

MODELING THE WINNERS OF NCAA WOMEN'S DIVISION II BASKETBALL  
TOURNAMENT GAMES

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**Title**

Modeling the Winners of NCAA Women's Division II Basketball  
Tournament Games

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State University's regulations and meets the accepted standards for the degree of

**MASTER OF SCIENCE**

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## **ABSTRACT**

This thesis first presents a least squares regression model to identify the in-game statistics that help explain the variation in point spread for NCAA Division II Women's Basketball Tournament games. Then a logistic regression model is presented to estimate the probability of a team winning a tournament game based on the differences in significant in-game statistics. Differences in the following variables are significant in both models: field goal percentage, 3-point field goal percentage, free throw percentage, offensive rebounds, personal fouls and turnovers. Difference in assists is only significant in the point spread model. Both models are validated using the in-game statistics for the 2015 tournament, indicating a prediction accuracy as high as 95.24%. Seasonal averages for the 2014 – 2015 season are then used to predict game results in the 2015 tournament. The prediction accuracies are 60.32% and 66.67% for the point spread model and the logistic regression model, respectively.

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## CHAPTER 1. INTRODUCTION

### 1.1. NCAA Basketball

The National Collegiate Athletic Association (NCAA) consists of more than one thousand American and Canadian four-year colleges. It holds 89 national championships in 23 sports (NCAA, “Championships”, n.d.). The NCAA is divided into three divisions—Division I, Division II and Division III—roughly according to school size and team strength, with Division I having the largest schools. For the purpose of creating localized league play, within each division teams self-organize into conferences whose members are geographically close to each other. A school’s division may change as its strength increases or decreases. For example, South Dakota State University moved from Division II to Division I in 2004 (South Dakota State University, 2006).

The NCAA basketball season starts in November each year. In the regular season, each school competes once or twice with every other school within its conference. Schools compete with schools outside the conference too sometimes to advertise themselves. The regular season usually ends in early March. It is followed by a single-elimination tournament containing the 64 strongest teams, as determined by the regular season results. The tournament is also known as “March Madness” since it lasts from early March to late March or early April.

Each NCAA division has both men and women’s basketball. The NCAA Men’s Division I Basketball Tournament is one of the most important athletic events in the U.S., rivaling even the Super Bowl. Many people participate in contests to predict the results of the tournament; Forbes estimated in 2013 that the number worldwide could be over 100 million (Barra, 2014). The popularity of these contests has sparked an increased interest in analytically predicting winners and margins of victory through the use of statistical modeling. Though more attention

has been devoted to the Men's Division I tournament, the NCAA Women's Division II Basketball Tournament warrants attention for insights into modeling tournament results.

## **1.2. The Playing Rule of NCAA Women's Division II Basketball Tournament**

The NCAA Division II Women's Basketball Championship is an annual championship tournament for colleges and universities that are members of NCAA Division II. Division II contains 300 schools which are not only located in 44 U.S. states, including Alaska, Hawaii, and the District of Columbia, but also Canada (NCAA, "About NCAA Division II", n.d.). The Tournament is held each spring from March to April in all neutral venues. The selection process for college basketball's NCAA Division II Women's Basketball Championships determines which strongest 64 teams will enter the tournament (the centerpieces of the basketball championship frenzy known as "March Madness") and their seedings and matchups in the knockout bracket. Twenty-four teams gain automatic entry through winning their conference's championship. The remaining 40 teams rely on the selection committee to award them an at-large bid in the tournament (NCAA, 2015, "2016 Division II Women's Basketball Championship"). A bracket is usually adopted to visually display which 64 teams have gotten the chance to play in the tournament for a certain season and which pairs of teams will be matched against each other. Figure 1.1 shows the 2015 NCAA Division II Women's basketball tournament bracket.

All the selected 64 teams are divided into 8 regions: Atlantic, East, Central, Midwest, South Central, South, Southeast, and West (NCAA, 2015, "2016 Division II Women's Basketball Championship"). Each region has teams seeded from 1 to 8, with the strongest teams seeded 1 in their own region. The teams having seeds summing up to 9 in each region play each other during the first round. Teams winning the first round will advance to the second round,

while teams losing will be eliminated. This competition form is single elimination. Teams will not have a second chance continuing in the tournament once they lose one game. This fast elimination speed, together with the large number of participating teams, is why people call it “March Madness”. The winner of each region advances to the Women’s Elite Eight, where the teams compete in single elimination to determine the national champion (NCAA, 2015, “2016 Division II Women’s Basketball Championship”). Thus, 64 teams play 63 games in 6 sequential rounds in total in the NCAA Division II Women’s Basketball Tournament. Figure 1.2 shows the current NCAA Women’s Division II Basketball tournament structure.



# 2015 NCAA Division II Women's Basketball Championship

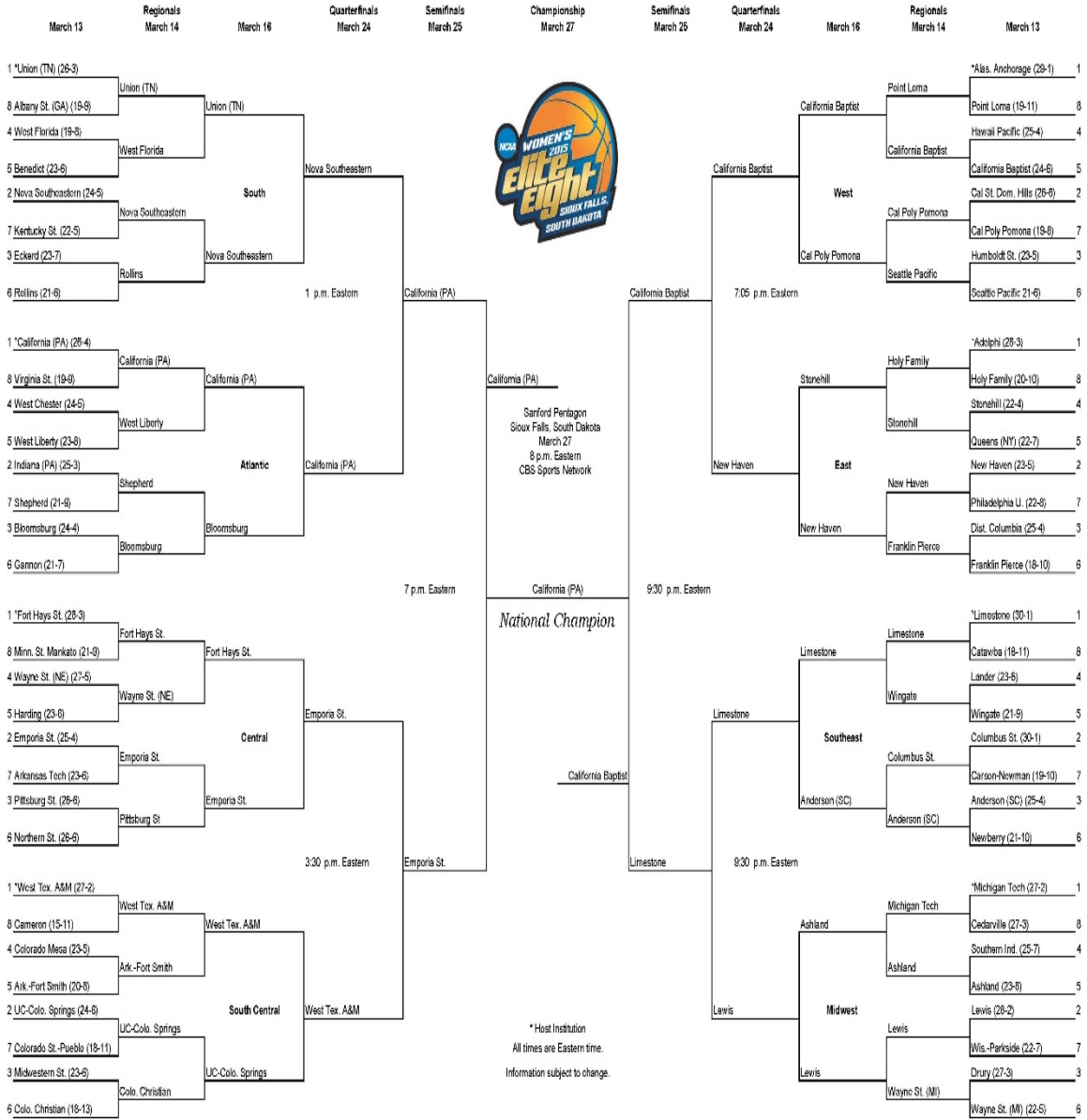


Figure 1.1. 2015 NCAA women's basketball tournament bracket

(The bracket comes from <http://www.ncaa.com/interactive-bracket/basketball-women/d2>)

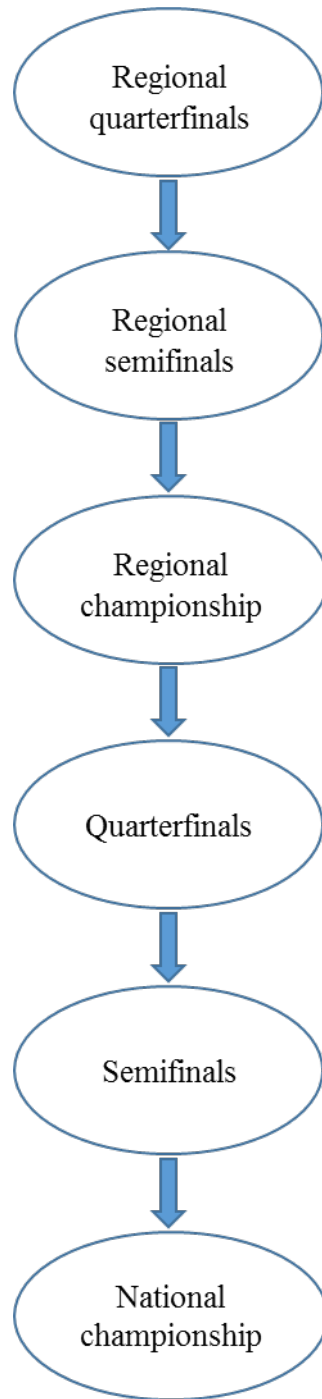


Figure 1.2. Process of the NCAA Division II Women's Basketball Tournament

### 1.3. Main Research Content

Sports attract a tremendous amount of people's interest, including coaches, players, researchers in universities, sports journalists, casual fans, etc. A number of statistics are kept at

every individual game. However, with such an abundance of information, which of these statistics are the most important? What information can a fan use to bet on which team will win besides relying on personal experience or luck? What does a team need to do well to lead to a victory in a match?

This thesis will answer these questions for games in the Division II Women's Basketball Tournament. Part of the answer involves identifying key factors that explain victory in a Division II Women's Basketball Tournament game. These factors allow us to model and then evaluate the models searching for an effective way to predict the outcomes of future games using previous game data from the teams involved in the contest.



## CHAPTER 2. REVIEW OF LITERATURE

There has been a mass of statistical analysis about college basketball games. In reviewing previous works regarding the topic of significant factors in college basketball, it became apparent that analysis towards men's sports has drawn much more attention than women's sports. A bunch of research has been done about NCAA Division I sports rather than Division II. It is hard to find articles related to predicting NCAA Division II women's basketball game. We will elaborate on some previous studies about men's and women's Division I basketball tournaments.

Magel and Unruh (2013) analyzed NCAA Division I men's basketball games to identify in-game statistics that predict a game's result. They considered twelve variables and found four to be significant: difference in assists, difference in free throw attempts, difference in defensive rebounds, and difference in turnovers. Using those four variables, they developed a least squares regression model to predict point spread and a logistic regression model to predict winning probability of a basketball game. They verified the accuracy of these models by using a separate data set, finding that both models correctly predict the winner of the game 94% of the time if the in-game statistics were known. They then determined the accuracy of the models for predicting the winner of future games by using in-game statistics collected in the teams' previous four games and averaging these values; the models were found to correctly predict the results approximately 62% to 68% of the time.

Wang and Magel (2014) developed least squares regression models and logistic regression models using in-game statistics to explain point spread and winning probabilities of teams playing in each round of a Division I Women's Basketball tournament. When seasonal averages of the significant in-game statistics were used to predict tournament results for the following year, they found the least squares regression model had a prediction accuracy of

87.5%, 81.3%, and 73.3% for the first round, second round, and third and higher rounds, respectively. Likewise, they found the logistic regression model to have a prediction accuracy of 90.63%, 81.25%, and 73.33%, respectively. Thus, the study successfully gave models for forecasting the winners of the 2014 NCAA Women's Division I Tournament with acceptable accuracy.

