

Batted Balls Redux

by Dave Studenmund

A New Run Table

In last year's *Annual*, I published a table that listed the number of runs each type of batted ball and batting event produces, on average. Actually, it didn't quite show that. To get technical, it showed the average number of runs each type of batted ball produces, relative to the overall average.

If you think that's confusing, so did some readers. For instance, the table showed that the relative run value of a ground ball is -0.16. In other words, the average ground ball is worth .16 runs less than the average batting event. I noticed during the season, however, that some bloggers cited that number as proof that ground balls are a negative event. Not true! Ground balls do produce runs; they just produce fewer runs than line drives and outfield flies.

Still confused? Well, allow me to post the following table for you, which shows the *absolute* number of runs each type of batted ball produced in 2006:

Event	Run Impact
Line Drive	0.391
HBP	0.355
Walk	0.355
Outfield Fly	0.192
IBB	0.075
Ground ball	0.045
Bunts	0.021
Infield Fly	-0.088
Strikeouts	-0.113

In other words, if you multiply these numbers by the average number of times each event occurred during a game last year, you'll get 4.8 runs, which was the average number of runs scored per game. If you were to follow the same math with last year's table, you'd get zero, because the numbers were calibrated around the average.

Some people like the average approach, while some like the absolute. Now you can choose between the two. And, as you can see, ground balls do produce some runs.

To remind you, I developed these tables by calculating the "run impact" of each type of hit (such as a single, double, etc.) as well as the impact of strikeouts and other kinds of outs. I then applied those "run impact" figures to the specific number of times they occur for each type of batted ball.

For 2006, I used linear weights that were derived specifically from 2006 stats (thanks to David Gassko). Technically, actual run impact values will change slightly from year to year, but this table can serve as a good overall guide to the relative value of each batting event in just about any recent year.

The 2006 Batted Ball Champs

We've got something new in our stats section this year. For the first time, we've included comprehensive batted-ball statistics for every batter and pitcher with at least 100 plate appearances or batters faced. This is information you can't get anywhere else, and we think it's pretty interesting stuff. I could spend hours just staring at them. Let me run you through some of the details.

As you now know (you did read the previous section, right?), line drives are worth more than outfield flies, which are worth more than ground balls. So, in general, batters want to hit more line drives and outfield flies, while pitchers want to induce ground balls.

Batters

For an average major league hitter, 20% of batted balls are line drives, but there were some big differences among individuals last year. Following is a list of the top 10 in most line drives hit and fewest line drives hit (as a percent of all batted balls; minimum of 502 plate appearances; figures not adjusted for ballpark).

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Most Line Drives			Fewest Line Drives		
Player	Tm	LD%	Player	Tm	LD%
Sanchez F.	PIT	28	Inge B.	DET	14
Loretta M.	BOS	27	Bay J.	PIT	15
Kennedy A.	LAA	27	Iguchi T.	CHA	16
Young M.	TEX	25	Willingham J.	FLA	16
Mauer J.	MIN	25	Giambi J.	NYA	16
Konerko P.	CHA	25	Cedeno R.	CHN	16
Youkilis K.	BOS	24	Feliz P.	SF	16
Cabrera M.	FLA	24	Glaus T.	TOR	17
Kendall J.	OAK	24	Durham R.	SF	17
Helton T.	COL	24	Ortiz D.	BOS	17

The line drive leader was the National League batting champ, Pittsburgh's Freddy Sanchez. Also, AL batting champ Joe Mauer isn't far down the list. If you want to win a batting championship, it helps to hit line drives.

But there are some pretty good hitters on the "fewest line drives batted" list, too, such as Pittsburgh's Jason Bay, Yankee Jason Giambi, Troy Glaus of Toronto and Boston's David Ortiz. If these guys aren't hitting line drives, what are they hitting?

Well, since fly balls are the second-most valuable type of batted ball, let's draw a list of batters who hit the most and fewest fly balls, as a percentage of all batted balls. As you can see, a few players, such as Giambi and Glaus compensated for their lack of line drives by hitting lots of fly balls.

