Rockies 2017 - Week #11

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Figure 1: DJ LeMahieu (born July 13, 1988 in Visalia, California): Second Base, Colorado Rockies. DJ's WAR rating is 1.5.

"I see great things in baseball. It is our game - the American game" – Walt Whitman

Table 1: NL West Standings

Tm	W	L	W-L%	GB
Colorado Rockies	46	26	.639	–
Arizona Diamondbacks	44	26	.629	1.0
Los Angeles Dodgers	44	26	.629	1.0
San Diego Padres	28	42	.400	17.0
San Francisco Giants	26	45	.366	19.5

Table 2: Current Rockies Results as of 2017-06-19

Wins	Losses	Win.Pct	Runs	Runs.Ag	Predicted Season Wins
46	26	63.889	383	308	98

Week #11

The Rox had a mixed week, however, remaining on top of the NL West division. They started the week away, losing twice to the Pirates and then winning against them in the last game of the series. The Rockies then started a home stand against the Giants on Thursday, winning four.

Here is an interesting fact, **the Rockies have been first place in their division 58 days out 65 days of the season** (counts all days of the season including off days).

Here is a synopsis of what is included this week.

- **Featured Article**
  - What is "Wins Above Replacement" and How is it Calculated
- Colorado Rockies Dashboards
  - Rockies Win/Loss Graphs for 2017 and 2007
  - National and American League Standings
  - Game-by-Game Results
  - **Pythagorean Theorem** prediction of the number of wins.
  - Batting Statistics (for non-pitchers)
  - Pitching Statistics
  - National League Team Standard Batting **New**
  - Current Injuries **Updated**
- Topics for Future Articles
- Glossary
  - Batting Statistics
  - Pitching Statistics
  - Fielding Statistics

Most of the source data for this article can be found at URL http://baseball-reference.com.

Let me know what other special interest statistics you might like to see. Remember to refer to the Glossaries at the end of the document if unfamiliar with one or more of the statistic abbreviations in the tables.

Featured Article

What is "Wins Above Replacement" and How is it Calculated

The Sabermetrician's Holy Grail is to develop more and better statistics to measure the effectiveness of players and teams. The goals are to better define the essence of a winning team and define the most comprehensive metric to compare each player against all others, past and present.

Since the early work by Bill James, there has been an evolution of metrics to measure batting, base running, fielding, and pitching. We have moved on from just stating a ballplayer's batting average (BA) to measuring his effectiveness of getting on base (OBP) and his ability to get extra-base hits (SLG). And, of course, we combine OBP and SLG to represent (OPS) a player's overall effectiveness as a batter. However, this does not tell the whole story of a position-player or pitcher's effectiveness. What's missing are measurements that take into account of his fielding or pitching.

An attempt to take all of these factors into account has gone into the development **WAR,** Wins Above Replacement. The basis of WAR is to estimate the number of runs contributed by a player. This number of runs is translated into wins by roughly ten runs being equivalent to one win.

For example, Rockies third-baseman, Nolan Arenado has a WAR rating of 3.1, which makes him the Rockies highest-rated WAR player.

WAR is a measure of a players offensive performance (batting and base running) and defensive effectiveness in denying runs by opposing teams by fielding or pitching.

There is no agreed upon standard calculation for WAR values. Three primary sources of WAR calculations are **Baseball Prospectus, Baseball Reference and FanGraphs.** The Baseball Reference version of WAR is named **bWAR** or **rWAR.** FanGraphs uses the abbreviation **fWAR** for their particular formulation of the WAR statistic.

WAR is not recognized as an official statistic by **Major League Baseball** or by the **Elias Sports Bureau.** Although flawed and often miss-applied, WAR is the most comprehensive statistic for measuring a player's value. I consider it a work in progress. As it is refined and standardized, it will become more commonly used and referenced.

Following is a table of Rockies players and their Baseball Reference **bWAR** values.

Table 3: Baseball Reference bWAR Values of Top Twelve Colorado Rockies Players

Rank	Player	bWAR
1	Nolan Arenado	3.1
2	Kyle Freeland	2.9
3	Charlie Blackmon	2.4
4	Tyler Chatwood	2.2
5	Antonio Senzatela	2.2
6	Greg Holland	1.5
7	DJ LaMahieu	1.5
8	Jeff Hoffman	1.4
9	Mark Reynolds	1.3
10	Chris Rusin	1.2
11	Jake McGee	1.2
12	German Marquez	1.2

To be continued.

Rockies Dashboard

Win Loss Margin

One of the many ways to visualize a teams performance is to show wins and losses as the margin of the win (positive) or loss (negative). In the graphs below, we show the current season performance. For emphasis, wins are displayed in green (above the zero) and losses in red (below).

