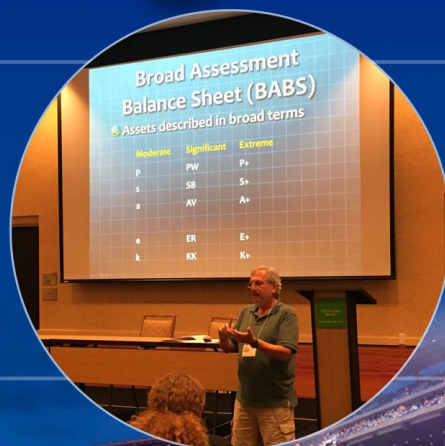


RON SHANDLER

# The BABS Project

UNCOVERING THE  
TRUTH ABOUT  
WINNING AT  
FANTASY BASEBALL



RonShandler.com

# **The BABS Project**

**Uncovering the Truth About  
Winning at Fantasy Baseball**

**By Ron Shandler**

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The complete work is also available with a membership to **RonShandler.com**.

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## **What Early Adopters are Saying About BABS**

"Fantastic, thought provoking stuff, even for a grizzled veteran of 31 consecutive Roto seasons. I suspect a quarter of a century from now it is this stuff that you will be remembered and revered for. What did Earl Weaver like to say? It's what you learn after you know it all that is important. That could be your apt subtitle." – J.Morgan

"I just want to make a statement here of simple gratitude: your thoughts and systems—the Forecaster, and now BABS—have given me effective, analytical tools I can use in constructing my fantasy teams, which is a form of intellectual play that I find immensely fun. Hugely fun. So, a resounding thank you." – B.Crenshaw

"BABS shines at identifying late round gems. Deep mixed league, ugly keeper list, hyped prospects already taken, I grabbed Naquin, Duvall, Zach Davies among others late in the draft because of BABS. Never have I done better starting with so little." – D.Willis

"I want to thank you and BABS for escorting me to a championship this year. This was the 27th year of our very competitive league. I had finished tied for first twice over the years but had never won the league outright. I'm a numbers guy, which is why I was turned on to you at HQ, but that made it hard to get comfortable with BABS. But the system definitely helped and I look forward to its continued development." – B.Wentz

"Wow. That. Was. Awesome. I'm completely sold on the system, the ranking process and the spreadsheet that helps put it all together."  
– D.Morris

## The BABS Project

### Introduction

# My Conversation with You

---

ME: Hey, welcome.

*YOU: Hi Ron. I see you've written another book.*

Oh, this thing? Yeah, a writer's gotta write.

*What is it this time? BABS? Mayberry? LIMA? Some other arcane acronym?*

Sort of. Way back in 2016, I wrote "Ron Shandler's Other Book" in which I introduced the concept of the Broad Assessment Balance Sheet (BABS). I decided that BABS needed a more formal, permanent place to live.

*So, this is the same thing as your "Other Book."*

Not exactly. **The BABS Project** is a review and expansion of the concepts first presented there. It is a more robust treatment of BABS. She's been bulked-up, fine-tuned and is now greatly toned.

*Sounds like she spent the last year at the gym.*

As a matter of fact, she did. **The BABS Project** is the story of her journey. It is the place where you can learn about where she came from, how she works and how to get the most out of your relationship with her.

*It's nice that you've given your concept a human persona but all I really want is a way to win my fantasy leagues.*

There's that, too. But let's start at the beginning. For those new to BABS, here are some introductory thoughts. For those who already know BABS, a review:

In the next two chapters, I am going to present you with long lists of facts about how bad we are at predicting the future. We probably know and acknowledge these facts individually. We'll nod our heads and say, "Yeah, yeah, projections are not gospel. I get it."

But no, we really don't get it.

We know that baseball cultivates a love affair with statistics. But, those numbers work best in *describing what has already happened*. Used correctly, they do a terrific

job of that. But we take a massive leap of faith in proclaiming our aptitude as soothsayers. Yes, past statistics can be manipulated to project future performance, but within a very wide range of outcomes. Extraordinarily wide. The problem is, for our fantasy leagues, we need far more precision than we can currently achieve. Yet we continue to go into each season with meticulously-crafted rankings lists, player values and targets.

*Are you saying that all my draft prep is a waste of time? Seriously?*

It's not a complete waste of time, but we put far too much effort into the process and far too much credence in the minutia. We still look at a 30-HR performance – or 50 steals, or 200 strikeouts, etc. etc. – and fixate on those numbers as if they hold some religious significance. We are still seduced into making important decisions based on the wild allure of small sample sizes. We still try to ferret out patterns in the stats, even if what we're looking at is mostly noise. We still look at research results based on aggregate data and draw finite conclusions about individual players. And recency bias? Oh, don't get me started.

As hard as it is to comprehend, there is often not a significant difference between a 3rd round player and an 8th round player, or between a \$19 player and a \$9 player. And yet we agonize over ADPs and engage in auction bidding wars.

BABS looks at the process of building a viable fantasy baseball roster through an unorthodox lens. For over three decades, we've taken a bottom-up approach to roster construction, focusing on projecting player performance and then building from there. This book takes a top-down approach, focusing on the structure of the roster itself, and then filling in the pieces. After all, winning is not about nailing projections; it's about weighing skill versus risk, and balancing assets and liabilities.

It doesn't matter if you think Mike Trout will hit 41 HRs, or 31, or 24. You might be right; you'll probably be wrong. It matters how his overall profile fits into a well-built roster. On Draft Day, successfully reaching statistical targets provides false comfort; how many post-draft standings projections ever come true? But creating a solid foundation and structure, and then building it out by arranging your assets and liabilities provides a higher-level perspective that allows for better roster management.

Back in the 1990s, the greatest advantage you could have was possessing better information. The internet leveled that playing field and left us looking for other competitive edges. Over the past 20 years, we've gone through numerous iterations involving statistical modeling, news impact analysis and even game theory, but the goal was always to get *better player projections*.

This is different. That's why you need BABS.

*Geez, it sounds like you're tossing off all the years of research you've done in the Baseball Forecaster and on BaseballHQ.com.*

No, not at all. The *Baseball Forecaster* is still the bible of fanalytics and probably the most important resource for setting baselines for player performance. BaseballHQ.com still provides the deepest fantasy-baseball-relevant information anywhere and is the only online source of this caliber that is 100% baseball, 24/7/365.

*Nice of you to pimp your work but you didn't really answer my question.*

Look, all that prior work was built on the foundation of accurate skills assessment. That still applies here. It is still important to be able to evaluate performance in its component parts and understand how that relates to the surface stats that we play our games with.

The difference here is that, once we've done that evaluation, I'm tired of having to make the leap to a statistical projection. In the *Forecaster*, we do all that evaluation and then are forced to cull it down to a single line of numbers. I've always hated doing that, but we need the data for our draft prep so I keep publishing those numbers. However, like I write in the Consumer Advisory in the front of the book each year, there are far more important things to look at beyond that stat line.

So here I get to say, "Sorry, I'm not going to do it." If you absolutely need to know how many bases Billy Hamilton is going to steal so you can plug it into your fantasy model, feel free to go to another source. You won't find that number here. But if you're at least curious about trying a different way, well, that's why you must be reading this right now.

*Sorry, but I'm not going to give up my stats. So am I going to get any use out of this book?*

You don't need to abandon your stats but you'll have to be willing to try relying on them a bit less. With BABS, players are not stat-producing machines; in fact, they are also pretty flawed as human life forms. Rather than attempting to figure out what type of numbers they are going to put up, my focus is on describing them in the most accurate non-statistical terms, and then assembling these formless entities into productive rosters.

*Sounds like you are trying to reinvent how to win at fantasy baseball. That seems overly ambitious to me.*

I never shy away from a challenge when I believe there is a better way to do something. And I do believe we've been doing things wrong for a very long time.



*For those of us who've already read your "Other Book," how is **The BABS Project** different?*

**The BABS Project** contains all of the conceptual and instructional information that appeared in the "Other Book," plus several changes and enhancements to BABS. All the additional essays that were posted on RonShandler.com after the "Other Book" was published (such as applications for auction leagues, keeper leagues, in-season, etc.) are included here as well.

It's important to note that **The BABS Project** is intended to be an "evergreen" reference resource; most of the examples and exhibits are presented in general terms. *That means this book does not include any player ratings, rankings or cheat sheets for the current season. All that time-sensitive data, for this year and all future years, will appear online at RonShandler.com.*

*Okay, how do we start?*

We begin with the decision-making process. How do you decide which players to draft? How do you decide what strategies and tactics to employ? How do you decide when to pull the trigger or pull the plug?

Most decisions in life come down to whether to take action and do something, or to avoid something. When we are thinking about drafting a player, or trying a new strategy, or cutting an underperformer, we are trying to consider the potential benefit of making a good decision versus the potential pain of making a bad decision. Research has shown that people are more motivated to minimize losses than maximize gains; we are far more likely to act out of fear of pain than quest for gain.

So let's start by inflicting some pain.

The BABS Project

## Chapter 1

# How the Stats are Out to Get You

---

"This is a very simple game. You throw the ball, you catch the ball, you hit the ball. Sometimes you win, sometimes you lose, sometimes it rains."

*Nuke Laloosh, Bull Durham*

The structure of the game of baseball lends itself to analysis. The result of each at-bat is an individual event that can be measured. But this measurement is always *after the fact*. We can count how many home runs a player hits, but that is only after he's hit them. The problem comes when we try to take the next apparently logical step. If a specific event chronicles a real, measurable skill and we can count it and track its trends over time, then can't we also predict it?

No, not really, at least not with the level of precision necessary to have meaningful control over building a fantasy baseball team. But every year, the quest continues to create, enhance and fine-tune predictive models.

*Again, are you dissing all the work we've put into advanced baseball analysis over the years?*

No, there is nothing wrong with more and better data. The metrics in the *Baseball Forecaster*, at BaseballHQ.com, now-mainstream sabermetric gauges like WAR and wOBA, advanced granular data from PitchF/X, Statcast and heat maps – are all very, very important. The better that we can *describe* the elements of performance, the better we can assess skill.

Then we often take the next step and try to use those methods to *validate statistical output*. That's a reasonable exercise too. Yes, a player might hit 40 home runs, but when we deconstruct events into granular components such as contact rate, exit velocity and batted ball distance, we can get a sense of how "real" those 40 HRs were. We can determine whether the player's skill set supported that home run output in general terms.

But then we start taking it a step too far; we try to attach a number to it. We analyze: "Based on the comparable exit velocity of all other players, he should have hit 3 more HRs, all things being equal." We draw these conclusions from the variances between expectation and reality, based on assumptions we make about underlying skill. And we excuse the fallacy of the exercise by adding the faux qualifier, *all things being equal*.

But here's the problem: *all things are never equal*. You can never replicate one season's performance in another season. Conditions are always different. So while this is an interesting exercise, it provides little actionable information when it comes to subsequent years.

Tell me that the indicators point to an increase or decrease in power skills, show me the areas of growth or erosion, even go out on a limb and tell me that a player is going to fall off a cliff – but don't tell me that Nolan Arenado is going to hit 37 HRs. Don't tell me that Dee Gordon is going to steal 45 bases. Don't even tell me that Clayton Kershaw is going to have an ERA somewhere between 2.29 and 2.54.

For more than 30 years, we've been told that we need these numbers to play the fantasy game. We need a set of projections, and we need to convert them into dollar values or ranking positions. We need to build budgets and roster plans, and set statistical targets based on all this data.

But no matter how exhaustive a job we do in assembling our draft prep materials, the numbers we use to plan out our rosters are *always wrong*. Arenado never hits exactly 37 HRs and his eventual output might not be anywhere close to that number. Gordon will not steal exactly 45 bases. And Kershaw's ERA – even with a range to work with – is almost as likely to end up somewhere outside that range as inside it.

*Yes, no projection is going to be exact. But can't we expect that the over-projections and under-projections are going to even out across an entire roster?*

No, not at all. In fact, your league's winners and losers will most likely be determined by a basic report card of overs and unders. The team with the most or biggest over-performers will always have the best odds of winning, regardless of how close your projections were overall.

True story: Back in the 2015 FSTA experts league, my overall draft report card was pretty damning. I had five on-par picks, nine profitable picks and 15 outright losers, including six in the first eight rounds. By all rights, this team should have been a disaster. But my nine winners were *big winners*, including the breakout years of Jake Arrieta (9th round), J.D. Martinez (14), Manny Machado (15), Xander Bogaerts (16) and Dallas Keuchel (19). I finished one day and two points short of a title, even though my overall prognosticating prowess was nothing to write home about.

So we really can't rely on the projections getting us to where we need to go. Yet every spring we go back through the same process all over again.

*Well, of course. What else can we do?*

But isn't that the definition of insanity? Doing the same thing over and over, and expecting a different result?

*I don't really see it that way. I see it as we're using the best methodology that we have. Until someone finds a better way...*

Challenge accepted.

You wouldn't know it from all this extreme analysis going on, but baseball *is* a simple game. Even fantasy tends to dig far deeper into the minutia than is necessary.

Here is a rundown of many of the lessons, truisms and proclamations we've been following over the years. The research findings are all valid; the cited authors are from the *Baseball Forecaster* and other sources (if no author is cited, it's my own research). Our application of these findings is where things go off the rails. You can't really assimilate hundreds of pieces of input and cull it all down to a single projected stat line that has any real value.

Many of you may have read parts or most of the following before, as individual facts, at different times. Now it's time to read them again, together in one place, to reach one inescapable conclusion.

### **The Baseline**

With the tools currently available to us, the maximum projective accuracy we can hope to achieve is 70 percent. This is a number that we've been throwing around for a long, long time.

But what that means is, the *best* we can hope to be is 30 percent wrong. Thirty percent is a lot! It means being off by nine HRs for a 30-HR hitter, 60 strikeouts for a 200-K pitcher or 12 saves for a 40-save closer. That's the best level of wrongness we can reasonably expect to achieve. And few of us will ever achieve "best."

*Seriously? Is this true?*

Eh, I don't know. That's the number we've been using, and frankly, I'm not sure how they arrived at 70. It's possible there could be a better system out there – one that exceeds 70 percent – but I don't know that you'd be able to prove it.

*Why?*

Because one season represents only a single data point for analysis, and that is simply not enough. Every year, we gain new knowledge that compels us to improve and fine-tune our forecasting models. A model we used in 2012 might be completely overhauled by 2015. However, that 2012 model might have been more accurate over a five or 10-year period. We never give ourselves a chance to find out.

What's more, given that the statistical landscape is always changing, we're likely never going to have data that's stable enough to deem any model optimal anyway. If we made adjustments to a 2015 model to accommodate the upcoming 2016 season, odds are it would be a complete failure given the offensive surge that year. Where would we go from there?

*Maybe you can't evaluate an entire season of projections on a macro basis, but what about individual players? That's all that matters anyway.*

Sure, we can try. There are overall skills metrics that are considered good evaluators of talent, like on base-plus slugging (OPS). But let's say that I project a player to have an OPS of .840 and he ends up with an OPS of .840.

*Um, that would be great!*

Except, this:

	<b>HR</b>	<b>SB</b>	<b>BA</b>	<b>OBP</b>	<b>Slg</b>	<b>OPS</b>
Dexter Fowler	13	13	.276	.393	.447	.840
Evan Longoria	36	0	.273	.318	.522	.840

If I projected Longoria numbers and he produced like Fowler, I'd hardly call that a successful projection. But OPS thinks so.

Baseball analysts use various statistical processes to compare the accuracy of one set of metrics to another. You'll see these methods used to measure the accuracy of player projections too. There are frequent studies that involve a group of forecasters, often compared to a control group – like a simple age-adjusted, weighted three-year average (the Marcel Method) – and to each other.

Using the results of these studies to determine the best system has little value. The test groups typically cover hundreds, or thousands, of players. The variance between any one system and another usually amounts to percentage points over the entire study group. It's not something that's going to provide any benefit for a tiny sample of a 23 players on a fantasy roster. There is no way that you can cover your risk of volatility over a roster size of just 23 players. This is a point I am going to come back to several times.

A leading website once published a comparative analysis of several forecasting systems, using the statistical measures of correlation coefficient, mean error and root mean squared error (don't worry, you're not going to be tested on this). Their results:

	<b>Correl</b>	<b>Error</b>	<b>Mean RMSE</b>
System A	.690	.067	.084
System B	.694	.066	.084
System C	.711	.064	.085
System D	.692	.067	.085
System E	.683	.068	.086
System F	.715	.064	.081
System G	.672	.071	.091

For what it's worth, System C was deemed most accurate, the winner, the prognostication champion! But there is no way for you to leverage that minute variance in accuracy over just 23 players, or 40, or even several fantasy rosters' worth. So you can pick almost any system and have just as good of a chance of winning as any other.

### Statistical Volatility

According to the research of Patrick Davitt of BaseballHQ.com, normal production volatility varies widely over any particular 150-game span. A .300 career hitter can hit anywhere from .250 to .350, a 40-HR hitter from 30-50, and a 3.70/1.15 pitcher from 2.60/0.95 to 6.00/1.55. All of these represent normal ranges.

So if a batter hits 31-.250 one year, 36-.280 the next year and 40-.310 the third year, you don't know whether that is growth or normal volatility. In fact, the low-end and/or high-end performances could be isolated outliers. But nearly all analysts will call it growth. Their projection for year #4 will either continue this perceived trend or show some regression. And any one of them could be right. Or wrong.

It actually would be a lot easier if every player performed like Chris Davis:

<u>Year</u>	<u>HR</u>	<u>BA</u>	<u>OBP</u>	<u>Slg</u>	<u>R\$</u>
2012	33	.270	.326	.501	\$18
2013	53	.286	.370	.634	\$36
2014	26	.196	.300	.404	\$8
2015	47	.262	.361	.562	\$26
2016	38	.221	.332	.459	\$12

I love Chris. He doesn't hide his volatility. It's all-clothes-off, out there in the Baltimore sun. He trumpets the fact that there's no way to pin him down. Is he a .220 hitter or a .270 hitter? Can we expect 30 HRs or 50 HRs? But while this data set is impossible to project into next season, it's nearly consistent within a normal range (2014 might be a slight outlier). You probably couldn't convince many people, but this is pretty much the same player every year.

*I'm starting to pull my hair out.*

Completely understandable. But there's more.

Research has shown that 150 games, or about the length of a single baseball season, is not enough of a sample size to be a reliable indicator of skill for some statistics. For instance, a stat like batting average doesn't stabilize until about 910 AB, according to Russell Carleton. So we definitely can't draw conclusions after one season. You can't look at a batter who hits .230 one year and .270 the next and call that "growth." What you'd more likely call that is a .250 hitter.

My friend Chris? He's your basic .240s hitter, even though he's never actually had a batting average in the .240s.

But what does .240 mean anyway? Or .300? Or .250 or .200?

The line we draw in skills benchmarks is incredibly grey.

We'll chase a .300 hitter as being significantly better than a .250 hitter, however, over 550 AB, the difference is fewer than 5 hits per month. The difference between a .272 average and a .249 average – still perceptively different – is two hits per month, or one hit every other week. We'll opt for a pitcher with a 3.95 ERA, passing over one with a 4.05 ERA. But what's the real difference? A pitcher who allows 5 runs in 2 1/3 innings will see a different ERA impact than one who allows 9 runs in 3 innings, even though, for all intents and purposes, both got rocked. That could be your 0.10 variance in ERA right there.

The line we draw between success and failure is also incredibly grey.

A batter whose HR output drops might have had a concurrent increase in doubles and triples. A pitcher whose ERA spikes may have seen no degradation in skills but was backed by a poor defense and a bullpen that allowed more inherited runners to score. A speedster may have seen his SB total plummet only because he was traded to a team that didn't run. A closer may have been as effective as ever but lost the 9th inning role as a result of a trade or a manager with a quick hook.

*It's like nothing is real anymore.*

Oh, it's real. The issue is how you interpret these realities. I'm trying to make a case that our trusted, comfortable statistics are not the place to find "real." This becomes more problematic when we try to project the future. Garbage in, garbage out.

And honestly, beyond the volatility in the numbers, there is too much uncertainty for many players to pin down a stat line anyway. How do you handle players coming off of injury? Can you reasonably pro-rate a mid-season call-up's stat line to a full season? Is last year's pitching breakout star really now in the same class as the game's elite?

I don't know. You don't know. Nobody knows. But someone is going to have to slap a bunch of numbers on these guys in order for you to draft, right?

*Um, right. Well, won't they?*

They will, but you don't have to buy into any of it.

### **Rotisserie Earnings/Fantasy Rankings Volatility**

Trying to find some stability within Rotisserie dollar earnings or Average Draft Position rankings (ADPs) is no less frustrating.

There is only a 65% chance that a player projected for a certain dollar value will finish the season within plus-or-minus \$5 of that projection. That means, if you project a player will earn \$25 and you agonize when bidding hits \$27, there is really about a 2-in-3 shot of him finishing anywhere between \$20 and \$30.

*So I shouldn't worry about those extra few bucks?*

In most cases, no. But auction pricing is going to be market-driven anyway. So, if you are convinced that a player is worth \$25 and land him for \$21, you will have *overpaid* if the rest of your league sees him as no more than a \$19 player. Even if he is really worth \$30.