Schwertman (1991) analyzed three models for estimating the probability of a team winning a region of the NCAA Men's Basketball Division I Tournament. Each of these models is based on the team's seed. In the first model, the probability of team  $i$  defeating team  $j$  is given by  $j / (i + j)$ . In the second model, it is given by  $0.5 + 1/32(j - i)$ . In the third model, it is given by  $0.5 + 0.2813625(S(i) - S(j))$ , where  $S(x)$  is the strength of team  $x$ , calculated by assuming a normal distribution of team strength and determining the  $z$  score for the team based on its seed. Schwertman compared the accuracy of these three models by using a goodness-of-fit test with the chi-squared statistic, using empirical data from the most recent six tournaments. He found that the three models had  $p$ -values of 0.603, 0.435, and 0.978, respectively.

Shen, Hua, Zhang, Mu and Magel (2015), proposed a Probability Self-Consistent (PSC) method based on a binomial generalized linear regression model to predict the results of the NCAA Men's Division I Basketball Tournament. Because it predicts the results of tournaments instead of single games, the precise methodology is different than what will be used in this paper; for example, the statistics used are for one team rather than the difference between the "team of interest" and its opponent. However, the goals are similar, so some of the variables that they found to be significant in their models may be useful for this paper. In their study, they compared their own model with three existing models: ratings percentage index (RPI), Pomeroy ratings, and the restricted OLRE method. The RPI of a team is calculated from the team's

winning percentage, its opponents' percentages, and its opponents' winning percentages. The Pomeroy rating of a team is based on the Pythagorean winning percentage, which is calculated from the team's adjusted offensive efficiency (an estimate of the number of points the team would score per 100 possessions against the average Division I defense) and the team's adjusted defensive efficiency (an estimate of the number of points the team would allow per 100 possessions against the average Division I offense). The restricted OLRE method uses a multinomial proportional odds model for the probability of a team winning a specified number of games.

For the PSC method, Shen et al. (2015) developed three models for predicting tournament results: one for the Round of 64; one for the Round of 32; and one for the Sweet 16 through Championship games. The following variables were found to be significant for use in one or more of these models: average number of field goals made per game; average number of offensive rebounds per game; average number of defensive rebounds per game; average number of personal fouls per game; adjusted offensive efficiency; adjusted defensive efficiency; average scoring margin; Sagarin strength of schedule; average assists to turnover ratio; tournament seed. They used these for their PSC models, and found the PSC method to be superior to the other three methods for predicting tournament results.

Although many basketball prediction models rely exclusively on quantitative statistics such as points scored or rebounds, qualitative statistics may also be useful. In 2009, Dirks investigated whether trust in leadership has a positive effect on team performance in Division I Men's Basketball. He determined a team's level of trust in its coach by having its players complete surveys. He found that trust in leadership is indeed positively correlated with team performance.

## CHAPTER 3. METHODOLOGY

### 3.1. Research Objectives

This study has the following objectives:

- (1) Develop a least squares regression model to identify the in-game statistics that help explain the variation in point spread at the end of an NCAA Women's Division II Basketball Tournament game.
- (2) Develop a logistic regression model to help estimate the probability of a team winning the tournament game based on differences of significant in-game statistics.
- (3) Validate the accuracy of the models.
- (4) Use the models to predict the results of a future Division II women's tournament based on the differences of the team seasonal averages of significant in-game statistics.

### 3.2. Description of Data Sets

To construct the initial models, data was collected based on the results and in-game statistics from the 2012, 2013, and 2014 NCAA Women's Division II Basketball Tournaments. Each tournament involves 63 individual games; thus the sample size for the first data set is 189. The data collected from these tournaments was used for building the models. This would include a least squares regression model and a logistic regression model. The in-game statistics collected from each team in a single game are shown in Table 3.1.

Table 3.1. All Statistics Collected for Building Models

Total points (TP) (dependent variable)	Defensive rebounds (DE)
Field goal percentage (FG% )	Personal fouls (PF)
Three-point field goal percentage (3PT%)	Assists (A)
Free throw percentage (FT%)	Turnovers (TO)
Offensive rebounds (OF)	Blocks (BLK)

Data was then collected on the in-game statistics (Table 3.1) and game results from the 2015 NCAA Division II Women’s Basketball Tournament. This data will be used to validate the models.

Seasonal Averages of the in-game statistics found to be significant in the initial models were then collected from the 2014-15 season for each team playing in the 2015 NCAA Division II Women’s Basketball Tournament. These averages are based on games played in the regular season. This data will be used in the models in place of significant in-game statistics to make predictions of results for the 2015 tournament. Seasonal averages collected are given in Table 3.2.

Table 3.2. All Statistics Collected for Prediction (Based on Seasonal Averages)

Total Points per game (TP per game)	Defensive Rebounds per game (DE per game)
Average Field Goal Percentage (FG%)	Personal Fouls per game (PF per game)
Average Three-Point Field Goal Percentage (3PT%)	Assists per game (A per game)
Average Free Throw Percentage (FT% per game)	Turnovers per game (TO per game)
Offensive Rebounds per game (OF per game)	Blocks per game (BLK per game)

### 3.3. Development of Models

#### 3.3.1. Development of Point Spread Model

The point spread model is built from the perspective of the “team of interest”. The “team of interest” refers to the team that was selected randomly for each tournament game.

Accordingly, the opponent of the “team of interest” in each corresponding tournament game is called the “opposing team” in this paper. Consider, for example, the tournament game played

between Bentley (MA.) and West Texas A&M (TX.) on March 28 in 2014; if Bentley is randomly selected as the “team of interest”, then West Texas A&M is the “opposing team”. On the contrary, West Texas A&M could also be randomly selected as the “team of interest”, and Bentley correspondingly becomes the “opposing team”.

In this model, the dependent variable is the point spread between the “team of interest” and “opposing team”. The point spread equals the total points scored by the “team of interest” minus the total points scored by the “opposing team”. Therefore, a positive point spread indicates a victory for the “team of interest” and a loss for the “opposing team”. A negative point spread indicates a loss for the “team of interest”. In the tournament game between Bentley and West Texas A&M on March 28 in 2014, suppose Bentley was selected as the “team of interest”. Bentley scored 73 points and West Texas A&M scored 65. The point spread is 8, which is positive, implying that Bentley won that tournament game. This is shown in Table 3.3.

Table 3.3. Dependent Variable in LS Model  
(Example Bentley vs. West Texas A&M, 3/28/2014)

	<b>Bentley  (“Team of  interest”)</b>	<b>West Texas  A&amp;M  (“Opposing  team”)</b>	<b>Differences  (Variable  Values)</b>	<b>Dependent Variable Names</b>
<b>Total  Points</b>	73	65	73-65= 8	Point Spread

The independent variables considered for entry into this model include difference in field goal percentage (diff\_FG%), difference in three-point field goal percentage (diff\_3PT%), difference in free throw percentage (diff\_FT%), difference in offensive rebounds (diff\_OF), difference in defensive rebounds (diff\_DE), difference in number of personal fouls (diff\_PF), difference in number of assists (diff\_A), difference in number of turnovers (diff\_TO), and difference in number of blocks (diff\_BLK) (Kubatko, Oliver, Pelton, & Rosenbaum, 2007). They

are listed in Table 3.4 under the “Independent Variable Names” column. All these differences are calculated with respect to the “team of interest”. In other words, the differences are always in the order “team of interest” minus “opposing team”. For instance, as displayed in Table 3.4, Bentley is the “team of interest” and West Texas A&M is the “opposing team”. Bentley’s FG% is 40.4 while West Texas A&M’s FG% is 47.9. Then the value of the independent variable difference of FG% (diff\_FG%) in this case is -7.5. An example of values of the independent variables is given in Table 3.4 under the “Differences (Variable Values)” column.

Table 3.4. Independent Variables in LS Model  
(Example Bentley vs. West Texas A&M, 3/28/2014)

<b>Statistical Measures</b>	<b>Bentley (“Team of interest”)</b>	<b>West Texas A&amp;M (“Opposing team”)</b>	<b>Differences (Variable Values)</b>	<b>Independent Variable Names</b>
<b>FG%</b>	40.4	47.9	40.4-47.9 = -7.5	Difference in field goal percentage (diff_FG%)
<b>3PT%</b>	29.4	38.5	29.4-38.5 = -9.1	Difference in three-point field goal percentage (diff_3PT%)
<b>FT%</b>	91.7	70	91.7- 70 = 21.7	Difference in free throw percentage (diff_FT%)
<b>OF</b>	12	8	12-8 = 4	Difference in offensive rebounds (diff_OF)
<b>DE</b>	21	22	21-22 = -1	Difference in defensive rebounds (diff_DE)
<b>PF</b>	19	21	19-21 = -2	Difference in number of personal fouls (diff_PF)
<b>A</b>	18	9	18-9 = 9	Difference in number of assists (diff_A)
<b>TO</b>	12	15	12-15 = -3	Difference in number of turnovers (diff_TO)
<b>Blocks</b>	3	7	3-7 = -4	Difference in number of blocks (diff_BLK)

The intercept was excluded in developing the LS regression model because it should not matter which team is selected as the “team of interest”. If all the significant in-game statistics are

equal for both teams, the point spread should be 0 on average. Stepwise selection was utilized with significance level  $\alpha$  equal to 0.10 for both entry and exit to help determine significant independent variables in developing the model out of the ten variables considered. Stepwise regression helps with the multicollinearity problem in which two or more independent variables are highly correlated and therefore not all variables are needed in the model. Multicollinearity makes the coefficients associated with the independent variables hard to interpret (Abraham & Ledolter, 2006).

While fitting the model to determine the variables that are significant in predicting the win of a tournament game, the sign of the coefficient of each corresponding significant variable should make sense in relation to the sport of basketball. Coefficients of diff\_TO, diff\_PF would be expected to be negative because each additional turnover and additional personal foul will contribute negatively to the winning chances of the “team of interest”. We would expect the other variables besides diff\_TO and diff\_PF to all have positive effects for the “team of interest” to win a game; therefore coefficients of all other variables should be positive. In order to see if the estimated coefficients associated with each of the variables is reasonable, multicollinearity may be checked by using variance inflation factors (VIF). This paper uses the criteria that VIF should be less than 10 to eliminate solid evidence of multicollinearity, as recommended by Abraham and Ledolter (2006).

### **3.3.2. Development of Logistic Regression Model (LRM)**

A logistic regression model is also developed to estimate the probability of the “team of interest” winning the game based on the differences of the in-game statistics. The response variable is equal to “1” if the “team of interest” won the game and “0” if the “team of interest” lost the game (see Table 3.5). The independent variables are the same as in Table 3.4.



Table 3.5. Deriving of Response Variable in LRM

	<b>Bentley ("Team of interest")</b>	<b>West Texas A&amp;M ("Opposing team")</b>	<b>Results of the game</b>	<b>Response Variable</b>
<b>Total Points</b>	73	65	Bentley won	1

The logistic regression model will be

$$\pi(x_i) = \frac{e^{x_i'\beta}}{1 + e^{x_i'\beta}}$$

Where:  $x_i'\beta = \beta_0 + \beta_1x_{i1} + \dots + \beta_px_{ip}$ ,  $p$  is the number of independent variables;  $\pi(x_i)$  is the win probability for the "team of interest" (Abraham & Ledolter, 2006). No intercept will be under consideration in this logistic regression model for the same reasons as in the least squares regression model. Stepwise selection will be used with significance level  $\alpha = 0.10$  for both entry and exit for consideration of variables in the model.

### 3.4. Validation of Models

Will the models developed perform well in predicting wins given new data that is not associated with the development of the models? If the in-game statistics found to be significant are known, will the models be able to accurately determine the point spread and which team won the game? To answer these questions, the models were validated using the 2015 tournament in-game statistics for all 63 games, which were not used in the development of the models.

To validate the performance of the point spread model, all the values of the in-game statistics given in Table 3.4 which were found to be significant were placed into the point spread model for each game in order to estimate the point spread,  $\hat{y}$ . This was done for each game in the 2015 tournament.

If  $\hat{y} > 0$ , a predicted win for the “team of interest” using the point spread model was coded;

If  $\hat{y} < 0$ , a predicted loss for the “team of interest” using the point spread model was coded.

The prediction was then compared to what actually happened in the game. If the model predicted a win, did the team actually win? The number of predicted wins where the actual game result was a win, the number of predicted wins where the actual game result was a loss, the number of predicted losses where the actual game result was a win, and the number of predicted losses where the actual game result was a loss were determined. The prediction accuracy regarding victory or defeat was estimated based on the number of wins and the number of losses compared to the actual results. The model is considered valid if this prediction accuracy is high.

