	5.8	-0.2
## 554	LAA	9	9.6	-0.2
## 555	CHA	31	35.4	-0.2
## 556	CHA	28	36.2	-0.3
## 557	TOR	38	55.5	-0.3
## 558	ARI	13	22.1	-0.3
## 559	SPN	11	14.8	-0.3
## 560	LAN	1	1.2	-0.3
## 561	HOU	25	31.3	-0.3
## 562	CLE	14	18.5	-0.3
## 563	CHN	27	34.8	-0.3
## 564	ATL	13	18.1	-0.4
## 565	PIT	6	6.7	-0.4
## 566	FLO	2	2.3	-0.4
## 567	NYA	11	12.8	-0.5
## 568	CLE	23	28.5	-0.5
## 569	NYA	8	9.9	-0.5
## 570	MON	5	6.5	-0.5
## 571	PIT	16	19.7	-0.6
## 572	TEX	10	17.5	-0.6
## 573	DET	11	16.2	-0.6
## 574	DET	8	8.9	-0.7
## 575	CLE	19	30.7	-0.7
## 576	SLN	11	13.4	-0.7
## 577	CHA	27	40.8	-0.7
## 578	MIN	9	10.9	-0.8
## 579	KCA	13	15.4	-0.8
## 580	FLO	2	2.0	-0.8
## 581	DET	19	30.5	-0.8
## 582	NYA	36	43.4	-0.8
## 583	FLO	23	37.0	-0.9
## 584	OAK	31	34.6	-0.9
## 585	CIN	4	5.4	-0.9
## 586	COL	1	1.1	-0.9
## 587	HOU	2	2.8	-1.0
## 588	LAN	2	3.0	-1.0
## 589	MIL	32	35.4	-1.0
## 590	TOR	10	11.6	-1.1
## 591	HOU	5	8.3	-1.1
## 592	CIN	9	15.4	-1.1
## 593	SDN	1	1.5	-1.1
## 594	DET	19	33.9	-1.1
## 595	LAN	17	27.3	-1.2
## 596	BAL	20	24.8	-1.2
## 597	FLO	17	31.3	-1.2
## 598	TOR	24	26.3	-1.2
## 599	TOR	17	20.5	-1.2
## 600	BAL	7	10.6	-1.2
## 601	PHI	33	48.8	-1.2
## 602	DET	12	19.6	-1.3
## 603	SDN	29	38.0	-1.3
## 604	HOU	24	26.2	-1.3
## 605	TOR	15	19.3	-1.3
## 606	BOS	15	15.3	-1.4
## 607	NYA	30	51.4	-1.4
## 608	PHI	14	16.8	-1.4

## 609	CHA	14	20.5	-1.4
## 610	LAA	8	8.2	-1.4
## 611	SDN	21	30.4	-1.4
## 612	KCA	24	33.3	-1.4
## 613	TBA	8	12.4	-1.5
## 614	LAA	7	8.4	-1.5
## 615	FLO	14	18.7	-1.5
## 616	SFN	13	18.3	-1.5
## 617	SFN	20	28.2	-1.5
## 618	MIN	14	23.0	-1.5
## 619	ANA	6	8.7	-1.5
## 620	MIL	12	21.8	-1.6
## 621	DET	10	18.6	-1.6
## 622	BOS	9	12.5	-1.6
## 623	TOR	26	35.1	-1.6
## 624	BAL	18	23.4	-1.6
## 625	NYA	38	41.2	-1.7
## 626	HOU	15	17.5	-1.7
## 627	OAK	4	6.3	-1.7
## 628	PHI	42	68.5	-1.8
## 629	TBA	6	8.4	-1.8
## 630	BOS	12	13.3	-1.8
## 631	MIN	6	10.5	-1.8
## 632	BOS	17	26.2	-1.8
## 633	PIT	9	10.5	-1.8
## 634	MON	15	19.4	-1.8
## 635	NYA	13	22.3	-1.8
## 636	PHI	30	50.0	-1.9
## 637	PHI	32	36.2	-1.9
## 638	BAL	27	33.5	-1.9
## 639	MON	19	32.4	-1.9
## 640	TOR	33	51.2	-1.9
## 641	SLN	6	8.1	-1.9
## 642	SLN	42	70.8	-1.9
## 643	HOU	25	29.3	-2.0
## 644	LAN	9	11.8	-2.0
## 645	PHI	14	22.5	-2.0
## 646	PHI	47	83.7	-2.0
## 647	KCA	7	8.7	-2.0
## 648	BOS	