

RATING THE CATCHERS

By Jim Weigand

Evaluating the defensive capabilities of catchers has historically been a nightmare. The standard defensive statistics never seem to work. Putouts are overwhelmingly a product of strikeouts. Assists are a good indication of a catcher's defensive prowess. However, like outfielders, a good defensive catcher's assists should tail off in time, as base runners decline to test his arm. Fielding averages are also unsatisfactory, as just a handful of errors separate the better defensive catchers from the worst. The same can be said of double plays and of passed balls, which is the only unique statistic for catchers.

In 1999 baseball began tracking three new defensive statistics for catchers: innings caught, opponent stolen bases, and opponents caught stealing. This opened up new methods of evaluating catchers. Unfortunately, the new data was only used to calculate stolen base percentages or caught stealing percentages against catchers. While indicative, these percentages are on the whole unsatisfactory. Imagine two catchers with the same number of innings caught. The first nabbed 60 of 180 runners attempting to steal - the second 30 of 90. Both catchers had equivalent percentages, but I don't think one could argue their defensive equivalency. The second catcher had in fact depressed the running game by half the first.

In fact, if one could design a robo-catcher, who throws out every base stealer, eventually no stolen bases would be attempted. I would suggest that a better measure would be Stolen Base Attempts per Game (SBA/G), where Stolen Base Attempts are Stolen Bases plus Caught Stealing and Games are Innings Caught divided by 9 or, for the purposes of this study, Outs (Innings Caught times 3) divided by 27:

$$\text{SBA/G} = (\text{SB} + \text{CS}) / (\text{Outs}/27) = 27 * (\text{SB} + \text{CS}) / \text{Outs}$$

This is a simple calculation, using all three new statistics for catchers and is valid within a league and a season. However, for evaluating catchers over time and between leagues a percentage above or below the league average is better, known here as the Catcher Arm Rating (CAR).

$$\text{CAR} = 100 - 100 * \text{SBA/G}_{\text{catcher}} / \text{SBA/G}_{\text{league}}$$

The data now becomes an important factor. With only five years of data available, a study would be historically lacking. Fortunately, we have an organization called Retrosheet, whose goal is compiling as many play-by-plays of major league games as possible. Currently, they have nearly all play-by-play from 1960 to the present and make it available free to the public on their website (www.retrosheet.org).

I calculated yearly CAR for catchers for all years from 1960 through 2005. From 1960 through 1996, I used league SBA/Gs. However, with the advent of interleague play in 1997, I combined the leagues' SBA/Gs into one. I chose 2,000 Outs as a qualifier, as that translates to about 80 games, which is about half a season, a qualifier for catchers' fielding average leadership. For catchers who played in both leagues in a year, the CARs are weighted by Outs and combined into a single CAR. Table 1 lists the top three CARs per season, irrespective of league, from 1960 through 2005. Table 2 lists Table 1's catchers with years qualifying, years finishing in the top three, and the number of finishes in each of the top three spots. Points are awarded 5 for leading all catchers in CAR, 3 for finishing second, and 1 for third.

Table 3 lists all catchers with 20,000 Outs, or ten years of 2,000 Outs for the years 1960 through 2005, plus the 1959 American League. Individual, yearly CARs had to be weighted by Outs. This was accomplished by multiplying each player's yearly CAR by his number of Outs. These products were then added and the resulting sum finally divided by the sum of the catcher's Outs. These results are dramatic. Ivan Rodriguez and Johnny Bench stand alone, depressing the running game by about thirty percent. Alone at the bottom of the list is Mike Piazza at -24%. Table 4 lists the yearly records of Rodriguez and Bench. One can see, particularly with Bench, the three stages of CAR, establishment, dominance and decline.

