



MLB Record Prediction

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SMGT 430

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Methodology

- Lahman Data
 - Seasonal Stats
 - Modeling Winning %
- Transformation

$$W'_t = \log\left(\frac{W_t}{1 - W_t}\right)$$

$$W_t^{-1} = \frac{1}{e^{-W'_t} + 1}$$

- MSPE
 - 2005 – 2017
- 2018 Predictions
 - Convert W% to W-L

$$\sqrt{\frac{\sum_{i=1}^n (y_i - \hat{y}_i)^2}{n}}$$

Time Series Models - ARIMA

$$Y_t = (1 - B)^d W'_t$$

$$(1 - \sum_{i=1}^p \phi_i B^i) Y_t = (1 + \sum_{i=1}^q \theta_i B^i) \epsilon_t$$

- Bayesian Information Criterion (BIC)
- Pythagorean Expectation
- Pythagorean Regressor (PYRIMA)
- Naïve Weights
- AFTER Weights

$$W'_t = Arima(BIC)$$

$$W_t = P_{t-1} = \frac{RS_{t-1}^2}{RS_{t-1}^2 + RA_{t-1}^2}$$

$$W'_t = Arima(BIC) + \beta P_{t-1}$$

$$W'_t = \frac{\sum_{i=1}^p \sum_{j=1}^q Arima(i, d, j)}{p * q}$$

$$\lambda_{m,t=1} = \frac{1}{M}$$

$$\lambda_{m,t \geq 2} = \frac{\prod_{i=1}^{n-1} e^{\frac{-\alpha}{n_{tr,i}} \sum_{j=1}^{n_{tr,i}} W_{j,i} - \hat{W}_{j,i}}}{\sum_{m=1}^M \prod_{i=1}^{n-1} e^{\frac{-\alpha}{n_{tr,i}} \sum_{j=1}^{n_{tr,i}} W_{j,i} - \hat{W}_{j,i}}}$$

$$W'_t = \sum_{i=1}^M \lambda_{i,t} \hat{W}_{t,i}$$

MSPE

3% = 5 games

6% = 10 games

9% = 15 games

Team	Naïve	Pyrima	Pythag	BIC	After 2	After 4
Arizona Diamondbacks	0.0519	0.0519	0.0513	0.0345	0.0919	0.0975
Atlanta Braves	0.0798	0.0798	0.0904	0.0650	0.0507	0.0524
Baltimore Orioles	0.0433	0.0433	0.0622	0.0480	0.0534	0.0536
Boston Red Sox	0.0536	0.0536	0.0615	0.0542	0.0652	0.0665
Chicago Cubs	0.0666	0.0666	0.0815	0.0579	0.0740	0.0755
Chicago White Sox	0.1048	0.1048	0.0854	0.0732	0.0553	0.0562
Cincinnati Reds	0.0662	0.0662	0.0629	0.0538	0.0560	0.0576
Cleveland Indians	0.0707	0.0707	0.0841	0.0688	0.0698	0.0699
Colorado Rockies	0.0607	0.0607	0.0780	0.0604	0.0591	0.0565
Detroit Tigers	0.0512	0.0512	0.0644	0.0537	0.0669	0.0667
Houston Astros	0.0580	0.0580	0.0797	0.0495	0.0787	0.0804
Kansas City Royals	0.0822	0.0822	0.0723	0.0563	0.0602	0.0639
Los Angeles Angels	0.0568	0.0568	0.0550	0.0509	0.0633	0.0647
Los Angeles Dodgers	0.0722	0.0722	0.0620	0.0640	0.0544	0.0612
Miami Marlins	0.0764	0.0764	0.0597	0.0450	0.0516	0.0593
Milwaukee Brewers	0.0785	0.0785	0.0855	0.0721	0.0588	0.0621
Minnesota Twins	0.0660	0.0660	0.0574	0.0679	0.0742	0.0786
New York Mets	0.0644	0.0644	0.0708	0.0599	0.0630	0.0683
New York Yankees	0.0901	0.0901	0.0683	0.0705	0.0346	0.0356
Oakland Athletics	0.0655	0.0655	0.0552	0.0572	0.0524	0.0540
Philadelphia Phillies	0.0733	0.0733	0.0436	0.0611	0.0505	0.0504
Pittsburgh Pirates	0.0642	0.0642	0.0638	0.0649	0.0601	0.0618
San Diego Padres	0.0581	0.0581	0.0771	0.0564	0.0588	0.0590
San Francisco Giants	0.0532	0.0532	0.0667	0.0551	0.0626	0.0633
Seattle Mariners	0.0760	0.0760	0.0804	0.0719	0.0617	0.0657
St. Louis Cardinals	0.0484	0.0484	0.0559	0.0412	0.0401	0.0423
Tampa Bay Rays	0.0554	0.0554	0.0652	0.0587	0.1012	0.1124
Texas Rangers	0.0453	0.0453	0.0451	0.0470	0.0656	0.0656
Toronto Blue Jays	0.0634	0.0634	0.0959	0.0593	0.0491	0.0501
Washington Nationals	0.0773	0.0773	0.0668	0.0927	0.0692	0.0723
L2 Norm	0.3678	0.3678	0.3806	0.3291	0.3459	0.3602
Average	0.0658	0.0658	0.0683	0.0590	0.0618	0.0641

