SMART FANTASY BASEBALL

HOW TO CREATE YOUR OWN SGP FANTASY BASEBALL RANKINGS

Table of Contents

SMART FANTASY BASEBALL

FROM THE AUTHOR

Welcome to <u>The Smart Guide To Creating Your Own Fantasy Baseball Rankings</u>.

Fantasy baseball is fun. And it's more fun when you make your own rankings. There's a greater sense of strategy, gamesmanship, and enjoyment when you create your own rankings specifically tailored to your league's settings.

These instructions came about because I have never been comfortable just printing out a set of rankings from a major fantasy website. I don't want to know how sausage gets made, but I do want to know where my fantasy baseball rankings come from.

The fact is that everyone's league is a little different. 10-teams. 12-teams. 5x5. 4x4. Sabermetric categories. Traditional categories. Deep benches. Shallow benches. How does each team having three keepers affect rankings? What if each team keeps six? And that doesn't even take into account the preferences and tendencies of other managers in my league. What if my league has historically had tightly packed standings in home runs? What if I want to devalue stolen bases because I think I can acquire them in-season?

A lot of publicly available ranking systems don't show the underlying projections. They're just cheat sheets or listings of players. What if you think Bryce Harper will hit 35 home runs and the rankings you're looking at say 28? Where should Harper move if you expect 35?

This guide will show you how to plug in your favorite projection system and create your own rankings based upon those projections. The rankings will be dynamic. **You can change the projection for any player and instantly see how they move up or down the rankings. And it can all be tailored to your league's settings and history.**

If you have any suggestions for improvements to this process, please e-mail me at SmartFantasyBaseball@gmail.com.

I can't thank you enough for taking the time to follow SFBB. Speaking of following, click the button below to follow SFBB on Twitter. Continue to make smart choices.

~ Tanner Bell

Follow @smartfantasybb

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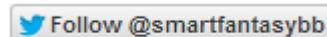
FEATURES

When you complete this guide, you will be able to:

- View a complete ranked list of all players at any position
- Compare the value of a pitcher to a hitter
- View projections for any fantasy relevant player
- Update projections for any player and immediately see a revised ranking for the player
- Easily roll this file forward from year-to-year and plug in updated projection data

OVERVIEW

This e-book is derived from a series of articles posted at SmartFantasyBaseball.com before the 2013 MLB season (click here to see the original series of posts). The player names, projections, and screenshots reflect this, but you can follow these exact instructions to prepare for the 2014 (or any future) season.

These instructions demonstrate the process of creating rankings for a traditional rotisserie 12-team mixed league. But they'll help you develop the skills and methodologies necessary to create rankings for any scenario and any league format.

These have specifically been written for Microsoft Excel. I used Excel 2010 while creating this guide, but you should have no issue if you're using Excel 2007 or Excel 2013. While I don't have a comprehensive manual specifically for other spreadsheet programs, there are some very good free alternatives available. Things will work best if you are at least somewhat experienced working with Excel. But even if you're not, I include explanations of all the formulas used. I've tried to write these well enough that anyone can follow along.

IF YOU HAVE QUESTIONS

Please post your questions or comments about the rankings in the comment section for each Part of the series. You can access the comment areas using these links:

SMART FANTASY BASEBALL

Now let's get started!

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PART I – DOWNLOAD FREE PROJECTION DATA

INTRODUCTION

Welcome to the first part in a series of posts in which I'll go through the process I use to create my own fantasy baseball rankings. At the end of each Part you'll find a link to download the rankings project (in Excel 2010 format) as it stands at the end of that respective Part. If you have questions about Part 1, please post them in the comments here so others may benefit from the answer to your questions.

In this first part of the series we'll set up a new Excel file, download free projection data, and do some basic formatting to make the file presentable.

STEP-BY-STEP INSTRUCTIONS

Step	Description
1.	To start, create and save a new Excel file for this project. Leave the file open. This spreadsheet is going to get fairly large and involve a lot of formulas. I recommend making periodic backups of your file in case anything were to go wrong. File name: SFBB Rankings Save as type: Excel Workbook (*.xlsx)
2.	There are a number of outlets where you can pay for projections. But Fangraphs offers a "Projections" section that includes a number of free projection systems for download. Marcel ZiPS Fans Steamer Oliver RotoChamp Choose your favorite projection system and use the link to "Export Data". For the rest of this e-book I will be using the "Steamer" projections.
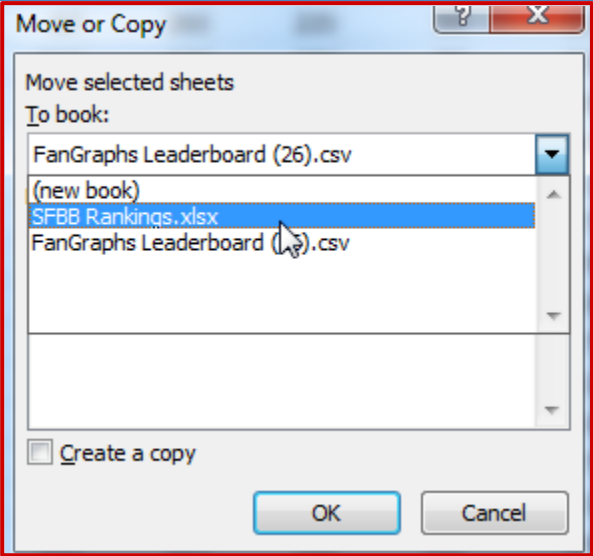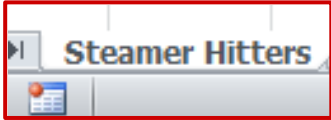
Name	G	PA	AB	H	2B	3B	HR	R	RBI	BB	SO	HBP	SB	CS	AVG	OBP	SLG	OPS	wOBA	Fld	BsR	WAR
Giancarlo Stanton	141	569	500	143	31	3	41	88	98	59	145	7	6	4	.286	.369	.606	.975	.407	7.0	-1.0	6.4
Joey Votto	134	579	474	142	35	1	26	80	87	96	109	5	9	5	.300	.423	.542	.965	.407	3.0	-0.9	5.6

3.	The data will download in CSV (comma separated value) format. Locate the downloaded CSV file and open it. It should open in Microsoft Excel (if it doesn't, launch Excel and then use the File>Open menu to open the CSV file). Once the file opens right-click on the "Fangraphs Leaderboard" tab and select the option to "Move or Copy…"
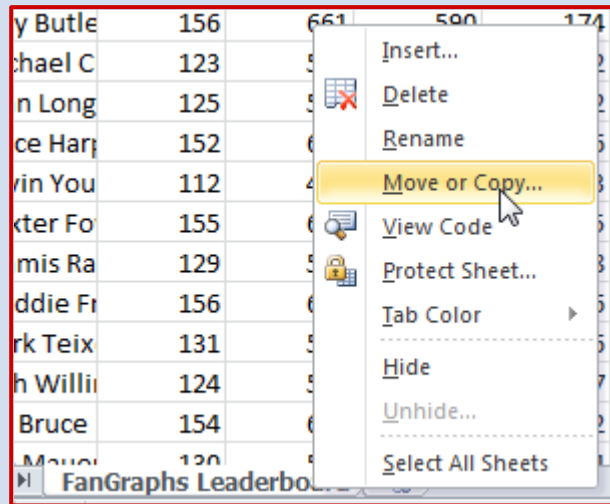
When prompted, choose your Rankings Excel file (saved in step 1 above) from the drop down menu. Then hit "OK". |

SMART FANTASY BASEBALL

4.	Any sheet downloaded from Fangraphs has the tab name "FanGraphs Leaderboard". Right click on the spreadsheet tab to give it a more meaningful name (like Steamer Hitters).
5.	Hitter and pitcher projection data are stored separately on Fangraphs. Go into the Pitchers section and repeat steps 2 through 4.
6.	Please note that depending upon the time of year, there may be several projection systems available to download: FANS, ZiPS, Steamer, and Oliver, to name a few.

SMART FANTASY BASEBALL

	I'm going to download the hitter and pitcher projections from all four systems and pull the data into my rankings spreadsheet by repeating steps 2 through 5 for each projections system, paying careful attention to name each tab in such a way that I can easily identify the source of the data.
7.	In order to maintain organization (the file is already up to eight tabs), I like to add placeholder worksheets to separate the data. Do this by clicking on the small right-most tab, which is a shortcut to insert a blank worksheet. Click this twice in order to create two new worksheets.
	Right click on one of the newly created worksheet and choose the option to rename. Name the sheet "HITTER PROJECTIONS=>". Right click on the other worksheet and rename it to "PITCHER PROJECTIONS=>". Then click and drag on these placeholder tabs to move them.
	Continue dragging and dropping worksheets to get all hitter projections in one section and all pitcher projections in one section.
8.	You're going to be looking at this spreadsheet for a significant amount of time, so you should spend a minute on the aesthetics. Right click on the tabs and choose the option to add some color to this thing ("Tab Color").
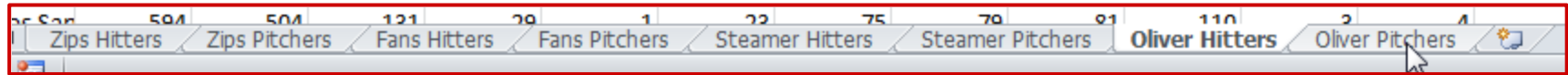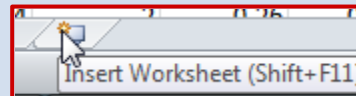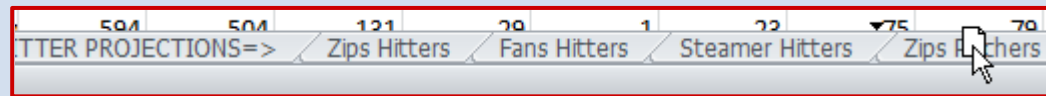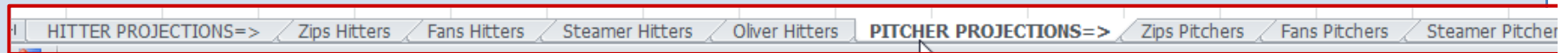
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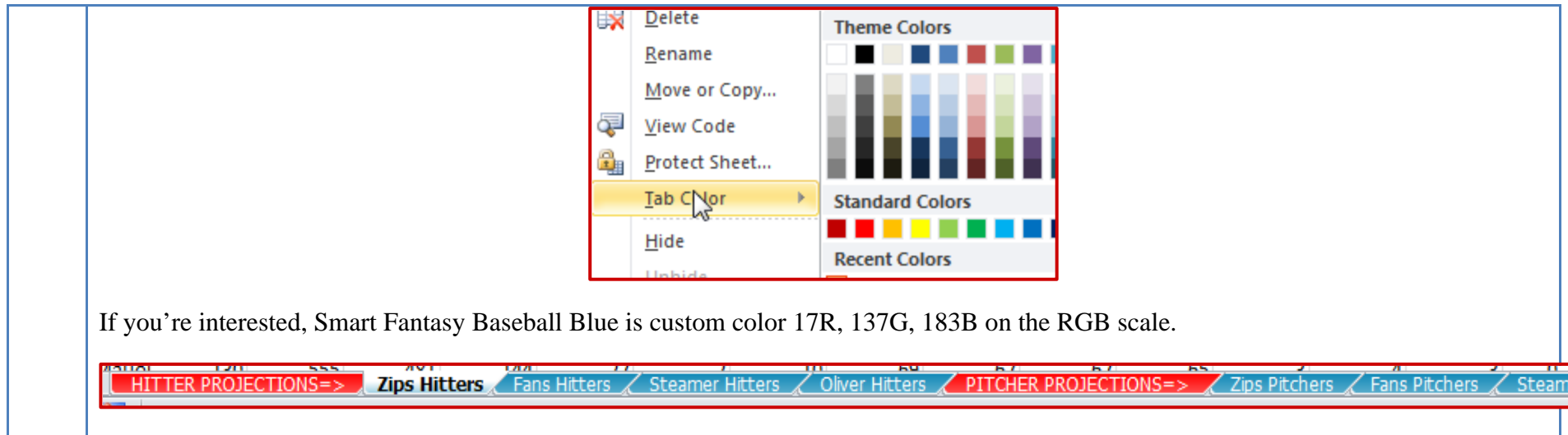
If you're interested, Smart Fantasy Baseball Blue is custom color 17R, 137G, 183B on the RGB scale.

WRAP UP

We've now got the basic infrastructure for our rankings. In the next part of the series we'll discuss player ID numbers, which will lead into using Excel functions and tools to allow us to start pulling data from the projection worksheets.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 1.xlsx

QUESTIONS?

Questions about Part 1? Post them here.

WANT TO MAKE YOUR OWN PROJECTIONS?

If you're enjoying this series, you may also be interested in learning to develop your own projections.

SMART FANTASY BASEBALL

PART 2 – UNDERSTANDING PLAYER IDS

INTRODUCTION

In this second part of the series we discuss what player IDs are so we can later use them to pull information within Excel. You might have noticed the projection data downloaded from Fangraphs in part 1 did not contain the player's team or position. But the downloads did contain each player's Fangraphs ID. We can take advantage of this!

UNDERSTANDING PLAYER IDS

Are you familiar with Chris Young, the former Arizona Diamondback outfielder with a career batting average of about .240? Are you familiar with Chris Young, the oft-injured extremely tall pitcher with a career ERA of 3.79?

Even if you're not familiar with them, know that there are two baseball players of recent note named Chris Young. Look at this chart:

Source	.240 Hitting OF	Tall Injured SP
Name	Chris B. Young	Chris R. Young
Baseball Reference	youngch04	youngch03
Fangraphs	3882	3196
MLB	455759	432934
CBS	4898811	517762

Just like you have a unique Social Security Number or employee ID associated with your name, baseball players have been given unique IDs from different organizations/websites. These IDs give us a way to differentiate Chris B. Young from Chris R. Young. The problem is that there is not an agreed upon ID for each player. Each website or fantasy service uses their own ID.

We need a tool to translate the different player IDs from the various baseball services. That's where the Smart Fantasy Baseball Player ID

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Map comes in.

PLAYER ID MAP

The SFBB Player ID Map contains the Fangraphs, MLB, Baseball-Reference, Retrosheet, CBS, and NFBC player ID for over one thousand players. It's not a comprehensive list of past players by any means, but it should have all current MLB players and those minor league players likely to make a fantasy impact this season.

PLAYERNAME	FIRSTNAME	LASTNAME	TEAM	POS	IDFANGRAPHS	MLBID	CBSID	RETROID	BREFID	NFBCID	
Josh Stinson	Josh	Stinson	MIL	P	3219	502139	1741013	stinj001	stinsjo01	9043	S
Drew Storen	Drew	Storen	WAS	P	6983	519322	1724102	stord001	storedr01	8618	S
Mickey Storey	Mickey	Storey	TOR	P	4721	493547	2000126	-	storemi01	9257	S
Dan Straily	Dan	Straily	OAK	P	9460	573185	1988996	-	straida01	9255	S
Stephen Strasburg	Stephen	Strasburg	WAS	P	10131	544931	1675980	stras001	strasst01	8562	S
Huston Street	Huston	Street	SD	P	8258	434718	546345	streh001	streehu01	7468	S

To give credit where credit is due, I downloaded the player map from Crunchtimebaseball.com and tailored it to meet my needs. This provided me with an excellent starting point.