Most Fly Balls			Fewest Fly Balls		
Player	Tm	FB%	Player	Tm	FB%
Thomas F.	OAK	57	Jeter D.	NYA	18
Giambi J.	NYA	53	Castillo L.	MIN	21
Soriano A.	WAS	51	Pierre J.	CHN	24
Crede J.	CHA	51	Murton M.	CHN	24
Glaus T.	TOR	49	Grudzielanek M.	KC	25
Dunn A.	CIN	49	Roberts D.	SD	25
Hall B.	MIL	48	Jones J.	CHN	26
Swisher N.	OAK	48	Mauer J.	MIN	26
Barnes C.	COL	48	Kendall J.	OAK	26
Burrell P.	PHI	48	Young M.	TEX	27

Actually, the list of batters who hit the fewest fly balls is fascinating. For instance, players like Joe Mauer and the Rangers' Michael Young didn't hit many flies, but they did hit a lot of line drives so their low fly ball rate didn't hurt their productivity. But the MVP of the American League, Derek Jeter, hit the fewest fly balls of all. Admittedly, at a 22% line drive rate, he fell only a little behind the line drive leaders, but what's going on with that guy?

Let's fill out the picture by listing the players who hit the fewest and most ground balls.

Fewest Ground Balls			Most Ground Balls		
Player	Tm	GB%	Player	Tm	GB%
Thomas F.	OAK	24	Castillo L.	MIN	61
Dunn A.	CIN	28	Jeter D.	NYA	59
Soriano A.	WAS	29	Murton M.	CHN	58
Giambi J.	NYA	30	Jones J.	CHN	56
Youkilis K.	BOS	31	Roberts D.	SD	56
Burrell P.	PHI	31	Taveras W.	HOU	56
Crede J.	CHA	31	Pierre J.	CHN	55
Rolen S.	STL	33	Ausmus B.	HOU	53
Konerko P.	CHA	33	Berroa A.	KC	53
Swisher N.	OAK	33	Grudzielanek M.	KC	52

The fly ball and ground ball lists are almost mirror images of each other. Ground ball hitters hit fewer fly balls, and vice versa. Really, these two tables are completely redundant, but I thought you'd like to see the stats anyway.

If line drives are usually good, ground balls usually only a little good and fly balls in between, why do we see a mix of good and bad batters on all lists? The answer is that not every batter gets the same result from the same type of batted ball. In fact, there can be some big differences between them.

On the next page is a list of the number of runs generated by each batter's ground ball, based on the number of outs, strikeouts, singles, doubles, etc. that he compiled on all his ground balls. There's not really a big difference between the most extreme hitters—only one-tenth of a run overall—but some of the differences are telling.

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Most Runs per Ground Ball			Fewest Runs per Grounder		
Player	Tm	R	Player	Tm	R
Cameron M.	SD	.11	Dunn A.	CIN	-.02
Ramirez H.	FLA	.11	Kennedy A.	LAA	-.02
Crawford C.	TB	.11	Giles B.	SD	.00
Freel R.	CIN	.10	Millar K.	BAL	.00
Suzuki I.	SEA	.10	LaRoche A.	ATL	.00
Ugglad D.	FLA	.09	Giambi J.	NYA	.00
Byrnes E.	ARI	.09	Gonzalez A.	SD	.00
Betancourt Y.	SEA	.09	Chavez E.	OAK	.00
Granderson C.	DET	.09	Ausmus B.	HOU	.00
Matthews Jr. G.	TEX	.08	Jacobs M.	FLA	.01

See how important speed can be? Speedsters like Mike Cameron of the Padres and Tampa Bay's Carl Crawford get the max out of their ground balls, but fly ball hitters like Adam Dunn of the Reds and Giambi hit fly balls for a reason. They're not fast enough to produce with their ground balls.

By the way, double plays are included in ground ball run values, too. For instance, Adrian Gonzalez of San Diego tied for the National League lead with 24 GIDPs, which decreased his ground ball run value by, well, a lot.

Let's look at a couple of other personalized run value lists. For instance, the average line drive is worth .39 runs. Which players got the most out of the line drives, and which got the fewest?

Most Runs per Line Drive			Fewest Runs per Liner		
Player	Tm	R	Player	Tm	R
Drew J.D.	LAN	.52	Figgins C.	LAA	.31
Hall B.	MIL	.49	Hatteberg S.	CIN	.32
Matthews Jr. G.	TEX	.49	Kendall J.	OAK	.32
Sizemore G.	CLE	.49	Phillips B.	CIN	.32
Cabrera M.	FLA	.49	Cedeno R.	CHN	.32
Dye J.	CHA	.48	Taveras W.	HOU	.32
Hawpe B.	COL	.48	Ausmus B.	HOU	.32
Ramirez H.	FLA	.47	Castillo J.	PIT	.33
Holliday M.	COL	.47	Berroa A.	KC	.33
Brown E.	KC	.47	Crawford C.	TB	.33

The Dodgers' J.D. Drew garnered over half a run for every line drive he hit because only 14% of his line drives were fielded for outs (the major league average was 31%). Unfortunately (for him) his line drive frequency was 19%, slightly below the major league average.

