



RON SHANDLER'S 2021

BASEBALL FORECASTER

AND ENCYCLOPEDIA OF FANALYTICS

The Industry's Longest-Running Publication for Baseball Analysts & Fantasy Leaguers

Since 1986



35TH EDITION, FROM



BRENT HERSHEY & RAY MURPHY, EDITORS

BRANDON KRUSE & RYAN BLOOMFIELD, ASSOCIATE EDITORS



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From Brent Hershey I'm far from a natural extrovert, but this year has been a test on many levels—no attending baseball games, scant in-person drafts, our Fall 2020 and Spring 2021 live events cancelled. It's made me appreciate more fully the friends and colleagues that this book and the website have fostered: the names above and to the left, for starters, but also plenty of other cherished acquaintances. Foremost in working through the book this year under different circumstances: Thanks to Ray, Ron, Ryan and Brandon for each of your gifts to the process. And time at home has made our family unit stronger, as well. Lorie, Dillon and Eden, thanks for each of your life-giving contributions during this period of relative solitude.

From Ray Murphy I spent large chunks of the spring/summer wondering whether we would get to create this book at all. So, the mere fact that you are reading this is a cause for celebration.

This spring's lockdown-related downtime created time for me to re-assess some first principles. I found myself legitimately disoriented when April came around and there was no baseball, and I wondered for a while whether these endeavors were worthwhile. (The players/owners food fight sure didn't help my mental state.) Now, I can't wait to continue this journey with Ron, Brent, and our exemplary team.

At home, I am extraordinarily grateful that the most tangible impact of this year in my house is that we have done quite a bit of nesting. At home, my wife Jennifer will always be the best roster add I've ever made, and being a #girlDad to Bridget and Grace gets more fun all the time. Lucky guy, me.

From Ron Shandler The longevity of this book is a testament to the collective intelligence, creativity and stubbornness of many people. Now 35 years in, I've been looking back while laying the groundwork for a future historical work, and am amazed at all the names—some long forgotten—who somehow shaped what this book has become. I celebrate them all, from the original members of the BAGS Rotisserie League in New Hampshire; to Alex Patton, who helped put me on the map; to John Hunt and the LABR league; to new FSWA Hall-of-Famer Rick Wilton; to Ray, Brent, Brandon, Ryan and the nearly two dozen other analysts who make up the 2021 brain trust.

My extreme gratitude to all of my readers—you! This year has been difficult, disconnected and dissonant. For many of us, fantasy baseball is the furthest thing from our mind, yet you are reading this now. Your loyalty has never been taken for granted.

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Time

by Ron Shandler

Over my 35 years writing this book and at BaseballHQ.com, there were several occasions when I had to search for perspective after a national tragedy. I tried to make sense of the fact that one of the Columbine gunmen played fantasy baseball. I tried to find hope in the distraction of fantasy sports after the 9/11 attacks. I wrote about the disturbing parallels between the Virginia Tech shooter and the isolation that our hobby often breeds.

The COVID-19 pandemic of 2020 has been different. There is an old German proverb that says, “It is better to have a horrible ending than to have horrors without end.” While that sounds flip, this ordeal has been sustained and relentless. As I write, we are still waiting for some sign of an ending, some light in the darkness. You will be reading these words many weeks later and hopefully you will have a better view.

I hope you have not been badly affected, and if you have, perhaps this book will be a welcome distraction. For me, I take solace in knowing that this is just our reality of the moment. Thankfully, reality is fluid and often healed with the passage of time. I take heart in knowing that the pandemic will eventually ease and bring some semblance of normality. Until we get there, I am happy to share this dark room with all of you. We can turn on the light together.

When it comes to baseball, we should be grateful that we had a season at all, and that for all the talk of illegitimacy, the best two teams did end up in the World Series. For fantasy, we need to resign ourselves to the fact that the hot mess of 2020 is going to frame all of our off-season analyses. But we have no point of reference for what happened last year. There’s no history to draw upon. All we have are random pieces of chaos...

Opening Day was after the All-Star Break. We replaced a cold-weather April ramp up with a head-first dive into summer. There were games that ended after seven innings and extra frames that began with an unearned runner on second base. Some teams had unexpected days off, others squeezed in multiple doubleheaders and one club had a two-week vacation. There were humans who were quarantined and players who took the whole year off. Thousands of minor leaguers spent the summer at home. There were no games played in Canada for the first time in 42 years. A sub-.500 team came within a game of the World Series. There were no fans in the stands, no pitchers at the plate, mysterious IL stints for “undisclosed” reasons, home teams playing as visitors, dogs and cats living together...

Still, everything that happened on the field was legitimate. Every home run counted. Every strikeout and save and stolen base. D.J. LeMahieu was baseball’s batting champion and the Dodgers won the World Series. That’s what goes into the books. It was all there and all real.

On everybody’s stats page, there was only one thing missing from 2020.

Time.

Fifteen hundred games were lost to time. How important was that? Time represents future potential, future risk and future outcomes. Those futures could have been really good, or really bad. What’s worse, as much as we can consider 60 games as legitimate, it’s entirely possible that the missing time could have completely invalidated them. After all, should we put more credence in the 60-game sample that did happen or the larger 100-game sample that didn’t?

Don’t answer too quickly without thinking that through.

We are already predisposed to recency bias. It has always been tough for us to see the bigger picture, but when the smaller picture is potentially flawed, it places a greater burden on us to do accurate evaluations. And even within that smaller, flawed picture, we saw some incredible volatility.

Luis Robert generated early-season buzz for batting .297 with 10 homers by the end of August, earning Rookie of the Month accolades. But then he limped to a .136 batting average in September to finish at .233.

Trea Turner finished the season ranked No. 2 overall in Rotisserie earnings. But he would have finished several spots lower if not for his seven RBI performance on the final day of the season. That one day’s output pushed him past 18 players in the RBI rankings.

After 37 games, Adalberto Mondesi was batting .179 with no home runs and eight stolen bases. From that point on, he batted .376 with six homers and 16 steals. He was ranked outside the Top 500 on September 3 but finished with the season’s 13th best Rotisserie earnings.

The missing time is so important. We’d never get to see what trajectories those performances would take from that 60-game endpoint. Maybe Robert would have recovered during the missing time, learning to adjust to the competition. Or maybe he would have tanked further.

It’s easy to say that Turner’s RBI outburst was a one-game anomaly. Maybe it was just the capper to a final weekend sweep of the Mets. But maybe it would have sparked a turnaround in the Nationals’ season—not unlike 2019—thus energizing everyone else’s stats on that team.

As for Mondesi, it’s tough to draw conclusions on a player who was a completely dead roster spot for nearly two-thirds of the season. Which Mondesi would have shown up for the 100 games that went missing?

How much missing time is enough to invalidate all the legitimate events that occurred earlier?

I don’t know. But that’s where the conversation begins.

There is one thing I do know. The missing time had a huge impact on my own fantasy season. Maybe you can relate.

It's personal

For fantasy leaguers, each baseball season is precious. In a normal year, we spend six months experiencing it, plus another few months analyzing it and preparing for the next one. This time spent is not taken for granted.

In particular, for folks like me in keeper leagues, the window for contention is often small. When you have a shot, you have to take it, sacrificing everything for that precious title. Because flags fly forever.

The Okrent Rule states, "There is nothing more interesting than your own fantasy team and nothing less interesting than somebody else's fantasy team."

Still, humor me for a minute.

So, 2020 was set up to be my prime opportunity to finally win the Xperts Fantasy League (FantasyXperts.com). I launched the XFL 18 years ago as the industry's first experts keeper/dynasty hybrid, a 15-team standard Rotisserie mixed league with OBP replacing batting average. After five 3rd-place and one 2nd-place finish, 2020 represented my single best shot at the gold. Finally.

The competition in this league includes some of the top brains in fantasy baseball. The late Lawr Michaels used to call it the toughest league he ever played in. Still, I was optimistic. My pitching keepers read like a pre-season "Best Of" list – Jacob deGrom, Walker Buehler, Shane Bieber, Max Fried, Sonny Gray and Kirby Yates. My offense had some solid players but I managed to stock up well enough on Draft Day. At worst, I had arms to trade.

The defending champ was BaseballHQ's Doug Dennis. Prior to this title, he had spent nearly a decade in Standings Siberia, stockpiling massive troves of future prospects. When the best of those prospects finally blossomed, he entered 2019 with a core of Ronald Acuna, Ozzie Albies, Cody Bellinger, Rafael Devers, Eloy Jimenez, Fernando Tatis and Bo Bichette – all for the grand total of \$28. He brought that same core into 2020 for a still-obscure \$49.

So I had my work cut out for me. But then...

Had 2020 been 162 games, there would have been plenty of time to make up ground in saves when Kirby Yates went down.

Had 2020 been 162 games, there would have been plenty of time to wait out Walker Buehler's blister.

Had 2020 been 162 games, there would have been plenty of time to offset the OBP damage done by my trade for Joey Gallo (.333 at the time of the deal; .291 thereafter).

Had 2020 been 162 games, there would have been plenty of time to catch up when I fell 20 points behind after six weeks. But six weeks left me only three to go, so there was no more time to wait.

Reluctantly, I traded Jacob deGrom. I got a nice haul of bats and a closer, but Buehler, Gray and Fried all hit the IL immediately afterwards.

Still, had 2020 been 162 games, I could have recovered. I gained 10 points in the standings over the final week, but it wasn't enough. Doug won again and I had to settle for third place for the sixth time. What's worse, all I'll have left for 2021 will be a Hail

Mary pass... and the shocking realization that I just resorted to using a football metaphor.

Damn you, 2020!

I know that the pandemic put the kibosh on 162 games, but baseball's incredibly selfish financial warfare couldn't even see fit to give us 80. Maybe I could have worked with 80. Any additional time would have been helpful. But all we got was the equivalent of Opening Day to Memorial Day, and we all know that is never enough time to work with.

Damn you, 2020!

Okay, I'm done. Carry on.

My best projection ever

I wrote the following at BABSbaseball.com just before the season began in July, and it provides a good summary of what actually did happen. It was one of my best projections ever, but it was a no-brainer to predict a season of massive unpredictability.

(The italicized statements are comments I've added now.)

"No matter what you think you might know about player performance in 2020, odds are there will be far more surprises and far more volatility of results. Let's look at all the variables that could affect expectations in this short season:

The smaller data sets are going to mean greater statistical variability. In a normal season, we typically wait 6-8 weeks for the stats to stabilize enough for us to determine what our teams' strengths and weaknesses are. In 2020, eight weeks would be nearly the entire season. So statistical anomalies will not have enough time to flush themselves out. As such, we'll be forced to make roster decisions with insufficient information.

Your league leaders might well look like:

- 25 home runs (*Off by 3.*)
- .400-plus batting average (*Off my a bit more, but still...*)
- Sub-2.00 ERA for a top innings arm (*Bingo!*)

Less-impactful situations, especially on the injury side, will be amplified in a short season. A 10-day IL stint, which used to represent six percent of the season in lost playing time, now represents nearly 17 percent, assuming the stint lasts only 10 days.

MLB's larger rosters mean playing time is going to be more spread out. A full-timer expected to get 550 AB in a normal season would be expected to get 200 AB in a pro-rated season. Role-based stats like saves could be spread among more players, which might mean that any closer with 15-save potential is gold. (*And there was only one.*) Managers might have less patience with poor performers so roles could change more frequently. In short, playing time expectations could be a mess.