Table 1: Yearly Leaders in CAR 1960-2005

Year	First	CAR	Second	CAR	Third	CAR
1960	Crandall	36.82	Burgess	26.99	Triandos	24.26
1961	Burgess	36.26	Howard	30.86	Triandos	28.13
1962	Howard	36.25	Brown	30.68	Haller	28.33
1963	Howard	42.48	Roseboro	30.63	Torre	29.07
1964	Roseboro	34.77	Freehan	31.69	Howard	30.50
1965	Haller	30.32	Roseboro	30.01	Pagliaroni	28.61
1966	Howard	27.49	Azcue	26.73	Freehan	25.91
1967	Azcue	30.68	McCarver	25.29	Hundley	22.57
1968	Azcue	33.11	Gibbs	28.63	Bateman	21.15
1969	Bench	28.35	Hendricks	23.26	Roof	19.64
1970	Bench	40.38	Grote	30.94	Munson	28.19
1971	Bench	30.47	Munson	29.15	Dietz	24.27
1972	Bench	45.63	Munson	36.95	Sanguillen	30.44
1973	Bench	43.45	Fisk	27.19	Fosse	21.52
1974	Bench	40.82	Yeager	26.28	Duncan	21.88
1975	Bench	40.92	Yeager	38.72	Duncan	28.63
1976	Boone	27.15	Bench	20.94	Yeager	19.70
1977	Yeager	33.75	Sundberg	31.92	Fisk	29.52
1978	Moore	28.96	Bench	22.83	Boone	22.72
1979	Munson	32.63	Boone	22.91	Dempsey	21.10
1980	Moore	30.60	Carter	21.09	Cerone	20.04
1981	Carter	23.06	Sundberg	16.16	Parrish	10.29
1982	Martinez	31.49	Dempsey	27.21	Kennedy	23.56
1983	Porter	31.42	Pena	17.44	Carter	16.09
1984	Parrish	24.24	Boone	22.59	Kennedy	20.41
1985	Nieto	33.66	Boone	22.15	Scioscia	21.89
1986	Boone	35.91	LaValliere	35.24	Heath	31.09
1987	Boone	37.71	Pena	29.48	Santiago	15.93
1988	Santiago	38.80	Hassey	25.70	Pena	21.78
1989	Santiago	43.97	Berryhill	33.55	Steinbach	32.26
1990	Daulton	25.59	Oliver	21.55	Santiago	21.32
1991	Valle	23.92	Santiago	18.78	Reed	13.01
1992	Pagnozzi	21.32	Manwaring	19.10	Surhoff	17.80
1993	Pena	24.26	Stanley	21.54	Taubensee	18.67
1994	Rodriguez	37.08	Hoiles	22.50	Alomar Jr.	16.73
1995	Rodriguez	32.20	Manwaring	19.88	Mayne	19.69
1996	Johnson	31.46	Macfarlane	26.53	Rodriguez	25.40
1997	Rodriguez	40.54	Steinbach	26.19	Ausmus	25.22
1998	Lieberthal	34.48	Rodriguez	34.10	Lopez	33.58
1999	Rodriguez	45.71	Steinbach	33.18	Eusebio	32.51
2000	Rodriguez	46.07	Ausmus	33.85	Johnson	25.07
2001	Matheny	44.45	Estrada	35.43	Rodriguez	34.93
2002	Rodriguez	47.39	Pierzynski	33.68	Wilson	28.67
2003	Wilson	42.76	Matheny	41.34	Rodriguez	38.02
2004	Matheny	35.03	Rodriguez	33.97	LaRue	31.70
2005	Y.Molina	51.64	Ausmus	36.37	Mauer	35.74

Table 2: Career Top 3 Finishers 1960-2005

Catcher	1st	2nd	3rd	Total	Catcher	1st	2nd	3rd	Total
Bench, Johnny	7	2	0	41	Berryhill, Damon	0	1	0	3
Rodriguez, Ivan	6	2	3	39	Brown, Dick	0	1	0	3
Boone, Bob	3	3	1	25	Estrada, Johnny	0	1	0	3
Howard, Elston	3	1	1	19	Gibbs, Jake	0	1	0	3
Santiago, Benito	2	1	2	15	Grote, Jerry	0	1	0	3
Azcue, Joe	2	1	0	13	Hassey, Ron	0	1	0	3
Matheny, Mike	2	1	0	13	Hendricks, Ellie	0	1	0	3
Munson, Thurman	1	2	1	12	Hoiles, Chris	0	1	0	3
Pena, Tony	1	2	1	12	LaValliere, Mike	0	1	0	3
Yeager, Steve	1	2	1	12	McCarver, Tim	0	1	0	3
Roseboro, Johnny	1	2	0	11	Oliver, Joe	0	1	0	3
Moore, Charlie	2	0	0	10	Pierzynski, A.J.	0	1	0	3
Carter, Gary	1	1	1	9	Stanley, Mike	0	1	0	3
Burgess, Smoky	1	1	0	8	Duncan, Dave	0	0	2	2
Lieberthal, Mike	1	1	0	8	Kennedy, Terry	0	0	2	2
Ausmus, Brad	0	2	1	7	Triandos, Gus	0	0	2	2
Steinbach, Terry	0	2	1	7	Alomar Jr., Sandy	0	0	1	1
Haller, Tom	1	0	1	6	Bateman, John	0	0	1	1
Johnson, Charles	1	0	1	6	Cerone, Rick	0	0	1	1
Manwaring, Kirt	0	2	0	6	Dietz, Dick	0	0	1	1
Parrish, Lance	1	0	1	6	Eusebio, Tony	0	0	1	1
Sundberg, Jim	0	2	0	6	Fosse, Ray	0	0	1	1
Wilson, Dan	1	0	1	6	Heath, Mike	0	0	1	1
Crandall, Del	1	0	0	5	Hundley, Randy	0	0	1	1
Daulton, Darren	1	0	0	5	LaRue, Jason	0	0	1	1
Martinez, Buck	1	0	0	5	Lopez, Javy	0	0	1	1
Molina, Yadier	1	0	0	5	Mauer, Joe	0	0	1	1
Nieto, Tom	1	0	0	5	Mayne, Brent	0	0	1	1
Pagnozzi, Tom	1	0	0	5	Pagliaroni, Jim	0	0	1	1
Porter, Darrell	1	0	0	5	Reed, Jeff	0	0	1	1
Valle, Dave	1	0	0	5	Roof, Phil	0	0	1	1
Dempsey, Rick	0	1	1	4	Sanguillen, Manny	0	0	1	1
Fisk, Carlton	0	1	1	4	Scioscia, Mike	0	0	1	1
Freehan, Bill	0	1	1	4	Surhoff, B.J.	0	0	1	1
					Taubensee, Eddie	0	0	1	1
					Torre, Joe	0	0	1	1
						46	46	46	