Ranked 2018

After (2,2)					After (4,4)					Naïve Weights					Pythagorean Arima					BIC					Pythagorean				
Team	W	L	W%	I	Team	W	L	W%	I	Team	W	L	W%	I	Team	W	L	W%	I	Team	W	L	W%	I	Team	W	L	W%	I
New York Yankees	96	66	0.5952	1	New York Yankees	97	65	0.5992	1	Los Angeles Dodgers	96	66	0.594	1	New York Yankees	100	62	0.617	1	Los Angeles Dodgers	95	67	0.589	1	Cleveland Indians	110	52	0.678	1
New York Mets	92	70	0.5708	1	New York Mets	93	69	0.5749	1	Washington Nationals	96	66	0.593	1	Boston Red Sox	98	64	0.602	1	Cleveland Indians	92	70	0.566	1	Los Angeles Dodgers	103	59	0.638	1
Arizona Diamondbacks	90	72	0.5529	1	St. Louis Cardinals	92	70	0.5648	1	Cleveland Indians	93	69	0.576	1	Los Angeles Dodgers	95	67	0.586	1	Houston Astros	92	70	0.570	1	New York Yankees	102	60	0.628	1
St. Louis Cardinals	90	72	0.5552	1	Chicago White Sox	89	73	0.5463	1	Houston Astros	93	69	0.575	1	Cleveland Indians	93	69	0.572	1	New York Yankees	92	70	0.567	1	Boston Red Sox	101	61	0.624	1
Oakland Athletics	89	73	0.5505	1	Boston Red Sox	88	74	0.5414	1	New York Yankees	92	70	0.566	1	Houston Astros	92	70	0.570	1	St. Louis Cardinals	89	73	0.548	1	Chicago Cubs	101	61	0.626	1
Boston Red Sox	88	74	0.5408	1	Minnesota Twins	88	74	0.5462	1	Boston Red Sox	90	72	0.557	1	Chicago Cubs	91	71	0.564	1	Washington Nationals	89	73	0.552	1	Houston Astros	101	61	0.621	1
Chicago White Sox	88	74	0.5462	1	Detroit Tigers	87	75	0.5396	1	St. Louis Cardinals	89	73	0.550	1	St. Louis Cardinals	91	71	0.564	1	Boston Red Sox	88	74	0.544	1	Arizona Diamondbacks	98	64	0.603	1
Detroit Tigers	87	75	0.5352	1	Los Angeles Dodgers	87	75	0.5342	1	Texas Rangers	87	75	0.540	1	Washington Nationals	89	73	0.551	1	Chicago Cubs	87	75	0.535	1	Washington Nationals	97	65	0.598	1
Minnesota Twins	87	75	0.5350	1	Oakland Athletics	87	75	0.5393	1	Chicago Cubs	86	76	0.532	1	Los Angeles Angels	84	78	0.518	1	Los Angeles Angels	85	77	0.524	1	Colorado Rockies	88	74	0.542	1
Toronto Blue Jays	87	75	0.5383	1	Seattle Mariners	87	75	0.5372	1	Kansas City Royals	84	78	0.518	1	Milwaukee Brewers	81	81	0.502	0	Texas Rangers	85	77	0.525	1	St. Louis Cardinals	87	75	0.538	1
Los Angeles Dodgers	86	76	0.5302	1	Houston Astros	85	77	0.5229	1	Los Angeles Angels	84	78	0.520	1	Seattle Mariners	81	81	0.497	0	Milwaukee Brewers	84	78	0.517	1	Milwaukee Brewers	85	77	0.524	1
Houston Astros	84	78	0.5193	1	Toronto Blue Jays	85	77	0.5257	1	Milwaukee Brewers	84	78	0.516	1	Arizona Diamondbacks	80	82	0.496	0	Kansas City Royals	83	79	0.511	1	Minnesota Twins	84	78	0.517	1
Philadelphia Phillies	83	79	0.5093	1	San Francisco Giants	84	78	0.5167	1	Seattle Mariners	81	81	0.501	0	Baltimore Orioles	80	82	0.494	0	Arizona Diamondbacks	81	81	0.500	0	Los Angeles Angels	81	81	0.501	0
San Francisco Giants	83	79	0.5119	1	Texas Rangers	83	79	0.5112	1	Baltimore Orioles	80	82	0.497	0	Tampa Bay Rays	79	83	0.485	0	Baltimore Orioles	81	81	0.499	0	Tampa Bay Rays	80	82	0.493	0
