Which statistics are most are most indicative of a winning team in Basketball?

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Data

All data was taken from: https://www.basketball-reference.com/

Totals | Per Game | Per 36 Min | Per 100 Poss | Advanced | Play-by-Play | Shooting | Adjusted Shooting

Player Per Game Share & Export ▾ ☑ When table is sorted, hide non-qualifiers for rate stats   Glossary   Hide Partial Rows

Rk	Player	Pos	Age	Tm	G	GS	MP	FG	FGA	FG%	3P	3PA	3P%	2P	2PA	2P%	eFG%	FT	FTA	FT%	ORB	DRB	TRB	AST	STL	BLK	TOV	PF	PTS
1	Precious Achiuwa	PF	21	MIA	39	2	13.4	2.3	3.9	.571	0.0	0.0		2.3	3.9	.571	.571	1.1	2.2	.518	1.3	2.6	3.8	0.5	0.4	0.5	0.9	1.6	5.6
2	Jaylen Adams	PG	24	MIL	7	0	2.6	0.1	1.1	.125	0.0	0.3	.000	0.1	0.9	.167	.125	0.0	0.0		0.0	0.4	0.4	0.3	0.0	0.0	0.0	0.1	0.3
3	Steven Adams	C	27	NOP	37	37	27.4	3.5	5.6	.627	0.0	0.1	.000	3.5	5.6	.633	.627	1.1	2.3	.459	4.0	5.1	9.1	2.0	0.9	0.5	1.5	1.9	8.1
4	Bam Adebayo	C	23	MIA	35	35	33.8	7.1	12.7	.556	0.1	0.2	.333	7.0	12.5	.559	.559	4.8	5.7	.843	2.3	7.2	9.5	5.5	0.9	1.0	2.9	2.5	18.9
5	LaMarcus Aldridge	C	35	SAS	21	18	25.9	5.5	11.8	.464	1.3	3.6	.360	4.2	8.2	.509	.518	1.5	1.8	.838	0.8	3.7	4.5	1.7	0.4	0.9	1.0	1.7	13.7
6	Ty-Shon Alexander	SG	22	PHO	3	0	2.7	0.0	1.0	.000	0.0	0.3	.000	0.0	0.7	.000	.000	0.0	0.0		0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.0
7	Nickeil Alexander-Walker	SG	22	NOP	32	3	17.9	3.3	7.8	.416	1.2	3.6	.328	2.1	4.2	.493	.492	1.0	1.2	.816	0.2	2.4	2.6	1.9	0.9	0.3	1.3	1.6	8.7
8	Grayson Allen	SG	25	MEM	25	13	24.0	3.0	7.4	.400	2.0	5.0	.400	1.0	2.4	.400	.535	1.6	1.8	.909	0.4	2.6	2.9	2.2	1.0	0.1	1.0	1.3	9.5
9	Jarrett Allen	C	22	TOT	39	21	28.2	4.7	7.2	.648	0.1	0.3	.400	4.6	6.9	.657	.655	3.4	4.8	.710	3.1	6.7	9.8	1.7	0.4	1.7	1.4	1.6	12.8
9	Jarrett Allen	C	22	BRK	12	5	26.7	3.7	5.4	.677	0.0	0.0		3.7	5.4	.677	.677	3.8	5.1	.754	3.2	7.3	10.4	1.7	0.6	1.6	1.8	1.8	11.2
9	Jarrett Allen	C	22	CLE	27	16	28.8	5.1	8.0	.639	0.1	0.4	.400	5.0	7.6	.650	.648	3.2	4.6	.688	3.1	6.4	9.5	1.7	0.4	1.7	1.3	1.5	13.6
10	Al-Farouq Aminu	PF	30	ORL	12	9	19.5	1.6	4.6	.345	0.5	1.7	.300	1.1	2.9	.371	.400	0.8	1.1	.818	1.1	3.3	4.4	1.4	1.0	0.4	1.3	1.3	4.4
11	Kyle Anderson	PF	27	MEM	35	35	27.2	4.7	10.0	.476	1.4	3.9	.368	3.3	6.1	.545	.547	2.0	2.6	.761	0.8	5.0	5.9	3.3	1.1	0.6	1.3	1.7	12.9
12	Giannis Antetokounmpo	PF	26	MIL	39	39	34.2	10.6	18.8	.563	1.1	3.8	.295	9.5	15.0	.632	.593	6.8	10.1	.676	1.8	9.9	11.8	6.2	1.3	1.3	3.7	3.0	29.1
13	Kostas Antetokounmpo	PF	23	LAL	3	0	6.3	0.3	1.0	.333	0.0	0.0		0.3	1.0	.333	.333	0.3	0.7	.500	0.7	2.0	2.7	0.0	0.3	0.0	1.7	1.0	1.0
14	Thanasis Antetokounmpo	SF	28	MIL	29	0	8.4	1.0	1.6	.596	0.1	0.3	.222	0.9	1.3	.684	.617	0.2	0.4	.462	0.9	1.0	2.0	0.6	0.3	0.2	0.7	1.2	2.2
15	Carmelo Anthony	PF	36	POR	38	3	25.9	4.9	11.9	.415	1.8	4.6	.381	3.2	7.3	.437	.489	2.4	2.8	.858	0.6	2.8	3.4	1.8	0.9	0.8	1.1	2.2	14.1
16	Cole Anthony	PG	20	ORL	25	17	26.7	4.0	10.8	.375	1.1	3.3	.325	3.0	7.4	.398	.426	1.8	2.2	.836	0.8	3.6	4.4	3.8	0.7	0.4	2.0	2.0	11.0

