

Win Probability Added

Dan Levitt

The home team is ahead by one run in the bottom of the fifth with runners on first and third and two outs. What's the probability the home team will win the game? The publicly available play by play data from Retrosheet allows us to start to answer these win probability questions. I used the 1980 through 1983 Retrosheet data files to calculate these probabilities. For example, the answer to posed question is that the home team will win the game approximately 74.0% of the time.

I think a number of insights can be gained from applying the information in these win probability tables. For one, they can help in evaluating various strategic choices such as a stolen base, intentional walk, or sacrifice bunt. As an example, in the bottom of the fourth inning a runner is on first with one out, and the home team is behind by a run -- should the runner steal? The probability of winning in this situation is 44.0%. If the runner is safe, and he moves to second, the probability of winning increases to 46.6%; if he's out, the probability of winning the game decreases to 38.0%. Thus in this situation the breakeven stolen base percentage is 70% $[(.44 - .38) / (.466 - .38)]$.

Of course these tables are based on four year league averages and do not take into account specific player and team context: such as who the batter or on deck batter is, or the handedness of the batter/pitcher matchup. Nevertheless, I think these tables offer a good starting point for analyzing these options.

One of the more interesting ways to use the probabilities once generated is to evaluate players based on how they affect their teams' chances of winning a game. For example, if a player comes to bat in the situation mentioned at the start (home team is ahead by one run in the bottom of the fifth with runners on first and third and two outs) and singles scoring one runner and moving the other to second how has he helped his team? Well, the probability of winning, given now a two run lead and runners on first and second with two outs, is 83.8%. Therefore, he increased his team's chances of winning by 9.8 percentage points. Summing a player's win probability percentage changes over a year gives how much he helped a team win. In other words, for each event (e.g. single, passed ball, ground out, stolen base, etc), the difference between the win probability prior to that event and then subsequent to that event can be calculated. For batters, summing all plate appearance type events gives the win value added through their hitting. The same can be generated for base stealing.

Several others have looked at this type of analysis in the past, but it suffered from two major limitations. Either the amount of game data was insufficient or it was generated from simulations, not actual games. In the early 1960's George Lindsay looked at game strategies based on win probability data from 782 1958 AL, NL, and International league games. Such a few number of games doesn't really allow for enough of the various situations, as nearly 13,000 different situations exist (i.e. 9 IP x 2 Halves to Each IP x 15

Score Differentials x 23 Base/Out Possibilities). The tables I generated are based on the 7715 major league games played over the four years 1980 through 1983.

In 1970, E.G. and H.D. Mills authored a book titled Player Win Averages, but my understanding is that their win probability tables were based on baseball computer simulations, not actual game data. More recently, Jay Bennett looked at the individual players in the 1919 World Series using a modified version of Lindsay's tables.

This type of player evaluation is entirely situation dependent and thus measures something slightly different than typical or sabermetric type statistics which use season totals only. A home run in the top of the ninth when ahead or behind by say eight runs receives no credit in this analysis, while one hit at a clutch moment at the end of the game can receive .50 or more win percentage points. Clearly both types of statistics, situation dependent and independent, can each be enlightening in their own way. Situation independent totals are likely much better predictors of future performance, but dependent statistics, like win probability added can offer a unique insight into a player's season.

The win probability added should be viewed as the total wins a player adds above a .500 record. For example, in 1983 the Minnesota Twins had a won loss record of 70 and 92; summing the win percentage changes of all the Twins' events--both offensive and defensive--gives a value of -11. That is, a .500 record of 81 and 81 less 11 equals 70 wins.

For the years for which I have data, I looked at which hitters and base stealers did the most and least to help their teams win. I also calculated which players differed most from a situation independent evaluation of value--In other words who had the timely hits, and who didn't that year. For the purposes of this analysis, I used a basic Linear Weights Win value as the situation independent comparison statistic.