Following the current season's graph, I have included the Win/Loss margin chart for our benchmark season of 2007 when the Rockies won the National League pennant.

Rockies 2017 Win/Loss Margin
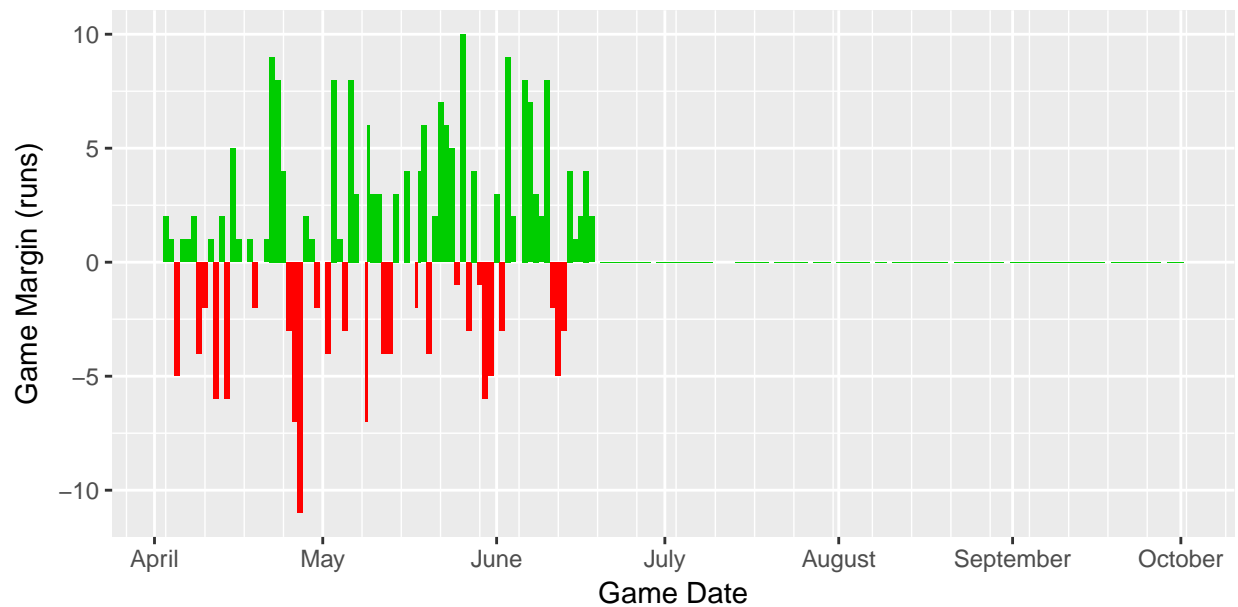
Rockies 2007 Win/Loss Margin
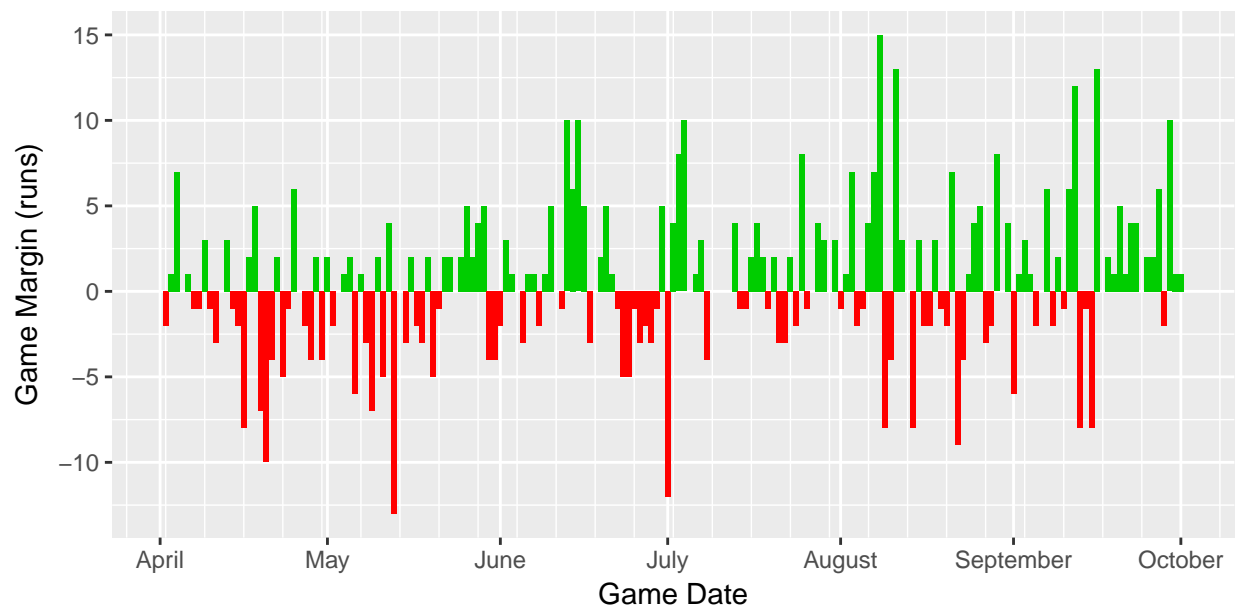
National League Standings

