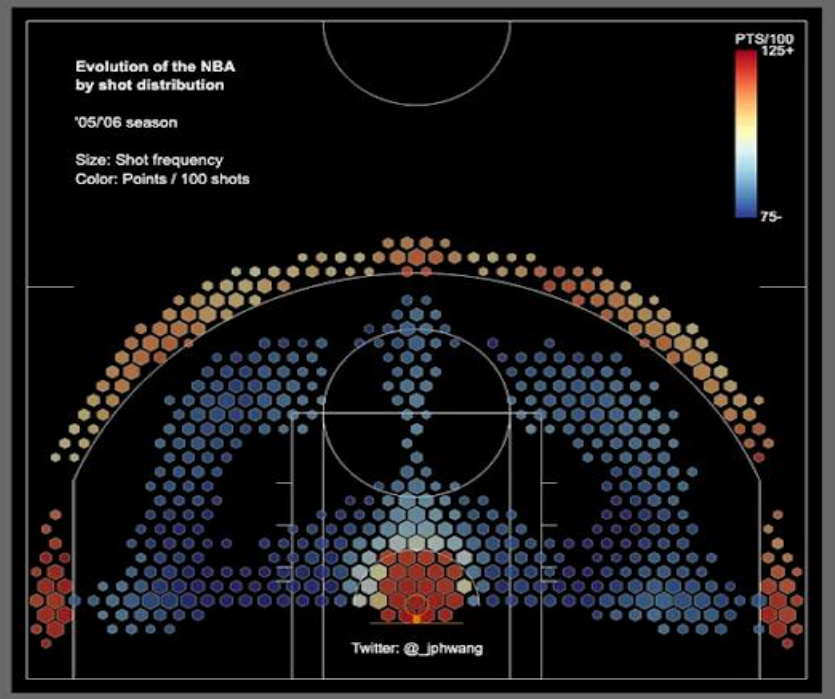
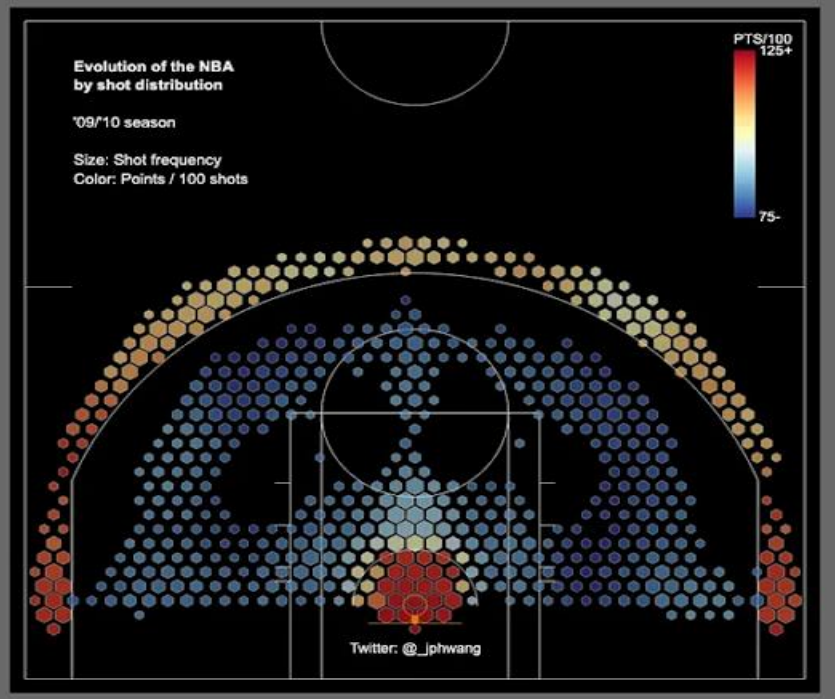
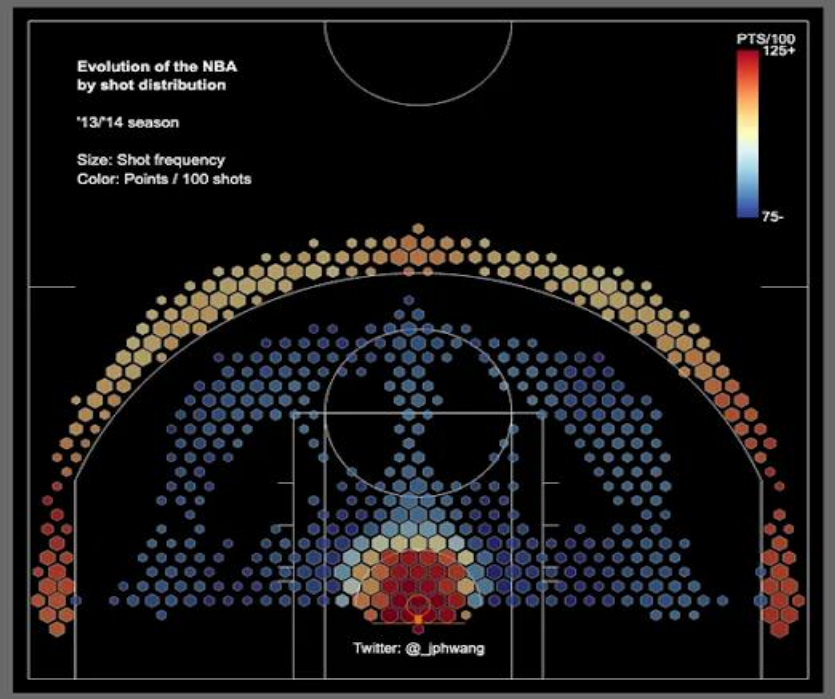
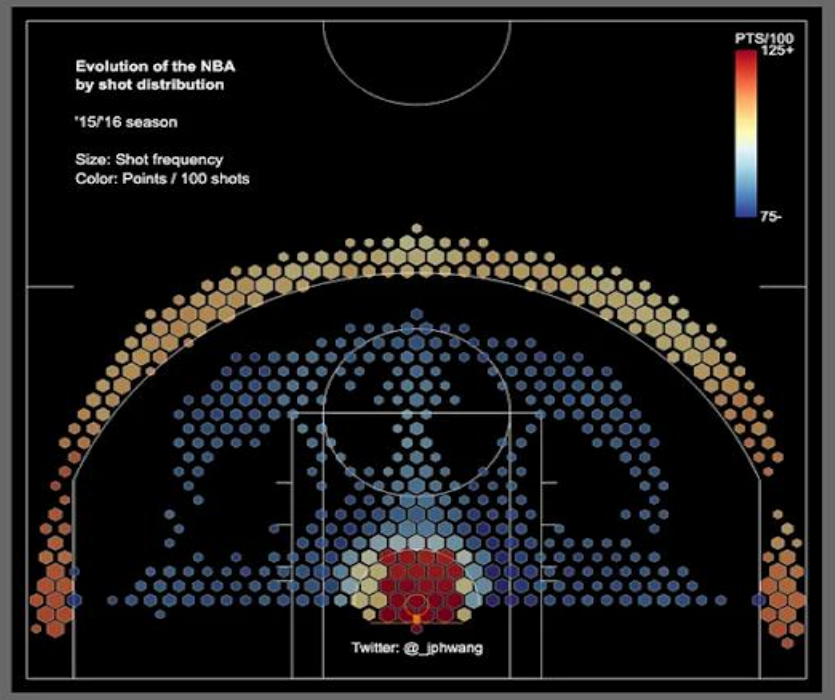
NBA Draft Combine Metrics

