2021 MLB Playoff Race Simulation and Analysis

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September 20th, 2021

Strength of Schedule:

MLB STRENGTH OF SCHEDULE (SOS) REMAINING

American League

EAST	W	L	GB	WC GB	Games Left	Elo SOS Remaining
Tampa Bay Rays	92	58	--		12	1542.50
Boston Red Sox	86	65	6.5	+1	11	1498.36
Toronto Blue Jays	84	65	7.5	--	13	1514.62
New York Yankees	83	67	9	1.5	12	1533.00
Baltimore Orioles	47	102	44.5	37	13	1512.00

CENTRAL	W	L	GB	WC GB	Games Left	Elo SOS Remaining
Chicago White Sox	85	64	--		13	1505.77
Cleveland Indians	73	74	11	10	15	1495.47
Detroit Tigers	72	78	13.5	12.5	12	1520.00
Kansas City Royals	67	82	18	17	13	1507.31
Minnesota Twins	65	85	20.5	19.5	12	1506.00

WEST	W	L	GB	WC GB	Games Left	Elo SOS Remaining
Houston Astros	88	61	--		13	1538.15
Oakland Athletics	82	67	6	2	13	1532.23
Seattle Mariners	80	69	8	4	13	1523.23
Los Angeles Angels	72	77	16	12	13	1510.69
Texas Rangers	55	94	33	29	13	1494.69

National League

EAST	W	L	GB	WC GB	Games Left	Elo SOS Remaining
Atlanta Braves	77	70	--		15	1505.31
Philadelphia Phillies	76	73	2	3.5	13	1470.00
New York Mets	73	77	5.5	7	12	1532.83
Miami Marlins	63	86	15	16.5	13	1530.69
Washington Nationals	61	88	17	18.5	13	1512.08

CENTRAL	W	L	GB	WC GB	Games Left	Elo SOS Remaining
Milwaukee Brewers	91	58	--		13	1546.69
St. Louis Cardinals	79	69	11.5	--	14	1521.21
Cincinnati Reds	77	73	14.5	3	12	1472.83
Chicago Cubs	67	83	24.5	13	12	1499.00
Pittsburgh Pirates	56	93	35	23.5	13	1508.85

WEST	W	L	GB	WC GB	Games Left	Elo SOS Remaining
San Francisco Giants	97	53	--		12	1503.25
Los Angeles Dodgers	96	54	1	+16	12	1509.50
San Diego Padres	76	73	20.5	3.5	13	1576.75
Colorado Rockies	70	79	26.5	9.5	13	1527.00
Arizona Diamondbacks	48	101	48.5	31.5	13	1550.69

Wild Card

Clinched Playoff Berth

Eliminated

* (as of 9/20/21)

To start off, each teams position can be assessed in their respective playoff race with the current standings as of September 20th. Using the team ELO ratings of the remaining opponents on each team's schedule, strength of schedule can be found by finding the average of these opponent ELO ratings. An interesting scenario is seen in the NL wild card race, as two teams on the outside looking in are in quite different positions with their remaining schedule. The Phillies, who are 2 games out in their division race and 3.5 games back in the wild card, hold the easiest remaining schedule in the MLB at an average 1470 Opp Team Elo Rating, putting them in a prime position to make a late run at the postseason. The Padres are in quite the opposite boat, being already eliminated from contention for their division title and holding the same record as the Phillies, having the hardest remaining schedule in the league at an average 1576.75 Opp Team Elo Rating, leaving them a rough road to the playoffs.

Simulation Summary Statistics:

American League East Season Simulation Wins Summary Statistics

Team	Minimum	Maximum	Standard Deviation	Average
Rays	92	104	1.7028	98.63
Red Sox	86	97	1.6440	92.07
Blue Jays	84	97	1.7555	91.31
Yankees	83	95	1.7031	89.37
Orioles	47	60	1.7303	51.91

American League Central Season Simulation Wins Summary Statistics

Team	Minimum	Maximum	Standard Deviation	Average
White Sox	85	98	1.7836	92.27
Indians	74	88	1.9258	81.01
Tigers	72	84	1.7136	77.43
Royals	67	80	1.7850	72.95
Twins	65	77	1.7282	70.95

American League West Season Simulation Wins Summary Statistics

Team	Minimum	Maximum	Standard Deviation	Average
Astros	88	101	1.7884	95.12
Athletics	82	95	1.7822	88.62
Mariners	80	93	1.7782	86.03
Angels	72	85	1.7981	78.40
Rangers	55	68	1.7676	60.76

