

Nomenclature

G_n - Stat from Game Number n
 ROS_{calc} - Rest of Season Calculation
 LX_{calc} - Last X Games Calculation
 WtX_{calc} - Weighted X Games Calculation
 $S2D_{calc}$ - Season to Date Calculation
 wt_1 - Weight Applied to ROS_{calc}
 wt_2 - Weight Applied to LX_{calc}

Moving Calculations

Explanation/Theory

Moving Calculations attempt to capture a team/player's performance with a heavier emphasis on a smaller sample size relative to the rest of the season. This offers different perspectives to how performance is trending throughout a season. The process described below is used for averages, percentages, rates, and ratings; however, the simplest version is used in calculating moving averages (like points per game).

(Teams on average play 3.5 games per week. The combination of 3, 5, and 7 game sample sizes typically provide a 2 week snapshot of an 82 game season)

1. Simple

Calculation from the last 3, 5, 7 games

2. Weighted

Calculations from the last 3, 5, or 7 games are combined with the rest of season calculation while being given equal weight. The equations below show the process

Equations

for $X = 3, 5, 7$ and $wt_1 = 0.5, wt_2 = 0.5$

$(n = \text{game number})$

if $n \geq (2 * X) + 1$

$$LX_{avg}(n) = \frac{G_{n-X+1} + G_{n-X+2} + \dots + G_n}{X}$$

$$ROS_{avg}(n) = \frac{G_1 + G_2 + \dots + G_{n-X}}{n - X}$$

$$WtX_{avg}(n) = (wt_1 * ROS_{avg}(n)) + (wt_2 * LX_{avg}(n))$$

elseif $n \geq X + 1$

$$LX_{avg}(n) = \frac{G_{n-X+1} + G_{n-X+2} + \dots + G_n}{X}$$

$$ROS_{avg}(n) = WtX_{avg}(n) = S2D_{avg}(n) = \frac{G_1 + G_2 + \dots + G_n}{n}$$

else

$$LX_{avg}(n) = ROS_{avg}(n) = WtX_{avg}(n) = S2D_{avg}(n) = \frac{G_1 + G_2 + \dots + G_n}{n}$$