35	59.2	-2.0
## 649	KCA	11	13.4	-2.0
## 650	NYN	26	32.7	-2.1
## 651	LAA	17	20.6	-2.1
## 652	TBA	6	6.6	-2.1
## 653	ANA	2	2.3	-2.1
## 654	SFN	20	24.5	-2.1
## 655	CHA	31	34.5	-2.1
## 656	CHA	40	51.2	-2.2
## 657	NYN	33	49.6	-2.2
## 658	BAL	24	25.0	-2.2
## 659	NYN	5	6.3	-2.2
## 660	CHA	35	69.8	-2.2
## 661	HOU	1	1.4	-2.3
## 662	FLO	21	27.7	-2.3
## 663	MIN	10	12.6	-2.3
## 664	PIT	8	9.0	-2.3
## 665	SDN	7	9.1	-2.3
## 666	SDN	4	7.6	-2.3
## 667	TOR	23	30.4	-2.3
## 668	WAS	6	7.9	-2.4
## 669	BAL	5	8.0	-2.4
## 670	KCA	12	17.9	-2.4
## 671	BOS	11	11.7	-2.5
## 672	MIL	10	14.8	-2.5
## 673	TOR	7	10.4	-2.5
## 674	KCA	8	11.3	-2.5
## 675	BOS	8	9.1	-2.5
## 676	PHI	12	11.8	-2.5
## 677	SFN	11	13.7	-2.5
## 678	MIN	3	3.4	-2.5
## 679	MIL	3	3.9	-2.5
## 680	BAL	7	11.5	-2.6
## 681	SEA	6	6.0	-2.6
## 682	CHN	1	1.1	-2.6
## 683	KCA	15	20.4	-2.6
## 684	LAA	32	40.3	-2.6
## 685	WAS	24	31.4	-2.6
## 686	BAL	15	20.2	-2.6
## 687	LAN	7	8.2	-2.6
## 688	KCA	17	26.5	-2.6
## 689	NYN	21	35.1	-2.6
## 690	FLO	33	40.1	-2.7
## 691	NYA	12	13.3	-2.7
## 692	OAK	11	17.7	-2.7
## 693	CLE	16	18.5	-2.7
## 694	NYN	8	8.8	-2.7

## 694	LAN	0	0.0	-2.1
## 695	BOS	8	8.6	-2.7
## 696	SEA	6	7.2	-2.8
## 697	SLN	10	11.6	-2.8
## 698	COL	27	40.8	-2.8
## 699	CHA	20	29.6	-2.9
## 700	PHI	11	12.3	-2.9
## 701	NYN	1	1.4	-2.9
## 702	SDN	18	25.2	-2.9
## 703	CLE	24	30.3	-2.9
## 704	DET	16	19.9	-2.9
## 705	KCA	0	0.0	-3.0
## 706	SEA	7	8.0	-3.0
## 707	CHN	35	60.3	-3.0
## 708	PHI	8	9.3	-3.0
## 709	WAS	4	6.3	-3.0
## 710	NYN	10	15.6	-3.0
## 711	TOR	32	54.2	-3.1
## 712	SDN	14	15.3	-3.1
## 713	LAN	10	12.1	-3.1
## 714	PIT	3	3.4	-3.1
## 715	ARI	2	3.1	-3.1
## 716	BAL	4	4.3	-3.1
## 717	MIN	6	8.7	-3.1
## 718	NYN	36	51.8	-3.1
## 719	COL	25	42.1	-3.2
## 720	BAL	9	10.5	-3.2
## 721	FLO	18	25.3	-3.2
## 722	TOR	10	14.9	-3.3
## 723	HOU	4	6.2	-3.3
## 724	LAA	1	1.6	-3.3
## 725	CIN	18	19.9	-3.3
## 726	KCA	7	8.0	-3.3
## 727	DET	13	16.8	-3.3
## 728	BAL	14	18.4	-3.3
## 729	TBA	29	32.8	-3.3
## 730	ATL	36	45.4	-3.3
## 731	MIN	31	36.6	-3.4
## 732	ARI	22	31.1	-3.4
## 733	SEA	11	13.3	-3.4
## 734	LAN	18	27.8	-3.4
## 735	OAK	0	0.0	-3.4
## 736	PHI	6	7.0	-3.4
## 737	HOU	10	14.9	-3.4
## 738	CIN	20	23.2	-3.5
## 739	CHA	31	41.1	-3.5
## 740	CHN	38	42.4	-3.5
## 741	SPN	11	19.8	-3.5
## 742	ANA	12	16.2	-3.5
