



NBA report

Extracted NBA data found on Kaggle was used for this report. This data set has information from different NBA games from 2003 to 2022. The data is divided into different files, in each of them there is the following information:

games - all games from the year 2003 to the year 2022.

game_details - details of all matches, as well as statistics for each one

of the players.

players - player information

rankings - the position of each of the teams on each day.

teams - NBA teams

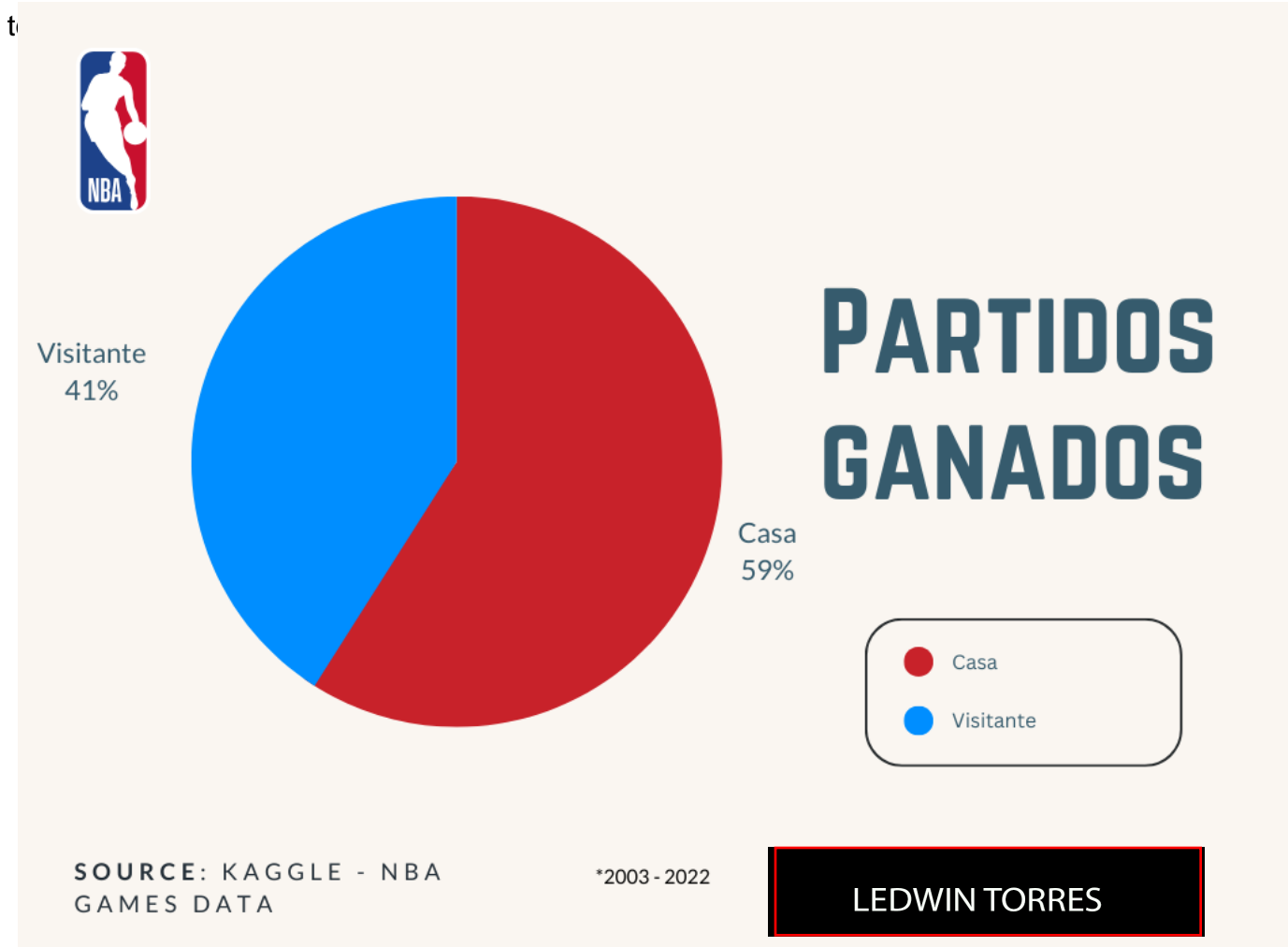
- , the following data files will be used for this analysis: games, game_details, teams.
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Analysis objectives

- ○ The goal of this analysis is to find information about
- games made over the years. The questions that will
- be sought to be answered will be the following:
- ○ How have you won more games, whether at home or
- away?
- ○ Which teams have scored the most points, both
- home and away?
- ○ How many games have the different teams won at
- home and away? How have the points scored be-
- haved over the years?
- ○ Who have been the teams that scored the most
- points in the last year?

