

NBA Championship Teams Report

2008-2022

By Andrew Wolfe

This report will be investigating NBA Championship teams from 2008-2022. The analysis will be split into segments of five years each and analyzing the differences between them using the following information:

- Height
- Play Allocation (P&R, Cuts, Isolation, Off-Screen, Post, etc.)
- Usage Rates
- Assists Percentage
- 3PA/FGA
- Shot Charts

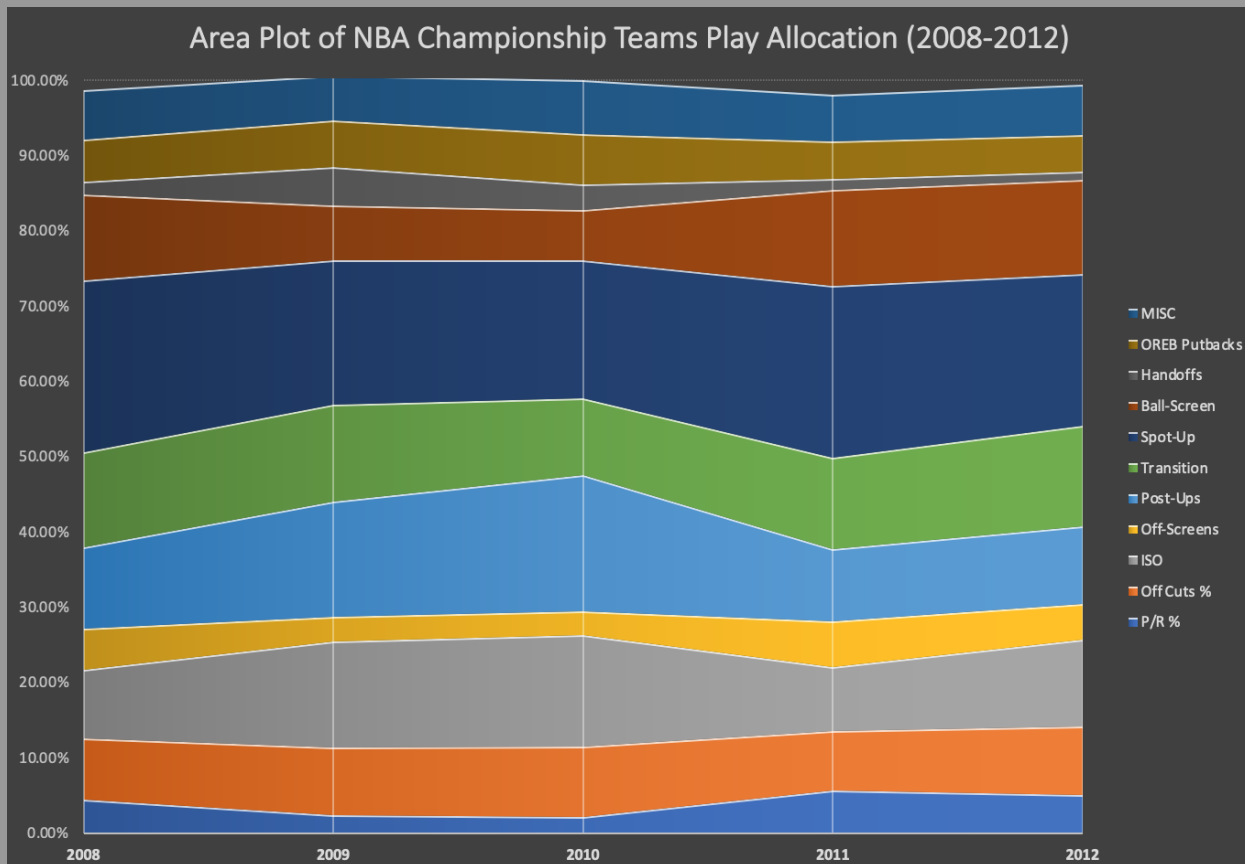
In addition to this data, I will be looking into the best player on each championship roster and using the information above to analyze each five-year era. The source of the data is Synergy, NBA.com, Basketball Reference, and ESPN.com.



2008-2012

I. General TEAM Statistics

TEAM	YEAR	% of Team Pts Assisted	P&R %	Off-Cuts %	ISO	Off-Screens	Post-Up	Transition	Spot-Up	BS
Celtics	2008	61.0%	4.4%	8.2%	9.1%	5.4%	10.9%	12.6%	22.8%	11.4%
Lakers	2009	58.0%	2.4%	9.0%	14.1%	3.2%	15.3%	12.9%	19.2%	7.3%
Lakers	2010	55.0%	2.1%	9.4%	14.8%	3.2%	18.1%	10.2%	18.3%	6.7%
Mavericks	2011	64.0%	5.6%	8.0%	8.4%	6.1%	9.6%	12.2%	22.8%	12.7%
Heat	2012	54.0%	5.0%	9.2%	11.5%	4.7%	10.4%	13.3%	20.1%	12.6%
Average	'08-12	58%	3.9%	8.8%	11.6	4.5%	12.9%	12.2%	20.6%	10.1%



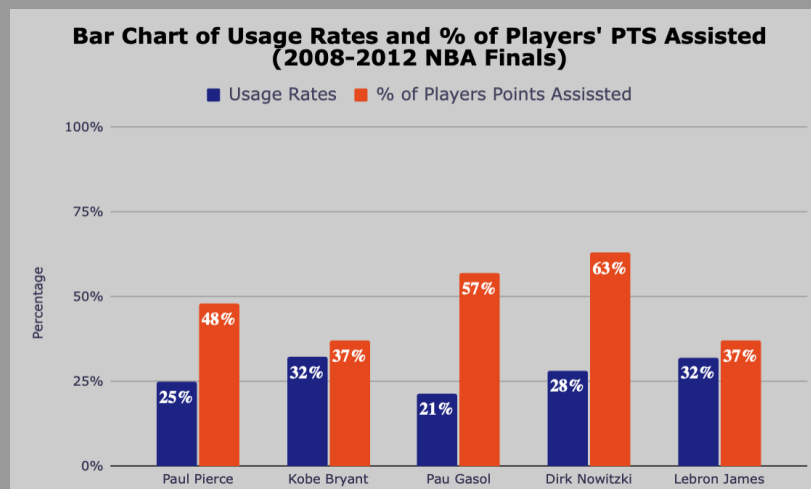
2008-2012

When looking at the general team statistics above, we see that on average, 12.9% of the teams' plays were post-ups and 12.2% were run in transition. The Lakers played through the post the most in the five year span because of Hall-of-Famer Pau Gasol. In terms of isolation, the Lakers in 2009 and 2010 were the highest in the category and out-exceeded the average by over three percent due to the play of Kobe Bryant. Moreover, the Mavericks, Heat, and Celtics ran close to double the number of ball-screens compared to the Lakers.