Comments for Win Probability Added tables:

- WPA is the Win Probability Added as discussed above.
- The WPA adjustment is made to compare WPA to the Linear Weights calculation. The LW calculation is centered on the average batter having a value of zero. The average WPA over the four years is -.0006 (or -.06%) per plate appearance. Thus for comparison purposes, .0006 x the plate appearances was added to each player's WPA to center that calculation at zero as well.
- ~LWW is a simple Linear Weights Win value of the players batting statistics. The actual Linear Weights Batting formula used for the comparison:

$$(1B \times 0.46 + 2B \times 0.8 + 3B \times 1.02 + HR \times 1.4 + (BB + HBP) \times 0.33 - (AB - H) \times 0.26) / 10 \text{ Runs/Win}$$

- The Linear Weights Base Running formula used for the comparison:

$(SB \times 0.3 - CS \times 0.6) / 10 \text{ Runs/Win}$

Dif is the difference between the AdjWPA (or simple WPA in the case of stolen bases) and the approximate Linear Weights Wins value.

Table 1a--Batters Ranked By Highest and Lowest Win Probability Added

LastName	FirstName	Year	Team	WPA	AdjWPA	~LWW	Dif
Brett	George	1980	KCA	6.45	6.76	6.76	0.01
Schmidt	Mike	1980	PHI	5.27	5.67	5.87	-0.20
Easler	Mike	1980	PIT	4.98	5.25	3.84	1.42
Jackson	Reggie	1980	NYA	4.89	5.26	5.36	-0.09
Singleton	Ken	1980	BAL	4.11	4.53	4.03	0.50
Bochte	Bruce	1980	SEA	4.09	4.46	2.69	1.77
Murphy	Dale	1980	ATL	4.02	4.41	2.84	1.57
Wockenfuss	John	1980	DET	4.02	4.29	2.07	2.22
Clark	Jack	1980	SFN	3.93	4.26	3.27	0.99
Garvey	Steve	1980	LAN	3.80	4.24	2.00	2.24
Boone	Bob	1980	PHI	-2.86	-2.53	-1.26	-1.27
Cash	Dave	1980	SDN	-2.91	-2.64	-2.01	-0.64
Flynn	Doug	1980	NYN	-2.98	-2.69	-1.90	-0.79
Smith	Ozzie	1980	SDN	-3.12	-2.68	-2.35	-0.32
Stennett	Rennie	1980	SFN	-3.14	-2.88	-1.80	-1.07
Griffin	Alfredo	1980	TOR	-3.27	-2.84	-2.19	-0.65
Bowa	Larry	1980	PHI	-3.48	-3.12	-1.83	-1.30
Moreno	Omar	1980	PIT	-3.48	-3.02	-1.94	-1.09
Taveras	Frank	1980	NYN	-3.73	-3.36	-1.60	-1.77
Foli	Tim	1980	PIT	-4.05	-3.72	-1.58	-2.13
Schmidt	Mike	1981	PHI	5.54	5.80	5.07	0.73
Evans	Dwight	1981	BOS	5.37	5.68	3.85	1.84
Murphy	Dwayne	1981	OAK	3.56	3.85	1.31	2.54
Foster	George	1981	CIN	3.28	3.57	2.76	0.80
Dawson	Andre	1981	MON	2.39	2.66	2.85	-0.19
Staub	Rusty	1981	NYN	2.36	2.47	1.02	1.45
Monday	Rick	1981	LAN	2.34	2.44	1.58	0.86
Gibson	Kirk	1981	DET	2.33	2.52	1.35	1.18
Guerrero	Pedro	1981	LAN	2.28	2.52	1.47	1.05
Concepcion	Dave	1981	CIN	2.26	2.54	1.02	1.53
Butera	Sal	1981	MIN	-1.95	-1.83	-0.44	-1.39
Ainge	Danny	1981	TOR	-2.05	-1.88	-1.98	0.09
Taveras	Frank	1981	NYN	-2.07	-1.88	-1.67	-0.21
Russell	Bill	1981	LAN	-2.35	-2.17	-1.34	-0.83
Wathan	John	1981	KCA	-2.62	-2.42	-1.09	-1.33
DeJesus	Ivan	1981	CHN	-2.69	-2.41	-2.85	0.44
Ramirez	Rafael	1981	ATL	-2.90	-2.69	-1.49	-1.20
Smith	Ozzie	1981	SDN	-3.61	-3.30	-2.50	-0.80
Griffin	Alfredo	1981	TOR	-3.84	-3.59	-2.68	-0.91
Flynn	Doug	1981	NYN	-4.11	-3.90	-2.18	-1.72

