STAT3080
Prelim Data 1
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```
> Curry <- read.csv("C:/Users/sony/Desktop/2016spring/stat3080/prelim
data/Curry.csv",header = TRUE, check.names = FALSE)
> Curry
> head(Curry,n=10)
```

First 10 observations:

	Home	Opp	Winning	FG	FGA	FG%	3P	3PA	3P%	FT	FTA	FT%	TRB	AST	STL	TOV	PTS	+/-
1	@	SAC	18	7	17	0.412	2	9	0.222	8	9	0.889	10	5	6	4	24	20
2		LAL	23	10	19	0.526	3	8	0.375	8	8	1.000	5	10	3	2	31	30
3	@	POR	5	6	18	0.333	1	5	0.200	8	8	1.000	5	6	2	3	21	12
4		LAC	17	9	18	0.500	4	8	0.500	6	6	1.000	6	7	1	5	28	21
5	@	HOU	11	13	19	0.684	6	9	0.667	2	2	1.000	9	5	4	5	34	13
6	@	PHO	-12	10	20	0.500	4	10	0.400	4	4	1.000	2	10	5	10	28	-6
7		SAS	-13	7	18	0.389	0	7	0.000	2	2	1.000	6	5	0	3	16	-18
8		BRK	8	6	12	0.500	3	7	0.429	2	2	1.000	3	5	0	3	17	6
9		CHO	25	8	15	0.533	3	6	0.500	0	1	0.000	5	9	1	1	19	23
10	@	LAL	21	10	19	0.526	5	9	0.556	5	5	1.000	4	15	1	3	30	27

Data Overview:
Who is Steph Curry?
Wardell Stephen "Steph" Curry II (born March 14, 1988) is an American professional
basketball player for the Golden State Warriors of the National Basketball
Association (NBA). He is considered by some to be the greatest shooter in NBA
history. Curry won the 2015 NBA Most Valuable Player (MVP) award and is a three-
time NBA All-Star. (Wikipedia)

Stephen Curry 2014-15 Game Log
Basketball-reference.com
http://www.basketball-reference.com/players/c/curryst01/gamelog/2015/

Specific data related terminology:
Data recorded by NBA staff during game time.
Collected & Released by Basketball-reference.com

Variables:
(Boolean)Home: If away, @. Nothing means homegame

(String)Opp: Opponent Team Abbreviates. For example, Houston Rockets -> HOU

(Integer)Winning: Winning points – the points Warriors get minus the points the
opponent team gets at the end of the game.

(Integer)FG: Field Goal Made – total baskets made by Steph Curry, only including
ones that go into the basket.

(Integer)FGA: Field Goal Attempts - the number of times that Curry attempted
shooting the ball regardless of its getting into the basket or not.

(Quotient)FG%: Field Goal Percentage (FG/FGA) – calculated by FG/FGA

(Integer)3P: 3-Pointer Made – total number of 3-pointer shots made by Steph Curry, only including ones that go into the basket.

(Integer)3PA: 3-Pointer Attempts - total number of times that Curry attempted shooting from the 3-point range regardless of its getting into the basket or not.

(Quotient)3P%: 3-Pointer Percentage (3P/3PA) – calculated by 3P/3PA

(Integer)FT: Free Throws Made – total number of times that Curry made a free throw. In basketball, free throws or foul shots are unopposed attempts to score points from a restricted area on the court

(Integer)FTA: Free Throws Attempts – total number of times that Curry attempts to shoot a free throw. In basketball, free throws or foul shots are unopposed attempts to score points from a restricted area on the court

(Quotient)FT%: Free Throw Percentage (FT/FTA) – calculated by FG/FGA

(Integer)TRB: Total Rebounds - total number of times that Curry retrieves the ball after a missed field goal or free throw.

(Integer)AST: Total Assists – total number of times that Curry passes the ball to a teammate in a way that leads to a score

(Integer)STL: Steals - In basketball, a steal occurs when a defensive player legally causes a turnover by his positive, aggressive action(s). (Wikipedia)

(Integer)TOV: Turnovers - In basketball, a turnover occurs when a team loses possession of the ball to the opposing team before a player takes a shot at his team's basket. (Wikipedia)

(Integer)PTS: Points – total points Curry gets in a specific game

(Integer)+/-: Efficiency – calculated according by NBA using particular defined formula to determine the contribution of players in the game. The formula is: (PTS + REB + AST + STL + BLK – Missed FG – Missed FT – TO)(NBA.com)

Why this data is interesting:
The Golden State Warriors has claimed the 2014-2015 NBA's Champion Title. They had a wonderful season and it is believed that the core factor of their huge success is their star player Steph Curry. Hence, we would like to analyze Steph Curry's game stats across the 2014-2015 season to investigate Curry's offence & defence statistics and to demonstrate how Curry's performance affects Warriors' games.