Conversely, 7% of Jermaine Dye's line drives were home runs, tied with Travis Hafner for the highest percentage in the majors. Among other notables, 8% of Hanley Ramirez's line drives were triples and 32% of Scott Rolen's line drives were doubles. Both figures led the majors.

You may have noticed that the difference between the best and worst line drive hitters is about 0.20 runs, while the difference between the best and worst ground ball hitters is about half that. The difference between fly balls hitters is even more dramatic, so let's talk fly balls.

When you hit a fly ball, the very first important thing to do is to get it out of the infield, because 99% of infield flies are caught for outs. Here are the batters who had the fewest and most infield flies as a percent of all flies (a fly is considered an infield fly if it falls inside the basepaths):

Fewest Infield Flies per Fly Ball			Most Infield Flies per Fly ball		
Player	Tm	IF/F	Player	Tm	IF/F
Mauer J.	MIN	.02	Byrnes E.	ARI	.26
Jones J.	CHN	.02	Francoeur J.	ATL	.21
Gonzalez A.	SD	.02	Lopez J.	SEA	.18
Jeter D.	NYA	.02	Encarnacion J.	STL	.18
Roberts B.	BAL	.03	Betancourt Y.	SEA	.17
Giles M.	ATL	.03	Everett A.	HOU	.17
Howard R.	PHI	.03	Vizquel O.	SF	.16
Hafner T.	CLE	.04	Thomas F.	OAK	.16
LaRoche A.	ATL	.04	Hunter T.	MIN	.16
Kennedy A.	LAA	.04	Chavez E.	OAK	.16

Already, you can pick up something that differentiates some of the league's best batters such as Joe Mauer and Derek Jeter: they avoid infield flies. The list of players with the highest rate of infield flies is a mixed one, including some poor hitters (such as Everett), great hitters (Thomas) and enigmas (Francoeur).

If a player manages to get a fly ball out of the infield, it's really nice (for the batter) if it clears the outfield fence altogether. In fact, there is probably no batted-

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ball stat that separates batters as much as the percentage of home runs per outfield fly. Check out the leaders and laggards:

Most Home Runs per Outfield Fly			Fewest Home Runs per Outfield Fly		
Player	Tm	HR/OF	Player	Tm	HR/OF
Howard R.	PHI	.39	Kendall J.	OAK	.01
Thome J.	CHA	.29	Punto N.	MIN	.01
Hafner T.	CLE	.28	Taveras W.	HOU	.01
Ortiz D.	BOS	.27	Eckstein D.	STL	.02
Berkman L.	HOU	.27	Ausmus B.	HOU	.02
Jones A.	ATL	.26	Roberts D.	SD	.02
Ramirez M.	BOS	.25	Pierre J.	CHN	.02
Pujols A.	STL	.24	Lofton K.	LAN	.02
Dye J.	CHA	.23	Vizquel O.	SF	.02
Dunn A.	CIN	.23	Loretta M.	BOS	.03

On average, 11% of outfield flies left the playing field, but a staggering 39% of Ryan Howard's outfield flies were home runs. You're probably not surprised by the other batters on these lists—they include some of the top sluggers in baseball, and some of the worst.

So when you compile the total runs produced by outfield flies, home run rate has the biggest impact. Really, the lists of most and fewest runs generated per outfield fly contain just about the same cast of characters as the homer lists...

