CATEGORY EFFICIENCY RATINGS – BY TODD ZOLA

Player valuation is a very scientific process, grounded in theory while rooted in logic. When done properly, the resultant dollar values yield an accurate estimation of a player's potential. Being armed with this data is a crucial element to a successful fantasy season.

On the other hand, perception is reality. I would be naïve if I failed to recognize and accept that many rotisserie enthusiasts consider the values generated by our system to overvalue stolen base specialists. This perception undoubtedly stems from the widely used SGP method wrongly undervaluing steals and is perpetuated by the fact that this flaw is serendipitous as many instinctively prefer to pay less for steals based upon the unreliability of the statistic. This is analogous to wanting to pay more for hitting than pitching as there is more inherent risk with pitching. There is also more inherent risk associated with projecting steals as opposed to the other offensive categories.

Perhaps out of stubbornness, but thus far I have resisted the temptation to artificially make our values more aesthetically pleasing by reducing the category contribution of stolen bases even though many have requested it and it would be good for business. Instead, we have opted to instruct our users to intuitively apply these values so that they roster stolen base specialists at a bargain price while still managing to garner the necessary power and production needed to compete.

There are a couple of means to accomplish this goal. One is to invest in a high stolen base player, earning several dollars profit from a single individual. Some of this profit may be needed to serve as cushion in case one needs to go the extra dollar on the power bats. Alternatively, one may decide to pick up a little profit here and a little profit there by selecting the players providing significant, but not an overwhelming total of steals. These players are also undervalued by the SGP method. Either way, it is still obligatory to balance one's roster with the remaining categories.

The problem is many are either new to the auction format or uncomfortable with straying from their list of dollar values, not completely understanding the intention of dollar values we provide is to serve as a guide for your bid values, not as a strict boundary for your upper limit. Well, I am pleased to announce your obstinate pundit is now ready, willing and able to offer a very useful, yet theoretically sound adjustment to the valuation process that renders a more practical set of guide values, eliminating the need to intuitively alter the standard values. Ultimately, these values should be used in concert, as together they will provide a more powerful tool than either alone.

As is often the case in such instances, the stimulus for this new addition to valuation theory was born out of a concept being investigated for alternate purposes. The original intention was to look at each category in terms of how much money is needed to compete in each and determine if their were any trends that could be used to one's competitive advantage. At this time I would like to debut ***Category Efficiency Ratings***.

The Mastersball Platinum essay entitled ***Winning Tendencies*** contains average category standings for some of the more common leagues. One of the basic rules of valuation is a point in one category is equal to a point in another, so it follows there should be an equal distribution of budget spread amongst the hitting and pitching subsets. Conventionally, we funnel more resources to the more reliable hitting subset than we do pitching so all the hitting stats are valued equally as are the pitching stats. The exact amount of money allotted per category is equal to the number of teams multiplied by the salary cap per team, divided by the number of categories then multiplied by the empirically determined hitting to pitching split alluded to earlier. Mastersball's research has shown that recently, the previously accepted 65:35 split has tended towards 67:33 for 4x4 leagues and 69:31 for the 5x5 format and as such employs those numbers in the value calculation.

For the purpose of this essay, the American League, 5x5 category totals will be used for demonstration. The other leagues data will be provided separately for your viewing pleasure. The general conclusions are consistent throughout all the leagues surveyed thus the resulting adaptation to the valuation method can be uniformly applied.

The amount of budget we will be working with in this format is $430.56 per hitting category and $193.44 per pitching. The principle of category efficiency ratings is to divide this money across each category in direct relation to how the category totals are distributed. The associated calculation for each place in the standings is total per standings place divided by overall total number of stats times $430.56 (or $193.44). For simplicity, it is assumed each team has an equal number of at bats for batting average and innings pitched for ERA and WHIP. The reciprocals of ERA and WHIP are used in the calculation as the best score in each category is the lowest number, which would lead to the lowest percentage without deploying the reciprocal conversion.

So without further ado, here is some actual data. The following is pulled directly from ***Winning Tendencies*** and is the average category totals for our model 5x5 American League format, encompassing 61 actual leagues from the 2003 season.