Cleveland Indians	82	80	0.5074	1	Cleveland Indians	82	80	0.5059	1	Colorado Rockies	80	82	0.492	0	Texas Rangers	79	83	0.489	0	Tampa Bay Rays	80	82	0.494	0	Seattle Mariners	79	83	0.486	0
Seattle Mariners	82	80	0.5073	1	Philadelphia Phillies	82	80	0.5086	1	Arizona Diamondbacks	78	84	0.482	0	Minnesota Twins	78	84	0.480	0	Seattle Mariners	79	83	0.487	0	Texas Rangers	79	83	0.489	0
Cincinnati Reds	80	82	0.4946	0	Arizona Diamondbacks	81	81	0.5000	0	Atlanta Braves	78	84	0.481	0	Chicago White Sox	77	85	0.476	0	Minnesota Twins	78	84	0.481	0	Miami Marlins	77	85	0.473	0
Los Angeles Angels	80	82	0.4968	0	Cincinnati Reds	81	81	0.4971	0	Toronto Blue Jays	78	84	0.481	0	Miami Marlins	77	85	0.473	0	Toronto Blue Jays	78	84	0.479	0	Pittsburgh Pirates	74	88	0.455	0
Texas Rangers	80	82	0.4965	0	Los Angeles Angels	81	81	0.5002	0	Minnesota Twins	77	85	0.475	0	Colorado Rockies	76	86	0.468	0	Oakland Athletics	77	85	0.475	0	Atlanta Braves	72	90	0.443	0
Atlanta Braves	79	83	0.4900	0	San Diego Padres	81	81	0.4970	0	Pittsburgh Pirates	77	85	0.475	0	Pittsburgh Pirates	76	86	0.468	0	Pittsburgh Pirates	77	85	0.477	0	Oakland Athletics	72	90	0.445	0
San Diego Padres	79	83	0.4851	0	Atlanta Braves	80	82	0.4926	0	Tampa Bay Rays	76	86	0.467	0	San Francisco Giants	76	86	0.467	0	Atlanta Braves	76	86	0.470	0	Baltimore Orioles	71	91	0.438	0
Colorado Rockies	78	84	0.4810	0	Colorado Rockies	78	84	0.4814	0	Chicago White Sox	75	87	0.465	0	Cincinnati Reds	75	87	0.463	0	Colorado Rockies	76	86	0.469	0	Kansas City Royals	71	91	0.441	0
Milwaukee Brewers	76	86	0.4680	0	Milwaukee Brewers	75	87	0.4617	0	Miami Marlins	74	88	0.455	0	Toronto Blue Jays	75	87	0.462	0	Miami Marlins	76	86	0.469	0	Philadelphia Phillies	71	91	0.438	0
Washington Nationals	76	86	0.4668	0	Chicago Cubs	74	88	0.4570	0	Oakland Athletics	74	88	0.458	0	Atlanta Braves	74	88	0.455	0	Chicago White Sox	75	87	0.464	0	Toronto Blue Jays	71	91	0.439	0
Chicago Cubs	74	88	0.4550	0	Washington Nationals	74	88	0.4598	0	San Diego Padres	74	88	0.459	0	Detroit Tigers	74	88	0.458	0	Cincinnati Reds	75	87	0.460	0	Chicago White Sox	69	93	0.426	0
Baltimore Orioles	73	89	0.4479	0	Baltimore Orioles	72	90	0.4474	0	Cincinnati Reds	73	89	0.450	0	Oakland Athletics	74	88	0.455	0	San Francisco Giants	75	87	0.464	0	Cincinnati Reds	69	93	0.429	0
Miami Marlins	73	89	0.4529	0	Pittsburgh Pirates	72	90	0.4432	0	Detroit Tigers	73	89	0.452	0	Kansas City Royals	72	90	0.442	0	Detroit Tigers	74	88	0.454	0	New York Mets	68	94	0.420	0
Pittsburgh Pirates	71	91	0.4410	0	Miami Marlins	70	92	0.4307	0	New York Mets	73	89	0.450	0	New York Mets	71	91	0.439	0	San Diego Padres	74	88	0.454	0	Detroit Tigers	65	97	0.403	0
Kansas City Royals	64	98	0.3972	0	Kansas City Royals	62	100	0.3833	0	San Francisco Giants	73	89	0.452	0	San Diego Padres	70	92	0.434	0	Philadelphia Phillies	71	91	0.437	0	San Francisco Giants	65	97	0.404	0
Tampa Bay Rays	60	102	0.3703	0	Tampa Bay Rays	59	103	0.3647	0	Philadelphia Phillies	70	92	0.432	0	Philadelphia Phillies	69	93	0.425	0	New York Mets	70	92	0.432	0	San Diego Padres	57	105	0.354	0