National League East Season Simulation Wins Summary Statistics

Team	Minimum	Maximum	Standard Deviation	Average
Braves	77	90	1.7724	84.43
Phillies	76	89	1.7448	83.39
Mets	73	85	1.7038	78.82
Marlins	63	76	1.7636	68.57
Nationals	61	74	1.7944	67.04

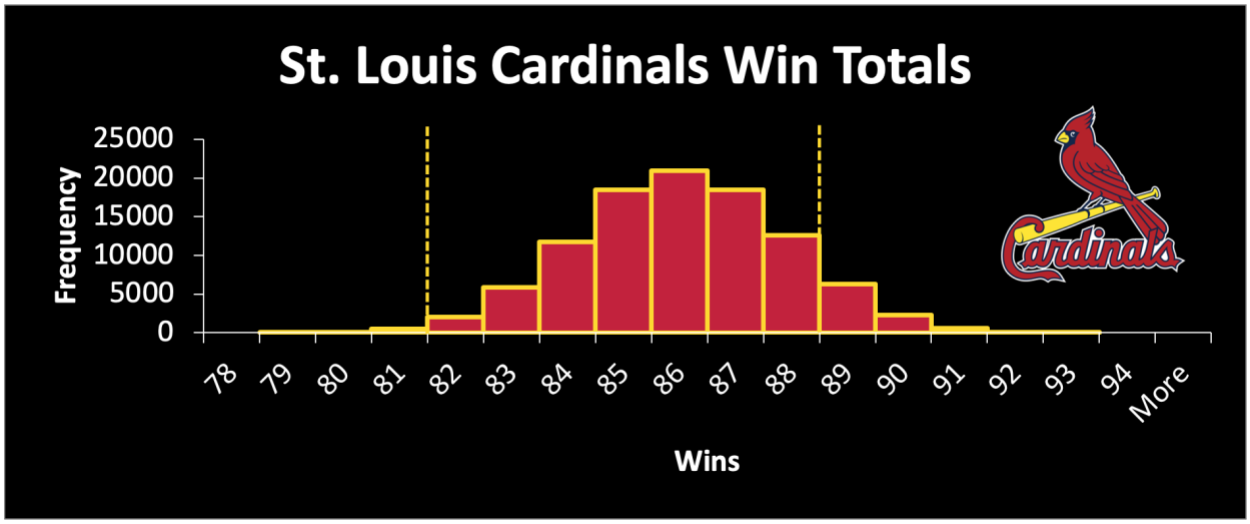
National League Central Season Simulation Wins Summary Statistics

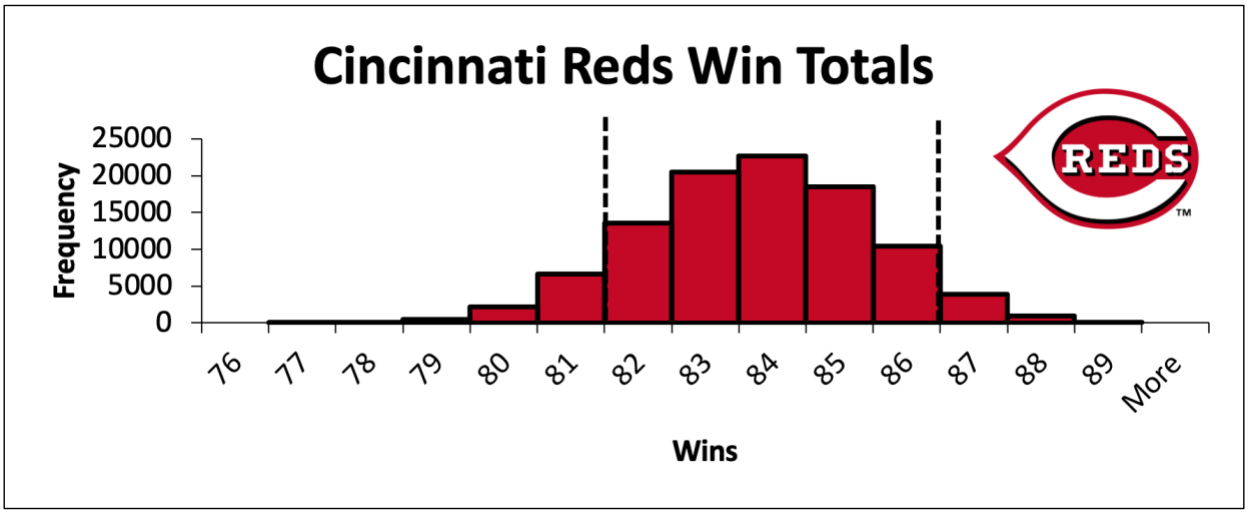
Team	Minimum	Maximum	Standard Deviation	Average
Brewers	91	104	1.7754	97.81
Cardinals	79	93	1.8562	86.04
Reds	77	89	1.7009	83.76
Cubs	67	79	1.7299	72.63
Pirates	56	68	1.7517	61.17