Team	HR	RBI	SB	AVE	R	W	SV	ERA	WHIP	SO
1st	252	986	151	0.283	1002	97	77	3.75	1.25	1020
2nd	236	943	132	0.279	967	91	64	3.97	1.28	976
3rd	224	907	121	0.276	935	87	57	4.07	1.3	940
4th	216	884	113	0.274	913	83	52	4.16	1.31	910
5th	210	864	107	0.272	894	81	47	4.22	1.33	887
6th	202	841	99	0.271	869	77	42	4.33	1.34	856
7th	192	809	93	0.269	845	74	39	4.41	1.35	836
8th	187	786	87	0.267	817	71	34	4.49	1.37	813
9th	177	752	80	0.265	792	67	28	4.59	1.39	778
10th	165	720	74	0.264	762	63	23	4.7	1.41	741
11th	153	680	68	0.26	717	58	17	4.84	1.43	707
12th	138	619	55	0.257	657	49	9	5.04	1.46	632

Now here is the data expressed in terms of dollars as computed by the equation previously discussed. The dollar value can be considered the average amount a team needs to earn in that category to earn that amount of points.

POINTS	HR	RBI	SB	AVE	R	W	SV	ERA	WHIP	SO
12	$46.13	$43.36	$55.10	$37.64	$42.42	$20.89	$30.46	$18.71	$17.40	$19.54
11	$43.20	$41.47	$48.16	$37.11	$40.94	$19.60	$25.32	$17.67	$16.99	$18.70
10	$41.01	$39.89	$44.15	$36.71	$39.58	$18.74	$22.55	$17.23	$16.73	$18.01
9	$39.54	$38.87	$41.23	$36.45	$38.65	$17.88	$20.57	$16.86	$16.60	$17.44
8	$38.44	$37.99	$39.04	$36.18	$37.85	$17.45	$18.59	$16.62	$16.35	$16.99
7	$36.98	$36.98	$36.12	$36.05	$36.79	$16.59	$16.61	$16.20	$16.23	$16.40
6	$35.15	$35.58	$33.93	$35.78	$35.77	$15.94	$15.43	$15.91	$16.11	$16.02
5	$34.23	$34.56	$31.74	$35.51	$34.59	$15.29	$13.45	$15.62	$15.87	$15.58
4	$32.40	$33.07	$29.19	$35.25	$33.53	$14.43	$11.08	$15.28	$15.64	$14.91
3	$30.21	$31.66	$27.00	$35.12	$32.26	$13.57	$9.10	$14.92	$15.42	$14.20
2	$28.01	$29.90	$24.81	$34.58	$30.36	$12.49	$6.72	$14.49	$15.21	$13.55
1	$25.26	$27.22	$20.07	$34.18	$27.81	$10.56	$3.56	$13.92	$14.89	$12.11

Let's stop and take a look at this data to see if there are any compelling revelations. The most striking observation is how much more money needs to be earned to finish atop the steals and saves category. Another way of saying that is it appears inefficient to lead the league in steals and saves. One might feel it is inefficient to lead the league in any category, as that implies you

have extra stats you could have traded away for help elsewhere but this is a bit of a misnomer as one realistically has extra stats no matter where they are in the category, save for last place. It is just perceived to be more of a problem with the category leader as no matter how many additional stats are achieved, there are no more points to be earned.

Since the amount of money per category is the same, it makes perfect sense that if it takes more money to place in the top end of stolen bases and saves, it takes less money to finish in the lower end. And if it is inefficient to finish in the top end, it must therefore be efficient to finish in the lower part. Hmm.

It is also interesting to note that the top to bottom spread in the ratio categories is much tighter than the counting categories. I interpret this to confirm what I have been preaching for years—it is quite possible to gain points late in the season in the ratio categories, even if a hearty portion of at bats or innings have been accrued.

Now here is the final iteration of this set of data. The following is the above dollars earned per standings place divided by the number of points earned. This is what will be heretofore known as the category efficiency rating (CER).