To validate the logistic regression model, the values of the in-game statistics in Table 3.4 which were found to be significant were put into the model, and the probability for the “team of interest” to win was estimated,  $\pi(x_i)$ , for each game in the 2015 tournament.

If  $\pi(x_i) > 0.5$ , this means a greater probability of win for the “team of interest” than their opponent. A predicted win for the “team of interest” was coded;

If  $\pi(x_i) = 0.5$ , a predicted tie for the “team of interest” was coded;

If  $\pi(x_i) < 0.5$ , a predicted defeat for the “team of interest” was coded;

Similarly, the predicted result of each tournament game was then compared to the actual result, and the accuracy attained.

### **3.5. Using the Models to Make Predictions**

The last step was to use the models to make predictions of games that have not been played or that the in-game statistics are not known ahead of time. In this case, 2015 regular

seasonal averages of the in-game statistics found to be significant were placed into the models developed to predict the winner of each 2015 tournament game. We use 2015 regular seasonal averages instead of 2015 in-game statistics because we would not know the in-game statistics before a game is played. Differences of seasonal averages of both teams playing were used in the model in place of the significant variables.

Using the point spread model to predict, the estimated corresponding values of the response variable  $\hat{y}$  were recorded.

If  $\hat{y} > 0$ , a predicted win for the “team of interest” was coded;

If  $\hat{y} < 0$ , a predicted loss for the “team of interest” was coded.

Then the following data was recorded: the number of predicted wins where the actual game result was a win, the number of predicted wins where the actual game result was a loss, the number of predicted losses where the actual game result was a win, and the number of predicted losses where the actual game result was a loss. The prediction accuracy regarding victory or defeat was then estimated based on the number of correctly predicted games divided by the total number of games.

Using the logistic regression model to estimate the probability of the “team of interest” winning a game, the differences in the seasonal averages of the significant in-game statistics for both teams were placed into the developed logistic regression model. The estimated corresponding values of win probability  $\pi(x_i)$  were observed.

If  $\pi(x_i) > 0.5$ , this means a greater probability of win for the “team of interest” than “opposing team”. A predicted win for the “team of interest” was coded;

If  $\pi(x_i) = 0.5$ , a predicted tie for the “team of interest” was coded;

If  $\pi(x_i) < 0.5$ , a predicted defeat for the “team of interest” was coded;

Similarly, the predicted result of each tournament game was then compared to the actual result, and the accuracy attained.

## CHAPTER 4. RESULTS

### 4.1. Models Development Results

#### 4.1.1. Point Spread Model Development Result

A least squares regression model was developed to explain the variation of point spread. The stepwise regression method with significance level  $\alpha$  equal to 0.1 and the intercept equal to zero was used in the development of the model. Ten variables as given in Table 3.4 under the column “Independent Variable Names” were considered for entry into the model. Seven of these variables were found to be significant and put in the model. These seven variables are difference in field goal percentage ( $diff\_FG\%$ ), difference in 3-point field goal percentage ( $diff\_3PT\%$ ), difference in free throw percentage ( $diff\_FT\%$ ), difference in offensive rebounds ( $diff\_OF$ ), difference in number of personal fouls ( $diff\_PF$ ), difference in number of assists ( $diff\_A$ ), and difference in number of turnovers ( $diff\_TO$ ).

The point spread model was found to be:

$$\widehat{diff\_PT} = 0.9949 diff\_FG\% + 0.1498 diff\_3PT\% + 0.2082 diff\_FT\% \\ + 0.8387 diff\_OF - 0.4525 diff\_PF + 0.1775 diff\_A - 0.7881 diff\_TO$$

Coefficient estimates, standard errors and p-values related to each estimated parameter are given in Table 4.1. Table 4.1 shows that the following statistics, which have positive coefficients, are positive significant factors:  $diff\_FG\%$ ,  $diff\_3PT\%$ ,  $diff\_FT\%$ ,  $diff\_OF$ ,  $diff\_A$ . The following statistics, which have negative coefficients, are negative significant factors:  $diff\_PF$  and  $diff\_TO$ . The coefficients indicate that the difference in field goal percentage, with coefficient equal to 0.9949, is the most influential factor in determining point spread. For every 1 percent increase in the difference of field goal percentage, the point spread will increase an average of 0.9949 points. The difference in offensive rebounds is also influential. For every 1

offensive rebound increase in the difference, the “team of interest” would gain an average of 0.8387 points more than the “opposing team”. It also noted that for every extra turnover that a team has in comparison to another team, the team would get an average of 0.7881 points lower.

Table 4.1. Point Spread Model Coefficient Estimates

<b>Variable</b>	<b>Coefficient Estimate</b>	<b>Standard Error</b>	<b>T-Value</b>	<b>P-Value</b>	<b>VIF</b>
diff_FG%	0.9949	0.0432	23.01	0.000	2.87
diff_3PT%	0.1498	0.0209	7.16	0.000	1.43
diff_FT%	0.2082	0.0180	11.54	0.000	1.20
diff_OF	0.8387	0.0588	14.26	0.000	1.54
diff_PF	-0.4525	0.0662	-6.84	0.000	1.22
diff_A	0.1775	0.0645	2.75	0.007	1.87
diff_TO	-0.7881	0.0521	-15.11	0.000	1.16

All the VIFs in Table 4.1 are less than 10, with the largest being 2.87. This indicates the model does not have problems with multicollinearity (Abraham & Ledolter, 2006). This implies that the interpretation of the estimated coefficients should be fine. As displayed in Table 4.2, R<sup>2</sup> equal to 92.49% means 92.49% of the total variation of the point spread is explained by the regression model. The predictive R<sup>2</sup> helps to determine how well the model predicts responses for new observations. Because it is over 90%, the model should do well at “predicting” point spread if the in-game statistics are known.

Table 4.2. Model Fit Statistics

<b>S</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>Predictive R<sup>2</sup></b>
3.97138	92.49%	92.19%	91.66%

Residual plots were done for the model in order to see if the model assumptions were satisfied; these are given in Figure 4.1. The normal probability plot and the histogram indicate the error terms are approximately normally distributed (one of the assumptions). The residuals versus fits plot indicates a fairly constant variance (another assumption). The residual versus order plot indicates errors are independent (another assumption). It appears that all the assumptions on the error terms are met and hence any tests should be valid.

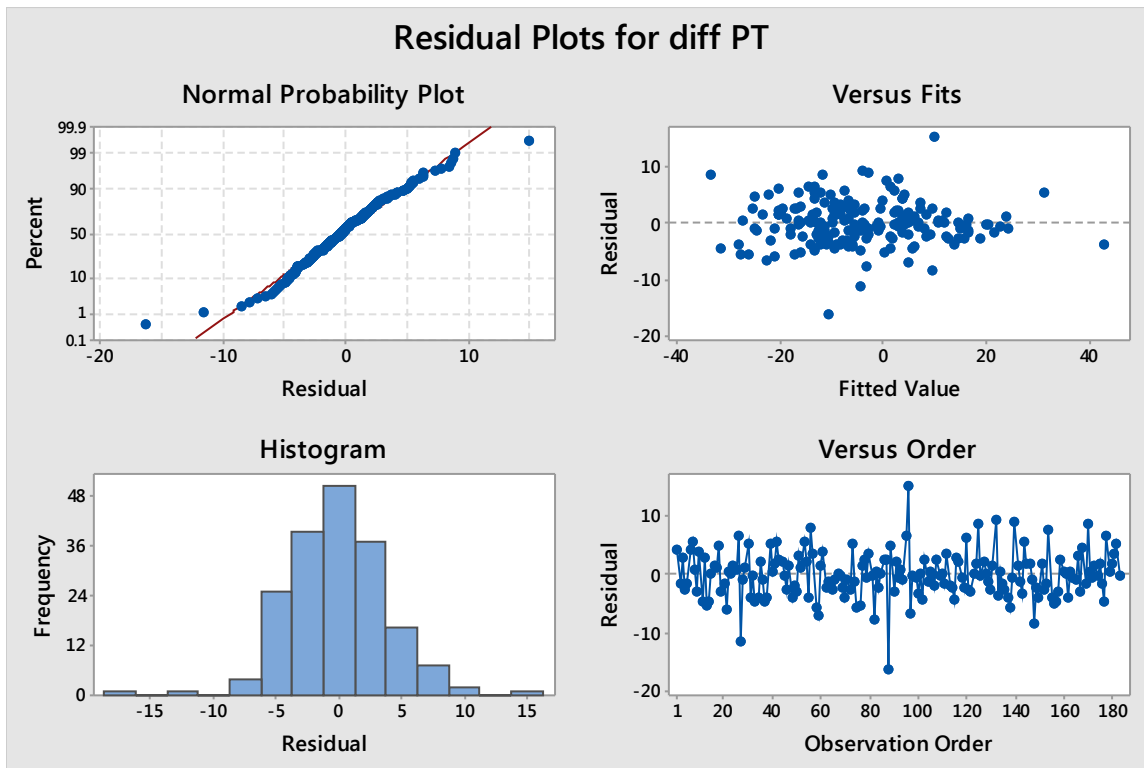


Figure 4.1. Residual Plot for Point Spread Model

#### 4.1.2. Logistic Regression Model Development Result

A logistic regression model was constructed to estimate the probability of the “team of interest” winning a tournament game based on differences of significant in-game statistics. The stepwise selection method was used with significance level  $\alpha$  equal to 0.1. Ten variables were considered for entry into the model, and six of the variables were found to be significant. The

variables found to be significant are difference in field goal percentage (diff\_FG%), difference in 3-point field goal percentage (diff\_3PT%), difference in free throw percentage (diff\_FT%), difference in offensive rebounds (diff\_OF), difference in number of personal fouls (diff\_PF), and difference in number of turnovers (diff\_TO). This set of significant variables is the same as for the point spread model, except that diff\_A is not included here.

The established logistic regression model is:

$$\pi(x_i) = \frac{e^{0.4987 \text{ diff\_FG\%} + 0.0798 \text{ diff\_3PT\%} + 0.1082 \text{ diff\_FT\%} + 0.4360 \text{ diff\_OF} - 0.2538 \text{ diff\_PF} - 0.3704 \text{ diff\_TO}}}{1 + e^{0.4987 \text{ diff\_FG\%} + 0.0798 \text{ diff\_3PT\%} + 0.1082 \text{ diff\_FT\%} + 0.4360 \text{ diff\_OF} - 0.2538 \text{ diff\_PF} - 0.3704 \text{ diff\_TO}}}$$

Where  $\pi(x_i)$  is the winning probability;  $x_i$  represents the values of all the significant variables.

Table 4.3 gives the coefficient estimates, standard errors and p-values related to each estimated parameter in this logistic regression model. A goodness of fit test for the model was also conducted. The model convergence status (using convergence criterion GCONV=1E-8) is satisfied.

Table 4.3. Logistic Regression Model Coefficient Estimates

Parameter	DF	Estimate	Standard Error	WaldChi-Square	P_Value
diff_FG%	1	0.4987	0.1038	23.0761	<.0001
diff_3PT%	1	0.0798	0.0335	5.6787	0.0172
diff_FT%	1	0.1082	0.0285	14.4493	0.0001
diff_OF	1	0.4360	0.1035	17.7308	<.0001
diff_PF	1	-0.2538	0.0833	9.2787	0.0023
diff_TO	1	-0.3704	0.0902	16.8547	<.0001

Table 4.4 shows that the Max-rescaled R2 value is 87.58%, indicating that 87.58 % of the total variance is explained by the model. The Hosmer and Lemeshow (HL) test gives a p-value



less than 0.0001, shown in Table 4.5, which indicates that the logistic model is not a good fit. However, Allison (2013) gives reasons why the HL test may not be valid. The test depends on the data grouping. We will go on and use the logistic model developed in the validation phase and see if it gives good results.

Table 4.4. Model Fit Statistics

<b>R<sup>2</sup></b>	<b>Max-rescaled R<sup>2</sup></b>
65.68 %	87.58 %

Table 4.5. Hosmer and Lemeshow Goodness-of-Fit Test

<b>Chi-Square ChiSq</b>	<b>DF</b>	<b>Pr &gt;</b>
101.4722	8	<.0001

The idea behind Table 4.6 through Table 4.11 is to see whether there is a relationship between winning probability and the independent variables found to be significant in the model by dividing the independent variables into two groups (negative and positive). As shown in Table 4.6, when the FG% difference is zero or negative, only 8.74% of the teams won, compared to 68.75% of the teams winning when the FG% difference is positive.