National League West Season Simulation Wins Summary Statistics

Team	Minimum	Maximum	Standard Deviation	Average
Giants	97	109	1.6935	104.03
Dodgers	97	108	1.6435	103.85
Padres	76	88	1.7088	81.33
Rockies	70	82	1.7095	75.43
Diamondbacks	48	60	1.7273	52.84

Using the results from 100,000 iterations of the simulation, summary statistics can be found using the standard deviation of team win totals, as well as the average number of wins for each team. The most variation in win totals was seen for the Indians at 1.9258 SD, and the Dodgers had the least variation at 1.6435 SD. Teams have different levels of variation of win totals in the simulation because of their remaining opponents. A team such as the Cardinals (who have the second highest standard deviation) have 14 games remaining with exactly 7 each against the Cubs and Brewers. The Brewers are a good team with a high ELO rating and the Cubs are the opposite, and the variability in strength of remaining opponents causes a higher level of variation of win totals. It is the opposite for teams with lower levels of variation of win totals.





These plots show an analysis that showcases the different levels of variation in win totals for teams. Due to their high standard deviation at 1.8562, the Cardinals' win distribution spreads across a larger range of win totals than the Reds, who had a 1.7009 win total SD.

Simulation Playoff Odds:

American League East Playoff Odds

Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
Rays	98.63	99.442	100	99.772	59.321	28.122	13.828
Red Sox	92.07	0.228	85.985	41.086	15.369	8.195	2.991
Blue Jays	91.31	0.316	73.53	39.184	17.205	10.596	4.559
Yankees	89.37	0.014	27.035	13.682	5.889	3.026	1.223
Orioles	51.91	0	0	0	0	0	0

American League Central Playoff Odds

Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
White Sox	92.27	99.994	99.994	99.994	42.995	19.56	7.964
Indians	81.01	0.006	0.006	0.006	0.002	0.001	0.001
Tigers	77.43	0	0	0	0	0	0
Royals	72.95	0	0	0	0	0	0
Twins	70.95	0	0	0	0	0	0

American League West Playoff Odds

Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
Astros	95.12	98.263	99.261	98.78	56.277	29.284	13.838
Athletics	88.62	1.725	13.267	7.105	2.832	1.182	0.427
Mariners	86.03	0.012	0.922	0.391	0.11	0.034	0.013
Angels	78.40	0	0	0	0	0	0
Rangers	60.76	0	0	0	0	0	0

National League East Playoff Odds

Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
Braves	84.43	64.22	66.14	65.011	30.617	12.231	5.645
Phillies	83.39	35.392	38.007	36.309	13.469	3.985	1.394
Mets	78.82	0.388	0.409	0.396	0.142	0.039	0.016
Marlins	68.57	0	0	0	0	0	0
Nationals	67.04	0	0	0	0	0	0