Analysis results

The games data set that has the results of the matches has 26,651 rows, that is the amount of data that we will use to answer the questions. The first graph shows the percentage of games won, we can see a clear advantage of the teams when they play at home over the



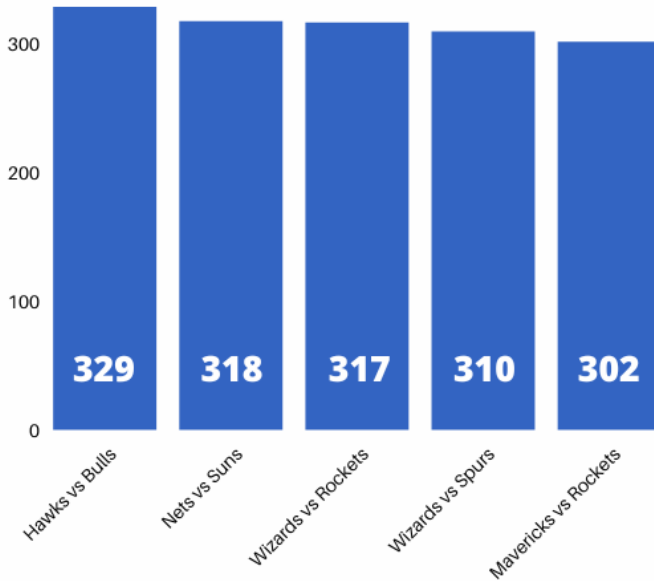
The objective of the analysis is to see how beneficial it is for the teams to play at home, the following graphs show the games in which more and fewer points were scored and we will see something interesting.



Partidos con más puntos



PARTIDOS CON MÁS PUNTOS



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022



Hawks vs Bulls

El partido se jugó el 01 de marzo del 2019. En esta ocasión ganó Bulls.



Nets vs Suns

El partido se jugó el 07 de diciembre del 2006. En esta ocasión ganó Suns.



Wizards vs Rockets

El partido se jugó el 30 de octubre del 2019. En esta ocasión ganó Rockets



Wizards vs Spurs

El partido se jugó el 25 de febrero del 2022. En esta ocasión ganó Spurs.



Mavericks vs Rockets

El partido se jugó el 31 de julio del 2020. En esta ocasión ganó Rockets.

LEDWIN TORRES

An important detail to highlight is that the 5 games where there were the most points were won by the visiting teams, although this is not a constant in all games since if we review the other games we will see that from the 7th game onwards the constant returns. be that the teams that play at home are the ones that end up winning.

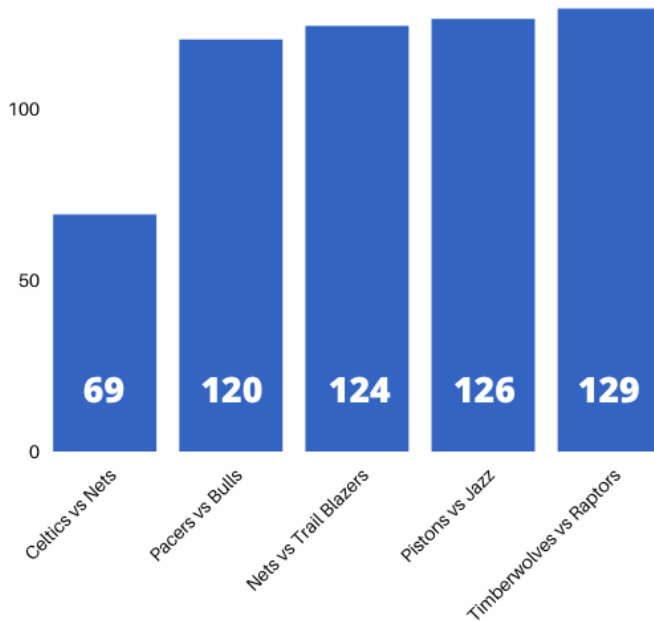
Now we will see the games with fewer points than are recorded.



