Hints for HW4 Q6 9/16/20

Y: # of shots

t: time on the field (minutes)

T: tackles
P: passes
position
} x_{ij}

~~Use~~ # of games = $\frac{t}{90}$

$T \to \frac{90 \times T}{t}$ tackles/game

$P \to \frac{90 \times P}{t}$ passes/game

μ_i': mean # of shots/game

$E\{Y_i\} = \mu_i = \frac{t_i}{90} \mu_i'$

Logical model: $\log(\mu_i') = \sum x_{ij}\beta_j$

↖ covariates, e.g. β_j PPG, tpg

$\log \mu_i = \log t_i - \log 90 + \sum x_{ij}\beta_j$

$\eta_i = \log t_i + \sum x_{ij}\beta_j + \text{const}$

↘ covariate with coefficient 1

In R: "offset"

John Nelder 1972