Murray	Eddie	1982	BAL	5.58	5.97	4.66	1.31
Durham	Leon	1982	CHN	5.10	5.48	3.91	1.57
Schmidt	Mike	1982	PHI	4.36	4.75	4.98	-0.23
Hrbek	Kent	1982	MIN	4.24	4.60	2.57	2.03
Harrah	Toby	1982	CLE	4.19	4.62	4.25	0.37
Jackson	Reggie	1982	CAL	4.05	4.43	3.90	0.53
Murphy	Dale	1982	ATL	3.96	4.39	3.99	0.40
Thompson	Jason	1982	PIT	3.92	4.33	4.33	-0.01
Hernandez	Keith	1982	SLN	3.83	4.25	2.88	1.37
Yount	Robin	1982	MIL	3.81	4.25	5.39	-1.14
Butler	Brett	1982	ATL	-2.45	-2.29	-1.60	-0.69
Trevino	Alex	1982	CIN	-2.59	-2.34	-1.00	-1.34
LeMaster	Johnnie	1982	SFN	-2.63	-2.34	-2.83	0.49
Griffin	Alfredo	1982	TOR	-2.63	-2.28	-2.71	0.43
Mitchell	Bobby	1982	MIN	-2.73	-2.41	-0.92	-1.49
Washington	Ron	1982	MIN	-2.75	-2.46	-1.10	-1.37
Foli	Tim	1982	CAL	-2.90	-2.57	-2.37	-0.20
Moreno	Omar	1982	PIT	-2.92	-2.49	-2.51	0.02
Householder	Paul	1982	CIN	-3.39	-3.11	-1.95	-1.16
Bowa	Larry	1982	CHN	-3.47	-3.13	-1.90	-1.24
Boggs	Wade	1983	BOS	7.20	7.63	5.42	2.21
Murphy	Dale	1983	ATL	5.37	5.79	4.96	0.83
Murray	Eddie	1983	BAL	5.15	5.56	4.91	0.65
Rice	Jim	1983	BOS	4.64	5.07	4.27	0.80
Moseby	Lloyd	1983	TOR	4.25	4.63	3.21	1.41
Brett	George	1983	KCA	4.17	4.50	3.97	0.53
Whitaker	Lou	1983	DET	3.66	4.11	3.15	0.96
Winfield	Dave	1983	NYA	3.65	4.06	2.94	1.12
Cooper	Cecil	1983	MIL	3.64	4.08	2.93	1.15
Whitt	Ernie	1983	TOR	3.58	3.83	1.26	2.57
Giles	Brian	1983	NYN	-2.55	-2.27	-1.39	-0.88
Cowens	Al	1983	SEA	-2.55	-2.32	-1.76	-0.56
Tolleson	Wayne	1983	TEX	-2.86	-2.54	-1.21	-1.33
LeMaster	Johnnie	1983	SFN	-2.95	-2.57	-1.46	-1.12
Sundberg	Jim	1983	TEX	-3.00	-2.74	-2.47	-0.27
Dent	Bucky	1983	TEX	-3.15	-2.88	-2.11	-0.76
Bonilla	Juan	1983	SDN	-3.34	-2.96	-2.03	-0.93
Gaetti	Gary	1983	MIN	-3.38	-2.98	0.19	-3.17
Flynn	Doug	1983	MON	-3.43	-3.14	-2.59	-0.55
Oquendo	Jose	1983	NYN	-3.76	-3.54	-2.46	-1.08