*Arrrgh! I give up. Are you saying I should just pay whatever for whoever and not worry about budgets or bargains or value or anything?!*

You still need to follow the market, but in general, yes. Forecasters will give you a stat line that will split the difference between high-end and low-end probabilities. They have no choice but to hedge; there is too much risk to commit to any one end of the performance spectrum. (Reputations are at stake!) So if all the top analysts don't know what the heck each player is going to do, clearly the other owners in your league have no clue either. You need to decide whether a player is worth owning and then just follow the market. I'll get more into that much later.

*Nice guy. Tease me with all this stuff and then put me off until later.*

You're not ready. There's more.

I've said this often: **the two most powerful forces known to man are regression and gravity**. If you're ever faced with the question of whether to project a player to improve or decline, the better percentage play will *always* be DECLINE.

But that runs counter to what we want to see in our players. That's why so many of us are infatuated with upwardly mobile rookies and anything in a data set that even remotely looks like improvement. But, facts:

**FACT: Players who earn \$30 in a season are only a 34 percent bet to repeat or improve the following season.** (Matt Cederholm)



**FACT: Pitchers who earn less than \$24 in a season retain only 52 percent of their value the following year. More expensive pitchers do retain 80 percent of their value.** (*Michael Weddell*)

That 80 percent is nice but it still means your ace pitcher's value is going to decline.

If you are looking for value retention or a reasonable return on your investment in this game, you're playing the wrong game. This is no less evident in snake draft leagues when it comes to the very best players. One would think baseball's elite stars are the most projectable commodities. One would be wrong.

**FACT: The success rate of ADP rankings correctly identifying each season's top 15 players (in any order) is only 35.5 percent. In fact, those top 15 players finish somewhere in the top 30 only 52.8 percent of the time.** (*Study period: 2004-2016*)

So here's the takeaway:

When you sit down at the draft table (or your computer, whatever) and start agonizing over who is going to fall to you in the first round, there is nearly a two-in-three chance that whoever you end up drafting will be wrong. About 10 of the first 15 players taken in your draft will not earn back their owner's investment.

*That's ridiculous. You're lying.*

Seems that way, right? But remember that Andrew McCutchen was a first-round pick in both 2015 and 2016, and finished 32nd and 141st, respectively. Ditto for Giancarlo Stanton, who finished Nos. 156 and 260. Bryce Harper was ranked No. 10 in 2014 and finished 319th; he was ranked 3rd in 2016 and finished 98th.

*It's easy to cherry-pick.*

Okay, well consider the following players who share a similar characteristic to Cutch, Stanton and Harper: Ryan Braun, Chris Davis, Prince Fielder, Carlos Gomez, Adrian Gonzalez, Carlos Gonzalez, Josh Hamilton, Felix Hernandez, Ryan Howard, Matt Kemp, Evan Longoria, Mark Teixeira and Troy Tulowitzki. All 13 players hold the distinction of sporting a first round ADP some time between 2011 and 2015... and every one of them finished the season at least 100 spots from that ADP.

It's just further evidence of the volatility of statistics, even at the top.

## Performance Enhancing Drugs

I have written extensively about the impact of PEDs on the statistics that drive our game. While there remains disagreement among analysts about how real or measurable the impact is, there are five logical truths that are tough to deny.

1. People are generally honest, except if it's a choice between honesty and survival.
2. For pro athletes, survival often equates to maintaining an edge to stay gainfully employed.
3. If PEDs did not improve or sustain performance in order to give athletes an edge, why would they accept the risk of using them?
4. The drug laboratories will always be one step ahead of the drug testers.
5. You can't dismiss the possibility that any radical swing in productivity could be caused by a player's use or discontinuance of PEDs.

*Ugh. I hate talk about PEDs. Are you trying to say that all players are motivated to cheat?*

No, not all of them. But it's yet one more variable that puts the "realness" of all statistics at risk. And unfortunately, it's naïve to think that the lack of daily PED headlines means the problem has been contained. The above truths don't change; neither does the effort to cover up PED use.

*But what about all those minor leaguers in the Mitchell Report? Aren't they proof that PEDs don't work?*

For any alleged PED users who fell short of a real Major League career, it's possible that they never would have made it out of rookie ball without that help. We don't know. The impact of PEDs is relative to each player's actual skill level. That means we need to question the legitimacy of performance stats throughout every level of pro ball. Probably college and high school too.

*I think my head is going to explode.*

I said you weren't ready to hear the truth, and I meant it. But there's one more variable. I've saved the biggest one for last.

## Playing Time

You can do all the skills assessment you want, but the bane of our existence has become the black hole of projecting playing time. It's a nearly impossible task.

*You make it sound like it's a new problem.*

Because it *is* a relatively new problem.

Twenty years ago, projecting playing time was just another variable prone to some normal volatility. It was no more difficult to project than homers or strikeouts.

*So, what changed?*

Continually escalating MLB player salaries and the crackdown on PEDs reached a tipping point in the mid-2000s. The result? With teams bending over backwards to protect their high-priced investments and players running scared of getting nailed by drug testers, the safe harbor to stash bodies became the 15-day DL.

In 2007, the number of disabled list days spiked from 22,472 to 28,524. Five years later, it cracked 30,000. In 2016, players spent 31,329 days on the DL. With the introduction of the 10-day DL – which lowers the barrier of entry to stash a player without placing any limits on the back-end of those 10 days – these numbers could skyrocket further.

Each time a player hits the DL, it creates an opening for another player to fill the void. More DL stints mean more new players claiming a piece of the playing time pie.

*So what? We can't be talking about that many new players.*

Well, way back in 1985, about 39 players, on average, would appear on a major league roster during the course of a season. In 2016, that number reached nearly 52.

From the *2016 Baseball Forecaster*: "While the number of players seeing major league action each year is rising, the number of games has remained the same. Each team still plays 162 games, which generates a nearly fixed number of outs and innings, and a very narrow range of plate appearance. These days, available playing time is the same but **13 more players per team** are fighting for a piece of it."

We've been going into our 15-team drafts with projections allotting 6500 AB and 1450 IP of playing time to 345 players (15 teams x 23 players per team). But we really need to allot those same at-bats and innings to *465 players*, the number who are actually going to be seeing that playing time.

If we fail to account for that reality – and are not at least reasonably accurate in that effort – the fallout is huge:

From 2013 to 2016, between 47 percent and 53 percent of the ADP's top 300 players lost playing time due to the disabled list, demotion, suspension or release. Since playing time is a zero-sum proposition, those lost AB and IP had to go somewhere, and in fact, more than 70 percent of the most profitable players were driven by unexpected increases in playing time. The opportunity for those playing time increases was largely dependent on external events, virtually none of which were predictable on Draft Day. And so, *more than 70 percent of each season's most profitable players were unpredictable on Draft Day.*

As you would expect, these most profitable players had a disproportionately large impact on who won their leagues. Research showed that 25 percent of the teams owning one or more of the most profitable players won their league outright. More than 50 percent of those teams with the most profitable players finished no lower than third place. The biggest driving force behind all that – changes in playing time – was unpredictable on Draft Day.

*Wow. So, all in all, are you telling me that, despite all the massive effort we've been expending to construct elaborate systems to project player performance, none of the numbers can be trusted?*

Well, we can a little, but not enough for it to matter. About five years ago, I asked 12 of the most prolific fantasy champions in high stakes leagues and national experts competitions to rank six variables based on how important they were to winning *consistently*. "More accurate player projections" came in dead last.

*What did they say were the most important variables to winning consistently?*

Here were the results:

1. Better in-draft strategy/tactics
2. Better sense of value
3. Better luck
4. Better grasp of contextual elements that affect players
5. Better in-season roster management
6. More accurate player projections

There was actually a seventh variable brought up by Larry Schechter – better use and access to *time*. He said that the more time invested in the entire process, the better the results. Research supports the fact that better decisions are made when more time is taken to analyze the important input variables. Larry's track record – six Tout Wars titles – certainly supports that.

But here's a question: Can you build a successful team without statistical player projections at all? That is the question this book is going to try to answer. But first, we need to discuss some more obstacles to success.

## The BABS Project

### Chapter 2

# How Psychology is Out to Get You

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For the sake of argument, let's say that you buy into everything I wrote in the last chapter. (I won't delude myself into thinking that everyone is drinking my Kool-Aid... yet.) Let's say that you agree that player projections are ~~garbage~~... um, highly flawed. Still, our brain plays its own tricks on us. Even if we could believe the data, there are psychological pitfalls that also do us harm.

### **We base decisions on small sample sizes.**

Time for a fairy tale.

"Once upon a time, there was a fringe outfield prospect in the Tampa Bay Rays system named Joey Rickard. The Rays thought so highly of this prospect – who had slammed 13 HRs in 1,237 career minor league ABs – that they left him unprotected in the 2015 Rule 5 draft, where he was quickly grabbed up by the Baltimore Orioles.

Now, the Orioles had no shortage of fringe outfield talent that March. But Rickard's spring training performance was Hall-of-Fame-worthy – a robust .397/.472/.571 slash line in 63 at-bats (with one home run) against a mixture of veterans getting their rust off, marginals working on a new pitch, and minor leaguers playing like minor leaguers. The O's were so impressed that they named him their Opening Day starting left-fielder.

Thankfully, participants in the national experts leagues were not fooled. They knew that 1,237 minor league at-bats far outweighed Rickard's questionable 63-AB small sample performance in March.

So Rickard went undrafted in nearly every experts league.

But in the first week of the season, Rickard posted a .467/.438/.733 line (with one home run) in 15 AB.

That weekend, more than 50 experts across six leagues placed free agent bids for the O's starting left-fielder, with an average winning bid of nearly \$150 (out of a \$1000 budget). I suppose even experts can lose their minds.

All those precious free agent dollars were tossed around due to 15 AB. And not just any 15 AB. It was 15 AB against league the powerhouses in Minnesota and Tampa Bay. The pitchers Rickard faced in those cold Baltimore outings had names like

Santana, Fien, Gibson, Hughes and Archer, who collectively posted a 7.23 ERA in 18.2 IP that week.

Rickard finished April with a .280 average, two HRs and one SB. He finished May with a .249 average, four HRs and three SBs. He was cut from nearly all the experts' rosters by mid-June. The Orioles put him on the DL with a thumb injury in July, where he stayed for the rest of the season.

And nobody lived happily ever after."

*Fess up, Shandler. I bet even you placed a bid.*

Sadly, yes. I'll admit that I placed a losing bid of \$57 in Tout-AL. In today's fantasy environment, you need to at least have a horse in the race. There is always the slightest chance that a player could sustain their performance long enough to have a positive impact on your roster. But Rickard's winning owners invested 15 percent of their entire free agent budgets on a speculation that 78 at-bats against questionable competition were more legitimate than the previous 1,237 ABs. That decision-making shows how you can be blinded by small sample sizes.

### **We try to ferret out patterns within statistical noise.**

Humans (including you and I) are hard-wired to try to find patterns. In its grandest sense, we do this to survive. The world is full of chaos – even in non-election years – and it's the way our brains attempt to create order.

Baseball analysis is similarly all about finding patterns in data. We see a batter hitting 8, 10 and 12 home runs in successive years, and we immediately label that as a growth trend. Maybe it is.

But research back in 2010 by Ed DeCaria showed that the odds of the next data point in that series being 14 are small. In fact, the greatest odds are that the next point regresses back to 10, or even 9.

As described in the last chapter, since that we don't even know how real 8, 10 and 12 are, it's difficult to conclude that there is any trend at all. That 8-HR year could have been 13 if five of his doubles had traveled another 5 feet. That 12-HR year might have been 9 if not for those three nights when the wind was blowing out.

We fantasy leaguers *need* to find patterns. That's the starting point for the entire forecasting process. But when the data itself is suspect – obscured in great measure by noise – maybe it's better not to be looking for something that might not exist. Like better sentence structure.

Let's play a little game.

*Oo, I like games!*

Good! Here is a short series of data points representing one player's Rotisserie earnings during his first three years in the majors: \$7, \$15, \$18. Tell me what you think he earns in year #4.

*Well... it seems like growth, but you warned me against assuming that. I'll take the bait. I'll say that he earns \$16 in year #4.*

That's a very reasonable guess. Any of \$14, \$15 or \$16 would take an appropriate level of regression into account. In year #4, this player actually earned \$23.

*What? You tricked me!*

I didn't trick you. This is an actual player. So, now you're faced with a 4-year trend: \$7, \$15, \$18, \$23. What does this player earn in year #5?

*Okay, now you're screwing with me. Logic dictates that I say \$19 or \$20, but you've already primed me to expect the unexpected. I'll say \$25.*

Another good guess. Most analysts would probably have stuck with some type of regressed value, and I can tell you that the *Forecaster* projected this player to earn \$22 in year #5. But he actually earned \$28.

*Of course. Four straight years of increasing earnings – is this a real player? Should I believe you?*

You can choose what to believe. But let's keep going. We're now at \$7, \$15, \$18, \$23, \$28. What does he do in year #6?

*There is no way this can keep going. I'm going to say \$24. That's my final answer.*

And that is the correct play. Regression is always the correct play. The *Forecaster* projected \$26. But he actually earned \$32.

*You're playing me. You clearly picked an outlier... if he actually exists at all.*

Well, that's one thing you got right. A player with this consistent a 5-year trend is clearly an outlier. Do you want to keep going?

*Sure, why not? It's only a guessing game at this point.*

Okay. \$7, \$15, \$18, \$23, \$28, \$32. What's next?

*Regression is always the correct play... even when it isn't. I'll say \$29.*

Remember that Matt Cederholm said, "Players who earn \$30 in a season are only a 34 percent bet to repeat or improve the following season." Given that, it would seem that the odds of him continuing to improve, or even holding steady, are low. In the next section, I'll show you how that skews our expectations, but for now... in year #7, he earned...

Wait for it...

\$28.

*Hooray! The planets finally align! Does it keep going?*

For sure. There are two more data points. \$7, \$15, \$18, \$23, \$28, \$32, \$28. It's no less tricky now. Was \$28 an outlier? Does he rebound? Or does the downward trend continue?

*I'd have to say he's at his peak and would probably bounce around a bit for a few years. I'll peg his earnings at \$30.*

Yeah, that's a reasonable assumption. But, no. He only earned \$19 in 2015.

*\$19?! You gotta be freakin' kidding me.*

It's all real. \$7, \$15, \$18, \$23, \$28, \$32, \$28, \$19. This final data point is 2016. I'll give you one hint: he was 30 years old in 2016.

*Ugh. This could be the beginning of the downslope. But he's not that old that he could still rebound a little. I'll say... \$22.*

Nah, \$14. Forecasting is a tough game.

*More like a sucker's game. Who was the player? Was he real?*

Adam Jones is very real. And as much as this exercise was frustrating, a look at Jones' career provides a pretty slick bell curve: \$7, \$15, \$18, \$23, \$28, \$32, \$28, \$19, \$14. We would be so lucky if every player's career followed as fine a trend as this. They'd be a cinch to project each year (oh, the irony!).

*Wait a minute, wait a minute. Is any of this data valid? Can we even use Rotisserie earnings to evaluate players? Isn't this the same argument you made against using OPS?*

You're right; nice job. That's why all of these data points are suspect. Adam Jones' bell curve is probably not nearly as consistent as it seems. Chris Davis' values are probably not as erratic as they seem. Still, there are two areas where Rotisserie dollars can have some value.



1. I wouldn't use past Roto earnings to project next year's dollar value, but they do have an advantage over other metrics. This is because the dollar calculation normalizes statistics to the level of offense and pitching each year. So a 30-HR performance in a high offense season (like 2016) would earn fewer dollars than that same 30-HR performance in a low offense season (like 2014). The above data sets are fine to evaluate within the limitation of the imprecise inputs.

2. Sharp changes in performance are reflected pretty accurately, even if the precise dollar values are inexact. So we can use roto dollars to suggest the magnitude of a breakout or breakdown performance.

If there's one thing that I've learned about breakouts, it's that they don't typically arise in a straight line out of a trackable growth trend. Most folks perceive a breakout player's dollar values to look something like this: \$8, \$10, \$13, \$25. But the reality is, most breakouts look more like this: \$8, \$13, \$10, \$38 – a massive, unexpected spike. Here are two examples:

**-\$3, \$5, \$0, \$2, \$31, \$36, \$12, \$19, \$32, \$25, \$9**

Jose Bautista shuttled between full-time and part-time work his first four years in the majors before exploding in 2010. If we had focused on the skill and viewed his playing time as a variable risk, we might have been able to see something coming. His performances since then have fit no discernable pattern, though it does appear that he *might* be on the far side of the bell curve.

**-\$7, \$-5, \$-15, \$-5, \$19**

This data set is through 2014. What would you have projected for this player coming into 2015? The *Forecaster* believed that his improvement was real and projected \$18. But Jake Arrieta earned \$44. Most touts saw that breakout as at least partially sustainable, but then he regressed to \$24 in 2016.

In the next chapter, we'll start looking at players as entities that possess assets and liabilities. By evaluating each separately, we can sometimes detect the breakouts before they occur.

One last thing. This quest to draw conclusions about performance trends extends to teams as well.

Just like breakout players, teams don't always advance or decline in a straight line. With teams, there are so many moving pieces, and so many opportunities over six months to tweak, that it's tough to predict performance from one season to the next.

Every season starts as a blank slate; last year's won-loss record is not the starting point for this season's results. It works the same way for players.

**We look at research results based on aggregate data and draw finite conclusions about individual players.**

I've done a ton of research over the past 30 years as have the analysts who've written for me at BaseballHQ.com. Most of this stuff is incredibly insightful and the findings really help us understand the components of true skill.

The problem is that these results reflect tendencies on a macro level. None of them produce a percentage play that's good enough to make micro player decisions with any confidence.

A standard fantasy roster with 23 players is way too small a sample size for any of this to matter. (There's that statement again.) You are not going to be able to leverage miniscule percentage differences with so few chances to be right or wrong. Those 23 players are just not enough opportunities to cover your risk.

Here are three widely-used variables that are almost always a waste of time to worry about.

**Age:** Research shows that players' skills peak at a certain age – 26, 27, 23, 28, 31 – pick a number. But those are just rough averages. Not every player is going to peak at a given age. So targeting 28-year-olds in your draft will only pay off if you're in about 30 leagues. And even then, you might end up passing on a 21-year-old rookie who hits the ground running or a declining veteran who has a huge rebound season at age 39.

With only 23 chances, the odds of rostering an outlier are not much different from the odds of rostering a player that fits your target.

However... there are a few times when the odds are high enough to pursue. Eventually, players age out of rosterable skills. That age is different for every player, but the older they get, the higher the odds. So, if a player has a career year in his mid-to-late 30s, bet against a repeat. If a player has a crappy year in his late 30s, bet against a rebound. Those are higher percentage plays and are pretty much the only ones worth chasing. (Though there will always be a PED-fueled Marlon Byrd to screw things up.)

**Park effects:** I know from experience that most touts go through a painstaking conversion process every time a player switches teams.

I've come to find the exercise of adjusting projections for park effects mostly a waste of time. In recent years, we've seen a player like Brian McCann move to a new park (Yankee Stadium) that should have turned him into 30-plus HR monster. Any change in power skill was far short of expectation. Even extreme ballpark changes are inconclusive. Wasn't Nelson Cruz's power supposed to disappear moving from Baltimore to Seattle? It didn't happen.

That brings up a bigger question: how do you know that an increase or decrease in a player's output is really park-related?

If a 30-HR hitter moves to a park that increases power by 20 percent – which is a huge leap – then we could expect him to now be a 33-HR hitter (the percentage only affects home games). But a 3-HR increase is well within the limits of normal statistical variance. How do we know that normal skills growth didn't drive the increase in home runs? Or simple statistical volatility? Or a trio of well-timed gusts of wind? It's even more fuzzy with ratio gauges.

However... if you are going to use it at all, focus on the margins. The noticeable impacts are only going to come from a hitter moving from one of the best hitters parks to one of the worst, or vice versa. The inverse goes for pitchers, obviously. I have given up calculating anything in between.

**Team:** If you have two players of comparable skill, but one plays on a contender and the other plays on a doormat, you'll almost always opt for the player on the better club. Team environment matters, right? More runs and RBIs, more wins and saves.

Unless you invested in the Red Sox and Nationals in 2015, two teams that were supposed to contend. Or maybe you bet heavily on the defending champion Royals to be better than a .500 club in 2016. Failure to correctly predict team environment for those clubs had a huge impact.

Even picking the right team is no guarantee. In 2016, Indians Carlos Carrasco and Danny Salazar only won 11 games apiece. The 2015 Dodgers should have been a prime target, but nobody behind Adrian Gonzalez amassed more than 60 RBIs.

As a tie-breaker when everything else is equal? Sure. But I'm willing to bet you can find some other variable that will have more of an impact.

### **We are largely driven by recency bias.**

We live in a world where we're inundated in information. It's far too much to process so we have to rely on smaller chunks that are easier to remember. And the easiest pieces of data to remember are those closest to the surface of our consciousness. Ask me what I had for breakfast this morning but forget about me remembering what I had for dinner two nights ago.

("Red curry at that Thai restaurant." – the wife)

The effects of recency bias on managing our fantasy teams have grown over time as the amount of information we've had to process has grown. Part of it is just the endless quest to grab at whatever we can. I've already talked about small sample sizes – that's part of it – but these days, even a partial season of aberrant performance often trumps a 10-year career of consistency.