POINTS	HR	RBI	SB	AVE	R	W	SV	ERA	WHIP	SO
12	$3.84	$3.61	$4.59	$3.14	$3.54	$1.74	$2.54	$1.56	$1.45	$1.63
11	$3.93	$3.77	$4.38	$3.37	$3.72	$1.78	$2.30	$1.61	$1.54	$1.70
10	$4.10	$3.99	$4.42	$3.67	$3.96	$1.87	$2.25	$1.72	$1.67	$1.80
9	$4.39	$4.32	$4.58	$4.05	$4.29	$1.99	$2.29	$1.87	$1.84	$1.94
8	$4.81	$4.75	$4.88	$4.52	$4.73	$2.18	$2.32	$2.08	$2.04	$2.12
7	$5.28	$5.28	$5.16	$5.15	$5.26	$2.37	$2.37	$2.31	$2.32	$2.34
6	$5.86	$5.93	$5.66	$5.96	$5.96	$2.66	$2.57	$2.65	$2.68	$2.67
5	$6.85	$6.91	$6.35	$7.10	$6.92	$3.06	$2.69	$3.12	$3.17	$3.12
4	$8.10	$8.27	$7.30	$8.81	$8.38	$3.61	$2.77	$3.82	$3.91	$3.73
3	$10.07	$10.55	$9.00	$11.71	$10.75	$4.52	$3.03	$4.97	$5.14	$4.73
2	$14.00	$14.95	$12.41	$17.29	$15.18	$6.25	$3.36	$7.25	$7.60	$6.77
1	$25.26	$27.22	$20.07	$34.18	$27.81	$10.56	$3.56	$13.92	$14.89	$12.11

As expected, it costs more per point to lead the league in stolen bases and saves. The most efficient standings place in all the other categories is curiously first place where it is perceived to be inefficient. The most efficient spot in steals and saves is lower. The cheapest categories to actually lead the league in are the ratio categories, which lends further credence to the dictum to draft skills and hope wins follow. Other than saves, wins is the most expensive category to chase.

As most of you know by now, one of the defining elements of our valuation process is only awarding value to those stats over and above that of a fictional replacement player available for free after the draft or auction. What happens if this concept is incorporated and the category totals are adjusted by subtracting out the contribution of the replacement player at each roster spot? The following data jumps right to the amount needed to be earned per standings place after adjustment for replacement.

POINTS	HR	RBI	SB	AVE	R	W	SV	ERA	WHIP	SO
12	$49.29	$46.53	$63.06	$48.82	$46.28	$24.91	$28.95	$25.53	$25.96	$19.39
11	$45.46	$43.83	$53.25	$44.91	$43.93	$22.53	$25.55	$21.76	$22.82	$18.72
10	$42.58	$41.58	$47.58	$41.98	$41.77	$20.95	$22.76	$20.18	$20.80	$18.03
9	$40.67	$40.14	$43.45	$40.03	$40.29	$19.36	$20.76	$18.82	$19.82	$17.45
8	$39.23	$38.89	$40.35	$38.08	$39.01	$18.57	$18.77	$17.95	$17.89	$17.01
7	$37.32	$37.45	$36.22	$37.10	$37.33	$16.98	$16.77	$16.41	$16.95	$16.42

6	$34.92	$35.45	$33.13	$35.15	$35.71	$15.79	$15.57	$15.34	$16.03	$16.03
5	$33.73	$34.01	$30.03	$33.20	$33.83	$14.60	$13.57	$14.31	$14.21	$15.59
4	$31.33	$31.88	$26.42	$31.24	$32.14	$13.01	$11.18	$13.07	$12.45	$14.92
3	$28.46	$29.88	$23.32	$30.27	$30.12	$11.43	$9.18	$11.77	$10.74	$14.21
2	$25.59	$27.37	$20.23	$26.36	$27.09	$9.44	$6.79	$10.20	$9.08	$13.56
1	$21.99	$23.55	$13.52	$23.43	$23.05	$5.87	$3.59	$8.10	$6.67	$12.12

It should be noted the manner in which the ratio stats are being adjusted is still undergoing experimentation. For the short term, this is nothing to worry about as the valuation adjustments will be made to other categories. The data here follows the same trends as the unadjusted data, which was intuitively expected. The only major revelation is previous to adjustment, the amount of earnings necessary to place similarly in wins and strikeouts was fairly close but after adjustment for replacement, it appears strikeouts is a cheaper category to pursue. This helps substantiate the analysis offered in Winning Tendencies that it is easier to compete in strikeouts than one may assume ergo one does not need a staff of starters to do well in the category.