There are some external variables that might come into play.

- Some players who may be energized by crowd noise might not perform as well in empty stadiums. (*Okay, we got artificial crowd noise. But Kevin Pillar noted that the "lack of crowds could be impacting the energy levels of players in the batter's box."*)
- Remember when a seemingly innocuous change in Fenway Park shifted wind currents and hitters' ability to hit home runs. Could empty stadiums have a similar effect? (*Or stadiums temporarily reconfigured for COVID*)

protection, like closing off the right field arches in San Francisco.)

- Players who fear exposure to COVID-19 — despite all the protections put into place — might be less focused. And what if some players are more compliant than others? (See: *Fallout, Marlins and Cardinals*)
- The geographic-aligned schedule that is forcing teams to play against less-familiar competition might have an impact on performance. (*Oh, boy. I'll review this can of worms in a minute.*)
- And lest we forget, we still do not know which baseball will come to play. (*Looked like a 2019 redux.*)

On the plus side — potentially — there are a few variables we might not have to deal with.

- Slow starts in cold weather cities won't be a factor. (*Just slow starts in general.*)
- There will be less concern about players maintaining stamina over 162 games, so those pitchers whose were expected to be on innings limits, for example, could see a full complement of starts. (*But James Paxton proved that even 60 games was enough time to get hurt.*)
- And any expected fallout from negative fan reaction to the Houston Astros is now likely moot. (*At least until the post-season, anyway.*)

All of these variables mean that the winner in your league this year is even more likely to be the one with the most luck. That might argue against relying on any system to draft or manage your team. However, while the error bars will be wider, any system will still be better than no system.”

Pretty much on target.

So, we knew what we were getting into, and the universe complied. However, that is not very helpful in trying to figure out where we go from here. How—if at all—can we use 2020 to set some expectations for 2021?

Today's heresy

Let me present an idea that nobody wants to consider but could make too much sense to dismiss.

In trying to figure out what is going to happen in 2021, the most prudent path might be to make believe 2020 never happened.

Ugh.

I'd certainly like to forget 2020, but we can't ignore data just because we don't like it, can we? We need *something* to help us set expectations for 2021. We thrive on uncovering and analyzing patterns and trends that help us project player performance. Really, 250 plate appearances and 70 innings are not for nothing, right?

Luke Voit did hit 22 home runs in 60 games. Maybe we can't extrapolate that to 162 games (59 homers!) but those 22 bombs must mean something. Adalberto Mondesi did steal 24 bases in 60 games. Maybe we can't extrapolate that to 162 games (65 SB!) but those 24 swipes must mean something

Shane Bieber did go 8-1 with a 1.63 ERA and 122 strikeouts in 12 starts. It's tough to imagine that he would have gone 22-3 with

329 strikeouts (and that 1.63 ERA), but we have to find *something* to believe in those numbers.

Beneath the surface stats, we can certainly believe the underlying skills metrics, can't we? We do know that some statistics stabilize faster than others. Strikeout and walk rates for both batters and pitchers settle in pretty quickly. Fly ball and ground ball tendencies stabilize as well. We can tell something from those, right?

Sigh.

Oh man, how we want to believe in those numbers! During these stressful times, we crave the normality that comes with doing our usual draft prep and having all this *real* data at our disposal.

But all those numbers are a lot less real than we would like them to be.

The issue, as is often the case, is *context*. The environment that generated all of 2020's stats was significantly different from the past. Those numbers were not produced using the same set of rules as every other prior season. They were not produced in the same array of ballparks against the same array of teams that a normal season would. And that makes them less usable in predicting the future.

A food analogy is always helpful. We want to treat last year's stats as if they represent hot fudge on a scoop of chocolate ice cream. The ice cream is the baseball season; the hot fudge represents the stats that make the game a richer experience. Visualize the mass of chocolaty goodness; close your eyes and taste it.

In fact, go ahead and get some. I'll wait.

I'm serious. The sensory experience is important. If there's no ice cream in your freezer, go out and pick up a pint. Häagen Dazs is always good. I'll still be here when you get back. Go ahead.

Got it? Mmmmmmm. Isn't that wonderful?

The problem is this. In 2020, the fudgy lusciousness wasn't poured onto chocolate ice cream; it was poured onto a scoop of chopped liver. From a distance, it kind of looked the same, and the aroma of sweet chocolate was still familiar. Hot fudge is hot fudge; stats are stats. But the taste... yuck. What's more, we can't use that experience to predict what it will taste like in the future. That's because, as much as we crave ice cream, next year could be chopped liver again.

Okay, I've disgusted myself. And I *like* chopped liver.

You could make a strong case that the environment that generated last year's numbers makes them completely invalid. There were enough variables that we have to question whether it's possible to squeeze out *anything* real.

Let's look at the variables that might matter:

Geographic scheduling: We typically have an American League and a National League, with a little cross-pollination due to interleague play. Those league contexts did not exist at all last year. In their place were an East League, a Central League and a West League, and the difference was huge.

Oakland won the AL West while playing only six out of 60 games against winning teams, three each against the Dodgers and Padres. Imagine! Playing over 80 percent of your schedule against losing ball clubs! The Padres and Dodgers had it pretty easy too, each facing winning clubs just 13 out of 60 times. And so...

- Chris Bassitt had never posted a sub-3.00 ERA in his career but went 5-2 with a 2.29 ERA without facing a single .500 club. His worst start was his only outing in Houston.
- Dinelson Lamet bested his next best seasonal ERA by nearly two full runs, facing sub-.500 teams in 10 of his 12 starts (though he did fare well in his two outings against the Dodgers.)
- Zach Davies' 2.73 ERA was his first ever sub-3.50 mark while facing sub-.500 teams in nine of his 12 starts.

Yes, I'm cherry-picking, but still. The West divisions produced just three winning teams out of 10. It is tough not to consider that the players' stats on those teams might be a little skewed.

The Central League wasn't much better. With all 30 teams ranked by offensive OPS, Central League clubs occupied *eight of the bottom 10 spots*. Only the White Sox (No. 8) and Minnesota (No. 15) finished higher.

Shane Bieber unquestionably faced softer competition, but he wasn't the only Central League starter who had a big year in 2020. Looking at Rotisserie earnings, the four top starting pitchers in all of baseball, and nine of the top 16, were from Central Division teams.

Rank	Pitcher	Team	R\$	ERA	Prev High
1	Shane Bieber	CLE	\$46	1.63	3.28 (2019)
2	Trevor Bauer	CIN	\$39	1.73	2.21 (2018)
3	Yu Darvish	CHC	\$36	2.01	2.83 (2013)
4	Kenta Maeda	MIN	\$31	2.70	3.48 (2016)
9	Corbin Burnes	MIL	\$23	2.11	2.61 (2018)
10	Kyle Hendricks	CHC	\$23	2.88	2.13 (2016)
11	Zach Plesac	CLE	\$23	2.28	3.81 (2019)
15	B. Woodruff	MIL	\$21	3.05	3.61 (2018)
16	Dallas Keuchel	CHW	\$20	1.99	2.48 (2016)

Using this 2020 data to project what will happen in 2021 is highly problematic. For one thing, a normal 162 game schedule has already been set, at least for now. Interleague play will be confined to 2020's East, Central and West universes so that will provide some similarity to 2020. But what are the odds that Shane Bieber will be able to post numbers even remotely comparable if he has to face the offenses of the Yankees, Red Sox and Blue Jays?

Universal designated hitter: When the designated hitter was only in the American League, we used to find an edge by targeting National League pitchers and American League hitters. That disappeared in 2020. In fact, NL pitchers posted a higher ERA this year, for the first time since the arrival of the DH in 1973.

As of this writing, there is no definitive word on how they'll be playing in 2021, but the original agreement was for the DH to be AL-only again in 2021. That means a bunch of 2020 designated hitters might have just lost their jobs... but may get them back in a year if we go back to the universal DH in 2022. We should be used to furloughs by now, right?

The DH-influenced data for NL teams would now become a single 60-game data point that has lesser relevance for projecting 2021. I suppose we could try to normalize the numbers to filter out the impact of the NL DH, but that still runs into the validity of the data due to the geographic schedule and the other variables.

The three geographic leagues of 2020 would each be split along AL/NL lines for the reimplementing of the designated hitter for half those teams in 2021. Any serious fix would require some convoluted data manipulation that will yield dubious results. My opinion.

In the event that they opt to continue with the universal DH in 2021, that doesn't eliminate the problem. The 2020 season remains a single 60-game data point with only slightly more relevance. Admittedly, this would be an issue with any rule change that substantively affects the statistical environment.

Expanded rosters: For 2020, teams had a 60-man player pool, from which they stocked their official 40-man roster, from which they stocked their active roster, which was already expanding to 26 players before there was any pandemic. The active roster was then bloated to 30 early in the season, finally settling at 28. That meant there were about 100 more players active than there would have been in a normal season. Most of those additional players were pitchers.

The fallout of spreading playing time among more pitchers begins with starters going fewer innings and bullpens taking on additional workload. From there, starters qualified for fewer wins and those stray Ws ended up just about anywhere. Coming into 2020, we were already trending towards bullpens taking on a more disproportionate percentage of innings and wins than the Rotisserie game had been designed for. That trend was goosed during this mini-season.

Year	INNINGS		WINS	
	Start	Relievers	Start	Relievers
2016	63.3%	36.7%	67.1%	32.9%
2017	61.9	38.1	67.5	32.5
2018	59.9	40.1	62.3	37.7
2019	57.9	42.1	59.7	40.3
2020	55.5	44.5	52.2	47.8

We are edging ever closer to the time when bullpens might win more games than starters. We don't know whether 2020's dramatic shift will persist. However, we do know that successful pitching strategies – like Tampa's – will be copied.

7-inning doubleheaders: While this was a stopgap measure intended to squeeze in missed ballgames, it also served to steal more time from the statistics. Middle relievers lost innings. Batters lost plate appearances, not only from the shorter games, but also because some were not put in the lineup for both ends of a twin bill.

There were 77 doubleheader games played, 45 of which were won by the home team. If my math is right, that meant 263 lost half-innings. Philadelphia played the most 7-inning games, with 13 (and losing 11 of them). The Cardinals played in 12. Miami played in 11. The Reds, Yanks and Nats each played in 10. Eleven teams played in only one doubleheader.

So if you had Phillies on your roster, you got 23 fewer innings of productivity out of your players than if you had rostered Blue Jays, who swept their only twin bill as the home team... against the Phillies, as it would turn out.

Ban on players viewing in-game video: MLB was planning this ban as a result of the Astros cheating scandal. But the necessity for COVID-related accommodations made it possible for MLB to just add it as part of the health restrictions. This was frustrating for players who liked to evaluate their performance during a game, and make adjustments.

The MLBPA called the move “extreme.” Rays manager Kevin Cash was not happy, stating that video helps his team learn and coach. Javier Baez argued that players were being punished for the Astros’ misdeeds. His .203 average concurred. So did J.D. Martinez and his .213 mark. There were likely other players who were not as vocal.

The pushback possibly leaves the door open for some compromise on this issue once the COVID accommodations are lifted. But I’m just guessing.

I think all these variables are enough to question the usability of the 2020 data set. Chopped liver, indeed.