Table 4.6. Odds of Diff\_FG% by Win by 2 groups

<b>Diff_FG%</b>	<b>Win</b>		
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Negative</b>	94 91.26	9 8.74	103
<b>Positive</b>	25 31.25	55 68.75	80
<b>Total</b>	119	64	183

Table 4.7 considers the difference in 3-point percentages. When this difference is negative or zero, only 18.28% of the teams won. When this difference is positive, then 52.22% of the teams won. This suggests the chances of winning are almost 3 times higher when you have a positive 3-point percentage differential compared to when the difference is negative or zero. From Table 4.8, when the FT% difference is zero or negative, 27.36% of the teams won compared to 45.45% of the teams winning when the FT% difference is positive. Table 4.9 shows that when the difference in offensive rebounds is negative, 39.39% of the teams won, whereas when it is positive, 29.76% won. This is unexpected because the coefficient for diff\_OF in the model is positive, which indicates that a diff\_OF has a positive correlation with winning. From Table 4.10, one can see when the difference in personal fouls is negative, a team has a 61.54% chance of winning the game. When a team has more personal fouls than the other team, the team has a 15.24% chance of winning. Table 4.11 shows that 38.36% of teams won when the difference in turnovers is positive, compared to 32.73% winning when the turnover difference is negative.

Table 4.7. Odds of Diff\_3PT% by Win by 2 groups

<b>Diff_3PT%</b>	<b>Win</b>		
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Negative</b>	76 81.72	17 18.28	93
<b>Positive</b>	43 47.78	47 52.22	90
<b>Total</b>	119	64	183

Table 4.8. Odds of Diff\_FT% by Win by 2 groups

<b>Diff_FT%</b>		<b>Win</b>	
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Negative</b>	77 72.64	29 27.36	106
<b>Positive</b>	42 54.55	35 45.45	77
<b>Total</b>	119	64	183

Table 4.9. Odds of Diff\_OF by Win by 2 groups

<b>Diff_OF</b>		<b>Win</b>	
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Negative</b>	60 60.61	39 39.39	99
<b>Positive</b>	59 70.24	25 29.76	84
<b>Total</b>	119	64	183

Table 4.10. Odds of Diff\_PF by Win by 2 groups

<b>Diff_PF</b>		<b>Win</b>	
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Negative</b>	30 38.46	48 61.54	78
<b>Positive</b>	89 84.76	16 15.24	105
<b>Total</b>	119	64	183

Table 4.11. Odds of Diff\_TO by Win by 2 groups

<b>Diff_TO</b>	<b>Win</b>		
<b>Frequency</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>Row Pct</b>			
<b>Negative</b>	45	28	73
	61.64	38.36	
<b>Positive</b>	74	36	110
	67.27	32.73	
<b>Total</b>	119	64	183

The differences in the independent variables were split into smaller increments to further explore the relationship between odds of winning and the variable differences. Table 4.12 considers various groups of differences in field goal percentages. The differences in field goal percentages are broken into 5 levels rather than just positive or negative. Table 4.12 shows that the winning probabilities are 0.00%, 6.35%, 40.91%, 72.22%, 100.00%, when the FG% differences increase through the 5 levels. An increase in winning percentage is also seen in Table 4.13 when the differences in 3-point percentages increase through the 5 levels. Table 4.14 does not appear to support the idea that the winning percentage increases linearly against the 5 groups of differences in free throw percentages, FT%, as the first 3 cells here all have about equal winning percentages, which are 25.00%, 27.78%, 24.39%. However, the winning percentages for the last two cells are higher.

Table 4.12. Odds of Diff\_FG% by Win by 5 groups

<b>Diff_FG%</b>	<b>Win</b>		
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>min to -20i</b>	11 100.00	0 0.00	11
<b>-20 to -5i</b>	59 93.65	4 6.35	63
<b>-5 to 5</b>	39 59.09	27 40.91	66
<b>+5i to 20</b>	10 27.78	26 72.22	36
<b>20i to max</b>	0 0.00	7 100.00	7
<b>Total</b>	119	64	183

Table 4.13. Odds of Diff\_3PT% by Win by 5 groups

<b>Diff_3PT%</b>	<b>Win</b>		
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>min to -20i</b>	21 100.00	0 0.00	21
<b>-20 to -5i</b>	45 81.82	10 18.18	55
<b>-5 to 5</b>	26 63.41	15 36.59	41
<b>+5i to 20</b>	23 45.10	28 54.90	51
<b>20i to max</b>	4 26.67	11 73.33	15
<b>Total</b>	119	64	183

Table 4.14. Odds of Diff\_FT% by Win by 5 groups

<b>Diff_FT%</b>	<b>Win</b>		
<b>Frequency Row Pct</b>	<b>0</b>	<b>1</b>	<b>Total</b>
<b>min to -20i</b>	18 75.00	6 25.00	24
<b>-20 to -5i</b>	39 72.22	15 27.78	54
<b>-5 to 5</b>	31 75.61	10 24.39	41
<b>+5i to 20</b>	24 54.55	20 45.45	44
<b>20i to max</b>	7 35.00	13 65.00	20
<b>Total</b>	119	64	183

Table 4.15 suggests that the difference in offensive rebounds does not really matter by itself. All groups with varying differences in offensive rebounds have similar winning percentages. As shown in Table 4.16, there is an obvious negative linear relationship between the difference in personal fouls and winning probability, as the winning probability goes from 77.27% to 38.89% and then to 9.43% as the diff\_PF increases through the levels. Table 4.17 shows that for difference in turnovers, only one sample belongs to the first level (min to -20i) and the last level (20i to max), which is too small to be a valid sample size. Thus, the diff\_TO is re-split into four levels as shown in Table 4.18. From Table 4.18, the winning probability does not decrease linearly as the difference in turnovers increases. However, the winning probability does decrease from 42.00% to 23.73% as diff\_TO changes from the second level (-5 to 0) to the third level (0 to 5).

Table 4.15. Odds of Diff\_OF by Win by 5 groups

Diff_OF		Win	
Frequency Row Pct	0	1	Total
-20 to -5i	29 61.70	18 38.30	47
-5 to 5	59 62.77	35 37.23	94
+5i to 20	31 73.81	11 26.19	42
<b>Total</b>	<b>119</b>	<b>64</b>	<b>183</b>

Table 4.16. Odds of Diff\_PF by Win by 5 groups

Diff_PF		Win	
Frequency Row Pct	0	1	Total
-20 to -5i	5 22.73	17 77.27	22
-5 to 5	66 61.11	42 38.89	108
+5i to 20	48 90.57	5 9.43	53
<b>Total</b>	<b>119</b>	<b>64</b>	<b>183</b>

Table 4.17. Odds of Diff\_TO by Win by 5 groups

Diff_TO	Win		Total
	0	1	
<b>Frequency</b>			
<b>Row Pct</b>			
<b>min to -20i</b>	0	1	1
	0.00	100.00	
<b>-20 to -5i</b>	16	6	22
	72.73	27.27	
<b>-5 to 5</b>	74	35	109
	67.89	32.11	
<b>+5i to 20</b>	28	22	50
	56.00	44.00	
<b>20i to max</b>	1	0	1
	100.00	0.00	
<b>Total</b>	119	64	183

Table 4.18. Odds of Diff\_TO by Win by 4 groups

Diff_TO	Win		Total
	0	1	
<b>Frequency</b>			
<b>Row Pct</b>			
<b>min to -5i</b>	16	7	23
	69.57	30.43	
<b>-5 to 0</b>	29	21	50
	58.00	42.00	
<b>0 to 5</b>	45	14	59
	76.27	23.73	
<b>5i to max</b>	29	22	51
	56.86	43.14	
<b>Total</b>	119	64	183



## 4.2. Model Verification Result

To verify the accuracy of the models, significant in-game statistics in both the point spread model and the logistic regression model were collected for 63 tournament games in 2015. These data were not used for constructing the models. The differences between the significant variables for paired teams were calculated for all 63 games and used in the models to compare the number of predicted victories with the actual number of victories for the appointed “team of interest”.

Table 4.19 and Table 4.20 represent a data entry from a game played between Lewis (IL.) and Limestone (SC.) on 3/24/2015. Table 4.19 only contains the significant independent variables in the point spread model. Table 4.20 contains the value of the dependent variable. All columns are calculated with respect to Lewis (the “team of interest”). From Table 4.20, one can see that Lewis lost the game by 3 points. Using the values of the independent variables in Table 4.19 in the model, Lewis had a predicted point spread of:

$$\begin{aligned} \widehat{diff\_PT} &= 0.9949 \text{ diff\_FG\%} + 0.1498 \text{ diff\_3PT\%} + 0.2082 \text{ diff\_FT\%} \\ &\quad + 0.8387 \text{ diff\_OF} - 0.4525 \text{ diff\_PF} + 0.1775 \text{ diff\_A} - 0.7881 \text{ diff\_TO} \\ &= 0.9949 * (-2.1) + 0.1498 * (-11.7) + 0.2082 * (0) + 0.8387 * 3 - \\ &\quad 0.4525 * 4 + 0.1775 * 8 - 0.7881 * 5 \\ &= -5.65635 \end{aligned}$$

Since the predicted point spread is less than zero, this game was coded as a correctly predicted loss for Lewis, who actually lost the game by a score of 58-61 = -3.

Table 4.19. Example for Independent Variable Data Entry in point spread model (Lewis (IL.) vs. Limestone (SC.) on 3/24/2015)

Significant Statistical Measures	Game Results for Lewis (“Team of interest”)	Game Results for Lime Stone (“Opposing team”)	Differences (Significant Variable Values)	Significant Independent Variable Names
FG%	34.4	36.5	34.4-36.5 = -2.1	diff_FG%
3PT%	30	41.7	30-41.7 = -11.7	diff_3PT%
FT%	83.3	83.3	83.3- 83.3 = 0	diff_FT%
OF	16	13	16-13 = 3	diff_OF
PF	14	10	14-10 = 4	diff_PF
A	14	6	14-6 = 8	diff_A
TO	20	15	20-15 = 5	diff_TO

Table 4.20. Example for Dependent Variable Data Entry in point spread model (Lewis (IL.) vs. Limestone (SC.) on 3/24/2015)

Significant Statistical Measures	Game Result for Lewis (“Team of interest”)	Game Result for Lime Stone (“Opposing team”)	Difference (Dependent Variable Value)	Dependent Variable Name
Points	58	61	58-61= -3	diff_PT

Using the logistic regression model, Lewis had a projected probability of victory of:

$$\begin{aligned} \pi(x_i) &= \frac{e^{0.4987 \text{ diff}_{FG\%} + 0.0798 \text{ diff}_{3PT\%} + 0.1082 \text{ diff}_{FT\%} + 0.4360 \text{ diff}_{OF} - 0.2538 \text{ diff}_{PF} - 0.3704 \text{ diff}_{TO}}}{1 + e^{0.4987 \text{ diff}_{FG\%} + 0.0798 \text{ diff}_{3PT\%} + 0.1082 \text{ diff}_{FT\%} + 0.4360 \text{ diff}_{OF} - 0.2538 \text{ diff}_{PF} - 0.3704 \text{ diff}_{TO}}} \\ &= \frac{e^{0.4987*(-2.1) + 0.0798 * (-11.7) + 0.1082*(0) + 0.4360 * 3 - 0.2538 * 4 - 0.3704*5}}{1 + e^{0.4987*(-2.1) + 0.0798 * (-11.7) + 0.1082*(0) + 0.4360 * 3 - 0.2538 * 4 - 0.3704*5}} \\ &= 0.0284 \end{aligned}$$

Since this projected probability of victory is less than 0.50, this game is coded as a predicted loss for Lewis as point spread model does. This process was then repeated for a sample

of 63 games, with the number of predicted victories and defeats from both models separately being compared to the actual number of victories and defeats of the 63 tournament games in 2015. The accuracy of each model was calculated in Table 4.21 and Table 4.22.

Table 4.21. Accuracy of Point Spread Model Using in-game Statistics

<b>Point spread</b>		<b>Predicted</b>		
<b>Actual</b>		Win	Loss	Total
	Win	23	2	25
	Loss	1	37	38
	Total	24	39	63
Overall Accuracy				95.24%

Table 4.22. Accuracy of Logistic Regression Model Using in-game Statistics

<b>Point spread</b>		<b>Predicted</b>		
<b>Actual</b>		Win	Loss	Total
	Win	23	2	25
	Loss	1	37	38
	Total	24	39	63
Overall Accuracy				95.24%

As shown in Table 4.21, the point spread model has successfully predicted 23 of the 25 actual wins and 37 of the 38 actual losses. The overall prediction accuracy of the point spread model is 95.24% for this sample if the in-game statistics are known. The logistic regression model has a 95.24% prediction accuracy as well given the in-game statistics ahead of time. Since 95.24% is high accuracy, the point spread model and logistic regression model are valid.