Raw 2018

		Naïve Weights			Pythagorean Arima			BIC			After (2-2)			After (4-4)							
Team	Type	W	L	W%	I	W	L	W%	I	W	L	W%	I	W	L	W%	I	W	L	W%	I
Arizona Diamondbacks	High 95	106	56	0.656	1	105	57	0.650	1	106	56	0.652	1	119	43	0.7328	1	119	43	0.7326	1
Arizona Diamondbacks	Yhat	78	84	0.482	0	80	82	0.496	0	81	81	0.500	0	90	72	0.5529	1	81	81	0.5000	0
Arizona Diamondbacks	Low 95	51	111	0.314	0	56	106	0.343	0	56	106	0.348	0	58	104	0.3591	0	46	116	0.2858	0
Atlanta Braves	High 95	100	62	0.614	1	95	67	0.586	1	98	64	0.602	1	101	61	0.6237	1	101	61	0.6263	1
Atlanta Braves	Yhat	78	84	0.481	0	74	88	0.455	0	76	86	0.470	0	79	83	0.4900	0	80	82	0.4926	0
Atlanta Braves	Low 95	57	105	0.351	0	54	108	0.330	0	56	106	0.343	0	58	104	0.3578	0	58	104	0.3599	0
Baltimore Orioles	High 95	102	60	0.633	1	101	61	0.622	1	102	60	0.631	1	95	67	0.5847	1	95	67	0.5837	1
Baltimore Orioles	Yhat	80	82	0.497	0	80	82	0.494	0	81	81	0.499	0	73	89	0.4479	0	72	90	0.4474	0
Baltimore Orioles	Low 95	58	104	0.361	0	59	103	0.367	0	59	103	0.367	0	52	110	0.3186	0	52	110	0.3185	0
Boston Red Sox	High 95	111	51	0.685	1	116	46	0.718	1	108	54	0.668	1	108	54	0.6651	1	108	54	0.6654	1
Boston Red Sox	Yhat	90	72	0.557	1	98	64	0.602	1	88	74	0.544	1	88	74	0.5408	1	88	74	0.5414	1
Boston Red Sox	Low 95	68	94	0.422	0	77	85	0.474	0	67	95	0.415	0	67	95	0.4111	0	67	95	0.4121	0
Chicago Cubs	High 95	107	55	0.662	1	110	52	0.680	1	107	55	0.662	1	95	67	0.5856	1	95	67	0.5876	1
Chicago Cubs	Yhat	86	76	0.532	1	91	71	0.564	1	87	75	0.535	1	74	88	0.4550	0	74	88	0.4570	0
Chicago Cubs	Low 95	64	98	0.397	0	71	91	0.440	0	65	97	0.403	0	53	109	0.3302	0	54	108	0.3321	0
Chicago White Sox	High 95	97	65	0.596	1	97	65	0.596	1	96	66	0.591	1	108	54	0.6688	1	108	54	0.6689	1
Chicago White Sox	Yhat	75	87	0.465	0	77	85	0.476	0	75	87	0.464	0	88	74	0.5462	1	89	73	0.5463	1
Chicago White Sox	Low 95	55	107	0.339	0	58	104	0.359	0	55	107	0.342	0	68	94	0.4178	0	68	94	0.4178	0
Cincinnati Reds	High 95	94	68	0.583	1	95	67	0.586	1	95	67	0.588	1	101	61	0.6233	1	101	61	0.6258	1
Cincinnati Reds	Yhat	73	89	0.450	0	75	87	0.463	0	75	87	0.460	0	80	82	0.4946	0	81	81	0.4971	0
Cincinnati Reds	Low 95	52	110	0.324	0	56	106	0.345	0	55	107	0.337	0	59	103	0.3666	0	60	102	0.3687	0
Cleveland Indians	High 95	113	49	0.697	1	112	50	0.688	1	111	51	0.684	1	102	60	0.6303	1	102	60	0.6289	1