On this site I will typically work with the Baseball Reference ID format. I like working with that format more than the others because I can look at an ID and usually determine who the player is (troutmi01 is Mike Trout). Whereas most other sites use a straight ID number that has no inherent meaning (Trout's Fangraphs ID is 10155).

STEP-BY-STEP INSTRUCTIONS

These instructions will take us through the process to pull the SFBB Player ID Map into our rankings spreadsheet.

Step	Description
1.	Open your existing rankings spreadsheet (if you don't have one started, you can download one from part 1 here).
2.	Download and open the SFBB Player ID Map.
3.	After you have opened the SFBB Player ID Map, right-click on the "PLAYERIDMAP" tab and select the "Move or Copy…" option.

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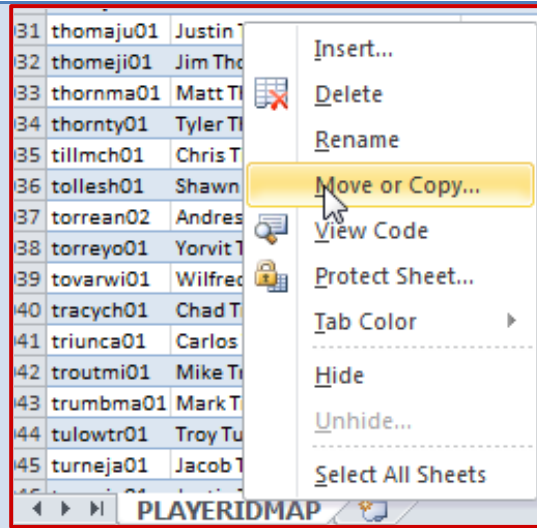
4.	In the "Move or Copy" menu, select your rankings spreadsheet in the "To book:" drop down menu (we're copying the Player ID Map into the Rankings file, or whatever you named your spreadsheet in Part 1).

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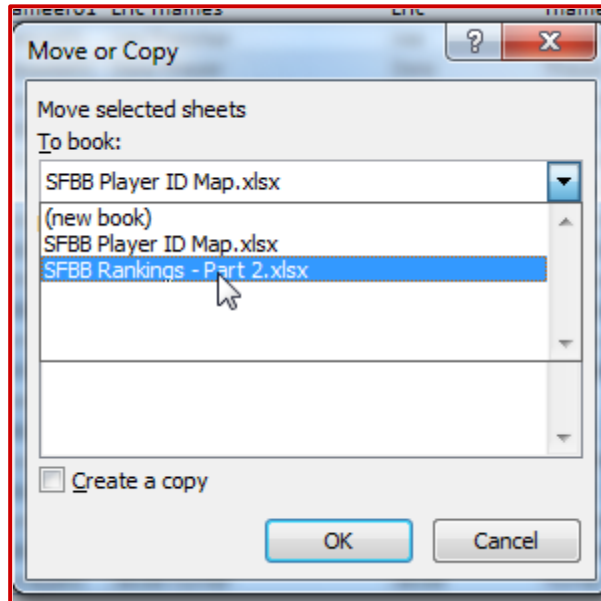
5.	Choose to put the Player ID Map before the "Hitter Projections=>" worksheet. Hit OK.
6.	You now have a spreadsheet sheet with projections from several different sources as well as the Player ID Map.
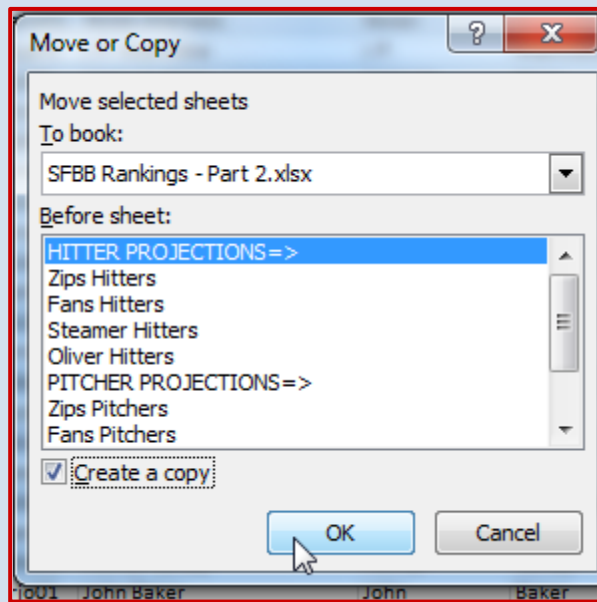
WHAT CAN WE DO WITH THIS? I NEED AN EXAMPLE

As I mentioned above, I prefer to use the Baseball Reference player ID format. But the projection data uses Fangraphs' IDs. The Player ID Map can "convert" the Baseball Reference ID to a Fangraphs ID.

Let's use Miguel Cabrera (player ID "cabremi01") as an example. We can instruct Excel to go to into the Player ID Map and find "cabremi01". Then translate that into Cabrera's Fangraphs ID (Cabrera's is "1744"). Then take that "1744", go to the projections, find "1744", and then pull Cabrera's projected home runs elsewhere in the spreadsheet.

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It's difficult to explain in words. The diagram below might help. Follow the red arrows.
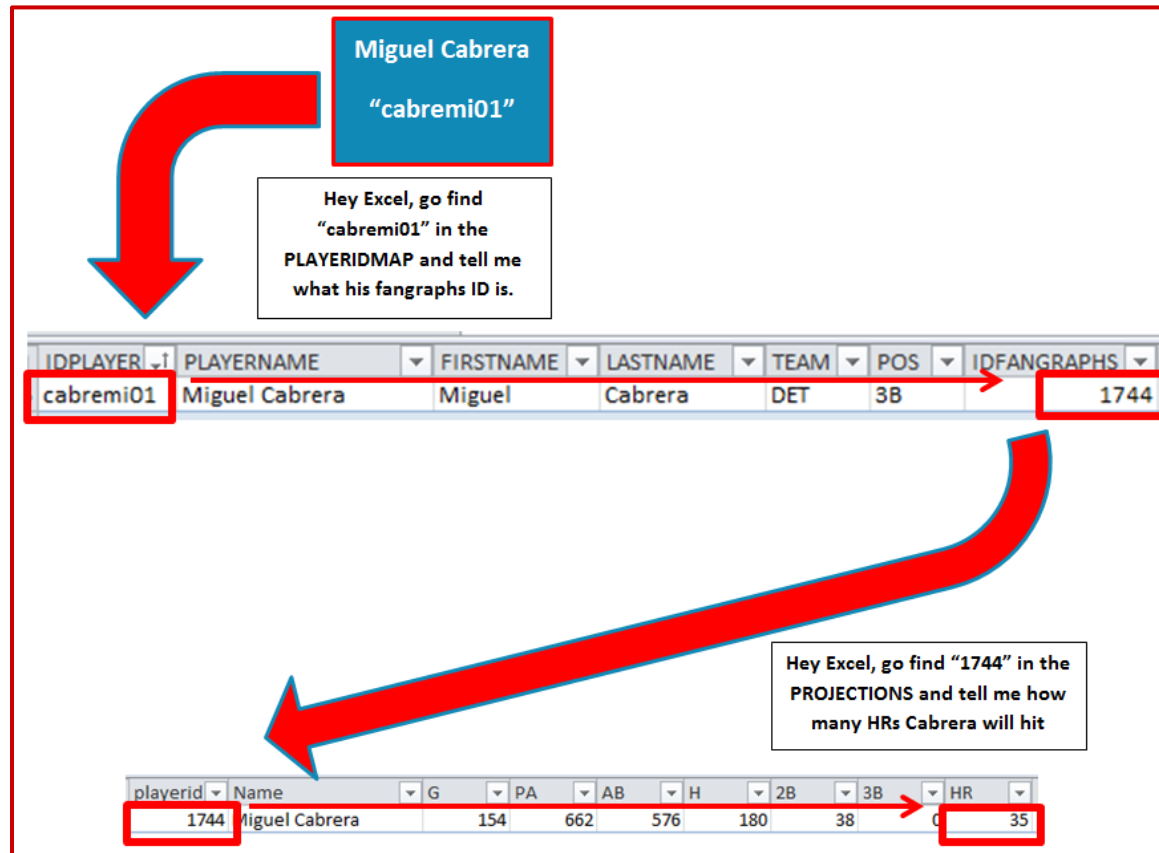
WRAP UP

In the next part of the series we'll start to pull player data (name, position, team, projected stats) as depicted in the diagram above.

If this is intimidating, don't worry. You can do this.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 2.xlsx

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QUESTIONS?

Questions about Part 2? Post them <u>here</u>.

PART 3 – VLOOKUP, EXCEL TABLES, AND NAMED RANGES

INTRODUCTION

In this third part of the series we will use Excel formulas and functions to start pulling player information (name, position, team) and projection information in order to eventually calculate our own rankings. Strap in… This is a long one.

EXCEL FUNCTIONS AND FORMULAS IN THIS POST

Below are the Excel functions and formulas used in this part of the series. If you're already familiar with what these are, you can skip ahead.

VLOOKUP

This is one of the most powerful Excel formulas. And it's easier to use than you might think. This formula searches the first column of a table for a desired value (a player ID) and then returns a value that is in the same row but in a separate column. For example, we might tell Excel to go into a table of projection data, locate a specific player ID (like "cabremi01", Miguel Cabrera), and give us back the number in the eighth column (which holds the number of HRs).

This formula requires four inputs:

VLOOKUP(lookup_value, table_array, col_index_num, range_lookup)

1. lookup_value – This is the value to search for. In the rankings spreadsheet, we're mostly going to use player IDs for this. "Hey Excel, go look for this player ID".

2. table_array – This has to be two or more columns of data. Excel will look for the look_up value in the first column in the set of data. You do not necessarily need to include the first column on a spreadsheet tab. But Excel is going to look through the first column you provide. "Hey Excel, here are ten columns of data for you, look through everything in the first column for the

lookup_value."

3. col_index_num – This is the column number from the table_array that contains your desired information. This has to be a number and it has to be within the table_array you provided. For example, if your table_array only has five columns, but you put a 6 for col_index_num, you'll have a problem. "Hey Excel, the eighth column has projected home runs. Tell me how many home runs are projected for this player ID."

4. range_lookup – This input can be either "TRUE" or "FALSE". If you use "TRUE", Excel will look for an approximate match of the lookup_value (PLAYERID). If you enter "FALSE", Excel will only look for an exact match. This is an optional input, but I feel very strongly that it must be used and that "FALSE" is the option to be selected. You may otherwise get the wrong projections showing up for players.

TABLES (NAMED RANGES)

Excel has functionality that allows you to convert a block of data (player projections) into a table. There are quite a few benefits to using tables:

1. Tables can have names. This is great for the table_array input in the VLOOKUP formula. We can give the projection sheet the name "STEAMER_H" (for Steamer Hitters projections) and use that instead of traditional way of selecting data in Excel (something like 'Steamer Hitters'!A1:W500).

2. Columns have names. I have a hard time remembering what column projected HR is in. But I don't need to if I know that the column name is "HR". If you don't use a table, you're stuck trying to remember things like, "were HRs in column G, H, or I?". When referring to a column, use the following convention – TABLENAME[COLUMNNAME]. The column name is surrounded in brackets.

3. Easily adding calculations. In a table, all formulas within a column are identical. This is great for consistency. And because of this, when you change the formula in one cell of a column, the rest of the column automatically updates too. No more editing a formula in one cell and having to copy it to hundreds of other cells.

4. Easy sorting and filtering. As easy as clicking a drop down arrow.
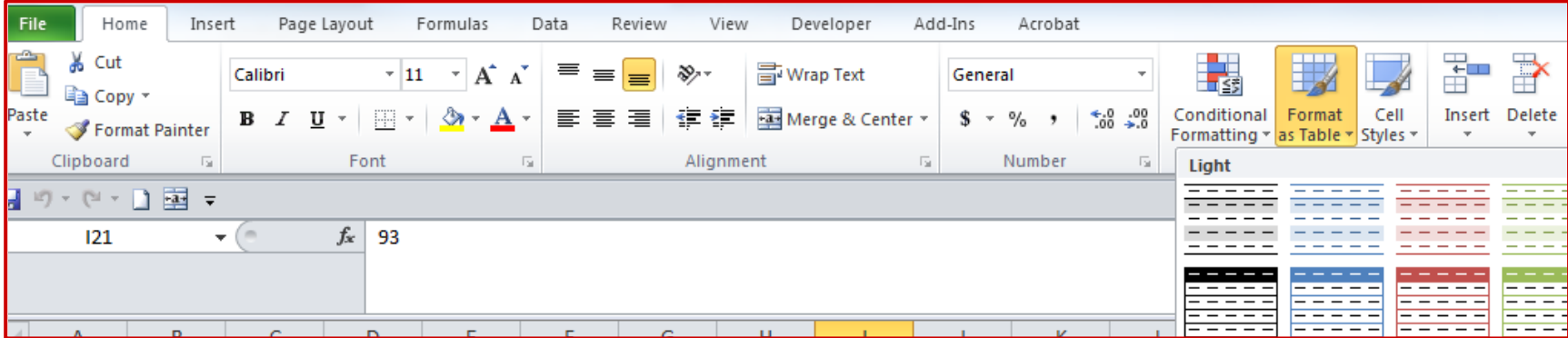
COLUMN

This function returns the column number of a cell or range of data. The function only requires one input; the cell or range to be evaluated. For example:

COLUMN(TableName[ColumnName]) the input is a column name from a table and the formula will return the column number.

STEP-BY-STEP INSTRUCTIONS

Step	Description
1.	In Part 1 of this series we look at how easy it is to find some high quality projection data for free. For the sake of simplicity, I'm going to pick one source to move forward with. This smart article at Razzball reviews the accuracy of 2012 projections and puts the Steamer projections in a positive light. So I'm going to move forward and base my rankings off of Steamer. You can choose whatever source you prefer.
2.	To make the projections easier to work with, convert the "Steamer Hitters" tab to a "table" in Excel. Click anywhere within the data on your hitter projection worksheet. Then locate the "Home" tab in the Excel menu system ("the ribbon"). Click once on the "Format as Table" drop down, and then select your desired color scheme.

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You will then be prompted to verify the range of cells in the table and that your table has a header row (e.g. Name, AB, H, HR, etc.). Check "My table has headers". Click OK.
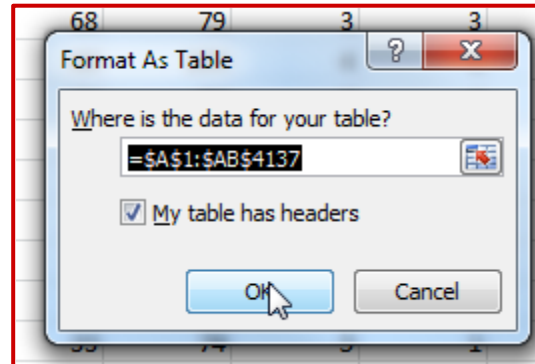
After accepting this, your bland looking data will transform into a table.