A higher level look at the numbers

We have many reasons to discount the performance stats from this past season, but if the league-wide statistical levels and trends fit in with history, maybe there’s less cause for alarm.

But... 60 games. We are going to need to do a little bit of creative accounting. In order to add 2020 to history, I’m going to pro-rate the data to a full season (noted as “20PR” below). This is grossly inaccurate and downright wrong, but if we can tease even an iota of insight out of a trend, it might be helpful in our efforts to look ahead to 2021.

A direct pro-rating of 2020 gives us a multiplier of 2.7 (162/60). We might reasonably assume that six months of play could erode that factor a bit, but I don’t know what the new multiplier should be, so I will stick with 2.7. That might be pretty generous. Still, as much as “precision” is an admirable and heroic goal, this exercise is simply looking for “good enough to pass a smell test.”

Power

Year	Tot HR	Players with	
		20+	30+
2011	4552	68	23
2012	4934	79	27
2013	4661	70	14
2014	4186	57	11
2015	4909	64	20
2016	5610	111	35
2017	6105	118	41
2018	5585	100	27
2019	6776	130	58
20PR	6221	119	53

If my pro-rating exercise is, in fact, “generous,” then 2020 took a marked step back in the power department. We probably would have expected some regression off of 2019’s outburst anyway, so this may be well within the range of expectation.

Year	HR/F%
2011	9.7%
2012	11.3%
2013	10.5%
2014	9.5%
2015	11.4%
2016	12.8%
2017	13.7%
2018	12.7%
2019	15.3%
2020	14.8%

Before the season, we wondered which baseball would show up for 2020. Would it be:

- 2019 regular season ball?
- 2019 post-season ball?
- Pre-2015 All Star Break ball?
- Some other ball?

It looks like the 2019 regular season ball returned for 2020. The slight regression seems reasonable, but it’s clear that this was pretty much the same ball.

Year	Singles%	Three True
		Outcomes%
2011	67.2%	29.2%
2012	66.4%	30.4%
2013	67.6%	30.3%
2014	68.3%	30.3%
2015	66.5%	30.7%
2016	65.1%	32.3%
2017	63.8%	33.5%
2018	64.2%	33.7%
2019	61.7%	35.1%
2020	62.8%	36.1%

Honestly, as much as I love this sport, these trends are what make it tougher and tougher to sit through ballgames. The percentage of singles to total hits regressed slightly, but is still down over five percent from 2014. The percentage of three true outcomes (home runs, walks and strikeouts) to total plate appearances took another sharp step up.

These days, with every game’s opening pitch, I hope to see a 9-8 slugfest that does not include any home runs. I’ll gladly sit through a 4-hour game so long as it’s spent watching something more than grass growing. But that’s just me.

Stolen Bases

Year	Tot SB	Players with	
		20+	30+
2011	3279	50	20
2012	3229	48	23
2013	2693	40	16
2014	2764	39	15
2015	2505	30	7
2016	2537	28	14
2017	2527	29	6
2018	2474	28	11
2019	2280	21	8
20PR	2387	29	9

Teams were slightly more invigorated on the base paths last year, but like power, this data point also seems like a natural regression off of the extreme level in 2019.

Starting Pitching

Year	Number of Pitchers with			
	200 IP	200 K	15 W	*10 W
2011	39	14	20	86
2012	31	13	27	84
2013	36	12	16	82
2014	34	13	25	83
2015	28	18	13	70
2016	15	12	23	70
2017	15	16	17	74
2018	13	18	19	59
2019	15	24	16	74
20PR	6	20	19	70

*includes relief pitchers

All in all, not terribly out of line. Note that the low number of potential 200-inning starters is deceptive given that adding just one more start to a handful of pitchers would have pumped that number right back up. It's the danger of small samples.

Relief Pitching

Along with the redistribution of innings and wins between starters and relievers, there has also been a corresponding shift in the distribution of saves.

Year	Saves	Number of Pitchers with		
		30+	20+	5+
2011	1243	19	28	49
2012	1261	15	27	49
2013	1266	19	28	41
2014	1264	17	25	46
2015	1292	19	28	44
2016	1276	15	22	52
2017	1179	10	23	51
2018	1244	8	20	50
2019	1180	11	22	53
20PR	1139	9	17	67

It's clear that there is a continuing spreading of saves among many more pitchers. The number of 20-save closers now barely fills one 15-team league! That makes it difficult to invest heavily. And if a full 2020 season really would have generated only 1139 saves, that's a 12 percent drop in the total saves pool in just five years.

Fewer saves + more pitchers getting saves = a recipe for draft day disaster.

As a sanity check, all these lists show us that nothing is significantly different from past seasons on a global level, and some already-existing trends are continuing. This is at least a little bit comforting. But it doesn't change the fact that smaller sub-contexts within these data sets were different, and those have had an impact on individual player stats.

While the league levels passed the smell test, more-or-less, there were wider variances and more outliers among player performances. Common sense would seem to indicate that we can't trust Jose Iglesias's .373 batting average any more than Matt Olson's .195 mark. But is that true? Does that mean we should discount all the outliers? I still need to know if punting 2020 is a viable... football metaphor again. Damn.

Surveying the industry

In the process of trying to figure out how to handle the 2021 projections for this book, Ray, Brent and I knocked around a bunch of options. There are a ton of variables and questions, and we do not have answers to most of them. The best we can do is analyze and speculate.

In order to get this book into your hands before Christmas (and for some of you, before Thanksgiving), we had to make some decisions pretty early in the process. But as we were churning through, I thought it still might be useful to see what others in the industry were thinking. After all, we are all facing the same challenges this winter.

So I sent out a survey to the 80-plus members of the Tout Wars experts leagues. These include folks who do the number crunching of projections for many leading information sources, as well as those who are otherwise still involved in the process. They are arguably the most intelligent analysts and players in fantasy baseball, and all their opinions are valuable.

I received quite a few responses, a significant enough number that it was worth sharing. So, here are the results. Along the way, I'll let you know how I filled out my own survey so you can see the mindset that affected the projections in this book.

1. In general conceptual terms, how much weight would you place on 2020 as compared to a typical just-finished season? (For illustrative purposes, assume you would normally weight the immediate past season at 0.50.)

- 3% I consider 2020 a valid, nearly normal data point and will make minimal adjustments to how I would typically weight the immediate past season. (0.375 to 0.50)
- 45% I consider 2020 slightly less valid, but it still represents legitimate performance data so I would make only moderate adjustments to my usual weight for the immediate past season. (0.25 to 0.375)
- 39% Since 2020 represented only 37% of a typical season, I would weight 2020 at about 37% of my normal weight. (0.125 to 0.25)
- 13% Given all the additional contextual variables that had an impact on 2020, I would significantly suppress the weight for the immediate past season. (Less than 0.125)

This has been a popular topic on podcasts and social media because it represents the biggest challenge forecasters are facing. I did a bunch of work on this, and played with several weight configurations for the purposes of the player boxes. By the time the survey went out, we had already locked in 2020 at a weight of 0.30, or 30 percent, leaving the remaining years to account for 70 percent of each player's projection.

But then a late October twitter poll by Baseball Pods (@baseballpods) got my attention:

As a whole, how do you think 2020 stats should be incorporated in 2021 projections?

- 10% Ignore 2020 stats
- 6% Weight 2020 as a full season
- 77% Weight 2020 as 1/3 or 1/2 (of a full season)
- 7% Other

Weighting 2020 as 1/3 or 1/2 yields a range of 0.166 to 0.25, as compared to a normal weight of 0.50. That leaves my 0.30 estimate on the outside of this public's opinion, though perhaps no closer to the truth.

However, there is one truth; we are probably haggling over a level of precision that doesn't matter anyway. The projections that flow out from these different weights are not appreciably different. So I ran a comparison study using a player who had consistent productivity in the past but whose 2020 was an extreme outlier. This would let us see what a worse case scenario might look like. My subject was J.D. Martinez.

A reminder about Martinez's numbers:

Year	AB	H	R	HR	RBI	SB	AVG
2018	569	188	111	43	130	6	.330
2019	575	175	98	36	105	2	.304
2020	211	45	22	7	27	1	.213
(20PR)	570	122	59	19	73	3	.214)

I've included a pro-rated line for 2020 just so it's easier to see the pace he was on.

Below are three rudimentary projections. The first uses a standard three-year .50/.30/.20 weighting; the others take some guesses about what a 0.30 model and the Twitter poll's 0.166 model might look like. (Note that the model we use in the player boxes weights the past five years; I'm using three years here for simplicity's sake.)

Weights			Projection						
2020	2019	2018	AB	H	R	HR	RBI	SB	AVG
0.50	0.30	0.20	570	150	81	29	94	3	.264
0.30	0.40	0.30	570	162	90	33	103	3	.284
0.166	0.533	0.30	570	169	95	35	107	3	.296

Knowing nothing beyond these three projections, it's not hard to see that this is the same player. The first line would be a normal projection as if 2020 was considered a full season, and as poorly as Martinez fared, that line is not outside of the range of possibility. I would actually buy into that pretty easily if not for the fact that we don't know what Martinez would have done in the 100 missing games. Some of you might even look at that line and think, "Sure, that works."

But let's say we reject that assumption. The two lines below it both significantly reduce the impact of 2020, but both are remarkably similar. Over a full season, the difference is about one seeing-eye hit a month and two errant gusts of wind. They both say, let's give the 60-game sample some credibility, but this player has a far greater body of work that should be given more weight.

Given that I chose Martinez as an extreme case, it's clear that we're all playing in the same ballpark. We just don't know if it's the correct ballpark.

2. Which of the following would you consider reasonable methods for calculating a 2021 projection based on multiple years of data? (Select any that apply)

- 42% Create an appropriate weight for 2020 alone and run it normally with the other years.
- 26% Create a weight based on (2019 plus 2020), then run it with the other years.
- 13% Create a weight based on (2019 2nd half plus 2020), then run it with the other years.
- 3% Pro-rate 2020 to 162 games and run projections as usual.
- 32% Project stat categories individually based on each skill's stabilization rates.
- 32% Create a new, different stopgap method to handle this year's forecasting process.

I suppose the biggest takeaway here is that there is no consensus on any single method; not one was favored by even half the experts. Ray, Brent and I bounced around the idea that some combination of 2019 and 2020 might provide better insight into 2021 than 2020 alone. I thought the (2019 second half plus 2020) option was intriguing, but few of the industry experts agreed.

What we ended up doing was using that combined one-and-a-half year weight for players who had only played in 2019 and 2020, strictly to find a sweet spot for the smaller sample size. Seeing a more substantial data sample is important, and for that reason we've also included that data point in the player boxes. You'll find that many of our analysts refer to it in their commentaries, even if it wasn't directly used in calculating that player's projection.

3. Without knowing for sure what rules will be in effect for 2021, which of the following variables would have an impact on the manner in which you would normally calculate your projections? (Select any that apply)

- 97% Universal designated hitter
- 61% Geographic schedule
- 55% Large pitcher workload increases in 2021
- 32% Expanded rosters
- 16% 7-inning doubleheaders
- 16% Extra inning baserunner on 2nd
- 10% Restriction against players viewing in-game video

Not surprising that the universal DH drew near unanimous support; one way or another, it's going to affect our projections. I suspect that the early release of a full 162-game schedule for 2021

may have suppressed the response to the geographic scheduling; otherwise, I'd think more of the others would consider it a factor.

