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CSCI 4831
Final Project, Part 1

For my final project, I would like to examine how hitters perform with two outs. I think that if a team can score with two outs, they have a much higher chance of winning because they are adding more runs before giving up the last out of the inning. Therefore, if I can determine which players perform the best when there are two outs, I can find who is the best at adding extra runs for their team. The new statistic will be call Two-Out Performance Percentage, or TOPP.

One critical element of TOPP is how often the batter can score a runner in scoring position with two outs. The calculation for this is the number of times the batter gets a hit, walk, or hit by pitch to score the runner in scoring position with two outs divided by the number of opportunities he has. Each runner will count as a point, so scoring runners from second and third counts as two points for one attempt. In addition, if the batter gets a hit, walk, or hit by pitch and the runner does not score (for example, if the runner simply moved from second to third or the runner got thrown out at home), the batter will be given a half point. If the batter scores a runner from first or he scores himself, he will get one and a half points per score since these players are much harder to score from one at-bat. This will be combined into a new statistic called Adjusted Two-Out RBI Percentage (ATOR%).

Another critical element of TOPP is the batter's success at getting on base with two outs, which could mean he got an RBI or he put himself in position for a teammate to get an RBI with two outs. This calculation is simply on-base percentage (OBP) for the batter when he comes to bat with two outs. Then, the ATOR% and OBP will be summed together, much like OBP and SLG are summed for OPS, and the result will be the player's TOPP score.

The data to be used for this statistic will come from the Retrosheet database used in previous class assignments. It will consist of finding the times when a batter comes up to hit with two outs and the number of times a hit, walk, or HBP is achieved as well as if the batter drove in any runs. I plan to make a webpage to display the results of this statistic.