# EDA for NBA

#### Austin Stephen

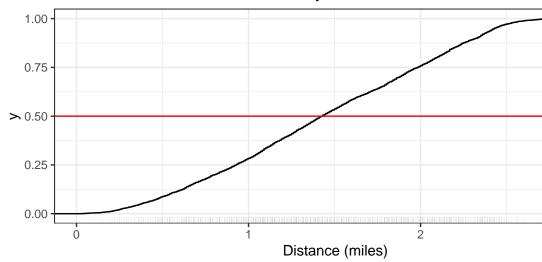
6/23/2021

#### Distance Traveled in Game

#### Take Aways:

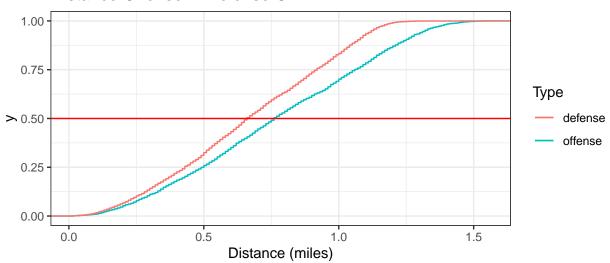
- Players cover more distance on offense than defense. This makes sense, running plays requires more movement than defending them.
- Over the last 7 seasons distance is roughly similar
- Guards move the most, forwards the second most, and centers the least. This spread between positions is approximately the same across offense and defense
- There may be an inverse correlation between distance a team travels per game and wins. Are they more efficient? Is this not the opposite of what we expect?

## Distance Traveled in Game for Players CDF



#### Distribution of Distance

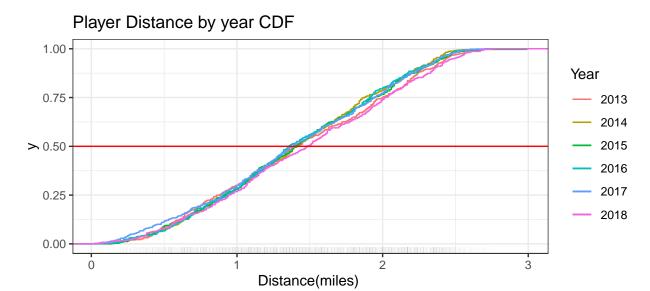
## Distance Offense v. Defense CDF



Entire Game: min is 0.020, max is 2.990, and mean is 1.425 miles

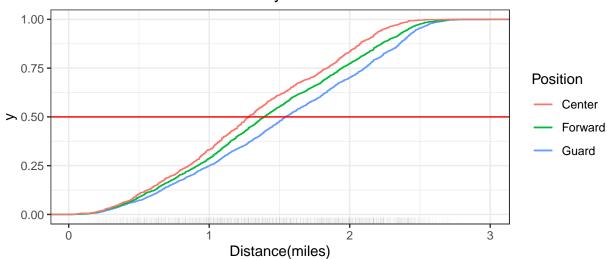
**Offense:** min is 0.020, max is 1.560, and mean is .765 miles **Defense:** min is .010, max is 1.29, and mean is .671 miles

### Season to Season

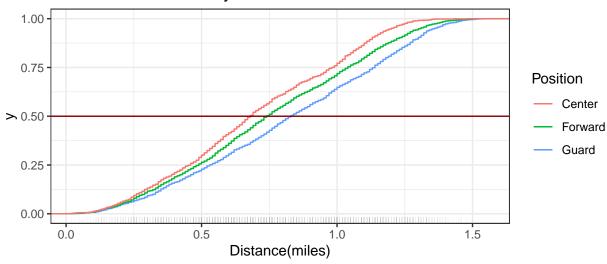


#### Player Position

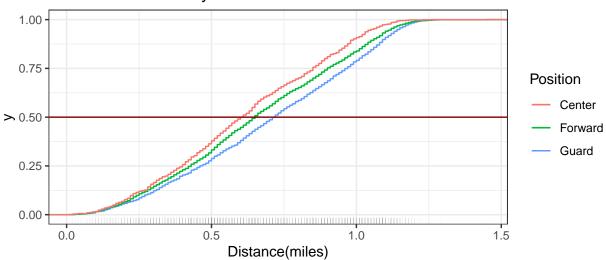
# Distance Traveled in Game By Position CDF



# Distance on Offense By Position CDF

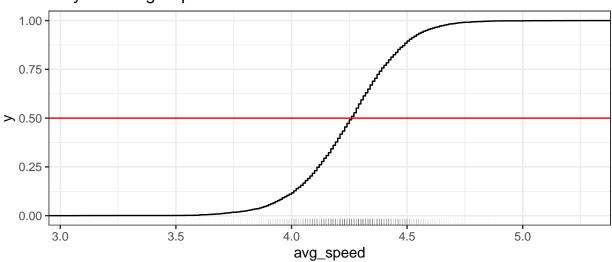


# Distance Defense By Position CDF



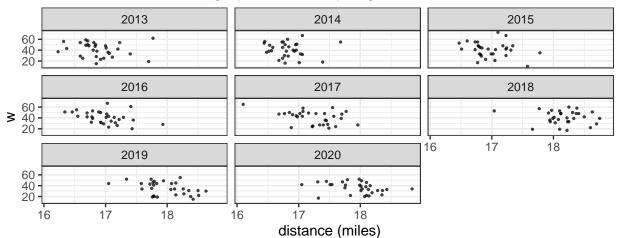
### Speed in Game

# Player Average Speed CDF



### Scatter plots looking for relationship with distance

# Teams wins and average per distance per game



<sup>\*\*</sup>distance is the sum of players on the team per game averaged