An indirect effect of the shortened season may be some concern over pitcher workloads next season. Starters who typically threw 180 or more innings only tossed around 70 last year. Should we be worried about the innings spikes in 2021? I'd think we should have at least some moderate concern. Just over half the group agreed.

However, you can toss all this in the trash if MLB decides it's not yet safe enough for a full schedule and instead plans something like a 100-game transition season in 2021. At the time of writing this, there was some scuttlebutt about that plan; it would make the workload concerns much less of an issue. I suspect the MLBPA will have something to say about that, though.

For me, the biggest surprise in these results is the low response to expanded rosters. Given how difficult it has become to project playing time, any expansion of roster size makes our job even tougher. Yes, we are presumably reverting back to 26-man rosters in 2021, but with the pandemic variable still an unknown, we might still be looking at some version of 60-man player pools again. Projecting playing time is tough enough without having to fit in dozens of additional claims to the fixed pool of innings and plate appearances.

There was also a **Question No. 4** that asked respondents to rank the variables, but the results mirrored the above perfectly so there is no point in wasting space on it.

5. If a resurgence in the pandemic forces MLB to go back to a geographic East/Central/West schedule in 2021, how would that affect your player projections?

- 42% I would not make any accommodations for the schedule.
- 42% I would place a slightly greater weight on 2020 performance data
- 13% I would place a moderately greater weight on 2020 performance data
- 3% I would place a significantly greater weight on 2020 performance data

I apologize if it seems like I am obsessed with this geographic scheduling variable, but I still think hot fudge tastes different on chopped liver than on ice cream. I struggled a bit in answering this, wavering between "slightly" and "moderately," but ended up wimping out with the former. Still, it boggles my mind that 42 percent would make no accommodations at all. If they're correct, I won't be getting Shane Bieber if I play in any of their leagues.

However, let's be honest here. Maybe the world will be different by the time you read this, but as I sit here in November, I find it difficult to see a path to a normal schedule in 2021. Even if they get in 162 games, COVID is still out there without a widely available vaccine and odds are they will have to go back to the three geographic league alignment. If that happens, the whole dynamic shifts back.

I just talked myself into changing my vote to "moderately."

6. What would be the most reasonable method to project players who opted out of 2020?

- 13% The 2020 projections will generally still work, adjusted for current context.
- 68% I'd use an age-advanced version of the 2020 projection, adjusted for current context.
- 19% I'd expect rust after a year off and project down, regardless of context.

Admittedly, I often err on the side of logic, even if research shows otherwise. And my logic, in this particular case, is that players taking a year off are not going to perform as well when they return. They have not faced live game action, and even if they've kept up their conditioning (an assumption), four weeks of spring training will not be enough for them to return to their previous level of performance. At best, maybe they finally round into form midway through the season, but that still should depress their 2021 projection. I may be wrong, but that's my particular brand of logic.

I am clearly in the minority here. Over 80 percent of the Touts believe that an adjustment for context, and perhaps an age advancement, are all that is needed for guys like David Price and Lorenzo Cain to return to the level they were originally projected for in 2020. Is there no concern about someone like Buster Posey, who was coming off a terrible year and might have been expected to rebound a little? Or Michael Kopech, who had the added injury hurdle to get over?

I'm not buying. So you know, the projections here do lean towards the slightly pessimistic for the opt-outers.

7. What would be the most reasonable method to project minor league prospects who did not play in 2020 (or played minimally)?

- 26% The 2020 projections will generally still work, adjusted for current context.
- 35% I'd use an age-advanced version of the 2020 projection, adjusted for current context.
- 39% I'd expect rust after a year off and project down, regardless of context.

I was particularly interested to see how these responses compared to the previous question, essentially asking how the forecasters would handle established versus unproven players. The results were not what I would have expected. Yes, 33 percent fewer respondents were content with just an age-adjusted redo, but 13 percent more would have just repeated the 2020 numbers in their current context. And only 39 percent projecting lower numbers after these players lost a full development year seems way too low.

8. How would you handle 2020 park effects in projecting 2021?

- 23% I would create factors for 2020 and use them pretty much normally.
- 52% I'd make slight accommodations for 2020, but would rely more on 2019 factors.
- 25% 2020 contained too many variables. I'd use my 2019 factors.

Mastersball.com's Todd Zola was very vocal on late season podcasts about how useless the 2020 park factors were going to be, because of variables such as:

- Park effects are typically 3-year full season averages in mostly stable data pools. 60 games is too small a sample.
- The three geographic leagues skewed the typical AL/NL-driven data.
- Some teams played as the visiting team in their home park.
- The new Texas park has one year of data against West League teams only.
- The Blue Jays spent no time in Toronto and only part of their home schedule in Buffalo.
- San Francisco made both permanent and temporary structural changes to Oracle Park, which appeared to boost offensive numbers.

It seems nearly impossible to tease out anything real from the 2020 data, so we've decided to stick with 2019 park factors for projecting 2021.

9. Take two players expected to post roughly comparable numbers in 2020. All other variables being equal, one displayed marked skills improvement. The other displayed marked skills decline. How would you view those 60-game results as input to 2021 projections?

52% I'd give more credence to the skills improvement.

3% I'd give more credence to the skills decline.

45% I'd give both roughly equal credence.

This was a question that Todd suggested, and the results are fascinating. The way I read it is that the Touts are far more likely to take a 60-game skills improvement seriously and give players a pass if they struggled this past year.

Mulligans for everyone! Joey Gallo – here's a mulligan for you! Jorge Soler – here's one for you! Alex Bregman – mulligans all around!

I shared the results with Todd and he responded: "I don't know about mulligans, but not correcting for the brevity of the season softens the effect, and then those with seemingly sustainable skills improvement can be handled by either prorating their numbers to 162 or changing the weighting coefficients. Of course, the caveat is, whose skills improvements are real and sustainable?"

And whose skills declines can we legitimately give a pass on? Can we attribute the struggles of Scott Kingery, Austin Meadows and Julio Teheran to the lingering effects of the virus and ignore 2020 completely? Do we ignore 2020 for Javier Baez and J.D. Martinez because we know they are better than what they showed? Can we just assume that they'll find a way to view in-game video next year, or figure out some type of workaround? And how many other players were similarly affected by isolated variables that we simply don't know about?

Nobody wants to analyze every player individually, but we might not have any choice – there were too many variables that potentially affected too many players in different ways. And in 2020, there are more than enough reasons to hand out a generous bounty of do-overs.

I think it is human nature to err on the side of giving a pass for extenuating circumstances, and that is what we have done in the book as well, with some discretion. Because we are humans, and it's in our nature to forgive.

10. How will you handle an extreme performer like Shane Bieber?

3% His performance was so good that it will be tough to regress him much.

65% I plan to regress him like I would any full-season extreme performance.

32% Without knowing whether his numbers would have normalized over a full season, I plan to regress him more than normal.

Shane Bieber was fantasy baseball's top overall earner in 2020 and there is already early talk that he could be the first pitcher off the board in 2021. However, Rotoworld.com's Matthew Pouliot tweeted this reminder:

- Hyun-Jin Ryu was *better* than Bieber's 2020 through 60 games in 2019.
- Gerrit Cole was better for the final 3 1/2 months of 2019.
- Blake Snell was better for four months in 2018.

History is littered with pitchers who were superhuman for a few months and then came face to face with the two strongest forces on earth – regression and gravity. Decades of memories pop into my head:

Pitcher	Year	First ~75 IP	Then
Jack Armstrong	1990	8-1, 1.55 ERA	4-8, 4.78 ERA
Ubaldo Jimenez	2010	10-1, 0.78 ERA	9-7, 4.31 ERA
Hyun-Jin Ryu	2019	9-1, 1.35 ERA	5-4, 3.07 ERA

That's why I voted with the 32 percent.

And why I likely won't be getting Shane Bieber on *any* redraft teams next year.

To be fair, the opposite phenomenon has occurred as well. In 2004, Johan Santana opened the season going 2-3 with a 5.61 ERA over 61 innings, but then exploded, going 18-3 with a 1.51 ERA the rest of the way. In 2008, C.C. Sabathia had a miserable 13.50 ERA through his first four starts (18 IP), and was still 1-5 with a 7.51 ERA on May 3. From that point on, he went 16-5 with a 1.84 ERA.

That's why the 100 missing games are so important. We just don't know whether Bieber would have come down to earth—regression and gravity say he would—thus settling his projective baseline at a more sedate level. Using even a still-Cy Young-worthy 16-win, 2.90 ERA stat line in a projections calculation would require some regression based on his history, but not nearly as much as the 8-1, 1.63 line he put up this past year. That's why I think we need to regress him *more* than normal.

I put this question out to the public in a Twitter poll, just to compare responses. Due to space limitations, the options had to be cut back to 25 characters, so they looked like this:

How would you project an extreme performer like Shane Bieber?

23% 2020 was pretty real.

57% Regress him like always.

20% Small sample; regress more.

The takeaway? More than *seven times* as many public respondents value Bieber as if 2020 was real. You are not going to get him on any redraft teams either.

Perspective and prophecy

I think everyone will be approaching 2021 with the expectation (or hope) that we will be on the road back to normality. Prepare like you normally would, run your numbers and rank your players as always. Maybe make a few accommodations for 2020, but as we've already seen, there are no certainties going forward.

However, we are also hearing that dreaded term – “new normal” – to caution us that we might need to get used to our current reality. Plan for the coming of the universal DH. Prepare to shift gears at a moment's notice. Expect continuing chaos.

I don't think it's a black-or-white situation. This “new normal” could be a moving target. Ray Murphy described this perspective in a BaseballHQ.com article last summer. He wrote:

You can read analysis of just about any industry right now—healthcare, technology, education—and the most overused phrase out there is “COVID-19 isn't changing trends in these industries, it's just accelerating trends that were already there.” I think that absolutely applies to us, too.

It was June 2018 when Sergio Romo was first used by Tampa as an “opener” one night in Anaheim, and now in 2020, pitcher usage looks nothing like it did three years ago. Sure, what happened this year was fed by the shortened ramp-up time of summer camp, depth worn hollow by opt-outs and injuries, and the increased importance of each game in a 60-game sprint. But those are just the accelerants of the trend that was already starting.

I don't think MLB in 2021 is going to just snap back to how it looked in 2019 or earlier. These trends were already growing, and now they're mature. So, I will definitely not be just purging the 2020 experience from my memory. The challenge for the off-season is figuring out which of our reactions to those trends worked and didn't work, what to keep from our historical knowledge and what to toss.

This rings so true, and it gets my gears turning. Where are these trends heading and what can I do to take advantage of them? This is a thought exercise. With a foundation in objective perspective, some speculation and whole bunch of creativity, we may be able to take some educated guesses.

For a representative case study, let's look at the changing state of pitching roles.

It is no secret that the manner in which pitchers are being used has been evolving over the past few years. But Tampa's creation of the opener was not an isolated event. It was an outgrowth of variables that occurred before it and symptomatic of a larger groundswell of change. In fact, we might be able to see the stages of the evolution by taking a step back.

Stage 1 of the current evolution probably began about five years ago. In 2014, league-wide ERA bottomed out at a 22-year

low of 3.74. The following year, while offense began to rebound, the number of pitchers who averaged 95mph fastballs spiked by 25 percent. This was significant.