Recency bias drives each year's ADPs. The quickest way to earn a first round ranking is to post first-round earnings the previous year. These new risers who have supplanted the vets could well be the next wave of star talent, but are we passing judgment after just one season? After all, outliers run both ways.

It's like we completely ignore one of the very first tenets of baseball prognosticating: **Don't project a player based on one season's stats.** After 30 years, have we learned nothing?

The historical track record shows that pitchers earning first round value in one season almost never repeat the feat in consecutive years. Clayton Kershaw managed to defy this for many years – he was the only one! – but even he couldn't escape in 2016. Volatile pitching stats and the changing composition of the talent pool drive that phenomenon. But guaranteed that some of last year's dominant arms are still going to get drafted ahead of others who have been more stable and consistent year in and year out.

Finally, I wrote this in early 2016:

"Is it not ludicrous to include Carlos Correa's name among 2016 first-rounders after 427 major league plate appearances? Is Correa really a once-in-a-generation player? Maybe he is, but are you going to bet on it by committing a core roster spot to a speculation of guaranteed greatness?"

While Correa had a solid season, he came nowhere close to his draft slot.

This happens time and time again. Why do people keep doing this?

*Maybe we don't want to miss out.*

**We make decisions based on the fear of missing out.**

I get it that you don't want to be the guy who misses out on the next Hall-of-Famer. But were you really, really absolutely certain that Correa was a can't-miss player? Enough to risk that all-important first round pick?

Every year brings another example of what happens when you buy into the Fear of Missing Out. Even if a player performs close to expectation – like Kris Bryant did in 2015 – over-drafting him offered no benefit. The teams that won leagues that year were not those that owned Bryant, because he was purchased at nearly full value. There was no advantage to paying that much; there was only the risk that an unproven player would fail. Similarly, those in 2016 who drafted Correa among the top 10 players overpaid as Correa finished outside the top 70.

When you draft a player like that in the first round, there is far more downside than upside. If he is fully productive, you've set a very high bar for him to return par

value. Perhaps he has a higher floor than others, so your downside is mitigated. But we simply don't know what that range is. Here is my completely unscientific take on the odds for that type of player as a first rounder:

Profit	1%
Par value	20%
Some loss	60%
Major loss	19%

You can quibble with the percentages, but the general conclusion has to be the same: what are you chasing?

In 2015, Bryant fell into the 20%. In 2016, Correa fell into the 60%.

If you're overpaying for a speculation at the draft, you're also potentially passing up on profit opportunities later on. As much as you think you can find profit in every player, you only get 23 chances, and there are at least a dozen other guys in your league, all thinking the same way.

This is particularly dangerous in the early rounds where we've shown that our overall track record is terrible. Here are a few interesting players of note:

<b>Player</b>	<b># years drafted in 1st Rd for Fear of Missing Out</b>	<b># years earned 1st Rd value</b>
Tulowitzki,T	4	0
Longoria,E	3	0
Gonzalez,C	4	1
Fielder,P	4	1
Stanton,G	3	1

Talk about doing the same thing over and over again, and expecting different results.

### **We base decisions on NOW.**

There is a subconscious part of us that actually agrees with the fact that you can't predict the future. If our decision-making process was fully conscious and deliberate, we might take an objective look at each situation with an eye towards tomorrow. Instead, we tend to take the easy way out and just view what is happening right now as a fixed reality.

But reality is not fixed. It is fluid. One decision begets uncertain outcomes, which beget other decisions.

*English, please. At least give me an example.*

Okay. Here's another fairy tale:

"Once upon a time (early 2015), there was a closer for the Seattle Mariners named Fernando Rodney. He had a volatile career – some very good years and some very bad ones – and despite there being some question about his ability to hold down a closer's role, International Expert (and Man of Intrigue) Ron Shandler spent full-price closer dollars for him in Tout Wars (\$16). Shandler reasoned that, despite Rodney's erratic track record, he was the closer NOW.

As it would turn out, it didn't take long for Rodney to turn into a pumpkin, wiping out Shandler's investment (and relegating him to last place in saves for the rest of the season). When Carson Smith innocuously slid into the closer's role, he immediately became the NOW guy, and fantasy leaguers around the world proceeded to exhaust a significant part of their free agent acquisition resources on a pitcher with far better skills than the deposed Rodney. Because, better skills and NOW.

These NOW investments also come with an inherent expectation of longevity – we expect the pitcher will hold the role for the rest of the year. But when it comes to closers, they hold that role until they don't, and sometimes the in-season shelf life for that role is weeks, or days.

Smith's ninth inning "Best if Used By" date expired after about two and a half months. He started losing games and blowing saves in late July, and was supplanted by Tom Wilhelmson by mid-August. Wilhelmson's skill set paled in comparison to Smith's (and once Smith lost the role, he did not give up a run for the rest of the season) but that's not what reality is about. Wilhelmson was now the NOW guy drawing whatever meager free agent resources were still left.

After the season was over, the Mariners responded to all this by tossing last year's NOW guys to the curb and starting over with a bunch of new NOW guys.

And they all lived happily ever after.

Except for Shandler."

Some stories don't have happy endings.

But watch... NOW is going to come into play in many of our future conversations.

*Nice story. I assume you didn't win Tout Wars.*

Um, no. But the experience is representative. Rodney's owners in 2016 had similar stories to tell.

Here are other ways that our decision-making processes are influenced by NOW:

There are some players who lock down roles at the very end of spring training, based on one or two games of late performance. We treat those NOW guys as fixed realities, bidding them up to full value on Draft Day as if "winning a job" is the only prerequisite to full-season success. This also goes back to the small sample size discussion.

Your No. 4 starting pitcher gets off to a ridiculously good start. Despite the fact that his skills have not changed substantially and his recent success is against weak competition, you refuse to entertain trade offers, because he is doing well NOW. What if he keeps it up? Are you contracting an acute case of Fear of Missing Out?

Many of these psychological potholes are interrelated. They are all obstacles to success. But enough pain, for now. It's time to begin the construction process.

The BABS Project

### Chapter 3

# The Broad Assessment Balance Sheet

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For decades, we have been told that the goal in fantasy baseball is to assemble a group of players whose aggregate statistics exceed those of all the other teams in the league. In fact, that is the actual verbiage in the *Official Rotisserie Baseball League Constitution*.

But we don't know what statistics our players are going to put up until after they've done it. Right? *Right?!*

*Yeah, yeah, yeah, I remember. Still not sure I buy it completely, but I'm listening.*

Can we at least agree that we don't know the *exact* numbers players are going to put up and the ranges around those projections can be very, very wide?

*Sure.*

Are you comfortable with the idea that a better approach might be to only plan around the variables that we *do* know?

*I suppose.*

Good. We do know each player's historical skills profile. We have a general sense of each player's role. And we know the potential risk factors that will ultimately color the numbers.

Our fantasy team is a collection of these skills, roles and risks – each player's assets and liabilities. But for as long as we've been playing this game, we've been going into our drafts just trying to accumulate the most projected stats.

### **Players are more than just a bunch of projected stats.**

Take Giancarlo Stanton. Please. When you draft Stanton, you're not just getting the potential for 35-plus HR. You're also getting a wide error bar around those home runs because there is a long history of injury risk. When you draft a rookie – any rookie – you're not just getting the expectation for a certain level of stats; you're also getting the uncertainty surrounding his lack of experience.

*But aren't all those variables built into the projections?*



Most touts attempt to do that, but how do you quantify risk? The adjustments we apply to the projections are often just arbitrary – we'll lop off a bunch of AB or IP to account for how much time we *think* an injury-prone player might miss, or we'll make *subjective* decisions about the qualitatives. There's little science behind it yet we'll be drafting our teams off whatever numbers are on our cheat sheets.

Let's look at Stanton a little closer.

It is acknowledged that he is one of the best pure power hitters in baseball. However, in seven major league seasons, he's managed to stay healthy for an entire year just twice – in 2011 and 2014. In 2015, he hit the DL with a hand injury in June and never came back. In 2016, his season ended with a groin injury in August.

Stanton amassed 539 AB in his healthy 2014 season, a career high. For 2016, the *Forecaster* attempted to account for the injury risk by hedging with a 490-AB projection. There were other sources that took a leap of faith and projected a full healthy year, often forecasting even higher AB numbers than he'd ever posted. Wishful thinking, perhaps?

But Stanton was never without risk. His historical health track record did not instill confidence that he could get through a full season injury-free. You could not dismiss the possibility that he might miss some time even if he was perfectly healthy on Opening Day. But you also couldn't arbitrarily decide how much of a playing time discount to project. Even if you bought into a 550-AB projection – or a 490 AB hedge – his stat line never gave you insight into the risk. Nobody projected that he'd get 413 ABs in 2016; worse, nobody projected that his skills metrics would crater too.

**By combining disparate variables into a single projected stat line, you lose the ability to distinguish the skill from the risk.**

We need a way to keep everything separate. We need to be able to present Stanton's true underlying skills without making assumptions about his risk factors because, well, there is a chance that he does stay healthy all year and taps back into his demonstrated skills prowess, and we want to see what that might look like. But we also need to present those risk factors so you can draw your own conclusions about how important they are to you, if at all.

The fact is, Stanton's underlying skills put him in the same class of players as many elite first-rounders. But risk is what sets him apart. You simply can't build that into a statistical projection and claim it's more accurate.

Consider... a balance sheet. That's something we've never done – we've never viewed our players and rosters as balance sheets. We may have kept running totals of projections – our assets, sort of – but we rarely kept a record of liabilities. It's the balance of assets and liabilities – on both a player and team level – that provides a truer view into our team's potential for success or failure.

Maximizing assets, minimizing liabilities. That's how we are going to build our rosters. The process is one of planning out your optimal cross-section of skills while deciding up front how much risk you are willing to incur. The players then become just puzzle pieces.

The Broad Assessment Balance Sheet (BABS) is the formal moniker that I've dubbed this process. It's **broad** because we've already determined that "precise" doesn't work. It's an **assessment** – slightly less rigorous than a full-blown analysis because complexity doesn't buy us enough to make a difference. It's a **balance sheet**, because that is what the output of our effort is going to look like. And I want you to become fast friends, so let's just call her **BABS**.

(If nothing else, BABS finally gives us a strong female presence in this hobby, at least one who knows her way around a light saber.)

So we start with a balance sheet. What do we put into that balance sheet?

Back in 2009, I developed the Mayberry Method, a simplified player evaluation system named after a place where life was simpler. It reduced each player to a 7-character code: three characters for skill (on a scale of 0-5), one character for playing time (0-5) and three characters for risk (A-F grades for health, experience and consistency). As much as that was a huge step in the right direction, several years ago I decided that it didn't go far enough. It was still too granular.

Here is the original introduction to the Mayberry concept. It fully applies to BABS, perhaps even moreso.

"Tonight, the friendly weather forecaster on my local television station has told me that it is going to be partly cloudy tomorrow with a high of 78 degrees. I suspect the meteorologist's advanced modeling system spit out that fancy number – 78. I often think, why not 77? Or 79? The truth is, if I were to walk outside right now, I'd feel no difference if it was 77, or 78, or 79.

In fact, it probably re\*quires a good five degrees for me to feel any noticeable difference, and even then, it would be slight. 79 versus 74? 46 versus 41? 97 versus 92? More important, a five degree difference wouldn't likely make me change my behavior. If I'm not wearing a light jacket at 79, I'm not likely going to do so at 74.

The 10-day forecast is an even more interesting exercise. Besides the fact that I don't believe they can accurately tell me that it is going to rain a week from Sunday, the list of daily high temperatures seems to be an exercise in excessive precision: 80, 82, 81, 82, 80, 77, 77, 77, 74, 76.

What does this tell me? The first half of the week is going to be warm. The second half of the week is going to be marginally cooler.

In fact, they could just say that the temp will be in the low 80s and I would be perfectly okay with that. High 70s, low 80s, high 80s, low 90s... that's all I need. They wouldn't even have to bother with mid-70s or mid-80s because that won't change what I am going to wear anyway.

What do we gain from the extra precision? We delude ourselves into believing we are gaining accuracy when in fact we are gaining an increased probability of being wrong. We're just not good enough to predict the temperature to the exact degree on a daily basis. And most important... there's no great need to be so perfect."

Now let's take this a step further.

What if we were to say the only thing that is important is the climate's affect on what we wear? It doesn't matter if the temperature is 82 or 95 because in either case, we're heading outside in shorts and sandals. It needs to get cooler than 65 before we consider donning a light jacket, but 64 versus 54 is nearly irrelevant. And we won't consider pulling out the parka until the temps dip into the low 40s.

Now, the range of temperatures that have any actionable consequences becomes quite wide. It's shorts weather, light jacket weather or parka weather. Any number attached to the thermometer just doesn't matter.

**AN ASIDE:** Interestingly enough, when I lived in New Hampshire, I felt quite comfortable in shorts when temps were in the 50s. Now in Florida, a jacket comes out when temps are in the low 60s. I suppose that is the climate equivalent of park effects.

**ANOTHER ASIDE:** Just so you know, revealed now for the first time ever although anyone truly paying attention should have been able to figure it out on their own, is the fact that BABS was born in Mayberry. Andy, Barney and Opie were there. I think it was on a cool, low 60s evening. Her father was wearing a light jacket.

With BABS, each skill – very loosely tied to standard fantasy stats – is going to have an **extreme** impact on your roster, a **significant** impact, a **moderate** impact, or none at all. Power, speed, strikeouts, et al – these are all building blocks. The distinctions between impact levels are based in real skills analysis but in very broad strokes.

So what we will be putting into our balance sheet are descriptors of each player's skills – and later on, risks – in these broad terms.

From the 2016 edition

*Wait, no. Sorry, that doesn't work for me. Let's say I have a choice between Charlie Blackmon and Starling Marte – two speedy guys. But Blackmon stole 13 more bases last year. Are you telling me I can't rank Blackmon ahead of Marte for speed potential?*

It's convenient that you picked these two players. Blackmon and Marte both have significant speed skills as compared to the rest of the player pool. Both have batting average skills that are comparable. And both are clean on the Liabilities side. In the eyes of BABS (they are a beautiful shade of blue), both players are essentially interchangeable commodities. Draft one, draft the other. The odds that one will outperform the other are not significant enough to project with any confidence.

*C'mon, really?*

Really. You cannot tell me with 100 percent certainty that Blackmon is going to steal more bases than Marte in 2016. You can think that Blackmon has better speed skill, but there are too many variables that need to align for you to guarantee a precise variance in stolen base output between those two players. If Blackmon regresses even a little and Marte improves – not unreasonable possibilities – then the difference between the two is inconsequential and certainly not projectable for your roster-building purposes on Draft Day.

Bottom line – your opinion that Blackmon is going to steal more bases than Marte is heavily steeped in recency bias.

You can put money down that Blackmon will steal more bases than David Ortiz (okay, pretty obvious), and it's also a reasonably good bet that Blackmon will steal more bases than Brad Miller... but even that is not a 100 percent slam dunk, no matter what their respective skills sets look like NOW. (See what I did there?)

*Ha, ha, funny. So how do I decide what to pay for them? If I'm in a draft league and they both fall to me, I still need to decide who to pick. Do I flip a coin?*

You could. If you need a tie-breaker, you can look for some minor variable outside the balance sheet – Blackmon's ballpark, Marte's team, whatever – if you need the comfort of giving one player an edge. But in the end, it won't likely be enough to make a difference to your team's success or failure. The error bars are too wide.

Here is another way to look at it. Let's say you can't get it out of your head that Blackmon is a better player. Let's say that someone ahead of you grabs him in a snake draft or outbids you in an auction. If Marte is still available, feel comfortable knowing that you'll have another shot at landing a Blackmon-esque commodity. And if the cost is lower, you've just gained some profit.

I decided to keep in that passage from the 2016 book because I like showing off when I'm right:

	2015		2016	
	AB	SB	AB	SB
Starling Marte	579	30	489	47
Charlie Blackmon	614	43	578	17

*But there were mitigating circumstances. Blackmon didn't run because he was hurt.*

There are *always* mitigating circumstances. Players *always* get hurt. That's part of the inevitable regression you always have to plan for.

So, we'll be describing each player's skills profile in broad terms on the Assets side of BABS. The risk variables will be handled likewise on the Liabilities side of the ledger.

In the next chapter, we'll start providing some structure to BABS. Although we don't care about figures, you'll see that she's still pretty well built.

Sorry, low-hanging fruit.

## The BABS Project

### Chapter 4

# The BABS Player Profiling System

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The foundation of BABS is a basic accounting concept – the balance sheet. On the left side are your Assets; on the right are your Liabilities.

For batters, your Assets are Power, Speed and Batting Effectiveness (which can be used as a proxy for batting average). For pitchers, your assets are Pitching Effectiveness (a potential proxy for ERA and WHIP), Strikeouts and Saves. Both sides have Playing Time as an Asset as well. While these Assets are not direct correlations to all possible fantasy/roto categories, they do represent reasonable proxies for almost all of them.

The major items on the Liabilities side are Health and Experience, or actually "lack of" each. For batters, Batting Effectiveness can also be a Liability; for pitchers, Pitching Effectiveness is the comparable negative skills offset. There is also a Miscellaneous category for minor variables like moving to a new team, a significant ballpark change, or advancing age. For these variables, you can neither count on them having an effect nor quantify them, though their impact could be considerable.

## ASSETS

Skill and opportunity have always been the two key elements to every projection, and they form the foundation of our Assets. We look for positive contributions in these categories.

### Playing time

It all starts here, an element of the forecasting process with a great amount of variability. As such, players will be rated in BABS based on a broad expectation for their potential for playing time:

		<b><u>BATTERS</u></b>	<b><u>PITCHERS</u></b>
<b>F</b>	Full-timer	Approx. 500+ PA	Approx. 180+ IP
<b>M</b>	Mid-timer	Approx. 300+ PA	Approx. 100+ IP
<b>-</b>	Part-timer	Fewer than 300 PA	Fewer than 100 IP

Most reputable touts go through a meticulous process of fitting plate appearances and innings into the available playing time on each team. That's an admirable effort and vital for accurate fantasy valuations.

But let's be honest here; the only players for whom these projections are even close to being on target are full-timers who stay healthy all season. These are the only

players who achieve a critical mass of AB/IP sufficient enough that their skills can be projected with any possibility of "accuracy." For those players whose playing time projections are arbitrarily downgraded due to the expectation of lost time, you immediately put into question whether that AB/IP discount might also come along with a skills discount as well. We just don't know which of the following scenarios will drive a suppressed playing time projection:

- a. Player gets hurt, hits the DL, no impact on performance.
- b. Player gets hurt, performs poorly as he plays through injury, hits the DL.
- c. Player gets hurt, hits the DL, returns less than healthy and performs poorly.

And of course...

- d. Player performs poorly, loses playing time.

All four scenarios will yield different results, especially if one occurs in May and another occurs in August.

Of the full-timers in the ADP Top 300 from 2009-2016, there were only about 150, on average, who stayed healthy each year, and that included about two dozen relief pitchers broadly defined as "full-timers." Beyond the Top 300, the number of full-timers drops sharply. Even if we could deem that there were 200-250 healthy full-timers, that's still less than 20 percent of the entire player pool.

When we're looking at projections for mid-timers and part-timers, we're mostly throwing darts. With performance numbers for anything under 300 PA or 100 IP, the error bars are so wide as to be almost meaningless.

So I opt to project playing time in broad chunks within which we can account for a good measure of volatility. There are full-timers, mid-timers (mostly platoon types and #3/#4/#5 starters) and part-timers. Beyond that, any quest for precision is mostly a waste of time.

If a batter is defined as a full-timer, BABS captures his playing time if he stays healthy to rack up 600 ABs, but also provides wiggle room if an unexpected DL stint or two knocks him down to 475 AB. At the end of the season, 600 AB versus 475 AB makes a difference, but on Draft Day, we have no way of knowing where a player will end up within that range. The Liabilities side of the balance sheet puts a rating on any downside potential that we can identify up front.

In real terms, I stopped paying much attention to playing time projections a long time ago. If maybe half of the player population is going to be on the disabled list at one time or another, plate appearances and innings are going to be shifting constantly. I shake my head (in disappointment, not derision) when someone tells me that Player X is not a viable pick because he has "no path to playing time." Unless there are three players ahead of him on the depth chart, I'll never write anyone off

completely. If a player has skill, there will always be an injury or positional shift that will "miraculously" open up a spot. That's what happened for Aledmys Diaz and Max Kepler in 2016. That's what happened for Carlos Correa in 2015. That's what happened for Mike Trout in 2012. In each of those respective seasons, only Trout was drafted any higher than No. 479 (he went No. 228).

That's why you should not be reluctant to draft high-skilled prospects. While they remain risky in terms of performance, the risk of them finding playing time can be far lower.