Most Runs per Outfield Fly			Fewest Runs per Outfield Fly		
Player	Tm	R	Player	Tm	R
Howard R.	PHI	.58	Eckstein D.	STL	.00
Hafner T.	CLE	.47	Kendall J.	OAK	.01
Thome J.	CHA	.44	Punto N.	MIN	.04
Berkman L.	HOU	.42	Loretta M.	BOS	.05
Ortiz D.	BOS	.39	Pierre J.	CHN	.05
LaRoche A.	ATL	.39	Barnes C.	COL	.05
Ramirez M.	BOS	.38	Lofton K.	LAN	.06
Jones J.	CHN	.36	Wilson J.	PIT	.06
Beltran C.	NYN	.36	Vizquel O.	SF	.06
Dye J.	CHA	.36	Betancourt Y.	SEA	.06

Think about it: the top fly ball hitters generate half a run more than the worst for every single outfield fly they hit. Yes, there are differences between the best and worst ground ball and line drive hitters, but it is the fly ball that truly separates the best from the worst.

Well, okay, there is one other thing. There are times batters don't hit a pitch at all. For instance, Adam Dunn didn't hit the ball in 46% of his plate appearances. He struck out, he walked, he was hit by a pitch. No batted balls at all. So I ought to include those outcomes in the analysis too, don't you think?

Basically, it takes one walk to offset the damage of three strikeouts (as I showed in the run values table). Some batters use that ratio to their advantage, while others don't. Here's a table in a slightly different format: it ranks all batters according to how many runs they produced in total by striking out or walking, compared to the average batter. I've done it this way because this format captures both each batter's strikeout/walk ratio and how often he strikes out or walks in total:

Most Runs on Balls Not In Play			Fewest Runs on Balls Not In Play		
Player	Tm	R	Player	Tm	R
Giambi J.	NYA	24	Cedeno R.	CHN	-13
Johnson N.	WAS	23	Francoeur J.	ATL	-13
Giles B.	SD	21	Berroa A.	KC	-11
Ortiz D.	BOS	20	Feliz P.	SF	-10
Pujols A.	STL	19	Monroe C.	DET	-9
Helton T.	COL	18	Rodriguez I.	DET	-8
Hafner T.	CLE	17	Betancourt Y.	SEA	-8
Ramirez M.	BOS	16	Jones J.	CHN	-7
Hatteberg S.	CIN	15	Cano R.	NYA	-6
Beltran C.	NYN	15	Peralta J.	CLE	-6

There was almost a difference of 40 runs between the best players at controlling the plate, like Jason Giambi and Nick Johnson, and the worst, like Ronny Cedeno and Jeff Francoeur. I'm going to assume you're not surprised by the players on this list.

Now let's put it all together. Here is a table of the best major league batters last year, ranked by runs created above average. The "runs created" part of it is based on all of the batted-ball metrics I just described (basically, frequency of each batted ball times run value) and compared to the major league average. The overall

results differ a bit from other approaches (such as Lee Sinins' Runs Created Above Average), but not by a lot.

Plus, with this approach you can see something you have never seen before: how much above or below average each batter ranks for each kind of batted ball. Like so...

Total Runs Above/Below Average

Player	Tm	NIP	GB	LD	Fly	Tot
Howard R.	PHI	11	0	-1	52	61
Pujols A.	STL	19	0	5	33	58
Ortiz D.	BOS	20	-7	-4	43	52
Hafner T.	CLE	17	-7	2	38	49
Berkman L.	HOU	15	2	-3	35	48
Cabrera M.	FLA	12	4	18	10	44
Ramirez M.	BOS	16	-3	2	29	44
Beltran C.	NYN	15	0	-6	33	42
Dye J.	CHA	1	2	8	31	42
Thome J.	CHA	14	-1	-5	33	41

Most of the top batters in the majors are pure sluggers, adept at controlling the plate and blasting fly balls. They tend to not get as much from ground balls and line drives. David Ortiz may be the most extreme example, because he's definitely below average on his ground balls and line drives. Among other types of hitters, Miguel Cabrera is much more of a line drive hitter. Jermaine Dye had the most unique profile of the top 10 batters; he displayed top-notch fly ball and line drive power, but didn't control the plate any better than the average batter.

Let's look at a few unique batting profiles. Alfonso Soriano had a great year in Washington but, as you can see, he is all about the fly ball...

Player	Tm	NIP	GB	LD	Fly	Tot
Soriano A.	WAS	-2	1	-3	35	32

...and even his fine speed doesn't get him more than the major league average on ground balls. On the other hand, take a look at this fine all-around hitter...

Player	Tm	NIP	GB	LD	Fly	Tot
Utley C.	PHI	2	7	7	15	31

Philly Chase Utley can pretty much do it all, fly balls, line drives and ground balls. As pitchers give him

more respect over time, that NIP figure will probably increase, too.