II. Best Player Evaluation

TEAM	YEAR	BEST Player	Height	Usage Rates	% of Players PTS Assisted
Celtics	2008	Paul Pierce	6'7	24.8%	48%
Lakers	2009	Kobe Bryant	6'6	32.2%	37%
Lakers	2010	Pau Gasol	7'1	21.4%	57%
Mavericks	2011	Dirk Nowitzki	7'0	28.2%	63%
Heat	2012	LeBron James	6'9	32.0%	37%
Average	'08-12		6'9	31%	48%

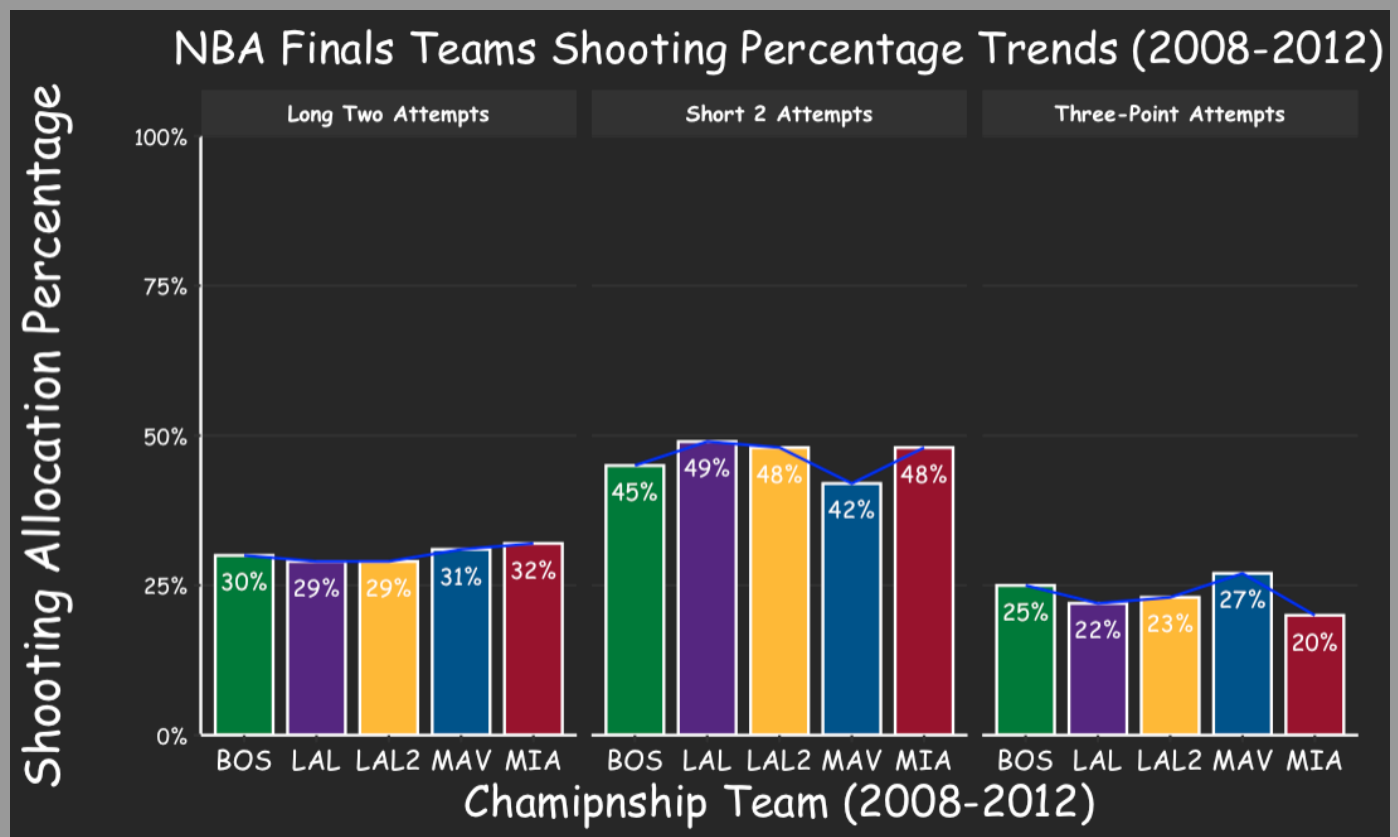
The average height of the 2008-2012 Championship best player was 6'9 with an average usage rate of 31%. In this five-year span, LeBron James and Kobe Bryant carried the highest usage rates and lowest percentage of points assisted. This reveals the high dependence the Lakers and Heat placed on their two stars and the importance of having a transcending star player on your team.



2008-2012

III. Shot Allocation

Finally, by looking at the chart below we see that championship teams were attempting more long-twos than three-pointers in this time period. The majority of each team's shots were coming from short two attempts (in the paint shots). This was an interesting trend because teams were still hesitant during this time period to fully adapt to the three-point line.