National League Central Playoff Odds

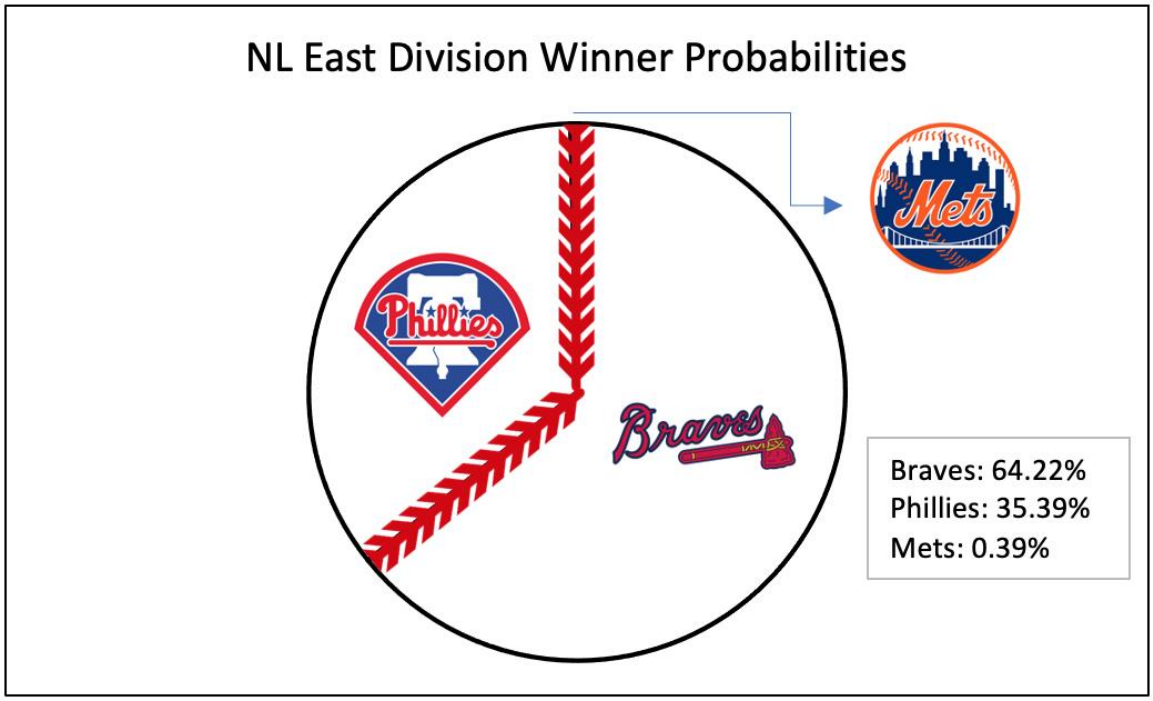
Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
Brewers	97.81	99.998	100	100	56.321	23.294	11.585
Cardinals	86.04	0.002	77.031	28.513	8.95	4.422	1.614
Reds	83.76	0	16.843	5.981	1.711	0.68	0.23
Cubs	72.63	0	0	0	0	0	0
Pirates	61.17	0	0	0	0	0	0

