

Study looks at predicting NFL betting lines

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When bookmakers set the over/under line for NFL games they tend to give weight to the number of points a team scored in its immediate previous game. But that statistic is a poor predictor of the number of points to be scored in the next game.

That's what three researchers found when they analyzed over/under lines and the results of more than 190 [National Football League](#) games played in 2010 and the impacts of several variables used to set the betting line.

"This may mean that bettors place too much emphasis on recent information," says Tracy D. Rishel, associate professor of management at Susquehanna University in Selinsgrove, PA.

Rishel, and two [economists](#) from Randolph Macon College -- C. Barry Pfizner and Steven D. Lang -- presented a paper on their results in October in Myrtle Beach, SC at the annual meeting of the Southeast Institute for [Operations Research](#) and [Management Sciences](#).

"We are able to explain about two-thirds of the variance in the over/under betting line for individual games with the variables we examined," reports Susquehanna University's Rishel. "The data are very consistent across two years study; both 2010 and research we did earlier on the 2008 NFL season."

The over/under line set by bookmakers, is an attempt to predict the number of points to be scored by both teams in the next game. Bettors can choose the "over" meaning that they think more points will be scored

than the odds makers predict. Or they can select the "under," meaning that they win if fewer points are scored than are forecast in the betting line.

Another element that proved important in predicting where odds makers would set the over/under line was whether the game was played in a domed stadium with the roof closed. The dome factor, however, was not significant in predicting the number of actual points scored in the 2010 season although a statistically significant relationship was found for the 2008 season.

"The dome effect may have captured the effect of teams that played in home domed stadiums, were also high scoring teams for the 2008 season, but were not quite so productive in 2010. Other explanations are equally plausible," says Rishel.

As expected, the researchers found, using multivariate regression analysis, that offense vs. defense matchups play large roles in setting the over/under line. They play a lesser but still noticeable role in predicting scores.

"Matchups count," notes Rishel. "Examination of yards gained on offense matched against yards surrendered on defense, was highly statistically significant in the placement of the betting line."

The work by Rishel, Pfitzner and Lang could be a cautionary tale for football bettors.

"The line, as expected, is much easier to predict than the actual points scored," says Rishel. "The outcomes and points scored are not easily predicted which is 'why they play the games.'"

In their analysis, the researchers made no allowance for injuries or for

weather in games played outdoors.

Their study is titled: "The Determinants of Scoring in 2010 NFL Games and the Over/Under Line."

Provided by Dick Jones Communications

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