Here is the replacement adjusted dollar value needed to achieve the standings place per point:

POINTS	HR	RBI	SB	AVE	R	W	SV	ERA	WHIP	SO
12	$4.11	$3.88	$5.25	$4.07	$3.86	$2.08	$2.41	$2.13	$2.16	$1.62
11	$4.13	$3.98	$4.84	$4.08	$3.99	$2.05	$2.32	$1.98	$2.07	$1.70
10	$4.26	$4.16	$4.76	$4.20	$4.18	$2.09	$2.28	$2.02	$2.08	$1.80
9	$4.52	$4.46	$4.83	$4.45	$4.48	$2.15	$2.31	$2.09	$2.20	$1.94
8	$4.90	$4.86	$5.04	$4.76	$4.88	$2.32	$2.35	$2.24	$2.24	$2.13
7	$5.33	$5.35	$5.17	$5.30	$5.33	$2.43	$2.40	$2.34	$2.42	$2.35
6	$5.82	$5.91	$5.52	$5.86	$5.95	$2.63	$2.60	$2.56	$2.67	$2.67
5	$6.75	$6.80	$6.01	$6.64	$6.77	$2.92	$2.71	$2.86	$2.84	$3.12
4	$7.83	$7.97	$6.60	$7.81	$8.04	$3.25	$2.79	$3.27	$3.11	$3.73
3	$9.49	$9.96	$7.77	$10.09	$10.04	$3.81	$3.06	$3.92	$3.58	$4.74
2	$12.79	$13.69	$10.11	$13.18	$13.55	$4.72	$3.39	$5.10	$4.54	$6.78
1	$21.99	$23.55	$13.52	$23.43	$23.05	$5.87	$3.59	$8.10	$6.67	$12.12

The same general trends as before persist, specifically with respect to steals and saves. except it seems it is even MORE INEFFICIENT to rule in stolen bases. Hmm.

At this point, let's take a step back and consider what should be earned at each standings place per point IF the categories were perfectly linear and each point earned required the same dollar amount. There are 78 points to be earned per category. For the hitter, this translates to $5.52 a point with the corresponding amount for pitchers being $2.48. It is interesting to note that even though the standings are non-linear, those respective amounts earn just about 6.5 points each across the board, which is the theoretical amount they should earn assuming linearity. Another way to think about that is it is neither efficient nor inefficient to place exactly in the middle of the standings. Intuitive perhaps, but we scientific types like it when data corroborates our suspicions. Using $5.52 as a guide for hitters, it can be more properly suggested that finishing near the top in steals is more efficient than finishing lower, but it is slightly MORE efficient to finish higher in the other categories.

Hopefully by this time you see where this is going. I now have a theoretical basis for altering the amount of budget I dedicate to steals in the valuation process. Looking at the above data reveals that it is strategically more efficient to funnel budget to the categories dominated by power hitters. The question is how much?

Confession time -- unfortunately, I do not believe I have ample data to pinpoint the most efficient amounts. I feel there is a very necessary piece to the puzzle I lack -- how much of the eventual profit the champion earns is incurred at the draft or auction and how much is manifested via sage

in-season roster management, including trades, waiver or free agent pickups or reserve list manipulation. I will the collect the necessary data and will surely follow-up next pre-season with some additional analysis. I am guessing one can shoot to be fairly conservative on the categories of steals and saves and pick up help as the season progresses, since these are specialty categories, not significantly correlated with the other ones. In other words, obtaining a single player can strongly impact the placement in steals and saves.

But in the meantime, I propose targeting 9th place in steals as this is where the category begins to enter a range where the efficiency is consistent as you gain points thus the team is set up to improve by acquiring a speed demon. By the numbers, this adjusts the category dollars allotted to stolen bases down to $28.00 from $35.88. The extra $7.88 is then tacked funneled to the home run category, bringing the total used there to $43.76. While the extra could be shared by RBI and runs as well, those categories correlate decently with home runs, so in effect it is being shared. Below are 2003 values for the draft-worthy, American League 5x5 pool. REP is the true value, CER is adjusted as discussed. These are compared to the SGP value.