2013-2017

I. General TEAM Statistics

TEAM	YEAR	% of Team Pts Assisted	P&R %	Off-Cuts %	ISO	Off-Screens	Post-Up	Transition	Spot-Up	BS
Heat	2013	60%	5.5%	7.9%	10.6%	4.5%	7.2%	13.3%	14.3%	14.3%
Spurs	2014	62%	6.3%	9.7%	5.4%	6.2%	8.60%	13.3%	16.2%	16.2%
Warriors	2015	66%	6.4%	9.5%	6.4%	9.1%	5.8%	17.8%	11.5%	11.5%
Cavaliers	2016	59%	6.3%	6.9%	9.5%	4.5%	7.8%	13.5%	17.5%	17.5%
Warriors	2017	71%	4.1%	12.0%	5.8%	12.2%	5.20%	18.9%	11.2%	11.2%
Average	'13-17	64%	5.7%	9.2%	7.5%	7.0%	6.9%	15.4%	19.8%	14.1%

TEAM	YEAR	% of Team Pts Assisted	P&R %	Off-Cuts %	ISO	Off-Screens	Post-Up	Transition	Spot-Up	BS
Average	'08-12	58%	3.90%	8.76%	11.58%	4.52%	12.86%	12.24%	20.60%	10.10%
Average	'13-17	64%	5.72%	9.20%	7.54%	7.30%	6.92%	15.36%	19.82%	14.14%
Difference	NA	6%	2%	0%	-4%	3%	-6%	3%	-1%	4%

The largest difference between the two finals eras occurred within the % of team points assisted and post-up plays run. There was a six percent increase within the % of team points assisted and a six percent decrease of post-up plays between the two eras. The Warriors in 2015 and 2017 had a significantly larger percentage of points assisted than any other team because of how efficient they were from the three point line. Another interesting factor to note is the 4% increase in ball screens ran from 2013-2017. This can be largely attributed to the Cavaliers in 2016 and Spurs in 2014.

2013-2017

II. Best Player Evaluation

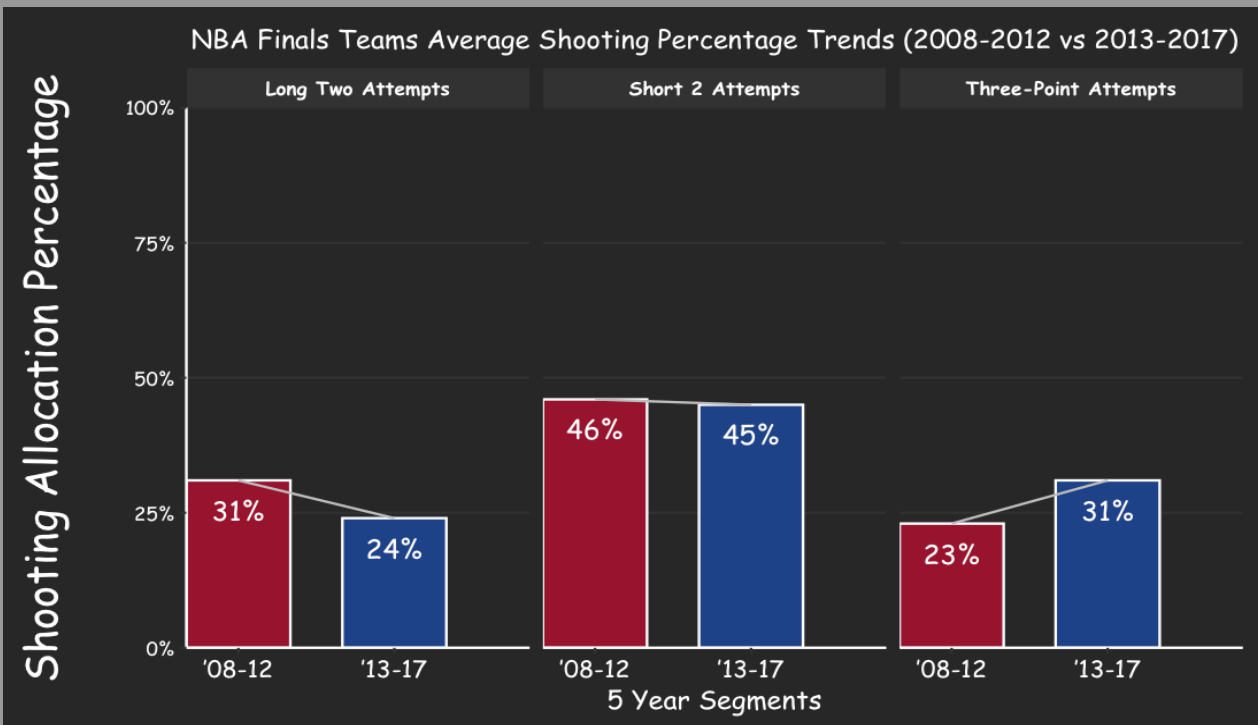
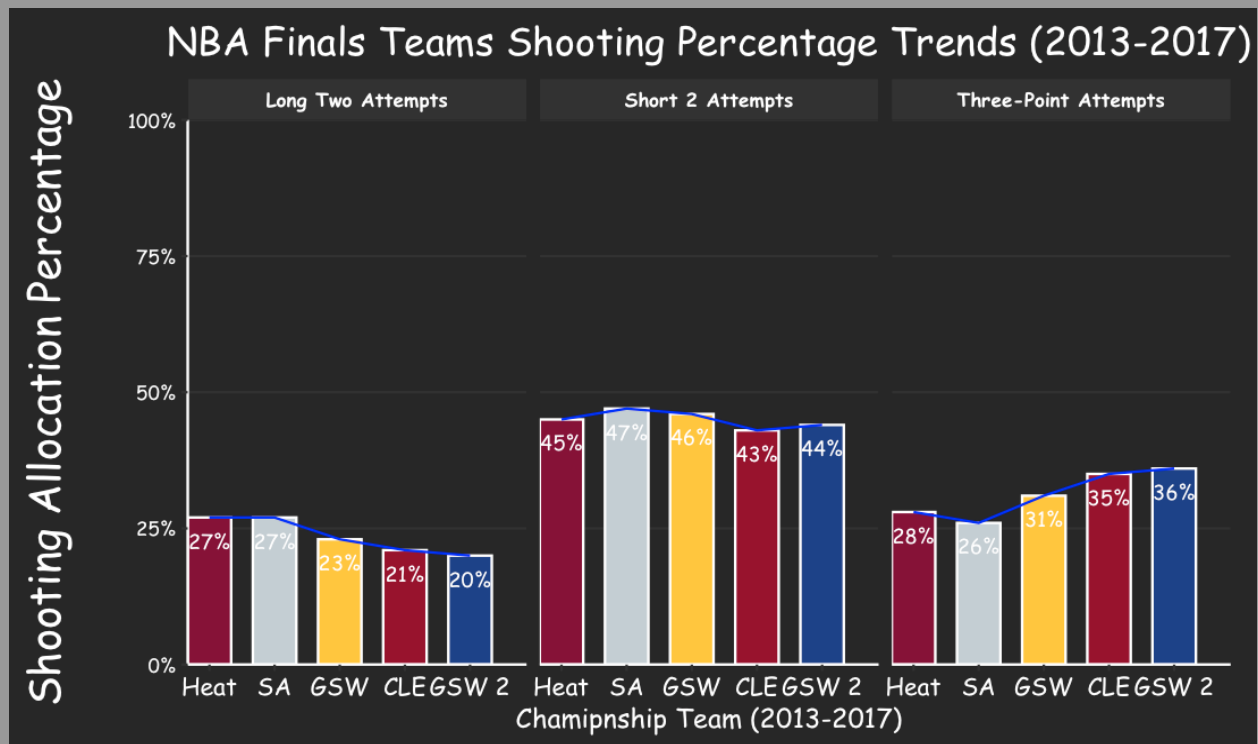
TEAM	YEAR	BEST Player	Height	Usage Rates	% of Players PTS Assisted	AVERAGE SECONDS PER TOUCH	AVERAGE DRIBBLES PER TOUCH
Heat	2013	LeBron James	6'9	30.2%	40%	NA	NA
Spurs	2014	Kawhi Leonard	6'7	18.3%	59%	2.58	1.92
Warriors	2015	Steph Curry	6'2	28.9%	44%	4.79	4.39
Cavaliers	2016	LeBron James	6'9	31.4%	40%	4.33	3.16
Warriors	2017	Kevin Durant	6'10	28.0%	62%	4.37	4.14
Average	'13-17		6'8	27.3 %	49%	4.0	3.4