Partido con menos puntos



PARTIDOS CON MENOS PUNTOS



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022



Celtics vs Nets

El partido se jugó el 19 de octubre del 2007. El juego fue cancelado.



Pacers vs Bulls

El partido se jugó el 08 de octubre del 2003. En esta ocasión ganó Pacers.



Nets vs Trail Blazers

El partido se jugó el 09 de noviembre del 2004. En esta ocasión ganó Nets.



Pistons vs Jazz

El partido se jugó el 13 de marzo del 2005. En esta ocasión ganó Pistons.



Timberwolves vs Raptors

El partido se jugó el 01 de noviembre del 2003. En esta ocasión ganó Timberwolves.

LEDWIN TORRES

In this case we see 2 important things, firstly the game that had the fewest points is the one played by Celtics vs Nets which was canceled at the end of the second quarter. The other point is the difference with the games with the most points since here the games were won by the teams that played at home.

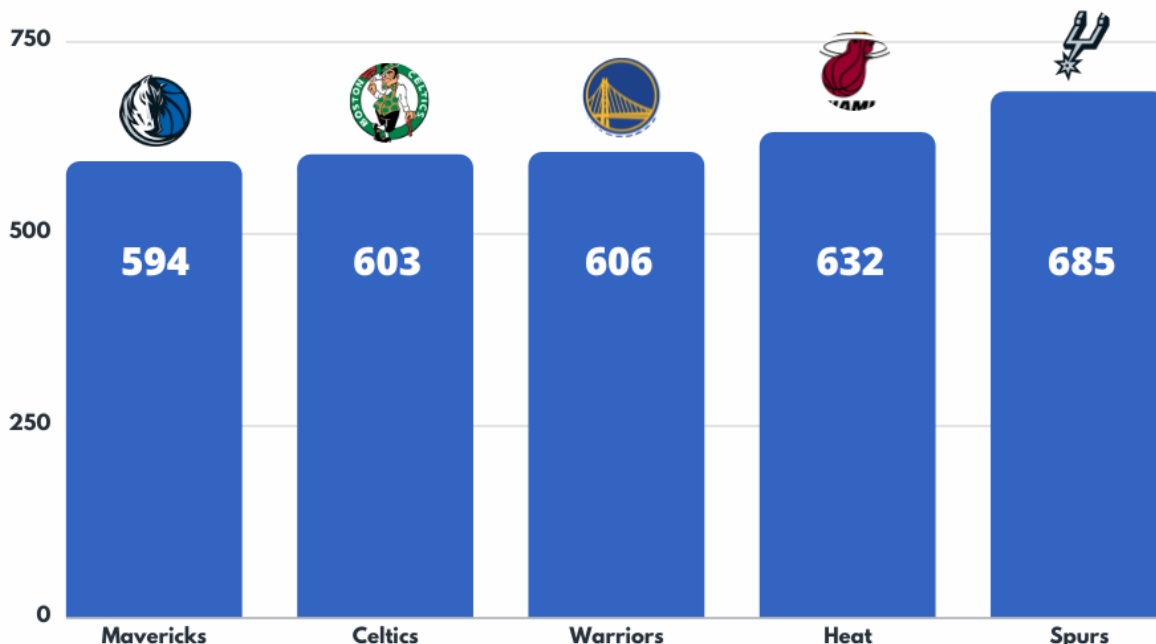
Performance of teams playing at home or away.

Teams with the most games won at home.

Now we will look at each of the teams individually, in this case we will focus on the performance of the 5 main teams in each of the categories. In this first graph we will see the teams that have won the most games playing at home.



EQUIPOS CON MÁS JUEGOS GANADOS JUGANDO EN CASA



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022

LEDWIN TORRES

San Antonio - Spurs is one of the teams that has won the most games according to the data collected. If we review the history of the last five seasons we will see that the only season in which they performed well was in the 2018-19 season where they obtained a winning percentage of 0.585%. The following table shows the result obtained by each of the teams in the last 2022-23 season:

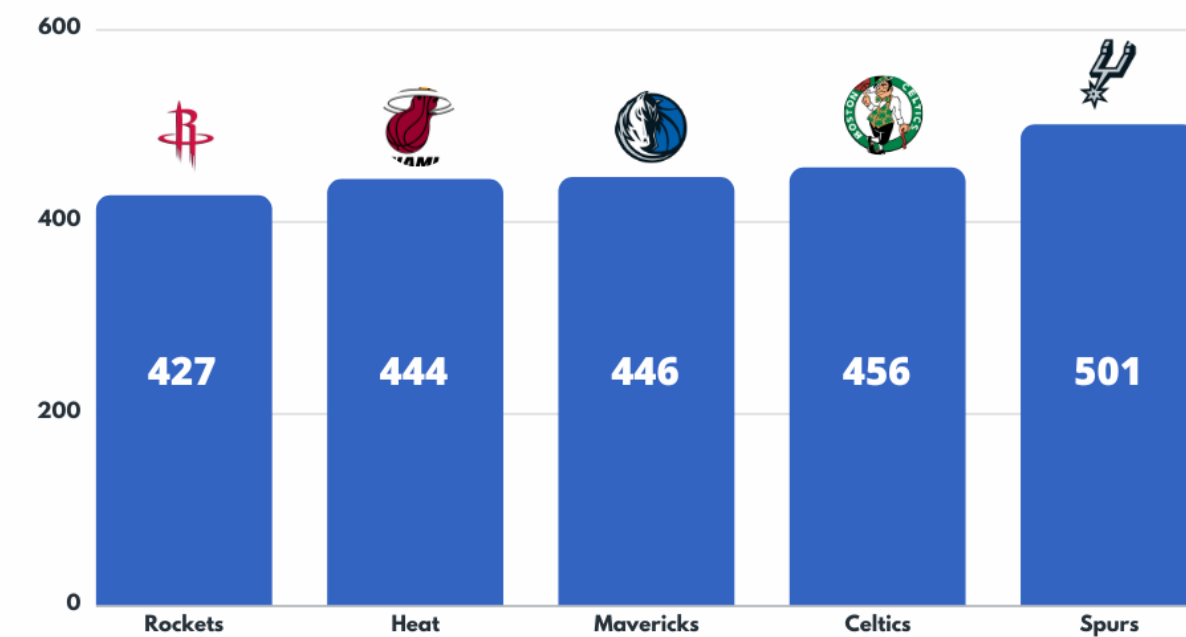
Equipo	Porcentage de victoria	Playoffs
Spurs	0.268	No califico
Heat	0.537	Perdieron las finales, 1-4 vs Nuggets



Equipo	Porcentage de	



EQUIPOS CON MÁS JUEGOS GANADOS JUGANDO COMO VISITANTE



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022



ADRIAN CANCINO

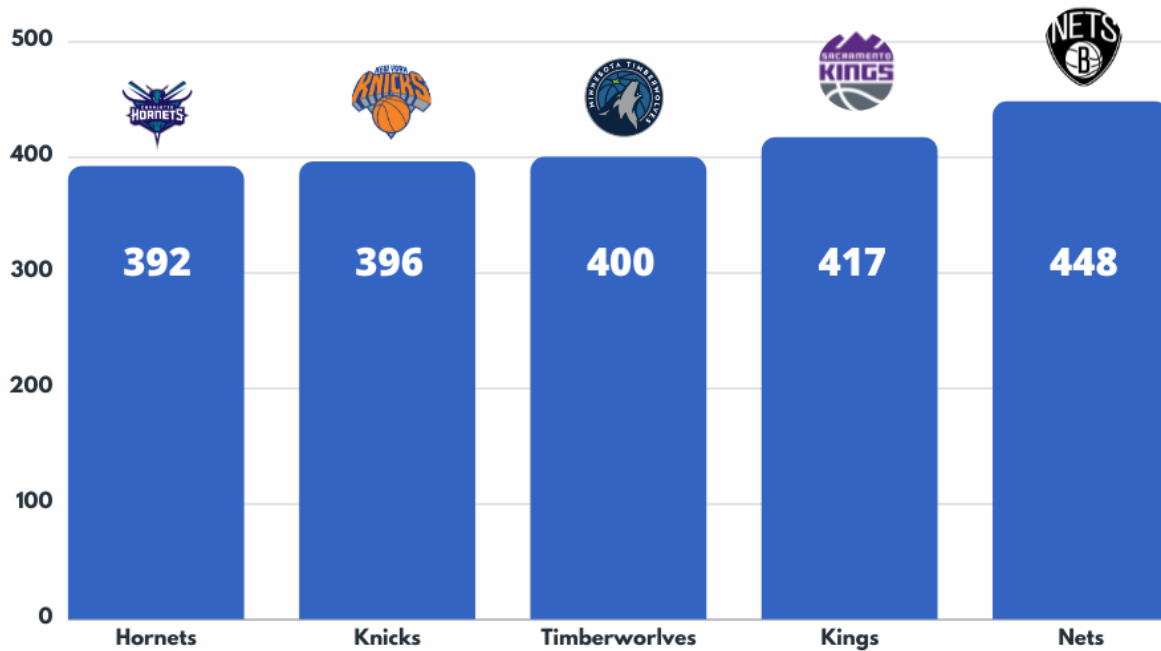
In the same way as with the previous graph, San Antonio - Spurs is the team that has won the most games playing as a visitor, the difference in this case comes in the order of the other teams, in this case Houston - Rockets enters as the team number 5 with the most victories playing as a visitor. In the last 2022-23 season they had a victory rate of 0.268, not qualifying for the Playoffs.



