

Standard Efficiency Metrics

TOR @ PHO October 7 2010

Player	Pts Prd	PP/ PA36	Poss%	Flr%	ORat	eFG%	TS%	AST%	TTO%	ORB%	DRB%	TRB%
Dorsey	14.5	26.5	.249	.799	154.2	.667	.653	.182	.000	.281	.365	.326
DeRozan	13.5	19.9	.201	.645	143.3	.650	.707	.079	.106	.056	.049	.052
Jack	12.7	23.8	.268	.571	128.3	.625	.753	.554	.304	.000	.000	.000
Kleiza	12.2	19.6	.138	.802	205.4	1.000	1.012	.000	.000	.000	.266	.142
Weems	11.0	19.3	.249	.538	112.3	.455	.505	.187	.102	.000	.232	.124
Johnson	9.7	21.2	.206	.738	149.6	.750	.781	.000	.155	.338	.146	.235
Banks	7.8	20.9	.198	.654	153.2	.250	.602	.108	.000	.000	.000	.000
Calderon	6.9	11.7	.171	.459	98.7	.400	.510	.213	.288	.000	.057	.030
Dupree	6.8	22.7	.309	.575	106.7	.500	.565	.000	.158	.000	.112	.060
Evans	6.8	13.6	.211	.514	94.8	.500	.492	.159	.278	.155	.067	.108
Bargnani	5.9	8.0	.213	.273	54.5	.111	.152	.104	.276	.155	.045	.096
Andersen	5.7	11.1	.109	.691	148.6	.500	.615	.000	.000	.076	.196	.140
Barbosa	5.0	9.6	.154	.421	90.9	.500	.615	.000	.365	.000	.000	.000
Wright	3.1	10.4	.147	.474	102.2	.500	.615	.140	.331	.000	.223	.120
Alabi	2.8	11.4	.117	.706	141.1	.667	.667	.000	.000	.000	.404	.217

- **PtsPrd (Points Produced):** A zero-sum efficiency metric assigning value to each aspect of offensive production (offensive rebounds, field goals, assists and free throws) based on team performance. The total of all players' production will be the amount of points the team scores in a game.
- **PP/PA36 (Points Produced Per Pace-Adjusted 36 Minutes):** How many Points Produced a player would produce if he played 36 minutes in a game of a standard pace of 92 possessions/game.
- **Poss% (Possession Percentage):** The percentage of the team's possessions that the player uses while on the floor.
- **Flr% (Floor Percentage):** The percentage of an individual's possessions which have a positive outcome, calculated by Individual Scoring Possessions / Individual Total Possessions. (Individual possessions, just like Points Produced, are calculated based on the value of all offensive play – FGA, FTA, ORB, TO, AST – determined by team performance.).
- **ORat (Offensive Rating):** A measure of overall offensive efficiency, measured by Points Produced / 100 Individual Possessions.
- **eFG% (effective Field Goal Percentage):** A measure of a player's efficiency shooting the ball from the floor, balanced for 3FG. Calculated by $FG + .5 * 3FG / FGA$.
- **TS% (True Shooting Percentage):** A measure of a player's overall efficiency shooting the ball, calculated by $Points / (FGA + .44 * FTA)$.
- **AST% (Assist Percentage):** The percentage of teammates' field goals a player assists upon while he's

on the floor.

- **True Turnover Percentage (TTO%):** The percentage of an individual's possessions that culminate in a turnover.
- **ORB% (Offensive Rebounding Percentage):** The percentage of available offensive rebounds to an individual while he's on the floor which he actually grabs.
- **DRB% (Defensive Rebounding Percentage):** The percentage of available defensive rebounds to an individual while he's on the floor which he actually grabs.
- **TRB% (Total Rebounding Percentage):** The percentage of available total rebounds to an individual while he's on the floor which he actually grabs.
- Data is sorted most productive to least productive by PtsPrd/G. All calculations done only for games in which the individual actually appeared.

Project Defensive Score Sheet Metrics

Player	MP	Dreb	Stl	Blk	FM	2FGA	3FGA	FTO	FFT	FFTM	Stop%	%Dps	DRat
Dorsey	17:31	6	1	0	3	0	0	1.5	0	2	1.000	.153	64.0
Andersen	16:18	3	2	0	2.5	0.5	0	1	2	4	.871	.178	66.8
Bagnani	23:47	1	1	0	7	1	1.5	1	0	0	.851	.131	69.6
“Team”	00:00	n/a	n/a	n/a	6	3	0	8	1	0	.760	.139	71.8
Alabi	07:54	3	1	1	0.5	0	0	0	2	2	.859	.187	71.8
Kleiza	20:05	5	2	0	3.5	1	0	0	2	0	.726	.161	72.3
DeRozan	21:51	1	1	0	0.5	1	0	2	0	0	.778	.096	72.6
Evans	15:54	1	1	1	0.5	1	0	1	1	1	.717	.127	73.2
Banks	12:00	0	0	0	1	0	0	0	0	0	1.000	.019	74.2
Jack	17:08	0	1	0	5.5	3	0	1.5	0	0	.634	.222	75.2
Dupree	09:33	1	0	0	2.5	1	1	0	0	0	.598	.121	76.2
Barbosa	16:36	0	1	0	0	0	0	0	4	2	.500	.067	77.3
Weems	18:22	4	0	0	1.5	2	0	0.5	2	0	.442	.132	80.4
Calderon	18:52	1	1	0	3	4	1	1	0	0	.483	.191	81.0
Johnson	14:35	2	0	1	4	3.5	0	1.5	4	3	.513	.297	82.2
Wright	09:33	2	0	1	1	3	1	1	1	0	.421	.290	87.4