Table 1b--Batters Ranked By Highest and Lowest WPA difference with LWW

LastName	FirstName	Year	Team	WPA	AdjWPA	~LWW	Dif
May	Milt	1980	SFN	1.63	1.88	-0.53	2.41
Garvey	Steve	1980	LAN	3.80	4.24	2.00	2.24
Wockenfuss	John	1980	DET	4.02	4.29	2.07	2.22
Burroughs	Jeff	1980	ATL	2.95	3.14	0.95	2.20
Griffey	Ken	1980	CIN	3.76	4.14	2.19	1.95
Bochte	Bruce	1980	SEA	4.09	4.46	2.69	1.77
Rose	Pete	1980	PHI	1.51	1.96	0.24	1.72
Blanks	Larvell	1980	ATL	-0.04	0.10	-1.59	1.69
Otis	Amos	1980	KCA	1.29	1.57	-0.08	1.64
Harrah	Toby	1980	CLE	2.89	3.31	1.69	1.62
Cowens	Al	1980	DET	-1.90	-1.62	0.06	-1.68
Morgan	Joe	1980	HOU	-1.03	-0.69	1.04	-1.73
Bell	Buddy	1980	TEX	0.75	1.08	2.81	-1.73
Taveras	Frank	1980	NYN	-3.73	-3.36	-1.60	-1.77
Winfield	Dave	1980	SDN	0.07	0.47	2.32	-1.85
Orta	Jorge	1980	CLE	-0.50	-0.16	1.70	-1.86
Evans	Dwight	1980	BOS	-0.07	0.26	2.33	-2.07
Foli	Tim	1980	PIT	-4.05	-3.72	-1.58	-2.13
Page	Mitchell	1980	OAK	-2.15	-1.91	0.42	-2.33
Parrish	Lance	1980	DET	-1.10	-0.74	1.87	-2.61
Murphy	Dwayne	1981	OAK	3.56	3.85	1.31	2.54
Hatcher	Mickey	1981	MIN	0.81	1.06	-1.15	2.21
Yount	Robin	1981	MIL	1.80	2.05	0.14	1.91
Oglivie	Ben	1981	MIL	1.57	1.84	-0.06	1.90
Armas	Tony	1981	OAK	2.14	2.43	0.59	1.84
Evans	Dwight	1981	BOS	5.37	5.68	3.85	1.84
Wills	Bump	1981	TEX	-0.02	0.26	-1.41	1.68
Bumbry	Al	1981	BAL	1.35	1.63	0.08	1.55
Concepcion	Dave	1981	CIN	2.26	2.54	1.02	1.53
Simmons	Ted	1981	MIL	0.02	0.27	-1.19	1.46
Ashby	Alan	1981	HOU	-1.13	-0.95	0.31	-1.26
Durham	Leon	1981	CHN	-0.53	-0.31	0.95	-1.27
Wathan	John	1981	KCA	-2.62	-2.42	-1.09	-1.33
Almon	Bill	1981	CHA	-1.53	-1.30	0.07	-1.37
Butera	Sal	1981	MIN	-1.95	-1.83	-0.44	-1.39
Watson	Bob	1981	NYA	-1.61	-1.50	-0.05	-1.45
Gray	Gary	1981	SEA	-1.67	-1.53	-0.09	-1.45
McRae	Hal	1981	KCA	-1.58	-1.31	0.26	-1.57
Flynn	Doug	1981	NYN	-4.11	-3.90	-2.18	-1.72
Aikens	Willie	1981	KCA	-0.50	-0.25	1.91	-2.16