Whatever advanced conditioning methods opened the doors to the surge of bionic arms, it was not without fallout. IL days jumped by 12 percent, and then again by another eight percent the following year. More injuries meant more new pitchers filling holes. The introduction of the rabbit ball in mid-2015 accelerated the need to cycle through more arms to keep offenses at bay. With more arms, the average length of each outing started shrinking and teams found that shorter outings provided more in-game flexibility. Pitchers began representing larger percentages of each team's active roster.

Sabermetricians had been talking about the matching of skills to roles for decades, but it finally started happening in **Stage 2** when Tampa debuted the Opener. Over the prior three years, the number of 95mph hurlers jumped another 30 percent and the number of IL days another 10 percent.

By that point, the number of 200 IP stud pitchers had plummeted by *half* since the beginning of Stage 1 (and a whopping 70 percent since 2010). Usable No. 4 and No. 5 starters began to disappear and more teams embraced the concept of bullpen games. Five pitchers throwing full bore for an inning or three proved to be more effective than trying to squeeze out five or six innings from a mediocre starter.

Stage 3 is where we are now. The shortened 2020 season brought us expanded rosters, which allowed teams to increase the fuzziness of roles even more. The average length of starting pitcher outings took the biggest dive yet:

Year	IP/GS	
2014	5.97	
2015	5.81	Stage 1
2016	5.65	
2017	5.51	
2018	5.36	Stage 2
2019	5.18	
2020	4.78	Stage 3

The result has been the almost even split in innings and wins between starting pitchers and the bullpen, which significantly cut into the fantasy value of lesser starters. And there were fewer reliable frontline starters too. Over the past two years, 17 starters were drafted in the first two rounds; only seven returned par value. Why invest over \$25 in a staff anchor if the failure rate is nearly 60 percent?

Note that, in 2020, Rookie of the Year reliever Devin Williams earned the 17th most Roto dollars among all pitchers, and he only pitched about a third of the innings of a top starter. Among the top 40 pitchers, 10 were relievers and only four were originally drafted for saves. If not for strikeouts – which might be cobbled together among extreme-skilled relievers – why should we even look at a team's starters beyond the top two or three?

That's the question we are facing now, and teams are realizing it too. When you see increasing incidences of fringe starters finding new life in the pen – like Nick Tropeano and Lucas Sims this year – you can understand how the tide might be shifting.

Our brain tends to get fixated on the “Now,” so it’s tough to see beyond the current reality. But life isn’t ending at Stage 3. From here, we have to engage in a little creative speculation but it’s not that hard to see a possible direction where this all could be headed. Let’s take a look into the future...

In Stage 4, there is a continued distancing between big-inning starters and relievers as teams ramp up the protection of those precious elbows and shoulders. Average innings per start continue to decline, and bullpen games start replacing No. 3 and even a few No. 2 starters.

Below an increasingly scarcer group of \$30 studs, the \$20-\$30 (2nd-5th round) pitcher pool dries up completely, with a Draft Day sweet spot probably in the \$15-\$20 range. Those 6th-8th round pitchers with extreme skills – regardless of whether they are starters or relievers, or in line for any wins or saves – provide the best value. Role has become less important because the five-inning requirement to qualify for a win no longer justifies any added investment – most starters simply aren’t reaching it. Drafting starters for their innings impact on your team’s ERA and WHIP has become too expensive and risky to pursue.

By **Stage 5**, the stud starting pitcher is facing extinction. It’s too high a risk of injury to put 100mph flamethrowers on the mound for even four innings, let alone five or six. The Wins category becomes meaningless as well, and is dropped as an official stat. All pitchers now fall into three short-inning roles – Openers, Middle Men and Closers.

I’ve written several times in the past about a research study I conducted back in 1997, which has an increased relevance in this discussion. It started with an item that appeared under the category of “Stunts” in *Bill James’ Guide to Baseball Managers*:

Baseball freethinkers have long-discussed the possibilities of abandoning the roles of ‘starter’ and ‘reliever’ and using all the pitchers on the staff in two or three inning stints.

I thought, what if we tried to do that? So I ran a computer simulation to see whether this type of pitcher usage would provide any advantage. I took the 1996 California Angels and replayed their season, limiting all their pitchers to three-inning outings. I also employed a swift hook such that no pitcher would ever be charged with more than four runs in any game, and pitchers had to have at least one day of rest between appearances. I tried to see if this type of micro-managing could improve upon the Angels’ 5.30 team ERA and 70-91 record. While the simulation had its limitations, it did show that this type of usage could work. The replayed Angels posted a 4.69 ERA and finished with seven more wins than their real-life counterparts.

For decades, this type of experiment would truly be considered a stunt, but maybe we’re ready now. This could be **Stage 6**.

We can do this same type of creative speculation exercise for any other variable that could eventually affect our drafting strategy. Consider the possible impact that the above scenario might have on the saves market one day soon. Or how the trends in singles and “three true outcomes” could affect stolen bases. I’ll let more creative minds speculate; there is other stuff to cover.

The Fog in our future

We have a ton of information to process, much of it lacking in clarity. So this final section is going to be a hodge-podge of disjointed thoughts, hazy recommendations and random brain droppings.

Exposing the outliers... As you scan the player boxes, you are going to find some wild anomalies that are driven purely by the vagaries of small data samples. You will see pitchers who posted ERAs in the stratosphere last year but whose xERA was 3.00. You’ll see the flipside: 3.00 ERAs with xERAs over 7.00. You’ll see many batters whose contact rates dropped 10 percent or more from 2019, and absurd hit rates in the single digits (imagine – a BABIP of .070!).

In a normal season, time would soften these anomalies; we have to assume that most of them would eventually filter out. But those of your competitors who only look at surface stats are going to completely mis-value many players at 2021 drafts. This may be the best year ever for you to create an optimal target pool.

Reimagining the bullpens... As noted earlier, the stud closer pool may be drying up. I’ve been waving the “Saves-plus-Holds” flag for several years now. Yes, holds are imperfect. You need to abandon your argument about flawed stats – *they’re all flawed* – and embrace the importance of *playability* in this game. Cast out a bigger net for all relievers who can provide some value.

Ditching Wins... It’s time to retire this category. There is no need to wait for Stage 5; it’s already outgrown its usefulness. The rules for assigning Wins have always been somewhat arbitrary, but current usage patterns make them nearly irrelevant. (Imagine if 6 IP were required for a win; bullpens would already rule the field!) Innings Pitched is a worthy proxy because a pitcher has to be throwing well and have stamina to be kept on the mound. What better litmus test for a “winning” pitcher anyway?

But if you are committed to keeping Wins, recognize that your valuations are going to become flatter, which means they are going to be more random. In fantasy and prognosticating, randomness is not our friend.

Stockpiling flexibility... Analysts always recommend that you roster at least a few multi-positional players. This is always sound advice and even more important these days. But really, given MLB trends in that area, it’s nearly impossible not to trip over a bunch of these guys on Draft Day. With all the platooning and roster churn, you need as much flexibility as possible. But make sure your league doesn’t stick with the 20-game requirement for eligibility. Seven or 10 games played in 2020 should be the benchmark going into 2021. We use 10 games in this book.

Exercising excruciating patience... I’ve been asked whether it’s time to retire this mantra. The answer is a conditional “no.” We should probably stop hurting ourselves to the point of “excruciating,” but decision-making with limited data is unavoidable these days. Let’s now “Exercise Enough Patience” so that we have at least some perspective, though not too long that we miss out on opportunities. This game has become all about threading needles.

Honing hidden skills... During the months when we were waiting for baseball to return, a bunch of us from the XFL and

Tout Wars participated in a series of weekly retro-drafts. These are standard snake drafts of previous seasons where your cheat sheet contains each player's actual stats produced that year. Given that you know how every player performed, a winner can be crowned at the end of the draft. The exercise ran for 10 weeks and we redrafted years like 1982, 1999 and 2016.

You would think that knowing every player's stats in advance would make the process easier, but it was as challenging as a chess match. There are three main elements that comprise our typical draft prep:

1. Projecting player stats.
2. Placing values/ranks on those projections.
3. Building a roster.

Retro-drafting removes the variable of projections and places the focus on valuation and roster construction. Odds are you may not be as skilled at those tasks as you think.

I had expected that everyone working off the same stats would create a level playing field, but I was wrong. Over the 10 weeks of play, several owners consistently finished high. Rotowire's Jeff Erickson participated in seven of the drafts, winning twice and finishing second twice. BaseballHQ's Doug Dennis had two titles in seven tries as well. Yahoo's Fred Zinkie played four times, finishing 1st, 2nd, 3rd and 2nd. I played five times and couldn't finish higher than 7th. This is clearly a learned skill and demonstrates how having "accurate projections" is just one piece of a much bigger puzzle.

Why am I even writing about this? **The 2020 hot mess will make 2021 projective accuracy more elusive, so you should hone your skills at other elements of the game that can give you an edge.**

While you're doing your own off-season draft prep, add retro-drafting to your planning process. It is a worthwhile exercise to help you build better roster construction skills. Todd Zola has put together an incredible spreadsheet in a Google doc that runs the entire draft, updating the standings with every pick. Contact him at todd@mastersball.com to order yours.

You can also read more about retro-drafting, along with the XFL/Tout draft results at fantasyxperts.com/retrodraftcentral.shtml.

Resisting the siren call... I've alluded to this earlier but it will be even more important not to be lured in by next year's ADPs. The marketplace is going to be craving for stats and will be using 2020 as an inflated data point. It can't help itself. There are some players who will be properly slotted, but anyone who had a particularly good or bad 60 games is going to be disproportionately pushed higher or lower than they should be.

Rely even more on long-term skills profiles. I suppose ignoring 2020 is an option for the outliers, but do it carefully. I like to think back to my opinion of those players at the *beginning* of 2020, and use that as a baseline. Did you see Josh Bell as a dead roster spot back then? Did you see Robbie Ray and Steve Matz as completely undraftable? I thought not. But the ADPs are going to *significantly* depress players like these based on sample sizes that you'd normally consider *insignificant*. Be smart.

Resisting the other siren call... There are signs in early mocks that drafters are taking the limited 2020 performances of young

players more seriously than perhaps they should. I will leave the in-depth analysis to our minor league experts, but looking at the "2020 Top Fantasy Impact" prospects from the *Minor League Baseball Analyst*, I took particular note of the following:

Top 2020 prospects who had between 50 and 150 AB in 2020						
Rank	Player	AB	HR	RBI	SB	Avg
1	Gavin Lux	63	3	8	0	.175
3	Nick Madrigal	103	0	11	2	.340
4	Jo Adell	124	3	7	0	.161
7	Austin Hays	122	4	9	3	.279
8	Carter Kieboom	99	0	9	1	.202
9	Willi Castro	129	6	24	0	.349
14	Sean Murphy	116	7	14	0	.233
16	Dylan Carlson	110	3	16	1	.200
18	Nico Hoerner	108	0	13	3	.222
19	Abraham Toro	87	3	9	1	.149
20	Bobby Dalbec	80	8	16	0	.263
32	Isaac Paredes	100	1	6	0	.220
33	Ryan Mountcastle	126	5	23	0	.333
39	Randy Arozarena	64	7	11	4	.281
**	Jazz Chisolm	56	2	6	2	.161
**	Ke'Bryan Hayes	85	5	11	1	.376

** - Outside the Top 40

Despite the numerical rankings, these are *all* top prospects. Wherever you go fishing, remember that the above numbers represent the total major league experience for most of them. If you are planning to use these tiny samples to draw conclusions about any of these guys, just don't.

