: What is sabermetrics?

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Sabermetrics is a specific use of analytics in decision making. It is "the application of statistical analysis to baseball records, especially in order to evaluate and compare the performance of individual players". As originally defined by Bill James in 1980, sabermetrics is "the search for objective knowledge about baseball (cf., sabr.org/sabermetrics)". Sabermetrics has become a popularized example of how facts and statistics can be used to make better decisions.

Moneyball, the movie, and the performance of the Oakland A's and Boston Red Sox in the early 21st century showcased the value of using a fact-based, statistical approach to player personnel decisions. Both teams used statistical analysis and decision support to make more scientific decisions about trades of players. Sabermetrics is all about statistical analysis and metrics to predict performance based upon past performance. An analyst develops heuristic indicators of future performance.

Michael Lewis argued in his 2003 book "Moneyball: The Art of Winning an Unfair Game", and in the movie, that the "wisdom" and intuition of baseball insiders used for making staffing decisions is subjective and flawed. He further advocated a more scientific approach to decision making using more relevant and more predictive statistics. In place of metrics likes hits and runs scored, baseball SABR analysts explore advanced metrics such as wOBA (weighted on-base average), FIP (fielding-independent pitching) and WAR (wins above replacement).

According to Kaiser (2013), "The ultimate sabermetric statistic, which is used to rank who the best players in baseball are, is called WAR, or wins above replacement. WAR begs the question, "If this player got injured and their team had to replace him with a minor leaguer or someone from their bench, how much value would the team be losing?" (Slowinski). While no combined statistic is perfect at determining the best overall player, WAR is extremely accurate because it uses an algorithm that involves the three most important aspects of a baseball player: runs produced, base running, and defense."

SABR, the Society for American Baseball Research (http://sabr.org/), and Bill James championed the use of historical performance data to make baseball staffing decisions. A computer application with historical data and statistical and quantitative models can provide meaningful decision support.

The SABR website includes a guide to sabermetric research. According to the webpage, supposedly James coined the phrase in part to honor the Society for American Baseball Research.

Bill James helped engineer the trades that propelled the Boston Red Sox to two World Championships in 2004 and 2007. James in 2013 remained a Senior Advisor on Baseball Operations for the Boston Red Sox. His website is http://www.billjamesonline.com/ .

Phil Birnbaum's "A Guide to Sabermetric Research: The Basics" is a good starting place to begin understanding the use of facts and statistics to make decisions. This methodology is not limited to staffing decisions in baseball, football, soccer and basketball. The ideas can be transferred to other domains of human decision making. For example, keeping metrics on sales staff can help staff sales territories. Data about customers can be used to target sales resources.

The key to success in many decision domains is having the "best" models and the "best" data and keeping the models and data "secret". Why "secret"? Think about baseball ... if every baseball manager and team used the same models and the same data to make staffing decisions, then the "best" team would be the one with the most financial resources to hire the "best" players and the "best" managers. That reality is part of the reason why sports leagues have salary caps.

I'm a fan of analytics, just don't tell your competitors what you are doing.

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