Player Statistics

What players might make the 50, 40, 90 club (fg%, 3p%, ft%)?

```
Joe Ingles, fg: .521 3pt: .461 ft: .895
Desmond Bane, fg: .485 3pt: .451 ft: .889
Paul George, fg: .491 3pt: .440 ft: .888
Norman Powell, fg: .490 3pt: .435 ft: .881
Khris Middleton, fg: .493 3pt: .424 ft: .893
Stephen Curry, fg: .476 3pt: .411 ft: .927
Nikola Jokić, fg: .566 3pt: .411 ft: .876
Kyrie Irving, fg: .514 3pt: .407 ft: .894
Kawhi Leonard, fg: .517 3pt: .404 ft: .877
Tobias Harris, fg: .517 3pt: .402 ft: .888
Chris Paul, fg: .479 3pt: .390 ft: .947
Brandon Ingram, fg: .478 3pt: .380 ft: .884
Miles Bridges, fg: .491 3pt: .374 ft: .932
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To determine who might be eligible I said that you must be within 3 percentage points for each category. This is ordered by the sum of the percentages.

As we can see there are no players currently in the club but many are close. These are some of the top shooters in the game.

List the 5 players with the most play time in order of play time, descending with their points per game.

```
Nikola Vučević, 39.0, 25.0
Brandon Ingram, 39.0, 23.7
Julius Randle, 39.0, 22.9
John Collins, 39.0, 17.9
Andrew Wiggins, 39.0, 17.2
RJ Barrett, 39.0, 17.1
Duncan Robinson, 39.0, 12.8
Serge Ibaka, 39.0, 10.9
Danny Green, 39.0, 8.8
```

We hoped to learn whether a large amount of play time translated in to a high number of points per game and a winning team.

It turns out that there is an 8 way tie for the most play time! Some of the highest play time players had a large number of points per game but not all, and these players did not seem to overwhelmingly represent winning teams.

Team Statistics

What is the record for the five teams with the most turnovers per game?

```
ORL, 13-26, 3.7
ATL,  20-20, 3.9
BRK, 28-13, 4.5
NYK, 20-21, 4.8
HOU, 11-28, 5.0
```

Does an increased number of turnovers per game lead to an better season record?

These data seem to indicate not, in fact the teams with the fewest turnovers per game has a terrible record!

What team is attempting the most three-pointers this season?

`(Utah Jazz,1589)`

There has been a trend in the NBA toward shooting more three pointers, but does shooting more threes actually lead to more wins?

The Utah Jazz, the current top ranked team in the league, has attempted the most three pointers this season. Perhaps other teams should follow suit.

What 5 teams have the most players scoring at least 10 points per game?

```
(Utah Jazz,6)
(San Antonio Spurs,6)
(Sacramento Kings,6)
(Toronto Raptors,5)
(Washington Wizards,4)
```

A team having multiple high scoring players is said to have depth. It seems that depth has little to do with winning, as some teams with multiple players scoring 10+ points have great records and others have very poor records.

Coach Statistics

Which coaches promote the most scoring?

```
Tyronn Lue, LAC, 132
Doc Rivers, PHI, 128
Mike Budenholzer, MIL, 121
Quin Snyder, UTA, 121
Steve Kerr, GSW, 115
Stan Van Gundy, NOP, 115
Nick Nurse, TOR, 113
Scott Brooks, WAS, 107
Mike Malone, DEN, 105
James Borrego, CHO, 104
```

Scoring is obviously a huge part of basketball so we wanted to get an idea of what teams/coaches scored the most according to our data.

As we can see, 5 of the top 10 teams in scoring are also in the top 10 in the standings.

(Brendan)

What's the current record of the coaches with the most game?

```
coach, team, win-lose in season, games in career

Gregg Popovich, SAS, 19-16, 1926
Doc Rivers, PHI, 27-12, 1663
Rick Carlisle, DAL, 20-17, 1490
Erik Spoelstra, MIA, 21-18, 998
Terry Stotts, POR, 22-16, 969
Stan Van Gundy, NOP, 17-22, 946
Scott Brooks, WAS, 14-23, 900
Dwane Casey, DET, 10-28, 866
```

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Taylor Jenkins, MEM, 17-18, 108
Steve Nash, BRK, 26-13, 39
Mark Daigneault, OKC, 17-22, 39
Stephen Silas, HOU, 11-26, 37
Nate Bjorkgren, IND, 17-20, 37
```

Coaches with more games in their career should have more experience in coaching a team. With more experience, the team should perform better.

This isn't necessarily true as there are some new coaches who have a great record this season.

How do the team's season record compare to the coach's record?

While coaches are the backbone of the team, it's hard to see the influence of a coach in game vs. the strength of the team alone.

The coaches that have differences in win percentages in season and their career can be indicative of their different strengths.

```
coach name, team name, win % this season, career win %

Mark Daigneault, OKC, 0.44, 0.44
Stephen Silas, HOU, 0.30, 0.30
Steve Nash, BRK, 0.67, 0.67
Nate Bjorkgren, IND, 0.46, 0.46
Rick Carlisle, DAL, 0.54, 0.55
Luke Walton, SAC, 0.39, 0.40
Taylor Jenkins, MEM, 0.49, 0.47
Tyronn Lue, LAC, 0.63, 0.61
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Quin Snyder, UTA, 0.74, 0.58
Scott Brooks, WAS, 0.38, 0.56
Steve Kerr, GSW, 0.51, 0.70
Monty Williams, PHO, 0.68, 0.46
Nick Nurse, TOR, 0.44, 0.66
Dwane Casey, DET, 0.26, 0.51
```

Which coach has the best record when the score is within 3 points?

When games are close, the coaches that can keep the team under composure would probably be the better team.

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coach name, 3 point difference season record, season record

Scott Brooks, 7-2, 14-23
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While Scott Brooks has a record of 7-2 under pressure, in general they perform pretty poorly.