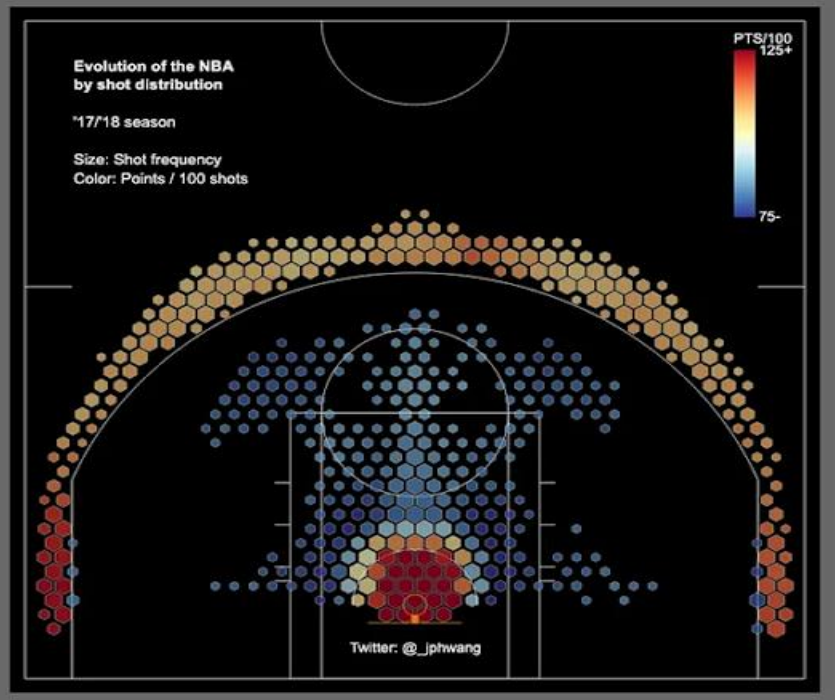
Ben Braynin, Dylan Nguyen, Sai Khushal Dulam, Elliot Thom, Tejhas Annamalai

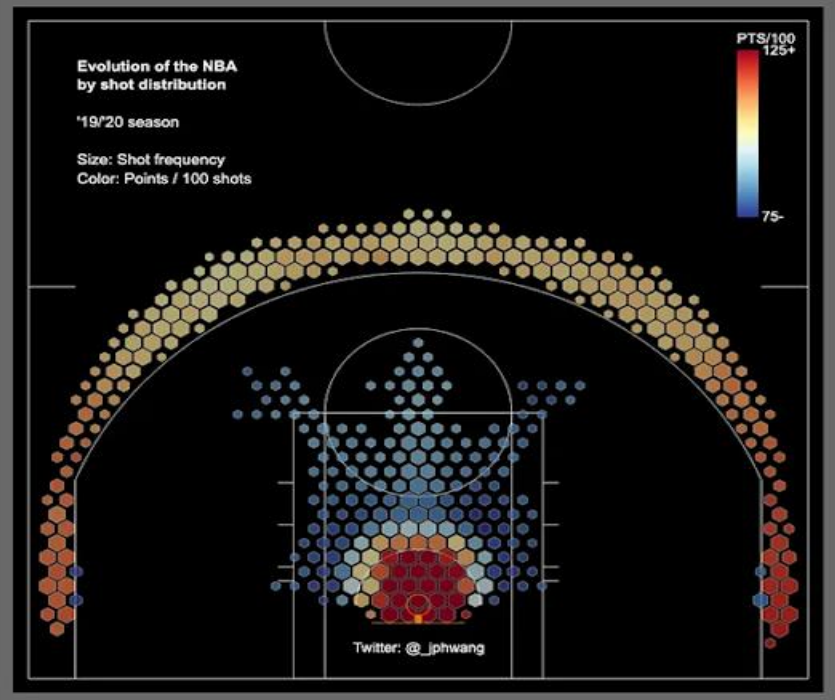

Evolution of the NBA
by shot distribution
'05/'06 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang


Evolution of the NBA
by shot distribution
'09/'10 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang

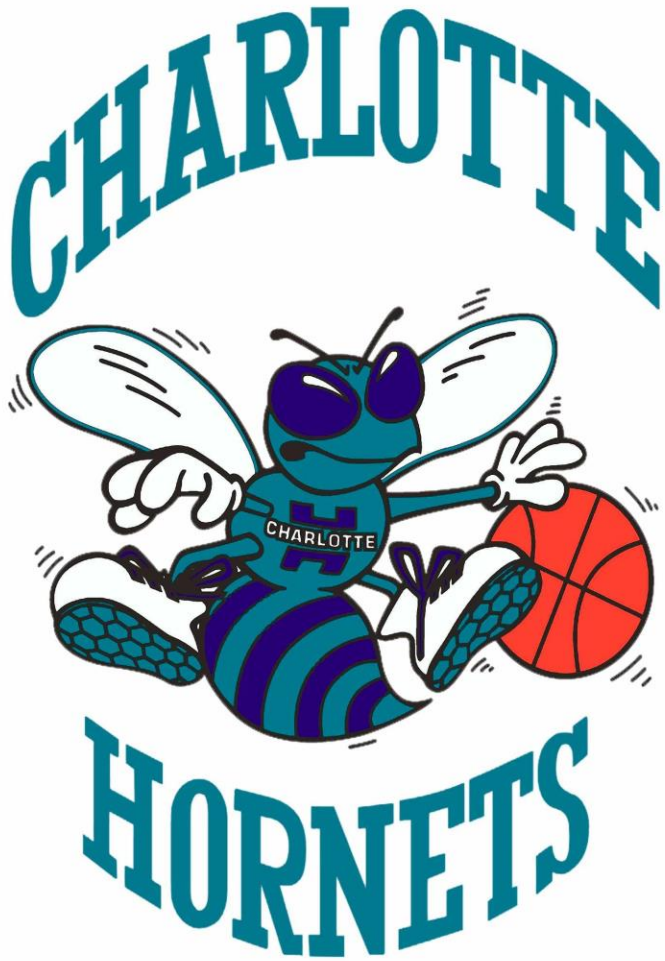

Evolution of the NBA
by shot distribution
'13/'14 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang


Evolution of the NBA
by shot distribution
'15/'16 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang

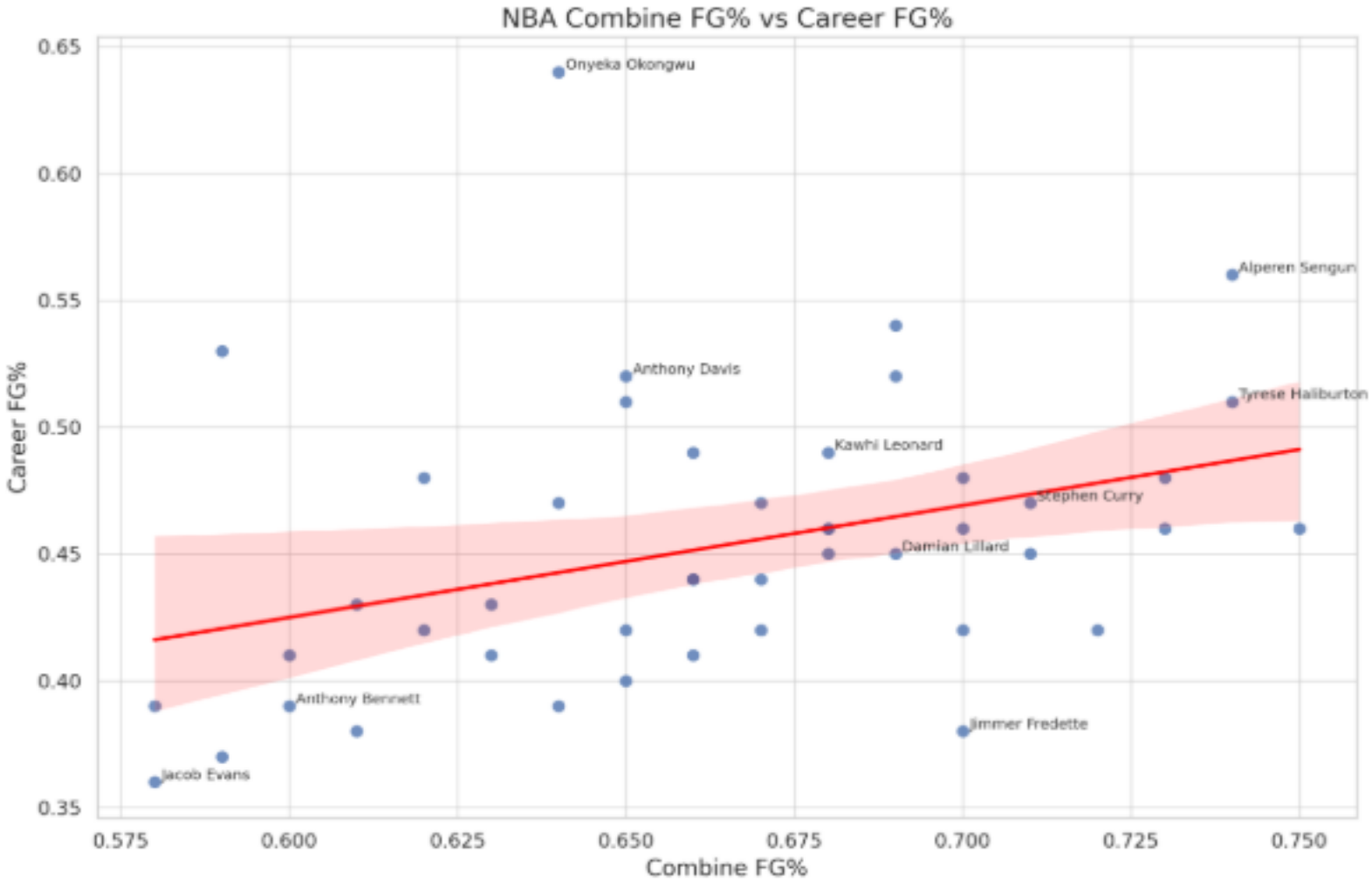

Evolution of the NBA
by shot distribution
'17/'18 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang


Evolution of the NBA
by shot distribution
'19/'20 season
Size: Shot frequency
Color: Points / 100 shots
PTS/100
125+
75-
Twitter: @_jphwang

Success



NBA Combine VS Career FG%



https://www.basketball-reference.com/leaders/

BPM (Box Plus/Minus)

- Box Plus/Minus (BPM) is an advanced basketball stat that estimates how much a player contributes to their team's performance per 100 possessions, compared to a league-average player (defined as 0.0).

