

Many NCAA teams take many traditional approaches to recruiting collegiate basketball prospects, i.e. film studies, scouting, interviews, to make scholarship decisions. These methods can be time-consuming, expensive, and lead to subjective decision-making. There is now an abundance of high school data that can be used in predictive models for collegiate basketball success.

ESPN's recruiting database assigns ratings to high school basketball players based on scouting reports. Since college programs use similar methods to evaluate players, it is reasonable to conclude that recruiting ratings can be used to predict collegiate success. Two websites, prepcircuit.com and AAUStats.com, report box score statistics for high school basketball players. This data is publicly available online but unstructured requiring the use of web-scraping techniques.

Win shares is an advanced metric respected for its all-encompassing nature of a player's contribution to team success. Based on the current "one-and-done" climate, universities are looking for players to contribute immediately and NBA teams are drafting many players without a full season of collegiate data; therefore, freshman season win shares was the response variable. The recruiting rankings and high school statistics provide inputs to linear and nonlinear models compared on predictive accuracy of the response variable. The novelty of the high school data presents an opportunity to compare the impact that these different sources of data have on predictive models. The best model explained 37.4% of the out of sample variation in win shares. In this model, the incorporation of high school statistics improved out-of-sample prediction and the ESPN rating system that has been respected for 13 years. This finding will encourage more analysis and collection of high school data for collegiate and professional purposes.