## 743	ARI	3	4.2	-3.5
## 744	ATL	12	13.3	-3.6
## 745	SDN	11	13.9	-3.6
## 746	TOR	10	13.6	-3.6
## 747	NYA	34	39.8	-3.6
## 748	NYN	16	21.9	-3.6
## 749	WAS	14	23.3	-3.7
## 750	HOU	15	19.2	-3.7
## 751	COL	25	28.9	-3.7
## 752	TEX	43	49.3	-3.7
## 753	SFN	19	25.6	-3.8
## 754	LAA	33	36.5	-3.8
## 755	CLE	23	33.5	-3.8
## 756	SLN	41	46.5	-3.8
## 757	LAN	42	53.1	-3.8
## 758	TBA	6	7.2	-3.8
## 759	DET	10	13.5	-3.8
## 760	TEX	9	10.1	-3.8
## 761	TBA	8	13.0	-3.8
## 762	ATL	11	17.9	-3.8
## 763	COL	23	38.3	-3.8
## 764	CHA	13	16.6	-3.9
## 765	HOU	24	36.2	-3.9
## 766	ANA	3	4.4	-4.0
## 767	PHI	13	17.3	-4.1
## 768	NYA	18	20.3	-4.1
## 769	DET	34	40.4	-4.1
## 770	CHN	10	14.5	-4.1
## 771	ARI	10	13.7	-4.1
## 772	HOU	21	26.9	-4.1
## 773	OAK	12	19.0	-4.2
## 774	CIN	16	23.0	-4.2
## 775	NYA	19	21.1	-4.2
## 776	FLO	13	23.6	-4.3
## 777	SDN	12	14.1	-4.3
## 778	CHN	10	12.4	-4.3
## 779	OAK	16	20.9	-4.3

## 780	ATL	11	14.7	-4.3
## 781	DET	20	24.8	-4.3
## 782	FLO	2	2.4	-4.3
## 783	LAA	15	19.6	-4.4
## 784	BOS	24	33.5	-4.4
## 785	PHI	8	10.2	-4.4
## 786	SEA	14	18.8	-4.5
## 787	ATL	29	40.9	-4.5
## 788	PIT	14	25.1	-4.5
## 789	MIN	7	12.3	-4.6
## 790	BOS	8	13.9	-4.6
## 791	ANA	10	15.9	-4.6
## 792	HOU	3	3.8	-4.6
## 793	TBA	33	43.9	-4.6
## 794	KCA	20	24.2	-4.6
## 795	CHA	22	36.5	-4.6
## 796	ATL	22	34.6	-4.7
## 797	COL	21	24.2	-4.7
## 798	TEX	19	21.6	-4.7
## 799	SFN	3	3.5	-4.7
## 800	MIN	9	9.8	-4.7
## 801	SEA	1	1.2	-4.7
## 802	CHA	9	12.4	-4.7
## 803	NYA	20	32.3	-4.7
## 804	CIN	30	41.1	-4.8
## 805	SFN	10	11.6	-4.8
## 806	SLN	4	5.2	-4.8
## 807	MIN	7	11.7	-4.8
## 808	WAS	25	34.7	-4.9
## 809	LAA	21	28.4	-4.9
## 810	LAN	9	12.0	-4.9
## 811	MIN	10	14.8	-4.9
## 812	FLO	24	32.8	-4.9
## 813	CLE	20	25.2	-5.0
## 814	CHA	18	27.1	-5.0
## 815	FLO	17	27.9	-5.1
## 816	NYA	14	16.0	-5.1
## 817	CHN	32	39.8	-5.1
## 818	NYA	10	15.2	-5.1
## 819	SLN	34	38.9	-5.1
## 820	MON	14	14.5	-5.1
## 821	CHA	9	14.7	-5.1
## 822	BAL	19	24.6	-5.2
## 823	LAA	27	31.3	-5.2
## 824	CHN	20	23.6	-5.3
## 825	SLN	10	14.1	-5.3
## 826	TBA	1	1.5	-5.3
## 827	BAL	18	19.5	-5.3
## 828	SEA	8	7.5	-5.3
## 829	NYA	29	40.6	-5.4
## 830	KCA	21	30.4	-5.4
## 831	FLO	33	48.8	-5.4
## 832	SEA	6	6.1	-5.5
## 833	SLN	2	2.6	-5.5
## 834	TBA	5	7.5	-5.5
## 835	BAL	18	30.9	-5.5
## 836	PHI	6	9.8	-5.5
## 837	CLE	