BPM combines the following box score stats:

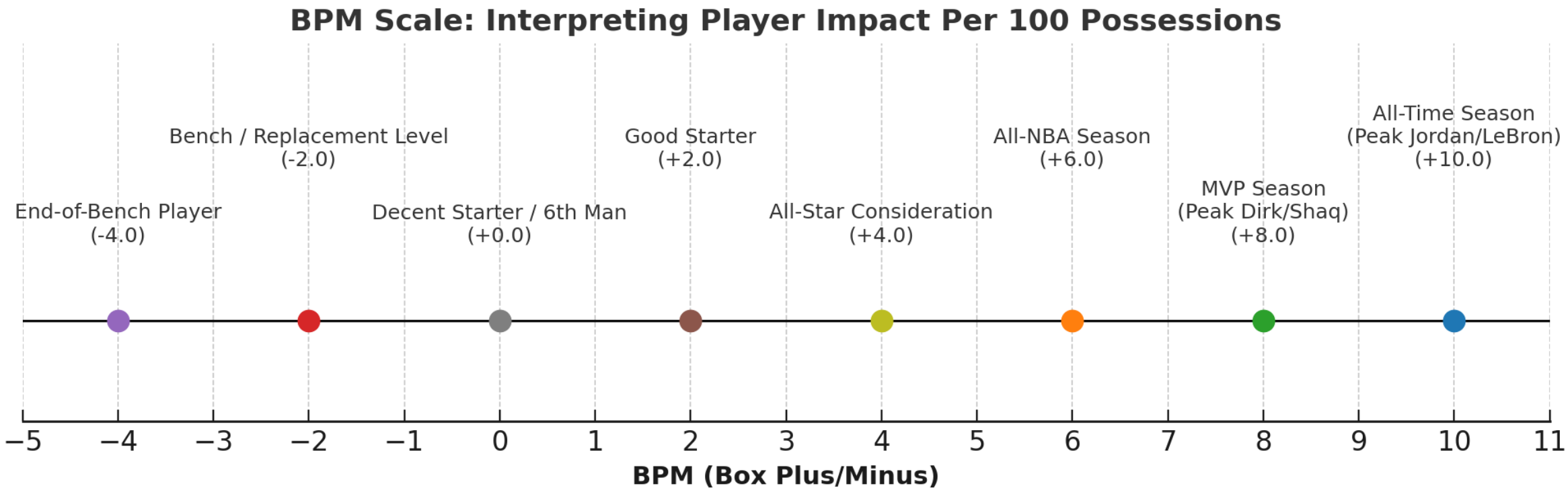
- **Points, Assists**
- **Rebounds** (offensive and defensive)
- **Steals**
- **Blocks**
- **Turnovers, Personal fouls**
- **Field goal attempts and makes**
- **Free throw attempts and makes**
- **Three-point attempts and makes**

It also factors in:

- **Player's position**
- **Team performance while on court**
- **Pace and context of play**

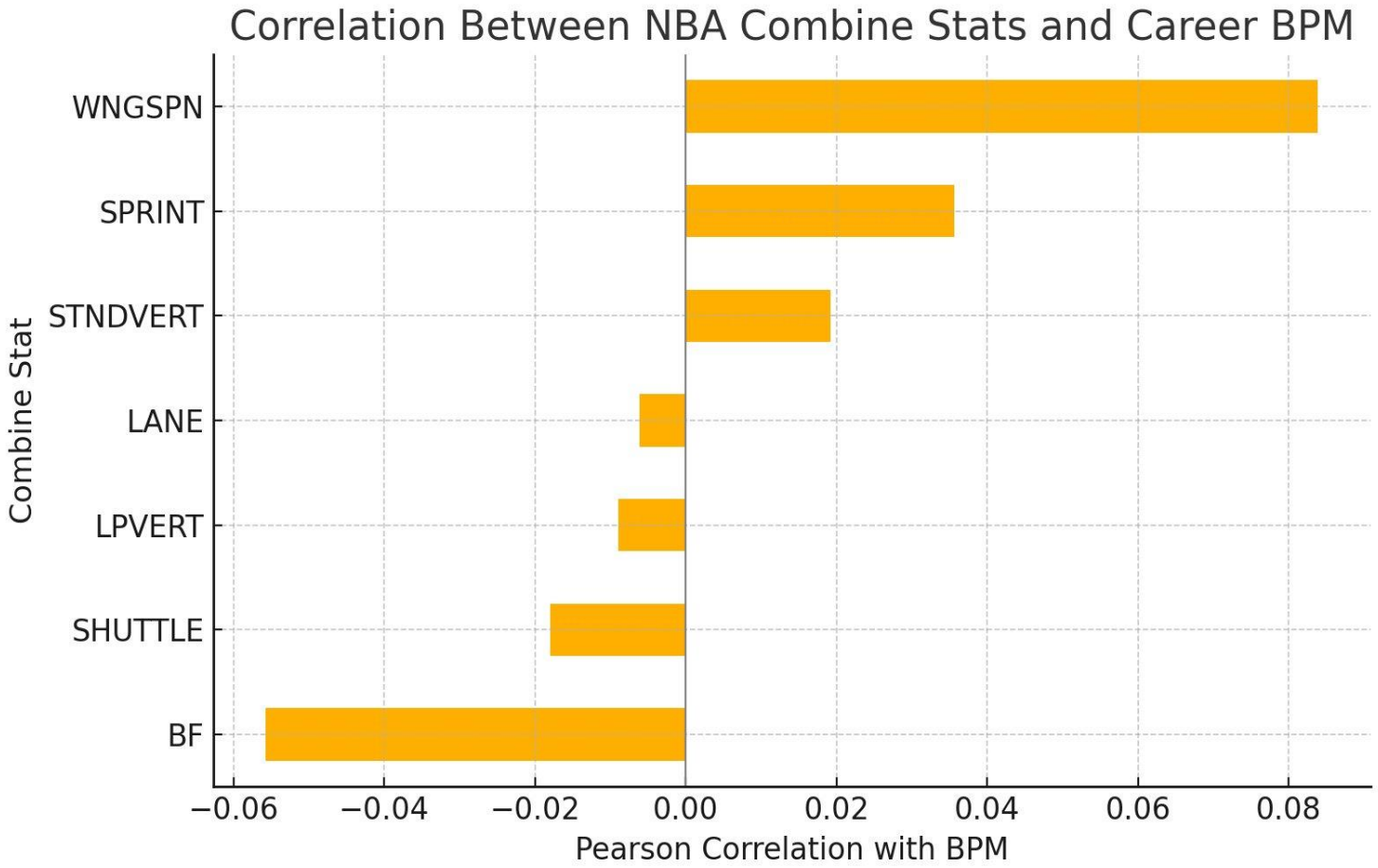
https://www.basketball-reference.com/about/bpm2.html