3.	We'll later be pulling information from this table into other worksheets. To make the pulling of data easier we need to move the Fangraphs player ID to be the first column (you can use VLOOKUP if the player ID is in the first column, otherwise you're stuck using more difficult and/or multiple formulas). Right-click on the top of the Fangraphs player ID column (I right clicked on the "AB" column header, not for At Bats, as in the column next to column "AA") and Cut it.
4.	Now right-click on the top of the player name column (column header "A") and select "Insert Cut Cells".
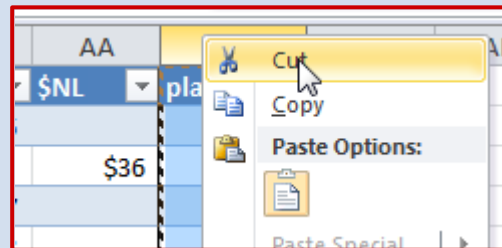
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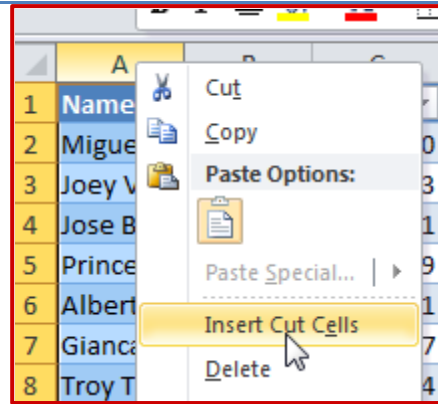
5.	Before we finalize this table, we must give it a name. Go to the "Formulas" tab on the Excel ribbon and click on the "Name Manager" button.
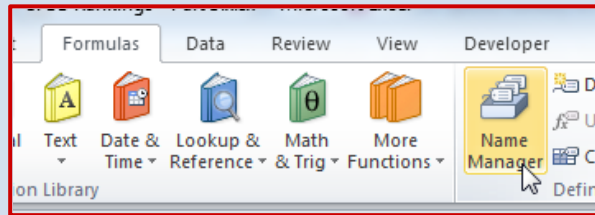
6.	Excel will give very generic names to a table, like "Table2″. It's more helpful to give meaningful names to your tables. As you get more tables in a spreadsheet, it can become very difficult to remember the difference between "Table2″ and "Table3″. Note how there is already a table named "PLAYERIDMAP". I previously set up this table before you inserted it into your Excel file in Part 2 of this series. Select your table from the list and click on the "Edit…" button.

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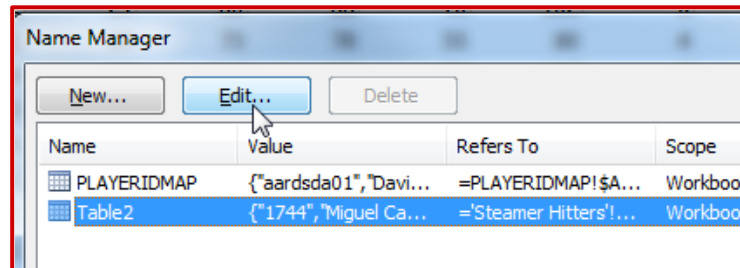
7.	Give the table a meaningful name. I chose "STEAMER_H" to indicate these are the Steamer Hitter projections. Click "OK" to close the "Edit Name" menu. Then click "Close" to exit the "Name Manager".
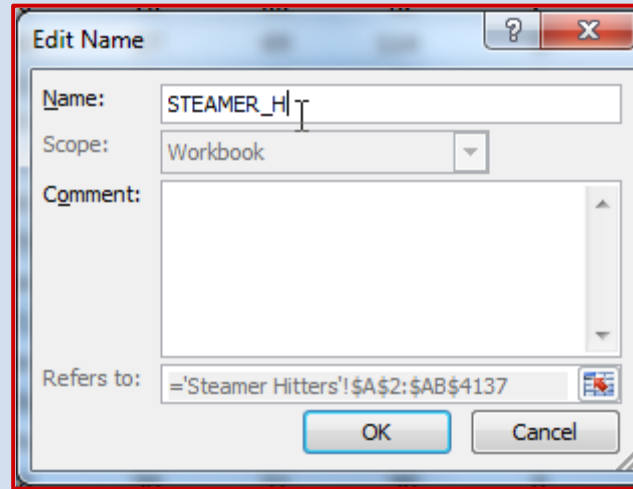
8.	We now have two tables ready to pull information from, PLAYERIDMAP and STEAMER_H. I'm going to pull from these two tables into a new tab where I'll calculate the hitter rankings.

9.	Right click on the "PLAYERIDMAP" tab and select the option to "Insert…". Choose the "Worksheet" option and click "OK".

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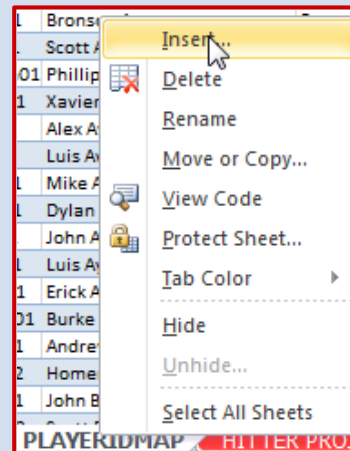
10.	Right click on the new sheet tab and choose to "Rename". I'll call this sheet "Hitter Ranks".
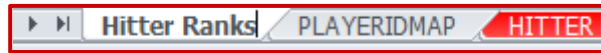
11.	I want the first column of this new sheet to contain the Baseball Reference player ID (e.g. cabremi01). I believe the PLAYERIDMAP sheet has a list of all fantasy-relevant players (for standard rotisserie leagues, at least). However, this sheet contains pitchers also. Because this sheet is an Excel table, it's easy to filter out those pitchers. Click on the drop down arrow on the "POS" column. You'll be presented with a list of all the positions. Uncheck any "RP", "SP", "P" values. Click OK to apply.

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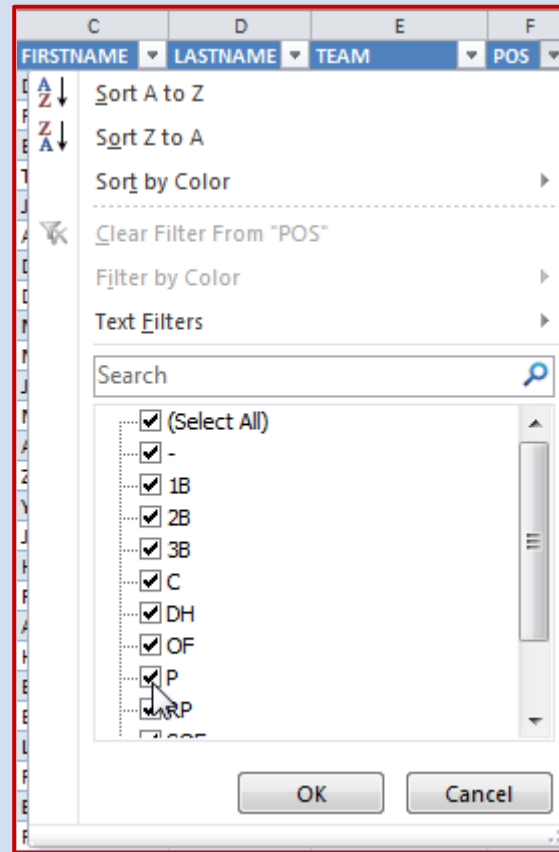
12.	Starting at the first player and ending with the last, click and drag within the "IDPLAYER" column (first column) and select all players. Only select from this first column.

1097	werthja01	Jayson Werth
1099	wheelry01	Ryan Wheeler
1102	whitlch01	Chase Whitley
1104	wietema01	Matt Wieters
1105	wiggity01	Ty Wigginton
1108	willijo03	Josh Willingham
1109	wilsobo02	Bobby Wilson
1113	wisede01	DeWayne Wise
1114	wongko01	Kolten Wong
1118	worthda01	Danny Worth
1119	wrighda03	David Wright
1122	youklke01	Kevin Youkilis
1124	youngch04	Chris Young
1125	youngde03	Delmon Young
1126	younger03	Eric Young
1127	youngma02	Matt Young
1128	youngmi02	Michael Young
1131	zimmery01	Ryan Zimmerman
1133	zobribe01	Ben Zobrist
1134	zuninmi01	Michael Zunino

13.	Copy this selected data. Return to the "Hitter Ranks" sheet. Type "PLAYERID" into cell A1 (to label the column). Then paste the data into cell A2.

	A	B
1	PLAYERID	
2	abreubo01	
3	abreuto01	
4	ackledu01	
5	adamsda01	
6	adamsma01	
7	almonzo01	
8	alonsyo01	
9	altuvjo01	
10	alvarpe01	

SMART FANTASY BASEBALL

14.	Now that we're starting this new sheet, we should convert it to an Excel table. We will essentially repeat step 2 above, but for this different worksheet. Click once to select any player ID. Then locate the "Home" tab in the Excel menu system ("the ribbon"). Click once on the "Format as Table" drop down, and then select your desired color scheme.
15.	You will then be prompted to verify the range of cells in the table and that your table has a header row (which we added in step 13). Check "My table has headers". Click OK.
16.	Repeat steps 5-7 in order to give the table a more meaningful name. In my example, Excel defaulted the table name to "Table3". I renamed mine to be "MYRANKS_H" (to indicate hitter ranks, because we'll also be ranking pitchers).
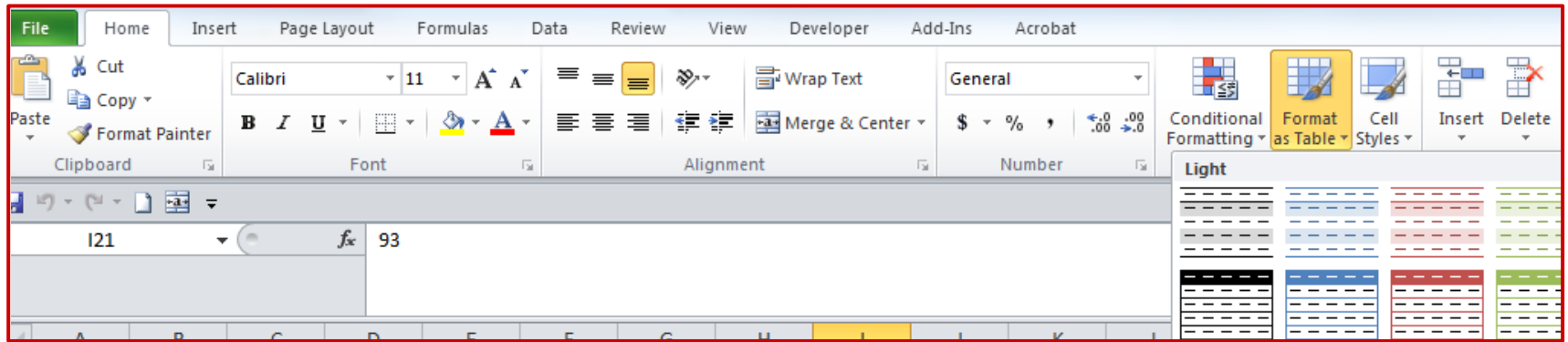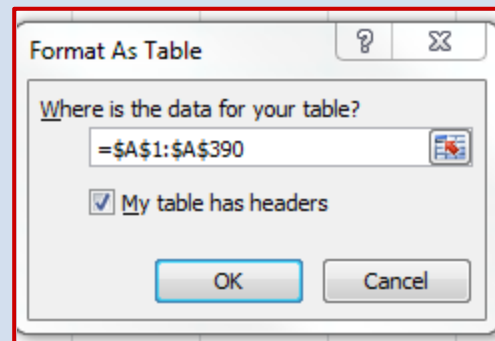
Name	Value	Refers To
MYRANKS_H	{"abreubo01";"abre…	='Hitter Ranks'!A…
PLAYERIDMAP	{"aardsda01","Davi…	=PLAYERIDMAP!$A…
STEAMER_H	{"1744","Miguel Ca…	='Steamer Hitters'!…

17.	Now for the fun part… pulling data from the other tabs. I'll first add "Player Last Name" to the table. To expand your table, simply type into column B and hit Enter (I typed into cell B1). Excel should automatically pull this new column into your table. I'm going to name my column "LNAME".

	A	B
1	PLAYERID ▼	LNAME ▼
2	abreubo01	✛
3	abreuto01	
4	ackledu01	

18.	Our goal in this column is to instruct Excel to take the PLAYERID from column A, go into the first column of PLAYERIDMAP, find the matching PLAYERID, and then pull the corresponding LASTNAME. You can see in the image of the PLAYERIDMAP below that LASTNAME is in the fourth column (column D).

	A	B	C	D	
1	IDPLAYER ▼	PLAYERNAME ▼	FIRSTNAME ▼	LASTNAME ▼	TE
4	abreubo01	Bobby Abreu	Bobby	Abreu ✛	LA
5	abreuto01	Tony Abreu	Tony	Abreu	SF
8	ackledu01	Dustin Ackley	Dustin	Ackley	SE
9	adamsda01	David Adams	David	Adams	NY

To start building the formula, click in cell B2 of your Hitter Ranks tab. Then click the "fx" button of the formula bar to launch Excel's formula wizard. We'll use the wizard the first time through to better explain this function in Excel.

B2	▼	*fx*
		Insert Function

	A	B	C	D
	ERID ▼	LNAME ▼		
	ubo01			

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19.	Type "vlookup" into the search bar and click "Go". When the function appears, make sure it is selected and hit "OK".
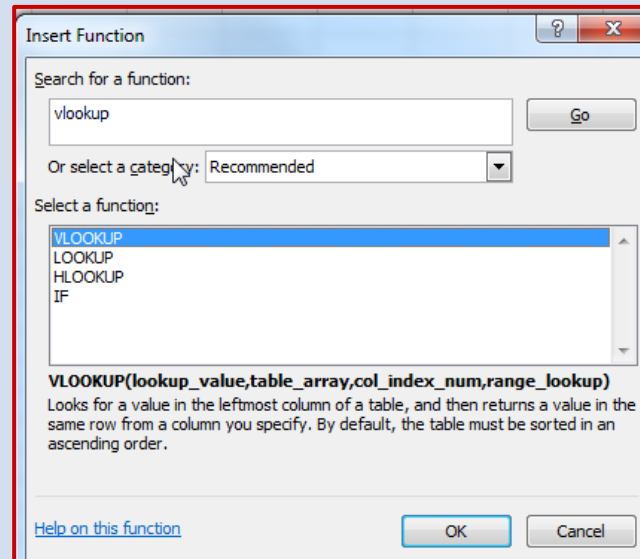
You should then see the different arguments, or components, needed for the formula to work.