Figures:

Curry Field Goal Attempt v.s Made
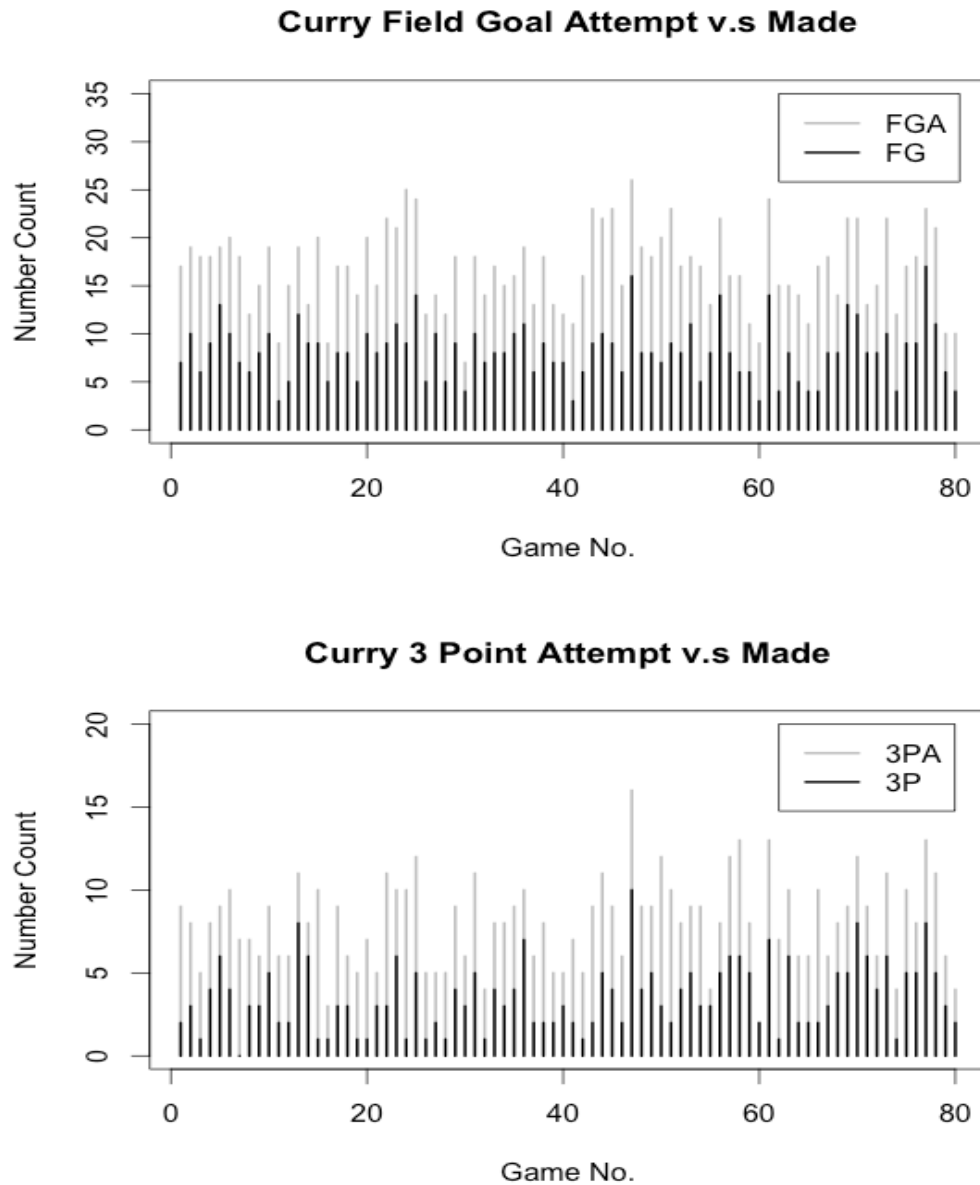

Curry 3 Point Attempt v.s Made

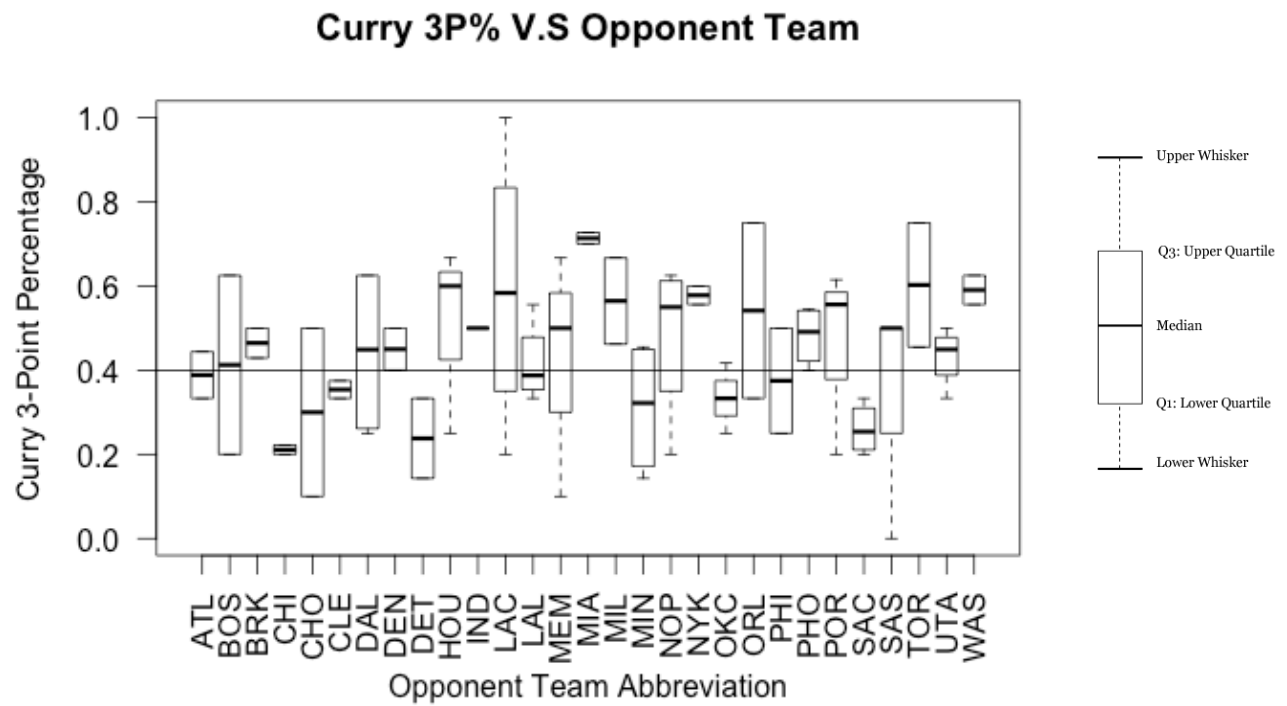Figure 1: Steph Curry's Field Goal Percentage & 3 Point Percentage Over NBA 2014-2015 Season

Figure 2: Steph Curry's 3-Point Shot Percentage When Golden State Warriors plays different opponent teams. (with box plot explanation)
The Straight line represents 40% 3-Point Percentage, which represents a criteria for an outstanding 3-Point Shooter.