Cleveland Indians	Yhat	93	69	0.576	1	93	69	0.572	1	92	70	0.566	1	82	80	0.5074	1	82	80	0.5059	1
Cleveland Indians	Low 95	72	90	0.446	0	73	89	0.448	0	71	91	0.440	0	62	100	0.3835	0	62	100	0.3821	0
Colorado Rockies	High 95	98	64	0.603	1	91	71	0.563	1	91	71	0.563	1	90	72	0.5568	1	90	72	0.5573	1
Colorado Rockies	Yhat	80	82	0.492	0	76	86	0.468	0	76	86	0.469	0	78	84	0.4810	0	78	84	0.4814	0
Colorado Rockies	Low 95	62	100	0.381	0	61	101	0.376	0	61	101	0.377	0	66	96	0.4062	0	66	96	0.4064	0
Detroit Tigers	High 95	96	66	0.590	1	95	67	0.589	1	95	67	0.588	1	108	54	0.6660	1	108	54	0.6697	1
Detroit Tigers	Yhat	73	89	0.452	0	74	88	0.458	0	74	88	0.454	0	87	75	0.5352	1	87	75	0.5396	1
Detroit Tigers	Low 95	52	110	0.321	0	54	108	0.332	0	53	109	0.327	0	65	97	0.3993	0	65	97	0.4040	0
Houston Astros	High 95	112	50	0.689	1	109	53	0.671	1	110	52	0.678	1	100	62	0.6201	1	101	61	0.6238	1
Houston Astros	Yhat	93	69	0.575	1	92	70	0.570	1	92	70	0.570	1	84	78	0.5193	1	85	77	0.5229	1
Houston Astros	Low 95	73	89	0.453	0	75	87	0.463	0	74	88	0.456	0	68	94	0.4169	0	68	94	0.4201	0
Kansas City Royals	High 95	103	59	0.633	1	88	74	0.542	1	100	62	0.619	1	82	80	0.5063	1	80	82	0.4919	0
Kansas City Royals	Yhat	84	78	0.518	1	72	90	0.442	0	83	79	0.511	1	64	98	0.3972	0	62	100	0.3833	0
Kansas City Royals	Low 95	65	97	0.401	0	56	106	0.346	0	65	97	0.401	0	48	114	0.2975	0	46	116	0.2853	0
Los Angeles Angels	High 95	102	60	0.629	1	101	61	0.625	1	102	60	0.629	1	97	65	0.6015	1	98	64	0.6044	1
Los Angeles Angels	Yhat	84	78	0.520	1	84	78	0.518	1	85	77	0.524	1	80	82	0.4968	0	81	81	0.5002	0
Los Angeles Angels	Low 95	66	96	0.409	0	66	96	0.410	0	67	95	0.416	0	64	98	0.3925	0	64	98	0.3960	0
Los Angeles Dodgers	High 95	115	47	0.708	1	113	49	0.698	1	114	48	0.702	1	106	56	0.6522	1	106	56	0.6525	1
Los Angeles Dodgers	Yhat	96	66	0.594	1	95	67	0.586	1	95	67	0.589	1	86	76	0.5302	1	87	75	0.5342	1
Los Angeles Dodgers	Low 95	76	86	0.469	0	75	87	0.464	0	75	87	0.466	0	66	96	0.4044	0	67	95	0.4119	0
Miami Marlins	High 95	94	68	0.582	1	94	68	0.582	1	94	68	0.579	1	95	67	0.5893	1	94	68	0.5781	1
Miami Marlins	Yhat	74	88	0.455	0	77	85	0.473	0	76	86	0.469	0	73	89	0.4529	0	70	92	0.4307	0
Miami Marlins	Low 95	54	108	0.334	0	59	103	0.366	0	59	103	0.362	0	52	110	0.3231	0	48	114	0.2948	0
Milwaukee Brewers	High 95	101	61	0.626	1	98	64	0.605	1	100	62	0.620	1	92	70	0.5695	1	91	71	0.5612	1