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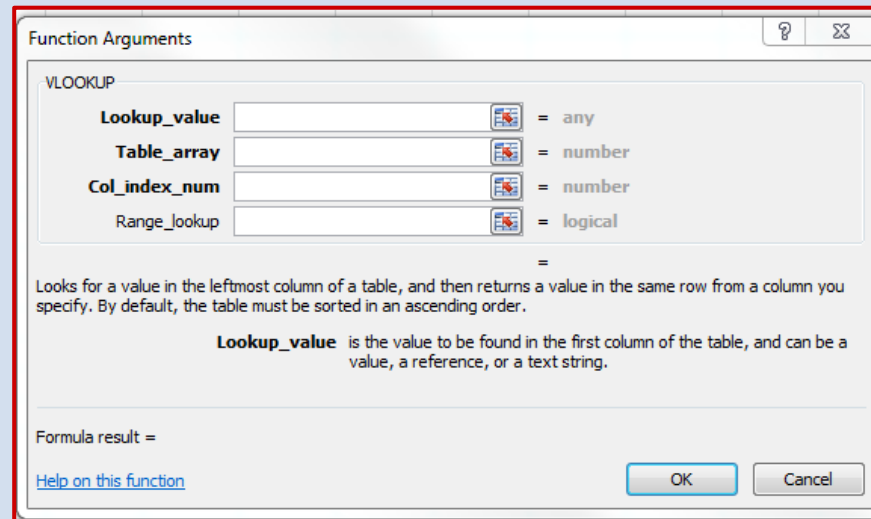
20.	The "Lookup_value" is the value on the "Hitter Ranks" sheet that we want to locate in "PLAYERIDMAP". Click once in the "Lookup_value" field, just to place the cursor. Then click on the value in cell A2 ("abreubo01″ in my example). Excel will convert this to [@PLAYERID]. This naming convention can be used when you have converted your data into an Excel table. If you can't remember the naming convention, you can always use this formula wizard to build formulas. ![Function Arguments VLOOKUP dialog box showing Lookup_value field containing [@PLAYERID] equal to "abreubo01", with empty Table_array, Col_index_num, and Range_lookup fields] Function Arguments VLOOKUP Lookup_value [@PLAYERID] = "abreubo01" Table_array = number Col_index_num = number Range_lookup = logical = Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. **Lookup_value** is the value to be found in the first column of the table, and can be a value, a reference, or a text string. Formula result = Help on this function OK Cancel
21.	The "Table_array" field is the table in which to go look for the matching PLAYERID. Click once in the "Table_array" field. Simply type "PLAYERIDMAP" (no quotes). Again, this is another benefit of using Excel tables. It's much easier to type in the table name than it is to flip tabs in Excel and select a giant range of data.

SMART FANTASY BASEBALL
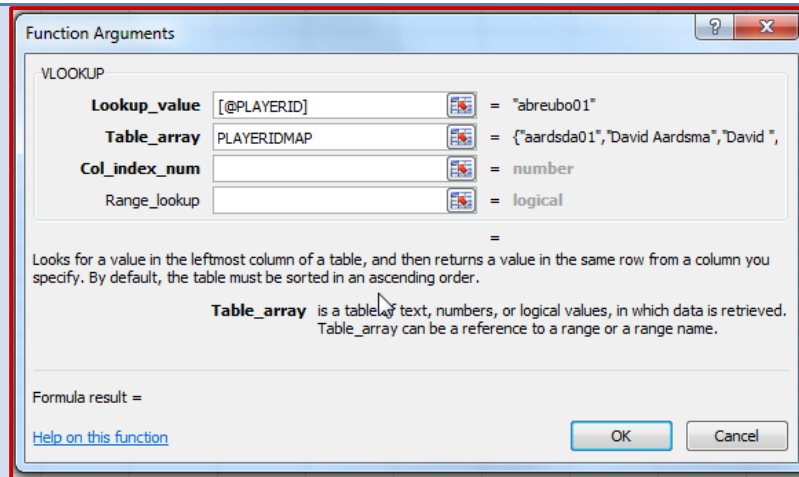
22.	The "Col_index_num" field wants to know the number of the column in the PLAYERID map table to retrieve data from. Again, our goal is to retrieve LASTNAME from the PLAYERIDMAP table, which is column 4. You could manually flip back and forth between tabs to determine the column number. You could then enter a 4 in for "Col_index_num". For now entering a 4 seems like the easy thing to do. But this strategy takes time and is difficult to manage when you start getting into column X (do you know what number letter of the alphabet that is?). Alternatively, I prefer to use the COLUMN function. When the COLUMN formula is entered into the Col_index_num field, it will return the column number. The formula below will determine that LASTNAME is the fourth column in the PLAYERIDMAP table. **COLUMN(PLAYERIDMAP[LASTNAME])** Enter this equation into the Col_index_num field.

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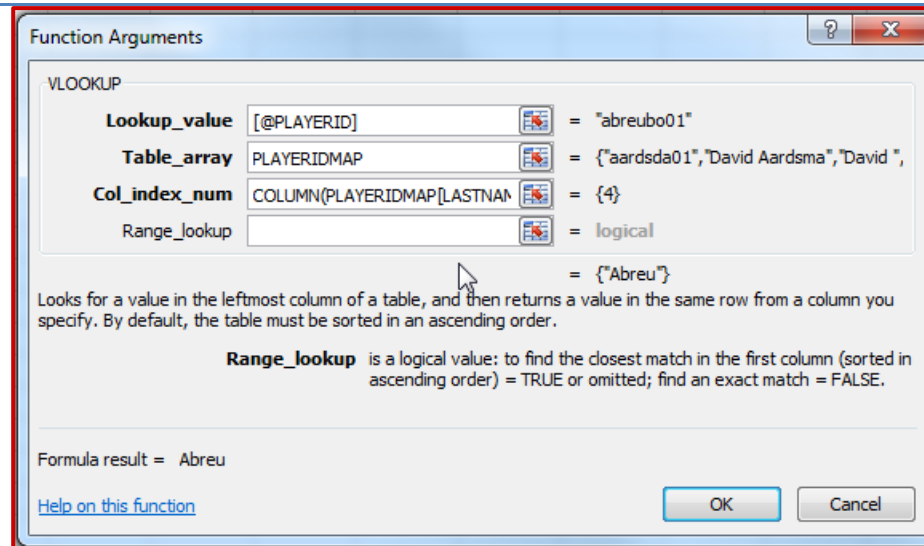
| 23. | Finally, we have the Range_lookup argument. I always enter "FALSE" for this in order to ensure Excel only locates exact matches for a PLAYERID. I don't want Excel to return an approximate match if the exact PLAYERID cannot be found (Excel might think Melky Cabrera is a close enough match to Miguel Cabrera and start feeding through projections for Melky instead of Miggy). |

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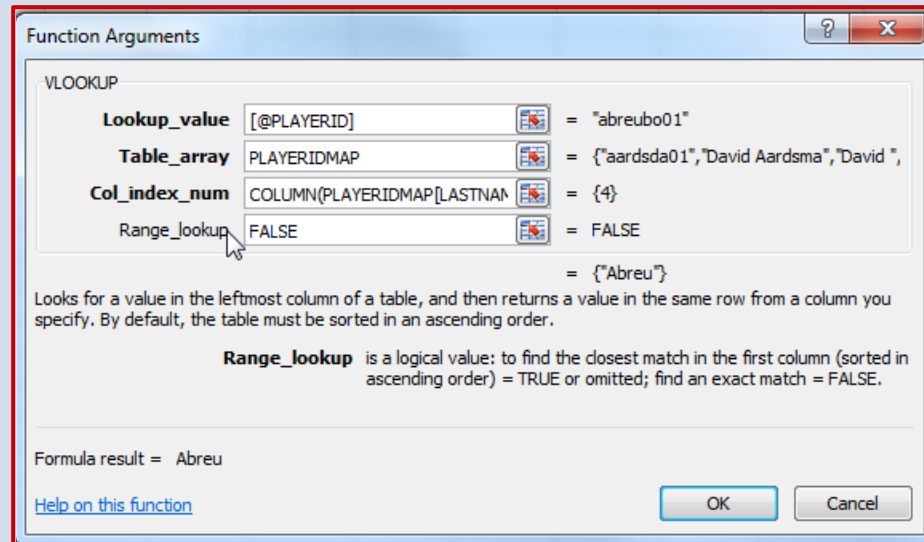
24.	Before hitting "OK" to accept the formula, you can preview the output. In this case we are dealing with "abreubo01″, or Bobby Abreu, and can see the formula appears to be working, giving us the last name "Abreu". Click OK to accept the formula.
	= {"Abreu"} en returns a value in the same row fr
25.	Once the formula is entered, it should automatically copy to the remaining rows of the table.
	<table><tr><th></th><th>A</th><th>B</th></tr><tr><td></td><td>PLAYERID ▼</td><td>LNAME ▼</td></tr><tr><td></td><td>abreubo01</td><td>Abreu</td></tr><tr><td></td><td>abreuto01</td><td>Abreu</td></tr><tr><td></td><td>ackledu01</td><td>Ackley</td></tr><tr><td></td><td>adamsda01</td><td>Adams</td></tr><tr><td></td><td>adamsma01</td><td>Adams</td></tr><tr><td></td><td>almonzo01</td><td>Almonte</td></tr></table>
26.	We will use the VLOOKUP formula to pull additional data, and the majority of the formula will remain the same. To add a FNAME column, type the column name into cell C1. Copy the formula from cell B2 (actually copy it from the formula editor bar like shown in the image below, then hit ESC to exit the formula editor).
	▼ ⊙ ✗ ✓ *fx* =VLOOKUP([@PLAYERID],PLAYERIDMAP,COLUMN(PLAYERIDMAP[LASTNAME]),FALSE) B · C · D · E · F · G · H · I · J · K · L NAME ▼ FNAME ▼ /LOOKU
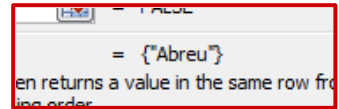
SMART FANTASY BASEBALL
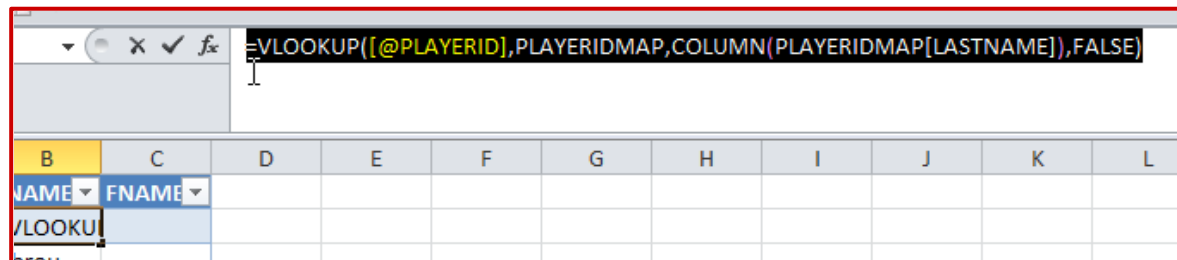
Paste the formula into cell C2. Then simply change the column name (remember column names are surrounded in [brackets]. So change [LASTNAME] to [FIRSTNAME]. Hit Enter and you will see all the first names pull in.

=VLOOKUP([@PLAYERID],PLAYERIDMAP,COLUMN(PLAYERIDMAP[LASTNAME]),FALSE)

| 27. | Repeat step 26 to pull TEAM, POS, and IDFANGRAPHS from the PLAYERIDMAP tab. |

	A	B	C	D	E	F
1	PLAYERID	LNAME	FNAME	TEAM	POS	IDFRANGRAPHS
2	abreubo01	Abreu	Bobby	LAD	OF	945
3	abreuto01	Abreu	Tony	SF	2B	5053
4	ackledu01	Ackley	Dustin	SEA	2B	10099
5	adamsda01	Adams	David	NYY	2B	sa454507
6	adamsma01	Adams	Matt	STL	1B	9393
7	almonzo01	Almonte	Zoilo	NYY	OF	sa392420
8	alonsyo01	Alonso	Yonder	SD	1B	2530
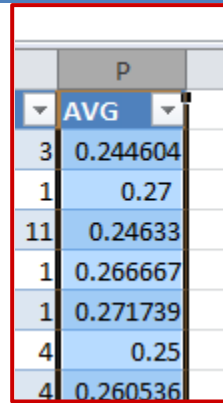
If you can't remember the exact name of a column, once you have entered a table name, like PLAYERIDMAP, and the opening "[" bracket, a helpful type ahead box will display all the column names in the PLAYERIDMAP table. At that point you can finish typing the column name or select the desired column name with your mouse.

LUMN(PLAYERIDMAP[]),FALSE)

OLUMN([reference])

	J	K	L
		IDPLAYER	
		PLAYERNAME	
		FIRSTNAME	
		LASTNAME	
		TEAM	
		POS	
		IDFANGRAPHS	
		MLBID	
		MLBNAME	
		CBSID	
		CBSNAME	
		CBSFAN	

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28.	We've now pulled all the relevant information from PLAYERIDMAP and can now begin pulling in hitter projections. We have to add columns and VLOOKUP formulas to pull plate appearances (PA), at bats (AB), hits (H), home runs (HR), runs (R), runs batted in (RBI), walks (BB), strikeouts (SO), and stolen bases (SB). There will be some tweaks to the VLOOKUP formula we used earlier. First, the Steamer projections use Fangraphs ID numbers. So we will be using the IDFANGRAPHS column as the Lookup_value. Second, we must specify to pull from the Steamer Hitters projections (STEAMER_H table name). And finally, the COLUMN formula will change to determine what statistic to pull. **=VLOOKUP([@IDFRANGRAPHS],STEAMER_H,COLUMN(STEAMER_H[PA]),FALSE)** The example formula above is for plate appearances ("[PA]"). Go through and add columns to also pull in "[AB]", "[H]", "[HR]", "[R]", "[RBI]", "[BB]", "[SO]", and "[SB]".
29.	I don't pull average or any other rate statistics (OBP, SLG, etc.). I prefer to recalculate them with a formula after the underlying statistics have been pulled. For example, if I disagree with a projection and think a player will not have 500 ABS, he'll only have 400. And he won't have 125 hits, he'll only have 90. My changes indicate a different batting average. So it makes more sense to calculate batting average via a formula, so these updated projections are captured and a new batting average will automatically calculate. To do this, type "AVG" in as a column header. Then enter the formula **"=[@H]/[@AB]"** to calculate batting average
30.	Most statistics don't need formatting, but AVG will. Click on the "P" column header to select the entire AVG column.

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Then on the Home tab of the ribbon, click on the comma number format.

Finally, click on the symbol to increase the decimal places from 2 to 3.

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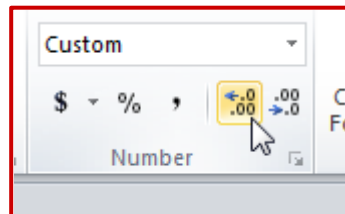
31.	We've now successfully combined player information and projected stats into one table.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	PLAYERID	LNAME	FNAME	TEAM	POS	IDFRANGRAPHS	PA	AB	H	HR	R	RBI	BB	SO	SB	AVG
2	abreubo01	Abreu	Bobby	LAD	OF		945	163	139	34	3	15	16	21	34	3	0.245
3	abreuto01	Abreu	Tony	SF	2B		5053	100	94	25	1	10	10	4	17	1	0.266
4	ackledu01	Ackley	Dustin	SEA	2B		10099	699	613	151	13	83	59	73	114	11	0.246
5	adamsda01	Adams	David	NYY	2B	sa454507		100	90	24	2	11	11	7	16	1	0.267
6	adamsma01	Adams	Matt	STL	1B		9393	100	92	25	4	11	14	6	19	1	0.272
7	almonzo01	Almonte	Zoilo	NYY	OF	sa392420		100	92	23	3	12	12	6	22	4	0.250
8	alonsyo01	Alonso	Yonder	SD	1B		2530	589	522	136	12	62	65	58	98	4	0.261
9	altuvjo01	Altuve	Jose	HOU	2B		5417	684	629	180	10	84	59	40	76	27	0.286
10	alvarpe01	Alvarez	Pedro	PIT	3B		2495	578	511	125	25	68	77	58	165	2	0.245

WRAP UP

This was a long one… Stick with it. What we just set up is extremely powerful. Our rankings tab is now linked to the projection tab. In the future you will be able to edit all of the projections on the projection tab and instantly have updated player rankings.