2	2.2	-5.5
## 838	NYA	19	29.7	-5.5
## 839	LAN	23	32.8	-5.6
## 840	CHA	16	21.9	-5.6
## 841	FLO	16	25.9	-5.6
## 842	LAA	3	4.9	-5.7
## 843	SFN	13	16.2	-5.7
## 844	NYN	17	25.5	-5.7
## 845	NYA	14	15.6	-5.7
## 846	SDN	17	30.4	-5.7
## 847	DET	14	20.1	-5.8
## 848	BOS	6	8.1	-5.8
## 849	SFN	20	25.4	-5.8
## 850	MIN	14	21.9	-5.8
## 851	BOS	41	64.1	-5.8
## 852	NYA	33	40.9	-5.9
## 853	SFN	5	7.6	-5.9
## 854	SEA	9	8.6	-5.9
## 855	MIN	3	3.9	-5.9
## 856	OAK	12	14.7	-5.9
## 857	PHI	10	10.8	-6.0
## 858	CIN	27	45.9	-6.0
## 859	CLE	16	19.2	-6.0
## 860	BOS	20	37.3	-6.0
## 861	PIT	10	10.7	-6.0
## 862	MON	15	20.5	-6.0
## 863	FLO	23	37.9	-6.0
## 864	TEX	18	23.6	-6.1

## 865	TBA	22	26.7	-6.1
## 866	COL	8	10.6	-6.1
## 867	PHI	25	34.2	-6.2
## 868	BAL	12	13.3	-6.2
## 869	TEX	21	22.8	-6.2
## 870	DET	10	14.8	-6.2
## 871	CIN	21	26.7	-6.3
## 872	MON	7	8.2	-6.3
## 873	ATL	29	39.3	-6.3
## 874	SLN	42	48.7	-6.4
## 875	LAA	15	25.0	-6.4
## 876	MIN	3	3.2	-6.5
## 877	SFN	16	19.1	-6.5
## 878	CHA	27	32.1	-6.5
## 879	OAK	9	9.3	-6.5
## 880	DET	21	25.7	-6.5
## 881	BOS	13	25.7	-6.5
## 882	ARI	26	30.3	-6.6
## 883	SLN	15	21.8	-6.6
## 884	LAN	7	9.9	-6.6
## 885	HOU	6	8.1	-6.6
## 886	TBA	14	25.6	-6.6
## 887	CHA	35	44.6	-6.6
## 888	MIN	26	32.4	-6.6
## 889	PHI	22	29.5	-6.7
## 890	BOS	23	40.0	-6.8
## 891	BOS	22	35.0	-6.9
## 892	SDN	2	2.5	-6.9
## 893	TBA	11	13.9	-7.0
## 894	FLO	26	33.1	-7.0
## 895	BAL	26	29.2	-7.0
## 896	LAA	23	29.2	-7.1
## 897	BAL	26	27.2	-7.1
## 898	CIN	6	9.4	-7.1
## 899	OAK	27	28.0	-7.1
## 900	TEX	19	33.4	-7.1
## 901	NYA	26	32.4	-7.1
## 902	PHI	45	61.9	-7.2
## 903	PIT	3	3.5	-7.2
## 904	ATL	17	28.3	-7.2
## 905	ATL	12	16.4	-7.2
## 906	TEX	28	34.0	-7.2
## 907	CHN	26	35.1	-7.3
## 908	SDN	15	18.4	-7.3
## 909	FLO	18	22.4	-7.3
## 910	OAK	7	10.2	-7.4
## 911	CHN	40	63.3	-7.4
## 912	LAA	15	18.5	-7.5
## 913	OAK	7	9.3	-7.5
## 914	PHI	24	31.2	-7.5
## 915	MIL	4	6.7	-7.6
## 916	FLO	21	31.5	-7.6
## 917	CHN	13	23.4	-7.6
## 918	HOU	29	38.6	-7.7
## 919	KCA	15	17.1	-7.7
## 920	SDN	4	7.0	-7.7
## 921	ARI	2	2.9	-7.7
## 922	OAK	12	13.5	-7.7
## 923	CHN	3	4.3	-7.7
## 924	COL	25	34.3	-7.7
## 925	ANA	28	29.1	-7.8
## 926	CLE	18	31.3	-7.8
## 927	NYA	20	29.2	-7.8
## 928	ATL	10	13.5	-7.8
## 929	MIN	28	33.3	-7.8
## 930	BOS	33	56.2	-7.9
## 931	SEA	12	16.4	