Milwaukee Brewers	Yhat	84	78	0.516	1	81	81	0.502	0	84	78	0.517	1	76	86	0.4680	0	75	87	0.4617	0
Milwaukee Brewers	Low 95	66	96	0.405	0	65	97	0.400	0	67	95	0.414	0	60	102	0.3691	0	59	103	0.3651	0
Minnesota Twins	High 95	100	62	0.617	1	100	62	0.616	1	100	62	0.620	1	108	54	0.6689	1	110	52	0.6779	1
Minnesota Twins	Yhat	77	85	0.475	0	78	84	0.480	0	78	84	0.481	0	87	75	0.5350	1	88	74	0.5462	1
Minnesota Twins	Low 95	54	108	0.336	0	56	106	0.346	0	56	106	0.345	0	64	98	0.3959	0	66	96	0.4078	0
New York Mets	High 95	95	67	0.586	1	91	71	0.562	1	92	70	0.565	1	113	49	0.6966	1	113	49	0.6999	1
New York Mets	Yhat	73	89	0.450	0	71	91	0.439	0	70	92	0.432	0	92	70	0.5708	1	93	69	0.5749	1
New York Mets	Low 95	52	110	0.321	0	52	110	0.323	0	50	112	0.308	0	71	91	0.4352	0	71	91	0.4396	0
New York Yankees	High 95	111	51	0.685	1	117	45	0.722	1	111	51	0.682	1	115	47	0.7114	1	116	46	0.7139	1
New York Yankees	Yhat	92	70	0.567	1	92	70	0.567	1	92	70	0.567	1	96	66	0.5952	1	97	65	0.5992	1
New York Yankees	Low 95	71	91	0.439	0	81	81	0.500	0	72	90	0.445	0	76	86	0.4673	0	77	85	0.4725	0
Oakland Athletics	High 95	101	61	0.623	1	98	64	0.608	1	102	60	0.630	1	114	48	0.7026	1	112	50	0.6903	1
Oakland Athletics	Yhat	74	88	0.458	0	74	88	0.455	0	77	85	0.475	0	89	73	0.5505	1	87	75	0.5393	1
Oakland Athletics	Low 95	49	113	0.302	0	50	112	0.311	0	52	110	0.324	0	63	99	0.3883	0	62	100	0.3807	0
Philadelphia Phillies	High 95	92	70	0.569	1	90	72	0.557	1	93	69	0.573	1	104	58	0.6419	1	104	58	0.6408	1
Philadelphia Phillies	Yhat	70	92	0.432	0	69	93	0.425	0	71	91	0.437	0	83	79	0.5093	1	82	80	0.5086	1
Philadelphia Phillies	Low 95	49	113	0.304	0	49	113	0.303	0	50	112	0.310	0	61	101	0.3755	0	61	101	0.3751	0
Pittsburgh Pirates	High 95	98	64	0.605	1	96	66	0.593	1	98	64	0.605	1	92	70	0.5694	1	93	69	0.5716	1
Pittsburgh Pirates	Yhat	77	85	0.475	0	76	86	0.468	0	77	85	0.477	0	71	91	0.4410	0	72	90	0.4432	0
Pittsburgh Pirates	Low 95	56	106	0.348	0	56	106	0.347	0	57	105	0.353	0	52	110	0.3200	0	52	110	0.3220	0
San Diego Padres	High 95	94	68	0.582	1	89	73	0.550	1	93	69	0.575	1	99	63	0.6102	1	100	62	0.6199	1
San Diego Padres	Yhat	74	88	0.459	0	70	92	0.434	0	74	88	0.454	0	79	83	0.4851	0	81	81	0.4970	0
San Diego Padres	Low 95	55	107	0.341	0	53	109	0.325	0	55	107	0.338	0	59	103	0.3619	0	61			