Here are a couple of unique American League profiles:

Player	Tm	NIP	GB	LD	Fly	Tot
Mauer J.	MIN	13	3	12	-1	28
Jeter D.	NYA	7	12	10	-1	28

Joe Mauer and Derek Jeter are average fly ball hitters; Mauer gets more out of strikeouts and walks, while Derek Jeter is an extreme ground ball hitter. Few hitters are as successful as Jeter with such a heavy ground ball approach. For instance, compare Jeter to Ichiro Suzuki:

Player	Tm	NIP	GB	LD	Fly	Tot
Suzuki I.	SEA	1	21	5	-16	10

Suzuki is the best ground ball hitter in the majors, but he didn't fill in with line drives, fly ball power and plate discipline the way Jeter did last year.

Just for fun, here are two more unique batting profiles:

Player	Tm	NIP	GB	LD	Fly	Tot
Helton T.	COL	18	-6	17	-5	23
Matthews Jr. G.	TEX	1	13	10	-3	21

Todd Helton was all about plate discipline and line drives last year—not fly balls. And Gary Matthews' big year was the result of ground balls and line drives—a rare combination.

Finally, our change of scenery award goes to Bobby Abreu, who was a very different hitter with the Yankees compared to the first half of the year spent with the Phillies.

Player	Tm	NIP	GB	LD	Fly	Tot
Abreu B.	PHI	16	0	2	-5	13
Abreu B.	NYA	3	0	2	6	10

In 438 plate appearances with the Phillies, Abreu worked walks but was average, at best, at everything else. He was particularly below average with fly balls. Once he went to New York, however, he became more powerful and created six fly ball runs above average in only 248 plate appearances.

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Pitchers

Want to do the same thing for pitchers? Of course, you do, but let's start at the most fundamental level for pitchers: strikeouts and walks. Here are the run value leaders and laggards for balls not in play last year (minimum of 502 batters faced):

Fewest Runs on Balls Not In Play			Most Runs on Balls Not In Play		
Player	Tm	NIP	Player	Tm	NIP
Santana J.	MIN	-22	Cabrera D.	BAL	11
Schilling C.	BOS	-21	Trachsel S.	NYN	9
Mussina M.	NYA	-16	Marquis J.	STL	9
Harang A.	CIN	-16	Zito B.	OAK	9
Oswalt R.	HOU	-16	Maholm P.	PIT	8
Smoltz J.	ATL	-15	Fossum C.	TB	8
Carpenter C.	STL	-14	Wright J.	SF	8
Webb B.	ARI	-14	Davis D.	MIL	7
Haren D.	OAK	-13	Zambrano C.	CHN	7
Halladay R.	TOR	-13	Marshall S.	CHN	7

The difference between the best strikeout/walk pitchers (Minnesota's Johan Santana) and the worst (Baltimore's Daniel Cabrera) is slightly less than that between the best and worst strikeout/walk batters, 33 vs. 37 runs. For all the attention spent on pitcher strikeout/walk ratios, the K/BB ratio of major league hitters can vary even more.

In another *Annual* article, John Burnson shows that the outcome of a plate appearance tends to vary more with the batter than the pitcher, and we've uncovered the same dynamic with our strikeout and walk stats. Wondering about batted balls? Well, here are the pitching leader and laggards in percent of batted balls that are ground balls:

Most Ground Balls			Fewest Ground Balls		
Player	Tm	GB%	Player	Tm	GB%
Lowe D.	LAN	67	Young C.	SD	25
Webb B.	ARI	66	James C.	ATL	28
Wang C.	NYA	63	Milton E.	CIN	31
Westbrook J.	CLE	61	Lee C.	CLE	33

Most Ground Balls			Fewest Ground Balls		
Player	Tm	GB%	Player	Tm	GB%
Wright J.	SF	58	Williams W.	SD	36
Cook A.	COL	58	Cain M.	SF	36
Hernandez F.	SEA	58	Martinez P.	NYN	36
Hudson T.	ATL	58	Lowry N.	SF	36
Halladay R.	TOR	57	Schmidt J.	SF	37
Saarloos K.	OAK	54	Moyer J.	SEA	37

Thanks to Derek Lowe and Brandon Webb, there is a slightly larger difference between the most and least extreme ground ball pitchers. However, just like the batters, there are some pretty good pitchers among those who gave up the fewest ground balls. The two guys at the top, Chris Young and Chuck James, had pretty good years for San Diego and Atlanta, respectively. Let's see what else we can find out about them.