### 4.3. Model Prediction Result

In order to make predictions regarding the victory or loss of the “team of interest” using the developed models, the 2015 seasonal averages were used for each significant independent variable since the actual in-game statistics are unknown ahead of time. For each game in the 2015 tournament, the differences between the seasonal averages of the rival teams were calculated and put into the models. The differences are in the order “team of interest” minus “opposing team”, where one team for each game is designated as “team of interest”. If the model gives a point spread greater than 0 then it is predicted the “team of interest” will win the game; otherwise it is predicted the “team of interest” will lose the game. Likewise, if the game-winning probability is greater than 0.5 then the game is predicted as a win; otherwise it’s predicted as a loss. This process is done for all 63 games. The predicted victories are compared to whether or not the team actually got a victory.

The two teams Lewis and Limestone will be considered as an example. Seasonal averages related to the two teams are shown in Table 4.23. Table 4.24 has the actual game results.

Using the least squares regression model already developed, Lewis had a predicted point spread of:

$$\begin{aligned} \widehat{diff\_PT} &= 0.9949 \text{ diff\_FG\%} + 0.1498 \text{ diff\_3PT\%} + 0.2082 \text{ diff\_FT\%} \\ &\quad + 0.8387 \text{ diff\_OF} - 0.4525 \text{ diff\_PF} + 0.1775 \text{ diff\_A} - 0.7881 \text{ diff\_TO} \\ &= 0.9949 * (3.7) + 0.1498 * (2.2) + 0.2082 * (7.5) + 0.8387 * (-2) - \\ &\quad 0.4525 * (-1.1) + 0.1775 * (3.4) - 0.7881 * (-0.3) \\ &= 5.23247 \end{aligned}$$

Since the predicted point spread is greater than zero, this game was coded as a wrongly predicted win for Lewis, who actually lost the game by 3 points.

Table 4.23. Example 1 for Independent Variable Values in Model prediction (Lewis (IL.) vs. Limestone (SC.))

Significant Statistical Measures	Seasonal Averages for Lewis (“Team of interest”)	Seasonal Averages for Lime Stone (“Opposing team”)	Differences in Seasonal Averages	Significant Independent Variable Names
<b>FG%</b>	46.5	42.8	46.5-42.8=3.7	diff_FG%
<b>3PT%</b>	35.9	33.7	35.9-33.7=2.2	diff_3PT%
<b>FT%</b>	77.9	70.4	77.9-70.4=7.5	diff_FT%
<b>OF</b>	13	15	13-15=-2	diff_OF
<b>PF</b>	14.2	15.3	14.2-15.3=-1.1	diff_PF
<b>A</b>	18.9	15.5	18.9-15.5=3.4	diff_A
<b>TO</b>	13.7	14	13.7-14=-0.3	diff_TO

Table 4.24. Example 1 for Dependent Variable Values in Model prediction (Lewis (IL.) vs. Limestone (SC.))

	Game Result for Lewis (“Team of interest”)	Game Result for Lime Stone (“Opposing team”)	Points Difference	Result
<b>Points</b>	58	61	58-61= -3	LOSS

Using the logistic regression model, Lewis had a projected probability of victory of:

$$\begin{aligned} \pi(x_i) &= \frac{e^{0.4987 \text{ diff}_{FG\%} + 0.0798 \text{ diff}_{3PT\%} + 0.1082 \text{ diff}_{FT\%} + 0.4360 \text{ diff}_{OF} - 0.2538 \text{ diff}_{PF} - 0.3704 \text{ diff}_{TO}}}{1 + e^{0.4987 \text{ diff}_{FG\%} + 0.0798 \text{ diff}_{3PT\%} + 0.1082 \text{ diff}_{FT\%} + 0.4360 \text{ diff}_{OF} - 0.2538 \text{ diff}_{PF} - 0.3704 \text{ diff}_{TO}}} \\ &= \frac{e^{0.4987*(3.7) + 0.0798*(2.2) + 0.1082*(7.5) + 0.4360*(-2) - 0.2538*(-1.1) - 0.3704*(-0.3)}}{1 + e^{0.4987*(3.7) + 0.0798*(2.2) + 0.1082*(7.5) + 0.4360*(-2) - 0.2538*(-1.1) - 0.3704*(-0.3)}} = 0.913 \end{aligned}$$

Since this projected probability of victory is greater than 0.50, this game is coded as a not correctly predicted win for Lewis, just as it was by the point spread model. Unfortunately, seasonal averages cannot always estimate how a team will play in a given game, and here, we are using seasonal averages instead of in-game statistics to make a prediction ahead of time.

Another two team Union (TN.) and West Florida (FL.) will be considered as an example as well. These two teams’ seasonal averages are listed in Table 4.25.

Table 4.25. Example 2 for Independent Variable Values in Model prediction (Union (TN.) vs. West Florida (FL.))

<b>Significant Statistical Measures</b>	<b>Seasonal Averages for Union (“Team of interest”)</b>	<b>Seasonal Averages for West Florida (“Opposing team”)</b>	<b>Differences in Seasonal Averages</b>	<b>Significant Independent Variable Names</b>
<b>FG%</b>	44.9	38.1	44.9-38.1=6.8	diff_FG%
<b>3PT%</b>	38	29.6	38-29.6=8.4	diff_3PT%
<b>FT%</b>	79.3	68.8	79.3-68.8=10.5	diff_FT%
<b>OF</b>	9	17	9-17=-8	diff_OF
<b>PF</b>	15.6	18.7	15.6-18.7=-3.1	diff_PF
<b>A</b>	14.7	10.9	14.7-10.9=3.8	diff_A
<b>TO</b>	11.7	17.8	11.7-17.8=-6.1	diff_TO

Table 4.26. Example 2 for Dependent Variable Values in Model prediction (Union (TN.) vs. West Florida (FL.))

	<b>Game Result for Union (“Team of interest”)</b>	<b>Game Result for West Florida (“Opposing team”)</b>	<b>Points Difference</b>	<b>Result</b>
<b>Points</b>	75	66	75-66=9	WIN

Using the least squares regression model already developed, Union had a predicted point spread of:

$$\begin{aligned}
 \widehat{diff\_PT} &= 0.9949 \text{ diff\_FG\%} + 0.1498 \text{ diff\_3PT\%} + 0.2082 \text{ diff\_FT} \\
 &\quad + 0.8387 \text{ diff\_OF} - 0.4525 \text{ diff\_PF} + 0.1775 \text{ diff\_A} - 0.7881 \text{ diff\_TO} \\
 &= 0.9949 * (6.8) + 0.1498 * (8.4) + 0.2082 * (10.5) + 0.8387 * (-8) - \\
 &\quad 0.4525 * (3.1) + 0.1775 * (3.8) - 0.7881 * (-6.1) \\
 &= 10.3848
 \end{aligned}$$

Since the predicted point spread is greater than zero, this game was coded as a predicted win with a predicted point spread of 10.4 for Union, who actually won the game by a point spread of 9 versus West Florida.

Using the logistic regression model, Lewis had a projected probability of victory of:

$$\begin{aligned}
 \pi(x_i) &= \frac{e^{0.4987 \text{ diff\_FG\%} + 0.0798 \text{ diff\_3PT\%} + 0.1082 \text{ diff\_FT\%} + 0.4360 \text{ diff\_OF} - 0.2538 \text{ diff\_PF} - 0.3704 \text{ diff\_TO}}}{1 + e^{0.4987 \text{ diff\_FG\%} + 0.0798 \text{ diff\_3PT\%} + 0.1082 \text{ diff\_FT\%} + 0.4360 \text{ diff\_OF} - 0.2538 \text{ diff\_PF} - 0.3704 \text{ diff\_TO}}} \\
 &= \frac{e^{0.4987*(6.8) + 0.0798 * (8.4) + 0.1082*(10.5) + 0.4360 * (-8) - 0.2538 * (-3.1) - 0.3704*(-6.1)}}{1 + e^{0.4987*(6.8) + 0.0798 * (8.4) + 0.1082*(10.5) + 0.4360 * (-8) - 0.2538 * (-3.1) - 0.3704*(-6.1)}} \\
 &= 0.9915
 \end{aligned}$$

The projected probability of victory is 0.9915, which is greater than 0.50, so that the game is a correctly predicted win for Union, as the point spread model also indicated.

This process was then repeated for a sample of 63 games, with the number of predicted victories and defeats from both models separately being compared to the actual number of victories and defeats of the 63 tournament games in 2015. The accuracy of each model is calculated in Table 4.27 and Table 4.28.

Table 4.27 displays that when using seasonal averages to predict the tournament game results, 10 of the 24 actual wins were correctly predicted by the point spread model. 29 of the 39 actual losses games were successfully predicted. The overall prediction accuracy for the point spread model is 61.90% using seasonal averages.

Table 4.27. Prediction Accuracy of Point Spread Model

<b>Point spread</b>		<b>Predicted</b>		
<b>Actual</b>		Win	Loss	Total
	Win	10	14	24
	Loss	10	29	39
	Total	20	43	63
	Overall Accuracy			61.90%

Table 4.28. Prediction Accuracy of Logistic Regression Model

<b>Point spread</b>		<b>Predicted</b>		
<b>Actual</b>		Win	Loss	Total
	Win	11	13	24
	Loss	9	30	39
	Total	20	43	63
	Overall Accuracy			65.08%

From Table 4.28, the logistic regression model successfully predicted 10 of the 24 actual wins and 30 of the 39 actual losses. The overall prediction accuracy using seasonal averages is 65.08% for the logistic regression model.



## CHAPTER 5. CONCLUSIONS

This thesis developed two models to predict tournament game results for NCAA Division II Women's Basketball. One is a least squares regression model with point spread as the dependent variable to explain the point spread between the "team of interest" and "opposing team". The other one is a logistic regression model with one denoting a win and zero denoting a loss as the dependent variable to estimate the winning probability of the "team of interest". The stepwise method was used in both models and the same ten independent variables were under consideration to be entered into the models. Seven independent variables were found to be significant in the point spread model. They are difference in field goal percentage (diff\_FG%), difference in 3-point field goal percentage (diff\_3PT%), difference in free throw percentage (diff\_FT%), difference in offensive rebounds (diff\_OF), difference in number of personal fouls (diff\_PF), difference in number of assists (diff\_A), and difference in number of turnovers (diff\_TO). The logistic regression model has the same significant independent variables as the point spread model except the difference in number of assists (diff\_A).

Both the point spread model and the logistic regression model were validated by using in-game statistics to determine the expected results and comparing these to the actual results. Each model was found to have a 95.24% prediction accuracy. This demonstrated that they are good models if the in-game statistics are known.

This thesis also used the two developed models to predict the future tournament game outcomes without knowing the in-game statistics ahead of time. 2014 – 15 seasonal averages were placed into the models in place of each of the in-game significant independent variables. The prediction accuracy is 61.90% for the point spread model and 65.08% for the logistic regression model. This prediction accuracy is not great but acceptable.

There is room to improve the prediction accuracy for future researches when the in-game statistics are unknown ahead of time. One possible way is by using the averages of these significant variables over the second half of the season instead of over the whole season. Another possible way is to consider some additional independent variables to be entered into the models. Some candidate statistics include steals, offensive rating (points scored per 100 possessions), defensive rating (points allowed per 100 possessions), net rating (difference between offensive rating and defensive rating), effective field goal percentage (field goal percentage adjusted for a 3-point field goal being 1.5 times as valuable as a 2-point field goal), pace (number of possessions per 48 minutes). Trying a nonlinear regression method such as using the squares of some variables is another possibility.