Table 4: NL East Standings

Tm	W	L	W-L%	GB
Washington Nationals	42	27	.609	–
Atlanta Braves	31	37	.456	10.5
New York Mets	31	37	.456	10.5
Miami Marlins	30	37	.448	11.0
Philadelphia Phillies	22	46	.324	19.5

Table 5: NL Central Standings

Tm	W	L	W-L%	GB
Milwaukee Brewers	38	33	.535	–
Chicago Cubs	34	34	.500	2.5
St. Louis Cardinals	31	37	.456	5.5
Pittsburgh Pirates	31	38	.449	6.0
Cincinnati Reds	29	39	.426	7.5

Table 6: NL West Standings

Tm	W	L	W-L%	GB
Colorado Rockies	46	26	.639	–
Arizona Diamondbacks	44	26	.629	1.0
Los Angeles Dodgers	44	26	.629	1.0
San Diego Padres	28	42	.400	17.0
San Francisco Giants	26	45	.366	19.5

American League Standings

Table 7: AL East Standings

Tm	W	L	W-L%	GB
New York Yankees	38	29	.567	–
Boston Red Sox	39	30	.565	–
Tampa Bay Rays	37	35	.514	3.5
Baltimore Orioles	34	34	.500	4.5
Toronto Blue Jays	33	35	.485	5.5

Table 8: AL Central Standings

Tm	W	L	W-L%	GB
Cleveland Indians	36	31	.537	–
Minnesota Twins	34	33	.507	2.0
Kansas City Royals	33	35	.485	3.5
Detroit Tigers	32	36	.471	4.5
Chicago White Sox	31	37	.456	5.5

Table 9: AL West Standings

Tm	W	L	W-L%	GB
Houston Astros	46	24	.657	–
Texas Rangers	34	34	.500	11.0
Los Angeles Angels of Anaheim	36	37	.493	11.5
Seattle Mariners	34	37	.479	12.5
Oakland Athletics	31	38	.449	14.5