Here are the pitchers who gave up the most and fewest line drives, as a percent of their total batted balls:

Fewest Line Drives			Most Line Drives		
Player	Tm	LD%	Player	Tm	LD%
Lowe D.	LAN	16	Byrd P.	CLE	24
Johnson R.	NYA	16	Wright J.	NYA	24
Cain M.	SF	16	Pineiro J.	SEA	23
Contreras J.	CHA	16	Glavine T.	NYN	23
Wakefield T.	BOS	16	Shields J.	TB	23
Zito B.	OAK	17	Maddux G.	CHN	23
Hensley C.	SD	17	Verlander J.	DET	23
Wang C.	NYA	17	Hernandez R.	KC	23
Marquis J.	STL	17	Kim B.	COL	23
Webb B.	ARI	17	Suppan J.	STL	23

See, the good thing about being a ground ball pitcher is that you don't give up as many line drives and fly balls. The top ground ballers, Lowe, Webb and Chien-Ming Wang, are on the "least line drives" list...

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Fewest Fly balls			Most Fly balls		
Player	Tm	FB%	Player	Tm	FB%
Webb B.	ARI	16	Young C.	SD	56
Lowe D.	LAN	17	James C.	ATL	53
Wang C.	NYA	20	Milton E.	CIN	50
Westbrook J.	CLE	22	Lee C.	CLE	48
Halladay R.	TOR	22	Cain M.	SF	48
Wright J.	SF	23	Lowry N.	SF	45
Cook A.	COL	24	Zito B.		45
Hudson T.	ATL	24	Martinez P.		44
Hernandez F.	SEA	25	Santana E.	LAA	44
Saarloos K.	OAK	25	Wakefield T.		44

...and they are also the leaders on the “fewest fly balls” list. Conversely, take a look at the pitchers who have given up the most fly balls. Yeah, it’s guys like Young and James, who gave up the fewest ground balls. As I said before, when it comes to frequency, you really only need to know one batted-ball stat: ground ball percentage.

But do pitchers give up the same number of runs on each type of batted ball? Well, here’s a look at runs given up per ground ball:

Fewest Runs per Ground ball			Most Runs per Ground ball		
Player	Tm	R	Player	Tm	R
Lidle C.	PHI	.00	Lee C.	CLE	.11
Glavine T.	NYN	.00	Madson R.	PHI	.11
Rogers K.	DET	.00	Kazmir S.	TB	.10
Halladay R.	TOR	.00	Byrd P.	CLE	.09
Robertson N.	DET	.00	Hernandez L.	WAS	.08
Suppan J.	STL	.01	Vargas C.	ARI	.08
Bush D.	MIL	.01	Milton E.	CIN	.08
Peavy J.	SD	.01	Snell I.	PIT	.07
Hensley C.	SD	.02	Harang A.	CIN	.06
Cook A.	COL	.02	Lopez R.	BAL	.06

Yes, pitchers do differ about as much (though slightly less) than batters in ground ball run values. This is actually a little surprising to me, because pitchers have better and worse infields behind them, while batters hit to all sorts of different infields. In fact, you can pick out some of the best infields on this list: there are two Detroit and San Diego pitchers on the “fewest runs” list, and two Cincinnati and Cleveland pitchers on the “most runs” list. That’s partially a reflection of the quality of their respective infields.

Next up is the line drive list:

Fewest Runs per Line Drive			Most Runs per Line Drive		
Player	Tm	R	Player	Tm	R
Santana E.	LAA	.30	Lidle C.	PHI	.46
Fossum C.	TB	.31	Francis J.	COL	.46
Lee C.	CLE	.31	Nolasco C.	FLA	.46
Burnett A.	TOR	.32	Moehler B.	FLA	.46
Benson K.	BAL	.33	Schilling C.	BOS	.45
Mussina M.	NYA	.33	Bush D.	MIL	.45
Beckett J.	BOS	.33	Myers B.	PHI	.44
Arroyo B.	CIN	.34	Capuano C.	MIL	.44
Lowry N.	SF	.34	Davis D.	MIL	.44
James C.	ATL	.34	Meche G.	SEA	.44

Once again, the difference between the fewest and most runs per line drive is greater for batters than pitchers (.21 runs vs. .16). Simply put, line drive hitting (both in terms of frequency and getting hits out of line drives) changes more with batters than pitchers.