-7.9
## 932	ATL	18	26.7	-7.9
## 933	SLN	1	1.0	-8.0
## 934	LAN	13	19.6	-8.0
## 935	ARI	11	18.6	-8.1
## 936	DET	9	16.1	-8.1
## 937	MIL	25	29.0	-8.1
## 938	ANA	19	25.9	-8.1
## 939	NYN	12	11.9	-8.2
## 940	ARI	32	65.5	-8.2
## 941	BOS	18	25.5	-8.2
## 942	HOU	27	34.9	-8.2
## 943	FLO	31	44.5	-8.4
## 944	LAN	13	16.5	-8.4
## 945	PHI	13	18.0	-8.4
## 946	PIT	4	7.0	-8.4
## 947	SFN	12	16.2	-8.4
## 948	ARI	22	26.7	-8.4
## 949	ANA	14	22.7	-8.4

## 950	ATL	11	13.4	-8.5
## 951	MIN	7	9.5	-8.5
## 952	HOU	31	41.3	-8.5
## 953	PHI	12	13.9	-8.6
## 954	FLO	9	13.1	-8.6
## 955	MIL	32	37.1	-8.6
## 956	MIL	17	28.4	-8.6
## 957	ATL	41	55.0	-8.6
## 958	DET	11	13.2	-8.6
## 959	SEA	21	37.6	-8.7
## 960	LAN	12	18.5	-8.8
## 961	HOU	39	49.8	-8.8
## 962	OAK	29	34.7	-8.9
## 963	TEX	0	0.0	-8.9
## 964	ARI	12	15.9	-8.9
## 965	SFN	2	2.6	-9.0
## 966	ARI	21	23.7	-9.0
## 967	NYA	10	10.7	-9.1
## 968	LAN	6	7.0	-9.1
## 969	TOR	15	17.0	-9.3
## 970	MIL	14	23.1	-9.4
## 971	LAN	13	17.1	-9.4
## 972	HOU	13	13.9	-9.5
## 973	DET	10	16.8	-9.5
## 974	TEX	16	19.4	-9.5
## 975	COL	15	18.4	-9.5
## 976	TEX	38	46.7	-9.5
## 977	ARI	12	14.9	-9.6
## 978	TEX	47	57.9	-9.7
## 979	MIN	21	31.0	-9.7
## 980	TEX	12	20.5	-9.9
## 981	KCA	8	11.5	-9.9
## 982	NYA	22	37.0	-9.9
## 983	TBA	24	40.2	-9.9
## 984	NYA	30	41.4	-10.0
## 985	TOR	10	17.1	-10.0
## 986	BOS	37	46.2	-10.0
## 987	OAK	38	51.1	-10.0
## 988	MIN	15	24.5	-10.1
## 989	TEX	33	39.1	-10.2
## 990	SDN	7	10.5	-10.2
## 991	CIN	40	63.7	-10.3
## 992	NYA	19	22.1	-10.3
## 993	KCA	8	11.2	-10.3
## 994	BAL	10	12.0	-10.4
## 995	NYN	11	13.0	-10.4
## 996	CHA	16	23.2	-10.4
## 997	SEA	24	31.2	-10.5
## 998	MIL	11	19.8	-10.6
## 999	ARI	17	29.1	-10.6
## 1000	BOS	18	32.0	-10.6
## 1001	TEX	25	30.5	-10.7
## 1002	FLO	16	22.6	-10.8
## 1003	SDN	2	2.7	-10.8
## 1004	OAK	7	12.3	-10.8
## 1005	TEX	25	28.9	-10.9
## 1006	TEX	14	13.9	-10.9
## 1007	NYA	12	17.3	-11.0
## 1008	MIL	27	34.4	-11.0
## 1009	HOU	22	31.2	-11.1
## 1010	BOS	10	10.6	-11.1
## 1011	PHI	10	12.2	-11.1
## 1012	CHA	15	18.6	-11.2
## 1013	CHN	12	14.9	-11.2
## 1014	LAA	8	14.4	-11.3
## 1015	LAA	21	32.5	-11.4
## 1016	ATL	19	21.9	-11.4
## 1017	SDN	3	4.8	-11.4
## 1018	HOU	27	36.5	-11.4
## 1019	CLE	3	5.4	-11.4
## 1020	BOS	9	14.1	-11.4
## 1021	MIN	23	25.2	-11.4
## 1022	TOR	23	32.2	-11.5