After Weights

Team: Houston Astros

Year: 2005

Weights: 0.25 0.25 0.25 0.25

Year: 2006

Weights: 0.2475089 0.2490824 0.2485214 0.2548873

Year: 2007

Weights: 0.2451067 0.2482679 0.247099 0.2595264

Year: 2008

Weights: 0.242334 0.2474501 0.2454769 0.2647391

Year: 2009

Weights: 0.2396114 0.2464038 0.243765 0.2702198

Year: 2010

Weights: 0.2376632 0.2449981 0.242153 0.2751858

Year: 2011

Weights: 0.2356288 0.2435532 0.2404571 0.2803609

Year: 2012

Weights: 0.2347214 0.242743 0.2396122 0.2829234

Year: 2013

Weights: 0.2329158 0.2414637 0.238106 0.2875145

Year: 2014

Weights: 0.2321445 0.2407642 0.2373776 0.2897137

Year: 2015

Weights: 0.2316958 0.2405681 0.2371121 0.290624

Year: 2016

Weights: 0.2307367 0.2398598 0.2362917 0.2931118

Year: 2017

Weights: 0.2300885 0.2392986 0.235691 0.2949218

Team: Boston Red Sox

Year: 2005

Weights: 0.25 0.25 0.25 0.25

Year: 2006

Weights: 0.2499006 0.2500105 0.2500009 0.250088

Year: 2007

Weights: 0.2498143 0.2500163 0.2500005 0.2501689

Year: 2008

Weights: 0.2497279 0.2500304 0.250005 0.2502368

Year: 2009

Weights: 0.2496663 0.2500369 0.2500048 0.2502921

Year: 2010

Weights: 0.2496015 0.25004 0.2500021 0.2503565

Year: 2011

Weights: 0.2495349 0.250041 0.249997 0.2504271

Year: 2012

Weights: 0.2494683 0.2500421 0.2499924 0.2504972

Year: 2013

Weights: 0.249327 0.2500513 0.2499937 0.250628

Year: 2014

Weights: 0.2491161 0.2500639 0.2499994 0.2508205

Year: 2015

Weights: 0.2483904 0.2501842 0.2501362 0.2512892

Year: 2016

Weights: 0.2477487 0.250318 0.2502627 0.2516705

Year: 2017

Weights: 0.2473681 0.2504962 0.2503756 0.2517601

Conclusion

- Univariate BIC model performs the best
- Select team's record based on lowest MSPE
- Each model has its own strengths
- Factor in team changes to increase accuracy