Table 3: Career CAR Leaders (20,000 Outs)

Catcher	Years	Outs	SB	CS	SBA	SB%	CAR
Rodriguez, Ivan	91-05	45481	567	532	1099	51.59	31.45
Bench, Johnny	67-83	43467	610	471	1081	56.43	28.66
Howard, Elston	*59-67	25423	254	186	440	57.73	23.91
Roseboro, Johnny	*60-70	29792	358	255	613	58.40	22.56
Santiago, Benito	86-05	47776	998	529	1527	65.36	21.24
Munson, Thurman	69-79	33325	533	427	960	55.52	21.17
Yeager, Steve	72-86	28274	595	365	960	61.98	19.25
Matheny, Mike	94-05	28984	528	287	815	64.79	15.46
Lieberthal, Mike	94-05	27533	549	225	774	70.93	14.90
Johnson, Charles	94-05	29158	530	343	873	60.71	14.82
Martinez, Buck	69-86	22027	464	258	722	64.27	14.68
Battey, Earl	*59-67	24204	260	187	447	58.17	14.65
Macfarlane, Mike	87-99	24941	543	265	808	67.20	14.65
Wilson, Dan	92-05	31091	624	314	938	66.52	14.08
Boone, Bob	72-90	55375	1108	731	1839	60.25	14.06
Karkovice, Ron	86-97	20918	401	281	682	58.80	13.90
Azcue, Joe	60-72	20779	243	201	444	54.73	13.48
Ausmus, Brad	93-05	38482	737	436	1173	62.83	11.48
Sanguillen, Manny	67-80	28507	503	315	818	61.49	10.99
Pena, Tony	80-97	47916	1225	656	1881	65.12	10.58
Dempsey, Rick	69-92	36973	770	507	1277	60.30	10.23
Scioscia, Mike	80-92	33700	952	500	1452	65.56	9.19
Pagnozzi, Tom	87-98	20017	496	293	789	62.86	8.79
Torre, Joe	61-70	22305	317	217	534	59.36	8.43
Valle, Dave	84-96	20994	475	267	742	64.02	8.27
Porter, Darrell	71-87	37824	902	553	1455	61.99	8.02
Sundberg, Jim	74-89	47701	1012	708	1720	58.84	7.29
Etchebarren, Andy	62-78	20905	388	244	632	61.39	7.14
Manwaring, Kirt	87-99	23054	569	311	880	64.66	7.08
Steinbach, Terry	86-99	34009	765	436	1201	63.70	6.87
Heath, Mike	78-91	25126	571	327	898	63.59	6.30
Daulton, Darren	83-95	23824	701	290	991	70.74	6.22
Parrish, Lance	77-95	45607	1043	655	1698	61.43	5.24
Fisk, Carlton	69-93	55535	1302	664	1966	66.23	5.24
Cerone, Rick	75-92	30340	705	413	1118	63.06	5.14
Carter, Gary	74-92	52107	1498	810	2308	64.90	5.07
Grote, Jerry	63-81	32820	579	350	929	62.33	5.03
Hundley, Randy	64-77	25456	393	287	680	57.79	4.82
Alomar Jr., Sandy	89-05	31067	736	320	1056	69.70	4.78
Lopez, Javy	92-05	32300	765	303	1068	71.63	4.75
Diaz, Bo	77-89	23090	686	357	1043	65.77	4.17
Rodgers, Buck	61-69	22147	282	215	497	56.74	4.15
Tenace, Gene	69-83	20034	515	290	805	63.98	3.62
Moore, Charlie	73-87	20239	488	272	760	64.21	3.52
Oliver, Joe	89-01	24608	669	303	972	68.83	3.34