At this stage, I’m going to do you a favor and skip the infield flies and home run per outfield fly table. Let’s go straight to those pitchers who gave up the fewest runs per outfield fly and those who gave up the most (which is, again, primarily driven by home run rates):

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Least Runs per Outfield Fly			Most Runs per Outfield Fly		
Player	Tm	R	Player	Tm	R
Wright J.	NYA	.09	Saarloos K.	OAK	.34
Cabrera D.	BAL	.12	Lidle C.	PHI	.31
Schmidt J.	SF	.12	Pettitte A.	HOU	.29
Francis J.	COL	.12	Hernandez F.	SEA	.28
Lackey J.	LAA	.13	Silva C.	MIN	.28
Loewen A.	BAL	.13	Burnett A.	TOR	.28
Escobar K.	LAA	.13	Webb B.	ARI	.27
Bedard E.	BAL	.14	Snell I.	PIT	.27
Blanton J.	OAK	.15	Beckett J.	BOS	.26
Cain M.	SF	.15	Santos V.	PIT	.25

The difference in home run rates between Jaret Wright and Kirk Saarloos isn't nearly as great as that between Ryan Howard and David Eckstein. For pitchers, the best way to keep your home run rate down is to induce ground balls, because pitchers' rates of home runs per outfield fly tend to be much closer to the overall average.

And now we'll put it all together again. Here is the same "runs created vs. average" table, but this time the leaders are those pitchers who have given up fewer runs than average.

Total Runs Above/Below Average

Player	Tm	NIP	GB	LD	Fly	Tot
Santana J.	MIN	-22	-9	0	-8	-39
Carpenter C.	STL	-14	-7	-8	-5	-35
Webb B.	ARI	-14	-1	-5	-13	-32
Halladay R.	TOR	-13	-9	1	-8	-30
Mussina M.	NYA	-16	-1	-11	4	-25
Zambrano C.	CHN	7	-5	-16	-11	-24
Sabathia C.	CLE	-13	3	-5	-10	-24
Lackey J.	LAA	-6	5	-9	-14	-24
Lowe D.	LAN	-5	5	-8	-14	-23
Smoltz J.	ATL	-15	0	-6	-2	-22
Oswalt R.	HOU	-16	-4	2	-5	-22

There is a less consistent pattern among pitching leaders than batting leaders. This list includes strikeout pitchers (Santana), pitchers who "controlled" line drives

(Carlos Zambrano and Mike Mussina) and those who "controlled" fly balls (John Lackey and Derek Lowe). The key to Lackey's performance was his home run rate (6% of outfield flies) while Lowe's key was his ground ball rate, as we have seen.

And what about those two youngsters with the low ground ball rates, Chris Young and Chuck James?

Player	Tm	NIP	GB	LD	Fly	Tot
Young C.	SD	-3	-8	-10	1	-20
James C.	ATL	1	-4	-5	2	-5

Young and James followed similar patterns, though James was less so. Neither one was terribly hurt by his high fly ball rates, primarily because 79% of their outfield flies were caught for outs vs. the major league average of 74%. Outfield defense?

Speaking of defense, look at the ground ball performance of these two Tigers hurlers:

Player	Tm	NIP	GB	LD	Fly	Tot
Rogers K.	DET	2	-12	3	-5	-12
Robertson N.	DET	-1	-12	1	7	-5

Both Kenny Rogers and Nate Robertson had relatively high ground ball rates last year. Usually, a higher rate will produce more runs, but these two Tigers hurlers actually yielded fewer overall runs on ground balls thanks to their fine infielders.

And our change of scenery award goes to Greg Maddux, who was traded from Chicago to Los Angeles at the trading deadline, with these results...

Player	Tm	NIP	GB	LD	Fly	Tot
Maddux G.	LAN	-3	-4	0	-2	-10
Maddux G.	CHN	-9	-5	12	-1	-3

In 572 plate appearances with the Cubs, Maddux was slightly better than average. But in just 290 plate appearances with the Dodgers, Maddux was outstanding. The difference was almost entirely in the line drive column. Fielders, skill, ballpark or just plain luck? Hmm.

As I said, these stats are available in our stats section for all players with at least 100 plate appearances/batters faced. I hope you enjoy them as much as we have.