TEAM	YEAR	Height	Usage Rate	% of Players Pts Assisted
Average	'08-12	6'9	31%	48%
Average	'13-17	6'8	27.3%	49%
Difference	NA	-'1	-4%	1%

We see that the average height of the best player on the Championship team dropped by one inch to 6'8. The average usage rate dropped by 4% and the % of the best players points assisted increased by 1%. The two highest usage rates were by LeBron James, followed by Steph Curry and Kevin Durant, which makes sense as the Warriors Championship teams were loaded with talent.

2013-2017

III. Shot Allocation



2013-2017

By looking at the charts above, we see the trend that from 2013-2017, championship teams started to ditch the number of long twos and take more three-pointers. We see that there was a 7% drop in long two attempts and an 8% increase in three-point attempts from 2008-2012 vs 2013-2017. Additionally, the 2015 Golden State Warriors were the first true trendsetter and teams were attempting to replicate what they were doing with Steph Curry and Klay Thompson. Teams began to notice that they would be more successful if they took away the long two's from their game and instead began to shoot the more efficient three-point shot.

2018-2022

I. General TEAM Statistics

TEAM	YEAR	% of Team Pts Assisted	P&R %	Off-Cuts %	ISO	Off-Screens	Post-Up	Transition	Spot-Up	BS
Warriors	2018	68%	4.3%	12.2%	7.3%	11.6%	6.1%	18.3%	14.8%	10.7%
Raptors	2019	60%	7.1%	5.5%	7.3%	4.3%	6.2%	18.9%	21.2%	15.1%
Lakers	2020	60%	4.8%	7.9%	8.0%	4.4%	7.4%	17.4%	19.4%	14.2%
Bucks	2021	57%	5.9%	6.7%	9.2%	3.6%	6.8%	19.2%	19.5%	14.7%
Warriors	2022	67%	4.0%	10.2%	4.1%	9.9%	2.2%	16.6%	21.0%	13.7%
Average	'18-22	62%	5.2%	8.5%	7.1%	6.8%	5.7%	18.1%	19.2%	13.7%

TEAM	YEAR	% of Team Pts Assisted	P&R %	Off-Cuts %	ISO	Off-Screens	Post-Up	Transition	Spot-Up	BS
Average	'08-12	58%	3.90%	8.76%	11.58%	4.52%	12.86%	12.24%	20.60%	10.10%
Average	'13-17	64%	5.72%	9.20%	7.54%	7.30%	6.92%	15.36%	19.82%	14.14%
Average	'18-22	62%	5.2%	8.5%	7.18%	6.76%	5.74%	18.08%	19.18%	13.68%
Difference from First Segment	NA	4%	1%	0%	-4%	2%	-7%	6%	-1%	3%

The largest difference in play-styles between championship teams from 2008-2022 is the amount of post-up and transition plays run. From 2018-2022, teams were running significantly fewer plays through the post and playing more in transition, emphasizing the increase of interest in the three-point shot and layups. Another interesting trend is the rise in the use of ball screens and the decline of isolation plays in the last 15 years.