Otis	Amos	1982	KCA	3.25	3.57	0.78	2.79
Washington	Claudell	1982	ATL	2.86	3.24	0.67	2.58
Chambliss	Chris	1982	ATL	3.26	3.63	1.21	2.42
Hrbek	Kent	1982	MIN	4.24	4.60	2.57	2.03
Lefebvre	Joe	1982	SDN	0.99	1.15	-0.80	1.95
Gibson	Kirk	1982	DET	2.42	2.61	0.68	1.93
Martin	Jerry	1982	KCA	1.53	1.88	-0.02	1.91
Raines	Tim	1982	MON	1.94	2.39	0.52	1.87
Essian	Jim	1982	SEA	1.73	1.83	0.00	1.83
Rose	Pete	1982	PHI	1.04	1.48	-0.33	1.82
Driessen	Dan	1982	CIN	-0.10	0.27	1.87	-1.60
DeCinces	Doug	1982	CAL	2.21	2.62	4.25	-1.63
Garvey	Steve	1982	LAN	-2.20	-1.79	-0.14	-1.66
Cey	Ron	1982	LAN	-1.25	-0.87	0.80	-1.67
Cedeno	Cesar	1982	CIN	-1.36	-1.03	0.92	-1.94
Thornton	Andy	1982	CLE	1.49	1.93	3.89	-1.96
Brett	George	1982	KCA	1.11	1.49	3.54	-2.05
Cowens	Al	1982	SEA	-0.97	-0.60	1.52	-2.11
Roenicke	Gary	1982	BAL	0.26	0.55	2.90	-2.35
Lemon	Chet	1982	DET	-1.02	-0.71	1.88	-2.59
Whitt	Ernie	1983	TOR	3.58	3.83	1.26	2.57
Castino	John	1983	MIN	2.88	3.27	0.95	2.32
Griffey	Ken	1983	NYA	3.29	3.59	1.28	2.32
Boggs	Wade	1983	BOS	7.20	7.63	5.42	2.21
Foster	George	1983	NYN	1.19	1.58	-0.41	1.99
Russell	Bill	1983	LAN	-0.24	0.07	-1.92	1.99
Baines	Harold	1983	CHA	2.86	3.27	1.29	1.97
Diaz	Bo	1983	PHI	0.70	1.02	-0.95	1.97
Law	Rudy	1983	CHA	1.51	1.84	0.00	1.84
Manning	Rick	1983	MIL	-0.13	0.12	-1.69	1.80
Armas	Tony	1983	BOS	-2.47	-2.09	-0.62	-1.47
Hairston	Jerry	1983	CHA	-0.65	-0.55	0.98	-1.53
Maddox	Garry	1983	PHI	-2.26	-2.04	-0.46	-1.59
Doran	Bill	1983	HOU	-1.11	-0.72	0.92	-1.64
Smith	Lonnie	1983	SLN	0.34	0.67	2.32	-1.65
Cey	Ron	1983	CHN	-0.25	0.16	2.06	-1.90
Knight	Ray	1983	HOU	-0.60	-0.25	1.72	-1.97
Schmidt	Mike	1983	PHI	2.04	2.45	4.76	-2.31
Molitor	Paul	1983	MIL	-2.12	-1.70	0.71	-2.41
Gaetti	Gary	1983	MIN	-3.38	-2.98	0.19	-3.17