Rockies Game-by-Game Schedule/Results

Gm#	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	D/N	Streak
1	Mon	Apr 3	A	MIL	W	7	5	Estevez	Marinez	Holland	D	+
2	Tue	Apr 4	A	MIL	W	6	5	Anderson	Davies	Holland	N	++
3	Wed	Apr 5	A	MIL	L	1	6	Peralta	Chatwood	Feliz	N	-
4	Thu	Apr 6	A	MIL	W	2	1	Dunn	Feliz	Holland	D	+
5	Fri	Apr 7	H	LAD	W	2	1	Freeland	Ryu	McGee	D	++
6	Sat	Apr 8	H	LAD	W	4	2	Dunn	Kershaw	Holland	N	+++
7	Sun	Apr 9	H	LAD	L	6	10	Maeda	Anderson		D	-
8	Mon	Apr 10	H	SDP	L	3	5	Diaz	Chatwood		N	--
9	Tue	Apr 11	H	SDP	W	3	2	Senzatela	Diaz	Holland	N	+
10	Wed	Apr 12	H	SDP	L	0	6	Lee	Freeland		D	-
11	Thu	Apr 13	A	SFG	W	3	1	Rusin	Bumgarner	Holland	N	+
12	Fri	Apr 14	A	SFG	L	2	8	Cueto	Anderson		N	-
13	Sat	Apr 15	A	SFG	W	5	0	Chatwood	Moore		D	+
14	Sun	Apr 16	A	SFG	W	4	3	Senzatela	Samardzija	Holland	D	++
15	Tue	Apr 18	A	LAD	W	4	3	Rusin	Ryu	Holland	N	+++
16	Wed	Apr 19	A	LAD	L	2	4	Kershaw	Anderson	Jansen	N	-
17	Fri	Apr 21	H	SFG	W	6	5	Chatwood	Cueto	Holland	N	+
18	Sat	Apr 22	H	SFG	W	12	3	Senzatela	Moore		N	++
19	Sun	Apr 23	H	SFG	W	8	0	Freeland	Samardzija		D	+++
20	Mon	Apr 24	H	WSN	W	8	4	Estevez	Romero		N	++++
21	Tue	Apr 25	H	WSN	L	12	15	Romero	Marquez		N	-
22	Wed	Apr 26	H	WSN	L	4	11	Roark	Chatwood		N	--
23	Thu	Apr 27	H	WSN	L	5	16	Gonzalez	Senzatela		D	---
24	Fri	Apr 28	A	ARI	W	3	1	Freeland	Ray	Holland	N	+
25	Sat	Apr 29	A	ARI	W	7	6	Estevez	Rodney	Holland	N	++
26	Sun	Apr 30	A	ARI	L-wo	0	2	Delgado	Lyles		D	-
27	Tue	May 2	A	SDP	L	2	6	Cahill	Chatwood		N	--
28	Wed	May 3	A	SDP	W	11	3	Senzatela	Weaver		N	+
29	Thu	May 4	A	SDP	W	3	2	Qualls	Hand	Holland	D	++
30	Fri	May 5	H	ARI	L	3	6	Greinke	Marquez	Rodney	N	-
31	Sat	May 6	H	ARI	W	9	1	Anderson	Corbin	Rusin	N	+
32	Sun	May 7	H	ARI	W	5	2	Chatwood	Walker	Holland	D	++
33	Tue	May 9 (1)	H	CHC	W	10	4	Senzatela	Arrieta		D	+++
34	Tue	May 9 (2)	H	CHC	L	1	8	Lackey	Freeland		N	-
35	Wed	May 10	H	CHC	W	3	0	Marquez	Hendricks	Holland	D	+
36	Thu	May 11	H	LAD	W	10	7	Hoffman	Ryu	Holland	N	++
37	Fri	May 12	H	LAD	L	2	6	Kershaw	Chatwood		N	-
38	Sat	May 13	H	LAD	L	0	4	Wood	Anderson		N	--
39	Sun	May 14	H	LAD	W	9	6	Senzatela	Urias	Holland	D	+
40	Tue	May 16	A	MIN	W	7	3	Freeland	Hughes	Holland	N	++
41	Thu	May 18 (1)	A	MIN	W	5	1	Marquez	Santana	Holland	D	+++
42	Thu	May 18 (2)	A	MIN	L	0	2	Berrios	Chatwood	Kintzler	N	-
43	Fri	May 19	A	CIN	W	12	6	Anderson	Bonilla		N	+
44	Sat	May 20	A	CIN	L	8	12	Wojciechowski	Dunn		D	-
45	Sun	May 21	A	CIN	W	6	4	Freeland	Arroyo	Holland	D	+
46	Mon	May 22	A	PHI	W	8	1	Hoffman	Eickhoff		N	++
47	Tue	May 23	A	PHI	W	8	2	Marquez	Eflin		N	+++
48	Wed	May 24	A	PHI	W	7	2	Chatwood	Hellickson		N	++++
49	Thu	May 25	A	PHI	L-wo	1	2	Gomez	Oberg		D	-
50	Fri	May 26	H	STL	W	10	0	Senzatela	Martinez		N	+

Gm#	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	D/N	Streak
51	Sat	May 27	H	STL	L	0	3	Wainwright	Freeland	Oh	N	-
52	Sun	May 28	H	STL	W	8	4	Marquez	Lynn		D	+
53	Mon	May 29	H	SEA	L	5	6	Gaviglio	Chatwood	Diaz	D	-
54	Tue	May 30	H	SEA	L	4	10	Miranda	Anderson		N	−
55	Wed	May 31	A	SEA	L	0	5	Paxton	Senzatela		N	——
56	Thu	Jun 1	A	SEA	W	6	3	Freeland	Gallardo	Holland	D	+
57	Fri	Jun 2	A	SDP	L	5	8	Richard	Marquez	Maurer	N	-
58	Sat	Jun 3	A	SDP	W	10	1	Chatwood	Chacin		D	+
59	Sun	Jun 4	A	SDP	W	3	1	Hoffman	Cosart	Holland	D	++
60	Tue	Jun 6	H	CLE	W	11	3	Senzatela	Clevinger		N	+++
61	Wed	Jun 7	H	CLE	W	8	1	Freeland	Bauer		D	++++
62	Thu	Jun 8	A	CHC	W	4	1	Chatwood	Lester	Holland	N	+++++
63	Fri	Jun 9	A	CHC	W	5	3	Rusin	Frankoff	Holland	D	++++++
64	Sat	Jun 10	A	CHC	W	9	1	Hoffman	Butler		D	+++++++
65	Sun	Jun 11	A	CHC	L	5	7	Edwards	Lyles	Davis	D	-
66	Mon	Jun 12	A	PIT	L	2	7	Taillon	Freeland		N	−
67	Tue	Jun 13	A	PIT	L	2	5	Cole	Ottavino		N	——
68	Wed	Jun 14	A	PIT	W	5	1	Marquez	Kuhl		N	+
69	Thu	Jun 15	H	SFG	W-wo	10	9	Holland	Strickland		N	++
70	Fri	Jun 16	H	SFG	W	10	8	Senzatela	Samardzija	Holland	N	+++
71	Sat	Jun 17	H	SFG	W	5	1	Freeland	Cain		D	++++
72	Sun	Jun 18	H	SFG	W-wo	7	5	Estevez	Melancon		D	+++++

The Rockies current record is 46 Wins and 26 Losses. So far, the Rockies have scored 383 runs and have had 308 runs scored against them.