## Skill

On the skill side, players are not rated on their potential statistical output. I don't care whether Yu Darvish will post an ERA of 2.50, 3.00 or 3.50. There are too many variables to know where that number will land. Instead, players are rated against each other, because that's how it all comes out anyway. Darvish could post a 2.60 mark, but that 2.60 is far less valuable in a season where everyone and his wife's cousin's housekeeper is posting sub-3.00 ERAs. So players are rated against the population mean for each skill:

<b>Extreme Impact</b>	Players in the Top 10% of that skill
<b>Significant Impact</b>	Players in the Top 25% of that skill
<b>Moderate Impact</b>	Players in the Top 50% of that skill
<b>No projectable impact</b>	Players in the Bottom 50% of that skill

Here are the codes we will use for each player:

<b>Impact Level</b>	<b>Power</b>	<b>Speed</b>	<b>BatEff</b>	<b>PitchEff</b>	<b>Strikeouts</b>
Extreme	P+	S+	A+	E+	K+
Significant	PW	SP	AV	ER	KK
Moderate	p	s	a	e	k

The best way to remember these notations is that **Moderate** Assets are in lower case, **Significant** Assets are two-character upper case and **Extreme** Assets are upper case with a plus (+) sign.

Those in the bottom 50% for each skill are assigned no rating. Their contribution is typically not enough to substantively move a team in that category's standings, or at least not at a level that you can project. In mixed leagues, these players are usually easily replaceable. They might be more important in AL/NL-only leagues, but that does not make them any more projectable. You're still going to want to target players with at least Moderate skill to move the needle.

For the assessment of each of the skills categories, I return to my roots with the *Baseball Forecaster* and BaseballHQ.com metrics. For a fuller explanation of these gauges and complete granular data for every player, those are the places to go.



**Power:** I rely mostly on *Expected Linear Weighted Power Index* here. This combines weighted levels of hard-hit line drives and hard hit fly balls as a percentage of all balls put into play.

**Speed:** Here I rely on *Statistically Scouted Speed*, which looks at run-scoring, triples, infield hits and body mass index. I also look at each runner's track record of how often he's been given a green light along with his stolen base success rate.

**Batting Effectiveness:** I use *Expected Batting Average* here, which looks at a batter's contact rate and odds that a batted ball will fall for a hit, which is a product of the speed of the ball, distance it is hit and speed of the batter. While this can be used as a proxy for batting average, the skills measured make it more of a gauge of a player's underlying "hit tool."

Of all the offensive skills that BABS captures, one that the above categories falls short on is **on base average**, or more specifically, the batter's ability to take a walk. So BABS adds an indicator for hitters more adept at drawing walks and another for those who have the plate patience of a hyperactive flea.

For players with an historical walk rate of at least 10 percent, there will be an asterisk "\*" sign along with their AV rating. You will see players with "A+\*" (that's the best), "AV\*" and "a\*". You will also see hitters with just a "\*" in that column; these have a below average "hit tool" but still manage to walk at least 10 percent of the time. (The fleas will be discussed under Liabilities.)

**Pitching Effectiveness:** Here I use *Expected Earned Run Average*, which approximates ERA with situation-independent, skills-based metrics, like strikeouts, walks and ground balls. This is similar to xFIP (Fielding Independent Pitching). Similar to batters, this is used to measure a pitcher's "pitching tool."

**Strikeouts:** I combine several metrics for this assessment – strikeout rate, swinging strike rate and first pitch strike rate (which correlates more with walks but provides some nice color).

The Assets section of the pitcher balance sheet also has a column for **Saves**. This is an opportunity-driven statistic but can be pared down to two levels, similar to what we do in Mayberry:

Significant	SV	Likely to get 30+ saves
Moderate	sv-	Likely to get 10-29 saves

These seem like wide ranges – okay, they are – but we need to cast a wide net in this category. The Significant saves sources are pretty much guaranteed a frontline shot at 9th inning work. The arms classified as Moderate all have some risk associated with them, from uncertain bullpen depth charts to spotty track records in a closing role. By filtering out anyone projected for fewer than 10 saves, we're essentially

saying that those guys are not projectable enough. My advice is always to speculate on relief pitcher skills and be grateful if you back into saves.

*I'm not sure I completely understand what classifies someone with P+ versus PW versus p. Is there a number? I have often used the 20-80 scouting scale which tends to translate to counting stats. Is there a BABS benchmark number? It looks to me like P+ = 30+ HR, PW = 25-29, p = somewhere around 15 -24?*

No. The ratings do not correlate to counting stats – that’s the whole point of the system. Counting stats are faulty. The ratings correlate to tiered skill levels and represent each player’s underlying talent regardless of opportunity for playing time, level of experience or injury history. The latter two variables are accounted for on the Liabilities side of the balance sheet.

What’s more, **these ratings are not projections**. They are gauges of each player’s historical measurable skill. When we start planning for the new season, we may draw some conclusions about how a player may progress or regress, but we’ll never attach a number to those conclusions. You’ll find that, over time, most players do have a more trackable skills progression than their statistics would lead you to believe. Any marked changes in a trend will either be supportable by a change in expectation, or more likely just regress. For instance, let’s say a batter shows the following power trend:

<u>Year</u>	<u>BABS</u>
1	p
2	p
3	PW
4	P+
5	PW

This player took a step up in power in year No. 3 and No. 4, then regressed in year No. 5. An analysis of his most recent balance sheet might reveal an injury situation, or a change in leagues, or some variable that might have contributed to the regression.

Going into year No. 6, we might rate this batter as either PW or P+ depending upon the extent that those variables might affect his future performance. If he was hurt and is expected to be healthy, we might return him to P+, which is a skill level he has shown to possess. If the negative variables will likely continue to be a factor, we might keep him at PW. Or, we might return him to P+ as his natural skill level and reflect the downside on the Liabilities side of his balance sheet.

There are several ways to play it, but you’ll note that we’re still working within a very broad range of outcomes. And we’re not limiting those outcomes to a statistical projection of exactly 34 home runs. Or even 30-35 HRs. Because we just don’t know where that number will end up.

## Miscellaneous

These categories are for any positive variables that might have a legitimate impact and are not captured elsewhere. Guess what the key word is in that last sentence?

*Legitimate? Positive? Not?*

Close. It's "**might**." These are variables that need to be on our radar. Most analysts will build them into their statistical projection. I prefer to just identify them and let you know they **might** be a factor. Or not. It's your call how important they are.

There are only a couple of items that are important enough to include here:

### **Pk Positive park effect**

As noted in Chapter 2, park dimensions **might** have an impact on output, but changes are neither guaranteed nor can be absolutely attributable to a particular change in venue. The only players who will be noted at all are those moving to one of the more extreme hitter parks from one of the more pitcher-friendly parks. The list of these hitter and pitcher parks tends to shift over time, but you can usually find Coors Field on the hitter list. There are usually no more than a half dozen parks on either list. Any movement between other ballparks is ignored. Always remember The Nelson Cruz Experience – his counterintuitive improvement moving from Baltimore to Seattle in 2015 – as evidence that this is not foolproof.

And note that each player's current ballpark is already baked into their skills ratings. The ballpark rating only comes into play when a player changes teams, and only for the most extreme ballpark changes.

### **Rg Positive regression**

There are a few players who had really bad performances last year, sometimes driven by no more than random statistical volatility. Odds are "last year's bums" **might** see some rebound just by virtue of the planets realigning. In any case, it's important to identify them because this is one of our few opportunities to engage in a full frontal assault against recency bias.

## LIABILITIES

It's great to roster a bunch of players who you hope will put up big stats. But what separates the winners from the losers is the ability to build risk into the process. Every player provides certain assets but many also have a unique set of liabilities that influence their potential to provide a fair return on your investment.

There are two types of risk factors captured by BABS – Major Liabilities and Minor Liabilities. Here are the ratings we use on the Dark Side of BABS (no storm troopers allowed).

## Major Liabilities

**Negative Skill:** The core ratio categories in Rotisserie are batting average and ERA/WHIP, and for these, a bad player can do great damage. So, rather than provide a negative rating on the asset side, we have a column on the Dark Side for players with the red light sabers.

- AV Bottom 25% of batting effectiveness skill
- ER Bottom 25% of pitching effectiveness skill

We also add a “-” on the Liabilities side for those hitters who walk less than 5 percent of the time.

**Injuries:** Every year, this is the one variable that wreaks havoc with our chance at success. From 2012-2016, disabled list stays ranged between 25,000 and over 31,000 days, so this is no small variable.

I take a different approach to injuries with BABS. We already know up front that upwards of 50 percent of the top-ranked players are going to spend some time on the DL. We cannot project which players are going to pull up lame at any time, so we have to attach some injury risk to pretty much everyone.

*But what about the ones who come into camp proclaiming that they are in the best shape in years?*

You're funny. A player stating that he feels healthy – during spring training, after coming off the DL, whenever – is not the same thing as there being no injury risk.

As such, I've set a starting point for the health of each player. *Everyone has a minimum baseline of a 25% chance to spend some time on the DL.* Everyone. To that, I'll add greater odds to those players with an injury history (based on days spent on the DL over the past two years) or current health concerns.

The codes look like this:

### **INJ**

Players who spent more than 50 days on the DL in the most recent season, spent more than 30 days on the DL in each of two consecutive seasons, or are currently hurt with uncertain or negative prognosis for the upcoming season. I give over 50% odds that they will miss significant time this year.

### **inj-**

Players who spent more than 20 days on the DL in the most recent season or are currently hurt with a positive prognosis for the upcoming season. I give them 26-50% odds of missing significant time.

I classify "significant time" as enough missed games that it hurts. If Mike Pelfrey goes down for two weeks with a hangnail and you replace him with Brett Oberholtzer, that's *not* significant. And if this is a real move you need to make, you have a lot more problems than worrying about injuries.

**Experience:** Okay, I'll say it – Mike Trout is a god. He is among a small class of players who hit the ground running upon promotion and never let up. But most players don't follow this path.

Patrick Davitt's research has shown that hitters need at least 800 plate appearances to establish a baseline, or enough experience from which we can legitimately project further growth. Those 800 PAs could mean a big rookie year and a sophomore slump, or a pedestrian first season followed by a growth year, or two consistent years. But the percentage play is to expect some volatility until that baseline is set.

So as much as we're ready to anoint this year's can't miss prospect as the next first-ballot Hall of Famer, there is risk, and we need to account for that. I've decided to err on the side of caution and increase the benchmark slightly.

On the balance sheet, we'll identify the young players as such:

		<b>Bat</b>	<b>SP</b>	<b>RP</b>
		<b>PA</b>	<b>IP</b>	<b>IP</b>
EX	< one full season of MLB experience	500	150	75
e	< two full seasons of MLB experience	1,000	300	150

About 1,000 plate appearances in the Majors – two full seasons – is a good point to determine legitimacy on the batting side. In assigning ratings, I exercise some latitude here, often giving a pass to some outwardly established players who have PAs in the 900s. It's a little more fuzzy with pitchers, but we go with 150/300 innings for starters. For relievers, we use 75 and 150 innings.

Essentially, anyone who gets an "EX" or an "e" is not yet a fully formed entity. The biggest risk for us, quite frankly, is not knowing what their true baseline is. So anyone with Experience risk potentially has a huge error bar around their potential performance stats. And yes, that means they could also be much better than we expect, but it's not something we can plan on, so it's a Liability.

Finally, given my opinion about age, I don't give a flying whoop whether a player reaches these playing time thresholds at age 24, or 27, or 31. Experience is experience at the Major League level, regardless of age.

## Minor Liabilities

These are the miscellaneous negative variables that could have an impact, might not, probably won't but can, and are definitely not quantifiable unless they are. That's about as firm a stance as I'm willing to take. But all of these need to be on our radar because, if Bartolo Colon posts a 5.50 ERA this coming season, assuming he's still playing when you read this – if he's under 50, it's a reasonable bet – we need to be able to come back to BABS and say, "Aha! He's old!"

*You should really change the heading for this section from Miscellaneous to Rationalizations.*

Okay, I'll give you that.

Any of these could be bad, good or have no effect:

### **Pk Negative park effect**

As on the Asset side, we can neither guarantee nor absolutely attribute performance changes to park dimensions. If Nolan Arenado was traded to San Diego, he would qualify for this code, but you'd think someone with his skill would be able to hit reasonably well anywhere. So take it for what it's worth.

### **Nw New team**

This goes beyond park effects. Many players have an adjustment period when going to a new team, and especially a new league. Some analysts tend to give this more weight than others, but it's just another variable that **might** have an impact. Only those players with some baseline of MLB performance are noted.

### **Ag Advancing age**

Once a player hits 36, anything can happen. Some batters manage to hang on for longer; some pitchers face a steep cliff at 38. All are essentially geezers at this point. No matter how many artificial supplements some of them **might** be taking to ward off the fear of premature retirement, I won't be anywhere near the bidding on any players pushing 40.

### **Rg Negative regression**

As much as we want to believe that last year's breakout performers can sustain their numbers, the odds are stacked against them. Players noted here are those who posted performances so far above their historical levels last year that it's tough to justify their sustainability. Studs in 2015 like Zack Greinke, Dallas Keuchel and even Jake Arrieta received "Rg" marks, which were easily prophetic.

I also use this code for players whose track record has been historically volatile, at least from the perspective of their surface stats. So Chris Davis got nicked here in 2016, despite the recency bias that pushed him up the draft boards. But did we

really know whether we would see the 45-.260 version or the 25-.200 version? Everyone was bidding on the former; turns out we saw the latter.

Beyond that, feel free to add any other miscellaneous Liabilities as you see fit. If you're worried that a tanking team will trade a key player, then jot a note on the dark side of the ledger. If you're hoping that one of the stars on your opponent's keeper list is suspended for PEDs, feel free to ding him here too. I suppose that also means you can change *any* of the ratings, on either side of BABS. This is your tool and I have no way of knowing what the heck you're doing anyway.

I'll start getting into the balancing of assets and liabilities in the next chapter, but there is basic point to remember: The more a player is lacking on the health and experience scales, and the more of these miscellaneous liabilities he has, the greater the risk of him falling short of realizing his assets. I think that goes without saying, but I said it anyway because... this is my book. But it's your tool.

*Hmm, I dunno. It seems kinda simplistic and based more on opinion than fact.*

Simplistic? Well, it's simple, for sure. That's the goal, to keep it simple but structured. However, the foundation is still based in real data. The Asset and Liability categories are all driven by data; they are just sorted into broad tiers. The secondary categories are more contextual but no less driven by fact.

*So how does it work, in practice?*

Read on.

## The BABS Project

### Chapter 5

# Analyzing the Player Pool

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Most of us will take a look at the player pool and see a massive collection of hundreds – even thousands – of players. The prospect of having to analyze, project, value and rank these players is incredibly daunting.

It's never made a lot of sense to me. How can you precisely say that Player A is better than Player B who is better than Player C? Sure, Clayton Kershaw is better than Clayton Richard, but at the end of the season, does it matter whether I owned Kinsler or Kipnis? Probably not.

But really, how do you decide whether Dee Gordon will be more valuable to your roster than Giancarlo Stanton? And how do you accomplish that task when you don't really know what either player is going to do this year?

Not easy. For starters, we can look at each sub-group of players and get a sense of where value lies, Asset by Asset, and Liability by Liability.

It starts with one basic statement:

**Players with the same asset ratings are pretty much interchangeable.**

This is an important point. We spend so much time trying to find differences between players in order to rank them that we ignore the fact that most of them actually have very similar skills sets. Yes, the numbers they put up might be all over the board but that's a "numbers" problem, not a skills problem. Players are more alike than they are different.

Not all similarly-skilled players are exactly the same, however. Some will have more Liabilities. In your roster-planning process, you'll be making decisions as to how much risk you'd be willing to tolerate.

*An example, please?*

Okay. In pretty much every 2016 fantasy league, Buster Posey got drafted before Jonathan Lucroy. In the National Fantasy Baseball Championship (NFBC), Posey's ADP was No. 19 while Lucroy's was way down at No. 100. This was likely driven by their relative historical performances and Lucroy's spotty injury history.

But here's the thing... on a broad skills basis, both had essentially the same Assets.



You could not make the argument that Posey was better since he was a .300 hitter because Lucroy had demonstrated that skill in the past as well. You could not make the argument that Posey was on a contending team because I've already discounted that general variable... and Lucroy ended up on a contender in 2016 anyway.

So, in evaluating their respective assets, BABS gave them identical ratings. Both had moderate power "p" and significant batting effectiveness "AV". We'll begin notating these as (p,AV). And BABS did rate them both as (p,AV) going into the 2016 season.

**All players who possess the same Asset rating are part of an "Asset Group."**

Posey and Lucroy were both part of the (p,AV) Asset Group, as were nine other players in 2016.

But players cannot be evaluated based on their assets alone. Lucroy also owned a potentially major Liability – his health track record. If you had to choose between the two, you might have opted for Posey based on his clean Liability record alone. But Lucroy's potential acquisition cost was much lower and if you were willing to build his injury risk into your BABS planning – we'll talk about risk budgets shortly – you could have ended up with a huge bargain.

Rank	2016	AB	HR	RBI	R	SB	Avg	R\$
19	Buster Posey	539	14	80	82	6	.288	\$19
100	Jonathan Lucroy	490	24	81	67	5	.292	\$19

**As far as notation, if there are Liabilities, they will be shown as: (p,AV | INJ).**

You have full control over those decisions. BABS lays out all the facts in front of you.

*Hmm. What other players are more "interchangeable" than we'd normally perceive?*

Tons of them. Here are a few profit opportunities you could have had in 2016:

Asset Group	# in Grp	If you missed out on Player	ADP	You could have had Player	ADP
(P+,AV*)	8	Josh Donaldson	5	David Ortiz	111
(PW,AV*)	4	Anthony Rizzo	10	Freddie Freeman	81
(ER,KK)	12	Jake Arrieta	20	Cole Hamels	76

Yes, if you missed out on any of the earlier-drafted players, there was still a comparable commodity several rounds later. These were all very real profit opportunities.

*It's interesting that there were so many pitchers in that (ER,KK) group.*

There are several Asset Groups with even more players. But yes, pitchers tend to flock together. With fewer relevant counting stats, their measurable value rests in

ratio gauges – primarily ERA – that have wider error bars than just about any other metric.

ERAs will always be volatile so the best we can do is focus on the skills. When you put those skills into buckets, you'll find that most pitchers are not much different from one another. What's more, once you get below a certain skills threshold, it hardly matters at all who you put on your roster. You can try to find factors that set individual pitchers apart, but virtually none of it will be projectable in the end.

Interchangeability is even more prevalent with relief pitchers. While there are some whose skills do stand out above the others, *you are drafting these players for saves*, and that is an unpredictable, situational stat. The top saves leaders are different every year, so you should not pay a premium for most of the arms in your bullpen.

### **200 words about position scarcity**

There are many opinions about this. Some analysts live and die by it. Others use it only in certain situations. BABS says that positional scarcity would only matter if we could really project the players at the bottom of the player pool. The numbers are so small and variable in those later rounds – the \$1 end-game – that it hardly matters.

The difference between the last catcher or say, the last outfielder – which is what the positional scarcity reach is all about – is not sufficiently projectable to justify the numbers you give up at the top. For instance, most drafters grabbed Buster Posey early or at a premium because of the shallow catcher pool at the bottom. If Posey was an outfielder, he might be drafted a few rounds later, or a few dollars cheaper. But why give up the potential to draft better numbers at the top of the draft board?

If you're so worried about it, draft your last catcher a round two earlier, or spend \$3 instead of \$1. The premium you'd pay then will likely be less than the premium paid in earlier rounds, and the variability in the stats that late in the draft make those picks far less projectable anyway.

*Okay, so once you sort all the players into Asset Groups, do you then rank the groups?*

Exactly. There is a rudimentary system that I've developed to provide relative value to each Asset and Liability category. This is something that I tinker with constantly because it moves with the distribution of skill and risk in each season. So I would strongly encourage you *not* to place your faith in the black-or-whiteness of any BABS ranking list. Their purpose here is just to allow us to provide a rough ranking of the Asset Groups.

Looking strictly at the major assets – power, batting effectiveness, pitching effectiveness, strikeouts and playing time – here is how I would rank the groups, top to bottom. Obviously, adding speed, the minor categories and the negative impact of

Liabilities changes everything. But this at least gives you a general sense of relative asset strength.

### BATTERS

<u>Playing time</u>	<u>Power</u>	<u>BattEff</u>
F	P+	A+
F	P+	AV
F	PW	A+
M	P+	A+
F	P+	a
F	PW	AV
F	p	A+
M	P+	AV
M	PW	A+
F	PW	a
F	p	AV
M	P+	a
M	PW	AV
M	p	A+
F	p	a
M	PW	a
M	p	AV
M	p	a

### PITCHERS

<u>Playing time</u>	<u>PitchEff</u>	<u>Strikeouts</u>
F	E+	K+
F	E+	KK
F	ER	K+
F	E+	k
F	ER	KK
F	e	K+
M	E+	K+
F	ER	k
F	e	KK
M	E+	KK
M	ER	K+
F	e	k
M	E+	k
M	ER	KK
M	e	K+
M	ER	k
M	e	KK
M	e	k

*Can you explain why the (p,AV) group is ranked lower than the (PW,a) group ?*

Look, they are both really close. Don't get hung up on whether any closely ranked Asset Groups should be rearranged. In the early stages of the draft (which is when those players would appear), you're just looking for the best fits for your roster and the best "buys" as compared to the marketplace. The rankings are just rough approximations of value.