Equipos con menos juegos jugando en casa



EQUIPOS CON MENOS JUEGOS GANADOS JUGANDO EN CASA



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022



ADRIAN CANCINO

The difference is noticeable when we talk about the worst teams in the league since the difference with the best is almost 300 games apart, which is very noticeable. The case of the worst team is Charlotte - Hornets which is a 'new' team in the league since it was founded in 1988, the team was created thanks to the NBA's plans to expand the number of teams that could participate, The expansion plans date back to 1985.

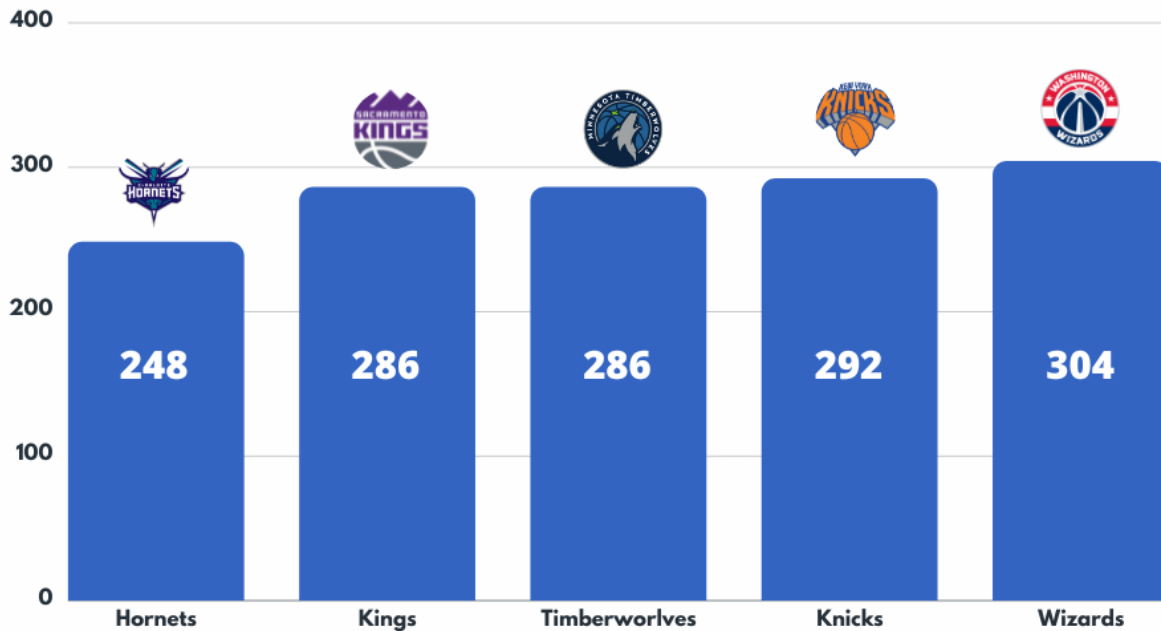
The following table shows the performance of the 5 teams shown in the graph during the last season:

Equipo	Porcentaje de victoria
Hornets	0.329
Knicks	0.573
Timberwolves	0.512
Kings	0.585
Nets	0.549

Equipos con menos juegos ganados jugando como visitante



EQUIPOS CON MENOS JUEGOS GANADOS JUGANDO COMO VISITANTE



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022

LEDWIN TORRES

The case is worse when we talk about teams when they play as a visitor, in this case we see the Hornets again as the worst team, winning only 248 games. In this case, the majority of teams that appear in the previous graph appear again being