Table 2a--Base Runners Ranked By Highest and Lowest Win Probability Added

LastName	FirstName	Year	Team	SB	CS	WPA	~LWW	Dif
LeFlore	Ron	1980	MON	97	19	1.99	1.77	0.22
Wilson	Willie	1980	KCA	79	10	1.44	1.77	-0.33
Scott	Rod	1980	MON	63	13	1.31	1.11	0.20
Mumphrey	Jerry	1980	SDN	52	5	1.25	1.26	-0.01
Henderson	Rickey	1980	OAK	100	26	1.13	1.44	-0.31
Cedeno	Cesar	1980	HOU	48	15	0.80	0.54	0.26
Moreno	Omar	1980	PIT	96	33	0.76	0.90	-0.14
Molitor	Paul	1980	MIL	34	7	0.74	0.60	0.14
Richards	Gene	1980	SDN	61	16	0.74	0.87	-0.13
Dawson	Andre	1980	MON	34	9	0.73	0.48	0.25
Taveras	Frank	1980	NYN	32	18	-0.38	-0.12	-0.26
Dade	Paul	1980	SDN	4	5	-0.38	-0.18	-0.20
Burleson	Rick	1980	BOS	12	13	-0.39	-0.42	0.03
Grich	Bobby	1980	CAL	3	7	-0.40	-0.33	-0.07
Royster	Jerry	1980	ATL	22	13	-0.42	-0.12	-0.30
Randle	Len	1980	CHN	19	13	-0.42	-0.21	-0.21
Maddox	Elliott	1980	NYN	1	9	-0.43	-0.51	0.08
Garvey	Steve	1980	LAN	6	11	-0.47	-0.48	0.01
Griffin	Alfredo	1980	TOR	18	23	-0.61	-0.84	0.23
Squires	Mike	1980	CHA	8	9	-0.70	-0.30	-0.40
Raines	Tim	1981	MON	71	11	1.14	1.47	-0.33
Miller	Eddie	1981	ATL	23	5	0.64	0.39	0.25
Lacy	Leon	1981	PIT	24	3	0.60	0.54	0.06
Wilson	Willie	1981	KCA	34	8	0.56	0.54	0.02
Dawson	Andre	1981	MON	26	4	0.51	0.54	-0.03
Scott	Rod	1981	MON	30	7	0.50	0.48	0.02
Henderson	Rickey	1981	OAK	56	22	0.46	0.36	0.10
Garcia	Damaso	1981	TOR	13	3	0.38	0.21	0.17
Carew	Rod	1981	CAL	16	9	0.38	-0.06	0.44
Manning	Rick	1981	CLE	25	3	0.36	0.57	-0.21
Easler	Mike	1981	PIT	4	7	-0.32	-0.30	-0.02
Burleson	Rick	1981	CAL	4	6	-0.32	-0.24	-0.08
Carter	Gary	1981	MON	1	5	-0.33	-0.27	-0.06
Johnson	Wallace	1981	MON	1	1	-0.33	-0.03	-0.30
Garner	Phil	1981	PIT	4	6	-0.34	-0.24	-0.10
Peters	Rick	1981	DET	1	6	-0.35	-0.33	-0.02
Bonilla	Juan	1981	SDN	4	9	-0.37	-0.42	0.05
Templeton	Garry	1981	SLN	8	12	-0.41	-0.48	0.07
Lemon	Chet	1981	CHA	5	8	-0.41	-0.33	-0.08
Washington	U L	1981	KCA	10	10	-0.48	-0.30	-0.18

Law	Rudy	1982	CHA	36	10	0.79	0.48	0.31
Henderson	Rickey	1982	OAK	130	42	0.79	1.38	-0.59
Wiggins	Al	1982	SDN	33	6	0.75	0.63	0.12
Raines	Tim	1982	MON	78	16	0.72	1.38	-0.66
Smith	Lonnie	1982	SLN	68	26	0.71	0.48	0.23
Dernier	Bob	1982	PHI	42	12	0.63	0.54	0.09
Molitor	Paul	1982	MIL	41	9	0.57	0.69	-0.12
Dilone	Miguel	1982	CLE	33	5	0.55	0.69	-0.14
Wilson	Mookie	1982	NYN	58	16	0.48	0.78	-0.30
Brown	Bobby	1982	SEA	28	6	0.48	0.48	0.00
Serna	Paul	1982	SEA	0	5	-0.38	-0.30	-0.08
Carew	Rod	1982	CAL	10	17	-0.40	-0.72	0.32
Nettles	Graig	1982	NYA	1	5	-0.41	-0.27	-0.14
Moore	Charlie	1982	MIL	2	10	-0.43	-0.54	0.11
Johnson	Tony	1982	TOR	3	13	-0.44	-0.69	0.25
Householder	Paul	1982	CIN	17	11	-0.44	-0.15	-0.29
Clark	Jack	1982	SFN	6	9	-0.45	-0.36	-0.09
Castillo	Manny	1982	SEA	2	8	-0.46	-0.42	-0.04
Trillo	Manny	1982	PHI	8	10	-0.48	-0.36	-0.12
Simpson	Joe	1982	SEA	8	14	-0.55	-0.60	0.05
Henderson	Rickey	1983	OAK	108	19	1.70	2.10	-0.40
Raines	Tim	1983	MON	90	14	1.49	1.86	-0.37
Law	Rudy	1983	CHA	77	12	1.40	1.59	-0.19
Wiggins	Al	1983	SDN	66	13	1.16	1.20	-0.04
Wilson	Willie	1983	KCA	59	8	0.98	1.29	-0.31
Sample	Bill	1983	TEX	44	8	0.93	0.84	0.09
McGee	Willie	1983	SLN	39	8	0.91	0.69	0.22
Almon	Bill	1983	OAK	26	8	0.69	0.30	0.39
Dernier	Bob	1983	PHI	35	7	0.66	0.63	0.03
Murphy	Dale	1983	ATL	30	4	0.63	0.66	-0.03
O'Malley	Tom	1983	SFN	2	4	-0.38	-0.18	-0.20
Peters	Rick	1983	OAK	4	9	-0.40	-0.42	0.02
Oquendo	Jose	1983	NYN	8	9	-0.41	-0.30	-0.11
Henderson	Steve	1983	SEA	10	14	-0.41	-0.54	0.13
Griffin	Alfredo	1983	TOR	8	11	-0.42	-0.42	0.00
Concepcion	Onix	1983	KCA	10	3	-0.43	0.12	-0.55
Davis	Chili	1983	SFN	10	12	-0.44	-0.42	-0.02
Cabell	Enos	1983	DET	4	8	-0.52	-0.36	-0.16
Hayes	Von	1983	PHI	20	12	-0.54	-0.12	-0.42
Lansford	Carney	1983	OAK	3	8	-0.69	-0.39	-0.30