- **MP (Minutes Played):** The minutes an individual has played.
- **DReb (Defensive Rebounds):** The total number of defensive rebounds grabbed.
- **Stl (Steals):** The total number of steals taken by a player.
- **Blk (Blocked shots):** The total number of shots blocked by a player.
- **FM (Forced misses):** The total number of opponents' shots taken that a player forced to miss, not including blocked shots.
- **2FGA (2 Point Field goals allowed):** The total number of 2 point field goals scored past/by/over a player.
- **3FGA (3 Point Field goals allowed):** The total number of 3 point field goals scored past/by/over a player.
- **FTO (Forced turnovers):** Opponents' turnovers forced by an individual, not including steals.
- **FFT (Forced free throws):** Total number of made free throws resulting from a player's foul(s).
- **FFTM (Forced free throws missed):** Total number of missed free throws resulting from a player's foul(s).
- **Stop% (Stop Percentage):** The percentage of defensive possessions faced by an individual which results in a stop.
- **%DPs (Percentage of Defensive Possessions faced):** The percentage of the team's defensive possessions that the individual faces.
- **DRat (Defensive Rating):** The overall defensive efficiency of the player, calculated by: Team

- $\text{DRat} + \% \text{Dps} \times (100 \times (\text{Opponents Points} / \text{Scoring Possessions}) \times (1 - \text{Stop\%}) - \text{Team DRat})$
Data is sorted best-to-worst by Drat.

Net Points Data

Player	MP	PtsPrd	Poss	ORat	Points Allowed	Dposs	DRat	NP v.1	NP v.2	NPAvg
Dorsey	17:31	14.5	9.4	154.2	0.0	4.0	64.0	8.5	14.5	11.5
DeRozan	21:51	13.5	9.4	143.3	2.0	9.6	72.6	6.7	11.5	9.1
Kleiza	20:05	12.2	6.0	205.4	4.0	6.9	72.3	7.9	8.2	8.1
Jack	17:08	12.7	9.9	128.3	6.0	7.8	75.2	5.3	6.7	6.0
Banks	12:00	7.8	5.1	153.2	0.0	9.7	74.2	4.0	7.8	5.9
Weems	18:22	11.0	9.8	112.3	6.0	2.9	80.4	3.1	5.0	4.1
Andersen	16:18	5.7	3.8	148.6	3.0	4.4	66.8	3.1	2.7	2.9
Evans	15:54	6.8	7.2	94.8	3.0	4.3	73.2	1.6	3.8	2.7
Dupree	09:33	6.8	6.3	106.7	5.0	6.5	76.2	1.9	1.8	1.8
Johnson	14:35	9.7	6.5	149.6	11.0	3.7	82.2	4.3	-1.3	1.5
Alabi	07:54	2.8	2.0	141.1	2.0	7.0	66.8	1.5	0.8	1.2
Barbosa	16:36	5.0	5.5	90.9	4.0	7.1	77.3	0.7	1.0	0.9
Bargnani	23:47	5.9	10.9	54.5	5.0	6.7	69.6	-1.6	0.9	-0.4
Calderon	18:52	6.9	7.0	98.7	11.0	4.9	81.0	1.2	-4.1	-1.5
Wright	09:33	3.1	3.0	102.2	10.0	2.9	87.4	0.4	-6.9	-3.2

- **MP (Minutes Played):** Number of minutes a player played
- **PtsPrd (Points Produced):** A zero-sum efficiency metric assigning value to each aspect of offensive production (offensive rebounds, field goals, assists and free throws) based on team performance. The total of all players' production will be the amount of points the team scores in a game.
- **Poss (Possessions):** The number of Individual Possessions a player uses per game offensively.
- **ORat (Offensive Rating):** The ultimate measure of individual offensive efficiency, in Points Produced / 100 Individual Possessions
- **PtsAlwd (Points Allowed):** The ultimate number of points a player surrendered directly on the defensive end.
- **Dposs (Defensive Possessions):** The number of possessions which a player directly faced defensively.
- **DRat (Defensive Rating):** The overall defensive efficiency of the player, calculated by: $\text{Team DRat} + \% \text{Dps} \times (100 \times (\text{Opponents Points} / \text{Scoring Possessions}) \times (1 - \text{Stop\%}) - \text{Team DRat})$
- **NP v.1 (Net Points formula 1):** Measuring net points for an individual player by his efficiency: $((\text{ORat} - \text{DRat}) \times \text{Poss}) / 100$
- **NP v. 2 (Net Points formula 2):** Measuring net points for an individual player by his production $(\text{PtsPrd} - \text{PtsAlwd})$
- **NPAvg (Net Points):** Net points, determined by averaging NP v1 and NPv2.

Team Efficiency Stats

Team	eFG%	TTO%	ORB%	FTR	Pace	ORat	DRat
Toronto	.543	.165	.385	.506	103	125.0	75.6
Phoenix	.399	.310	.333	.257	103	75.6	125.0

- **eFG% (effective field goal percentage):** Measure of total shooting efficiency from the floor, calculated by $(FG + .5 * 3FG) / FGA$.
- **ORB% (Offensive Rebounding Percentage):** The percentage of available offensive rebounds that a team actually grabbed.
- **TTO% (Team Turnover Percentage):** The percentage of team possessions that culminate in a turnover.
- **FTR (Free Throw Rate):** The amount of scoring a team does from the free throw line as opposed to from the floor, calculated by FT / FGA .
- **Pace:** The pace of game, measured in total possessions.
- **ORat (Offensive Rating):** Measure of the team's offensive efficiency, calculated by $Points / 100$ possessions.
- **DRat (Defensive Rating):** Measure of the team's defensive efficiency, calculated by $Points / 100$ possessions.