But that's exactly what the marketplace is doing. When I see Jo Adell being devalued and Ke'Bryan Hayes being discussed among next year's top third basemen, my head screams, "Small Sample Alert! Recency Bias Alert! Danger! Danger!"

Facing 2021's contend-vs-rebuild dilemma... Perhaps the rush to pass early judgment on these players is because the prospect pool at 2021 drafts could be pretty bare. With no minor league season, there are fewer *new* farm players to lust after. This is particularly devastating for those in keeper and dynasty leagues as it significantly complicates the contend-vs-rebuild decision.

Anyone forced to gut their roster going into 2021 could be facing a very long year, so the best approach might be to go all-in whether or not you have a reasonable chance to contend. That might sound like bad advice, but I remember many times when I decided to trade off assets for prospects only to find myself in contention anyway and regretting the trades I made. This coming season, you may not have a choice.

Ignoring 2020, in practice... I am facing this very conflict, but using my own advice makes my tough XFL keeper decisions a little easier. *I can ignore 2020!* I can look back at how I perceived players last March and just decide whether their 2021 price tags justify a roster spot.

But it makes me feel so dirty.

Long-time readers know that I have been holding onto man-crush Ryan McMahon throughout his underwhelming career. After his .215 splat in 2020, it would ordinarily be tough to protect him, even at \$12. But I was still optimistic coming into the season, and if I ignore the splat, the investment seems much more palatable. Love is blind.

I've also got Eugenio Suarez who will cost me \$22 to keep. Based on what he did in 2020, I'd normally toss him back. But he went 49-103 with a .358 OBP a year ago, and with typical keeper league inflation, his price may still be bargain. Mulligan No. 2.

Matt Olson, Carlos Santana, Rosarios Eddie and Amed... so much 2019 delight, so much 2020 distress. This quartet earned \$71 a year ago but only \$44 in 2020. How many mulligans can I give?

But there's the flipside too. Was Max Fried's mini-season a new level of growth or just an outlier, and would it have flattened out over the 100 missing games? That's one outlier I don't want to ignore. But why am I accepting Fried's 2.25 ERA in 56 innings but dismissing Frankie Montas' 5.60 ERA in the same number of innings?

In the end, I guess I am looking at my team like the responses to survey question No. 9. I'd rather ignore the bad results from this past year, but be more willing to accept the good results. Not to get too preachy, but haven't we become a society that accepts information when it suits us but ignores it when it's not convenient? I suppose that says more about human nature than sound analysis. And perhaps that human frailty will condemn me to last place.

So it looks like I will be all-in for 2021.

There is one configuration for my XFL keeper list in which I protect my full 15-player allotment for \$251; I'd go into the draft with \$9 to spend on my last eight players.

That would be a true Hail Mary pass, the ultimate Stars and Scrubs option. The late Steve Moyer – a Tout Warrior who reveled in stockpiling \$1 speculations with wanton abandon – is smiling down at that. Strategically, for a team straddling the contend-vs-rebuild fence, it actually might be the optimal place to teeter in 2021.

Time to jump in... even though we don't know how deep the water is or where the current is headed. Time won't stop for us to figure everything out; sometimes you just need to swim and hope for the best.

It's tough to have all this uncertainty, but everything could be different by the time you read this. Between our Thanksgiving printer deadline and your Draft Day – just a few short months in time – the world could be in a very different place.

Hopefully it will be a better place.

Have some more ice cream, and stay safe.

CONSUMER ADVISORY

AN IMPORTANT MESSAGE FOR FANTASY LEAGUERS REGARDING PROPER USAGE OF THE *BASEBALL FORECASTER*

This document is provided in compliance with authorities to outline the prospective risks and hazards possible in the event that the Baseball Forecaster is used incorrectly. Please be aware of these potentially dangerous situations and avoid them. The publisher assumes no risk related to any financial loss or stress-induced illnesses caused by ignoring the items as described below.

1. The statistical projections in this book are intended as general guidelines, not as gospel. It is highly dangerous to use the projected statistics alone, and then live and die by them. That's like going to a ballgame, being given a choice of any seat in the park, and deliberately choosing the last row in the right field corner with an obstructed view. The projections are there, you can look at them, but there are so many better places to sit.

We have to publish those numbers, but they are stagnant, inert pieces of data. This book focuses on a live forecasting process that provides the tools so that you can understand the leading indicators and draw your own conclusions. If you at least attempt your own analyses of the data, and enhance them with the player commentaries, you can paint more robust, colorful pictures of the future.

In other words...

If you bought this book purely for the projected statistics and do not intend to spend at least some time learning about the process, then you might as well just buy an \$8 magazine.

2. The player commentaries in this book are written by humans, just like you. These commentaries provide an overall evaluation of performance and likely future direction, but 70-word capsules cannot capture everything. Your greatest value will be to use these as a springboard to your own analysis of the data. Odds are, if you take the time, you'll find hidden indicators that we might have missed. Forecaster veterans say that this self-guided excursion is the best part of owning the book.

3. This book does not attempt to tackle playing time. Rather than making arbitrary decisions about how roles will shake out, the focus is on performance. The playing time projections presented here are merely to help you better evaluate each player's talent. Our online pre-season projections update provides more current AB and IP expectations based on how roles are being assigned.

4. The dollar values in this book are intended solely for player-to-player comparisons. They are not driven by

a finite pool of playing time—which is required for valuation systems to work properly—so they cannot be used for bid values to be used in your own draft.

There are two reasons for this:

a. The finite pool of players that will generate the finite pool of playing time will not be determined until much closer to Opening Day. And, if we are to be brutally honest, there is really no such thing as a finite pool of players.

b. Your particular league's construction will drive the values; a \$10 player in a 10-team mixed league will not be the same as a \$10 player in a 12-team NL-only league.

Note that book dollar values also cannot be compared to those published at BaseballHQ.com as the online values are generated by a more finite player pool.

5. Do not pass judgment on the effectiveness of this book based on the performance of a few individual players. The test, rather, is on the collective predictive value of the book's methods. Are players with better base skills more likely to produce good results than bad ones? Years of research suggest that the answer is "yes." Does that mean that every high skilled player will do well? No. But many more of them will perform well than will the average low-skilled player. You should always side with the better percentage plays, but recognize that there are factors we cannot predict. Good decisions that beget bad outcomes do not invalidate the methods.

6. If your copy of this book is not marked up and dog-eared by Draft Day, you probably did not get as much value out of it as you might have.

7. This edition of the Forecaster is not intended to provide absorbency for spills of more than 7.5 ounces.

8. This edition is not intended to provide stabilizing weight for more than 18 sheets of 20 lb. paper in winds of more than 45 mph.

9. The pages of this book are not recommended for avian waste collection. In independent laboratory studies, 87% of migratory water fowl refused to excrete on interior pages, even when coaxed.

10. This book, when rolled into a cylindrical shape, is not intended to be used as a weapon for any purpose, including but not limited to insect extermination, canine training or to influence bidding behavior at a fantasy draft.

Welcome to the 35th Edition

If you are new to the *Baseball Forecaster*, the sheer volume of information in this book may seem a bit daunting. We don't recommend you assessing its contents over a single commute to work, particularly if you drive. But do set aside some time this winter; instead of staring out the window, waiting for baseball to begin again, try immersing yourself in all the wisdom contained in this tome. There's a ton of it, and the payoff—Yoo-Hoo or otherwise—is worth it.

But where to begin?

The best place to start is with the Encyclopedia of Fanalytics, which provides the foundation concepts for everything else that appears in these pages. It's our research archive and collective memory, just as valuable for veterans as it is for rookies. Take a cursory read-through, lingering at any section that looks interesting. You'll keep coming back here frequently.

Then just jump in. Close your eyes, flip to a random page, and put your finger down anywhere. Oh, look—Jose Berrios. A 4.00 ERA in the short season. He's now age 27, so maybe this is the level he's settling at. But wait... his velocity and swinging strike rates both showed growth despite that 4.00 ERA, so maybe there's another step forward to come here. See, you've learned something already!

What's New in 2021?

Our team took full advantage of the spring shutdown, producing another bumper crop of research that has filled our Abstracts section, and crept into our player boxes. A quick summary:

BB%, K%, K-BB%: We turn the page on Ctl/Dom/Command, and move from per-9 metrics to batters-faced ones, with new benchmarks and conversions for long-time readers. Details on page 69.

QBAB: Our own quality-of-contact metric that encapsulates a player's exit velocity, launch angle, and launch angle variability in a given season. Details on page 76.

Barrel%: We added the Statcast metric to the player boxes. Details on page 77.

xSB: How many SB *should* a player have tallied? Details on page 72.

Also, *answers to questions*, such as: How should you use ADP to guide your draft strategy? Which Statcast metrics are most worthy of being added to our toolbox? Are stolen bases more about pure speed or a green light? And much, much more.

Updates

The Baseball Forecaster page at BaseballHQ.com is at www.baseballhq.com/bf2021. This is your headquarters for all information and updates regarding this book. Here you will find links to the following:

Content Updates: In a project of this magnitude, there are occasionally items that need clarification or correction. You can find them here.

Free Projections Update: As a buyer of this book, you get one free 2021 projections update. This is a set of Excel spreadsheet files that will be posted on or about March 1, 2021. Remember to keep the book handy when you visit as the access codes are hidden within these pages.

Electronic book: The complete PDF version of the *Forecaster*—plus Excel versions of most key charts—is available free to those who bought the book directly through the BaseballHQ.com website. These files will be available in January 2021 for most of you; those who have an annual standing order should have received the PDF just before Thanksgiving. Contact us if you do not receive information via e-mail about access. Information about the e-book version can be found through the website.

If you purchased the book through an online vendor or bookstore, or would like these files earlier, you can purchase them from us for \$9.95. Contact us at support@baseballhq.com for more information.

Beyond the Forecaster

The *Baseball Forecaster* is just the beginning. The following companion products and services are described in more detail in the back of the book.

BaseballHQ.com is our home website. It provides regular updates to everything in this book, including daily updated statistics and projections. A subscription to BHQ gets you more than 1,000 articles over the course of a year updated daily from spring training through the end of the regular season, customized tools, access to data going back over a decade, plus much more. For a free peek, sign up for our BaseballHQFriday newsletter at www.baseballhq.com/friday.

In non-pandemic times, we take this show on the road twice a year via our *First Pitch Forums* weekend conferences. Last spring, just before the world shut down, we had a highly successful *First Pitch Florida* event. We had to cancel our fall staple, *First Pitch Arizona*, with great regret in 2020. At press time, the prospect of returning to Florida in March 2021 is looking unlikely, so we are likely to move that event to a virtual format for the pre-season, and set our sights on a return to in-person events in Arizona in October 2021. We'll post updates as we have them at BaseballHQ.com.

Despite the loss of the minor league season in 2020, our *Minor League Baseball Analyst* will be out with its 16th edition, in an electronic-only form. MLBA is the minor league companion to this book, with stat boxes for 900-plus prospects, essays on prospects, lists upon lists, and some new and experimental features in this year-like-no-other.