High BPM = High Impact



https://www.nba.com/stats
https://www.basketball-reference.com/

BPM Graph



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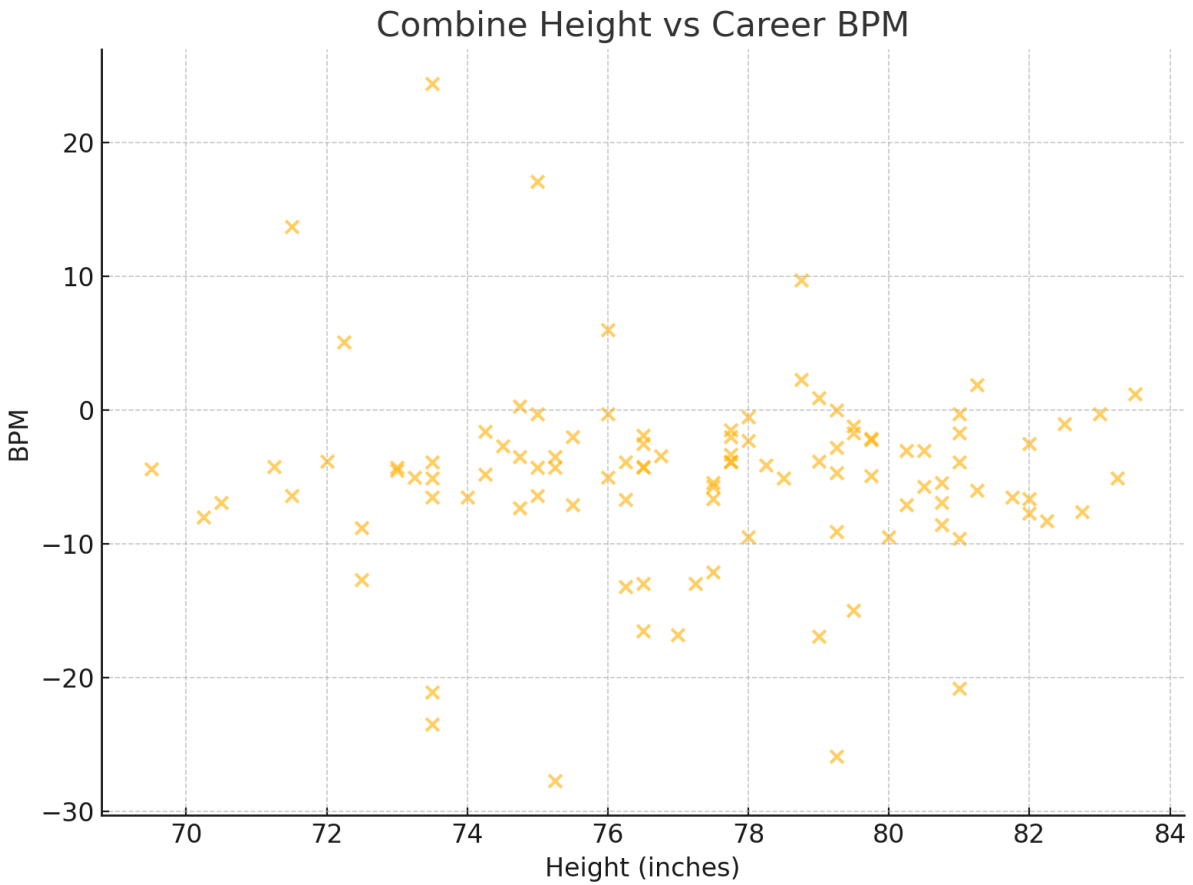
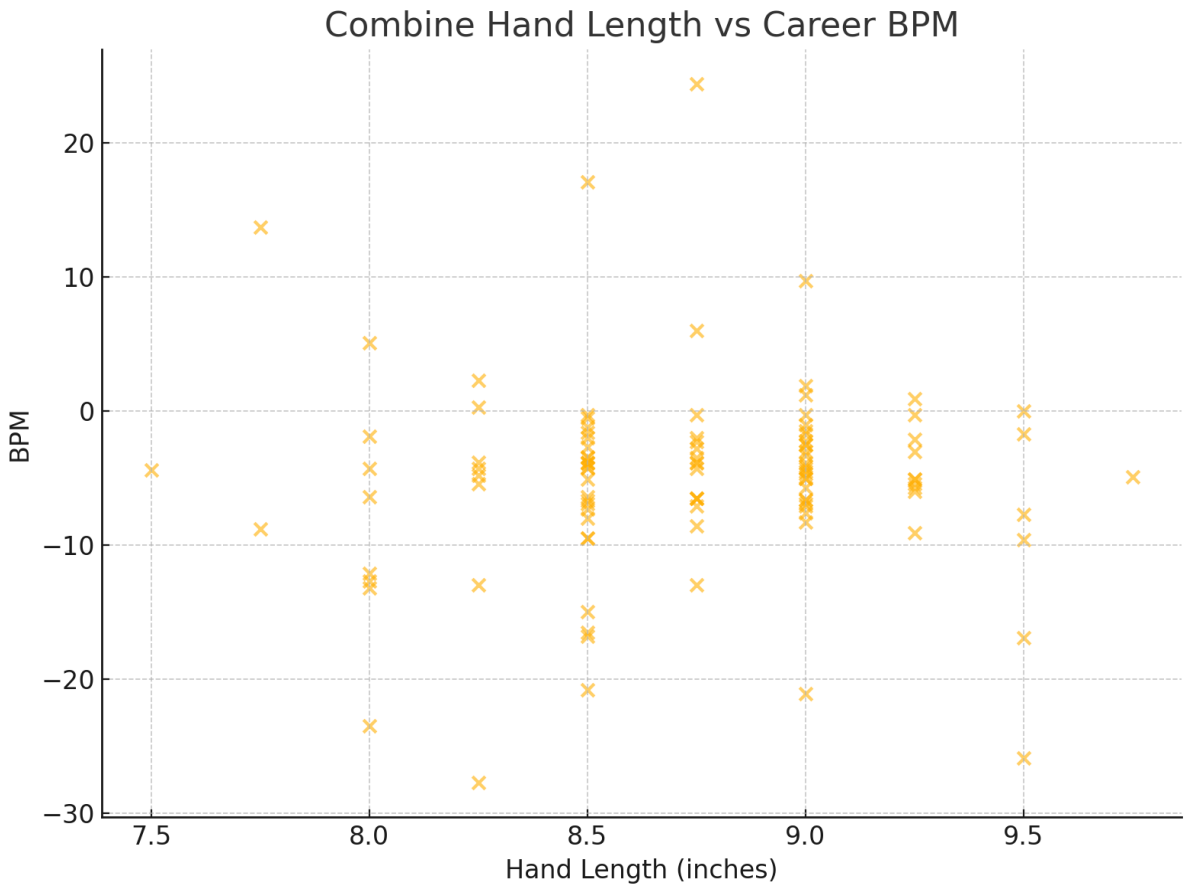
https://www.basketball-reference.com/leaders/bpm_career.html