2018-2022

II. Best Player Evaluation

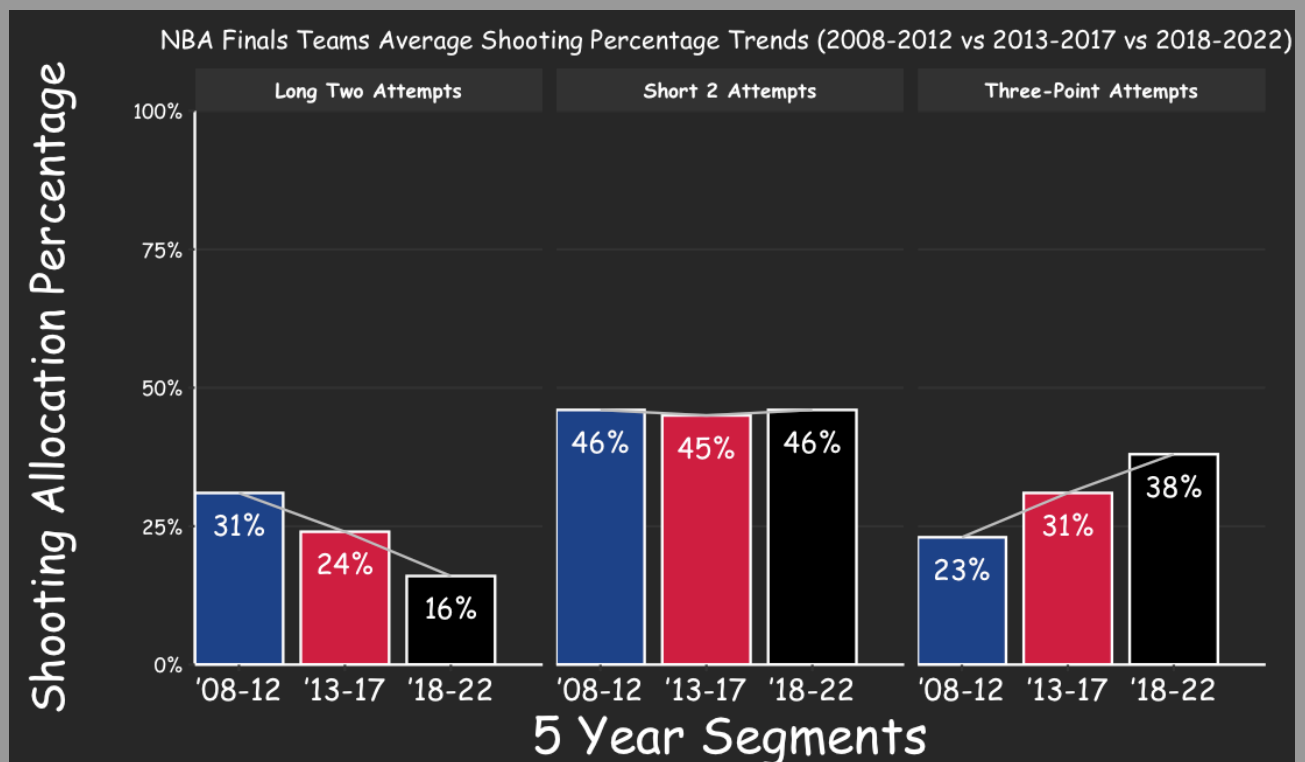
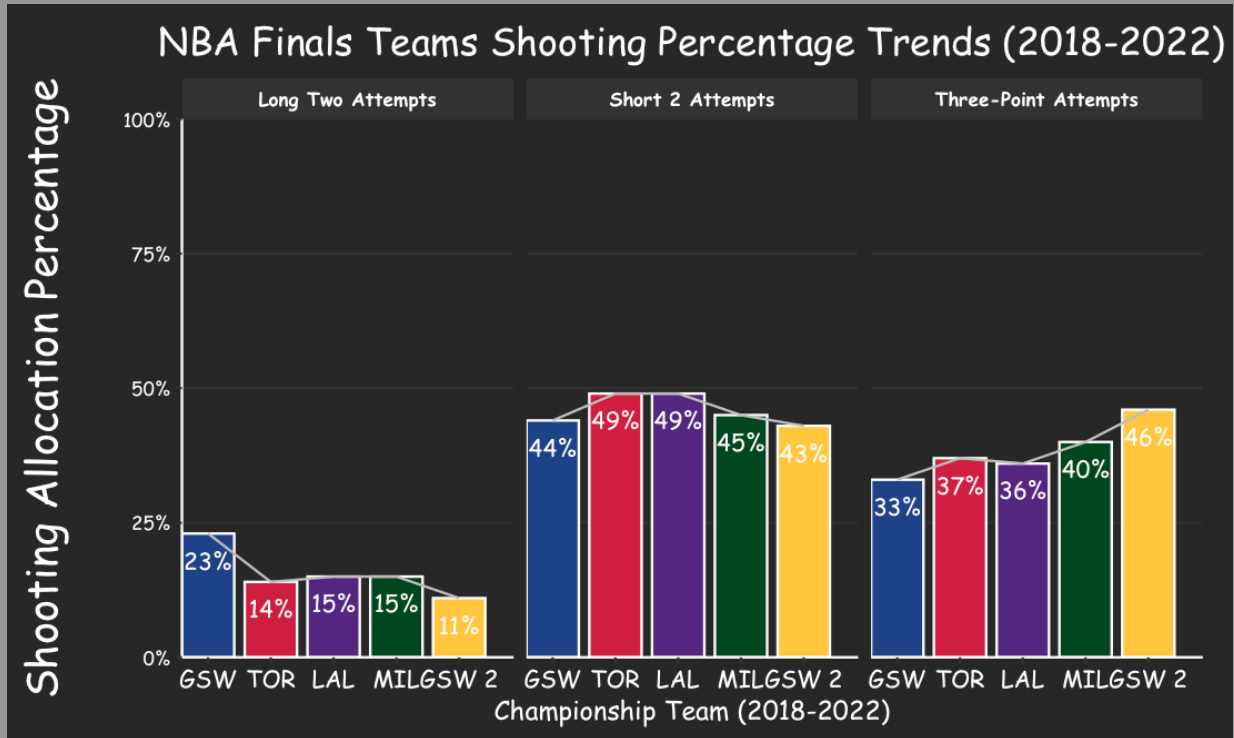
TEAM	YEAR	BEST Player	Height	Usage Rates	% of Players PTS Assisted	AVERAGE SECONDS PER TOUCH	AVERAGE DRIBBLES PER TOUCH
Warriors	2018	Kevin Durant	6'10	30.4%	54%	4.6	3.74
Raptors	2019	Kawhi Leonard	6'7	30.3%	36%	4.73	4.02
Lakers	2020	LeBron James	6'9	31.5%	29%	5.44	4.33
Bucks	2021	Giannis Antetokounmpo	6'11	32.5%	41%	3.68	2.57
Warriors	2022	Steph Curry	6'2	31.0%	48%	5.3	5.09
Average	'18-22		6'8	31.1%	42.0%	4.75	3.95

TEAM	YEAR	Height	Usage Rate	% of Players Pts Assisted	AVERAGE SECONDS PER TOUCH	AVERAGE DRIBBLES PER TOUCH
Average	'08-12	6'9	31%	48%	NA	NA
Average	'13-17	6'8	27.3%	49%	4.01	3.4
Average	'18-22	6'8	31.1%	42%	4.75	3.95
Difference from First Segment	NA	-'1	0%	-6%	0.74	0.45

From 2008-2022, we see that the average height of the best player on the team stayed relatively the same at 6'9. Average seconds and dribbles per touch for the best players increased slightly. The usage rate of the best player was also very similar and only dipped to 27% from 2013-2017. Additionally, the percentage of points assisted by the best player on the championship team dipped by over 6 percent from 2008-2012 to 2018-2022. This emphasizes the notion of the best players beginning to create and score on their own.