And even more powerful, when next season rolls around you will be able to just plug new projections into this file and instantly have updated rankings for the upcoming season. **You don't need to redo these things every year!**

In the next part of the series we'll reperform many of these same steps in order to create a pitchers rankings table. It will be a more abbreviated post that will only touch on the key differences needed for pitchers.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 3.xlsx

QUESTIONS?

Questions about Part 3? Post them here.

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PART 4 – PITCHER RANKINGS

INTRODUCTION

In this fourth part of the series we will use Excel formulas and functions to start pulling pitcher information (name, position, team) and projection information in order to eventually calculate our own rankings. This post assumes you are familiar with the Excel functions and formulas used in Part 3.

EXCEL FUNCTIONS AND FORMULAS IN THIS PART

Below are the Excel functions and formulas used in this post. If you would like more background on them, please refer to Part 3.

- VLOOKUP

- TABLES and NAMED RANGES

- COLUMN

STEP-BY-STEP INSTRUCTIONS

Step	Description
1.	Staying consistent with the hitting projections, I'm going to use the free Steamer projections from Fangraphs.
2.	To make the pitching projections easier to work with, convert the "Steamer Pitchers" tab to a "table" in Excel. To do this, click anywhere within the data on the "Steamer Pitchers" worksheet. Then locate the "Home" tab in the Excel menu system ("the ribbon"). Click once on the "Format as Table" drop down, and then select your desired color scheme.

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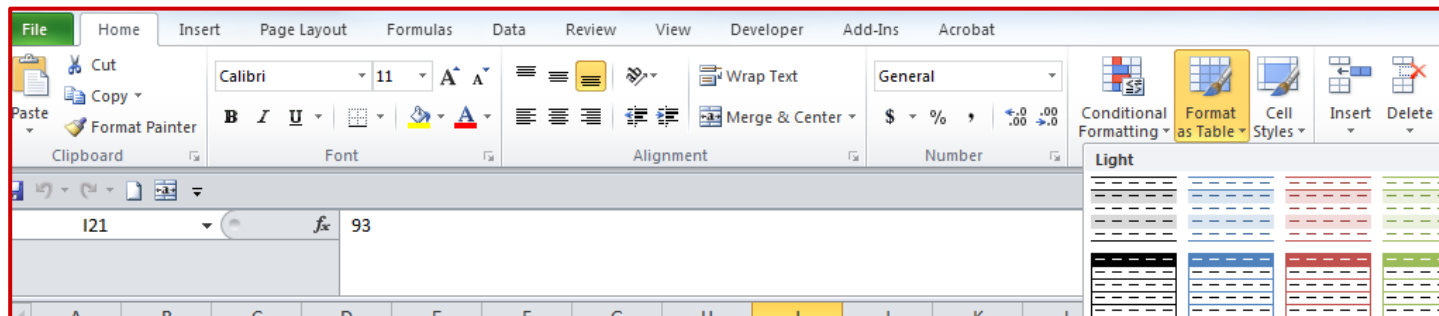
You will then be prompted to verify the range of cells in the table and that your table has a header row (e.g. Name, W, L, ERA, etc.). Check "My table has headers". Click OK.
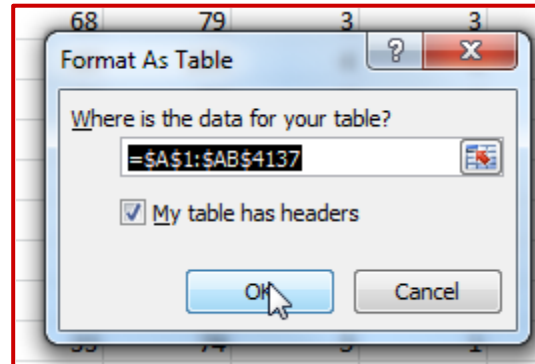
3.	Because we'll later be pulling these pitcher projections into other worksheets, it will help us greatly if the Fangraphs player ID is the first column of the table (you can use the VLOOKUP formula if the player ID is in the first column, otherwise you're stuck using more difficult and/or multiple formulas). Right-click on the top of the Fangraphs player ID column (should be column X in the Steamer Pitchers projections).
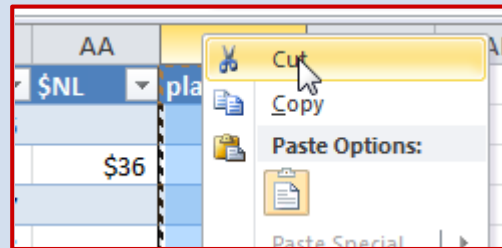
Now right-click on the top of the player name column (column header "A") and select "Insert Cut Cells". When you're done, you should have the "playerid" column first and "Name" second.
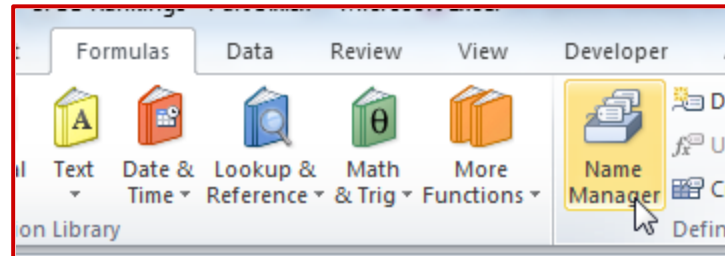
| 4. | Before we finalize this table, we must give it a name. Go to the "Formulas" tab on the Excel ribbon and click on the "Name Manager" button. |

| 5. | You should see one generic item in the list, like "Table4″. Select this table from the list and click on the "Edit…" button. |
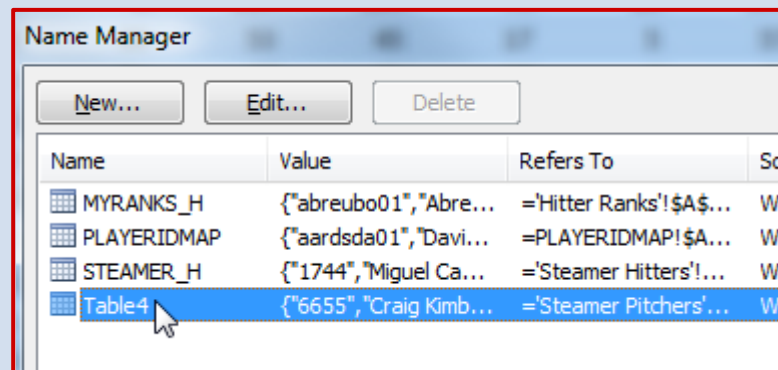
Give the table a meaningful name, like "STEAMER_P" to indicate these are the Steamer Pitcher projections. Click "OK" to close the

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"Edit Name" menu. Then click "Close" to exit the "Name Manager".
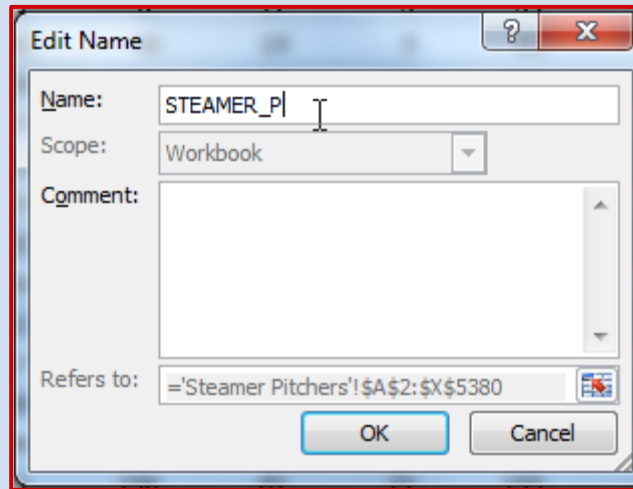
6.	We now have two tables containing pitching information that we will pull from, PLAYERIDMAP (information about player name, position, team) and STEAMER_P (Steamer pitching projections). We are going to pull from these two tables into a new tab where we will calculate the pitcher rankings.
7.	Right click on the "Hitter Ranks" tab and select the option to "Insert…". Choose the "Worksheet" option and click "OK".

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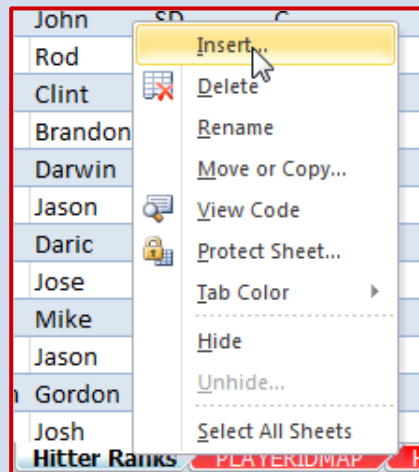
8.	Right click on the new sheet tab and choose to "Rename". Call this sheet "Pitcher Ranks". RANKINGS=> Hitter Ranks **Pitcher Ranks** PLAYERIDMAP
9.	We want the first column of this new sheet to contain the Baseball Reference player ID (e.g. "strasst01" for Stephen Strasburg). The PLAYERIDMAP sheet has a list of all fantasy-relevant players (for standard rotisserie leagues, at least). However, this sheet contains hitters also. Because this sheet is an Excel table, it's easy to filter out those hitters. Click on the drop down arrow on the "POS" column. You'll be presented with a list of all the positions. Uncheck any position player and check the "RP", "SP", "P" values. Click OK to apply. FIRSTNAME ▼ LASTNAME ▼ TEAM ▼ POS ⫶ ↓ Sort A to Z ↓ Sort Z to A Sort by Color ▶ Clear Filter From "POS" Filter by Color ▶ Text Filters ▶ Search 🔍 ☐ 2B ☐ 3B ☐ C ☐ DH ☐ OF ☑ P ☑ RP ☐ SOF ☑ SP ☐ SS OK Cancel
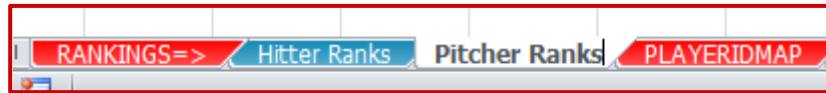
SMART FANTASY BASEBALL
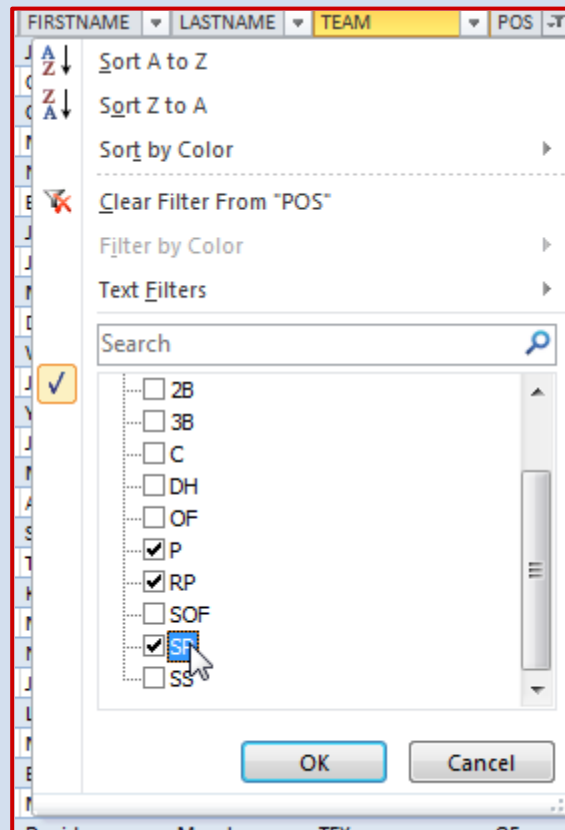
10.	Starting with the first player and ending with the last, click and drag within the "IDPLAYER" column (first column) and select all players. Only select from this first column.
11.	Copy this selected data. Return to the "Pitcher Ranks" sheet. Type "PLAYERID" into cell A1 (to label the column). Then paste the data into cell A2.

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12.	Because this is a new sheet, we need to convert it to an Excel table. We will essentially repeat step 2 above, but for this different worksheet. Click once to select any player ID. Then locate the "Home" tab in the Excel menu system ("the ribbon"). Click once on the "Format as Table" drop down, and then select your desired color scheme.
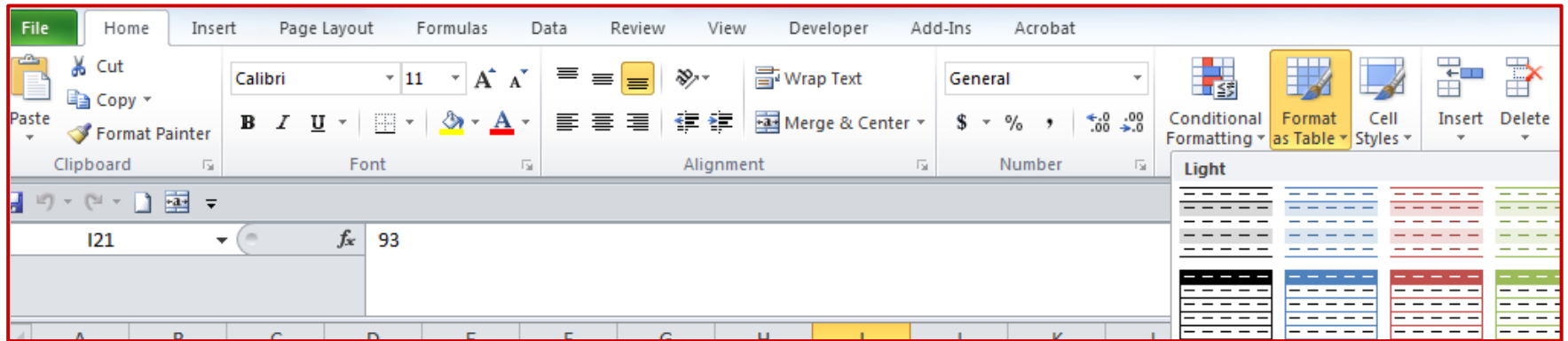
13.	You will then be prompted to verify the range of cells in the table and that your table has a header row (which we added in step 11). Check "My table has headers". Click OK.
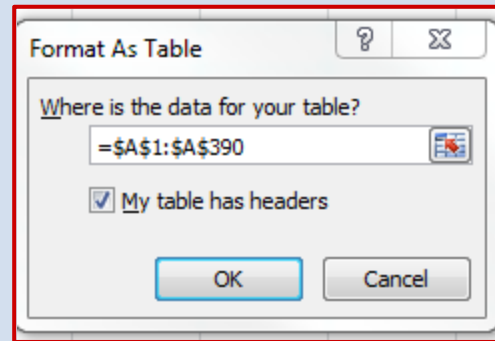
14.	Repeat steps 4-6 above to give the table a more meaningful name. In my example, Excel defaulted the table name to "Table5″. I renamed mine to be "MYRANKS_P" (to indicate pitcher ranks).