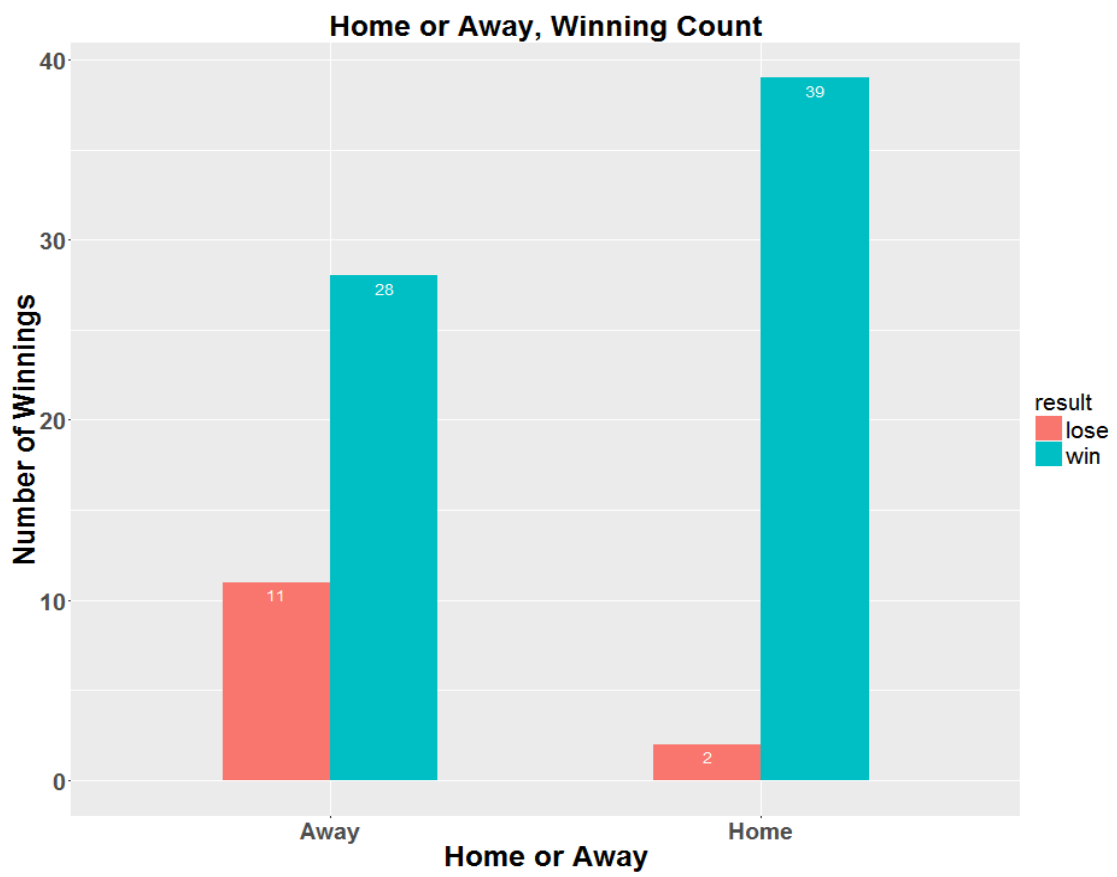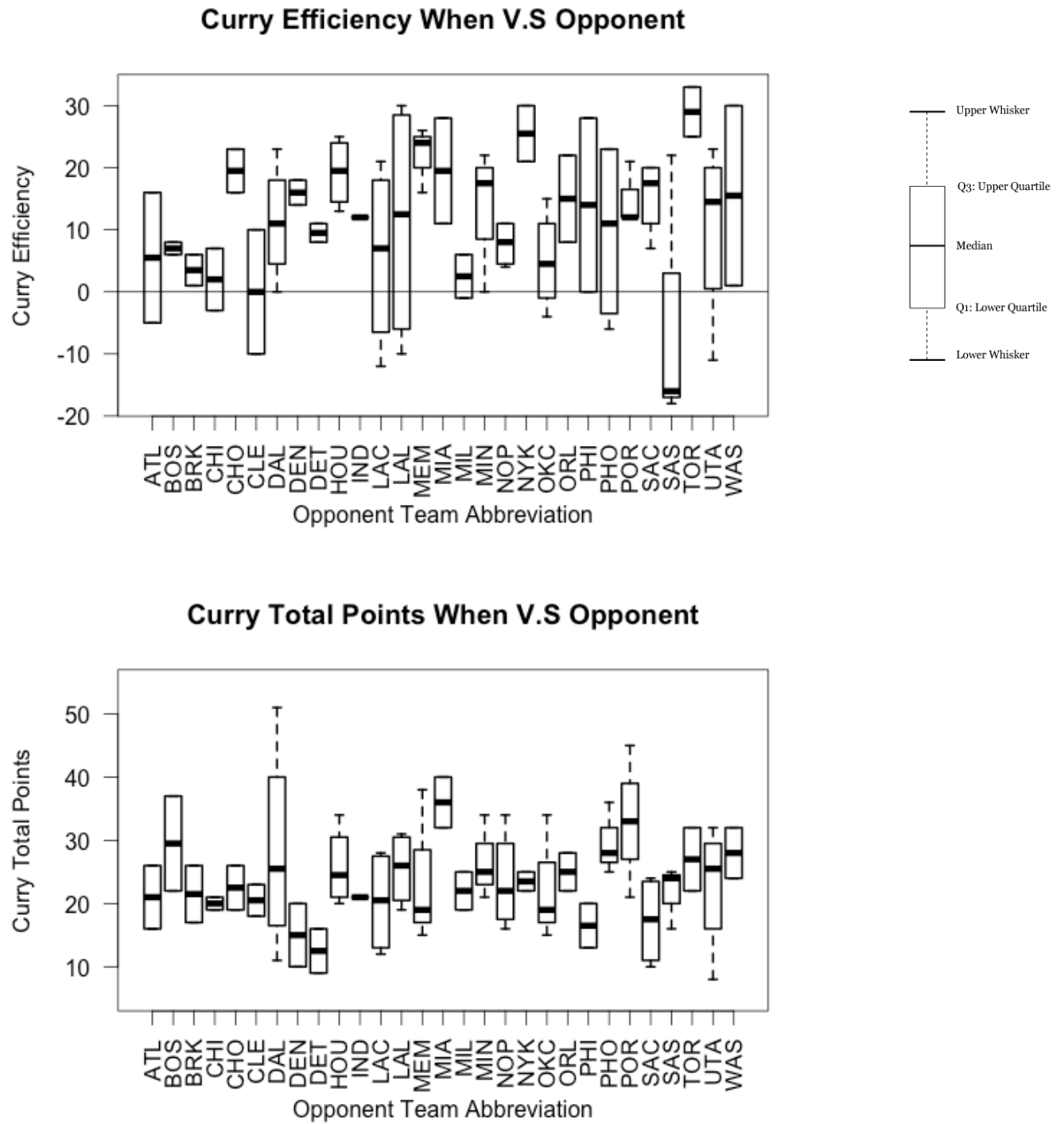
Figure 3: Golden State Warrior's Home & Away Winning Count, NBA 2014-2015 Season

Figure 4: Steph Curry's Efficiency & Total Points when playing with different opponent teams (with box plot explanation)
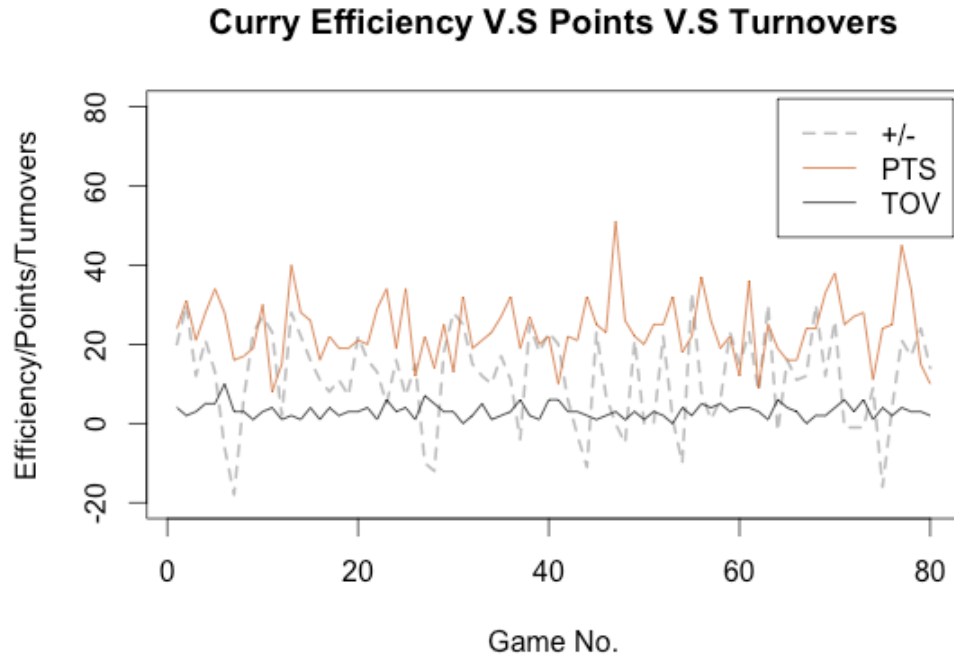
Figure 5: Steph Curry's Efficiency / Total Points per match/ Total Turnovers per match comparison over the NBA 2014-2015 season. Notice that Total Points per match is positively related to efficiency while Total Turnovers per match is negatively related to efficiency according to the formula given at variable description section.
