

# Wingspan on Defense

Does having a longer proportional wingspan automatically translate to better defense in the NBA?

# Hypothesis

Definitely to an extent. Having a longer proportional wing span will help with containment as well as number but I think there is a cut off point where it might become more of a negative.

Defence requires intelligence, will to hustle, and work. A player's stature will only take them so far, they need to want to play hard.

# Eye Test and Field Test Say Yes

Just being a consistent player or watcher, I know that scoring on another player is much more difficult when the defender is longer than myself.

Longer arms means more they can give players more space while still effectively contesting shot attempts, it means they have longer reach for rebounds, and it means wider base for ball handlers to get around.

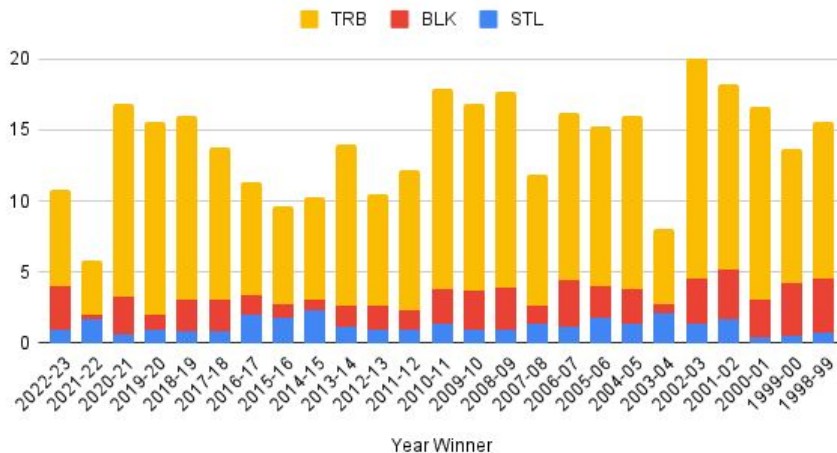
# Looking at the Big 5 numbers

Box score watchers will note that the longer the wingspan, the higher the numbers look on paper.

It is easier for players gifted with said wingspan to deflect passes and shots to create steals and blocks.

And the award voters seem to agree, as many of the past Defensive Player of the Year award winners fill the box score with defensive rebounds, steals, and blocks.

D POTY

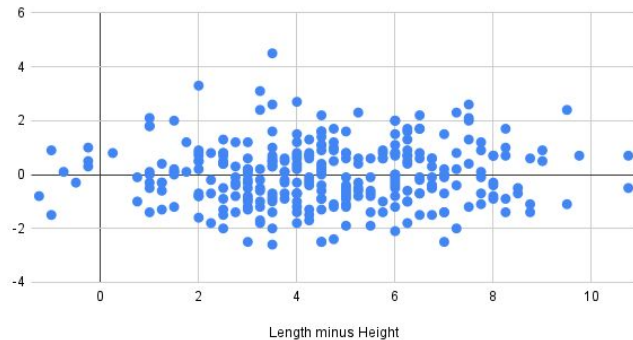


# Going deeper with Advanced Stats

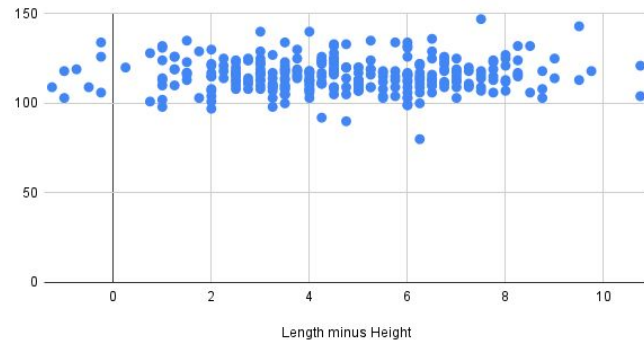
NBA also has a few statistics that are not looked at by the causal fan. Here are a few that we will be using to determine better defensive play

- Defensive box score Plus/Minus - measures the difference per 100 possessions in points allowed with a player on the court versus off the court
- Defensive rebound percentage - An estimate of the percentage of available defensive rebounds a player grabbed while they were on the floor
- Defensive win shares - An estimate of the number of wins contributed by a player due to defense
- Defensive rating - Defensive Player Rating =  $(\text{Players Steals} * \text{Blocks}) + \text{Opponents Differential}$  =  $1/5$  of possessions - Times blown by + Deflections \* OAPDW( Official Adjusted Players Defensive Withstand)

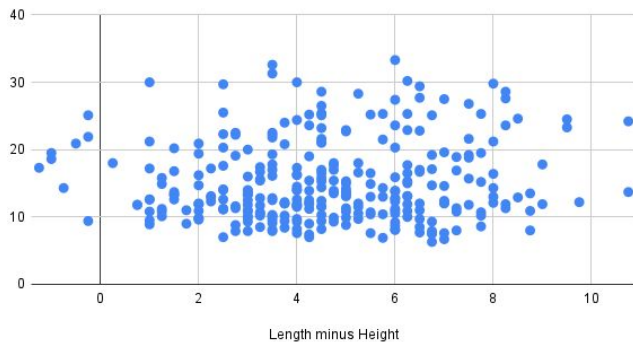
Length on Defense vs Defensive Boxscore Plus Minus



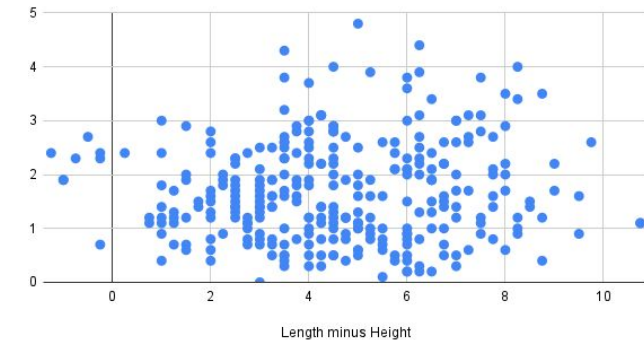
Length on Defense vs Defensive Rating



Length on Defense vs Defensive Rebound Percentage



Length on Defense vs Defensive Winshares



The length of the wingspan, no matter how much larger than the players' height, does not seem to correlate with any of the four advanced defensive stats.

Players Playing at least 15 minutes per game.

# Conclusion

There is a clear advantage to having a larger wingspan in basketball, however it is not going to replace willingness, and basketball IQ as the main reasons for strong Defense.

Intelligence and hustle will remain as the advantages for excelled defensive play.

# References

- [NBA.com](https://www.nba.com)
- [Basketball-Reference.com](https://www.basketball-reference.com)
- [Statmuse.com](https://www.statmuse.com)