Pythagorean Win-Loss Theorem

$$predictedW\% = \frac{R^k}{R^k + RA^k}$$

Using the commonly used values of k, the Rockies predicted wins for the 2017 are shown in the table below. Remember this statistic will vary widely over the course of the season.

Table 11: Predicted Wins for Entire 2017 Season

Wins (k=1.81)	Wins (k=1.83)	Wins (k=2.00)
97	97	98

Batting Statistics (non-pitchers)

Table 12: Rockies Batting Statistics (1 of 2).

Rk	Pos	Name	Age	G	AB	R	H	2B	3B	HR	RBI	SB	CS	BB
1	C	Wolters*	25	45	134	27	40	6	1	0	11	0	1	20
2	1B	Reynolds	33	67	242	40	73	9	0	17	55	1	1	32
3	2B	LeMahieu	28	72	287	40	86	13	1	3	36	4	4	25
4	SS	Story	24	57	194	30	44	10	0	10	28	2	0	26
5	3B	Arenado	26	71	281	47	84	26	3	15	55	2	1	22
6	LF	Desmond	31	45	176	27	50	6	1	5	25	7	3	7
7	CF	Blackmon*	30	70	290	59	95	17	10	15	54	5	4	21
8	RF	Gonzalez*	31	65	233	35	51	12	0	5	19	1	0	29
9	LF	Parra*	30	49	148	23	47	6	0	6	28	0	4	6
10	UT	Amarista*	28	38	83	12	26	7	0	2	16	0	0	1
11	UT	Valaika	24	43	73	13	18	7	0	5	13	0	0	3
12	C	Garneau	29	22	68	5	14	7	0	1	6	0	0	4
13	C	Hanigan	36	13	43	4	11	0	0	2	8	0	0	3
14	OF	Tapia*	23	18	38	8	13	2	0	0	3	1	2	3
15	OF	Cardullo	29	15	28	2	4	0	0	0	3	0	0	3
16	IF	Adames#	25	12	13	1	0	0	0	0	0	0	0	1
17	C	Murphy	26	2	6	0	0	0	0	0	0	0	0	1

Table 13: Rockies Batting Statistics (2 of 2).

Rk	Pos	Name	Age	SO	BA	OBP	SLG	OPS	OPS+	TB	GDP	HBP	SH	SF	IBB
1	C	Wolters*	25	27	.299	.397	.358	.756	89	48	6	2	1	0	5
2	1B	Reynolds	33	72	.302	.384	.550	.934	127	133	6	1	0	1	0
3	2B	LeMahieu	28	43	.300	.362	.383	.745	85	110	7	3	2	0	0
4	SS	Story	24	73	.227	.318	.433	.751	83	84	3	0	0	0	1
5	3B	Arenado	26	54	.299	.352	.573	.925	122	161	11	3	0	4	2
6	LF	Desmond	31	47	.284	.316	.415	.730	78	73	7	2	2	2	1
7	CF	Blackmon*	30	67	.328	.377	.610	.988	138	177	1	4	3	3	2
8	RF	Gonzalez*	31	52	.219	.301	.335	.636	57	78	2	0	0	4	3
9	LF	Parra*	30	27	.318	.348	.480	.828	101	71	4	2	0	2	0
10	UT	Amarista*	28	16	.313	.321	.470	.791	92	39	1	0	1	0	0
11	UT	Valaika	24	21	.247	.273	.548	.821	95	40	0	0	2	1	0
12	C	Garneau	29	24	.206	.260	.353	.613	49	24	1	1	1	0	0
13	C	Hanigan	36	10	.256	.304	.395	.700	71	17	1	0	0	0	0
14	OF	Tapia*	23	8	.342	.405	.395	.799	99	15	0	1	0	0	0
15	OF	Cardullo	29	7	.143	.250	.143	.393	2	4	0	1	0	0	0
16	IF	Adames#	25	6	.000	.071	.000	.071	-80	0	0	0	0	0	0
17	C	Murphy	26	3	.000	.143	.000	.143	-59	0	0	0	0	0	1

- * - bats left-handed, # - bats both, else - bats right, ? - unknown; OPS_lg for OPS+ does not include pitchers.

Pitching Statistics

Table 14: Rockies pitching statistics (1 of 2).