			AB	H	AVG	HR	RBI	R	SB	REP	CER	SGP
Carlos Beltran	KC	OF	521	160	0.307	26	102	100	41	$43	$39	$37
Alfonso Soriano	NYY	2B	679	197	0.290	38	114	91	34	$42	$40	$37
Carl Crawford	TAM	OF	630	177	0.281	5	80	54	55	$39	$32	$28
Alex Rodriguez	TEX	SS	607	181	0.298	47	124	118	17	$38	$39	$37
Ichiro Suzuki	SEA	OF	679	212	0.312	13	111	62	34	$37	$34	$31
Nom Garciaparra	BOS	SS	658	198	0.301	28	120	105	19	$34	$34	$32
Alex Sanchez	DET	OF	557	160	0.287	1	58	32	51	$33	$27	$22
Bret Boone	SEA	2B	622	183	0.294	35	111	117	16	$33	$33	$32
Carlos Lee	CHW	OF	623	181	0.291	31	100	113	18	$32	$31	$30
Vernon Wells	TOR	OF	678	215	0.317	33	118	117	4	$31	$32	$32
Manny Ramirez	BOS	OF	569	185	0.325	37	117	104	3	$30	$32	$32
Carlos Delgado	TOR	1B	570	172	0.302	42	117	145	0	$29	$32	$33
Rocco Baldelli	TAM	OF	637	184	0.289	11	89	78	27	$29	$26	$24
Magglio Ordonez	CHW	OF	606	192	0.317	29	95	99	9	$29	$29	$29
Johnny Damon	BOS	OF	608	166	0.273	12	103	67	30	$28	$25	$24
Randy Winn	SEA	OF	600	177	0.295	11	103	75	23	$28	$26	$25
Aaron Boone	NYY	3B	590	158	0.268	24	92	96	23	$28	$26	$25
Garret Anderson	ANA	OF	638	201	0.315	29	80	116	6	$27	$28	$28
Angel Berroa	KC	SS	567	163	0.287	17	92	73	21	$26	$24	$23
Aubrey Huff	TAM	DH	636	198	0.311	34	91	107	2	$26	$28	$28
Michael Young	TEX	2B	666	204	0.306	14	106	72	13	$26	$25	$24
Miguel Tejada	OAK	SS	636	177	0.278	27	98	106	10	$24	$25	$25
Eric Chavez	OAK	3B	588	166	0.282	29	94	101	8	$23	$24	$24
Carl Everett	CHW	OF	526	151	0.287	28	93	92	8	$23	$23	$24
Raul Ibanez	KC	1B	608	179	0.294	18	95	90	8	$22	$22	$22
Jacque Jones	MIN	OF	517	157	0.304	16	76	69	13	$22	$21	$20
Hank Blalock	TEX	3B	567	170	0.300	29	89	90	2	$21	$23	$23
Jorge Posada	NYY	C	481	135	0.281	30	83	101	2	$21	$23	$23
Derek Jeter	NYY	SS	479	155	0.324	10	87	52	11	$21	$20	$20
Milton Bradley	CLE	OF	377	121	0.321	10	61	56	17	$21	$19	$18
Trot Nixon	BOS	OF	441	135	0.306	28	81	87	4	$21	$22	$22
Jose Guillen	OAK	OF	485	151	0.311	31	77	86	1	$21	$23	$22
Bill Mueller	BOS	3B	524	171	0.326	19	85	85	1	$21	$22	$22
Adam Kennedy	ANA	2B	449	121	0.269	13	71	49	22	$20	$18	$17
Dmitri Young	DET	OF	562	167	0.297	29	78	85	2	$20	$21	$21
Rafael Palmeiro	TEX	1B	561	146	0.260	38	92	112	2	$20	$22	$23
Frank Thomas	CHW	DH	546	146	0.267	42	87	105	0	$20	$22	$23
Luis Matos	BAL	OF	436	132	0.303	13	70	44	15	$19	$18	$17