RotoLab is the best draft software on the market and comes pre-loaded with our projections. Learn more at www.rotolab.com.

Even further beyond the Forecaster

Visit us on **Facebook** at www.facebook.com/baseballhq. "Like" the BaseballHQ page for updates, photos from events and links to other important stuff.

Follow us on **Twitter**. Site updates are tweeted from @BaseballHQ and many of our writers share their insights from their own personal accounts. We even have a list to follow: www.twitter.com/BaseballHQ/lists/hq-staff.

But back to baseball. Your winter comfort awaits.

—Brent Hershey and Ray Murphy

ENCYCLOPEDIA OF FANALYTICS

For new readers...

Everything begins here. The information in the following pages represents the foundation that powers everything we do.

You'll learn about the underlying concepts for our unique mode of analysis. You'll find answers to long-asked questions, interesting insights into what makes players tick, and innovative applications for all this newfound knowledge.

This Encyclopedia is organized into several logical sections:

1. Fundamentals
2. Batters
3. Pitchers
4. Prospects
5. Gaming

Enough talking. Jump in.

Remember to breathe.

For veteran readers...

As we do in each edition, this year's ever-expanding Encyclopedia includes relevant research results we've published over the past year. We've added some of the essays from the Research Abstracts section in the 2020 Forecaster as well as some other essays from BaseballHQ.com.

And we continue to mold the content to best fit how fantasy leaguers use their information. Many readers consider this their fantasy information bible.

Okay, time to jump-start the analytical process for 2021. Remember to breathe—it's always good advice.

Abbreviations

BA	Batting average	29
BABIP	Batting average on balls-in-play (also h%, H%)	30, 39
bb%, BB%	Walk rate	29, 38
bb/9	Opposition walks per 9 IP (also Ctl)	38
BF/G	Batters faced per game	42
BIP	Balls-in-play	30, 39
BPV; BPX	Base performance value; base performance index	34, 43
Brl%	Barrel rate	30
Cmd	Command ratio (K/BB)	38
ct%	Contact rate (AB-K)/AB	29
Ctl	Control ratio (also bb/9)	38
DIS%	PQS disaster rate	47
Dom	Dominance ratio (also k/9)	38
DOM%	PQS domination rate	47
ERA	Earned run average	41
Eye	Batting eye (bb/k)	29
G/L/F	Ground balls, line drives, and fly balls as a percentages of total balls in play (hits and outs)	29, 40
h%, H%	Hits (and hits allowed) per balls in play	30, 39
HcT, HctX	Hard hit ball rate x contact rate	30
HHFB%	Hard hit fly balls percentage	32
hr/9	Opposition home runs per 9 IP	41
HR/F	Home runs hit, or allowed, per fly ball	31, 40
IP/G	Innings pitched per game appearance	43
k/9	Dominance ratio (also Dom)	38
K%	Strikeout rate	38
K-BB%	Strikeout % minus Walk %	39
LI	Leverage index	44
MLE	Major league equivalency	51
OB	On base average (batters)	29
OBA	Opposition batting average (pitchers)	39
OPS; OPS+	On base plus slugging average; adjusted index	34
PA	Plate appearances (as leading indicator)	34
PQR	Pure Quality Relief	48
PQS	Pure Quality Starts	48
Pw; PX	Linear weighted power; index	32
QBaB	Quality of Batted Ball Score	30
QC	Quality/Consistency Score	36
R\$	Rotisserie value for specific league sizes	60
RAR	Runs above replacement	34, 43
RC; RC/G	Runs created; runs created per game	31
REff%	Reliever efficiency percentage	41
RSpd	Roto speed	30
S%	Strand rate	37
SBA	Stolen base attempt rate	33
Slg	Slugging average	27
Spd	Statistically Scouted Speed	33
SwK	Swinging strike rate	38
Sv%	Saves conversion rate	44
WHIP	Walks plus hits divided by innings pitched	40
xBA	Expected batting average	30
xHR	Expected Home Runs	31
xHR/F	Expected Home Runs per Fly Ball	31
xERA	Expected earned run average	41
xPX	Expected skills-based power index	32
xSB	Expected stolen bases	33
xW	Expected wins	42
xWHIP	Expected Walks plus hits divided by innings pitched	40

Fundamentals

What is Fanalytics?

Fanalytics is the scientific approach to fantasy baseball analysis. A contraction of “fantasy” and “analytics,” fanalytic gaming might be considered a mode of play that requires a more strategic and quantitative approach to player analysis and game decisions.

The three key elements of fanalytics are:

1. Performance analysis
2. Performance forecasting
3. Gaming analysis

For performance analysis, we tap into the vast knowledge of the sabermetric community. Founded by Bill James, this area of study provides objective and progressive new ways to assess skill. What we do in this book is called “component skills analysis.” We break down performance into its component parts, then reverse-engineer it back into the traditional measures with which we are more familiar.

Our forecasting methodology is one part science and one part art. We start with a computer-generated baseline for each player. We then make subjective adjustments based on a variety of factors, such as discrepancies in skills indicators and historical guidelines gleaned from more than 30 years of research. We don’t rely on a rigid model; our method forces us to get our hands dirty.

You might say that our brand of forecasting is more about finding logical journeys than blind destinations.

Gaming analysis is an integrated approach designed to help us win our fantasy leagues. It takes the knowledge gained from the first two elements and adds the strategic and tactical aspect of each specific fantasy game format.

Component Skills Analysis

Familiar gauges like HR and ERA have long been used to measure skill. In fact, these gauges only measure the outcome of an individual event, or series of events. They represent statistical output. They are “surface stats.”

Raw skill is the talent beneath the stats. Players use these skills to create the individual events, or components, that are the building blocks of measures like HR and ERA. Our approach:

1. **It’s not about batting average; it’s about seeing the ball and making contact.** We target hitters based on elements such as their batting eye (walks to strikeouts ratio), how often they make contact and the type of contact they make. We then combine these components into an “expected batting average.” By comparing each hitter’s actual BA to how he should be performing, we can draw conclusions about the future.

2. **It’s not about home runs; it’s about power.** From the perspective of a round bat meeting a round ball, it may be only a fraction of an inch at the point of contact that makes the difference between a HR and a long foul ball. When a ball is hit safely, often it is only a few inches that separate a HR from a double. We tend to neglect these facts in our analyses, although the outcomes—the doubles, triples, long fly balls—may be no less a measure of that batter’s raw power skill. We must incorporate all these components to paint a complete picture.

3. **It’s not about ERA; it’s about getting the ball over the plate and keeping it in the park.** Forget ERA. You want to draft pitchers who walk few batters (Control), strike out many (Dominance) and succeed at both in tandem (Command). You generally want pitchers who keep the ball on the ground (because home runs are bad), though some fly ball pitchers can succeed under the right conditions. All of this translates into an “expected ERA” that you can use to validate a pitcher’s actual performance.

4. **It’s never about wins.** For pitchers, winning ballgames is less about skill than it is about offensive support. As such, projecting wins is a high-risk exercise and valuing hurlers based on their win history is dangerous. Current trends in pitching usage—which fragment roles and spread innings to more pitchers—dilute our ability to project wins even more. Target skill; wins may or may not come, but it’s your best hope. Many leagues are switching to tracking innings instead.

5. **It’s not about saves; it’s about opportunity first and skills second.** While the highest-skilled pitchers have the best potential to succeed as closers, they still have to be given the ball with the game on the line in the 9th inning, and that is a decision left to others. Over the past 20 years, about 45% of relievers drafted for saves failed to hold the role for the entire season (that percentage is over 55% since 2016). The lesson: Don’t take chances on draft day. There will always be saves in the free agent pool. Or toss out a wider net over the bullpen pool and switch to Saves-plus-Holds.

Accounting for “luck”

Luck has been used as a catch-all term to describe random chance. When we use the term here, we’re talking about unexplained variances that shape the statistics. While these variances may be random, they are also often measurable and projectable. To get a better read on “luck,” we use formulas that capture the external variability of the data.

Through our research and the work of others, we have learned that when raw skill is separated from statistical output, what’s remaining is often unexplained variance. The aggregate totals of many of these variances, for all players, is often a constant. For instance, while a pitcher’s ERA might fluctuate, the rate at which his opposition’s batted balls fall for hits will tend towards roughly 30%. Large variances can be expected to regress towards 30%.

Why is all this important? Analysts complain about the lack of predictability of many traditional statistical metrics. The reason they find it difficult is that they are trying to project performance using metrics that are loaded with external noise. Raw skills metrics follow better-defined trends during a player’s career. Then, as we get a better handle on the variances—explained and unexplained—we can construct a more complete picture of what a player’s statistics really mean.

Baseball Forecasting

Forecasting in perspective

The crystal ball aura of “predicting the future” conceals the fact it is a process. We might define it as “the systematic process of determining likely end results.” At its core, it’s scientific.

However, the *outcomes* of forecasted events are what are most closely scrutinized, and are used to judge the success or failure of

the forecast. That said, as long as the process is sound, the forecast has done the best job it can do. *In the end, forecasting is about analysis, not prophecy.*

Baseball performance forecasting is inherently a high-risk exercise with a very modest accuracy rate. This is because the process involves not only statistics, but also unscientific elements, from random chance to human volatility. And even from within the statistical aspect there are multiple elements that need to be evaluated, from skill to playing time to a host of external variables.

Every system is comprised of the same core elements:

- Players will tend to perform within the framework of past history and/or trends.
- Skills will develop and decline according to age.
- Statistics will be shaped by a player's health, expected role and venue.

While all systems are built from these same elements, they also are constrained by the same limitations. We are all still trying to project a bunch of human beings, each one...

- with his own individual skill set
- with his own rate of growth and decline
- with his own ability to resist and recover from injury
- limited to opportunities determined by other people
- generating a group of statistics largely affected by external noise.

Research has shown that the best accuracy rate that can be attained by any system is about 70%. In fact, a simple system that uses three-year averages adjusted for age ("Marcel") can attain a success rate of 65%. This means all the advanced systems are fighting for occupation of the remaining 5%.

But there is a bigger question... *what exactly are we measuring?* When we search for accuracy, what does that mean? In fact, any quest for accuracy is going to run into a brick wall of paradoxes:

- If a slugging average projection is dead on, but the player hits 10 fewer HRs than expected (and likely, 20 more doubles), is that a success or a failure?
- If a projection of hits and walks allowed by a pitcher is on the mark, but the bullpen and defense implodes, and inflates his ERA by a run, is that a success or a failure?
- If the projection of a speedster's rate of stolen base success is perfect, but his team replaces the manager with one that doesn't run, and the player ends up with half as many SBs as expected, is that a success or a failure?
- If a batter is traded to a hitters' ballpark and all the touts project an increase in production, but he posts a statistical line exactly what would have been projected had he not been traded to that park, is that a success or a failure?
- If the projection for a bullpen closer's ERA, WHIP and peripheral numbers is perfect, but he saves 20 games instead of 40 because the GM decided to bring in a high-priced free agent at the trading deadline, is that a success or a failure?
- If a player is projected to hit .272 in 550 AB and only hits .249, is that a success or failure? Most will say "failure." But wait a minute! The real difference is only two hits per month. That shortfall of 23 points in batting average is because a fielder might have made a spectacular

play, or a screaming liner might have been hit right at someone, or a long shot to the outfield might have been held up by the wind... once every 14 games. Does that constitute "failure"?

