Rebound Side Tendencies: A Study on Rebound Location in Relation to Shot Location

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Abstract: The aim of this research is to determine if there is a relationship between the origin of a shot and the resulting rebound which would give rebounders a better chance of securing a rebound. I am determining if there is a preference by using player location data from the NBA and then placing each shot and rebound into one of twelve zones. The zones of the shots and rebounds will then be analyzed to determine if a strong side or a weak side rebound occurred. The number of strong and weak side rebounds will then be aggregated to the entire court and their specific zones to find the side tendencies for the entire court as well as each zone. I will then analyze if there are specific players whose shot and rebound tendencies run contrary to the results for the entire data set. My hypothesis is that the fundamental of weak side rebounding is true and that there are certain players who do not follow the aggregate pattern. This will allow rebounders to increase their chances of securing a rebound by recognizing the location of the shot or the person taking the shot.

Keywords: Sports analytics, spatial analysis, rebounding