2018-2022

III. Shot Allocation



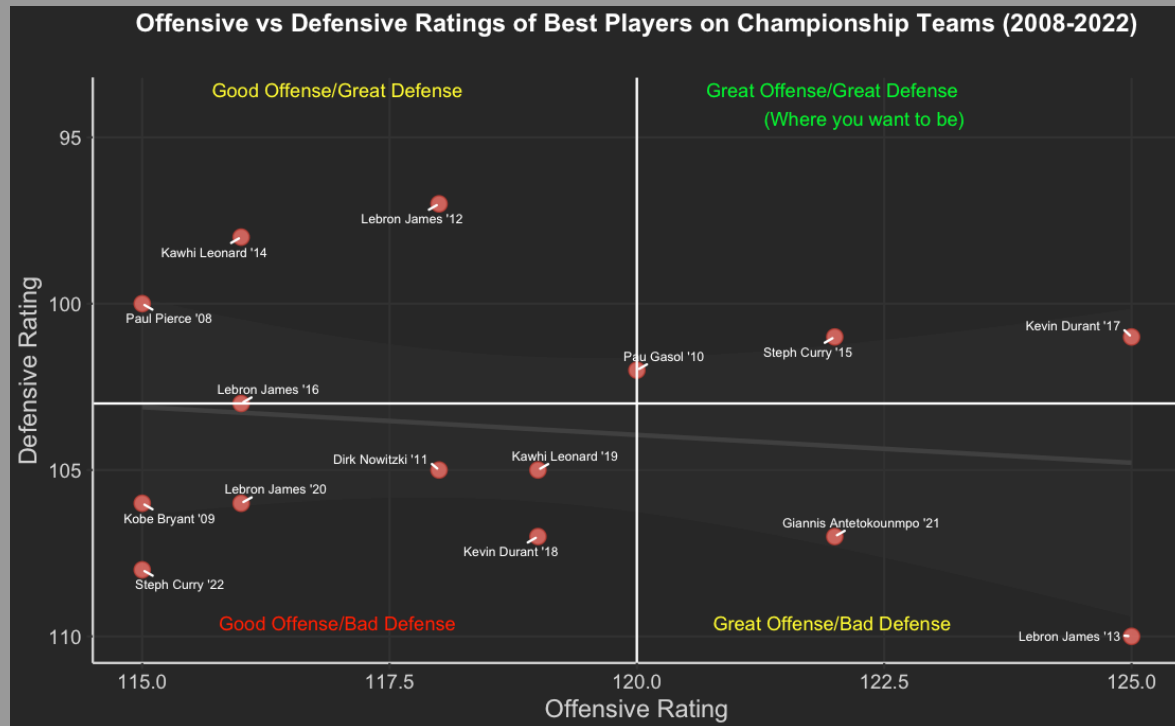
2018-2022

In terms of shot selection, we see that the number of long twos championship teams attempted dropped by over 48% and the number of three-pointers increased by over 65% since 2008. The number of short mid-range and paint shots stayed relatively the same throughout the time period. In simpler terms, teams stopped shooting long twos and instead with those opportunities, they started attempting three-pointers.

Additionally, from a team-by-team perspective, the 2022 Golden State Warriors attempted the lowest number of long twos, compared to all other Championship teams. It is interesting to note that in 2017-2018, the Golden State Warriors took close to double the number of long twos, compared to what they did in 2021-2022. Some of this can be explained by the subtraction of Kevin Durant from the team and the evolution of the game strategy.

Advanced Metrics Comparison

I. Offensive and Defensive Ratings



Looking above, we see the offensive and defensive ratings of each best player on the championship teams from 2008-2022. The Offensive Ratings refer to points scored per 100 possessions and the Defensive Ratings refer to points allowed per 100 possessions. All of the players involved in this scatterplot had an offensive rating above 115, indicating excellence on the offensive end.

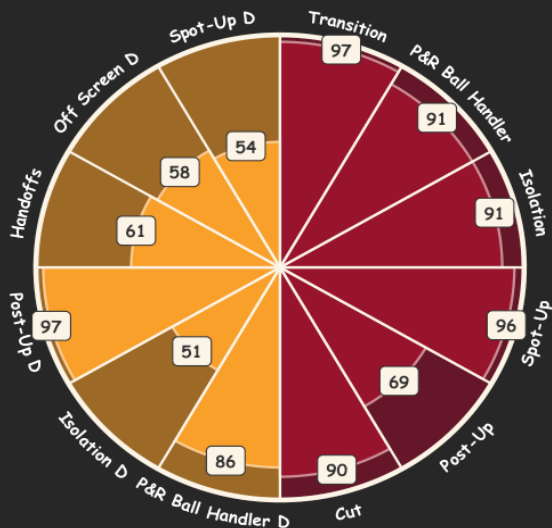
The best players according to this rating system were Steph Curry in 2015, LeBron James in 2013, and Kevin Durant in 2017. Additionally, the 2021 Giannis Antetokounmpo was statistically great on offense but struggled at times on the defensive end. On the next page, you will find individual analyses of these players during their respective seasons.