*Okay, then can you explain a little bit more about how you came up with these rankings?*

BABS assigns each player to tiers based on:

**A. Expected playing time**

Playing time sets the initial baseline for ranking purposes. In general, players expected to get full-time opportunities are going to be ranked higher than better-skilled players with lesser opportunity. But it's not absolute, as you can see from the above lists.

**B. Primary assets with minimal risk**

The players in the above Asset Groups will be listed first. They will provide benefit to your team in the most important categories and possess the fewest Liabilities.

**C. Secondary assets with increasing risk**

Standouts in secondary skills will be filtered into the lists at this point, along with players who possess more downside in health and experience.

**D. Decreasing assets with increasing risk**

Everything scales down from here. At some point, you will be faced with groups of players with below average assets (and thus, no ratings) and you'll be choosing players based on those with the fewest Liabilities.

BABS handles the details for you when she generates the ranking reports and cheat sheets. The complete lists for the current season can be found at [RonShandler.com](http://RonShandler.com).

## The BABS Project

### Chapter 6

# Draft Planning

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There is a podcast on Freakonomics Radio called "The Cheeseburger Diet." This is the story of a Louisville, Kentucky housewife who embarked on a year-long project to rate over 100 local burger joints in her city. She decided to devote two days per week to a dinner of cheeseburgers and fries, and then crown a champion at the end of 52 weeks.

However, she recognized that this journey might have an adverse effect on her weight and cholesterol levels, so she paid special attention to her diet and activities during all those non-burger days. At the end of the year, she had gained no weight and saw only a minor change in her cholesterol levels, but found that the extra effort – which she would not have undertaken otherwise – had pushed her towards a healthier lifestyle overall. Win-win.

When we do things that are bad for us, we'll subconsciously try to engage in some compensating behavior to dull the effects of the negative. We all probably do that to some small extent in assembling our fantasy teams. If we draft an injury-prone pitcher, we might make a special effort to stock up on healthier arms, or at least avoid others with health issues. But it's not typically something that we consider a deliberate part of the drafting process.

It needs to be.

Think about the recordkeeping we do during a draft. Most of us probably just add our drafted players to an empty roster sheet. If we are using a laptop, we probably have a spreadsheet or software program that displays our team's projected bottom line stats, maybe compared to targets that we've set. We might even see projected in-process standings for all the teams in our league (a wonderfully pointless exercise).

This is all driven by our inaccurate projections. Given that these projections attempt to incorporate both skill and risk factors into the stats themselves, the end result is one big mess. What's more, it's a one-dimensional view of our players and our team, and that's just not good enough.

BABS provides a two dimensional view of every player, and your team. It offers a visual representation of your roster that shows us how much risk we are incurring alongside our Assets.

Take a look:

ASSETS									LIABILITIES						
BATTER	Pos	Tm	PT	Pw	Sp	Av	Pk	Rg	Av	Inj	Ex	Nw	Pk	Ag	Rg
	ca														
	ca														
	1b														
	3b														
	ci														
	2b														
	ss														
	mi														
Trout	of	LAA	F	P+	s	AV*									
	of														
	of														
	of														
	of														
	ut														
PITCHER	Pos	Tm	PT	Er	K	Sv	Pk	Rg	Er	Inj	Ex	Nw	Pk	Ag	Rg
	sp														
	sp														
	sp														
	sp														
	sp														
	p														
	p														
	rp														
	rp														

Your legend:

#### ASSETS

##### BATTERS

PT Playing time  
Pw Power rating  
Sp Speed rating  
Av Batting effectiveness rating

Pk Positive ballpark impact  
Rg Positive regression

##### PITCHERS

PT Playing time  
Er Pitching effectiveness rating  
K Strikeouts rating  
Sv Saves rating

#### LIABILITIES

Av/Er Batting/Pitching effectiveness downside risk  
Inj Injury risk  
Ex Experience risk  
Pk Negative ballpark impact  
Ag Age

Rg Negative regression

This is a balance sheet, but it's also a "pencil game." The object is to fill in as many boxes as possible on the Assets side while filling in as few boxes as possible on the Liabilities Side.

*This is starting to sound juvenile.*

Simple, but structured. Remember? Obviously, you don't have to use paper and pencil; you can do this all in a spreadsheet. I'll be providing links to the templates in the Appendix.

And it's not just filling boxes. There are also some goals.

*Targets?*

Exactly. Based on the distribution of playing time and skill within your league's draftable player population, we can determine how many units – or boxes – are needed to assemble a competitive team.

*You're losing me again.*

Okay, let's take a step back and start from the beginning.

### **Drafting playing time**

The process of planning out your roster starts with **playing time**. The goal in any fantasy draft is to roster players who will give you the most plate appearances and innings in order to maximize the potential for counting stats.

Ideally, you'd love to have a full-time regular, productive player occupy every roster spot for the whole season. Of course, while that's an admirable goal, it's never attainable. Injuries are the biggest obstacle to achieving full productivity out of your draft roster. In 12-team AL/NL-only leagues, it's darn near impossible to fill all 23 spots with full-time players; there are just not enough of them. But that should not stop us from setting some reasonable goals.

*Okay, I get that. But how does this relate to **my** leagues?*

Here are the actual numbers. I will be talking in terms of the three most common league sizes – 15-team mixed, 12-team mixed and 12 team AL/NL-only – with standard 23-man rosters (14 batters, 9 pitchers). If your league has a different number of teams or player pool penetration, you can easily pro-rate the targets based on your own league configuration. It's just math.

For batters, **on average:**

In a 12-team mixed league, you should be able to fill every batter spot with a full-timer. In fact, a good 15 percent of your free agent pool will still have full-timers.

In a 15-team mixed league, you should be able to fill 92 percent of your active roster spots with full-timers. That's 13 of your 14 batter spots.

In a 12-team AL/NL-only league, you should be able to fill 57 percent of your active roster spots with full-timers. That's 8 of your 14 batter spots. If you think about it, you're usually able to draft full-timers at 1B, 2B, 3B, SS, and four of your outfielders. Everyone else is usually a platoon/part-timer or playing time speculation.

For pitchers, **on average:**

In a 12-team mixed league, there are more than enough starting pitchers (minimum 120 IP) to fill your complete 9-man staff, should you choose. There are enough front-line 180-inning starting pitchers for every team to draft five of them.

You could fill your complete staff with starters in a 15-team mixed league as well. There are enough 180-inning starting pitchers for every team to draft four of them.

In a 12-team AL/NL-only league, there are only enough starting pitchers to fill six spots on each team. If you're targeting 180-inning starters, there are only enough for 2-3 spots per team.

There are typically upwards around 50 relievers projected to have a significant piece of the saves puzzle in any given year. In 12-team and 15-team mixed leagues, every team should be able to roster three potential closers. In a 12-team AL/NL-only league, all teams should be able to roster two of them. Needless to say, if you focus only on the surer bets, the availability gets much more scarce.

These are averages, but from a goal-setting perspective, they are also minimums. Ideally, you'd want to exceed as many of these as possible to give yourself an edge, but playing time is a scarce commodity and everyone will be scratching and clawing for as many regulars as possible. So this is one area where just achieving the minimums might need to be enough. Once you have a solid foundation on the playing time side, you can focus your efforts of exceeding the averages on the skills side. You'll find more opportunities there anyway.

Another True Life Story:

"Once upon a time (in the mid-2000s), there was a fantasy writer named Jason Grey. He was one of the best fantasy players in the land, winning multiple titles and always contending in the Tout Wars-AL national experts league. Jason's edge was



simple, but brilliant – he'd constantly draft more playing time than anyone else. The caliber of player drafted almost didn't matter because even mediocre regulars stood to contribute in the Runs and RBI categories. Jason would routinely grab 10-12 full-time batters and overwhelm the opposition in counting stats.

Of course, everyone else eventually caught on and Omar Infante started getting bid up to double-digits. But for a few short years, Jason was a superstar. Then he got hired by a Major League ballclub so it didn't matter any more and he lived happily ever after. The end."

The moral of the story is, "Even a blind squirrel will find an occasional nut."

No, no, we all like Jason.

The real moral: "If you can grab an edge in playing time, don't pass it up." This is especially true on offense. It's different for pitching. Stockpiling innings is not always a smart tactic. If you dig a hole in ERA or WHIP, those are tougher to dig out of with too many innings on the books.

These are your minimum goals, summarized. I'd shoot for the 180+ IP goals for starting pitchers but be flexible with the rest of your staff, especially if it's the choice between innings and skill.

<u>Minimums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Full-time batters	14	13	8
All starting pitchers	6	7	6
180+ IP SPs	5	4	2
Closers	3	2	1

### **Drafting skill and risk**

We already know that any player who rates in the upper half of a particular **skill** is going to have a BABS rating. A batter with above average power will get a p, PW or P+, depending upon how much above average he is. Those with "p" are just above the mean; those with "PW" and "P+" are higher on the scale. Got that so far?

*I think so.*

However, skill is not evenly distributed across the player population, so you have to set different targets for each skill. For instance, there are fewer players who have above average speed, so you have to pay more attention to how you draft stolen bases.

*Wait. I thought average meant that there would be just as many players above as below.*

Not necessarily. The skills of guys like Dee Gordon and Billy Hamilton are so far above the mean that they drive up the average. That reduces the number of players who actually have "above average" skill. Stated another way, let's say we decide that the measurable range of batting average, for simplicity's sake, is from .200 to .300. The top 10% would be those players who bat between .290 and .300. Then any number of players might fit within that range.

Some of the skills are very scarce. You should have little problem rostering pitchers with an above average ERA but if your plan is to target one of baseball's elite arms (E+), you are probably going to have to jump in early or pay a lot. Only about two percent of pitchers own that extreme skill.

But it's good to plan for acquiring at least some extreme skilled players, in any category. The more of them you can grab, the more flexibility you'll have later on if you end up with some holes in your roster. I'll demonstrate that in a minute.

At minimum, you want to roster at least average skill in each category:

### **BABS Asset Minimum Targets**

(Assuming a standard roster with 14 batters and 9 pitchers.)

<u>Asset Minimums</u>	<b>NUMBER OF PLAYERS</b>		
	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Power	14	14	9
Speed	8	7	4
Batting Effectiveness	14	14	9

On the surface, this looks pretty straightforward until you recognize that these skills are not distributed evenly among all positions. In particular, it would be nice to roster eight speedsters in a 12-team mixed league if not for the fact that catchers and most corner infielders don't run. If stolen bases remain a scarce commodity as they were in 2016, you can see how difficult it would be to meet these targets.

The solution is just to do the best that you can. This only exacerbates the need to make sure you draft enough speed. Any player with a (S+) rating is a god, as you'll see in a few paragraphs.

<u>Asset Minimums</u>	<b>NUMBER OF PLAYERS</b>		
	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Pitching Effectiveness	9	9	9
Strikeouts	9	9	9

It is interesting that there is more than enough good pitching for all teams in all leagues to field a solid-skilled staff. But the problem is that many of those players are relievers. So if you were willing to forego innings for skill, you should have no problem maximizing out your pitching categories.

Of course, that's not how most of us play the game. If we were to restate these minimums for **starting pitchers only**, the chart would look like this:

<u>Asset Minimums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Pitching Effectiveness	7	6	4
Strikeouts	7	6	4

Now it becomes a bit more of a challenge. In AL/NL-only leagues, an average team would be expected to roster only four above-average skilled ERA or strikeout starting pitchers. Those numbers are not mutually exclusive so there will be some pitchers who are above average for ERA, some who are above average for strikeouts and some who are above average for both. In fact:

<u>Asset Minimums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
BOTH Pitch Eff. and Ks	5	4	Just under 3

It's a bit more of a stretch.

The above charts represent your targets, however... **If you build your team exactly to these averages, you will have... an average team.** Anything above that makes you at least minimally more competitive.

So the goal is always to exceed these targets.

*I understand that these are my targets. But what if it says I should be able to fill all my batter spots with power and I want to draft a perfectly good player like Billy Hamilton?*

This is where owning players with extreme skills comes in handy. Every time you roster a player with a P+, S+, A+, E+ or K+, you buy yourself a free open spot. So, if you roster a power hitter with a (P+) rating, that would effectively offset Hamilton's BABS void in power. It works the same way with all the categories. As I noted a few paragraphs ago, (S+) players are gods because they buy you an extra notch toward the difficult-to-reach speed targets.

*Okay I get that. But shouldn't Hamilton's lack of power be considered a Liability?*

Hamilton's lack of power could be considered a liability, but a lack of counting stats doesn't inherently do damage to your team. There are lost opportunity costs from not being able to roster a better player, but it's different in the ratio categories. A bad batting average or ERA can do real damage. That's why those are considered Liabilities.

You decide how much of a balanced roster you draft. However, at the end of the final round (or when the last of the auction dollars is spent, or when the last beer is gone – however it is you decide when the draft is over), you should have at least a minimum number of Asset boxes filled on your grid:

NUMBER OF ASSET UNITS		
<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
50	47	30

These are what average teams will have. Your goal is to have more.

*Wait a minute – I think I might have missed something. When we are counting up the Assets for a player, how should we account for the three levels of skills when trying to reach the targets? Is it as simple as the top skill equals 3 units, middle equals 2, and the last equals 1 (e.g. P+ = 3, PW = 2, p = 1)?*

Our analytical brains lure us into wanting to do that, but BABS says – NO! Each Asset (and Liability) is considered a single unit; BABS does not attach specific weights to each level. The goal is to have an above average Asset to meet each target. You want to avoid having blank cells in your roster spreadsheet. BABS is all about balance. No holes.

*But... but... In a mixed 15-team league, if I rostered 14 guys with “p” ratings for power, I would just be average for my league. But, if had 10 guys with “p” ratings and 3 guys with PW ratings, isn't that better?*

Sure, in theory. But stocking up and concentrating your power skill in fewer players, leaving holes elsewhere, leads to an unbalanced roster and exposes you to more potential risk. Again, with BABS, balance is important.

If your target is 14 players with above-average power skill...

<u>P+</u>	<u>PW</u>	<u>p</u>	<u>No power</u>	
0	0	14	0	Good. Minimum balanced roster.
0	7	7	0	Good. Additional strength.
1	8	5	0	Good. Even better.
2	6	6	2	Still good. Adds two extreme skills.
2	5	3	4	No good. Imbalanced power. Too many holes.
4	1	4	5	No good. Power stars and scrubs. Too many holes.

You start with balance first and then build strength from there. If you do anything else, BABS will hunt you down and put a curse on your disabled list. Don't cross her.

*Still... why didn't you just use numeric values (e.g. P+=3, PW=2, P=1, etc.) instead of letter values (P+, PW, P, etc.)? It would have made it so much easier for my spreadsheet to do the math to calculate my needs in each category.*

Sigh. Because this is not about math, or the precision that math implies. Nobody can calculate that “P+” is exactly “x” times better than “PW” or “p”. Admittedly, it’s tough for those of us who have the math ingrained (like me!) to wrap our brains around a system that does not use numbers.

For what it's worth, BABS majored in Medieval Literature in college. It's quite possible that all of her codes have some root in Latin.

### **BABS Liability Maximums**

(Assuming a standard roster with 14 batters and 9 pitchers and based on each league's draftable player pool. Players outside the pool typically have more elevated risk factors.)

<u>Liability Averages</u>	<b>NUMBER OF PLAYERS</b>		
	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
<b>BATTERS</b>			
- Batting Effectiveness	0	0	0
Health Risk	3	4	2
Experience Risk	3	4	2
<b>PITCHERS</b>			
- Pitching Effectiveness	0	0	0
Health Risk	2	2	1
Experience Risk	2	2	1

These Liability levels represent the number of risky players an average team would have if all rosterable players were divided up equally. In most cases, you are going to want to consider these as *maximums* – your risk budget.

(If you are maximizing your Assets on the batting and pitching effectiveness side, then the negative offsets won't be a concern. That's why there are zeroes across the board above. There are enough rosterable players that you don't need to draft someone who would be a drag on those ratio categories. But if you find yourself getting shut out on the better players, you want to at least avoid those who are Liabilities.)

You decide how much risk you want to take on, but at least you now know what an average team would bear. However, at the end of the final round (or when the last of the auction dollars is spent, or the beer... well, you know), if you've rostered an average amount of risk, you would have no more than these number of Liability boxes filled on your grid:

<b>NUMBER OF LIABILITY UNITS</b>		
<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
10	12	6

These are what average teams will have. Your goal is to have fewer.

Once more, your targets. These are the number of boxes you need to have filled in by the end of your draft to have constructed a team of *average* playing time, skill and risk.

	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Full-time batters	14	13	8
Starting pitchers	6	7	6
180+ IP	5	4	2
Closers	3	2	1
Minimum Assets	50	47	30
Maximum Liabilities	10	12	6

You'll note that we want to have far more Asset units than Liability units. It's the same concept as eating healthy for five days so that we can have our cheeseburgers over the weekend.

Now let's add these targets directly to the BABS worksheet:

ASSETS									LIABILITIES						
BATTER	Pos	Tm	PT	Pw	Sp	Av	Pk	Rg	Av	Inj	Ex	Nw	Pk	Ag	Rg
	ca														
	ca														
	1b														
	3b														
	ci														
	2b														
	ss														
	mi														
	of														
	of														
	of														
	of														
	of														
	ut														
12 MIXED			14	14	8	14			0	3	3				
15 MIXED			13	14	7	14			0	4	4				
12 AL/NL			8	9	4	9			0	2	2				
PITCHER	Pos	Tm	PT	Er	K	Sv	Pk	Rg	Er	Inj	Ex	Nw	Pk	Ag	Rg
	sp														
	sp														
	sp														
	sp														
	sp														
	p														
	p														
	rp														
	rp														
12 MIXED			6/3	7	7	3			0	2	2				
15 MIXED			7/2	6	6	2			0	2	2				
12 AL/NL			6/1	4	4	1			0	1	1				

Your goal is to do better.

You are now almost ready to head out to your draft. There is one critical missing piece – the marketplace.

## The BABS Project

### Chapter 7

# Marketplace Analysis

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You still with me?

*Yeah, I'm still processing this. I'm not sure I agree with all of it. I don't like giving up my numbers.*

New ideas take time. But there is one more very important piece. All this BABS intelligence is just half the story. If you use the BABS ranking sheets alone, you will likely overdraft/overpay or underdraft/underpay for most of your players, and randomly.

So we need the collective mindset of the marketplace as a set of markers for your draft prep. We need ADPs and AAVs (average auction values). Otherwise we're just drafting in a vacuum. The marketplace tells us what our competitors may be thinking, which also tells us what we are going to have to pay (in auction dollars or draft slots) to get our players. You should never draft exclusively off an ADP list or off of BABS alone (she gets a little cranky).

It's the marriage of the two that makes the magic. Or rather, the players with the most conflict provide the best opportunities for profit.

*Hardly a marriage at all. Sounds more like we should be looking for irreconcilable differences.*

Agreed. We need to know the players where the marketplace and BABS disagree the most. We're looking for the biggest discrepancies. When BABS is higher on a player than the marketplace, that's a profit opportunity. When the marketplace is higher on a player than BABS, that's a player you pass on.

*So, what is the marketplace saying these days?*

The marketplace typically says the same thing each year. A value is placed on each player based on some general criteria. The following list is in declining order of impact, more or less:

- Performance history, highly influenced by the most recent performance
- Health history and current injury concerns
- ADPs and pricing of previous drafts
- Team context, especially for players who have changed teams
- Media hype
- Personal preferences, including hometown bias



Let's take a look at how these criteria evolve into benchmarks for the marketplace.

It all starts in the fall, when the first pioneers of the future season decide to have a mock draft. Some of the spring annuals have ridiculously early deadlines (December for some) and have to conduct their mag's mock around Thanksgiving. It's mere weeks after the last out of the World Series, well before the Winter Meetings or when free agents have started to sign. All that these first published lists and mock drafts have to rank players is the recency bias of the previous season and speculation about the following season.

The next set of lists and mocks might come out a few weeks later, maybe around the time of the Winter Meetings but still well before all the free agents have found homes. There is still little information to analyze, so these next rankings will tend to feed off the first ones.

The more of these that are published over the winter, the more these early ranks gain a footing and we start forming opinions about where players should be drafted. Before you know it, we reach critical mass. The rankings became less about reality and more about group-think. Once spring training camps open, our expectations are all pretty much locked in.

For instance, back in the fall of 2015, everyone was excited about Carlos Correa after his late season debut. A few people decided to push the envelope with a first round selection in early mock drafts. The pick gained traction over numerous winter mocks and Correa never fell out of first round consideration after that. He'd enter the season ranked No. 6 overall. He'd finish 2016 outside the top 70. (Yes, Correa keeps popping up as a cautionary tale.)

The resulting group-think is powerful information if used properly. You can compare those rankings to *what BABS thinks* (she's the authority) to help determine a draft strategy for each player, or type of player.

For instance, a player with a 7th round ADP who BABS sees as a potential 5th round talent becomes a prime 6th round target. A player with a \$27 AAV who BABS sees as \$30-plus talent becomes a prime buy candidate at anything under \$30 and a potentially still-prudent buy once bidding hits the \$30s.

But these rankings and ADPs can do more harm than good if you use them *alone* to set your own expectations.