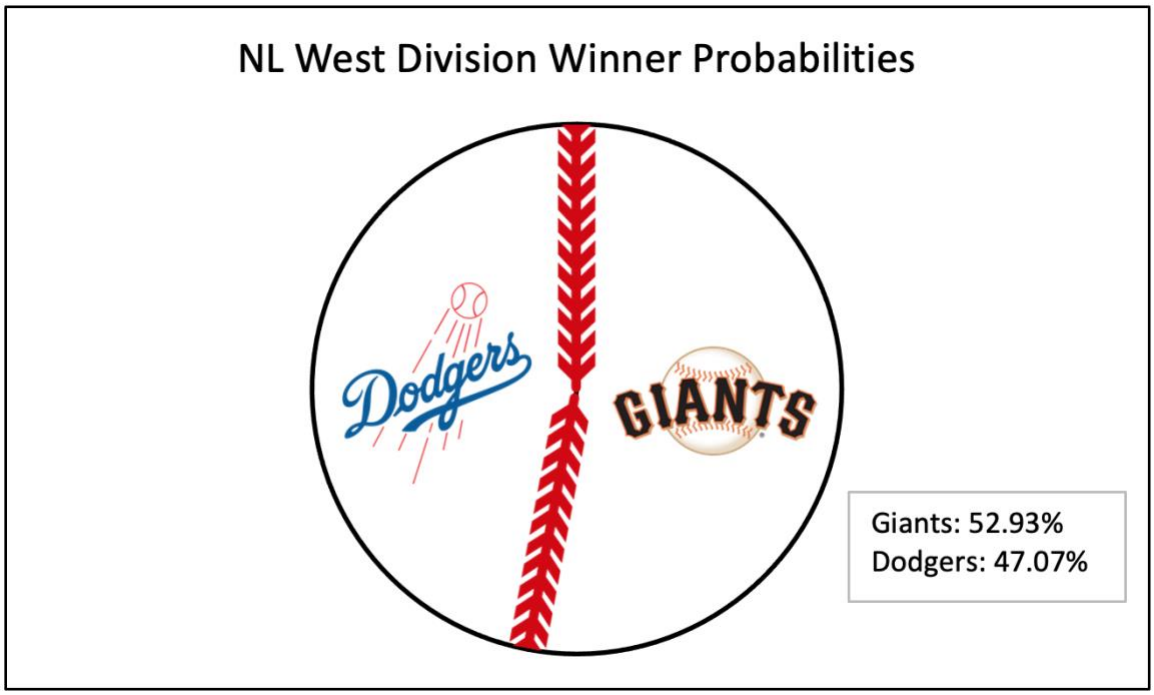
National League West Playoff Odds

Team	Projected Wins	Win Division	Make Playoffs	Make DS	Make CS	Make WS	Win WS
Giants	104.03	52.934	100	80.741	33.275	16.644	8.376
Dodgers	103.85	47.066	100	82.439	55.321	38.625	26.264
Padres	81.33	0	1.57	0.61	0.194	0.08	0.032
Rockies	75.43	0	0	0	0	0	0
Diamondbacks	52.84	0	0	0	0	0	0

These tables show the playoffs odds for each team by division. Using counts from the 100,000 simulations, the probabilities for making and advancing to each round of the playoffs are determined. It shows that until you are officially eliminated, there is always a chance, as teams like the Indians, Mariners, Mets and Reds, won the World Series less than 25 out of 100,000 times.

Closest Division Races:





The only two divisions that are still really up in the air are the NL East & NL West. With the Braves currently holding the 2-game lead, they have a 64.22% chance of closing the season with the division title over the Phillies and Mets. The Giants, who's recent 9-game winning streak has propelled them to a 1-game division lead over the Dodgers, have a 52.93% probability to win the highly competitive NL West division.

Playoff Predictions:

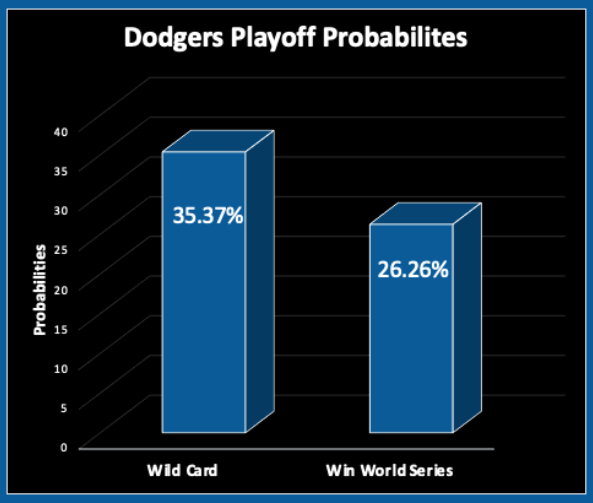
Using frequency tables including the results of each round from the 100,000 simulations my MLB playoff predictions are shown above. First, I found the most common division winner for each division and then seeded them. Next, I identified all the times that the teams matched up against each other in each specific round and found the more common winner all the way to the world series.

Dodgers Analysis:

WILD CARD OR WORLD SERIES?

PROBABLE LINEUP (HEALTHY)

1. RF Mookie Betts
2. 1B Max Muncy
3. 2B Trea Turner
4. SS Corey Seager
5. 3B Justin Turner
6. C Will Smith
7. LF AJ Pollock
8. CF Cody Bellinger
9. SP Max Scherzer



PROBABLE ROTATION (HEALTHY)

1. RHP Max Scherzer
2. RHP Walker Buehler
3. LHP Julio Urias
4. LHP Clayton Kershaw
5. RHP Tony Gonsolin

Wild Card World Series Winners

Year	Team	Reg Season Wins	Won WS
2021	Dodgers	103.85*	?
2002	Angels	99	Yes
2004	Red Sox	98	Yes
2019	Nationals	93	Yes
1997	Marlins	92	Yes
2003	Marlins	91	Yes
2011	Cardinals	90	Yes
2014	Giants	88	Yes

*projected

Because of the top-heavy NL West division, the Dodgers are in a unique spot where they could be favored to win the World Series while also having a good chance at winning a wild card spot in the NL. In the history of the Wild Card postseason era in the MLB there have only been 7 wild card winners to go all the way and win the world series. Even more interesting is how the Dodgers are a step ahead of all these other teams in terms of regular season success. All this can be taken away as the fact the Dodgers could certainly join this list at the end of the postseason as the best wild card World Series winner of all time.