## 1023	MIL	20	23.4	-11.5
## 1024	LAN	36	47.7	-11.5
## 1025	DET	17	21.7	-11.5
## 1026	SFN	6	9.6	-11.6
## 1027	DET	18	29.1	-11.6
## 1028	MIN	16	21.6	-11.7
## 1029	ATL	18	24.8	-11.7
## 1030	SEA	23	35.5	-11.8
## 1031	PIT	9	14.8	-11.8
## 1032	CHA	29	32.4	-11.8
## 1033	CHA	25	39.5	-11.9
## 1034	FLO	24	30.0	-12.0

##	1035	CLE	14	20.1	-12.0
##	1036	COL	20	27.9	-12.0
##	1037	ATL	4	6.0	-12.1
##	1038	PIT	15	20.6	-12.1
##	1039	SEA	21	26.1	-12.1
##	1040	COL	16	26.1	-12.1
##	1041	TOR	12	12.7	-12.1
##	1042	ARI	20	25.4	-12.2
##	1043	SLN	21	28.4	-12.2
##	1044	LAN	14	24.6	-12.3
##	1045	DET	9	13.4	-12.3
##	1046	HOU	10	14.6	-12.3
##	1047	NYA	12	15.8	-12.3
##	1048	ARI	15	16.9	-12.3
##	1049	NYN	27	31.4	-12.3
##	1050	PHI	27	38.9	-12.4
##	1051	CHN	33	43.8	-12.5
##	1052	LAA	2	3.4	-12.5
##	1053	ATL	26	33.6	-12.5
##	1054	MIL	24	36.6	-12.6
##	1055	NYA	36	45.3	-12.6
##	1056	TOR	12	20.6	-12.7
##	1057	MIN	16	23.0	-12.7
##	1058	LAN	15	26.5	-12.7
##	1059	NYA	21	35.2	-12.8
##	1060	BOS	11	17.7	-12.8
##	1061	PIT	32	41.4	-13.0
##	1062	SEA	18	27.1	-13.0
##	1063	MON	34	39.7	-13.0
##	1064	CHA	34	56.7	-13.1
##	1065	SEA	6	8.4	-13.1
##	1066	SEA	34	46.3	-13.1
##	1067	CIN	13	16.5	-13.1
##	1068	NYA	35	48.1	-13.3
##	1069	CLE	18	23.0	-13.4
##	1070	CHA	0	0.0	-13.4
##	1071	MIL	37	45.7	-13.6
##	1072	NYA	23	24.7	-13.6
##	1073	OAK	27	32.1	-13.7
##	1074	BAL	23	25.5	-13.8
##	1075	KCA	18	20.1	-13.8
##	1076	CHN	15	21.1	-13.8
##	1077	PHI	16	26.2	-13.8
##	1078	ATL	25	33.9	-13.8
##	1079	BAL	8	12.0	-13.9
##	1080	SEA	10	12.6	-13.9
##	1081	TBA	4	6.2	-14.0
##	1082	CLE	11	14.5	-14.0
##	1083	ARI	4	4.7	-14.0
##	1084	SLN	22	39.9	-14.0
##	1085	ANA	41	56.3	-14.0
##	1086	FLO	11	18.7	-14.1
##	1087	SEA	24	28.1	-14.1
##	1088	BAL	8	13.6	-14.2
##	1089	SFN	13	18.3	-14.3
##	1090	FLO	16	18.9	-14.3
##	1091	SFN	13	16.0	-14.4
##	1092	PHI	20	26.0	-14.4
##	1093	TOR	15	16.4	-14.5
##	1094	TOR	11	17.4	-14.6
##	1095	PHI	48	69.1	-14.6
##	1096	ANA	30	41.6	-14.7
##	1097	NYN	10	13.9	-14.7
##	1098	ANA	9	10.3	-14.8
##	1099	FLO	27	30.9	-14.8
##	1100	PHI	31	47.0	-14.9
##	1101	DET	17	21.0	-14.9
##	1102	SDN	31	38.7	-15.0
##	1103	SFN	19	29.4	-15.0
##	1104	NYN	33	43.7	-15.2
##	1105	TBA	22	28.7	-15.2
##	1106	PHI	11	13.1	-15.2
##	1107	KCA	19	37.6	-15.3
##	1108	SFN	22	25.2	-15.3
##	1109	