

Real World Graduation: Question 87: Football and Statistics

Edward D. Duvall
15 Jun 2019

Question 87

On a football team, a "cornerback" is a defensive player whose main job is "pass defense". His job is to "cover" the other teams' pass receivers. His duties include preventing the receiver from catching a pass from the quarterback, intercepting the pass if he can, and tackling the receiver if he does catch a pass from the quarterback. He also has other defensive duties related to defending against running plays and blocking.

What would be the best way to determine, based on statistics collected over player's careers, of which cornerbacks were the most highly skilled at pass defense?

- a) Total number of interceptions of passes
- b) Total number of tackles made against receivers who caught passes
- c) Sum of total number of interceptions and number of passes broken up
- d) Sum of total number of interceptions and fumbles forced (i.e., total "turnovers")
- e) Some weighted combination of all of the above

Answer to Question 87

This is a trick question. None of the answers are correct.

The answers do not necessarily relate to the issue of how well he covers his man, because they deal partly with actions against men he was not covering. Second, all of the answers pertain to events that occurred after the receiver he was covering either attempted a catch or made a catch. They do not indicate, however, the total number of times a covered receiver caught the ball, or how many touchdowns the receiver made afterwards, or a host of other relevant data. What about a cornerback that was so good that the opposing quarterback never attempted to pass to the receiver being covered? That cornerback has perfect pass defense because the receiver he is covering is essentially out of the game. Yet, such a cornerback would have no statistics recorded: if no passes were ever thrown to the man he was covering, there would be no opportunity for an interception, breaking up the pass, a tackle after the catch, or forced fumbles. Statistically, there would be no record that he had never played, although he may well have been the very best at his position (see Robert James, who played for the Buffalo Bills in the 1960's).

The important point here is to make sure that any statistics being collected are relevant to the question at hand. It is quite possible that stacks of numbers have little meaning to a player's value in each individual game; and a statistical evaluation alone is not a sufficiently accurate measure of true ability. This same principle applies to all other questions in which statistics are used a source material. It is usually much more important to evaluate both the relevance and completeness of the statistics than to utilize them, since utilizing the wrong statistics in a correct manner still gives the wrong answer.