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Name	Value	Refers To
MYRANKS_H	{"abreubo01";"abre…	='Hitter Ranks'!A..
PLAYERIDMAP	{"aardsda01","Davi…	=PLAYERIDMAP!$A..
STEAMER_H	{"1744","Miguel Ca…	='Steamer Hitters'!…

| 15. | Now let's start pulling data from the other tabs. If you need more explanation of the formulas used, refer to Part 3 of the series. Use the VLOOKUP formula to pull LASTNAME, FIRSTNAME, TEAM, POS, and IDFANGRAPHS from the PLAYERIDMAP table.

To get you started, type "LNAME" into cell B1. The example formula to add in cell B2 in order to pull LASTNAME is shown here:

=VLOOKUP([@PLAYERID],PLAYERIDMAP,COLUMN(PLAYERIDMAP[LASTNAME]),FALSE)

	A	B	C	D	E	F
1	PLAYERID	LNAME	FNAME	TEAM	POS	IDFANG
2	aardsda01	Aardsma	David	NYY	P	1902
3	abadfe01	Abad	Fernando	HOU	P	4994
4	accarje01	Accardo	Jeremy	OAK	P	6428
5	aceveal01	Aceves	Alfredo	BOS	P	5164
6	adamsmi03	Adams	Mike	PHI	P	1937
7	affelje01	Affeldt	Jeremy	SF	P	583
8	alberma01	Albers	Matt	CLE	P	4300
9	albural01	Alburquer	Al	DET	P	6324

Create column headers for first name, team, position, and Fangraphs ID. Add the bolded formula above to each column. You will only need to change the "[LASTNAME]" component to "[FIRSTNAME]", "[TEAM]","[POS]",and "[IDFANGRAPHS]". |

| 16. | We've now pulled all the relevant information from PLAYERIDMAP and can now begin pulling in pitcher projections. Add columns and VLOOKUP formulas to pull wins (W), games started (GS), saves (SV), innings pitched (IP), hits allowed (H), earned runs allowed (ER), home runs allowed (HR), strikeouts (SO), walks (BB), and fielding independent pitching (FIP).

There will be some tweaks to the VLOOKUP formula we used earlier. First, the Steamer projections use Fangraphs ID numbers. So we will be using the IDFANGRAPHS column as the Lookup_value. Second, we must specify to pull from the Steamer Pitchers projections (STEAMER_P table name). And finally, the COLUMN formula will change to determine what statistic to pull. |

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	=VLOOKUP([@IDFRANGRAPHS],STEAMER_P,COLUMN(STEAMER_P[W]),FALSE)
	The example formula above is for wins ("[W]"). Go through and add columns to also pull in "[GS]", "[SV]", "[IP]", "[H]", "[ER]", "[HR]", "[SO]", "[BB]", and "[FIP]".
17.	I don't pull ERA or WHIP because they are rate statistics. I prefer to recalculate them with a formula after the underlying statistics have been pulled. That way, if I change the projections for a player, the ERA and WHIP will automatically recalculate with the updated projections. I make an exception for FIP. My guess is that FIP is the underlying projection that Steamer would base the ERA projection on. I'm not doing my own projection of FIP, so I'll leave it as is. To add ERA, type "ERA" in as a column header. Then enter the formula to calculate ERA "=[@ER] * 9 / [@IP].
	To add WHIP, type "WHIP" in as a column header. Then enter the formula to calculate WHIP "=([@BB]+[@H])/[@IP]".
18.	Most statistics don't need formatting, but ERA and WHIP will. Click and drag on the column headers for ERA and WHIP("Q" and "R", likely) to select them.
	Then on the Home tab of the ribbon, click on the comma number format.

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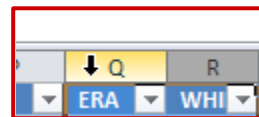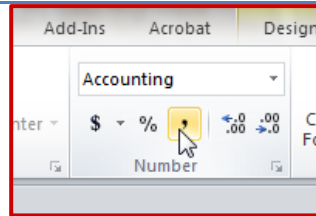
19.	We've now successfully combined player information and projected stats into one table.

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	LNAME	FNAME	TEAM	POS	IDFANG	W	GS	SV	IP	H	ER	HR	SO	BB	FIP	ERA	WHIP
2	Aardsma	David	NYY	P	1902	2	0	0	30	30	14	4	23	14	4.58	4.20	1.47
3	Abad	Fernando	HOU	P	4994	2	0	0	30	29	13	4	24	11	4.31	3.90	1.33
4	Accardo	Jeremy	OAK	P	6428	2	0	0	30	31	14	3	20	13	4.5	4.20	1.47
5	Aceves	Alfredo	BOS	P	5164	5	3	2	84	85	40	10	62	34	4.53	4.29	1.42
6	Adams	Mike	PHI	P	1937	3	0	1	50	47	19	5	44	16	3.67	3.42	1.26
7	Affeldt	Jeremy	SF	P	583	3	0	0	54	50	20	3	46	22	3.48	3.33	1.33
8	Albers	Matt	CLE	P	4300	3	0	0	45	43	19	4	36	19	3.97	3.80	1.38
9	Alburquer	Al	DET	P	6324	3	0	3	46	38	17	4	51	23	3.52	3.33	1.33
10	Alvarez	Henderso	MIA	P	5669	10	26	0	161	173	72	11	86	45	3.77	4.02	1.35
11	Ambriz	Hector	HOU	P	559	2	0	0	30	29	14	4	23	14	4.56	4.20	1.43
12	Anderson	Brett	OAK	P	8223	8	20	0	123	126	54	9	81	35	3.72	3.95	1.31
13	Archer	Chris	TB	P	6345	5	14	0	86	82	45	9	72	49	4.65	4.71	1.52

WRAP UP

Most of the hard work is done at this point. We now have long lists of players and their projected stats. But how do we rank them?

In the next part of the series we'll discuss a method of evaluating a player's projected stats and determining a ranking based upon those stats.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 4.xlsx

QUESTIONS?

Questions about Part 4? Post them here.

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PART 5 – UNDERSTANDING STANDINGS GAIN POINTS

INTRODUCTION

In this fifth part of the series we will discuss the concept of Standings Gain Points (SGP), a method of evaluating and ranking players. At the end of this part, we will have some primitive rankings in place. But we have quite a few concepts to go over before we jump into Excel.

THE DIFFICULTY IN RANKING PLAYERS

Which player is worth more and should be ranked higher?

- Player A – .280, 65R, 30HR, 95RBI, 0SB

- Player B – .265, 100R, 10HR, 55RBI, 40SB

Or how about this?

- Player A – .280, 65R, 30HR, 95RBI, 0SB

- Player C – 5W, 40SV, 75SO, 2.50ERA, 1.10 WHIP

How do you rank different types of players (speed/average vs. power/RBI)? Or even more difficult, how do you evaluate the worth of a hitter against the worth of a pitcher? Enter the concept of Standings Gain Points.

STANDINGS GAIN POINTS – MY INTERPRETATION

The end goal of rotisserie fantasy baseball is to accumulate the most points in the standings. The Standings Gain Points approach to valuing players is to convert a player's statistics into the number of rotisserie points those statistics are worth.

Let's use some example statistics from a real 12-team 5×5 rotisserie league to illustrate:

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POS	HR	RBI	W	ERA
1	291	1,054	108	3.359
2	287	1,027	107	3.365
3	281	1,017	93	3.477
4	274	1,003	92	3.678
5	272	998	88	3.815
6	267	973	88	3.857
7	263	968	84	3.946
8	261	965	82	4.096
9	244	945	82	4.097
10	239	921	81	4.177
11	234	920	81	4.284
12	191	792	78	4.361

The first place finisher in Home Runs accumulated 291 HR for the year. The last place finisher accumulated 191. That leaves a spread of 100 HR from the first place team to the last place team (291 – 191 = 100).

In this 12-team league, there are 11 standings points that can be gained (even the last place team gets 1 point, the first place team 12, so 11 points can be gained).

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This means that it takes roughly 9.1 home runs to move up one position in the home run standings (100 HR gap / 11 positions to move). Pick just about any position in the home run list, add 9 HR, and you can see that you do move up about 1 spot.

Running the numbers for the other statistics, we get:

RBI: (1,054 – 792) / 11 = 23.82

W: (108 – 78) / 11 = 2.73

ERA: (3.359 – 4.361) / 11 = -0.091

DO I HAVE TO CALCULATE THESE MYSELF?

You could. It would probably be best to calculate using your league's specific history. Or Razzball has calculations from their average 12-team fantasy league you can review here (or if you really want to rub geek juice all over your body, check this out). For what it's worth, I've been calculating this for my long-time standard mixed 12-team roto league ($260 auction budget, 14 hitters, 9 pitchers) and the results come amazingly close to Razzball's findings:

Category	Razzball (based on 48 12-team leagues in 2012)	My League (based 8 year history, 12-teams)
R	24.6	25.1
HR	10.4	10.0
RBI	24.6	26.0
SB	9.4	10.3
AVG	.0024	.0020
W	3.03	3.39

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Category	Razzball (based on 48 12-team leagues in 2012)	My League (based 8 year history, 12-teams)
SV	9.95	6.30
SO	39.3	33.9
ERA	-.076	-.100
WHIP	-.015	-.016

CALCULATING SGP FOR A PLAYER – COUNTING STATS

Steamer's Projections predict 26 HR for Mike Trout in 2013. If I conclude to use Razzball's calculation that every 10.4 HR is equal to a one position increase in the rotisserie standings, then Mike Trout's HR equal a 2.5 point increase in the standings (26/10.4 = 2.5).   Or 2.5 Standings Gain Points.

Other statistics similar to HR, where players simply accumulate or "count" the statistics one-by-one are referred to as "counting stats". These are easy to calculate SGP for. Simply take the number of the counting stat (Trout's 42 projected SB) and divide by the quantity of the stat required to move up one standings point (per Razzball, 9.4 SB to move up one position). So Trout's 42 SB are worth 4.46 SGPs (42 / 9.4).

For pitchers, wins, saves, and strike outs are also "counting stats" and allow for easy calculation of SGP.

But what about batting average, ERA, and WHIP?

CALCULATING SGP FOR A PLAYER – RATIO STATS

AVG, ERA, and WHIP are referred to as "ratio stats". The calculation of SGP for these is a bit more involved. Think about this scenario…

Mike Trout is projected for 619 at bats. He's projected to hit .297 (184H/619AB).

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Troy Tulowitzki is projected for 434 at bats. He's projected to hit .300 (130H/434AB).

Which player will have a bigger impact on your team's batting average? Does the fact that Trout will hit .297 over nearly 200 more at bats make him more valuable? Or does Tulowitzki's .300 average make him the better "batting average contributor"?

Let's run the numbers. If we assume a league of 12 teams and 14 hitters on each team (adjust for your roster size), that is 168 players (12 * 14). In the Steamer projections, the top 168 major leaguers are projected for an average of about 509 at bats per player.

This means the average team in this fantasy league will have approximately 7,126 at bats (14 players * 509 at bats). According to [Razzball](#), the average rotisserie batting average in 12-team leagues was .267. This means the average team had approximately 1,902 hits (7,126 * .267). And the average player had 136 hits (1,902 team hits / 14 players).

To find the impact of Trout we need to remove one "average" player from the team and then add in Trout's projections. We can do the same for Tulowitzki.

13 "average" players * 509 at bats = 6,617

13 "average" players * 136 hits = 1,768

Add Trout's projections (184 Trout hits + 1,768 other hits) / (619 Trout ABs + 6,617 other ABs) = .26976

Add Tulowitzki's projections: (130 Tulowitzki hits + 1,768 other hits) / (434 Tulowitzki ABs + 6,617 other ABs) = .26918

So despite his lower batting average, Trout's impact on the team batting average is greater than Tulowitzki's, due to the number of at bats. It's this weighting we have to take into account for "ratio stats".

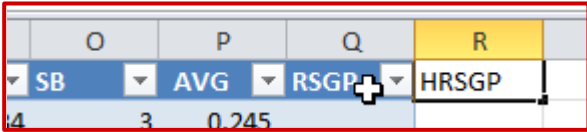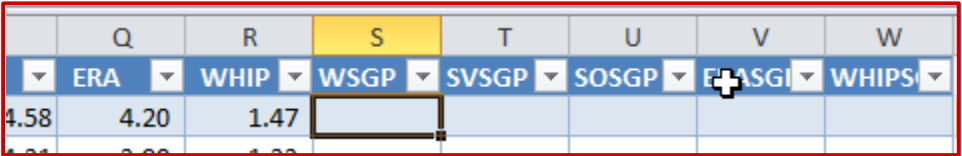To finish the example, if the team batting average with Trout is .26976 and the team batting average without Trout is .267, he increases the team average .00276 (.26976 – .267). Looking above again, Razzball calculates that a .0024 increase in BA equals one point in the rotisserie standings. This makes Trout's BA worth 1.15 SGP (.00276 / .0024).

Enough concepts. Let's rank some flippin' players

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STEP-BY-STEP INSTRUCTIONS

These instructions will help convert the statistics in our rankings spreadsheet into Standings Gain Points so we can begin to rank players.