Jason Giambi	NYY	1B	532	133	0.250	41	97	106	2	$19	$22	$22
Mike Cameron	SEA	OF	534	135	0.253	18	74	76	17	$19	$18	$17
Shannon Stewart	MIN	OF	573	176	0.307	13	90	73	4	$19	$19	$19
Corey Koskie	MIN	3B	469	137	0.292	14	76	69	11	$19	$18	$18
David Ortiz	BOS	DH	448	129	0.288	31	79	101	0	$18	$20	$21
A.J. Pierzynski	MIN	C	487	152	0.312	11	63	74	3	$18	$18	$17
Kevin Millar	BOS	OF	544	150	0.276	25	83	96	3	$18	$19	$19
Brian Roberts	BAL	2B	457	122	0.267	5	64	41	23	$18	$15	$14
Hideki Matsui	NYY	OF	622	179	0.288	16	82	106	2	$18	$18	$19
Marlon Anderson	TAM	2B	482	130	0.270	6	59	67	19	$17	$15	$15
Jason Varitek	BOS	C	451	123	0.273	25	63	85	3	$17	$18	$18
Edgar Martinez	SEA	DH	497	146	0.294	24	72	98	0	$17	$19	$19
Desi Relaford	KC	SS	500	127	0.254	8	70	59	20	$17	$15	$14
Torii Hunter	MIN	OF	581	145	0.250	26	83	102	6	$16	$17	$18
Cristian Guzman	MIN	SS	534	143	0.268	3	78	53	18	$16	$14	$14
Jeff Davanon	ANA	OF	330	93	0.282	12	56	43	17	$16	$15	$14
Jay Gibbons	BAL	OF	623	173	0.278	23	80	100	0	$16	$18	$18
Travis Lee	TAM	1B	542	149	0.275	19	75	70	6	$15	$16	$16
Julio Lugo	TAM	SS	498	135	0.271	15	64	55	12	$15	$15	$14
Melvin Mora	BAL	OF	344	109	0.317	15	68	48	6	$15	$15	$15
Rondell White	KC	OF	488	141	0.289	22	62	87	1	$15	$16	$17
Jody Gerut	CLE	OF	480	134	0.279	22	66	75	4	$15	$16	$16
Ramon Hernandez	OAK	C	483	132	0.273	21	70	78	0	$15	$16	$16
Todd Walker	BOS	2B	587	166	0.283	13	92	85	1	$15	$16	$17
Luis Rivas	MIN	2B	475	123	0.259	8	69	43	17	$15	$13	$12
Jose Valentin	CHW	3B	503	119	0.237	28	79	74	8	$15	$15	$16
Joe Randa	KC	3B	502	146	0.291	16	80	72	1	$14	$15	$16
Fra Catalanotto	TOR	OF	489	146	0.299	13	83	59	2	$14	$15	$15
Do Mientkiewicz	MIN	1B	487	146	0.300	11	67	65	4	$14	$15	$15
Mike Sweeney	KC	1B	392	115	0.293	16	62	83	3	$14	$15	$16
Tim Salmon	ANA	OF	528	145	0.275	19	78	72	3	$14	$15	$15
Scott Spiezio	ANA	1B	521	138	0.265	16	69	83	6	$14	$14	$15
Casey Blake	CLE	3B	557	143	0.257	17	80	67	7	$13	$14	$14
Reed Johnson	TOR	OF	412	121	0.294	10	79	52	5	$13	$13	$14
Erubiel Durazo	OAK	1B	537	139	0.259	21	92	77	1	$13	$14	$15
Eric Hinske	TOR	3B	449	109	0.243	12	74	63	12	$13	$12	$12
Mark Teixeira	TEX	3B	529	137	0.259	26	66	84	1	$13	$14	$15
Juan Gonzalez	TEX	OF	327	96	0.294	24	49	70	1	$13	$14	$15
Greg Myers	TOR	C	329	101	0.307	15	51	52	0	$12	$13	$13
Eric Byrnes	OAK	OF	414	109	0.263	12	64	51	10	$12	$12	$12
Bernie Williams	NYY	OF	442	117	0.265	15	77	64	5	$12	$13	$13
Tony Batista	BAL	3B	629	148	0.235	26	76	99	3	$12	$13	$14
Ben Molina	ANA	C	409	115	0.281	14	37	71	1	$12	$12	$12
Michael Tucker	KC	OF	389	102	0.262	13	61	55	8	$11	$11	$12
Matt Lawton	CLE	OF	374	93	0.249	15	57	53	10	$11	$11	$11
Roberto Alomar	CHW	2B	516	133	0.258	5	76	39	12	$11	$10	$10
Coco Crisp	CLE	OF	414	110	0.266	3	55	27	15	$11	$9	$9
Joe Crede	CHW	3B	536	140	0.261	19	68	75	1	$11	$12	$13
David Eckstein	ANA	2B	452	114	0.252	3	59	31	16	$11	$9	$8
Nick Johnson	NYY	1B	323	92	0.285	14	59	47	4	$11	$11	$11
Bobby Kielty	TOR	OF	427	104	0.244	13	71	57	8	$11	$10	$11
Aaron Guiel	KC	OF	354	98	0.277	15	63	52	3	$10	$11	$12
Josh Phelps	TOR	DH	396	106	0.268	20	57	66	1	$10	$12	$12
Larry Bigbie	BAL	OF	285	87	0.305	9	43	31	7	$10	$10	$10
Craig Monroe	DET	OF	425	102	0.240	23	51	70	4	$10	$11	$11