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## APPENDIX A. SAS SCRIPTS

```
options ls=120 ps=75 formchar = "|---|+|---+=|-\<>*";
dm "log;clear;output;clear;"; *** Clear old log and output. ***;
ods html close;          *** Clear old results. ***;
ods html;                *** Restart Results Viewer. ***;

title1 'Basketball Data --- Feifei Huang';

data baseline;
informat DateStr $12. Loc $20. Teams $40.;
infile 'C:\Users\id19404\Desktop\Thesis Data.txt' dlm='09'x dsd missover firstobs=2;
input DateStr Loc Teams
      FG_pct ThreePt_pct FT_pct OF DE TOT PF A TO Blocks
      Opp_FG_pct Opp_ThreePt_pct FT_pct Opp_OF Opp_DE Opp_Tot
      Opp_PF Opp_A Opp_TO Opp_Blocks Point Opp_Points Win
      Diff_PTs Diff_FG Diff_3pt Diff_FT Diff_OF Diff_DE
      Diff_TOT Diff_PF Diff_A Diff_TO Diff_Blocks;
Ldt=length(compress(DateStr, ' '));
if Ldt=7 then DateStr=compress('0'||DateStr);
Date=input(compress(DateStr),mmdyy8.);

*** Multiply %s by 100 so Odds Ratios make sense. ***;
Diff_FG=Diff_FG*100;
Diff_3pt=Diff_3pt*100;
Diff_FT=Diff_FT*100;
;;;

ods rtf file='feifei.rtf';
value pcts low-0='Negative'
          0<-high='Positive';
value pfmt low- -20='min to -20i'
          -20<- -5 = '-20 to -5i'
          -5<-0 = '-5 to 5'
          0<5 = '-5 to 5'
          5<20 = '+5i to 20'
          20-high = '20i to max';
run;

ods graphics on;
proc reg;
model Diff_PTs = Diff_FG Diff_3pt Diff_FT Diff_OF Diff_PF Diff_A Diff_TO / VIF
Influence;
run;
```

```
proc logistic ;  
  model Win (Event='1') = Diff_FG Diff_3pt Diff_FT Diff_OF Diff_PF Diff_TO  
    / lackfit noint rsquare;  
  title2 'Logistic Regression Using Difference Variables as IVs';  
  title3 'Final Model from Stepwise';  
run;
```

```
ods rft close;
```

```
proc freq;  
  tables (Diff_FG Diff_3pt Diff_FT)*Win / nopct nocol;  
  format Diff_: pcts.;  
  title2 'Check Actual Logit Source Data';  
run;
```

```
proc freq;  
  tables (Diff_FG Diff_3pt Diff_FT)*Win / nopct nocol;  
  format Diff_: pfmt.;  
  title2 'Check Actual Logit Source Data - More categories';  
run;
```

## APPENDIX B. DATA

Table B1. 2014, 2013, 2012 Tournament in-game Statistics

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
40.4	29.4	91.7	12	21	33	19	18	12	3	47.9	47.9	70	8	22	30	21	9	15	7	73	65
44.6	32.1	78.3	13	28	41	18	17	12	5	34.9	34.9	38.8	16	20	36	22	15	12	2	77	62
39.1	38.5	60	13	22	35	19	17	16	1	44.3	44.3	73.1	18	28	46	11	19	15	2	66	80
39	26.3	78.9	11	29	40	25	11	16	5	39.7	39.7	74.1	8	27	35	19	11	10	2	66	74
53.8	50	80	9	28	37	14	20	12	2	36.4	36.4	60	18	19	37	18	10	12	2	81	61
26.5	19.2	75.6	22	38	60	18	7	18	3	32.9	32.9	57.9	11	31	42	27	15	13	14	72	64
49.2	35	73.7	15	40	55	18	20	17	1	21	21	100	9	18	27	20	5	14	2	81	44
43.8	26.7	64.3	13	27	40	25	12	12	1	46.5	46.5	80.6	13	35	48	19	20	16	1	86	92
52.8	42.9	73.7	3	24	27	25	18	14	1	41.8	41.8	91.2	11	25	36	19	8	11	0	76	82
35.8	40	53.8	10	28	38	23	11	17	4	39.2	39.2	61.9	7	29	36	15	12	12	2	53	56
41.5	27.8	77.8	11	21	32	22	20	20	3	36.9	36.9	68.2	16	22	38	15	12	19	1	56	59
39.7	36.7	78.6	9	21	30	19	11	7	3	46.2	46.2	81.5	8	28	36	17	13	6	3	68	75
39.3	40	70	16	19	35	23	10	14	1	50.8	50.8	73.9	15	26	41	18	15	13	2	62	83
30.3	30.8	65.5	12	22	34	23	6	8	2	60	60	56.3	10	39	49	21	20	11	3	63	99
50	44	69.6	3	31	34	17	12	14	4	40	40	76.5	9	26	35	19	10	7	3	70	67
36.7	26.8	60	12	23	35	11	14	15	3	50.8	50.8	75	10	29	39	13	17	12	2	55	74
46.4	66.7	75.8	12	29	41	18	16	18	2	44.3	44.3	82.4	12	22	34	22	16	14	4	87	80
32.3	30.4	64.7	13	16	29	17	10	11	0	53.3	53.3	62.5	16	33	49	13	15	14	2	58	78
55.6	57.9	83.3	14	30	44	24	21	18	1	35.4	35.4	65.5	17	14	31	23	15	8	2	91	78
49.2	25	90	11	25	36	17	10	16	5	50.9	50.9	56.5	9	19	28	13	9	9	0	69	77
35.4	25	76.2	10	23	33	19	14	14	2	49.3	49.3	73.9	14	35	49	17	27	14	2	69	96



Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
36.1	20	56.3	12	26	38	18	6	14	1	48.1	48.1	78.6	3	33	36	15	17	13	0	57	75
45.2	37.5	40	19	16	35	30	18	23	1	46.7	46.7	90.3	11	18	29	18	17	21	3	66	79
35.9	18.2	70	2	20	22	17	8	20	3	45.1	45.1	77.3	11	24	35	17	14	16	0	44	66
40.6	33.3	65.6	22	18	40	24	12	17	1	55.8	55.8	79.3	8	23	31	22	19	19	4	80	89
35.5	41.2	62.5	13	20	33	17	12	14	2	49.1	49.1	69.6	12	32	44	14	14	15	1	68	76
54	31.6	42.9	10	22	32	19	14	17	3	47.4	47.4	83.3	10	27	37	16	14	15	3	63	79
42.9	42.9	62.9	16	24	40	18	17	16	6	43.5	43.5	92.3	13	30	43	26	16	18	0	85	83
48.3	53.8	83.3	10	32	42	14	19	7	3	31	31	68.8	19	23	42	20	10	10	3	85	60
36.2	22.7	84.6	9	22	31	26	13	13	2	44.2	44.2	65.8	14	29	43	20	13	15	3	69	76
48.3	22.2	80	8	30	38	16	13	11	2	44.6	44.6	71.4	6	25	31	13	12	12	2	72	70
51.9	36.4	66.7	10	31	41	21	23	19	3	29.8	29.8	76.9	11	20	31	19	11	13	1	78	62
33.8	16.7	55.6	18	24	42	17	9	11	1	44.8	44.8	86.7	10	29	39	17	19	15	4	57	75
34.2	19.4	62.5	22	33	55	24	12	16	6	34.2	34.2	87.9	18	34	52	19	12	10	7	70	82
41.4	35.7	64.3	19	18	37	14	10	14	1	46.3	46.3	47.4	17	18	35	19	8	9	1	62	64
40	36.4	60.9	13	25	38	14	16	14	3	44.8	44.8	88.9	12	30	42	19	22	19	4	70	76
40	18.2	69.2	17	23	40	22	13	17	7	45.3	45.3	69	12	21	33	16	19	14	1	61	75
31.3	41.7	78.9	16	13	29	23	11	13	2	53.5	53.5	88.9	9	31	40	17	11	28	5	62	77
27	22.2	71.4	9	37	46	21	12	14	2	30.6	30.6	47.6	20	39	59	12	11	10	5	48	56
31.6	36.4	76	15	29	44	21	13	16	0	33.3	33.3	78.3	9	27	36	21	12	16	2	63	57
43.8	35.3	66.7	10	19	29	21	12	13	4	57.1	57.1	80	9	29	38	14	19	15	2	72	90
29.4	22.2	68	13	18	31	22	5	22	1	52.4	52.4	72.2	6	28	34	26	16	27	4	49	60

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
30.6	30.8	61.9	14	27	41	18	10	17	1	44.6	44.6	87.5	6	33	39	18	16	16	7	55	70
30.4	19.2	73.9	16	21	37	24	12	12	2	35.8	35.8	67.9	17	27	44	19	15	14	2	56	60
57.4	44.4	84.2	8	30	38	21	10	9	1	37.3	37.3	60	19	16	35	26	9	7	0	90	70
32.9	26.3	66.7	20	30	50	15	11	15	6	33.8	33.8	66.7	15	31	46	13	11	13	0	59	60
39.1	20	82.6	14	27	41	29	10	17	3	45.8	45.8	52.8	14	27	41	23	12	14	5	70	77
31.8	31.8	80	15	22	37	17	9	9	1	42.6	42.6	77.3	15	31	46	11	18	10	4	61	79
44.1	41.7	66.7	7	19	26	26	11	14	2	43.1	43.1	88.2	12	26	38	16	16	15	5	65	80
46.2	37.5	71.4	12	20	32	16	16	22	2	39.3	39.3	69.2	19	17	36	15	10	19	6	59	60
43.5	22.7	71.4	17	23	40	16	14	17	2	43.6	43.6	85.7	10	19	29	10	12	10	3	64	69
36.2	35.7	72.7	13	28	41	15	13	14	2	35.7	35.7	91.7	7	28	35	16	16	15	4	63	58
37.7	35.7	79.2	7	40	47	20	13	17	3	26.4	26.4	45.8	20	29	49	19	11	10	3	64	56
37.1	25	66.7	11	16	27	21	10	11	0	52.2	52.2	80.6	11	32	43	21	11	22	1	68	74
40.6	23.1	70	12	27	39	23	16	9	2	43.6	43.6	71.4	10	26	36	20	12	5	4	69	82
32.8	38.9	74.2	12	36	48	18	12	14	10	28.1	28.1	77.3	12	31	43	19	11	11	4	68	57
46.9	29.4	60	19	22	41	22	16	18	3	55.1	55.1	77.8	5	19	24	17	16	13	7	77	83
36.8	35	80	9	22	31	18	11	22	3	47.9	47.9	95.5	13	29	42	17	18	13	8	65	97
36.3	33.3	69	21	32	53	23	12	13	2	41.5	41.5	79.3	12	36	48	23	14	21	0	83	85
42.2	33.3	73.7	15	32	47	14	15	18	3	31.8	31.8	88.9	15	25	40	16	14	17	3	75	65
31.8	18.8	60	7	27	34	14	6	12	2	32.1	32.1	83.3	11	29	40	22	10	18	2	49	45
38.3	30	72.2	10	35	45	11	16	13	1	33.9	33.9	77.8	7	31	38	16	11	13	3	65	58
52.7	63.6	87.5	8	30	38	18	22	26	6	45.2	45.2	60	14	17	31	22	19	18	2	93	86

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
47.2	44.4	92.9	6	28	34	13	12	14	3	38.5	38.5	80	4	19	23	14	5	13	6	71	56
44.4	18.2	69.6	8	35	43	14	14	14	6	29.5	29.5	81.3	11	24	35	23	9	16	6	66	54
57.1	65.1	48	12	35	47	13	17	21	9	26.9	26.9	81.8	14	15	29	18	11	12	6	76	54
43.3	35.7	81	17	25	42	12	18	15	1	42.9	42.9	85.7	7	19	26	16	15	17	0	74	63
52.2	35.7	78.6	8	33	41	19	18	27	6	40.3	40.3	58.8	11	20	31	17	14	15	2	80	76
32.5	27.3	48	16	21	37	16	12	16	4	52.8	52.8	78.9	6	39	45	19	21	32	8	68	81
29.3	15	87.5	15	20	35	17	10	17	1	43.5	43.5	77.3	9	25	34	13	13	16	9	44	60
36.7	20	88.9	5	26	31	21	10	18	4	46.2	46.2	75	14	33	47	14	13	17	6	65	87
37	26.3	63.6	8	36	44	12	7	20	1	35.3	35.3	64.3	10	28	38	13	17	7	6	52	67
35.2	23.1	86.2	10	22	32	17	10	18	2	52.6	52.6	89.5	7	24	31	19	24	14	2	66	83
60	50	88.2	7	28	35	18	25	13	1	40.6	40.6	47.4	14	19	33	15	15	15	0	94	71
41.7	30	35.7	16	27	43	17	11	31	5	48.7	48.7	62.5	16	24	40	18	17	15	10	58	91
32.4	22.2	76.5	18	30	48	20	12	14	2	36.8	36.8	72	10	30	40	16	6	13	8	59	64
52	50	84.6	4	31	35	15	13	11	0	37.8	37.8	73.7	18	21	39	19	17	5	1	84	78
40.4	23.5	66.7	9	17	26	15	11	9	0	54.2	54.2	88.2	5	24	29	13	19	11	1	58	75
36.4	25	72.7	19	16	35	15	7	18	2	57.1	57.1	80	5	20	25	18	16	16	0	59	76
35.5	25	68.2	15	17	32	21	11	19	0	49	49	76.9	12	25	37	21	17	23	8	63	71
42.6	29.4	50	12	31	43	19	16	19	4	32.2	32.2	88.5	8	27	35	19	10	13	3	66	64
34.9	35.7	88.9	16	19	35	15	9	16	2	43.4	43.4	76.5	10	24	34	10	14	18	3	57	68
41.5	28.6	60.6	18	23	41	10	7	14	3	37.5	37.5	87.5	10	20	30	25	13	15	2	68	57
29	42.9	47.1	11	23	34	18	7	15	2	46.6	46.6	47.1	12	36	48	16	21	20	5	50	70

