

INTERPRETING SIMULATION RESULTS



↕ Simulation	↕ Team	↕ Lineup	↕ Avg Runs	↕ Output
Sim Run 2	Saint Francis 2020	Frank-Saban-Bezjak-Marsden	2.84	Sim Output 2
Sim Run 1	Saint Francis 2020	UW Lineup	2.78	Sim Output 1

Quick Explanation

How many runs per 7 inning game did this lineup average? Every 0.01 more runs is roughly a 1% chance of scoring an extra run given that lineup.

Analyzing Deeper

Even at 50k games, there's a bit of variance in average runs. We're working to get to 100k games, but when making a final decision don't hesitate to run a second simulation and take the average of the two results.

↕ Pos	↕ Player	↕ EMPTY	↕ EXP BR	↕ LEADOFF	↕ RISP
1	Avery Nagle	75.2%	0.329	46.1%	16.4%
2	MeKenzie Saban	52.9%	0.572	12.3%	19.2%
3	Rachel Marsden	41.9%	0.765	13.1%	34.9%
4	Allyn Bezjak	43.9%	0.804	23.2%	36.5%
5	Jordan Frank	50.8%	0.749	22.8%	32.7%
6	Tayven Rousseau	51.5%	0.716	19.9%	31.2%
7	Ashley Wruble	51.9%	0.673	22.3%	28.9%
8	Brittney Crawford	43.9%	0.810	19.6%	35.1%
9	Madeline Barnes	53.7%	0.655	24.4%	30.4%

Quick Explanation

- EXP BR (Expected Baserunners): How many runners on base does each hitter average?
- EMPTY/LEADOFF/RISP: What percent of plate appearances do each of those situations happen?

Analyzing Deeper

Producing runs comes down to getting better hitters more plate appearances, and getting those plate appearances in the right situations. Higher Avg. Runs output is the ultimate measure of efficiency, but EXP BR will show who gets the most opportunities to drive in runs.

↕ Player	↕ PA	↕ AB	↕ H	↕ 2B	↕ 3B	↕ HR	↕ RBI	↕ Runs	↕ BB	↕ K	↕ HBP	↕ SB	↕ SBA
Avery Nagle	192	183	73	0	0	6	17	32	5	46	4	12	15
MeKenzie Saban	187	166	57	14	4	3	19	27	16	18	5	6	10
Rachel Marsden	182	156	33	8	0	6	22	19	17	33	8	0	2
Allyn Bezjak	175	153	37	3	4	5	25	18	10	47	9	1	1
Jordan Frank	170	144	36	6	0	5	22	16	13	27	9	7	9
Tayven Rousseau	165	143	29	5	0	3	15	11	12	41	6	0	0
Ashley Wruble	160	115	20	4	0	0	9	12	31	31	8	8	8
Brittney Crawford	155	144	25	2	2	3	14	12	7	41	1	1	1
Madeline Barnes	149	138	14	3	0	3	10	10	3	47	3	0	0

Quick Explanation

The output from 50,000 games is averaged over whichever number of games is chosen from the dropdown. These statistics are how your input stats translated to that season, given the percent likelihood. This is a good gut-check for how a smaller sample size translates to a longer season.

Analyzing Deeper

Ensure this is how you'd expect a hitter to perform over a full season. If the output seems high or low, it might make sense to adjust your input stats, as it should be a forecast of their upcoming performance. Also, a good visual of how hitting higher in the lineup translates to more plate appearances.

FAQs



How do I upload player data?

Click on "Stats" > "643 NCAA Data" for in-game statistics from the selected seasons. You can upload your own statistics using the "Import File" feature as well. To create R/L splits, include "-L" or "-R" on the player's last name to create a duplicate and prevent those stats from being overwritten with a re-upload.

What stats should I upload?

The key to answering this is asking: How is this hitter going to perform, relative to other hitters, in the upcoming game?

- Sample Size? It depends, but we recommend at least 75 plate appearances.
- R/L split data? If it's a small sample size, you can compare to league averages. You might also consider the type of pitcher you're facing, and how your hitters fare relative to one another against that.
- Why is *relative* performance important? You'll never have a perfect forecast for one player. But you don't need that to sequence correctly. Relative performance is what informs the optimal lineup position.

What should I put for Speed?

This is Bill James's "Speed Score" metric, a number 0-10 with 10 being the fastest. It's a weighted combination of Runs, Stolen Bases/Attempts, Triples, and double plays. The faster a runner, the more likely they will be to advance on the bases.

How do the softball and baseball simulations differ?

Each of the baserunning input rates are specific to the sport and level of play, as well as the error percentages on GB/FB. Softball also has a slap-hitting component, as these produce much different results in advancing baserunners than a non-slap hits. In conjunction with the user input statistics, these differences create two completely different run scoring environments, each precise to the sport.

What should I input for Slap %? (Softball only)

Slap % is a number 0-100, which represents the percentage of ground balls and singles for a given hitter that were soft slap hits (likely stay in the infield). These hits are modeled differently and advance baserunners at a lower rate, consistent with league data.

What does the average runs per game output mean?

If you were to play 50k seven inning (softball) or nine inning (baseball) games using your lineup, and each hitter performed as you specified with input stats, that's how many runs you would average. It takes into account the number of plate appearances each hitter gets, in which situations. It is the ultimate measure of offensive production, because it's specific to your lineup.

How often should I run simulations?

Here are a couple reasons to run simulations:

- Your hitters' forecasted performance changes. This could be due to a pitching matchup, hot/cold streak, or several more games to increase evaluate their performance.
- New players in the lineup. The simulation can evaluate the offensive impact of two players head-to-head. Run one sim with the current starter, run another with the replacement. The difference in runs is their relative offensive contribution.

Does it predict how many runs my team will score?

There isn't nearly enough data to factor in pitching matchups, ballpark conditions, etc., and there's quite a bit of randomness in baseball. However, it does give you relative run production. Lineup A might not actually score 6.54 runs, but it'll very likely perform better than Lineup B in all conditions, which is projected at 6.43 runs.