Insignificant BPM Combine Metrics





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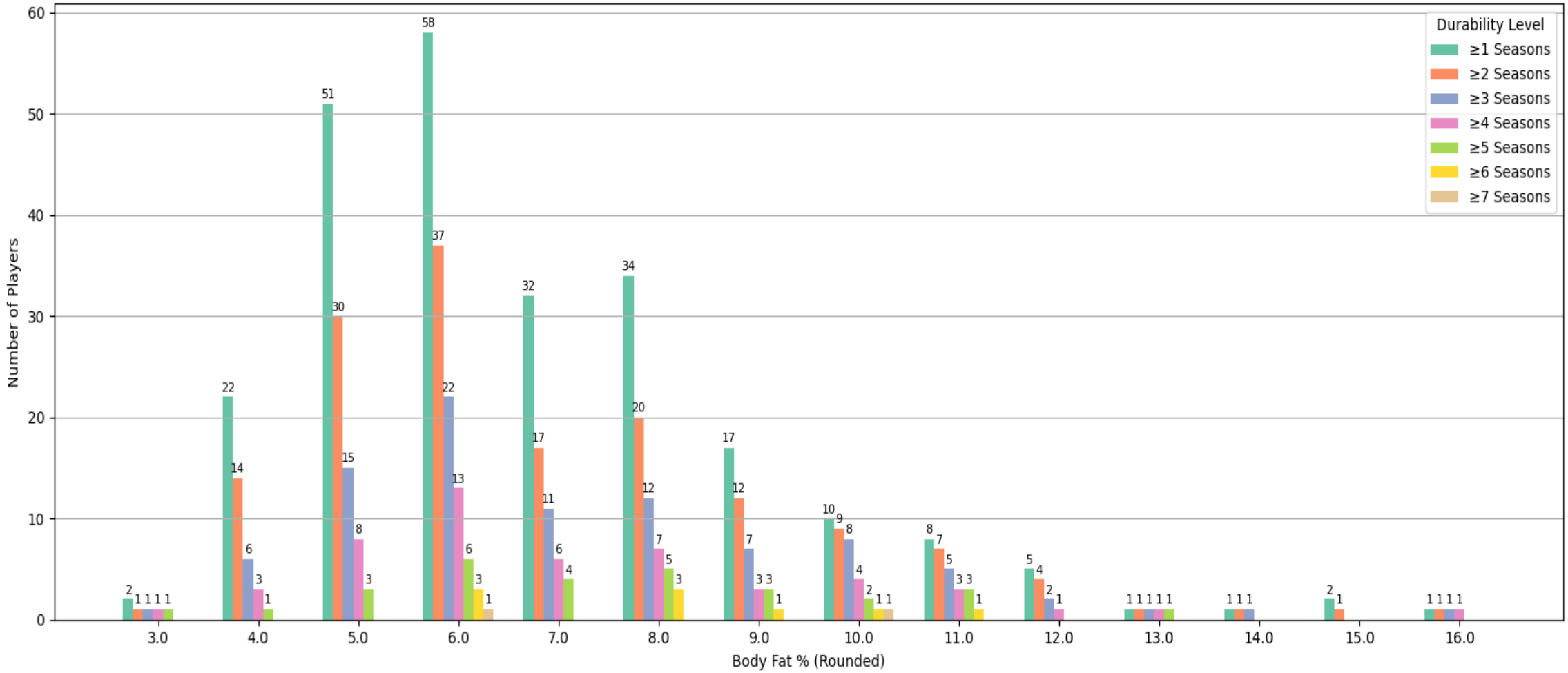
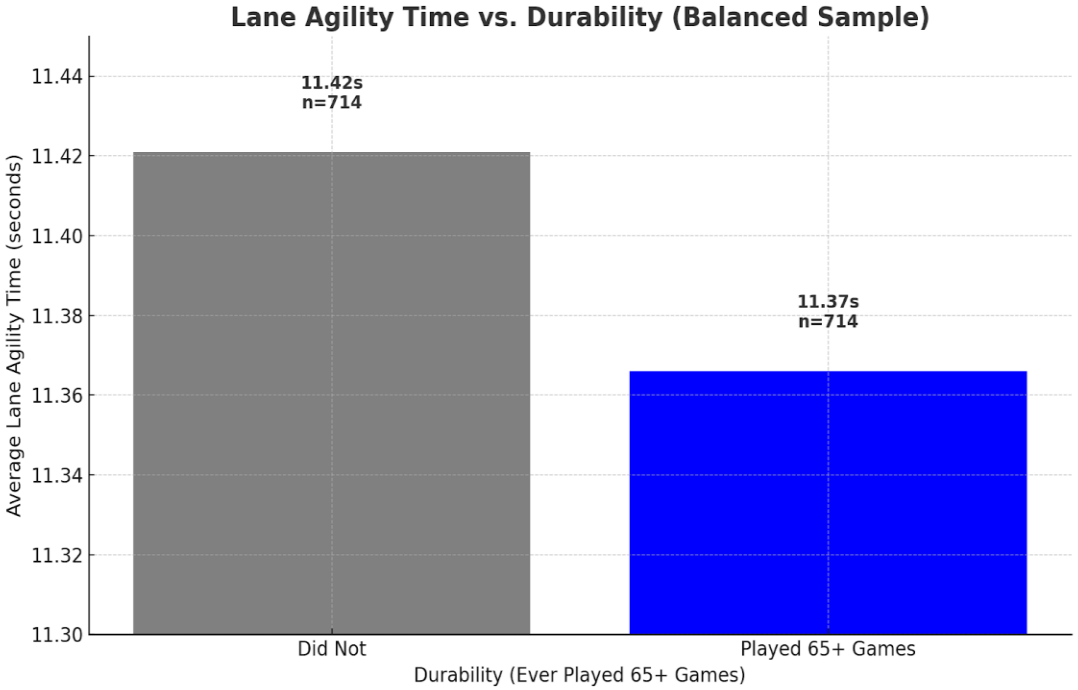
Durability