Rk	Pos	Name	Age	W	L	W-L%	ERA	G	GS	GF	CG	SHO	SV	IP	H	R
1	SP	Chatwood	27	6	7	.462	4.08	15	15	0	1	1	0	90.1	75	41
2	SP	Senzatela	22	9	2	.818	4.10	14	14	0	0	0	0	83.1	77	39
3	SP	Freeland*	24	8	4	.667	3.42	14	14	0	0	0	0	81.2	83	34
4	SP	Anderson*	27	3	5	.375	5.85	11	11	0	0	0	0	60.0	69	41
5	SP	Marquez	22	5	3	.625	4.19	10	10	0	0	0	0	53.2	56	26
6	SP	Hoffman	24	4	0	1.000	2.25	6	5	1	0	0	0	32.0	24	8
7	CL	Holland	31	1	0	1.000	1.69	28	0	28	0	0	24	26.2	14	5
8	RP	McGee*	30	0	0		2.15	30	0	8	0	0	1	29.1	20	8
9	RP	Oberg	27	0	1	.000	5.60	31	0	5	0	0	0	27.1	34	19
10	RP	Ottavino	31	0	1	.000	2.84	28	0	0	0	0	0	25.1	18	8
11	RP	Dunn*	32	2	1	.667	5.82	28	0	1	0	0	0	21.2	24	14
12		Rusin*	30	3	0	1.000	2.61	26	0	4	0	0	1	38.0	28	12
13		Lyles	26	0	2	.000	6.82	22	0	9	0	0	0	30.1	35	24
14		Qualls	38	1	0	1.000	4.60	17	0	8	0	0	0	15.2	13	9
15		Estevez	24	4	0	1.000	7.98	17	0	6	0	0	0	14.2	22	14
16		Gray	25	0	0		4.38	3	3	0	0	0	0	12.1	11	6
17		Carle	25	0	0		0.00	1	0	1	0	0	0	1.0	0	0

Table 15: Rockies pitching statistics (2 of 2).

Rk	Pos	Name	ER	HR	BB	IBB	SO	HBP	BK	WP	BF	ERA+	FIP	WHIP
1	SP	Chatwood	41	13	42	1	74	2	2	4	369	124	4.82	1.295
2	SP	Senzatela	38	13	24	0	60	4	2	1	341	124	4.73	1.212
3	SP	Freeland*	31	8	32	2	50	7	1	0	355	149	4.61	1.408
4	SP	Anderson*	39	13	20	0	59	2	2	2	263	87	5.08	1.483
5	SP	Marquez	25	6	19	2	51	3	0	3	237	121	3.91	1.398
6	SP	Hoffman	8	3	6	0	36	1	0	0	127	227	2.76	0.938
7	CL	Holland	5	1	13	1	35	0	0	3	103	303	2.46	1.013
8	RP	McGee*	7	3	8	0	34	0	0	2	116	238	2.96	0.955
9	RP	Oberg	17	2	13	2	27	1	0	3	125	91	3.64	1.720
10	RP	Ottavino	8	2	16	1	33	3	0	3	110	180	3.80	1.342
11	RP	Dunn*	14	6	13	0	28	0	0	2	99	88	5.95	1.708
12		Rusin*	11	2	10	1	28	1	0	1	150	196	3.21	1.000
13		Lyles	23	8	6	0	22	2	0	1	130	75	5.90	1.352
14		Qualls	8	3	5	0	9	0	0	0	65	112	5.43	1.149
15		Estevez	13	0	5	1	16	0	1	1	71	65	1.97	1.841
16		Gray	6	1	7	0	9	0	0	1	53	118	4.43	1.459
17		Carle	0	0	0	0	1	0	0	1	4		1.13	0.000

* - throws left-handed

National League Team Standard Batting

Table 16: NL Team Batting statistics (1 of 2).

Tm	#Bat	BatAge	R/G	G	PA	AB	R	H	2B	3B	HR	RBI	SB	CS	BB	SO
WSN	36	29.2	5.48	69	2708	2433	378	668	137	14	106	370	48	16	234	530
COL	34	28.4	5.32	72	2750	2469	383	679	131	16	87	370	23	20	209	615
ARI	31	28.2	5.13	70	2689	2415	359	636	134	18	94	342	57	18	233	617
LAD	36	28.0	4.97	70	2689	2354	348	592	141	6	86	324	35	11	274	613
CIN	36	27.4	4.91	68	2638	2366	334	616	118	21	98	323	61	15	209	552
MIL	36	27.1	4.89	71	2721	2436	347	614	129	15	103	331	58	21	236	687
NYM	39	29.8	4.87	68	2642	2345	331	583	125	11	100	319	22	6	237	521
CHC	35	27.1	4.75	68	2641	2307	323	548	113	12	94	302	18	9	268	584
MIA	38	28.4	4.75	67	2579	2325	318	625	104	10	82	304	37	8	184	521
ATL	36	29.5	4.63	68	2642	2363	315	633	124	8	68	303	30	15	205	511
LgAvg	36	28.2	4.63	69	2651	2368	320	602	121	13	85	306	37	15	225	570
STL	34	28.6	4.29	68	2599	2300	292	582	121	11	77	276	36	17	234	539
PIT	38	28.2	4.19	69	2652	2349	289	578	111	17	65	265	31	23	240	505
PHI	34	27.3	3.87	68	2551	2314	263	559	128	12	68	254	27	15	199	581
SFG	39	29.7	3.73	71	2700	2429	265	587	119	11	57	255	37	13	210	524
SDP	39	26.2	3.66	70	2569	2316	256	528	87	11	88	251	38	15	200	652