Table 2b--Base Runners Ranked By Highest and Lowest WPA difference from LWW

LastName	FirstName	Year	Team	SB	CS	WPA	~LWW	Dif
Murphy	Dwayne	1980	OAK	26	15	0.17	-0.12	0.29
DeCinces	Doug	1980	BAL	11	6	0.24	-0.03	0.27
Cedeno	Cesar	1980	HOU	48	15	0.80	0.54	0.26
Dawson	Andre	1980	MON	34	9	0.73	0.48	0.25
White	Jerry	1980	MON	8	7	0.07	-0.18	0.25
Smith	Reggie	1980	LAN	5	6	0.04	-0.21	0.25
Griffin	Alfredo	1980	TOR	18	23	-0.61	-0.84	0.23
LeFlore	Ron	1980	MON	97	19	1.99	1.77	0.22
Page	Mitchell	1980	OAK	14	7	0.21	0.00	0.21
Winfield	Dave	1980	SDN	23	7	0.48	0.27	0.21
Henderson	Rickey	1980	OAK	100	26	1.13	1.44	-0.31
Smith	Ozzie	1980	SDN	57	15	0.50	0.81	-0.31
Wilson	Willie	1980	KCA	79	10	1.44	1.77	-0.33
Meyer	Dan	1980	SEA	8	4	-0.33	0.00	-0.33
Squires	Mike	1980	CHA	8	9	-0.70	-0.30	-0.40
Garner	Phil	1980	PIT	32	7	0.14	0.54	-0.40
Randolph	Willie	1980	NYA	30	5	0.19	0.60	-0.41
Cruz	Julio	1980	SEA	45	7	0.47	0.93	-0.46
Dilone	Miguel	1980	CLE	61	18	0.27	0.75	-0.48
Collins	Dave	1980	CIN	79	21	0.58	1.11	-0.53
Carew	Rod	1981	CAL	16	9	0.38	-0.06	0.44
Griffin	Alfredo	1981	TOR	8	12	-0.16	-0.48	0.32
Kelly	Pat	1981	CLE	2	4	0.11	-0.18	0.29
Baker	Dusty	1981	LAN	10	7	0.16	-0.12	0.28
Bumbry	Al	1981	BAL	22	15	0.02	-0.24	0.26
Barfield	Jesse	1981	TOR	4	3	0.20	-0.06	0.26
Miller	Eddie	1981	ATL	23	5	0.64	0.39	0.25
Cooper	Cecil	1981	MIL	5	4	0.11	-0.09	0.20
Griffey	Ken	1981	CIN	12	4	0.31	0.12	0.19
Oester	Ron	1981	CIN	2	5	-0.06	-0.24	0.18
Smith	Lonnie	1981	PHI	21	10	-0.18	0.03	-0.21
Manning	Rick	1981	CLE	25	3	0.36	0.57	-0.21
Hernandez	Keith	1981	SLN	12	5	-0.16	0.06	-0.22
Lopes	Davey	1981	LAN	20	2	0.26	0.48	-0.22
Rice	Jim	1981	BOS	2	2	-0.30	-0.06	-0.24
Richards	Gene	1981	SDN	20	8	-0.12	0.12	-0.24
Moreno	Omar	1981	PIT	39	14	0.08	0.33	-0.25
Johnson	Wallace	1981	MON	1	1	-0.33	-0.03	-0.30
Raines	Tim	1981	MON	71	11	1.14	1.47	-0.33
Cruz	Julio	1981	SEA	43	8	0.36	0.81	-0.45