Advanced Metrics Comparison

Lebron James 2012-2013 Percentile Rankings

via: Synergy

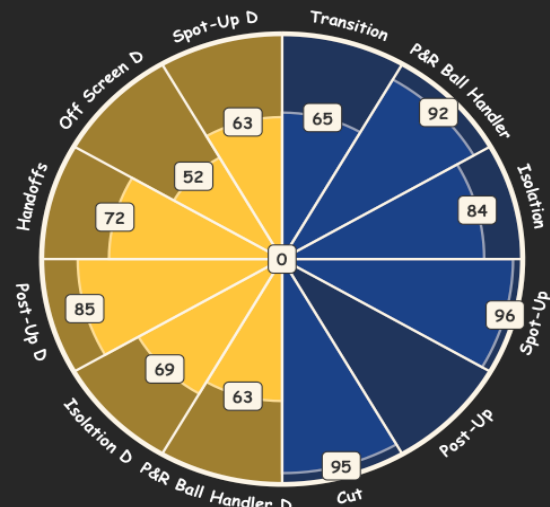
Scoring Defending



Steph Curry 2014-2015 Percentile Rankings

via: Synergy

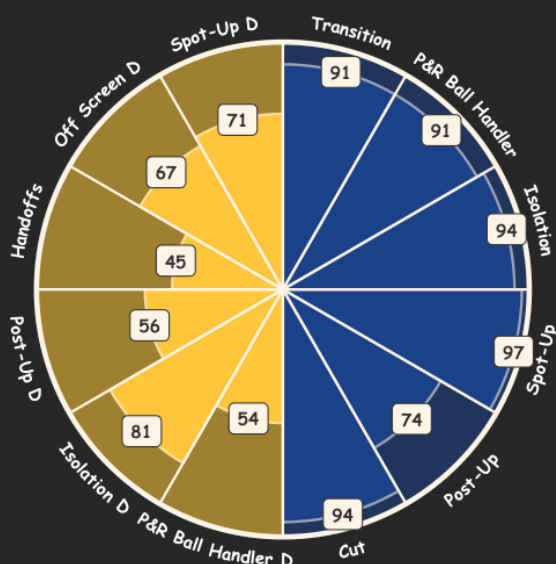
Scoring Defending



Kevin Durant 2016-2017 Percentile Rankings

via: Synergy

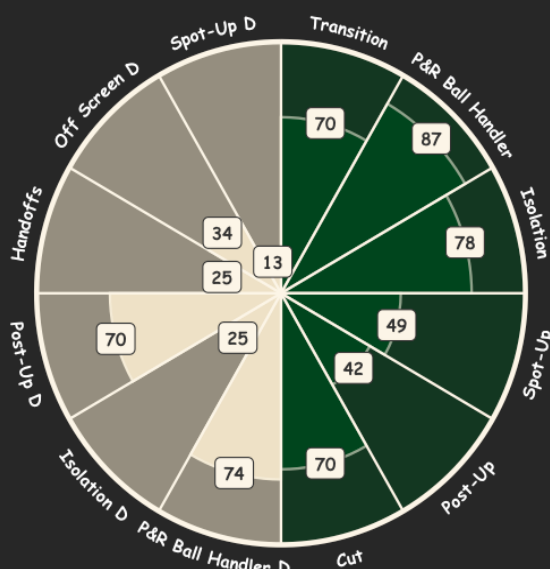
Scoring Defending



Giannis Antetokounmpo 2020-2021 Percentile Rankings

via: Synergy

Scoring Defending



Advanced Metrics Comparison

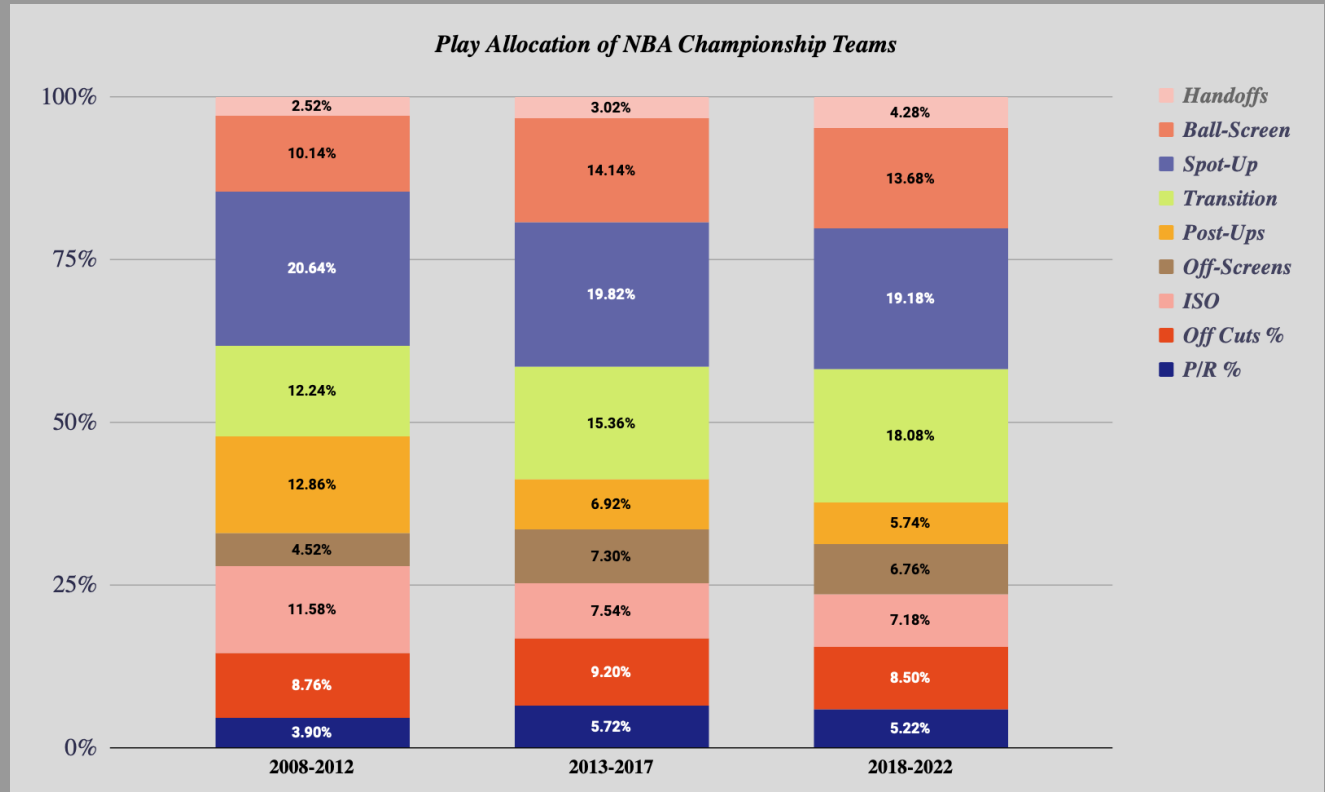
Offensively, Kevin Durant in 2017 was the most dominant player in the last 15 years. He ranked in the 97% percentile in spot-up shooting, 94% in isolation, and 94% in cutting. Defensively he ranked in the 81% percentile in isolation but struggled with handoffs and P&R.