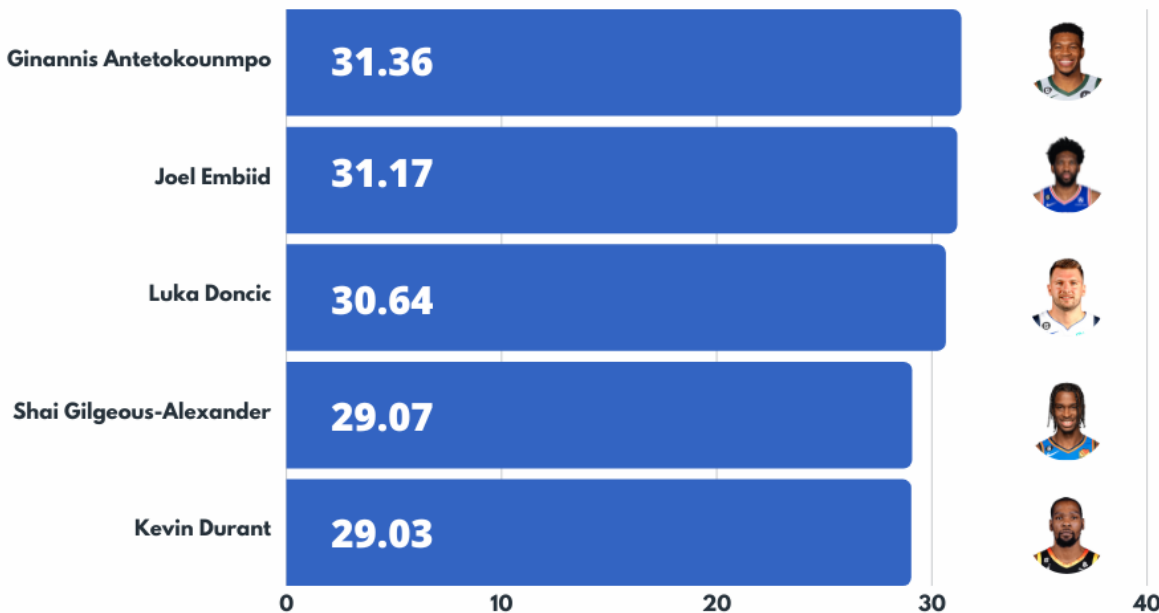
Only the new Washington - Wizards team has a performance in the 2022-23 season with a winning percentage of 0.427, failing to qualify for the Playoffs. The same victory rate was obtained in the 2021-22 and 2020-21 seasons.

The players who scored the most points in 2022

The following graph shows the points made by the five best players during the year 2022.



TOP DE JUGADORES CON MÁS PUNTOS HECHOS EN EL 2022



SOURCE: KAGGLE - NBA
GAMES DATA

*2003 - 2022

LEDWIN TORRES

In the case of the players who scored the most points we can see that 4 of the 5 players were players chosen in the last ten years so they are very young players within the league. The only player with more than 10 years playing in the league is Kevin Durant, being the veteran of all those shown.