Step	Description
1.	Open your existing rankings spreadsheet (if you don't have one started, you can download from Part 4 here).
2.	Add five new columns to the "Hitter Ranks" sheet. Do this by typing in column headers beginning in the first empty column to the right of your existing data. Name the new columns RSGP, HRSGP, RBISGP, SBSGP, AVGSGP (as in "Runs Standings Gain Points", "Home Runs Standings Gain Points", etc.). Because we have this sheet formatted as an Excel table, as soon as the column header is added, the entire column will be added to the table.
3.	After you've added these five columns, add a sixth column named "TTLSGP". This will calculate the total SGP across the five hitting categories.
4.	Add five new columns to the "Pitcher Ranks" sheet. Do this by typing in column headers beginning in the first empty column to the right of your existing data. Name the new columns WSGP, SVSGP, SOSGP, ERASGP, WHIPSGP (as in "Wins Standings Gain Points", "Saves Standings Gain Points", etc.).
5.	After you've added these five columns, add a sixth column named "TTLSGP". This will calculate the total SGP across the five pitching categories.
6.	Let's assume a 12-team league and that Razzball's estimate of the statistics needed to move up one spot are accurate. The formulas to add to the Hitter Ranks columns added above in step 2 are:

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Column	Excel Formula
RSGP	=[@R]/24.6
HRSGP	=[@HR]/10.4
RBISGP	=[@RBI]/24.6
SBSGP	=[@SB]/9.4
AVGSGP	=(([@H]+1768)/([@AB]+6617)-0.267)/0.0024
TTLSGP	=[@RSGP]+[@HRSGP]+[@RBISGP]+[@SBSGP]+[@AVGSGP]

7.	The formulas to add to the Pitcher Ranks columns added above in step 3 are:

Column	Excel Formula
WSGP	=[@W]/3.03
SVSGP	=[@SV]/9.95
SOSGP	=[@SO]/39.3
ERASGP	=((475+[@ER])*9/(1192 + [@IP])-3.59)/-0.076
WHIPSGP*	=((1466+[@H]+[@BB])/(1192+[@IP])-1.23)/-0.015
TTLSGP*	=[@WSGP]+[@SVSGP]+[@SOSGP]+[@ERASGP]+[@WHIPSGP]

8.	You can now sort both the Hitter Ranks and Pitcher Ranks by the new TTLSGP column to see the "best" players. To sort, click the

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downward pointing arrow on the TTLSGP column. Then select "Sort Largest to Smallest". Hit OK to perform the sort.
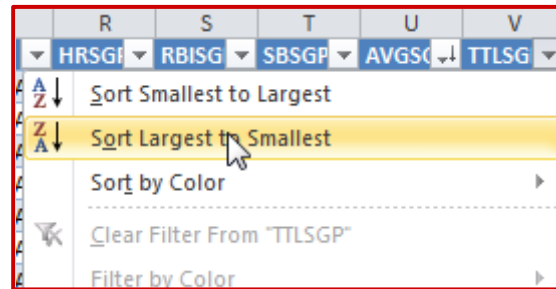
| 9. | As the calculations stand right now (there are some additional changes to be made in Part 6 of the series), the top ten pitchers are: |

	A	B	C	D	E	F	S	T	U	V	W	X
1	PLAYERID	LNAME	FNAM	TEAM	POS	IDFAN	WSGP	SVSGP	SOSGP	ERASG	WHIPS	TTLSG
2	leecl02	Lee	Cliff	PHI	P	1636	5.28053	0	4.98728	0.67526	1.18618	12.1293
3	kershcl01	Kershaw	Clayton	LAD	P	2036	4.9505	0	5.52163	0.72936	0.60299	11.8045
4	strasst01	Strasburg	Stephen	WAS	P	10131	4.62046	0	4.8855	1.18904	0.95329	11.6483
5	verlaju01	Verlande	Justin	DET	P	8700	5.61056	0	5.34351	0.2364	0.40866	11.5991
6	hernafe02	Hernand	Felix	SEA	P	4772	4.9505	0	5.08906	0.48729	0.3145	10.8413
7	hamelco01	Hamels	Cole	PHI	P	4972	4.9505	0	4.96183	0.30733	0.41292	10.6326
8	greinza01	Greinke	Zack	LAD	P	1943	4.62046	0	4.55471	0.63794	0.55596	10.3691
9	priceda01	Price	David	TB	P	3184	4.62046	0	5.13995	0.35832	0.21208	10.3308
10	bumgama0	Bumgarn	Madison	SF	P	5524	4.9505	0	4.40204	0.2944	0.32134	9.96827
11	sabatc.01	Sabathia	CC	NYY	P	404	4.62046	0	4.55471	0.22419	0.26419	9.66355

WRAP UP

The rankings look pretty good, eh? They're mostly consistent with the consensus rankings you can find anywhere on the web for the 2013 season. But they can also unearth some hidden gems. Cliff Lee as the projected #1 pitcher? Pretty interesting when he's being drafted #35 in ESPN drafts (at the time this article is being written).

In the next part of the series we investigate the theories of "replacement level players" and "position scarcity". We will adjust our calculations for these theories in an effort to better fine tune the rankings.

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I've included some more in depth discussion about standings gain points below. It's not necessary to read, but I feel the need to acknowledge some weaknesses in the SGP approach.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 5.xlsx

QUESTIONS?

Questions about Part 5? Post them here.

DISCLAIMER

I prefaced this SGP discussion by saying this is "my interpretation". I do this because I'm not a mathematician. And I'm certain that there are some mathematical errors or logic flaws in my presentation. But in general, I believe the approach is sound. I am aware that there is dispute in the theory behind standings gain points (some very respected minds think it makes no mathematical sense). Here are my thoughts on the dispute:

- When I look at what these SGP calculations kick out, they pass the eye test. They look right. They make sense.

- In the article link above, Todd Zola points out that the main flaw in SGP versus more mathematically sound approaches is that stolen bases are undervalued by SGP. Sluggers that steal very little are overvalued by SGP.

- I DO NOT SUGGEST you use SGP as a means of constructing a team. I only use SGP as a vehicle to rank players. Said another way, I don't build a team thinking I need to draft players that will add up to 12 SGPs in a category. I only use the rankings as a barometer of how to value certain players.

- Drafting solely based upon Total SGPs is not wise, as it can lead to an unbalanced team. I prefer to draft with "What it takes to win your league?" in mind. I know that it takes about 200 SB to win the category. So I draft players to reach 200 SB. Not 12 SB SGPs.

- I don't believe in a purely quantitative and statistical approach to drafting players either. There are a lot of qualitative factors that projections, rankings, SGP, or any other valuation method cannot account for. Age, potential, likelihood of injury, competition for playing time, contract situation, and other factors that need to be taken into account. I create rankings and then adjust those rankings for this multitude of other factors.

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With all this in mind. I'm fine with SGP being an imperfect system. Part of being "smart" is knowing when good enough is good enough.

*NOTE ABOUT PITCHING RATE CALCULATIONS

My approach to calculating SGPs for pitching rate categories is based on the following assumptions:

- 12-team league * 9 pitching spots = 108 pitchers rostered

- To calculate a baseline for the rate statistics, I perform a rough exercise to approximate the 108 pitchers most likely to be rostered. I include the 108 pitchers with the highest strikeout numbers and with a projected ERA below 4.20.

- The top 108 strike out pitchers with an ERA below 4.20 in the Steamer projections have an average of 149 IP.

- This means an 8 pitcher staff has a total of 1,192 IP

- According to [Razzball](#), the average rotisserie team in a 12-team league had an ERA of 3.59 and WHIP of 1.23

- To have an ERA of 3.59 on 1,192 IP assumes 475 ER allowed

- To have a WHIP of 1.23 on 1,192 IP assumes 1,466 BB and H allowed (BB+H)

- This makes the ERA formula = ((475 ER + pitcher's projected ER)*9/(1,192 IP + pitcher's projected IP)-3.59)/-0.076

- This makes the WHIP formula = ((1,466 H and BB + pitcher's projected BB + pitcher's projected H)/(1,192 IP + pitcher's projected IP)-1.23)/-0.015

PART 6 – ACCOUNTING FOR REPLACEMENT LEVEL AND POSITION SCARCITY

INTRODUCTION

In this sixth part of the series we will discuss the concept of replacement level players and calculating for position scarcity.

REPLACEMENT LEVEL PLAYERS

Mike Trout is projected for 114 R, 26 HR, and 83 RBI. Those numbers are gaudy. But should he get "credit" for all those statistics if I can go out the day after the draft and pick up a player on the free agent list that is projected for 50 R, 15 HR, and 55 RBI?

This is the concept of replacement level. If player X is projected for 26 HR and there are several free agents that will hit 15 HR, the true value of player X is in his 11 additional HR (26 – 15).

So when calculating a player's SGP, you should not perform the calculation on the "gross" or total number of HRs. Rather, you should calculate SGP with the amount of HR over a replacement level player (a free agent).

DETERMINING REPLACEMENT LEVEL

Assuming a 12-team league with 14 hitters (two C, 1B, 2B, SS, MI, 3B, CI, five OF, DH), 168 offensive players will be drafted (you can add more to adjust for bench players). So the 169th player is "replacement level", right?

Arguably this is true. But let's fine tune this a little more. In a 12-team league where each team must start two catchers, the 25th best catcher is the "replacement level catcher".

If the league requires one 2B, one SS, and one Middle Infielder, then 36 combined 2B and SS will be drafted. We can assume this will be comprised of 18 2B and 18 SS, and the 19th best of each position will be the "replacement level".

Likewise, you might expect 18 1B, 18 3B, and 60 OFs to be drafted. But given that these positions typically produce better offensive statistics than 2B and SS, 1B and OF tend to be slotted into the UTIL/DH spots. This can push the 1B up to 24 selected players and the OF up to 66 selected players (with the 25th 1B being "replacement level" and the 67th OF being "replacement level".

Let's look at some projected statistics for Jason Heyward and Robinson Cano (please note the tables below don't foot due to rounding) :

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Category	Heyward	Cano
R SGP	3.82	3.58
HR SGP	2.60	2.40
RBI SGP	3.62	3.98
SB SGP	1.38	0.32
AVG SGP	0.12	0.96
TTL SGP	11.54	11.25

On the surface, the two are near equals, with Heyward holding a slight overall edge in SGP. But let's now compare each to a replacement level player at their position. In my rankings spreadsheet, the 61st ranked OF is Ryan Ludwick.

Category	Heyward	Ludwick	Heyward over Ludwick
R SGP	3.82	2.32	1.50
HR SGP	2.60	1.92	0.68
RBI SGP	3.62	2.72	0.90
SB SGP	1.38	0.11	1.27

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Category	Heyward	Ludwick	Heyward over Ludwick
AVG SGP	0.12	-0.14	0.26
TTL SGP	11.54	6.93	4.61

In my rankings spreadsheet, the 19th best 2B is Gordon Beckham.
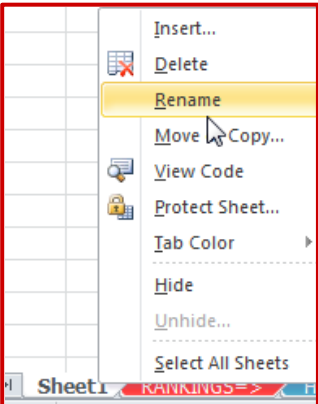
Category	Cano	Beckham	Cano over Beckham
R SGP	3.58	2.20	1.38
HR SGP	2.40	1.25	1.15
RBI SGP	3.98	2.07	1.91
SB SGP	0.32	0.53	-0.21
AVG SGP	0.96	-0.35	1.31
TTL SGP	11.25	5.67	5.54

So despite a higher gross SGP (11.54 vs. 11.25), Heyward comes out as less valuable when we adjust for replacement level players. In fact, Cano moves to nearly one whole SGP of an advantage over Heyward (5.54 vs. 4.61).

As you can see in this example, **ADJUSTING GROSS SGP FOR A PLAYER BY BACKING OUT THE VALUE OF A REPLACEMENT LEVEL PLAYER AT THE SAME POSITION ADJUSTS THE RANKINGS FOR POSITION SCARCITY.**

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STEP-BY-STEP INSTRUCTIONS

| Step	Description
1.	We first need to add a new tab to our spreadsheet. Click once on the "RANKINGS=>" tab. Press and hold the SHIFT key. Push and release your F11 key. This will add a new tab.
2.	Right-click on the new sheet and select "Rename". Name the sheet "Replacement Level".
3.	Begin to fill out the framework of a table by keying in the following:

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	A	B	C	D	E	F
1	POS	R	HR	RBI	SB	AVG
2	C					
3	1B					
4	2B					
5	SS					
6	3B					
7	OF					

4.	Click and drag with your mouse to select the area of the table you have started:

	A	B	C	D	E	F
1	POS	R	HR	RBI	SB	AVG
2	C					
3	1B					
4	2B					
5	SS					
6	3B					
7	OF					
8						

| **5.**	On the "Home" tab, select the option to "Format as Table" and choose your desired color scheme. Specify that your table has headers when prompted.

SMART FANTASY BASEBALL
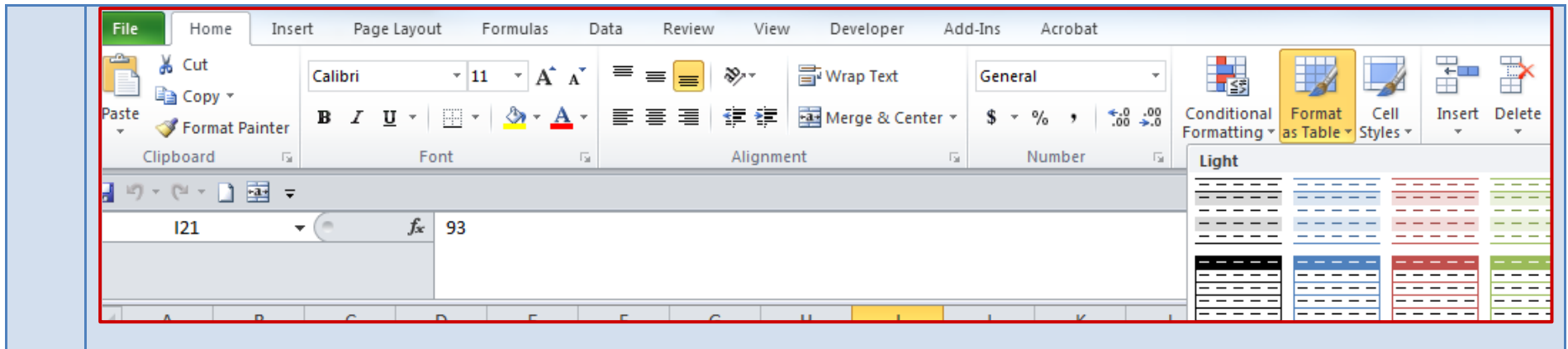
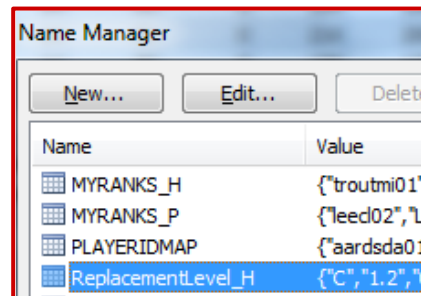| 6.	Click on the "Formulas" tab and select "Name Manager".
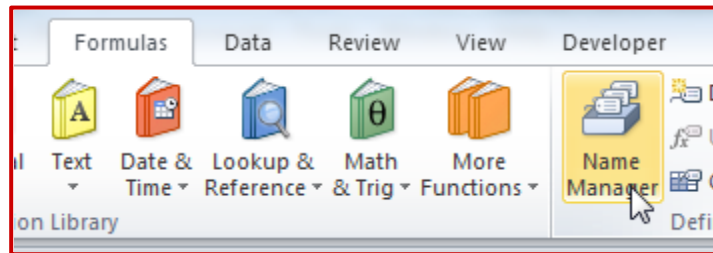
| 7.	In the ensuing menu, select the unnamed table (which should relate to the Replacement Level tab we just created). Chose the "Edit…" option and provide a new name for the table.

SMART FANTASY BASEBALL
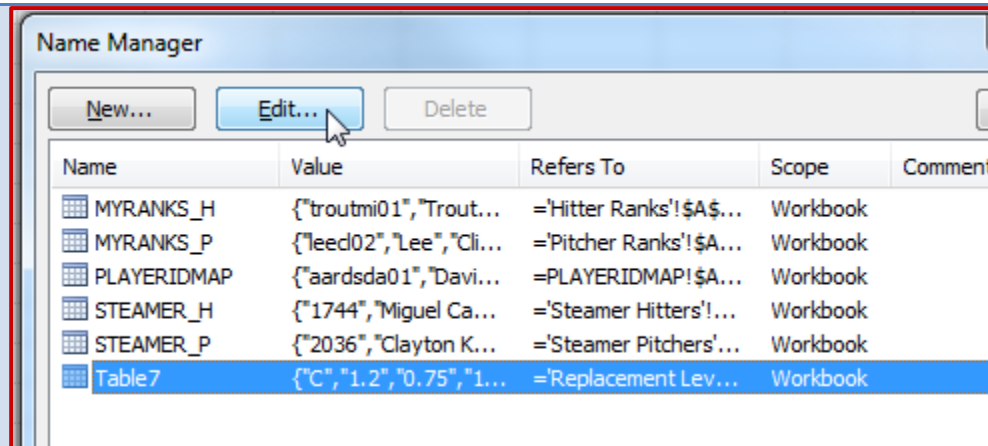
8.	Give the table a name (e.g. "ReplacementLevel_H"). Hit OK to accept the changes.