Troy Glaus	ANA	3B	319	79	0.248	16	53	50	7	$10	$10	$10
John Olerud	SEA	1B	539	145	0.269	10	64	83	0	$10	$10	$11
Orlando Hudson	TOR	2B	474	127	0.268	9	54	57	5	$9	$9	$10
Damian Rolls	TAM	OF	373	95	0.255	7	43	46	11	$9	$8	$8
Chone Figgins	ANA	2B	240	71	0.296	0	34	27	13	$9	$8	$7
Carlos Guillen	SEA	SS	388	107	0.276	7	63	52	4	$9	$9	$10
Matthew Lecroy	MIN	DH	345	99	0.287	17	39	64	0	$9	$10	$11
Mark Ellis	OAK	2B	553	137	0.248	9	78	52	6	$9	$9	$9
Ben Broussard	CLE	OF	386	96	0.249	16	53	55	5	$9	$9	$10
Bobby Higginson	DET	OF	469	110	0.235	14	61	52	8	$9	$9	$9
Ken Harvey	KC	1B	485	129	0.266	13	50	64	2	$9	$9	$10
Terrence Long	OAK	OF	486	119	0.245	14	64	61	4	$8	$9	$10
Damian Jackson	BOS	2B	161	42	0.261	1	34	13	16	$8	$6	$6
Carlos Pena	DET	1B	452	112	0.248	18	51	50	4	$8	$9	$9
Jerry Hairston	BAL	2B	218	59	0.271	2	25	21	14	$8	$6	$6
Brad Fullmer	ANA	DH	206	63	0.306	9	32	35	5	$8	$8	$8
Deivi Cruz	BAL	SS	546	137	0.251	14	61	65	1	$7	$8	$9
Toby Hall	TAM	C	463	117	0.253	12	50	47	0	$7	$8	$8
Tony Graffanino	CHW	3B	250	65	0.260	7	51	23	8	$7	$7	$7
Scott Hatteberg	OAK	1B	541	137	0.253	12	63	61	0	$7	$7	$8
Mike Bordick	TOR	SS	343	94	0.274	5	39	54	3	$6	$6	$7
Dustan Mohr	MIN	OF	348	87	0.250	10	50	36	5	$6	$6	$7
Eric Owens	ANA	OF	241	65	0.270	1	29	20	11	$6	$5	$5
Brook Fordyce	BAL	C	348	95	0.273	6	28	31	2	$6	$6	$6
Miguel Olivo	CHW	C	317	75	0.237	6	37	27	6	$6	$5	$5
Eric Munson	DET	3B	313	75	0.240	18	28	50	3	$6	$6	$7
B.J. Surhoff	BAL	1B	318	93	0.292	5	32	41	2	$6	$6	$6
Warren Morris	DET	2B	346	94	0.272	6	37	37	4	$6	$6	$6
Paul Konerko	CHW	1B	444	104	0.234	18	49	65	0	$5	$7	$8
Gabe Kapler	BOS	OF	225	61	0.271	4	39	27	6	$5	$5	$5
Einar Diaz	TEX	C	334	86	0.257	4	30	35	3	$5	$5	$5
Ruben Sierra	NYY	OF	307	83	0.270	9	33	43	2	$5	$6	$6
Travis Hafner	CLE	DH	291	74	0.254	14	35	40	2	$5	$6	$6
Shane Spencer	TEX	OF	395	99	0.251	12	39	49	2	$5	$6	$6
Darin Erstad	ANA	OF	258	65	0.252	4	35	17	9	$5	$4	$4
David Dellucci	NYY	OF	216	49	0.227	3	26	23	12	$5	$4	$3
Chris Woodward	TOR	SS	349	91	0.261	7	49	45	1	$5	$5	$6
Tom Wilson	TOR	C	256	66	0.258	5	37	35	0	$4	$5	$5
Omar Vizquel	CLE	SS	250	61	0.244	2	43	19	8	$4	$3	$4
Chris Singleton	OAK	OF	306	75	0.245	1	38	36	7	$4	$3	$4
Brent Mayne	KC	C	372	91	0.245	6	39	36	0	$4	$4	$4
Josh Bard	CLE	C	303	74	0.244	8	25	36	0	$3	$4	$4
Ramon Santiago	DET	SS	444	100	0.225	2	41	29	10	$3	$2	$2
Mike Difelice	KC	C	189	48	0.254	3	29	25	1	$3	$3	$3
Dan Wilson	SEA	C	316	76	0.241	4	32	43	0	$3	$3	$4
Laynce Nix	TEX	OF	184	47	0.255	8	25	30	3	$3	$3	$4
Ben Davis	SEA	C	246	58	0.236	6	25	42	0	$3	$3	$4
Karim Garcia	NYY	OF	242	63	0.260	11	25	35	0	$3	$4	$4
Kevin Witt	DET	1B	270	71	0.263	10	25	26	1	$3	$3	$4
Doug Mirabelli	BOS	C	163	42	0.258	6	23	18	0	$3	$3	$3
Willie Harris	CHW	OF	137	28	0.204	0	19	5	12	$2	$1	$1
Brandon Inge	DET	C	330	67	0.203	8	32	30	4	$2	$2	$2
Todd Greene	TEX	C	205	47	0.229	10	25	20	0	$2	$3	$3
Victor Martinez	CLE	C	159	46	0.289	1	15	16	1	$2	$2	$2
Mark Mclemore	SEA	SS	309	72	0.233	2	34	37	5	$2	$2	$2