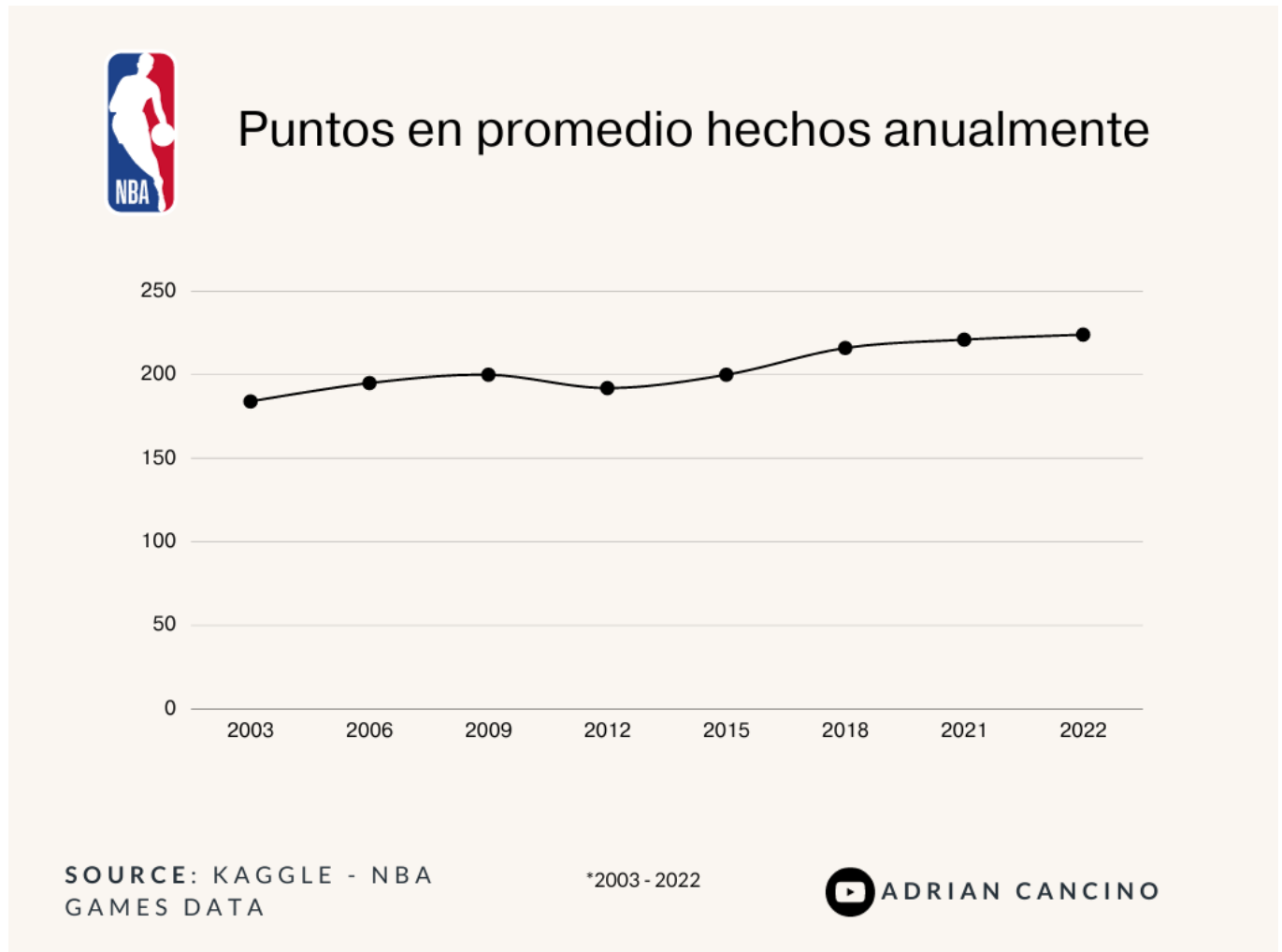
The following table shows the year in which they were chosen to play in the NBA:

Jugador	Año
Giannis Antetokounmpo	2013
Joel Embiid	2014
Luka Doncic	2018
Shai Gilgeous-Alexander	2018
Kevin Durant	2007



In the case of performance in regards to the points made during the game we can see that performance begins to decrease if the player ages. An important detail to keep in mind is that a player's performance does not only come hand in hand with points scored. In the NBA many other variables are taken to rate a player.

Puntos promedio por año



Since 2003, the average points that have been made year by year have been increasing. In 2003, the average number of points made was 184.47 points, reaching 224.4 points in the year 2022. In the record there was an increase of 39.93 points in the last 19 years. This increase may be due to the game mode that has been evolving in basketball, giving a main focus to three-point shots.



Conclusiones

La NBA ha evolucionado en los últimos años, aunque hay puntos que no han cambiado en los últimos años como el porcentaje de victoria de los equipos cuando juegan en casa o de visitante ya que, a pesar de hablar de una liga de alto rendimiento como lo es la NBA sigue pesando en lugar en el que jueguen los equipos.

Otro punto a destacar es la tasa de puntos hechos en los distintos partidos con anterioridad ya que, si revisamos las gráficas en donde se muestran los cinco partidos en donde menos y más puntos se hicieron podemos notar que en los partidos donde menos puntos se hicieron corresponden a partidos anteriores al 2010. A diferencia de los partidos donde más puntos se hicieron ya que estos partidos corresponden, en su mayoría, a partidos de los últimos 5 años. El único partido que no corresponde en fechas a los demás fue el de *Nets vs Suns* que se jugó en el año 2006.

Podemos ver que en general la NBA ha evolucionado con el paso de los años y no ha se ha estancado en un modo de juego, eso se notado más en la cantidad de puntos que se han hecho ya que, eso viene de la mano del modo de juego cambiante que tienen los equipos.