HOU	34	46.3	-15.3
##	1110	HOU	26	27.5	-15.4
##	1111	BAL	16	18.0	-15.5
##	1112	CIN	9	11.1	-15.5
##	1113	DET	14	23.2	-15.5
##	1114	PIT	18	24.7	-15.5
##	1115	BAL	13	21.6	-15.6
##	1116	NYA	35	52.8	-15.8
##	1117	SEA	10	11.3	-15.9
##	1118	ARI	22	28.4	-15.9
##	1119	CHN	20	33.2	-16.0
##	1120	NYN	10	32.0	-16.1

##	1120	NYN	17	32.7	-10.1
##	1121	MIL	32	43.5	-16.2
##	1122	LAN	7	10.7	-16.4
##	1123	SEA	12	18.8	-16.4
##	1124	CLE	11	15.5	-16.5
##	1125	TOR	18	29.7	-16.6
##	1126	TOR	16	19.2	-17.0
##	1127	TBA	7	8.7	-17.2
##	1128	CHN	49	70.7	-17.4
##	1129	TBA	11	17.1	-17.4
##	1130	PHI	21	33.1	-17.5
##	1131	LAA	12	21.2	-17.5
##	1132	SLN	29	52.4	-18.4
##	1133	BAL	8	12.2	-18.5
##	1134	PIT	21	31.1	-18.5
##	1135	COL	26	38.2	-18.5
##	1136	ANA	17	28.7	-18.6
##	1137	FLO	21	28.6	-18.6
##	1138	SFN	11	16.6	-18.9
##	1139	BAL	23	27.7	-19.0
##	1140	SEA	8	12.7	-19.2
##	1141	CHN	16	30.0	-19.2
##	1142	CLE	13	18.6	-19.3
##	1143	OAK	22	31.7	-19.5
##	1144	CHA	13	16.7	-19.5
##	1145	PHI	47	70.3	-19.6
##	1146	ATL	26	35.2	-19.8
##	1147	HOU	25	34.6	-19.8
##	1148	SDN	8	11.8	-20.1
##	1149	SFN	15	19.8	-20.1
##	1150	CHA	28	41.5	-20.2
##	1151	FLO	8	10.6	-20.3
##	1152	TBA	14	28.2	-20.6
##	1153	DET	13	20.2	-20.8
##	1154	SLN	30	48.1	-20.8
##	1155	DET	8	10.7	-21.1
##	1156	SLN	22	34.4	-21.1
##	1157	TOR	18	24.5	-21.2
##	1158	NYN	24	33.8	-21.3
##	1159	TBA	31	55.9	-21.6
##	1160	MIL	34	44.0	-21.8
##	1161	COL	30	38.1	-22.1
##	1162	PIT	21	28.9	-22.9
##	1163	SLN	32	37.3	-22.9
##	1164	FLO	5	8.4	-23.0
##	1165	ATL	12	15.0	-23.0
##	1166	NYN	10	15.0	-23.2
##	1167	LAN	10	10.8	-23.4
##	1168	OAK	25	45.2	-23.6
##	1169	MIL	29	39.7	-24.1
##	1170	CHN	24	28.7	-24.3
##	1171	TBA	28	50.9	-24.3
##	1172	MIN	9	11.7	-24.4
##	1173	TOR	26	35.3	-24.5
##	1174	MIN	14	16.2	-24.5
##	1175	BOS	14	27.5	-25.1
##	1176	BOS	35	46.8	-25.8
##	1177	ARI	14	19.5	-26.1
##	1178	WAS	12	17.3	-26.6
##	1179	TBA	10	13.5	-26.9
##	1180	SFN	23	35.3	-27.0
##	1181	ARI	28	36.9	-27.5
##	1182	BOS	20	30.1	-29.1
##	1183	WAS	11	15.7	-29.7
##	1184	MIL	14	25.4	-30.0
##	1185	HOU	19	27.4	-30.4
##	1186	LAN	19	22.6	-30.5
##	1187	CHN	5	7.8	-30.9
##	1188	TBA	9	13.4	-31.0
##	1189	PHI	16	20.9	-31.9
##	1190	SEA	19	22.8	-33.1
##	1191	SFN	46	77.1	-36.7
##	1192	SDN	12	22.2	-39.0
##	1193	CLE	24	33.1	-39.9
##	1194	BAL	23	28.3	-41.8

Ex3) Sorting out hitter Performances