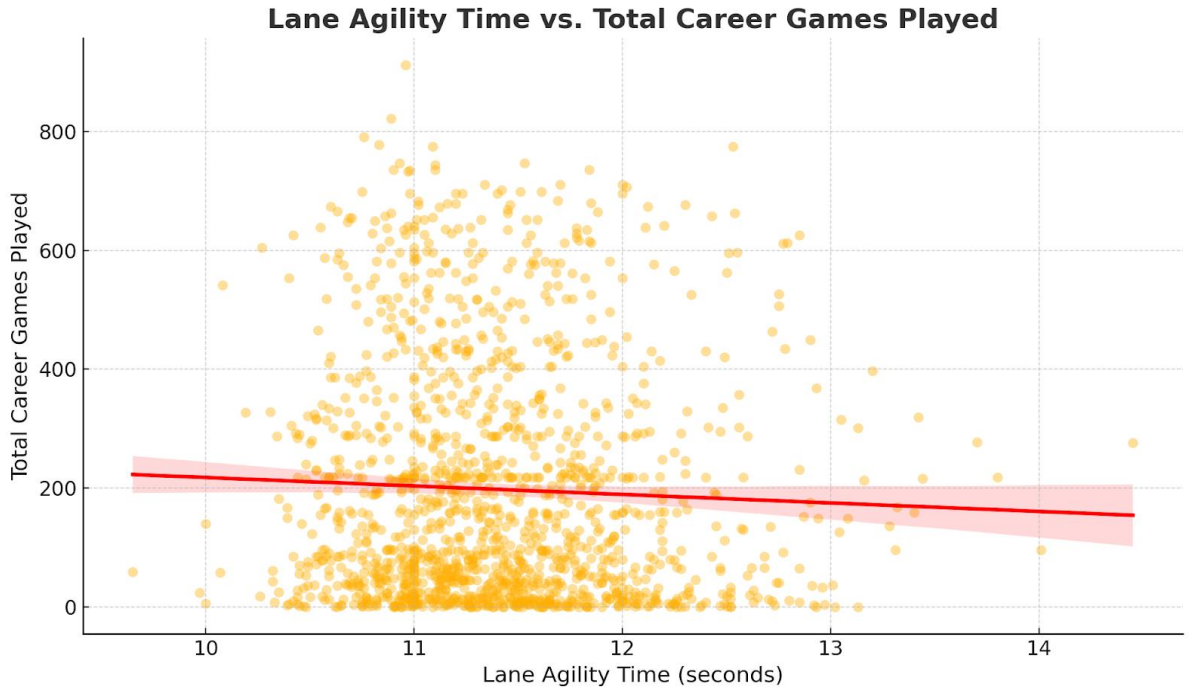
NBA Combine Body Fat % Compared to Seasons with 65+ Games Played



https://www.nba.com/stats
https://www.basketball-reference.com/leaders/bpm_career.html