*Nah... I draft whoever I want. I'm not swayed by the ADPs.*

Maybe. But I'd wager a guess that you're more locked in than you think. Let's say it's pre-season 2017 and I make a very convincing argument that Freddie Freeman should be drafted ahead of Nolan Arenado. You might consider my analysis, and

even if you agree, you will be reluctant to change your expectations much. Why? Because all the published analyses list Arenado as a 1st-rounder and Freeman not. Shandler is just one voice in a crowd no matter how strong my argument might be. And frankly, you don't want to risk public scorn by drafting Freeman too high.

*But Freeman is not a first-rounder.*

Why not? How do you know? There are many players who are not considered first-rounders but who could be. In fact, I'll bet you don't remember that these players once generated first round earnings: Adam Jones, Hunter Pence, Chase Headley, Curtis Granderson and Mark Reynolds.

*Mark Reynolds? C'mon.*

He was the 12th best player in baseball in 2009. It happens.

I can't stress enough about the realities of group-think expectations. Heading into 2015, the marketplace convinced us that Giancarlo Stanton was sturdy enough to justify the No. 4 overall pick, that potential alone lifted Yasiel Puig into the top 25 and that one outstanding season made Felix Hernandez the second best pitcher in baseball. Heading into 2016, the marketplace convinced us that Bryce Harper's track record justified a top 3 pick, that one down season was enough to push former 20-20 stalwart Ian Desmond outside the top 100 and that Giancarlo Stanton was sturdy enough to justify the No. 10 overall pick. Ha!

Some time shortly, you are going to look at the BABS lists online and you might even think, "These rankings are all wrong. There is no way Player X should be ranked that low/high." Sure, BABS *might* be wrong, but no less wrong than the ADP list you've been using. And given the way BABS is constructed, she just might be a little more right.

Now it's time to put it all together.

*How? I feel like I'm floating out in space with no idea of where I should be drafting any player. Are you saying that I should target the players I want and then let the marketplace determine where to take them?*

You have no choice. That's how we play the game. As much as you think you have control over your team, the market has *always* determined who you end up with. In auctions, you always have to pay \$1 more than everyone else. In snake drafts, your picks are whatever is left over after everyone else gets theirs. Even in salary cap games, the marketplace is your salary cap.

You have to keep the idea in your head that the ADPs and AAVs that everyone else is working off of are wrong — history proves that time and time again — and anything you can do to separate yourself from the group-think will be to your advantage. The

beauty of BABS is that, while other owners are trying to decide “should I or shouldn’t I?” when it comes to risky players, you’ll be able to see each player’s true skills profile separate from his risk, and decide whether he fits into your roster plan.

So rather than fighting the current, use it to your advantage. The challenge is targeting the right players. BABS will help you do that. If you may *think* one player is better than another and then adjust your draft strategy, BABS says – NO! You don’t know how these players are going to perform. So plan out how you want your roster to look, set your Asset and Liability targets, and then follow the market...

...which is a process that starts – NOW.

## The BABS Project

### Chapter 8

# The Draft

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Let's jump right into it.

The players on the BABS list are not ranked at all. They are slotted into their respective Asset Groups; those with similar profiles are presented together. It is these Asset groups that are ranked, and even those ranks are just rough approximations. But it will still be enough for you to draft from.

*Okay, okay. Can I see it already??*

Yes. It's time. An excerpt of the 2016 list appears below as a learning tool. Print it out so you can follow along. As I've mentioned a few times already, the current list is online at [RonShandler.com](http://RonShandler.com).

(Note that the format appearing here may differ somewhat from what appears online. This book was written concurrently with the development of a database that will drive the online charts, but this is being published prior to the launch of the online tool.)

### **What's on this Spreadsheet?**

At the top of the spreadsheet is a **blank roster grid**. You'll keep track of your team during the draft by entering their information in the grid.

(Membership to [RonShandler.com](http://RonShandler.com) gets you this spreadsheet as a downloadable file, which will allow you to cut and paste your players into the appropriate position on the grid.)

Broad Assessment Balance Sheet																
YOUR TEAM ROSTER	Pos	Tm	PT	Pw	Sp	Av	Pk	Rg	Av	Inj	Ex	Nw	Pk	Ag	Rg	
	ca															
	ca															
	1b															
	3b															
	co															
	2b															
	ss															
	mi															
	of															
	of															
	of															
	of															
	of															
	ut															
	Target															
	Pos	Tm	PT	Er	K	Sv	Pk	Rg	Er	Inj	Ex	Nw	Pk	Ag	Rg	
	sp															
	sp															
	sp															
	sp															
	sp															
	sp															
	p															
	rp															
	rp															
	Target															
	resv															
	resv															
	resv															
	resv															
	resv															
	resv															
	Target															

The grey Target bar is where you should input your Asset goals and Liability limits, based on the data in Chapter 6. Then as the draft progresses, you'll be able to keep up with where you are and where you need to be. Beneath the roster is your player list. The first two columns represent the marketplace – each player's average draft position ranking and ADPs converted to dollar values. The rest is all BABS. Ain't she great? Let's look at an excerpt from 2016's pre-season ranking list:

Marketplace		ASSETS										LIABILITIES					
ADP	\$\$	BATTER	Pos	Tm	PT	Pw	Sp	Av	Pk	Rg	Av	Inj	Ex	Nw	Pk	Ag	Rg
		PITCHER	Pos	Tm	PT	Er	K	Sv	Pk	Rg	Er	Inj	Ex	Nw	Pk	Ag	Rg
1	\$48	Trout, Mike	8o	LAA	F	P+	s	AV									
4	\$41	Kershaw, Clayton	SP	LA	F	E+	K+										
2	\$46	Goldschmidt, Paul	3	ARI	F	P+		AV									
3	\$43	Harper, Bryce	o9	WAS	F	P+		AV				inj-					
5	\$39	Donaldson, Josh	5	TOR	F	P+		AV									
7	\$38	Arenado, Nolan	5	COL	F	P+		AV									
9	\$36	Stanton, Giancarlo	o9	MIA	F	P+		AV				inj-					
13	\$33	McCutchen, Andrew	8o	PIT	F	P+		AV									
21	\$28	Encarnacion, Edwin	3	TOR	F	P+		AV									
36	\$23	+	Votto, Joey	3	CIN	F	P+	AV									Rg
111	\$12	+	Ortiz, David	0	BOS	F	P+	AV								Ag	
16	\$31		Pollock, A.J.	8o	ARI	F	p	SB	AV								
17	\$30		Betts, Mookie	o8	BOS	F	p	SB	AV				e				
23	\$27		Marte, Starling	o7	PIT	F	p	SB	AV								
35	\$23		Blackmon, Charlie	o8	COL	F	p	SB	AV								
48	\$20	+	Upton, Justin	o7	DET	F	P+	s	a								
14	\$32		Scherzer, Max	SP	WAS	F	ER	K+									
26	\$26		Sale, Chris	SP	CHW	F	ER	K+									
25	\$26		Springer, George	o9	HOU	F	PW	SB	a			INJ	e				
18	\$29		Gordon, Dee	4	MIA	F		S+	AV								
103	\$12	+	Revere, Ben	o78	WAS	F		S+	AV					Nw			
10	\$35		Rizzo, Anthony	3	CHC	F	PW	AV									
15	\$31		Cabrera, Miguel	3	DET	F	PW	AV				inj-					
22	\$28		Abreu, Jose	30	CHW	F	PW	AV									
39	\$22		Cespedes, Yoenis	o78	NYM	F	PW	AV									Rg
43	\$21		Braun, Ryan	o9	MIL	F	PW	AV				INJ					
47	\$20		Tulowitzki, Troy	6	TOR	F	PW	AV				inj-					Rg
55	\$19		Seager, Corey	6	LA	F	PW	AV					EX				
57	\$18	+	Jones, Adam	8o	BAL	F	PW	AV									
66	\$17	+	Gonzalez, Adrian	3	LA	F	PW	AV									
70	\$16	+	Carpenter, Matt	5	STL	F	PW	AV									Rg
81	\$15	+	Freeman, Freddie	3	ATL	F	PW	AV				inj-					
107	\$12	+	Dickerson, Corey	o7	TAM	F	PW	AV				inj-	e	Nw			
187	\$7	+	Conforto, Michael	o7	NYM	F	PW	AV					EX				

256	\$3	+	Lind,Adam	3	SEA	F	PW		AV							Nw	Pk		
20	\$28		Arrieta,Jake	SP	CHC	F	ER	KK											Rg
28	\$25		Bumgarner,Madison	SP	SF	F	ER	KK											
33	\$24		Harvey,Matt	SP	NYM	F	ER	KK											
38	\$22		deGrom,Jacob	SP	NYM	F	ER	KK											
40	\$22		Kluber,Corey	SP	CLE	F	ER	KK											
41	\$21		Strasburg,Stephen	SP	WAS	F	ER	KK						inj-					
46	\$20		Syndergaard,Noah	SP	NYM	F	ER	KK						e					
49	\$20		Archer,Chris	SP	TAM	F	ER	KK											
50	\$19		Carrasco,Carlos	SP	CLE	F	ER	KK											
51	\$19		Hernandez,Felix	SP	SEA	F	ER	KK											
76	\$15	+	Hamels,Cole	SP	TEX	F	ER	KK											
89	\$14	+	Ross,Tyson	SP	SD	F	ER	KK											
24	\$27		Davis,Chris	3o90	BAL	F	P+		a										Rg
27	\$26		Bautista,Jose	o90	TOR	F	P+		a										
37	\$22		Martinez,J.D.	o9	DET	F	P+		a										
42	\$21		Frazier,Todd	5	CHW	F	P+		a							Nw			
44	\$21		Cruz,Nelson	o90	SEA	F	P+		a									Ag	Rg
56	\$18		Gonzalez,Carlos	9o	COL	F	P+		a					inj-					Rg
80	\$15	+	Kemp,Matt	o9	SD	F	P+		a										
126	\$10	+	Davis,Khristopher	o7	OAK	F	P+		a					inj-		Nw	Pk		
141	\$9	+	Duda,Lucas	3	NYM	F	P+		a										
178	\$7	+	Teixeira,Mark	3	NYN	F	P+		a					inj-				Ag	
54	\$19		Gomez,Carlos	8o	HOU	F	PW	s	a		Rg								
6	\$38	X	Correa,Carlos	6	HOU	F	p		AV						EX				Rg
8	\$37	X	Machado,Manny	5	BAL	F	p		AV					inj-					
19	\$29	X	Posey,Buster	23	SF	F	p		AV										
53	\$19		Cano,Robinson	4	SEA	F	p		AV										
67	\$17		Hosmer,Eric	3	KC	F	p		AV										
87	\$14		Pujols,Albert	30	LAA	F	p		AV					INJ				Ag	
95	\$13		Beltre,Adrian	5	TEX	F	p		AV					inj-				Ag	
97	\$13		Lucroy,Jonathan	2	MIL	F	p		AV					inj-					
106	\$12	+	Pence,Hunter	o9	SF	F	p		AV					INJ					
116	\$11	+	Peralta,David	o7	ARI	F	p		AV					e					
269	\$3	+	Martinez,Victor	0	DET	F	p		AV									Ag	
62	\$17		Davis,Wade	rp	KC	-	E+	K+	SV										
64	\$17		Chapman,Aroldis	rp	NYN	-	E+	K+	SV						Nw				Rg





*And in fact, Votto earned \$30 in 2016, generating profit for those owners who purchased him at market rates.*

For some players, the marketplace is far too bullish. For those, you'll find a big red "X". If you draft according to these rankings, you'll likely never get down far enough to consider them because they will have already been drafted by someone else.

*And in fact, every one of the "X" players on this abbreviated list failed to earn back their draft price.*

### **Assets**

Within each tier, the players are assembled by their respective Asset Groups. So all the (P+,AV) players are listed together, all the (ER,KK) pitchers, and so on. Within those skills groups, players are ranked by ADP. I do this so we can easily see how the marketplace values each set of skills. This also helps us uncover the profit and loss opportunities. For instance, it is important to know that, while there were nine players with an identical (P+,AV) profile, the marketplace ranked them from No. 2 overall down to No. 111.

*Imagine how much profit David Ortiz owners took home!*

### **Liabilities**

Each player's Liabilities are scattered throughout the list. There might be value in ranking players within each group by these risk factors, but we'd lose the ability to maintain a handle on the marketplace. So it is up to you to always have an eye on the Liabilities when you draft a player. They could have a huge impact.

### **Using the BABS spreadsheet at your draft**

When a player is nominated for bidding, or selected by another team, find him on the spreadsheet. If another team acquires him, cross him out. If you acquire him, enter his information into the appropriate row on your blank roster. This can be a manual process or you can delete rows and cut/paste the information from Excel. Your CTL-F (or CMD-F) function to locate these players comes in very handy.

As you continue to delete rows of players, the pockets of talent and tiers will thin out. It will become more and more obvious when you need to jump in on a particular skill or type of player.

Your profit opportunities will bubble to the top as other owners will likely have those players ranked lower on their lists. BABS keeps them on your radar constantly, so you can pick which ones best fit the needs of your roster, and at the appropriate time.

If you see a run on a stat, position or role (e.g. stolen bases, catchers or closers), especially if it occurs on players further down the list, you may need to jump ahead, but you should be able to stick to the list for nearly all your picks.

As you fill your roster, keep an eye on your targets. If you start falling behind on a specific Asset, you'll need to look ahead on the list to see what your options are.

At the end of the draft, you should have a very good idea of the strengths and weaknesses of your roster. Remember that the draft is just a starting point; there is a long season ahead. As long as you've built a solid foundation, you'll have plenty of time to make adjustments as needed.

*Whoa, whoa, wait a minute. Are you saying that I have to run my draft with a spreadsheet? Seriously? What is this, the 1990s?*

Okay, I should address this. For those who use software programs to run their drafts, you are going to miss the bells-and-whistles that calculate inflation on the fly, provide in-draft projections, and do everything except clean the oven. I have great respect for the folks who have created such programs, but they lull us into a comfortable place with faux precision. All their calculations and fancy charts are driven by projections... and by now you know what I think about anything powered by projections.

The evidence that the results are far less valuable than you think rests in the pro-forma standings that these programs spit out at the end of your draft. How much validity do you put into those?

*Um, pretty much none.*

I thought so. But shouldn't you? You've spent all that effort to build a team that generates the best set of projections. Shouldn't you take the results more seriously?

*It's a long season.*

Sure is. But BABS thinks you should start with a foundation that's not so locked into a fixed set of numbers. We simply don't know what those numbers are going to look like by October.

So yes, this spreadsheet will be a step back, a journey into retro-drafting of the 1990s. Yes, it will require a little more hands-on work. But deep down you know that a turnkey tool is never quite as valuable as one where you have to roll up your sleeves a bit.

And who knows? Once everyone falls in love with BABS, maybe she'll agree to be automated too. Sorta like Ex Machina.

## The BABS Project

### Chapter 9

# BABS in Auctions

---

I've been playing in auction leagues for more than 30 years. And I spent pretty much all of that time worried about optimal budgeting, getting the best values and not overpaying for players. I've agonized over whether to go an extra buck, how long to stay in bidding wars and making sure I spent all my \$260.

*You're a true auction pro.*

Yeah, but BABS says I'm spending too much energy on meaningless things. And I worry too much.

When it comes to using BABS in an auction league, everything starts with this paragraph from Chapter 1:

*"There is only a 65% chance that a player projected for a certain dollar value will finish the season within plus-or-minus \$5 of that projection. That means, if you project a player will earn \$25 and you agonize when bidding hits \$27, there is really about a 2-in-3 shot of him finishing anywhere between \$20 and \$30."*

This tells me that the best we can reasonably do in setting auction budgets is to work in \$10 spans. That provides us with a 65 percent chance of being on target. So that is the best place to begin, and BABS already does part of the work for us.

As shown earlier, BABS presents all the players in Asset Groups. Within those groups, she ranks them by market value. That market value is presented in \$10 ranges, so the "Over \$30" range is listed first, followed by the \$20-29 range, and so on down to the end-gamers.

In the \$30+ range, for instance, some players will cost significantly more than \$30 – and possibly earn as much. Some will cost less, but could still earn over \$30. These latter players represent your best shot at profit, though at this tier of talent, par is the goal; profit is gravy.

Profit opportunities increase the further you go down the list – the \$20-\$29 players and then those who will likely go in the teens.

Once you get to the single digit players, you should not be agonizing over individual dollars (frankly, that goes for any tier) because there is little projectability at this level. A small handful of wind-blown home runs (and associated runs and RBIs) can turn a \$3 player into a \$7 player. Don't sweat it.

The point is that your focus should be primarily on rostering the best players, and secondarily on the cost.

*But you can't have all the best players. So how do you budget?*

To start off, I would split the difference within each \$10 range. If we're projecting a group of players to earn somewhere between \$20 and \$30, then call that a \$25 tier. In planning out your roster, you should budget for \$35 players, \$25 players, \$15 players and \$5 players. That's how we'll label our auction tiers.

*Hmmmm. This is getting far too fuzzy. Are you saying that anyone valued between \$20 and \$30 would be classified as a \$25 player?*

Yup. For those of us used to planning out our rosters in finer dollar detail, this is going to cause some discomfort. Take a TUMS. As much as we want to think otherwise, you can't get any more precise than this.

You *can* use dollar values to get a sense of what the marketplace is paying for each player. But it is counterproductive to fixate on those numbers.

As you build out your roster, you'll continue to keep track of your profit and loss on each pick, just like you'd do normally.

Within each tier is where you can do more detailed roster planning. In the \$35 tier, for instance, you have your choice from among many different Asset Groups – some (P+,AV), some (p,SB,AV), etc. You could bypass that tier completely and build your team around multiple (PW,AV) and (P+,a) players in the \$25 tier. *It's essentially the same decision-making process that you normally employ, building your roster with stars and scrubs, or spreading your risk.*

How you design your team comes down to three considerations:

**1. The market prices of the players.** Is the marketplace too high on the players in an Asset Group? Is there opportunity for profit?

Let's say there are a dozen pitchers in the (ER,KK) group, ranging in market price from \$28 down to \$15. If you had planned that your anchor starter would come from this skills group, you now know that you don't necessarily have to spend \$28 here. You can budget for a lower-priced arm and still feel confident that you'd be rostering comparable skills value.

<u>Mkt\$</u>	<u>Player</u>	<u>Assets</u>	<u>Liabilities</u>
\$28	Jake Arrieta	ER,KK	Rg
\$25	Madison Bumgarner	ER,KK	
--	--		
\$19	Felix Hernandez	ER,KK	
\$15	Cole Hamels	ER,KK	

You can spend \$28 for Arrieta or \$15 for Hamels. Same underlying skills; your choice.

**2. The depth of each Asset Group.** The deeper the Asset Group, the more chances you have to get the players you need. Yes, you can plan to purchase Clayton Kershaw – who is the only (E+,K+) starting pitcher – but if some crazy owner bids him up to \$50, you are going to have to restructure your plan pretty quickly. Plan your targets from groups that have many players so you have more shots at drafting the types of players that fit your roster goals.

**3. Your assessment of the Assets and Liabilities of the players within each tier.** Do the Asset Groups provide the skills that you need? If you targeted a specific group, how much risk would you have to incur?

Say there are four available players in the (p,AV) group, but nearly all of them have some injury risk. You could choose to target these players anyway, or shift your budget to the (P+,a) group where fewer players have any notable Liabilities.

Mkt\$	Player	Assets	Liabilities
\$17	Eric Hosmer	p,AV	
\$14	Albert Pujols	p,AV	INJ, Ag
\$13	Adrian Beltre	p,AV	inj-, Ag
\$12	Hunter Pence	p,AV	INJ
\$27	Chris Davis	P+,a	Rg
\$26	Jose Bautista	P+,a	
\$22	J.D. Martinez	P+,a	
\$21	Todd Frazier	P+,a	Nw

In the above example, you could just target Eric Hosmer, but if he ends up going for a price beyond what you're willing to pay, then you're left with riskier assets in that group. Budgeting around the (P+,a) group could potentially give you more options even though the (P+,a) players are pricier.

In the end, it's your choice how you decide to design your team. You are the architect.

*It all sounds good in theory, but I'm not sure I want that much freedom. What if I'm a lousy architect?*

What do you mean?

*Okay, for instance... How do I know when to stop bidding on a player? At what point in the bidding do I conclude that the price is too high, drop out and go for another guy? Should I pay \$30? \$35? \$40? Without a specific projection, how do I know what the price should be, and therefore whether I'm actually making a sound bid?*

The short answer – and the one I suspect you don't want to hear – is that we don't ever know when a bid is sound. You have the listed market price as a guide but that's just an industry average; it may not reflect the bidding tendencies in your own league. Remember that our bids have only a 65% chance of being within +/- \$5 of a player's true value anyway. So it really doesn't matter because it's the other owners' bids that ultimately determine how high you'll need to go to purchase a player.

However, there are some tactical considerations that may help your in-draft bidding decisions.

A helpful in-draft tactic is to find **benchmark prices** within your group of owners. Whenever the first player in an Asset Group gets bought, make note of his purchase price. Players around him should go at approximately the same market level.

Given the above, tossing the first player within an Asset group is always going to be a sound nominating strategy. Toss the first (PW,AV) guy or the first (ER,KK) pitcher, preferably the one with the highest expected market price. That should give you some good insight into approximate bidding benchmarks.