In the example below, I continue to use the dplyr methods to search for specific hitter milestones. In specific, the code chunk below is used to manipulate the Lahman database to search for players who have averaged more than 30 homeruns and 30 Stolen Bases in one season, in what is known as the infamous “30-30” Club. Again, the data manipulation was done by using the dplyr tactics we learned in class, specifically with the help of the pipeline operator function.

```
library(Lahman)
library(pitchRx)
library(dplyr)

thirty_thirty_dplyr <- filter(Lahman::Batting, HR >= 30, SB >= 30) %>% left_join(Lahman::Master, by = "playerID")
%>% arrange(desc(yearID)) %>% mutate(Player = paste(nameLast, nameFirst, sep = ", ")) %>% select(Player, yearID, teamID, HR, SB)

head(thirty_thirty_dplyr)
```

```
##           Player yearID teamID HR SB
## 1      Braun, Ryan  2012     MIL 41 30
## 2    Trout, Mike  2012     LAA 30 49
## 3      Braun, Ryan  2011     MIL 33 33
## 4 Ellsbury, Jacoby  2011     BOS 32 39
## 5        Kemp, Matt  2011     LAN 39 40
## 6    Kinsler, Ian  2011     TEX 32 30
```

Conclusions:

In conclusion, in this blog I have elucidated the upbringing of Sabermetric's (Baseball statistical analysis) into contemporary Baseball and how it revolutionized the evaluation of player performance and potential. Moreover, the examples I used in this blog displayed an introduction to r coding with simple baseball data bases integration, how to manipulate data using dplyr with baseball statistics. With that being said, I enjoyed this blog because it allowed me to research a sport that I really enjoyed and I was able to also incorporate some of the important lessons that we have learned so far with Baseball statistics. The examples I used in this blog are very basic examples but I encourage any one who is interested in Sabermetrics to follow the references below if they would like to learn on their own. As for myself, I intend on teaching myself other r packages and techniques such as Sabermetrics and Finance in my spare time in order to continue to enhance my R programming skills.

References:

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