Lane Agility Drill



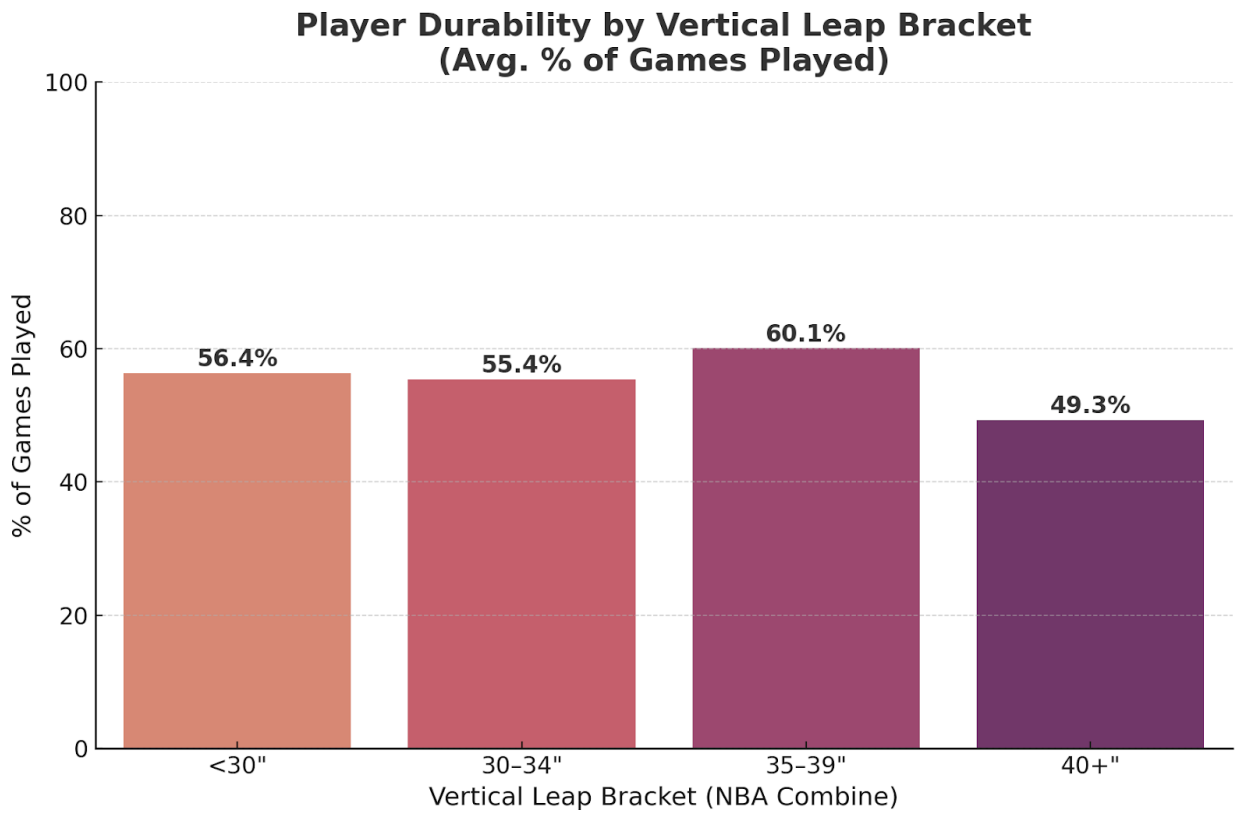


- Players who played 65+ games averaged a quicker agility time (**11.37s**)
- Less durable players averaged slightly slower (**11.42s**)
- Sample size was balanced across both groups **(n = 714 each)**

- **A clear downward trend:** slower agility linked to fewer total career games
- Most durable careers clustered in the **10.8–11.5s** agility range

https://www.nba.com/stats
https://www.basketball-reference.com/leaders/

Vertical Leap



- Players with 35–39" verticals showed the highest availability (**60.1%**)
- Lower jumpers (<30" and 30–34") averaged around **55%**
- The Highest jumpers (40"+) had the lowest availability (**49.3%**)

Data Suggests there's an **optimal zone,** correlating with higher durability clusters.

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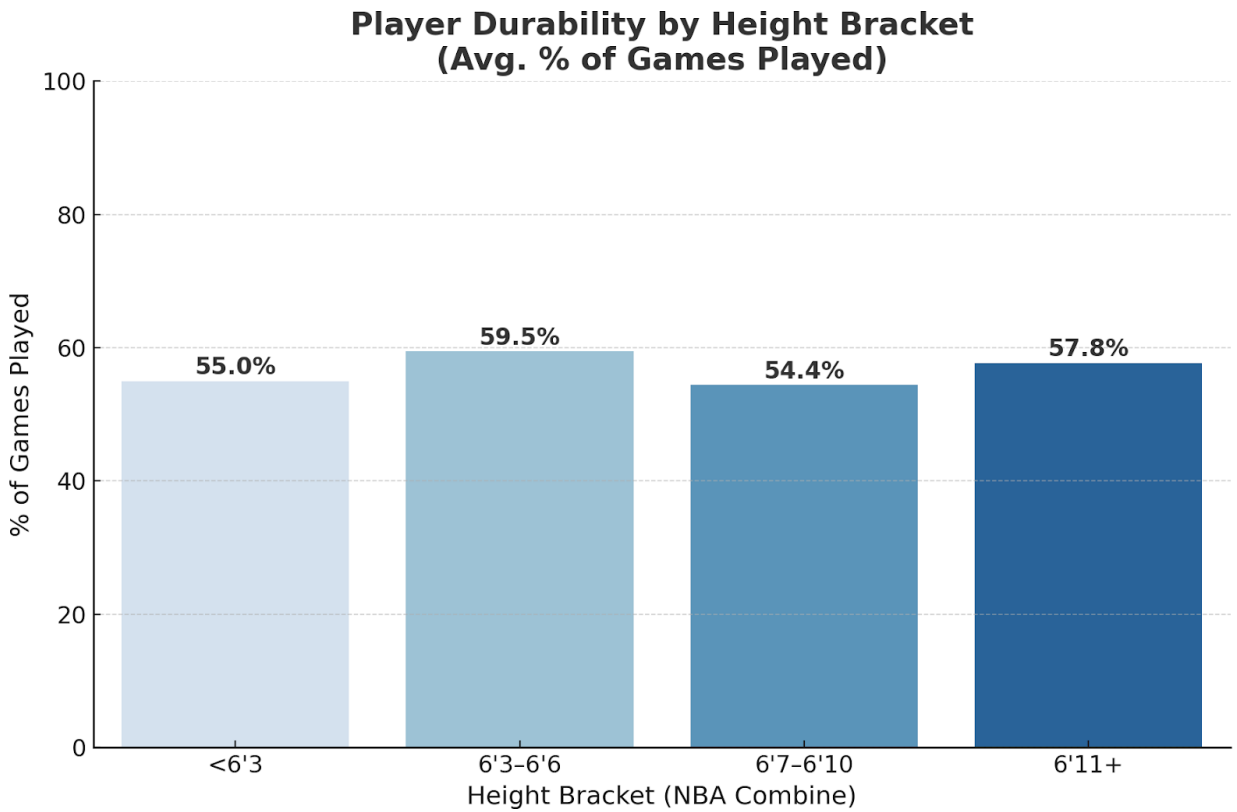
https://www.basketball-reference.com/leaders/

Height



- 6'3–6'6 players were most consistently available (**59.5%**)
- Tallest group (6'11+) followed at **57.8%**
- Shorter and mid-tall players averaged closer to **54–55%**

Height may still relate to career length — just not yearly availability

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https://www.basketball-reference.com/leaders/

Longevity

Longevity = Success + Durability

Success Metrics

- Shooting Drills FG%
- Wingspan
- Three-Quarter Court Sprint

Durability Metrics

- Body Fat %
- Lane Agility Drill
- Vertical Jump

Longevity Players

Stephen Curry
6.46 BPM, 577 Games Played
71% Combine FG
5.7 BF Percentage (5th)

James Harden
6.34 BPM, 671 Games Played
3.13 Three-Quarter Sprint (2nd)
37" Vertical (5th)

Kevin Durant
6.42 BPM, 507 Games Played
88.75" Wingspan (1st)
6.6 BF Percentage (12th)

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https://www.basketball-reference.com/leaders/

Thank you