Once that benchmark is set, you can scan the list of players with comparable profiles and decide where the most profitable targets might be. For instance, take the (ER,K+,SV) Asset Group in 2016, which represented a group of closers just behind the elite arms:

<b>Mkt\$</b>	<b>Player</b>	<b>Assets</b>	<b>Liabilities</b>
\$14	Jeury's Familia	ER,K+,SV	Rg
\$13	Kenneth Giles	ER,K+,SV	e,Nw
\$12	Cody Allen	ER,K+,SV	
\$12	David Robertson	ER,K+,SV	
\$10	A.J. Ramos	ER,K+,SV	

Faced with these players, you could nominate Jeury's Familia for bidding. If he goes for \$18 – \$4 higher than his expected market value – you might conclude that players in this Asset group will be slightly overpriced. In that case, you could opt to go after a comparable player at the lower end of the group (like Ramos). Even if you have to pay a few dollars over his market value, you'd still be saving money rather than potentially overpaying for a Giles or Allen, all players with comparable skills.

I also think that purchasing the *second* player nominated from an Asset group – particularly a deep group – could provide some profit. Once owners see the benchmark price on, say, one of the elite speedsters, they might be less driven to drive up the price of the second player in the group knowing that there are still others available to bid on later.

Finally, always adjust your expectations for players with Liabilities. It's easy to forget to do that but the potential damage could be brutal.

## A Sample Roster Plan and Draft

Here is a sample planning process. This is just a sample. Your approach might be different. Just so you know, this is my plan and mine alone. This plan that I have — that is to say, which is mine... is mine. It belongs to me, and I own it and what it is, too. Just so that's clear.

*I get it.*

Okay, I start by looking at the talent in the \$35 tier, I decide that I want to target two players from this group. I want to get one big power bat (P+,AV), perhaps a 1Bman, and one who has at least Significant speed skill (SB or S+) in the outfield.

I budget \$70 (\$35 x 2) for these two players.

From the \$25 tier, I'll target an (ER,KK) anchor starter and two more power hitters (P+ or PW), a 3Bman and another outfielder. I'll adjust the positions later if necessary.

I budget \$75 (\$25 x 3) for these players. I've budgeted \$145 for five players so far.

In the next \$15 tier, I am going to target a closer, a #2 starter, my first catcher and fill out two other infield spots.

I budget for five \$15 players, or \$75. I've now budgeted \$220 for 10 players.

### Hitters

CA	\$15	
1B	\$35	(P+,AV)
3B	\$25	(PW)
2B	\$15	
SS	\$15	
OF	\$35	(SB)
OF	\$25	(PW)

### Pitchers

SP	\$25	(ER,KK)
SP	\$15	
RP	\$15	

I am cruising!

*Not so fast, big shot. That leaves you just \$40 for 13 players. You're screwed.*

Yeahhh... not so much.

You see, many of the players I'll be buying will go for less than the budget amount, sometimes much less. I know that I am not going to chase all \$27-\$30 players in the \$25 tier, because I don't have to. Most every player in that tier that will return earnings somewhere in the \$20s – we can't predict exactly how much – and there are plenty that will only cost me \$20-\$23, or even less. Each one I roster will add more dollars to my remaining budget.

So if I grab Joey Votto from the \$35 tier for \$25 (still \$2 over market price), that builds \$10 profit back into my roster. Now I have \$50 for those last 13 players. Do this enough and I might be able to add players at some of the upper tiers. But my personal goal for this particular sample draft is to have enough money so that I'm paying anywhere from \$3-\$7 for each of the players in the bottom half of my roster.

**Here's a stress-buster:** At the point of single-digit dollar players, the only thing I am looking for are those with the best skill/risk profile to fill those spots. It hardly matters what I pay for them because odds are the purchase price won't be anywhere close to what they will earn. So if you get into a bidding war with another owner over a \$7 player, just drop out. It's not worth the stress and odds are there are several other similarly unpredictable players who you can grab.

In the end, my roster plan might start out looking like the one below. I've made the assumption that it's the 2016 season and I purchased all my players at market prices.

POS	Bdgt	Player	Assets	Liab	Price
Ca	15	Winters	PW,a	INJ	8
Ca					
1b	35	Encarnacion	P+,AV		28
3b	25	Carpenter	PW,AV	Rg	16
ci					
2b	15	Rendon	p,a	INJ	16
ss	15	Crawford	PW,a	Rg	7
mi					
of	35	S.Marte	p,SB,AV		27
of	25	N.Cruz	P+,a	Ag,Rg	21
of					
of					
of					
ut					
sp	25	Carrasco	ER,KK		19
sp	15	Lester	ER,k		18
sp					
sp					
sp					
sp					
rp	15	Chapman	E+,K+	Rg	17
rp					
rp					

*That's a nice core. Not a bad start.*



Actually, it's not a good start at all. I've spent a lot on offense but rostered very little speed. More than that, BABS tells me I may have purchased a bit too much risk for my core players.

So while I've rostered about \$220 worth of potential value for the cost of \$177, there is still a lot of work to do. It's good that I've increased my \$40 for 13 players (about \$3 per player) to \$83 for 13 players (about \$6 per player).

At this point, many of you would still like more structure and guidance as to how to spend that \$83. The only thing you need to know is that your remaining buys have to average about \$6 per player. Of those 13 players, odds are that maybe half of them will draw any interest from other owners; those owners have their own holes to fill and don't give a flying whoop about you. You won't have to pay more than a few bucks for any of the rest. And typically, there are plenty of players to pick from, especially in a mixed league.

Look to BABS to uncover those hidden pockets of potential value. Admittedly, the dynamic is a bit more rigid in an AL/NL-only league but BABS will still identify the players with some usable skill as well as the land mines to avoid.

It all goes back to the step-by-step Total Control Drafting process I write about in the *Baseball Forecaster*. Two simple steps:

1. Create your optimal draft pool.
2. Get those players.

I'm not being flip. If we really knew that we were overpaying for any one player, at any time, then my advice would be different. But we don't know. The best we can do is just get the players we've identified as the best fits.

So, let me fill out the rest of the sample roster. I need to find some speed and a few more less-risky commodities. The 13 new drafted players are in red.

POS	Bdgt	Player	Assets	Liab	Price
Ca	15	Wieters	PW,a	INJ	8
Ca		Realmuto	p,s,a	e	8
1b	35	Encarnacion	P+,AV		28
3b	25	Carpenter	PW,AV	Rg	16
ci		Castellanos	PW,a		4
2b	15	Rendon	p,a	INJ	16
ss	15	Crawford	PW,a	Rg	7
mi		Peraza	S+,a	EX	3
of	35	S.Marte	p,SB,AV		27
of	25	N.Cruz	P+,a	Ag,Rg	21
of		Inciarte	SB,AV	Nw	7
of		Pillar	s,a	e	8
of		B.Miller	p,s,a		3
ut		V.Martinez	p,AV		3

sp	25	Carrasco	ER,KK		19
sp	15	Lester	ER,k		18
sp		Shields	e,k		10
sp		Teheran	e,k		7
sp		McHugh	e,k		7
sp		Hammel	e,k		4
rp	15	Chapman	E+,K+	Rg	17
rp		Giles	ER,K+		13
rp		Ziegler	ER	Ag,Rg	5

A perfect roster? No, but you can see how I was able to assess where I stood as I went along and knew what Asset Groups I needed to target. The draft is just a starting point, after all.

Note a few interesting picks. I paid \$3 for Victor Martinez, effectively rostering a player in the \$20-\$30 tier for minimal cost. There are several other players from the \$10-\$20 tier that I was able to roster for less than \$10 as well. And I hardly had to dip into the single digit masses; there were enough good buys in the higher tiers.

Note also that the only roster spots for which I set any real budget were the 10 at the top. Those were my foundation players so I wanted to make sure they were in place. The rest of the draft was about filling needs with the best players. Again, this was just my particular approach to this particular roster. If you feel more comfortable budgeting deeper, go for it. Just remember to be flexible.

If there are any positives to this roster, it was my control of Liabilities, particularly on the pitching side. I came in far short of the allowable maximum. That's good news... maybe. In redraft leagues, the eventual winner is often the one who embraces more risk. Sometimes. It's your call. BABS can only give you guidelines; she can't twist your arm.

The beauty of BABS in an auction is that you are not locked into any dollar expectation. You need not obsess about overbidding. You just have to keep telling yourself, "I won't have to overpay for anyone because nobody knows what the heck these players are going to earn anyway." Just as long as you target the players with the best skill/risk profiles and bid within the tiers, you'll be fine.

As much as you might think otherwise, you have no other choice. Our previous methods of auction draft budgeting made us think we had more control, but we never really did.

## The BABS Project

### Chapter 10

# BABS in Snake Drafts

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Playing off the marketplace in a snake draft is an inexact science. Unlike auctions where you can bid on whoever you want, here you are at the mercy of the other owners. The power of BABS is as a guide for good spots to grab players. Nobody wants to "reach" further than is necessary, but BABS can help minimize the damage.

Here are three examples from 2016 that show how BABS would have helped maximize your odds of success.

### The First Round

Here is what the first round ADP ranking looked like coming into the 2016 season:

ADP	Player	Assets	Liabilities
1	Mike Trout	P+,s,AV	
2	Paul Goldschmidt	P+,AV+	
3	Bryce Harper	P+,AV+	inj-
4	Clayton Kershaw	E+,K+	
5	Josh Donaldson	P+,AV+	
6	Carlos Correa	p,AV	EX,Rg
7	Nolan Arenado	P+,AV	
8	Manny Machado	p,AV	inj-
9	Giancarlo Stanton	P+,AV+	inj-
10	Anthony Rizzo	PW,AV+	
11	Kris Bryant	P+,s,+	e
12	Jose Altuve	SB,AV	Rg
13	Andrew McCutchen	P+,AV+	
14	Max Scherzer	ER,K+	
15	Miguel Cabrera	PW,AV+	inj-

There are a variety of skills pockets within these 15 players. Some are legitimately worthy of first-round consideration; some not so much. In fact, there are a good few players drafted after this group that would have been better considerations for the top 15.

*Retrospect is a wonderful thing.*

Well, sure. But it's instructive to see how this all works by looking at a few real case studies.

I approached the above list in two stages: first screening out the players with major Liabilities and then focusing on the remaining best Asset profiles.

I am risk-averse when it comes to first-rounders – an approach I highly recommend – so I immediately passed on Harper, Correa, Machado, Stanton, Bryant and Cabrera. That would have filtered out some of 2016's biggest disappointments, even though I would have also missed out on a few good performances. There's always that risk of collateral opportunity cost.

The remaining players would have been considered in order of best to worst Asset profiles, favoring batters over pitchers. My first round draft list would then have been:

1. Trout
2. Goldschmidt
3. Donaldson
4. McCutchen
5. Arenado
6. Rizzo
7. Altuve
8. Kershaw
9. Scherzer

The only real miss here was McCutchen. To fill out the rest of my draft list (assuming those nine players got drafted before my pick), I could pull up some low-risk second-rounders, like Edwin Encarnacion and Starling Marte. But by filtering out the bigger Liabilities up front, BABS increased my odds of avoiding a first round bust.

### The (P+,AV\*) Asset Group

Notice that there were five players in that first round with identical (P+,AV\*) assets, going Nos. 2, 3, 5, 9 and 13. Theoretically, they should have been selected together, separated only by the weight of their Liabilities. Goldschmidt, Donaldson and McCutchen should have been drafted together; Harper and Stanton probably should have been drafted some distance behind them because of their injury risk.

Actually, there were not just five players in that Asset Group – there were eight. And they were scattered over a much wider range of the ADPs. Take a look:

<b>ADP</b>	<b>Player</b>	<b>Assets</b>	<b>Liabilities</b>
2	Paul Goldschmidt	P+,AV*	
3	Bryce Harper	P+,AV*	inj-
5	Josh Donaldson	P+,AV*	
9	Giancarlo Stanton	P+,AV*	inj-
13	Andrew McCutchen	P+,AV*	
21	Edwin Encarnacion	P+,AV*	
36	Joey Votto	P+,AV*	Rg
111	David Ortiz	P+,AV*	Ag

All these players came into 2016 with the identical (P+,AV\*) skills profile. Those with earlier ADPs got drafted somewhere in the first round but the last three players on this list provided comparable skills.

You didn't lose anything by drafting Encarnacion in the second round. In fact, I often took him with a late first round pick in 2016 rather than incur unnecessary risk. That decision served me well.

The big profit opportunities were Votto and Ortiz – also the same skills profile – though both carried some minor Liabilities. Votto was a regression risk; Ortiz was an age risk. Either player could fall victim to that risk – or not – but it made a ton of difference whether you took on any risk at ADP No. 3 (Harper) or No. 111 (Ortiz).

With a player like Ortiz, grabbing him anywhere between picks No. 90 and No. 100 would not have been too much of a reach. You still could have earned tons of profit as compared to the similarly skilled players at No. 36 and earlier.

<b>ADP</b>	<b>Player</b>	<b>Liab</b>	<b>HR</b>	<b>SB</b>	<b>Avg</b>
2	Paul Goldschmidt		24	32	.297
3	Bryce Harper	inj-	24	21	.243
5	Josh Donaldson		37	7	.284
9	Giancarlo Stanton	inj-	27	0	.240
13	Andrew McCutchen		24	6	.256
21	Edwin Encarnacion		42	2	.263
36	Joey Votto	Rg	29	8	.326
111	David Ortiz	Ag	38	0	.315

All things considered, BABS may have underrated the speed potential for Goldschmidt and Harper, but the only player that she completely whiffed on was McCutchen.

#### 4th round pitchers

After Clayton Kershaw, Max Scherzer, Chris Sale, Madison Bumgarner, Jose Fernandez and Matt Harvey, there was typically a run of starting pitchers that dominated the 4th round. The following eight pitchers all had 4th round ADPs. It was a common refrain by many drafters, "As long as I get one of these guys by the end of the 4th round I'll be fine. Doesn't matter which one." Well...

<b>ADP</b>	<b>Player</b>	<b>Assets</b>	<b>Liabilities</b>
31	Zack Greinke	ER,k	Rg,Nw
32	Gerrit Cole	ER,k	inj-
34	David Price	ER,k	Nw
38	Jacob deGrom	ER,KK	
40	Corey Kluber	ER,KK	
41	Stephen Strasburg	ER,KK	inj-
44	Dallas Keuchel	ER,k	Rg
45	Noah Syndergaard	ER,KK	e

...it did matter, at least in 2016. Although all eight pitchers were somewhat in the same skills ballpark, those with slightly lesser-skills (ER,k) were getting drafted earlier than those with a better skills profile (ER,KK).

All four pitchers with significant strikeout dominance had great years. Their numbers were positive assets to your team, even if some of them spent part of the year on the DL. Five of the six pitchers with some Liability fared worse than expected, even if just fewer innings.

And all four pitchers with lesser skills (ER,k) were disappointments.

<b>ADP</b>	<b>Player</b>	<b>Assets</b>	<b>Liab</b>	<b>IP</b>	<b>ERA</b>	<b>K/9</b>
31	Zack Greinke	ER,k	Rg,Nw	159	4.37	7.6
32	Gerrit Cole	ER,k	inj-	116	3.88	7.6
34	David Price	ER,k	Nw	230	3.99	8.9
38	Jacob deGrom	ER,KK		148	3.04	8.7
40	Corey Kluber	ER,KK		215	3.14	9.5
41	Stephen Strasburg	ER,KK	inj-	148	3.60	11.2
44	Dallas Keuchel	ER,k	Rg	168	4.55	7.7
45	Noah Syndergaard	ER,KK	e	184	2.60	10.7

So if you faced this group of arms and determined your target based on better skills and lower risk, you had much better odds of rostering a pitcher that helped your team in 2016.

## The BABS Project

### Chapter 11

# BABS in Keeper Leagues

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When thinking about BABS in keeper leagues, it is helpful to start by defining what makes a player protectable from one season to another. It really comes down to one broad statement:

*Any player that you would not be able to get back in the draft at his current price, or less, is potentially protectable.*

These players generally fall into three categories:

**Low cost profit-holders:** These are players whose performance and earnings last year exceeded what you paid for them at the draft. A \$5 player who earned \$15 is a potentially protectable commodity. Your 10th round pick who is currently going in the first four rounds is likely protectable. That end-game flyer you took who turned in a Cy Young-caliber performance, even though his skills metrics were pedestrian, has to be a consideration.

**At par cornerstone players:** As much as it is nice to stock your keeper list with \$5 players who earned \$15 last year, you also need high level foundation guys. A \$27 Edwin Encarnacion, a third round Todd Frazier, and even a \$40 Clayton Kershaw are all potentially protectable. Why? With draft inflation, all three of those players will likely cost far more on Draft Day.

Since owners will be protecting players at reduced prices, there will be far more dollars available in the draft than there will be valuable players. So all players will potentially cost more. Yes, protecting Kershaw at \$40 seems like a lot, but even 20 percent draft inflation could put his price tag closer to \$50 at the draft.

**Prospects:** These are players of uncertain value that you might be able to redraft, but most owners prefer to hang onto them as long as there is no cost to do so. Minor leaguers, college players, even foreign stars all represent speculation on upside.

## Basics

BABS handles the first two categories within its current structure. Compare what your keeper cost is to where your player falls in the spreadsheet. The BABS tiers and marketplace values will give you enough information to make an informed decision about whether that player is protectable.

*So, let's say I own a player for \$24. His market price is \$22. I toss him back, right?*

Not so fast. BABS would probably rank his skills profile within the \$20-\$30 tier, which means he could conceivably earn anywhere from \$20-\$30. And yes, it's possible you could purchase him at the draft for a few dollars less than your \$24 keeper cost. However that market price is not adjusted for inflation. So if that player is made available on Draft Day, he could go for \$26 (20 percent inflation), \$29 (30 percent inflation), or more. Suddenly, your \$24 decision looks easier to make.

Note that these are decisions made in a vacuum, but shouldn't be. Many of your keeper decisions should be based on what you anticipate the talent pool to look like on Draft Day. For that, you need to know – or at least have a general sense of – what players the other owners are keeping. If you're on the fence about protecting a catcher who might be slightly overpriced at \$23, it's helpful to know that the league's top five catchers are all likely going to be kept by other teams.

BABS does fine with these types of decisions. The place where we need to take a deeper look is with prospects and younger players who have Experience risk.

### **The Risks of Youth**

BABS rates prospects and young, inexperienced players in two ways. Most obviously, they are given an Experience risk rating of "EX" (less than one year of experience) or "e" (approximately one but less than two years of experience). But these players are also rated based on how much expected playing time they stand to get. All levels of experience could be in line for full-time, mid-time or part-time plate appearances or innings. So you may find pockets of potential upside talent just about anywhere in the BABS spreadsheet.

The important thing about a player with Experience risk – either "e" or especially "EX" – is he is not yet a fully formed commodity. His BABS skills ratings have the potential to improve once he gets more playing time under his belt. Conceivably, his assets could continue to develop. We don't know for sure, but a "p" could become a "PW" and perhaps even a "P+" over time. His current ratings provide only a clue about what type of player he might turn out to be.

Unfortunately, the flipside is true too. Any inexperienced player with elevated skills ratings has the potential to regress once he gets more exposed. Two high risk "EX" players near the top of BABS ratings in 2016 were Corey Seager and Michael Conforto (both PW,AV). You could have evaluated them as comparable to established (PW,AV) veterans like Anthony Rizzo and Adam Jones, but only Seager proved worthy. That doesn't mean that Conforto will never reach that level, only that his "EX" rating highlighted the risk in 2016.



It is unlikely that a young player will develop skills that he is not currently exhibiting at all. In other words, a (p,a) player is unlikely to become a (S+) player. Those speed skills would have likely already been somewhat evident. It is possible that a player with below average skills (which would not register in his BABS rating) might improve to slightly above average but you don't want to be stocking your keeper slots with players who currently have below average skills.

So, the BABS Assets ratings for each player with Experience risk can be considered as only a starting point. Once a player reaches the playing time thresholds, you have to consider that his skills are at least 75 percent baked. There could still be growth, but by 1000 PAs and 300 IP, we have a good sense of who he is.

## Targets

BABS provides us with targets for Assets and Liabilities. The adjustments you have to make here depend entirely on where you are in the contend/rebuild cycle.

If you are playing for the current season, there should be no adjustments. If you need to open up the limits for Experience risk, do so carefully. Just because you believe you are ready to contend, owning too many players with Experience risk still means you have too much risk.

I see this a lot. An owner stockpiles young players who showed a little something the previous season and believes they form a solid, low risk foundation. But if you went into 2016 with a core of Corey Seager, Kyle Schwarber, Francisco Lindor, Miguel Sano, Raisel Iglesias and Luis Severino – congratulations, you did a great scouting job. But odds are you were better positioned for 2017 than 2016.

If you are playing for the next season, you can start opening up the targets. The most important point is that your decisions have to be based on the knowledge that the current season is pretty much irrelevant (unless your league has penalties for low finishes). Your Asset goals don't matter. I would target some players with Injury risk as they offer profit opportunity. And feel free to stockpile players with Experience risk and good skills.

If you are playing for two years down the road, throw caution to the wind. Targets? Targets? We don't need no stinkin' targets.

Essentially, the further you are from contending, the more flexibility you have with the targets. So, if you are looking at a rebuilding season, you want to stock up on young, high skilled players with minimal concern for the Experience liability. If you are expecting to contend, you should still be as close to the standard benchmarks as possible.