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
36.4	30	68.8	14	28	42	17	9	25	2	44.1	44.1	70.6	8	24	32	15	15	13	0	57	73
35.1	33.3	73.7	16	22	38	25	7	23	6	45.5	45.5	73.7	12	24	36	17	10	13	4	58	81
30.4	47.4	70	10	30	40	13	9	22	3	32.1	32.1	45.5	12	25	37	13	10	12	5	44	45
35.3	77	73.3	15	23	38	21	11	18	4	45.8	45.8	66.7	19	33	52	12	19	17	2	60	87
35.4	24.1	80.6	20	29	49	19	10	17	3	38.3	38.3	67.9	15	24	39	23	12	16	6	78	69
45	0	83.3	4	33	37	18	14	25	0	27.6	27.6	76	13	18	31	10	7	5	3	41	51
31.7	30.8	69.6	9	17	26	17	8	26	2	46.2	46.2	71.4	11	24	35	19	15	23	4	46	64
46.8	37.5	70.8	10	23	33	20	18	17	4	45.3	45.3	65.4	17	26	43	21	13	25	3	81	79
32.8	23.5	100	9	16	25	22	11	15	1	45.5	45.5	60.9	19	30	49	17	18	23	1	59	72
28.3	28.6	100	14	15	29	19	9	25	4	52.1	52.1	68.8	10	19	29	13	17	17	2	40	66
47.5	47.4	65	15	22	37	13	11	12	2	45.5	45.5	82.6	12	19	31	16	18	11	1	80	72
43.9	41.2	100	20	21	41	23	25	20	2	48.5	48.5	67.7	21	26	47	18	22	30	1	111	86
32.4	15.8	75	12	21	33	14	15	9	4	53	53	71.4	12	36	48	13	29	14	4	56	85
39.6	28.6	55	11	37	48	9	9	18	3	29.5	29.5	50	8	27	35	15	13	12	3	57	45
36.4	40	61.5	17	19	36	17	11	15	1	48	48	94.1	8	27	35	15	13	22	7	62	68
42.9	46.2	50	13	20	33	16	14	22	4	52.8	52.8	40	8	21	29	10	15	20	3	57	68
32.3	26.3	82.6	13	21	34	20	11	10	2	47.2	47.2	95.5	8	32	40	17	16	16	4	66	78
31.7	0	64.7	11	21	32	20	10	8	2	40.7	40.7	65.2	14	37	51	17	14	20	4	51	62
40.7	42.9	75	8	34	42	22	10	21	4	38.7	38.7	62.5	10	26	36	19	11	15	0	69	67
35.7	25	70.4	12	33	45	19	8	22	0	34.4	34.4	75	12	27	39	28	13	14	7	64	68
40.7	0	87.5	4	27	31	26	10	28	8	32.8	32.8	72.7	21	28	49	17	11	23	2	58	72

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
47.8	25	68	9	20	29	18	5	13	1	41.4	41.4	50	16	21	37	21	11	13	2	65	58
40.9	39.1	76.9	8	32	40	16	15	12	8	38.2	38.2	53.8	16	30	46	17	11	12	5	73	71
48.3	33.3	72.2	18	22	40	17	16	19	2	45.3	45.3	68.4	9	16	25	16	11	18	4	78	66
44.6	20	66.7	18	18	36	28	6	14	0	47.1	47.1	69.4	13	19	32	19	14	10	2	68	78
30.9	14.3	53.8	20	24	44	20	8	9	3	42	42	66.7	10	32	42	14	12	10	6	52	66
29.6	17.4	63.2	18	17	35	25	8	17	0	51.2	51.2	80	7	24	31	20	16	14	1	48	74
40.6	42.9	63.6	10	29	39	14	12	15	2	39.4	39.4	58.8	18	32	50	18	15	9	4	68	70
36.9	43.8	79.3	16	22	38	24	10	7	2	53.6	53.6	81.3	8	28	36	24	9	8	4	78	91
40.4	28.6	80	7	29	36	12	16	13	4	35.6	35.6	69.2	11	26	37	19	10	10	2	58	55
43.4	30	100	12	21	33	17	13	18	3	41.3	41.3	68	21	18	39	10	10	9	4	60	70
38.2	47.4	60	5	23	28	15	12	11	2	48	48	80	5	30	35	11	11	8	1	54	67
42.3	33.3	68.4	11	26	37	16	13	20	9	35.1	35.1	68.4	15	22	37	17	13	20	3	63	58
50	35.3	60	1	24	25	18	10	14	2	50	50	66.7	6	28	34	13	18	15	2	67	79
42.3	44.4	61.1	9	30	39	17	11	13	3	27	27	61.5	21	23	44	21	9	16	6	59	49
33.3	25.8	66.7	10	24	34	17	14	9	4	41	41	78.9	14	34	48	11	15	9	5	56	70
41.4	33.3	73.3	15	26	41	21	18	8	4	39.7	39.7	92.3	13	33	46	16	11	21	2	88	82
40.3	44.4	71.4	28	33	61	18	13	17	6	36.5	36.5	60	17	21	38	23	11	13	2	87	71
50	33.3	87.5	6	38	44	13	14	15	3	31.4	31.4	63.2	11	22	33	17	11	6	0	77	62
38.6	33.3	73.3	10	23	33	14	12	18	2	40.6	40.6	75	16	26	42	17	16	17	2	62	66
35.1	37.5	75	11	30	41	21	10	20	4	29	29	75	20	26	46	12	15	12	4	58	61
48	56.3	82.4	5	27	32	14	13	12	5	31.7	31.7	61.5	17	22	39	16	7	15	3	71	51

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
36.8	36.4	63.6	15	23	38	16	14	11	7	48.2	48.2	70	8	30	38	17	14	22	9	72	67
46.2	46.7	76.5	12	27	39	13	15	12	2	42.1	42.1	66.7	9	17	26	16	16	4	2	68	63
39.2	35	77.8	11	22	33	16	11	17	1	37.3	37.3	68.2	15	22	37	13	9	13	1	54	56
25.5	18.8	62.5	11	30	41	13	9	13	7	35.1	35.1	50	7	31	38	11	10	9	5	36	50
40.7	39.1	77.8	5	19	24	22	10	8	4	51	51	76.5	11	29	40	16	7	10	3	67	79
38	25.9	78.6	15	38	53	19	14	23	5	33.1	33.1	66.7	21	31	52	14	12	18	4	72	67
37.5	40.9	84.2	14	25	39	17	16	16	2	48.5	48.5	64.7	12	29	41	15	19	14	2	73	84
49.1	16.7	63	12	29	41	16	15	17	3	30.4	30.4	55.6	22	19	41	22	9	20	1	70	53
47.5	18.8	75	4	18	22	19	10	10	0	47.2	47.2	90.9	11	27	38	12	11	15	1	65	78
42.6	27.6	42.9	15	24	39	21	22	21	2	40	40	84.4	17	25	42	17	13	17	0	66	81
32.7	50	65.6	14	33	47	24	10	16	8	31.7	31.7	80	12	28	40	22	9	7	5	59	69
20.7	15.8	76.5	11	26	37	17	8	17	2	36.7	36.7	90.9	6	38	44	14	10	20	5	40	63
58.1	42.1	76.5	2	33	35	21	10	15	4	35.5	35.5	64	15	18	33	17	9	7	0	71	65
44.2	43.5	83.3	12	20	32	13	11	16	1	39.2	39.2	91.7	11	18	29	8	18	11	2	61	55
37.3	43.8	81.3	10	15	25	23	10	16	0	55.1	55.1	71.4	12	22	34	16	14	14	3	58	77
37	37.5	83.3	9	32	41	16	12	19	2	29	29	71.4	16	20	36	19	12	10	4	52	54
40	18.2	73.7	12	19	31	16	44	24	3	41.3	41.3	88.2	19	20	39	17	15	17	9	56	70
35.3	37.9	76.9	13	28	41	16	11	10	1	45.2	45.2	85.7	7	33	40	10	12	9	1	69	71
30.4	21.1	66.7	17	18	35	17	4	15	1	44.9	44.9	77.8	12	22	34	9	12	12	6	42	60
47.2	41.2	55.6	7	28	35	20	16	18	1	42.9	42.9	61.1	7	26	33	13	11	17	2	67	63

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
47.7	35.3	76.9	9	30	39	15	9	15	2	32.1	32.1	71.4	9	20	29	19	10	9	2	<b>68</b>	<b>54</b>
39.7	44.4	93.3	14	33	47	10	17	23	1	35.7	35.7	57.1	14	22	36	15	15	15	8	<b>64</b>	<b>63</b>
41.5	27.3	64.3	11	23	34	16	12	20	1	45	45	52.9	15	24	39	18	12	19	4	<b>59</b>	<b>64</b>
42	28.6	96.2	13	26	39	13	13	18	6	32.8	32.8	50	21	16	37	22	13	16	4	<b>71</b>	<b>61</b>
43.3	46.7	75	9	16	25	16	12	3	1	51.3	51.3	66.7	5	27	32	17	14	24	4	<b>71</b>	<b>57</b>
42.4	41.2	37.5	11	28	39	20	14	19	0	48.4	48.4	60	11	30	41	17	17	17	0	<b>66</b>	<b>84</b>
49.2	37.5	72.7	15	26	41	17	11	15	3	43.1	43.1	94.7	11	19	30	14	19	6	5	<b>76</b>	<b>82</b>
34.9	33.3	87.9	13	31	44	20	7	24	5	32.7	32.7	83.3	6	17	23	23	7	10	1	<b>64</b>	<b>56</b>
55.9	66.7	72.7	10	28	38	20	15	14	5	28	28	72.7	11	20	31	17	1	23	5	<b>86</b>	<b>47</b>
47.5	29.4	50	8	31	39	14	13	16	6	44.3	44.3	46.2	13	26	39	16	18	12	2	<b>68</b>	<b>77</b>
43.6	44.4	75.8	14	26	40	18	10	19	0	43.1	43.1	85	10	22	32	26	19	19	4	<b>77</b>	<b>76</b>
50	38.5	90.5	6	27	33	17	17	16	3	36.7	36.7	90.5	11	22	33	21	13	16	2	<b>78</b>	<b>68</b>
47.5	41.7	85.7	11	27	38	12	9	11	1	44.8	44.8	77.8	7	23	30	11	10	9	1	<b>75</b>	<b>65</b>
35.5	28.6	66.7	14	16	30	19	10	11	0	41.2	41.2	76.9	18	28	46	15	13	17	4	<b>58</b>	<b>65</b>
45.9	52.4	58.3	10	22	32	17	21	16	2	43.4	43.4	88.5	9	27	36	8	14	17	8	<b>74</b>	<b>78</b>
19.7	23.1	60	17	20	37	16	9	14	3	45	45	50	15	36	51	13	18	14	7	<b>36</b>	<b>68</b>
29.4	18.2	63.2	11	18	29	11	7	13	3	52.7	52.7	75	10	28	38	16	12	11	4	<b>44</b>	<b>71</b>
50	43.8	61.5	12	26	38	18	12	15	0	45.5	45.5	78.3	8	19	27	16	13	6	1	<b>69</b>	<b>71</b>
30.9	23.8	90.5	8	23	31	23	6	16	6	35.6	35.6	84.8	18	29	47	18	17	15	3	<b>58</b>	<b>77</b>
33.3	42.9	79.2	13	27	40	20	13	19	7	36.2	36.2	68	20	30	50	18	18	15	4	<b>65</b>	<b>69</b>
36.5	21.1	63.2	11	20	31	17	6	10	1	52.3	52.3	75	11	31	42	15	13	11	5	<b>62</b>	<b>87</b>