Carew	Rod	1982	CAL	10	17	-0.40	-0.72	0.32
Law	Rudy	1982	CHA	36	10	0.79	0.48	0.31
Wohlford	Jim	1982	SFN	8	3	0.33	0.06	0.27
Wright	George	1982	TEX	3	7	-0.07	-0.33	0.26
Powell	Hosken	1982	TOR	4	4	0.14	-0.12	0.26
Johnson	Tony	1982	TOR	3	13	-0.44	-0.69	0.25
Oberkfell	Ken	1982	SLN	11	9	0.04	-0.21	0.25
Baylor	Don	1982	CAL	10	4	0.30	0.06	0.24
Smith	Lonnie	1982	SLN	68	26	0.71	0.48	0.23
Woods	Al	1982	TOR	1	3	0.08	-0.15	0.23
Sample	Bill	1982	TEX	10	2	-0.05	0.18	-0.23
Wathan	John	1982	KCA	36	9	0.27	0.54	-0.27
Thon	Dickie	1982	HOU	37	8	0.35	0.63	-0.28
Lopes	Davey	1982	OAK	28	12	-0.16	0.12	-0.28
Householder	Paul	1982	CIN	17	11	-0.44	-0.15	-0.29
Wilson	Mookie	1982	NYN	58	16	0.48	0.78	-0.30
Moreno	Omar	1982	PIT	60	26	-0.07	0.24	-0.31
Dawson	Andre	1982	MON	39	10	0.20	0.57	-0.37
Henderson	Rickey	1982	OAK	130	42	0.79	1.38	-0.59
Raines	Tim	1982	MON	78	16	0.72	1.38	-0.66
Davis	Mike	1983	OAK	32	15	0.56	0.06	0.50
Almon	Bill	1983	OAK	26	8	0.69	0.30	0.39
Sheridan	Pat	1983	KCA	12	3	0.54	0.18	0.36
Templeton	Garry	1983	SDN	16	6	0.47	0.12	0.35
Ramirez	Rafael	1983	ATL	16	12	0.06	-0.24	0.30
Sax	Steve	1983	LAN	56	30	0.16	-0.12	0.28
Hubbard	Glenn	1983	ATL	3	8	-0.11	-0.39	0.28
Herndon	Larry	1983	DET	9	3	0.33	0.09	0.24
Householder	Paul	1983	CIN	12	12	-0.13	-0.36	0.23
McGee	Willie	1983	SLN	39	8	0.91	0.69	0.22
Ray	Johnny	1983	PIT	18	9	-0.27	0.00	-0.27
Lansford	Carney	1983	OAK	3	8	-0.69	-0.39	-0.30
Wilson	Willie	1983	KCA	59	8	0.98	1.29	-0.31
Collins	Dave	1983	TOR	31	7	0.20	0.51	-0.31
Guerrero	Pedro	1983	LAN	23	7	-0.05	0.27	-0.32
Raines	Tim	1983	MON	90	14	1.49	1.86	-0.37
Henderson	Rickey	1983	OAK	108	19	1.70	2.10	-0.40
Cruz	Julio	1983	SEA	33	6	0.23	0.63	-0.40
Hayes	Von	1983	PHI	20	12	-0.54	-0.12	-0.42
Concepcion	Onix	1983	KCA	10	3	-0.43	0.12	-0.55