



# Evaluating Physical Attributes of Offensive Lineman



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## Introduction

Our goal was to study NFL offensive line performance, and to determine a method of predicting performance level based on physical attributes, such as height and weight. Many NFL draft scouts and analysts seem to be obsessed with these attributes, and will largely base decisions on them. We wanted to figure out how much the height and weight of an offensive lineman actually matters.

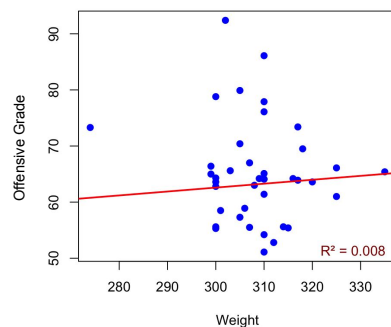
## Methodology

We used tracking data from Pro Football Reference (PFF) that assigns each NFL offensive lineman a run-blocking grade, a pass-blocking grade, and an overall grade for the 2024 regular season. We used a snap minimum of 300. We also gathered data on these players' height and weight from PFF. We then performed linear regression and multiple linear regression to attempt to determine a way to predict an offensive lineman's performance based on height and/or weight. We also split the data up by position, performing regressions for tackles, guards, and centers separately.

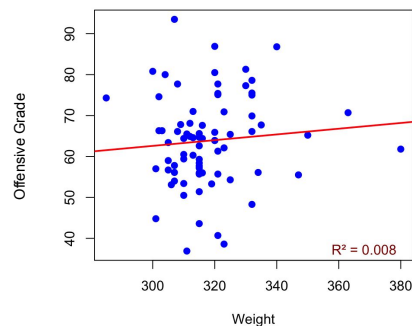
## Discussion

We created several regression models to compare height and weight to the offensive PFF grades for each position (tackles, centers, guards). As can be seen from the scatter plots above, all of the data is very scattered; there is no clear trend between the two variables. That means that there is a very low correlation between the dependent (Offensive PFF-Grade) and independent variables (height and weight). In other words, there is a very weak relationship between the two, indicating that height and weight are not good predictors of performance for offensive lineman in the NFL. This allows us to discuss the other factors that play into success for lineman: hand technique, speed, strength, and other attributes that are more difficult to measure unlike size. This leads us to the conclusion that the best way for NFL scouts and analysts to draft the best lineman is to observe the tapes of offensive linemen and actually watch their technique and impact in opening up the field for the quarterback and running backs.

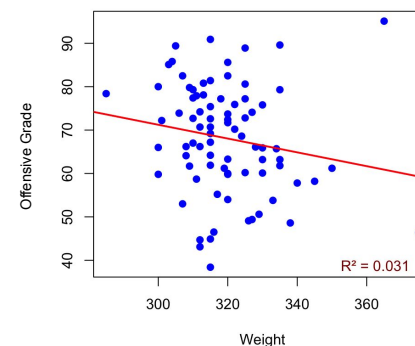
Centers: Weight vs. Offensive Grade



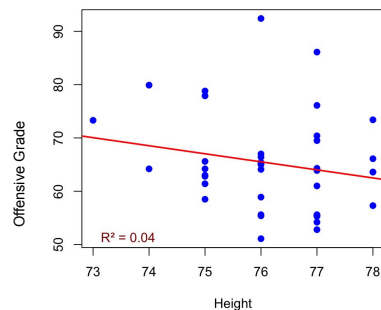
Guards: Weight vs. Offensive Grade



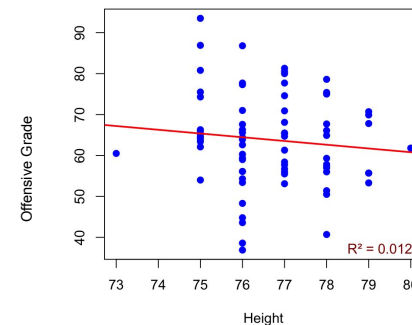
Tackles: Weight vs. Offensive Grade



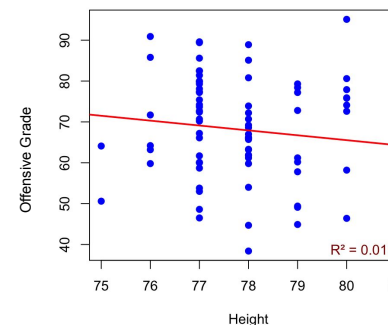
Centers: Height vs. Offensive Grade



Guards: Height vs. Offensive Grade



Tackles: Height vs. Offensive Grade



## Acknowledgement

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## Reference

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