9.	Return to the "Hitter Ranks" tab. Use the drop down arrow on the "TTLSGP" column to ensure it is sorted in descending order (largest to smallest).

SMART FANTASY BASEBALL
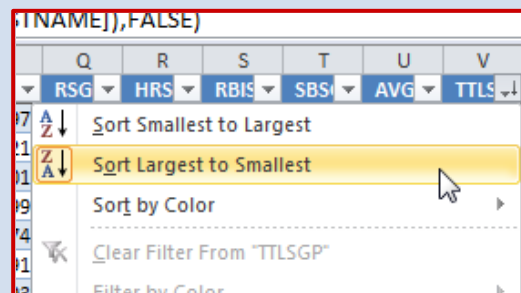
10.	Click on the downward pointing arrow on the "POS" column. Clear all the position check boxes and select only "C". Click "OK" to accept this filter.

SMART FANTASY BASEBALL
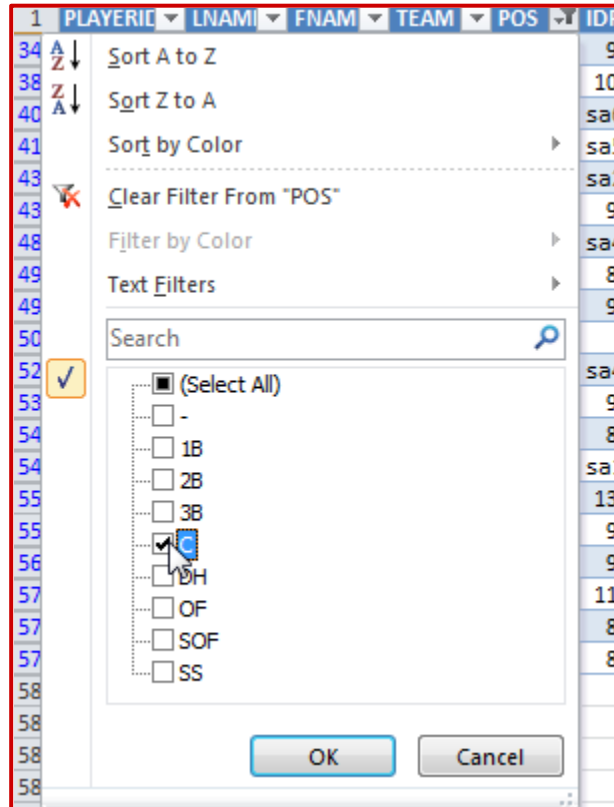
| 11. | Use your league settings to develop an approximation of how many catchers will likely be drafted. For example, in a 12-team league in which each team starts two catchers, there likely won't be any catchers starting at the DH/UTIL spot. This means that 24 catchers will be drafted and the 25th catcher represents replacement level.

I believe that identifying one specific player as "replacement level" can be misleading and that it is best to develop a "composite" of the replacement level player. For example, what if the 25th catcher happens to steal a lot of bases and all his value comes from this stat. It would be misleading to compare all the other catchers to this player.

To calculate this approximate replacement player I suggest creating an average of five players. The average will be of the last draftable player and the two players above him and the two players below him. Sticking with our example that 24 catchers will be drafted, I will use catchers #22, #23, #24, #25, and #26.

Any easy way to figure out who these catchers are is to choose a specific column, click on the value for the first player in the column, and then click and drag to select more players (you can see an image of this to the right, make sure you are highlighting only one column).

As you continue to select more players, watch the "Count:" field on the Excel status bar.

Average: 5.60   Count: 24   Sum: 134.50 |

| 12. | In looking at the 22nd – 26th best catchers, I see a rough average of 1.39 SGPs in R, 0.87 in HR, 1.41 in RBI, 0.13 in SB, and -0.35 in AVG.

Q	R	S	T	U
RSG	HRS	RBIS	SBS	AVG
1.38	1.06	1.59	0.11	(0.34)
1.42	1.15	1.50	0.11	(0.53)
1.63	0.67	1.54	0.11	(0.35)
1.14	0.77	1.30	0.11	(0.01)
1.38	0.87	1.30	0.21	(0.50)

Note that if you select the RSGP information for catchers #22-#26 as shown above, Excel will display the average on the status bar in the lower right hand corner of the program. |

V column values (TTLSGP): 9.35, 7.98, 7.57, 7.52, 7.10, 6.82, 6.73, 6.59, 6.17, 5.79, 5.69, 5.41, 5.37, 5.35, 5.01, 4.52, 4.26, 4.15, 4.02, 4.02, 4.02, 3.79, 3.65, 3.60, 3.30

SMART FANTASY BASEBALL

13.	Enter these averages into the Catcher row on the "Replacement Level" tab.

	A	B	C	D	E	F
1	POS	R	HR	RBI	SB	AVG
2	C		1.2	0.75	1.25	0.25	-0.3
3	1B					
4	2B					
5	SS					
6	3B					
7	OF					

| 14. | Repeat steps 10 – 13 for each position.

If your league starts Corner Infielders and Middle Infielders, you can likely assume that will break down into an even split between 1B & 3B and 2B & SS. For example, in a 12-team league with a CI position, a total of 36 1B or 3B will be drafted (12 1B, 12 3B, and 12 CI). I usually assume this will break down to18 1B and 18 3B. This won't be exact, but splitting hairs about this will not result in much of a benefit to your rankings.

You must perform a similar adjustment for the DH/UTIL spot in your league. Again, assuming a 12-team league, we must now adjust replacement level by 12 more players. I generally assume this will result in 6 more OF being drafted and 6 more 1B, because 1B and OF are generally the most productive positions. This means that I assume 24 1B will be drafted (12 to play 1B, 6 to play CI, and 6 to play DH/UTIL) and 66 OF (60 to play OF (5 * 12-teams), 6 to play DH/UTIL).

It is important to keep in mind that these numbers are highly dependent upon two things that will cause the numbers I present below to differ from what you will see as you work with your own spreadsheet:

- The underlying projections used
- Your league settings

The projections you use will surely be different from those I used to create this guide. For one, I created this guide using the 2013 Steamer projections. You will be using some projection set you obtained after 2013. The projections you use determine the statistics of the replacement level player. So your replacement level player will not be the same as mine. |
|---|---|

SMART FANTASY BASEBALL

Further, your league settings may be different. I am assuming a 12-team league starting 2 catchers. If you have a 10-team league or if your league starts only one catcher, your definition of who the replacement level player is will be different.

With those caveats in mind, here are the approximations I calculated using the 2013 Steamer projections for replacement level players assuming a 12-team league starting 14 hitters, 9 pitchers, and no bench spots:

POS	R	HR	RBI	SB	AVG	TOTAL
C	1.39	0.87	1.41	0.13	-0.35	3.45
1B	2.37	1.54	2.46	0.26	-0.24	6.39
2B	2.27	0.94	2.1	0.62	0.16	6.09
SS	2.08	0.9	1.94	1.47	-0.13	6.26
3B	2.19	1.56	2.35	0.45	-0.19	6.36
OF	2.37	1.1	2.04	1.34	-0.08	6.77
DH	2.37	1.54	2.46	0.26	-0.24	6.39

Note, the player pool for "DH" only hitters, like David Ortiz, is very small. Too small to get a meaningful determination about replacement level. I make the assumption that 1B is the best approximation of replacement level for players only eligible at DH . .

15.   Now that we've determined what "replacement level" is, we need to adjust our SGP calculations to back out the statistics of a replacement level player. The trick here is that the Hitter Ranks sheet has players of all positions and the Replacement Level sheet has a table containing the corresponding replacement level statistics for each position. To subtract out the replacement level statistics for each position, we need to adjust this formula to go into the "Replacement Level" tab, find the player's position, then retrieve the amount to subtract for that specific position.

Recall the VLOOKUP formula can be used to search in another table for a specific value (look in the replacement level information and find a specific position. You'll remember the original formula for RSGP was =[@R]/24.6

$$f_x \quad =[@R]/24.6$$

Subtracting replacement level data from this using VLOOKUP yields this formula:

=[@R]/24.6-VLOOKUP([@POS],ReplacementLevel_H, COLUMN(ReplacementLevel_H[R]),FALSE)
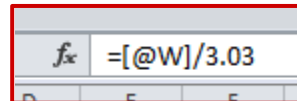
16.	Add VLOOKUP formulas for the remaining hitting categories. In the formulas below, the non-bolded component was previously added to your spreadsheet. The bolded information should be added now.

CATEGORY	FORMULA
R	=[@R]/24.6-**VLOOKUP([@POS], ReplacementLevel_H, COLUMN(ReplacementLevel_H[R]), FALSE)**
HR	=[@HR]/10.4-**VLOOKUP([@POS], ReplacementLevel_H, COLUMN(ReplacementLevel_H[HR]), FALSE)**
RBI	=[@RBI]/24.6-**VLOOKUP([@POS], ReplacementLevel_H, COLUMN(ReplacementLevel_H[RBI]), FALSE)**
SB	=[@SB]/9.4-**VLOOKUP([@POS], ReplacementLevel_H, COLUMN(ReplacementLevel_H[SB]), FALSE)**
AVG	=(([@H]+1768)/([@AB]+6617)-0.267)/0.0024 – **VLOOKUP([@POS], ReplacementLevel_H, COLUMN(ReplacementLevel_H[AVG]), FALSE)**

17.	Perform steps 3-8 in order to create a pitchers replacement level table on the Replacement Level tab. This will be a much simpler exercise as there is only one position for pitchers. Name the table ReplacementLevel_P.
18.	Perform the equivalent of steps 11 - 13 for pitchers. In a 12-team league that rosters 9 pitchers, 108 starting pitchers will be drafted, leaving players 106 through 110 as my "composite replacement level" pitcher. Looking at pitchers 106 – 110, here are the replacement level average SGPs I come up with for pitchers:

POS	W	SV	SO	ERA	WHIP	TTL
P	3.23	0	2.68	-0.85	-0.88	4.18

19.	Enter the averages into your newly created ReplacementLevel_P table.

SMART FANTASY BASEBALL

10	POS	▼	W	▼	SV	▼	SO	▼	ERA	▼	WHIP	▼	TOTAL	▼
11	P		3.23		0		2.68		-0.85		-0.88		4.18	

20.	To subtract out the replacement level statistics for pitchers, we need to adjust the formulas to go into the "Replacement Level" tab, find the pitcher replacement level statistics, then retrieve the amount to subtract. Recall the VLOOKUP formula can be used to search in another table for a specific value (look in the replacement level information and find a specific position. You'll remember the original formula for WSGP was =[@W]/3.03.

<div align="center">

f_x =[@W]/3.03

</div>

Subtracting replacement level data from this using VLOOKUP yields this formula.

<div align="center">

**=[@W]/3.03-VLOOKUP([@POS],ReplacementLevel_P, COLUMN(ReplacementLevel_P[W]), FALSE)**

</div>

21.	Add VLOOKUP formulas for the remaining pitching categories. Note, I assume all starting closers are taken in 12-team leagues; therefore, there is no reason to make a replacement level adjustment.

CATEGORY	FORMULA
W	=[@W]/3.03-**VLOOKUP([@POS], ReplacementLevel_P, COLUMN(ReplacementLevel_P[W]), FALSE)**
SV	=[@SV]/9.95
SO	=[@SO]/39.3-**VLOOKUP([@POS], ReplacementLevel_P, COLUMN(ReplacementLevel_P[SO]), FALSE)**
ERA	=((475+[@ER])*9/(1192+[@IP])-3.59)/-0.076-**VLOOKUP([@POS],**

SMART FANTASY BASEBALL

	ReplacementLevel_P, COLUMN(ReplacementLevel_P[ERA]), FALSE)	
WHIP	=((1466+[@BB]+[@H])/(1192+[@IP])-1.23)/-0.015-**VLOOKUP([@POS],** ReplacementLevel_P, COLUMN(ReplacementLevel_P[WHIP]), FALSE)**	

22.	It's possible that some players would rise or fall in the total SGP ranking after these changes. Sort the hitter and pitcher ranks from highest value to lowest value again using the drop down arrow over the "TTLSGP" column.
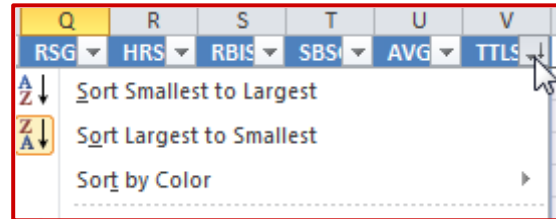
23.	It is **extremely** important to perform a reasonableness check when you're done with this exercise. If you have done everything correctly, when you're done, you should see that the number of players with positive SGPs should be approximately equal to the number of players your league will draft.

For example, I have been assuming a 12-team league where each team drafts 14 hitters. This means 168 hitters will be drafted. If I look in my "Hitter Ranks" tab, I should see that the players right around the #168 mark will have very close to 0.00 for TTLSGP.

165	ethiean01	Ethier	Andre	LAD	OF		0.11
166	machama0	Machado	Manny	BAL	3B		0.09
167	segurje01	Segura	Jean	MIL	SS		0.09
168	guyerbr01	Guyer	Brandon	TB	OF		0.07
169	kubelja01	Kubel	Jason	ARI	OF		0.06
170	cainlo01	Cain	Lorenzo	KC	OF		0.04
171	mastrda01	Mastroia	Darin	MIN	OF		(0.02)
172	penaca01	Pena	Carlos	HOU	1B		(0.06)
173	morneju01	Morneau	Justin	MIN	1B		(0.06)

Row #169 represents the 168th player (accounting for the header row in the sheet). And you can see everyone here is about at 0.00 SGP

If you find that you have too many players above 0.00 TTLSGP, you must raise your replacement level calculations. If the replacement

	level averages are higher, fewer players will come out above 0.00. If you have too few players above 0.00 TTLSGP, you must lower your replacement level calculations. If replacement levels are lower, more players will come out above 0.00.
24.	You did it! You now have completed hitter and pitcher rankings based upon reliable projection data that also takes into account and adjusts for position scarcity.

WRAP UP

In my opinion, you have just completed the most comprehensive guide to creating your own fantasy baseball rankings available. You have just created a very powerful and flexible rankings spreadsheet. You can easily adjust the projection data and have your changes instantly flow through the calculations and update the rankings accordingly. Are you ready for your next challenge? How about calculating your own projections.

LINK TO DOWNLOAD EXAMPLE FILE

SFBB Rankings – Part 6.xlsx

QUESTIONS?

Questions about Part 6? Post them here.

PARTS 7 THROUGH 10 – CONVERTING SGP RANKINGS TO DOLLAR VALUES

The next steps in finalizing the rankings process are to convert the SGPs for players into dollar values. Dollar values are especially important for auction drafts, but are also very helpful even for snake draft formats. Using dollar values makes hitters and pitchers directly comparable to one another. Comparing the SGP for a hitter to a pitcher without converting to a dollar value can be misleading because it does not take into account the hitter/pitcher allocation. Part 10 even takes you through calculating price inflation for keepers and in-draft inflation.

Click here to find out how you can get similar step-by-step instructions for converting your rankings into dollar values.

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