Table 17: NL Team Batting statistics (2 of 2).

Tm	#Bat	BatAge	R/G	BA	OBP	SLG	OPS	OPS+	TB	GDP	HBP	SH	SF	IBB	LOB
WSN	36	29.2	5.48	0	0.339	0.473	0.812	109	1151	47	10	16	15	29	486
COL	34	28.4	5.32	0	0.334	0.447	0.781	90	1103	52	20	35	17	15	460
ARI	31	28.2	5.13	0	0.332	0.451	0.782	95	1088	45	18	14	9	20	474
LAD	36	28.0	4.97	0	0.334	0.426	0.760	100	1003	58	27	17	16	12	482
CIN	36	27.4	4.91	0	0.326	0.452	0.778	101	1070	41	29	18	16	10	475
MIL	36	27.1	4.89	0	0.323	0.444	0.767	97	1082	47	23	19	7	14	465
NYM	39	29.8	4.87	0	0.322	0.439	0.761	99	1030	50	25	15	20	17	466
CHC	35	27.1	4.75	0	0.325	0.419	0.744	95	967	52	37	18	10	22	485
MIA	38	28.4	4.75	0	0.328	0.428	0.756	102	995	56	29	21	19	15	463
ATL	36	29.5	4.63	0	0.334	0.413	0.748	96	977	71	37	24	13	31	481
LgAvg	36	28.2	4.63	0	0.323	0.424	0.747	94	1004	53	24	19	15	16	471
STL	34	28.6	4.29	0	0.326	0.416	0.741	95	956	62	25	18	22	13	456
PIT	38	28.2	4.19	0	0.323	0.391	0.714	87	918	56	32	19	11	17	500
PHI	34	27.3	3.87	0	0.305	0.395	0.700	84	915	54	17	8	13	11	436
SFG	39	29.7	3.73	0	0.304	0.370	0.674	80	899	56	19	14	28	12	492
SDP	39	26.2	3.66	0	0.293	0.389	0.682	80	901	42	19	22	12	8	441

Current Injuries

	Name	Updated	Type	Details
1	Tyler Anderson	June 12 2017	Knee	Anderson has been placed on the 10-day disabled list with knee inflammation but is likely to return to the starting rotation before the end of June.
2	Chad Bettis	June 06 2017	Illness	Bettis is on the 60-day disabled list while recovering from testicular cancer but is expected to make his season debut sometime around the All-Star break.
3	David Dahl	June 11 2017	Ribs	Dahl is on the 10-day disabled list with a stress reaction of his sixth rib and is likely to remain sidelined until sometime in June.
4	Jon Gray	June 16 2017	Toe	Gray was placed on the 10-day disabled list with a stress fracture in his left foot. He is on a rehab assignment and is expected to rejoin the rotation during the end of June.
5	Gerardo Parra	June 07 2017	Quadricep	Parra has landed on the 10-day disabled list with a strained right quadriceps and is likely to be sidelined until the end of June.
6	Chad Qualls	June 18 2017	Back	Qualls has been placed on the 10-day disabled list with lower back spasms and it is unclear how much time he is expected to miss.

Table 18: Current Injuries

Topics for Future Articles

Here are a few suggestions, but I would prefer to hear from you, dear reader, on what interests you.

- Player Value - We finally got started on this one this week. I will continue to explore WAR values in coming weeks.
- What is the OPS+ statistic and how is it calculated.
- Survey MLB ticket prices.
- A suggestion from a work colleague that we investigate what budding talent we have in the Rockies farm system. I will look into this and see what I can find.

Let me know what you would like to see in future articles. Send me an email at jdreed@q.com.