Catcher	Years	Outs	SB	CS	SBA	SB%	CAR
Whitt, Ernie	76-91	28202	691	347	1038	66.57	3.00
Haller, Tom	61-72	28999	485	257	742	65.36	2.64
Wynegar, Butch	76-88	31563	708	478	1186	59.70	2.60
Duncan, Dave	64-76	21892	472	225	697	67.72	2.43
McCarver, Tim	*60-79	34665	634	332	966	65.63	2.31
Freehan, Bill	61-76	40311	741	433	1174	63.12	2.06
Mayne, Brent	90-04	26674	651	268	919	70.84	2.02
Kennedy, Terry	78-91	33540	1051	478	1529	68.74	1.50
Kendall, Jason	96-05	34709	820	346	1166	70.33	0.54
Bateman, John	63-72	23832	423	222	645	65.58	-0.64
Hassey, Ron	78-91	22269	579	262	841	68.85	-1.01
Girardi, Joe	89-03	30184	798	384	1182	67.51	-1.11
Davis, Jody	81-90	25688	815	445	1260	64.68	-1.26
Benedict, Bruce	78-89	23342	772	361	1133	68.14	-1.55
Fosse, Ray	67-79	21263	437	286	723	60.44	-2.18
Edwards, Johnny	61-74	34052	577	372	949	60.80	-2.53
Posada, Jorge	95-05	27035	632	265	897	70.46	-3.21
Tettleton, Mickey	84-95	20854	581	238	819	70.94	-3.27
Dalrymple, Clay	60-71	23503	321	306	627	51.20	-3.66
Slaughter, Don	82-97	28944	843	347	1190	70.84	-5.90
Ashby, Alan	73-89	31546	1112	445	1557	71.42	-6.15
Hundley, Todd	90-03	25818	793	266	1059	74.88	-6.24
Reed, Jeff	84-00	23063	727	301	1028	70.72	-6.33
Simmons, Ted	68-88	45277	1186	609	1795	66.07	-6.43
Hoiles, Chris	89-98	20298	589	228	817	72.09	-6.77
May, Milt	71-84	25618	724	407	1131	64.01	-7.74
Gedman, Rich	80-92	22833	633	314	947	66.84	-10.57
Borders, Pat	88-05	23049	633	333	966	65.53	-11.35
Fletcher, Darrin	89-02	26577	884	280	1164	75.95	-12.87
Varitek, Jason	97-05	22393	612	215	827	74.00	-14.61
Flaherty, John	92-05	24647	707	302	1009	70.07	-15.36
Piazza, Mike	92-05	38511	1303	410	1713	76.07	-24.00

Missing data [*]

Earl Battey [1955-1958]

Elston Howard [1955-1958]

Tim McCarver [1959]

Johnny Roseboro [1957-1959]

Table 4: Individual Yearly Statistics**Ivan Rodriguez**

Year	Outs	SB	CS	SBA	SB%	CAR	Rank
1991	2052	36	34	70	51.43	6.34	7
1992	2948	53	57	110	48.18	11.25	9
1993	3351	64	51	115	55.65	14.00	7
1994	2513	37	23	60	61.67	37.08	1
1995	3195	40	37	77	51.95	32.20	1
1996	3670	46	48	94	48.94	25.40	3
1997	3603	37	49	86	43.02	40.54	1
1998	3592	38	49	87	43.68	34.10	2
1999	3625	34	41	75	45.33	45.71	1
2000	2209	20	19	39	51.28	46.07	1
2001	2566	23	35	58	39.66	34.93	3
2002	2509	26	15	41	63.41	47.39	1
2003	3397	40	20	60	66.67	38.02	3
2004	3153	40	19	59	67.80	33.97	2
2005	3098	33	35	68	48.53	21.66	5
	45481	567	532	1099	51.59	31.45	1

Johnny Bench

Year	Outs	SB	CS	SBA	SB%	CAR	Rank
1967	699	5	5	10	50.00	45.21	
1968	3903	49	44	93	52.69	4.51	11
1969	3747	30	40	70	42.86	28.35	1
1970	3473	32	30	62	51.61	40.38	1
1971	3512	37	27	64	57.81	30.47	1
1972	3419	24	32	56	42.86	45.63	1
1973	3345	28	27	55	50.91	43.45	1
1974	3400	37	35	72	51.39	40.82	1
1975	3008	32	27	59	54.24	40.92	1
1976	3213	57	42	99	57.58	20.94	2
1977	3197	64	42	106	60.38	27.35	5
1978	2508	49	35	84	58.33	22.83	2
1979	3250	70	45	115	60.87	17.85	4
1980	2541	83	34	117	70.94	9.44	9
1981	180	9	4	13	69.23	-52.69	
1982	3	0	0	0		100.00	
1983	69	4	2	6	66.67	-71.50	
	43467	610	471	1081	56.43	28.66	2