LeBron James in 2013 was also a dominant force on the offensive and defensive end. Offensively, he was best in transition and spot-up shooting, ranking in the 97% and 96% Percentile. Defensively, he was also dominant in Post-Up P&R.

Steph Curry (2015) and Giannis Antetokounmpo (2021) on the other hand appear to be not as dominant as LeBron James and Kevin Durant but were tremendous in their own way. Steph Curry was terrific offensively in spot-up shooting and cutting but struggled defensively with off-screen defense. On defense, Giannis struggled with off-screen, isolation, and handoffs, but excelled in P&R defense and isolation offense.

Advanced Metrics Comparison

II. Play Allocation Review



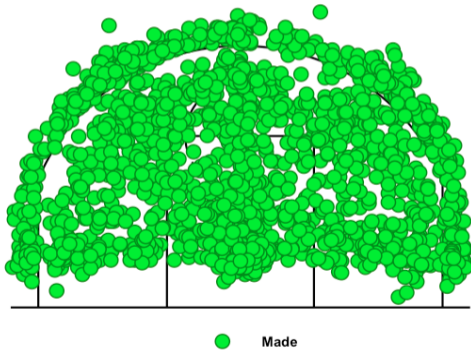
In terms of play allocation for NBA Championship Teams, we see that Isolation and Post-Up plays were the largest declines from 2008-2022. Transition and Ball Screen play totals increased for Championship teams in the same time period. Another interesting trend is the slight increase in off-screen and P&R. Spot-Up shooting and Off Cuts stayed relatively the same between 2008-2022.

These trends indicate the change in basketball from scoring through the post to scoring through three-point shooting. In the next section, we will look into the shot charts of the three different five-year segments.

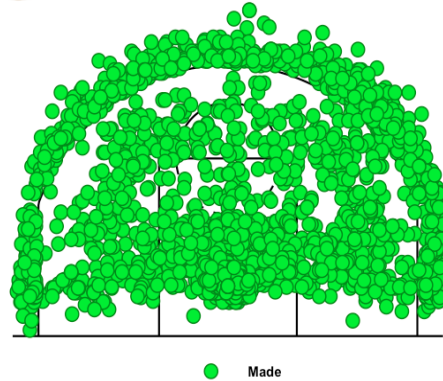
Advanced Metrics Comparison

III. Shot Chart View

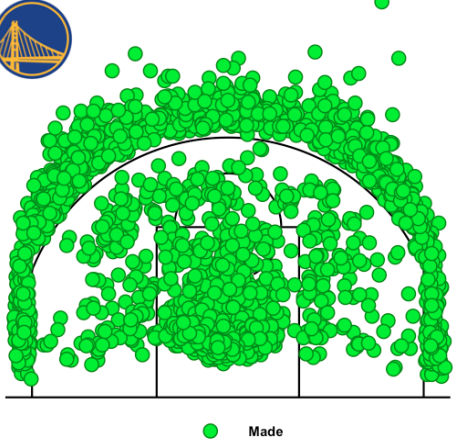
Celtics 2007-2008 Shot Chart



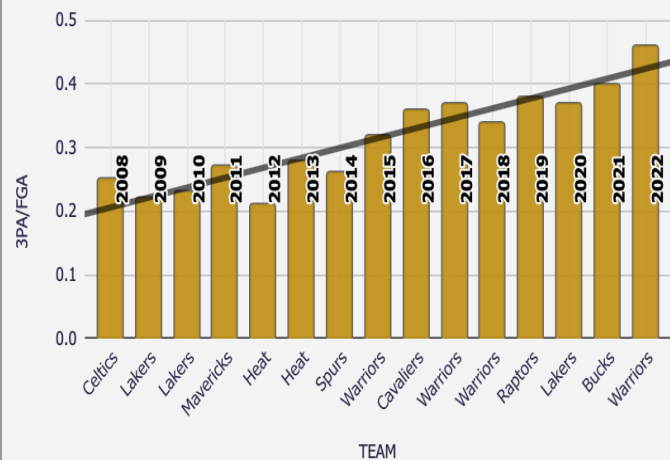
Cavaliers 2015-2016 Shot Chart



Warriors 2022-2023 Shot Chart



3PA/FGA vs. NBA Championship TEAM



The images above re-emphasize the move from the long two to the three-point shot. In 2008, about 25% of the Boston Celtics Championship team shots were from three. In 2022, 45% of the Golden State Warriors Championship team shots were from three. A change of over 20% in terms of shooting allocation reveals how much shot strategies have changed in these 15 years.

Conclusion

1. Transition Plays , Post-Ups from 2008-2022

The number of transition plays that Championship teams ran increased by over 6% since 2008. Additionally, the number of post-up plays decreased by 7% in that same time period. Both of these statistics reveal the move away from playing slow in the post and the move towards running in transition and shooting more three-pointers.

2. The average height of the best championship team player stayed relatively the same at 6'9

The average height of the best player on the Championship teams did not change significantly from 2008-2022. The average height stayed around 6'8 and 6'9 throughout the 15 years.

3. The % of Players PTS Assisted for the *Best Players* on each Championship Team decreased by 6% from 2008-2022

The decrease in % of Players PTS Assisted for the Best Players on each Championship Team puts further emphasis on the increase in these players using isolation and carrying teams throughout the year. It is important to note that from a team perspective, the % of the Team PTS Assisted increased by 4% from 2008-2022, revealing the importance of having a complete roster that contributes in addition to star isolation players.

4. 2017 Kevin Durant, 2015 Steph Curry, and 2013 LeBron James were the most efficient players on the Championship teams from 2008-2022

Using Offensive/Defensive Ratings and analyzing where each best player ranks compared to other players in terms of scoring and defending, the 2017 Kevin Durant, 2015 Steph Curry, and 2013 LeBron James were the best players from the Championship teams in the last 15

years. All of these three players were extremely valuable in spot-up shooting, P&R, Cutting, and Isolation offensively.

5. Championship Teams reduced their long-two attempts by over 48% and increased their three-point attempts by over 65%

The true strategy in the game of basketball has completely shifted in the last 15 years. Championship teams have abandoned the long-two shot and attempted more three-pointers as a result. Teams have begun to realize that they need to be more efficient with their shot selection and as a result have attempted fewer long twos.