Even if we were to isolate a single statistic that measures "overall performance" and run our accuracy tests on it, the results will still be inconclusive.

According to OPS, these players were virtually identical in 2019:

BATTER	HR	RBI	SB	BA	OBA	SLG	OPS
Villar,J	24	73	40	.274	.339	.453	.792
Eaton,A	15	49	15	.279	.365	.428	.792
Calhoun,K	33	74	4	.232	.325	.467	.792

If I projected Villar-caliber stats and ended up with Kole Calhoun's numbers, I'd hardly call that an accurate projection, especially if my fantasy team was in dire need of stolen bases.

According to Roto dollars, these players were also dead-on in 2019:

BATTER	HR	RBI	Runs	SB	BA	R\$
Brantley,M	22	90	88	3	.311	\$20
Mondesi,A	9	62	58	43	.263	\$20
Bell,J	37	116	94	0	.277	\$20

It's not so simple for someone to claim they have accurate projections. And so, it is best to focus on the bigger picture, especially when it comes to winning at fantasy baseball.

More on this: "The Great Myths of Projective Accuracy"

<http://www.baseballhq.com/great-myths-projective-accuracy>

Baseball Forecaster's forecasting process

Our approach is to assemble component skills in such a way that they can be used to validate our observations, analyze their relevance and project a likely future direction.

In a perfect world, if a player's raw skills improve, then so should his surface stats. If his skills decline, then his stats should follow as well. But, sometimes a player's skill indicators increase while his surface stats decline. These variances may be due to a variety of factors.

Our forecasting process is based on the expectation that events tend to move towards universal order. Surface stats will eventually approach their skill levels. Unexplained variances will regress to a mean. And from this, we can identify players whose performance may potentially change.

For most of us, this process begins with the previous year's numbers. Last season provides us with a point of reference, so it's a natural way to begin the process of looking at the future. Component skills analysis allows us to validate those numbers. A batter with few HRs but elevated power metrics has a good probability of improving his future HR output. A pitcher whose ERA was poor while his pitching support metrics were solid might be a good bet for ERA improvement.

Of course, these leading indicators do not always follow the rules. There are more shades of grey than blacks and whites. When indicators are in conflict—for instance, a pitcher who is displaying both a rising strikeout rate and a rising walk rate—then we have to find ways to sort out what these indicators might be saying.

It is often helpful to look at leading indicators in a hierarchy. A rank of the most important pitching indicators might be: K-BB%, K%, BB% and GB/FB rate. For batters, contact rate tops the list, followed by power, walk rate and speed.

Assimilating additional research

Once we've painted the statistical picture of a player's potential, we then use additional criteria and research results to help us add some color to the analysis. These other criteria include the player's health, age, changes in role, ballpark and a variety of other factors. We also use the research results described in the following pages. This research looks at things like traditional periods of peak performance and breakout profiles.

The final element of the process is assimilating the news into the forecast. This is the element that many fantasy leaguers tend to rely on most since it is the most accessible. However, it is also the element that provides the most noise. Players, management and the media have absolute control over what we are allowed to know. Factors such as hidden injuries, messy divorces and clubhouse unrest are routinely kept from us, while we are fed red herrings and media spam. *We will never know the entire truth.*

Quite often, all you are reading is just other people's opinions... a manager who believes that a player has what it takes to be a regular or a team physician whose diagnosis is that a player is healthy enough to play. These words from experts have some element of truth, but cannot be wholly relied upon to provide an accurate expectation of future events. As such, it is often helpful to develop an appropriate cynicism for what you read.

For instance, if a player is struggling for no apparent reason and there are denials about health issues, don't dismiss the possibility that an injury does exist. There are often motives for such news to be withheld from the public.

And so, as long as we do not know all the facts, we cannot dismiss the possibility that any one fact is true, no matter how often the media assures it, deplors it, or ignores it. Don't believe everything you read; use your own judgment. If your observations conflict with what is being reported, that's powerful insight that should not be ignored.

Also remember that nothing lasts forever in major league baseball. *Reality is fluid.* One decision begets a series of events that lead to other decisions. Any reported action can easily be reversed based on subsequent events. My favorite examples are announcements of a team's new bullpen closer. Those are about the shortest realities known to man.

We need the media to provide us with context for our analyses, and the real news they provide is valuable intelligence. But separating the news from the noise is difficult. In most cases, the only thing you can trust is how that player actually performs.

Embracing imprecision

Precision in baseball prognosticating is a fool's quest. There are far too many unexpected variables and noise that can render our projections useless. The truth is, the best we can ever hope for is to accurately forecast general tendencies and percentage plays.

However, even when you follow an 80 percent play, for instance, you will still lose 20 percent of the time. That 20 percent

is what skeptics use as justification to dismiss prognosticators; they conveniently ignore the more prevalent 80 percent. The paradox, of course, is that fantasy league titles are often won or lost by those exceptions. Still, long-term success dictates that you always chase the 80 percent and accept the fact that you will be wrong 20 percent of the time. Or, whatever that percentage play happens to be.

For fantasy purposes, playing the percentages can take on an even less precise spin. The best projections are often the ones that are just far enough away from the field of expectation to alter decision-making. In other words, it doesn't matter if I project Player X to bat .320 and he only bats .295; it matters that I project .320 and everyone else projects .280. Those who follow my less-accurate projection will go the extra dollar to acquire him in their draft.

Or, perhaps we should evaluate the projections based upon their intrinsic value. For instance, coming into 2020 would it have been more important for me to tell you that Mookie Betts was going to hit .295 or that Marcell Ozuna would hit .280 (when all other touts predicted lower)? By season's end, the Betts projection would have been more accurate, but the Ozuna projection—even though it was off by 58 points—would have been far more valuable. The Ozuna projection might have persuaded you to go an extra buck on Draft Day, yielding far more profit.

And that has to be enough. Any tout who projects a player's statistics dead-on will have just been lucky with his dart throws that day.

Perpetuity

Forecasting is not an exercise that produces a single set of numbers. It is dynamic, cyclical and ongoing. Conditions are constantly changing and we must react to those changes by adjusting our expectations. A pre-season projection is just a snapshot in time. Once the first batter steps to the plate on Opening Day, that projection has become obsolete. Its value is merely to provide a starting point, a baseline for what is about to occur.

During the season, if a projection appears to have been invalidated by current performance, the process continues. It is then that we need to ask... What went wrong? What conditions have changed? In fact, has *anything* changed? We need to analyze the situation and revise our expectation, if necessary. This process must be ongoing.

When good projections go bad

All we can control is the process. We simply can't control outcomes. However, one thing we *can* do is analyze the misses to see *why* they occurred. This is always a valuable exercise each year. It puts a proper focus on the variables that were out of our control as well as providing perspective on those players with whom we might have done a better job.

Performances that exceed expectation

- Young players who developed faster than their expected growth trend
- Skilled players who just had big years
- Players with pre-season injury concerns who stayed healthy all year
- Players whose early play pushed them into a bigger role

- Players who benefited from another player's injury, demotion or role change
- Veterans who were trending down but managed to stay productive
- Players whose performance may have looked good but was unsupported by skills metrics
- The unexplained

Performances that fell short of expectation

- Players who got hurt or were never fully healthy
- Players who were trending down but were not expected to plummet so quickly
- Players who we overvalued based on spotty track records, soft peripherals or media hype
- Players whose early play pushed them into a smaller role
- Players whose performance may have looked poor but had better skills metrics
- The unexplained

About fantasy baseball touts

As a group, there is a strong tendency for all pundits to provide numbers that are publicly palatable, often at the expense of potential accuracy. That's because committing to either end of the range of expectation poses a high risk. Few touts will put their credibility on the line like that, even though we all know that those outliers are inevitable. Among our projections, you will find no .350 hitters or 70-steal speedsters. *Someone* is going to post a sub-2.50 ERA next year, but damned if any of us will commit to that. So we take an easier road. We'll hedge our numbers or split the difference between two equally possible outcomes.

In the world of prognosticating, this is called the *comfort zone*. This represents the outer tolerances for the public acceptability of a set of numbers. In most circumstances, even if the evidence is outstanding, prognosticators will not stray from within the comfort zone.

As for this book, occasionally we do commit to outlying numbers when we feel the data support it. But on the whole, most of the numbers here can be nearly as cowardly as everyone else's. We get around this by providing "color" to the projections in the capsule commentaries, often listing UPSide or DOWNSide projections. That is where you will find the players whose projection has the best potential to stray beyond the limits of the comfort zone.

As analyst John Burnson once wrote: "The issue is not the success rate for one player, but the success rate for all players. No system is 100% reliable, and in trying to capture the outliers, you weaken the middle and thereby lose more predictive pull than you gain. At some level, everyone is an exception!"

Validating Performance

Performance validation criteria

The following is a set of support variables that helps determine whether a player's statistical output is an accurate reflection of his skills. From this we can validate or refute stats that vary from expectation, essentially asking, is this performance "fact or fluke?"

1. **Age:** Is the player at the stage of development when we might expect a change in performance?

2. **Health:** Is he coming off an injury, reconditioned and healthy for the first time in years, or a habitual resident of the injured list?

3. **Minor league performance:** Has he shown the potential for greater things at some level of the minors? Or does his minor league history show a poor skill set that might indicate a lower ceiling?

4. **Historical trends:** Have his skill levels over time been on an upswing or downswing?

5. **Component skills indicators:** Looking beyond batting averages and ERAs, what do his support ratios look like?

6. **Ballpark, team, league:** Pitchers going to Colorado will see their ERA spike. Pitchers going to Oakland will see their ERA improve.

7. **Team performance:** Has a player's performance been affected by overall team chemistry or the environment fostered by a winning or losing club?

8. **Batting stance, pitching style/mastery:** Has a change in performance been due to a mechanical adjustment?

9. **Usage pattern, lineup position, role:** Has a change in RBI opportunities been a result of moving further up or down in the batting order? Has pitching effectiveness been impacted by moving from the bullpen to the rotation?

10. **Coaching effects:** Has the coaching staff changed the way a player approaches his conditioning, or how he approaches the game itself?

11. **Off-season activity:** Has the player spent the winter frequenting workout rooms or banquet tables?

12. **Personal factors:** Has the player undergone a family crisis? Experienced spiritual rebirth? Given up red meat? Taken up testosterone?

Skills ownership

Once a player displays a skill, he owns it. That display could occur at any time—earlier in his career, back in the minors, or even in winter ball play. And while that skill may lie dormant after its initial display, the potential is always there for him to tap back into that skill at some point, barring injury or age. That dormant skill can reappear at any time given the right set of circumstances.

Caveats:

1. The initial display of skill must have occurred over an extended period of time. An isolated 1-hit shutout in Single-A ball amidst a 5.00 ERA season is not enough. The shorter the display of skill in the past, the more likely it can be attributed to random chance. The longer the display, the more likely that any reemergence could be for real.

2. If a player has been suspected of using performance enhancing drugs at any time, all bets are off.

Corollaries:

1. Once a player displays a vulnerability or skills deficiency, he owns that as well. That vulnerability could be an old injury problem, an inability to hit breaking pitches, or just a tendency to go into prolonged slumps.

2. The probability of a player correcting a skills deficiency declines with each year that deficiency continues to exist.