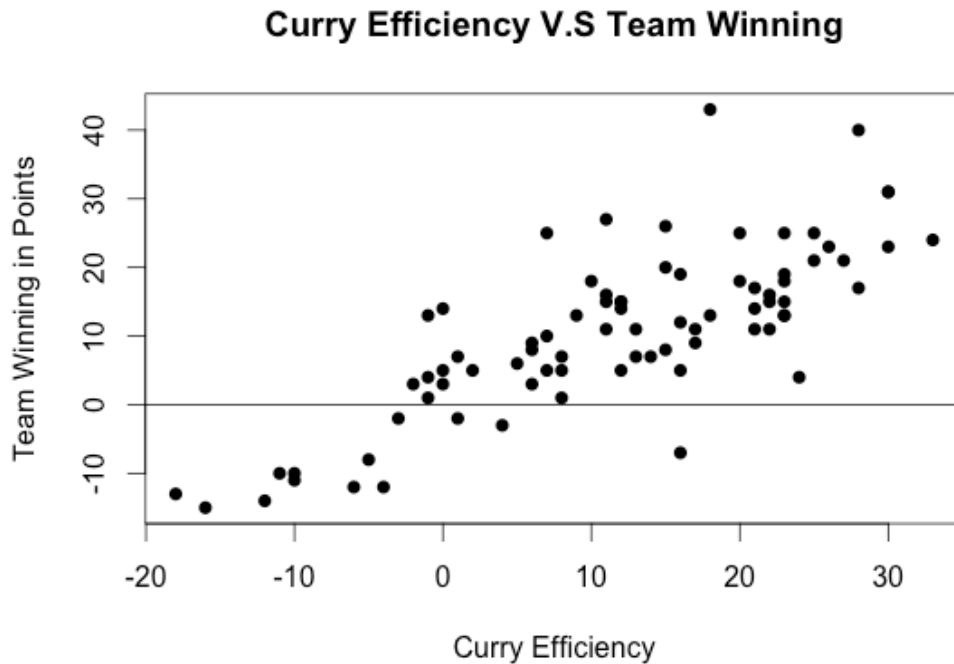

Figure 6: Steph Curry's Efficiency with regard to Warrior's team winning. Notice that when Curry has negative efficiency the team winning is negative as well.
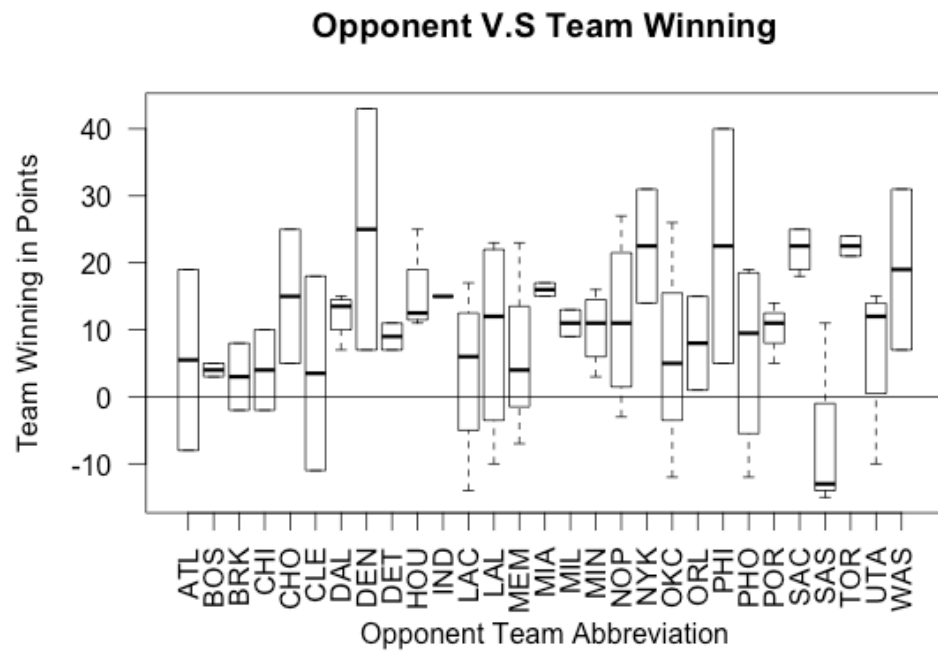
Figure 7: Golden States' team winning with regard to their match opponents.