Perhaps this:

<u>Experience Liability</u>	<b>NUMBER OF PLAYERS</b>		
	<b>Mixed 12-tm</b>	<b>Mixed 15-tm</b>	<b>AL/NL 12-team</b>
<b>Contending Team</b>			
BATTERS	3	4	2
PITCHERS	2	2	1
<b>Rebuilding Team</b>			
BATTERS	6	7	4
PITCHERS	4	4	3

The underlying thought process is that, even if you roster 10 players with Experience risk, only some of them are going to pan out and be protectable for subsequent seasons. So it is best to stockpile talent and hope for the best.

## The BABS Project

### Chapter 12

# BABS in Leagues with Alternative Rules

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BABS provides a different way of thinking about roster management in fantasy leagues, but it's virtually impossible for one system to be all things to all formats. Leagues with alternative rules or hybrid structures are going to require a bit of tweaking. However, there are some underlying facts that are important to know.

BABS is all about skill and risk. We break these down into some broad categories, but these categories are not intended to correlate directly with any particular fantasy statistical category.

So, while BABS measures power, that is not just about home runs. It's also about doubles and triples (for those leagues that use those), and by extension, the runs and RBIs that are driven by those power stats.

BABS measures speed, but that includes stolen bases, triples and even runs scored. The rating also includes how often a runner gets a green light and how often he steals successfully, making it a more encompassing evaluator.

The Batting Effectiveness rating measures each batter's ability to make contact – which includes his batting eye – and how hard he makes contact. Yes, we can use this as a proxy for batting average, but it also affects just about every other offensive statistic.

Similarly, the Pitching Effectiveness rating is not just ERA but more of an overall “pitching tool” metric. It includes strikeouts and walks (a measure of control, dominance and command) as well as a normal distribution of what should happen when an opposing bat hits a ball. While it may not seem like BABS has WHIP covered, it does, though more indirectly.

The strikeout rating does measure just strikeouts, but in a more nuanced manner because it also includes swinging strikes and first pitch strikes. Since strikeouts prevent baserunners, which in turn prevent runs, you can also say that this has an indirect effect on ERA and WHIP as well.

The BABS skills ratings are good proxies for overall skill regardless of the exact categories. While they include the elements of standard 5×5 roto statistics, they are also fine for leagues that use similar stats, such as doubles, triples, slugging average, SB-CS, K/9 and others. For those leagues that use a stat like at-bats or innings, the full/mid/part-timer indicators are as best as you can do for that.

The ranking of these skills elements are relative to their impact on overall run scoring and very loosely tied to 5×5 roto. Since there is no real one-to-one correlation of a BABS rating to a fantasy stat, the weights that your league's format require might need to be adjusted.

For instance, if you are in a league that awards value to both HRs and slugging average (or its components), that extra emphasis on power skill is not going to be reflected by the current Asset Group rankings. You are going to have to elevate power hitters on your ranking list. The rankings for any skill that is measured by redundant stat categories or given greater weight will need to be adjusted.

### One Other Stat

Okay, BABS doesn't cover everything. There is one stat that is not an intrinsic part of the skills ratings. Unfortunately (or fortunately), many leagues use it.

**Holds.** I don't particularly like this category from a baseball perspective, but it serves a useful purpose in fantasy as it expands the value of many relief pitchers.

The challenge with Holds, like Saves, is it's role-based, not skills-based. You first have to identify which pitchers will have the role that puts them in position to get Holds. Then, you project each pitcher's number of holds using a comprehensive, integrated multi-disciplinary system called Blind Dart-Throwing.

Feel free to add an indicator to BABS to identify who these pitchers might be. As for the "how many?" question, I'd default to the skills/risk ratings for guidance. In the end, it's always "Draft Skills, Not Roles," right?

### League Sizes and Targets

Most alternative leagues adjustments just require changing the targets based on league size. There is no magic here. All the current targets are based on how deep a particular league drafts into the talent pool. If your league's draft penetration is similar to one of the three sets of benchmarks I've set up, feel free to use them. For those that are different, pro-rate the targets so they're close.

<b>Format</b>	<b>#Tms</b>	<b>x Roster =</b>	<b>Depth / Pool =</b>	<b>Penetration</b>
12-team mixed	12	x 23 =	276 / 750 =	37%
15-team mixed	15	x 23 =	345 / 750 =	46%
12-team AL/NL	12	x 23 =	276 / 375 =	74%
Your league	??	x ?? =	??? / ??? =	???

Multiply the number of teams in your league by your active roster size. That gives you the number of players drafted in your league (Depth). Then divide that by the total population of players you are drafting (Pool). If it's an AL/NL-only league, that number is 375. If it's a mixed league, that number is 750. If you are in a hybrid

league that includes some teams from one league and some from another, you can do that math. Dividing your draft pool (Depth) by the total population (Pool) yields your league's penetration percentage.

If that percentage is within five points or so of one of the above standards, just use those same targets. If your percentage is significantly different from the above, prorate the targets. If the penetration percent is smaller, increase the number of players required to meet the BABS Asset minimums, and decrease the number of Liability limits. And vice versa if your percentage is higher than one of the standards.

I would not futz with the individual Asset and Liability targets within each level. Remember that it's not about the stats but the overall skill and how deep you're drafting into the player pool.

*So.... If my league penetration is 32%, I can use the 12-team mixed variables, but if it's 31%, then I have to start doing math?*

Frankly, those "five percentage points" were a ballpark number. If the penetration percentage is 37% and your league's is 31%, clearly that's still pretty close. If your league's is 29%, that's further away but maybe it's close enough for you. Use your judgment. If you don't want to do math, then don't do math.

### **Alternative Formats**

There is a world outside of Rotisserie but I don't think I would make too many changes to accommodate other formats. Since it's all about the skills and risk (there that is again) and not about specific categories, most every format can benefit from how BABS expresses those variables. A few tweaks, perhaps:

**Scoresheet Baseball / Simulations:** The saves category is superfluous here but these sim games have always been about skills in lieu of roles. We don't capture any defensive metrics but that is a common deficiency of most other systems.

**Points games:** Games that are driven by counting stats and have no ratio categories are served quite well by BABS's Asset/Liability ratings. For example, BABS's Power rating incorporates doubles and triples so it serves the points gamer particularly well. However, since it doesn't matter where those points come from, look toward the overall Asset target and not necessarily the individual skills targets. Of course, if your league parameters give special weight to certain skills, do focus on those.

You might need to make adjustments in the rankings. Since starting pitchers potentially have elevated value in these games, you are going to want to elevate your most dominant starters on the BABS spreadsheet.

**Head-to-Head:** Depending upon whether your H2H rules use points or roto categories, focus on any tweaks required by those formats. The best H2H players are

those who are consistent, week-to-week, but that's tough to project so I'd still just focus on the skills. I could suggest lowering the Liability limits for injury-prone players since that potentially affects consistency, but really, that advice could apply to any format.

In H2H leagues, some owners employ the strategy of ignoring certain categories, especially those that accumulate few counting stats on a weekly basis. The weekly volatility of saves, or possibly steals, for instance, provide great benefit to the lucky. If you decide to do this, just ignore those ratings, and possibly adjust the rankings. In all, just use your judgment. Nothing here is a hard and fast rule. BABS is all about nuance. That's what I love about her.

**Salary Cap:** Depending upon which game you play, you would have to enter the fixed salaries into BABS and look for players where their salary doesn't match up with their skill/risk profile. It's the same exercise we do now for auction leagues except that the salaries are assigned beforehand.

**No-Trading Leagues:** Leagues in which there is no trading remove a critical tool from your in-season roster management arsenal. These leagues enact that rule for a reason, but it does force you to adjust your draft strategy. Thankfully, BABS is already structured for the more balanced approach necessary in no-trade leagues. You can't hope to deal for steals or saves, so your draft has to focus more on categorical balance. And if nothing else, BABS is all about balance.

**DFS:** Constructing a roster in the daily fantasy games has become a science, with virtually dozens of variables to consider. I would not tinker too much here. But BABS still has a role.

Before you finalize your **pitcher** selections, always look at each pitcher's BABS rating. Always opt for a pitcher with a foundation of positive assets over someone with a lesser profile. Do not use a starter unless he has at least an [e] ERA rating, and in the case of two pitcher DFS games, at least one needs to also have a minimum [k] strikeout rating. Higher ratings are always better.

Same basic advice goes for the **batter** side. Always opt for a player with some positive assets over someone with a lesser profile. At least six of your eight batters should have a minimum [p] power rating. It's okay to sprinkle in a few speed guys but you want to make sure they don't represent the majority of players. And nobody with an [AV-] liability should ever make it onto your roster.

If a player meets all the major criteria for consideration but has a poor BABS rating, it becomes a judgment call. Personally, I sometimes tempt fate but I'll never roster more than one "unBABSian" player, even if all the other criteria point to solid potential. Stay away from guys who don't have a minimum skills profile, and BABS is the final arbiter of that.

## The BABS Project

### Chapter 13

# BABS In-Season

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The concept of assessing talent using broad measures, and balancing assets and liabilities, applies to all stages of the baseball season. The need to evaluate talent does not end even after your drafts are completed.

BABS works just as hard during the season as in the weeks leading up to it. In some ways she is more relevant, especially early in the season.

Let's say it's early May and you're looking at some juicy stats being put up by a player who's never performed at that level before. BABS says, "No! Stop! Don't look at those stats! Look at the skills profile instead. No matter what numbers a player is putting up NOW, odds are his performance is going to be pulled in the direction of those Asset/Liability markers." In fact, you might not even realize that the numbers a player is posting actually fit the BABS ratings perfectly. It's tough not to be married to the numbers, but remember that BABS is your mistress.

Here are some general points to keep in mind:

**Assets generally change slowly.** If we've done a good job of evaluating each player's skill during the pre-season, those ratings should still apply, barring any major change in circumstance. The broad skills groupings should also prevent overreaction to small sample sizes.

So don't be taken in by early season performances that are markedly different from expectation. Players are inconsistent as a rule, and stats like batting average are virtually impossible to pin down.

**BABS can validate early performance.** When Trevor Story opened the 2016 season pounding homer after homer, it came as no surprise that his pre-season rating was [P+] on the Assets side. That rating served the important purpose of validating his early power outburst.

Of course, the Assets don't tell the whole story. In Story's case, his AV- and EX Liabilities showed that caution was still warranted. There was batting average downside and his lack of experience widened the error bar on our expectations.

Those risk ratings are important. Performances that do vary from expectation will often be explained by a player's Liability ratings.

**Playing Time will be volatile.** While Assets change slowly, playing time can change quickly. Circumstances affecting roles will push players around all season. BABS handles this well by sorting playing time into the broad categories of full-time, mid-time and part-time.

However, your best course of action is to not react to every little change in circumstance.

- A frontliner pushed to the bench might stay there only until some other player slumps and opens up a spot in the lineup.
- A No. 9 hitter pushed up to to No. 6 in the order might stay there only until his first 1-for-10 slump.
- A reliever boosted into the closer role might stay there only until his third blown save.

Of course, if the above players succeed, that will have some impact on their potential performance numbers. But the underlying risk prevents us from ever going full-in on a change, which is why BABS' broad playing time categories reflect reality so well.

All this means is, *reality is fluid*. Any managerial decision is going to stick only until the next decision needs to be made. We can never, ever, ever, ever, ever treat a decision as a fixed reality.

And so, in most cases, we are not going to be making many changes to the broad playing time ratings.

**Call-ups are challenging.** Promoted minor leaguers are problematic because the impetus for the promotion is often a small sample of minor league performance. Logically, you can't trust it, but teams still make decisions based on 100 AB or 50 IP, or less.

For BABS, call-ups fall into two groups:

The first group is composed of players who BABS was able to rate during the pre-season. Those ratings were based on a large enough pool of performance data to be credible, so preference would be to continue to rely on those ratings in the early-going, at least until the player amasses a sufficient performance sample that supports or refutes the original rating.

The second group is composed of players who rise out of nowhere. These were players like Jeremy Hazelbaker and Ross Stripling in 2016. Their value shot up quickly early in the season, generated a ton of free agent interest, and then flamed



out as quickly as they appeared. At the time of the surge, we did not know whether they would sustain their performances, but there had to be a way to value them anyway.

These are crapshoots. You can choose to ride the wave of small-sample data that drove the call-up but you also choose to shoulder the concurrent risk. These days, any breathing human being who can string together a few days of eye-opening stats – even if that performance is a complete departure from anything that player has ever done – will generate rabid interest from scavenging owners.

**WARNING – Small Sample Size Alert!**

**WARNING – Recency Bias Alert!**

**WARNING – Fear of Missing Out Alert!**

*Aaaand.... we've come full circle.*

Yup. You can choose to take that ride, reflexively grabbing at any possible source of "who knows, maybe" value. Or you can choose to take a more measured approach, directing your in-season resources at commodities with more justifiable upside. The former process will yield misses like Hazelbaker and Stripling, but also a few out-of-the-blue hits like Aledmys Diaz was in 2016. The latter process would yield hits like Max Kepler and Trea Turner, but also misses like Jose Berrios and Archie Bradley.

So I guess either could work, though you have to think that the measured approach would have a higher hit rate.

BABS just shrugs her shoulders and says, "Happy hunting!"

## The BABS Project

### Chapter 14

# And so...

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So, what did you think?

*A lot of words. Uncharacteristically few numbers, especially for you.*

Okay... but are you buying into any of this? Do you finally understand life, the universe and everything?

*Um... I think so. It all comes down to this (in order of ascending importance):*

- *Stats are our enemy. Precision is futile. We can't predict the future.*
- *Players are more alike than they are different. The more the marketplace tries to differentiate between like-skilled players, the more opportunity there is for Draft Day profit.*
- *BABS can help us see all this. BABS is our friend. Maybe one day, if I can work up enough nerve, BABS could become more than just a friend.*
- *42.*

Wow. Nice. I sure could have saved a lot of typing.

*But I'm not done with you yet, big shot. I have one last very important question. How do I know that all this effort to learn your new system is going to get me any closer to the Holy Grail? Is it possible I'll just end up in the same place as I would have using my more familiar methods?*

Sure, it's possible. But let me ask *you* a few questions:

1. Do you see how numbers can become so granular that they obscure any true meaning? While you are obsessing over whether the consistent 35-HR hitter who slumped to 24 last year will rebound enough to be a better pick than the consistent 24-HR hitter who slammed 35 last year, BABS is just stockpiling power skill.
2. Do you see that no amount of projective tinkering will be able to tell you how many plate appearances to count on for your star player who just had off-season knee surgery? BABS separates that player's underlying skill from his injury risk and still gives you a planning tool for playing time.

3. Will your methods be able to tell you whether you are taking on too much injury risk, or whether you have a good balance of youth and experience?

4. Are your methods simple enough to tell you – at a glance – whether you have enough power, or speed, or strikeouts, without having to rely on projections that are historically faulty?

*Okay, okay, I get it.*

I've got a million of these rhetorical questions.

*I can see now. BABS is not just a strategy. She is a mindset. She is a lifestyle. And maybe one day she will be my mistress.*

*So, what's next?*

While the "book" ends here, the discussion continues online at [RonShandler.com](http://RonShandler.com) with essays, analyses, commentaries, polls, case studies, thought experiments and two shots of bourbon. I take a look at each season's players, ratings and trends. During the off-season, I look at the distribution of Assets and Liabilities in the player pool, position by position. I look at the composition of interesting Asset Groups, and analyze them until I am blue in the fingers. I share my Health Risk and Experience Risk hit lists, and review the Mid-Timers with the best upside potential. And just before Opening Day, I let BABS predict the pennant races, which is a totally pointless exercise that is never correct. But she can't help herself and I can't stop her.

There are also downloadable charts and cheat sheets, in-season ratings updates and a player database where you can look up everyone's historical BABS ratings. And there are message boards, occasional chats and many opportunities for you to interact with other BABSophiles, and me.

**If you bought this ebook and are not a member of the [RonShandler.com](http://RonShandler.com) site, you can have access to all those extra goodies. Details are in the Appendix.**

The BABS Project

## Appendix

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### Enjoyed this book?

You can upgrade to a full membership at [RonShandler.com](http://RonShandler.com). Members to Ron's website have access to all current season ratings and rankings, downloadable spreadsheets, online player database, in-season updates and ongoing BABS analysis articles, and on and on and on and on and on and on and on and on and on. And on.

**To upgrade your membership**, go to <http://ronshandler.com/register-2/>. Complete the form and in the Discount Code area, enter **8485PROJECT** (in all caps). Your cost to purchase this PDF will be applied to the annual membership fee.

### Goodies

Head over to **The BABS Project's** book description page at [RonShandler.com](http://RonShandler.com) for some freebies, comments, clarifications and more. A downloadable copy of a blank BABS roster spreadsheet (MS Excel format) is there as well.

### BABS 2.0

This is not the end of the process; it is just the beginning. Now that we have BABS, we are going to need more. She is more than just a pretty face; she is an ever-evolving entity – perhaps even just an embryo – so there is much more development yet to come. If you have ideas how to improve her, I'd love to hear from you. Drop me a note at [baseball@ronshandler.com](mailto:baseball@ronshandler.com).

As part of this, we do need a more automated application to handle BABS on Draft Day. I don't know whether that means a more robust spreadsheet application or some interactive online system. But there needs to be a BABS 2.0 at some point. I'm no tech guy, but if you are and have ideas, I'd love to hear from you.

### A few quick thank yous

First and foremost, I'd like to thank Time. Its passage has helped me see things more clearly than back in the *1994 Baseball Forecaster* when I wrote, "Numbers are everything."

As always, thanks to Sue, Darielle, Justina and Michele.

Thanks to all of you who are still reading this.

That's it. I'm done. Go draft.

## BABS VARIABLES

### SKILL

Extreme Impact	Top 10% of players with that skill	P+, S+, A+, E+, K+
Significant Impact	Top 25% of players with that skill	PW, SB, AV, ER, KK
Moderate Impact	Top 50% of players with that skill	p, s, a, e, k
No projectable impact	Bottom 50% of players	

### PLAYING TIME

		<u>BATTERS</u>	<u>PITCHER</u>
<b>F</b>	Full-time	Approx. 500+ PA	Approx. 180+ IP
<b>M</b>	Mid-time	Approx. 300+ PA	Approx. 100+ IP
<b>P</b>	Part-time	Fewer than 300 PA	Fewer than 100 IP

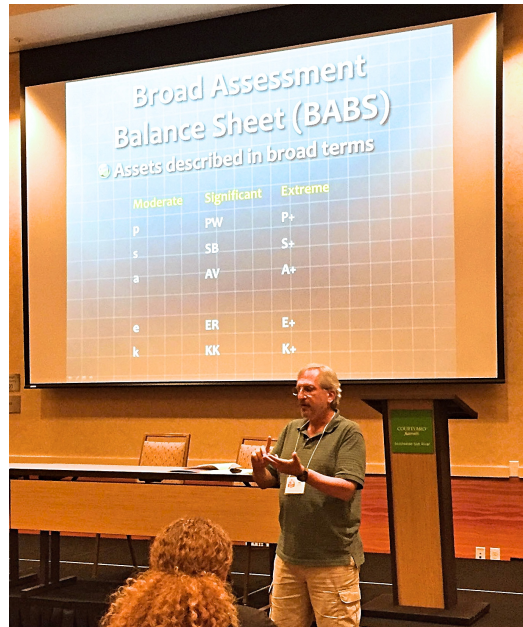
### EXPERIENCE RISK

		<u>Bat</u>	<u>SP</u>	<u>RP</u>
		<u>PA</u>	<u>IP</u>	<u>IP</u>
EX	< one full season of MLB experience	500	150	75
e	< two full seasons of MLB experience	1,000	300	150

## TARGETS

<u>PT Minimums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Full-time batters	14	13	8
All starting pitchers	6	7	6
180+ IP SPs	5	4	2
Closers	3	2	1
<u>Asset Minimums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Power	14	14	9
Speed	8	7	4
Batting Eff.	14	14	9
Pitching Eff.	7	6	4
Strikeouts	7	6	4
<u>Liability Maximums</u>	<u>12-tm mixed</u>	<u>15-tm mixed</u>	<u>12-team AL/NL</u>
Batting Eff.	0	0	0
Health Risk	3	4	2
Experience Risk	3	4	2
Pitching Eff.	0	0	0
Health Risk	2	2	1
Experience Risk	2	2	1

## About the Author



**RON SHANDLER** has been writing about fantasy baseball and baseball analysis since 1986, and was the first to develop sabermetric applications for fantasy league play. He is the author of the *Baseball Forecaster*, an annual book which has been around since the Reagan administration, and the founder of BaseballHQ.com and the First Pitch Forum national conference series.

Ron spearheaded the creation of the Tout Wars national experts competition, which was the focus of the 2006 *Fantasyland* book and 2010 documentary film. He has finished Top 3 in national experts play dozens of times since 1994.

Ron has been a regular columnist for USA Today and ESPN.com. He spent the 2004 season as an advisor to the St. Louis Cardinals. He received a Lifetime Achievement Award from the Fantasy Sports Trade Association in 2005 and was inducted into the Fantasy Sports Writers Association Hall of Fame in 2012.

[His complete bio appears here.](#)