Carlos Febles	KC	2B	196	46	0.235	0	31	11	8	$2	$1	$1
Adam Melhuse	OAK	C	77	23	0.299	5	13	14	0	$2	$2	$2
Tim Laker	CLE	C	162	39	0.241	3	17	21	2	$2	$2	$2
Michael Ryan	MIN	OF	61	24	0.393	5	13	13	2	$2	$2	$3
Ellis Burks	CLE	DH	198	52	0.263	6	27	28	1	$2	$2	$3
Aaron Rowand	CHW	OF	157	45	0.287	6	22	24	0	$2	$2	$3
John Flaherty	NYY	C	103	27	0.262	4	16	14	0	$1	$2	$2
David Segui	BAL	DH	224	59	0.263	5	26	25	1	$1	$2	$2
Juan Rivera	NYY	OF	173	46	0.266	7	22	26	0	$1	$2	$2
Ryan Ludwick	CLE	OF	162	40	0.247	7	17	26	2	$1	$1	$2
Lew Ford	MIN	OF	73	24	0.329	3	16	15	2	$1	$1	$2
Will Bloomquist	SEA	OF	196	49	0.250	1	30	14	4	$1	$1	$1
Geronimo Gil	BAL	C	169	40	0.237	3	22	16	0	$1	$1	$1
Sandy Alomar	CHW	DH	194	52	0.268	5	22	26	0	$1	$1	$2
Shane Halter	DET	SS	360	78	0.217	12	33	30	2	$1	$1	$2
Rey Ordonez	TAM	SS	117	37	0.316	3	14	22	0	$1	$1	$2
Kevin Mench	TEX	OF	125	40	0.320	2	15	11	1	$1	$1	$1
Shawn Wooten	ANA	DH	272	66	0.243	7	25	32	0	$1	$1	$2
Billy Mcmillon	OAK	OF	153	41	0.268	6	15	26	0	$1	$1	$2
Al Martin	TAM	OF	238	60	0.252	3	19	26	2	$1	$1	$1

Note how the stolen base specialists have their adjusted values tempered but are still rightfully higher than the flawed SGP numbers, however the values for the pure sluggers are quite comparable. The total number of dollars is identical in each set of values. It has been noted SGP reduces the value of stolen bases. Where is this extra money? Check out the low end. SGP has players valued a buck or two more than the adjusted values in the single digit range. Practically speaking, do you want a system to tell you to go the extra buck on Manny Ramirez or Rey Ordonez?

So what we have is an adjusted valuation process that uses theory backed by analysis to practically adjust dollar values so they can be very effectively used in an auction with those using SGP values. You only have to bid $1 more than anyone else to get Carl Crawford or Juan Pierre and this will likely not require your bidding to his true maximum worth. And the best part is you are still guided to go the extra buck on Carlos Delgado. For those who are not yet intuitive enough to do this automatically using our regular values, these adjusted values should be quite useful. To that end, going forward, they will be provided along with the accurate value.

The exact amount of money to adjust is an area under investigation. While it might appear serendipitous that the resultant values match up so well with SGP, there is sound logic backing the alteration. We have now accomplished the objective laid out in the initial essay – the theoretical has been made practical.

You may be wondering if I recommend a like treatment for saves, the other category SGP devalues. The answer is no with the reason being closers are generally still bid up to a healthy level. That is, our system already theoretically and practically renders useful values for closers and there is no need to adjust.

To wrap this up, I humbly believe we have only scratched the surface when it comes to developing strategies based on category efficiencies. This will be a focus of future studies. As always, your feedback is not only welcome, but encouraged.