Yours truly,

Jim Reed

Appendix

Glossary

Batting Statistics

Statistic Abbreviation	Definition
G	number of games (participated)
PA	plate appearances
AB	at bats
R	runs scored by player or team
RA	runs allowed
H	hits
2B	doubles
3B	triples
HR	home runs
RBI	runs batted in
BA	batting average
OBP	on-base percentage
SLG	slugging percentage
OPS	on-base percentage plus slugging percentage
OPS+	This statistic normalizes a player's OPS. It adjusts for small variables that might affect OPS scores (e.g., park effects).

Pitching Statistics

Pitching Statistic	Definition
Rk	Rank This is a count of the rows from top to bottom. It is recalculated following the sorting of a column.
Pos	Position
Name	Player Name
Age	Player's age at midnight of June 30th of that year
W	Wins
L	Losses
W-L%	Win-Loss Percentage W / (W + L) For players, leaders need one decision for every ten team games. For managers, minimum to qualify for leading is 320 games.
ERA	9 * ER / IP
G	Games Played or Pitched
GS	Games Started
GF	Games Finished
CG	Complete Game
SHO	Shutouts No runs allowed and a complete game.
SV	Saves
IP	Innings Pitched
H	Hits/Hits Allowed
R	Runs Scored/Allowed
ER	Earned Runs Allowed
HR	Home Runs Hit/Allowed
BB	Bases on Balls/Walks
IBB	Intentional Bases on Balls First tracked in 1955.
SO	Strikeouts
HBP	Times Hit by a Pitch.
BK	Balks
WP	Wild Pitches
BF	Batters Faced
ERA+	ERA+ 100*[lgERA/ERA] Adjusted to the player's ballpark(s).
FIP	Fielding Independent Pitching
WHIP	(BB + H)/IP For recent years, leaders need 1 IP per team game played
H9	9 x H / IP For recent years, leaders need 1 IP per team game played
HR9	9 x HR / IP For recent years, leaders need 1 IP per team game played
BB9	9 x BB / IP For recent years, leaders need 1 IP per team game played
SO9	9 x SO / IP For recent years, leaders need 1 IP per team game played
SO/W	SO/W or SO/BB For recent years, pitching leaders need 1 IP per team game played.

Fielding Statistics

Fielding Statistic	Definition
Name	Player Name Bold can mean player is active for this team or player has appeared in MLB * means LHP or LHB, \# means switch hitter, + can mean HOFer.
Age	Player's age at midnight of June 30th of that year
G	Games Played or Pitched
GS	– Games Started
CG	– Complete Game
Inn	– Innings Played in Field
Ch	– Defensive Chances Putouts + Assists + Errors
PO	– Putouts
A	– Assists
E	– Errors Committed
DP	– Double Plays Turned
Fld%	– Fielding Percentage (Putouts + Assists) / (Putouts + Assists + Errors)
Rtot	– Total Zone Total Fielding Runs Above Avg The number of runs above or below average the player was worth based on the number of plays made. This number combines the Rtz, Rdp,Rof, Rcatch numbers into a total defensive contribution. See the glossary section for a more complete explanation. Provided by BaseballProjection.com
Rtot/yr	– Total Zone Total Fielding Runs Above Avg per 1,200 Inn The number of runs above or below average the fielder was worth per 1,200 Innings (approx 135 games). This number combines the Rtz, Rdp, Rof, Rcatch numbers into a total defensive contribution. See the glossary section for a more complete explanation. Provided by BaseballProjection.com
Rdrs	– BIS Defensive Runs Saved Above Avg The number of runs above or below average the player was worth based on the number of plays made. This number combines the Rpm, Rbdp, Rbof, Rbcatch numbers into a total defensive contribution. Provided by Baseball Info Solutions
Rdrs/yr	– BIS Defensive Runs Saved Above Avg per 1,200 Inn The number of runs above or below average the fielder was worth per 1,200 Innings (approx 135 games). This number combines the Rpm, Rbdp, Rbof, Rbcatch numbers into a total defensive contribution. For pitchers, this is set to 200 Innings. Provided by Baseball Info Solutions
RF/9	– Range Factor per 9 Inn 9 * (Putouts + Assists) / Innings Played
RF/G	– Range Factor per Game (Putouts + Assists) / Games Played
PB	– Passed Balls
WP	– Wild Pitches
SB	– Stolen Bases
CS	– Caught Stealing

Fielding Statistic	Definition
CS%	– Caught Stealing Percentage CS / (SB + CS)
lgCS%	– League Caught Stealing Percentage League Expected CS / Players SB + Players CS
PO	– Pickoffs Runner picked off a base. May include cases they were safe on an error. Also includes Pickoff Caught Stealing plays.
Pos	Summary – Positions Played The positions either followed by the games played at that position or in order of games or innings played. For a single season, * indicates they played at least 2/3rds of the team games there Positions after / indicate less than ten games played at those positions. For career, a + sign means more than 300 games at that position and a - sign means less than 30 games.

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