Table B1. 2014, 2013, 2012 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG % O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
26.8	15	82.1	11	20	31	29	5	18	0	36.4	36.4	64.3	16	33	49	24	11	24	1	56	65
25.7	16.7	50	25	23	48	21	8	17	5	37.7	37.7	62.5	14	31	45	15	14	20	12	47	58
26.7	12.5	20	11	29	40	13	5	29	1	34.4	34.4	71.4	12	24	36	9	13	16	9	26	51
29.2	22.7	60	15	25	40	14	9	11	0	46.4	46.4	76.9	7	34	41	14	21	12	7	52	68
39.6	33.3	60	15	24	39	15	17	30	5	31.9	31.9	75	26	20	46	18	11	29	2	57	58
34.6	25	83.3	9	27	36	15	5	14	0	35.3	35.3	90	7	24	31	11	11	9	1	45	53
38.6	26.7	66.7	7	24	31	18	10	20	1	35.4	35.4	68.4	10	21	31	17	9	18	1	48	49
38.6	41.2	70	10	26	36	22	13	22	6	35.6	35.6	73.1	16	27	43	12	14	15	1	58	69
46	60	88.9	8	28	36	12	18	20	1	46.3	46.3	80	17	27	44	12	21	10	4	78	92
45.1	37.5	66.7	5	19	24	10	14	12	1	51.9	51.9	66.7	9	24	33	8	16	13	3	56	74
42.4	30	87.5	7	16	23	17	13	12	4	51.9	51.9	94.4	10	27	37	11	12	15	0	66	73
38.3	28.6	70.4	10	33	43	14	12	20	4	26.8	26.8	75	10	24	34	20	5	13	2	59	47
40.6	27.8	73.7	12	29	41	14	13	16	2	34.4	34.4	92.3	13	27	40	18	10	18	7	71	64
42.2	38.1	77.8	11	28	39	8	16	21	2	31.7	31.7	85.7	12	19	31	15	9	13	2	61	50
30.6	23.5	73.9	17	19	36	19	7	22	2	46.9	46.9	88.9	9	28	37	14	14	30	3	59	64
45.5	26.7	55.2	12	21	33	22	7	13	1	47.3	47.3	69	10	27	37	20	8	12	2	70	74



Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
1	8	-7.5	-9.1	21.7	4	-1	3	-2	9	-3	-4
1	15	9.7	-6.8	39.5	-3	8	5	-4	2	0	3
0	-14	-5.2	1.7	-13.1	-5	-6	-11	8	-2	1	-1
0	-8	-0.7	-5.7	4.8	3	2	5	6	0	6	3
1	20	17.4	27.8	20	-9	9	0	-4	10	0	0
1	8	-6.4	-10	17.7	11	7	18	-9	-8	5	-11
1	37	28.2	18.3	-26.3	6	22	28	-2	15	3	-1
0	-6	-2.7	1.7	-16.3	0	-8	-8	6	-8	-4	0
0	-6	11	-2.6	-17.5	-8	-1	-9	6	10	3	1
0	-3	-3.4	23.3	-8.1	3	-1	2	8	-1	5	2
0	-3	4.6	12.4	9.6	-5	-1	-6	7	8	1	2
0	-7	-6.5	-8.8	-2.9	1	-7	-6	2	-2	1	0
0	-21	-11.5	-2.9	-3.9	1	-7	-6	5	-5	1	-1
0	-36	-29.7	-29.2	9.2	2	-17	-15	2	-14	-3	-1
1	3	10	25.8	-6.9	-6	5	-1	-2	2	7	1
0	-19	-14.1	-18.7	-15	2	-6	-4	-2	-3	3	1
1	7	2.1	44.5	-6.6	0	7	7	-4	0	4	-2
0	-20	-21	-9.6	2.2	-3	-17	-20	4	-5	-3	-2
1	13	20.2	13.1	17.8	-3	16	13	1	6	10	-1
0	-8	-1.7	-41.7	33.5	2	6	8	4	1	7	5
0	-27	-13.9	-6.4	2.3	-4	-12	-16	2	-13	0	0
0	-18	-12	-36	-22.3	9	-7	2	3	-11	1	1

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”)  
(Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-13	-1.5	-5.4	-50.3	8	-2	6	12	1	2	-2
0	-22	-9.2	-6.8	-7.3	-9	-4	-13	0	-6	4	3
0	-9	-15.2	-20	-13.7	14	-5	9	2	-7	-2	-3
0	-8	-13.6	4.8	-7.1	1	-12	-11	3	-2	-1	1
0	-16	6.6	2.2	-40.4	0	-5	-5	3	0	2	0
1	2	-0.6	11.6	-29.4	3	-6	-3	-8	1	-2	6
1	25	17.3	31.1	14.5	-9	9	0	-6	9	-3	0
0	-7	-8	-19	18.8	-5	-7	-12	6	0	-2	-1
1	2	3.7	-4.1	8.6	2	5	7	3	1	-1	0
1	16	22.1	5.6	-10.2	-1	11	10	2	12	6	2
0	-18	-11	-26.8	-31.1	8	-5	3	0	-10	-4	-3
0	-12	0	5.8	-25.4	4	-1	3	5	0	6	-1
0	-2	-4.9	-19.9	16.9	2	0	2	-5	2	5	0
0	-6	-4.8	-1.7	-28	1	-5	-4	-5	-6	-5	-1
0	-14	-5.3	-15.1	0.2	5	2	7	6	-6	3	6
0	-15	-22.2	-12.1	-10	7	-18	-11	6	0	-15	-3
0	-8	-3.6	11.1	23.8	-11	-2	-13	9	1	4	-3
1	6	-1.7	17.9	-2.3	6	2	8	0	1	0	-2
0	-18	-13.3	-10.9	-13.3	1	-10	-9	7	-7	-2	2
0	-11	-23	-15.3	-4.2	7	-10	-3	-4	-11	-5	-3
0	-15	-14	-19.2	-25.6	8	-6	2	0	-6	1	-6

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
<b>0</b>	<b>-4</b>	-5.4	0.4	6	-1	-6	-7	5	-3	-2	0
<b>1</b>	<b>20</b>	20.1	24.4	24.2	-11	14	3	-5	1	2	1
<b>0</b>	<b>-1</b>	-0.9	4.9	0	5	-1	4	2	0	2	6
<b>0</b>	<b>-7</b>	-6.7	-16.4	29.8	0	0	0	6	-2	3	-2
<b>0</b>	<b>-18</b>	-10.8	-2.7	2.7	0	-9	-9	6	-9	-1	-3
<b>0</b>	<b>-15</b>	1	-4.5	-21.5	-5	-7	-12	10	-5	-1	-3
<b>0</b>	<b>-1</b>	6.9	14.4	2.2	-7	3	-4	1	6	3	-4
<b>0</b>	<b>-5</b>	-0.1	-20.2	-14.3	7	4	11	6	2	7	-1
<b>1</b>	<b>5</b>	0.5	10.7	-19	6	0	6	-1	-3	-1	-2
<b>1</b>	<b>8</b>	11.3	5.3	33.4	-13	11	-2	1	2	7	0
<b>0</b>	<b>-6</b>	-15.1	8.3	-13.9	0	-16	-16	0	-1	-11	-1
<b>0</b>	<b>-13</b>	-3	-24.3	-1.4	2	1	3	3	4	4	-2
<b>1</b>	<b>11</b>	4.7	5.6	-3.1	0	5	5	-1	1	3	6
<b>0</b>	<b>-6</b>	-8.2	-20.6	-17.8	14	3	17	5	0	5	-4
<b>0</b>	<b>-32</b>	-11.1	1.7	-15.5	-4	-7	-11	1	-7	9	-5
<b>0</b>	<b>-2</b>	-5.2	-6.7	-10.3	9	-4	5	0	-2	-8	2
<b>1</b>	<b>10</b>	10.4	7.4	-15.2	0	7	7	-2	1	1	0
<b>1</b>	<b>4</b>	-0.3	6.3	-23.3	-4	-2	-6	-8	-4	-6	0
<b>1</b>	<b>7</b>	4.4	2.7	-5.6	3	4	7	-5	5	0	-2
<b>1</b>	<b>7</b>	7.5	27.2	27.5	-6	13	7	-4	3	8	4
<b>1</b>	<b>15</b>	8.7	19.4	12.9	2	9	11	-1	7	1	-3

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
1	12	14.9	-11.2	-11.7	-3	11	8	-9	5	-2	0
1	22	30.2	35.1	-33.8	-2	20	18	-5	6	9	3
1	11	0.4	-5.2	-4.7	10	6	16	-4	3	-2	1
1	4	11.9	3.7	19.8	-3	13	10	2	4	12	4
0	-13	-20.3	-31.5	-30.9	10	-18	-8	-3	-9	-16	-4
0	-16	-14.2	-12.3	10.2	6	-5	1	4	-3	1	-8
0	-22	-9.5	-15.3	13.9	-9	-7	-16	7	-3	1	-2
0	-15	1.7	-5	-0.7	-2	8	6	-1	-10	13	-5
0	-17	-17.4	-12.2	-3.3	3	-2	1	-2	-14	4	0
1	23	19.4	2.4	40.8	-7	9	2	3	10	-2	1
0	-33	-7	-11.2	-26.8	0	3	3	-1	-6	16	-5
0	-5	-4.4	-8.6	4.5	8	0	8	4	6	1	-6
1	6	14.2	24.2	10.9	-14	10	-4	-4	-4	6	-1
0	-17	-13.8	-26.5	-21.5	4	-7	-3	2	-8	-2	-1
0	-17	-20.7	-28.3	-7.3	14	-4	10	-3	-9	2	2
0	-8	-13.5	-5	-8.7	3	-8	-5	0	-6	-4	-8
1	2	10.4	2.1	-38.5	4	4	8	0	6	6	1
0	-11	-8.5	-5.2	12.4	6	-5	1	5	-5	-2	-1
1	11	4	-6.2	-26.9	8	3	11	-15	-6	-1	1
0	-20	-17.6	0.8	0	-1	-13	-14	2	-14	-5	-3
0	-16	-7.7	-10.9	-1.8	6	4	10	2	-6	12	2

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-23	-10.4	-41.7	0	4	-2	2	8	-3	10	2
0	-1	-1.7	18.8	24.5	-2	5	3	0	-1	10	-2
0	-27	-10.5	53.7	6.6	-4	-10	-14	9	-8	1	2
1	9	-2.9	-2.6	12.7	5	5	10	-4	-2	1	-3
0	-10	17.4	0	7.3	-9	15	6	8	7	20	-3
0	-18	-14.5	-6.7	-1.8	-2	-7	-9	-2	-7	3	-2
1	2	1.5	-12.5	5.4	-7	-3	-10	-1	5	-8	1
0	-13	-12.7	-23.6	39.1	-10	-14	-24	5	-7	-8	0
0	-26	-23.8	-4.7	31.2	4	-4	0	6	-8	8	2
1	8	2	9.9	-17.6	3	3	6	-3	-7	1	1
1	25	-4.6	16.2	32.3	-1	-5	-6	5	3	-10	1
0	-29	-20.6	-24.2	3.6	0	-15	-15	1	-14	-5	0
1	12	10.1	8.6	5	3	10	13	-6	-4	6	0
0	-6	-11.6	6.7	-32.6	9	-8	1	2	-2	-7	-6
0	-11	-9.9	1.8	10	5	-1	4	6	-1	2	1
0	-12	-14.9	-8.7	-12.9	5	-11	-6	3	-5	-6	-2
0	-11	-9	-15.8	-0.5	-3	-16	-19	3	-4	-12	-2
1	2	2	19.4	12.5	-2	8	6	3	-1	6	4
0	-4	1.3	0	-4.6	0	6	6	-9	-5	8	-7
0	-14	7.9	-19	14.8	-17	-1	-18	9	-1	5	6
1	7	6.4	15.9	18	-7	-1	-8	-3	-6	0	-1

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
1	2	2.7	13	23.1	-8	2	-6	-1	4	0	3
1	12	3	-8.4	3.8	9	6	15	1	5	1	-2
0	-10	-2.5	-15.7	-2.7	5	-1	4	9	-8	4	-2
0	-14	-11.1	-40.2	-12.9	10	-8	2	6	-4	-1	-3
0	-26	-21.6	-17.9	-16.8	11	-7	4	5	-8	3	-1
0	-2	1.2	17.9	4.8	-8	-3	-11	-4	-3	6	-2
0	-13	-16.7	-11.8	-2	8	-6	2	0	1	-1	-2
1	3	4.8	-2.2	10.8	-4	3	-1	-7	6	3	2
0	-10	2.1	18.9	32	-9	3	-6	7	3	9	-1
0	-13	-9.8	14.1	-20	0	-7	-7	4	1	3	1
1	5	7.2	-8.4	0	-4	4	0	-1	0	0	6
0	-12	0	-18.3	-6.7	-5	-4	-9	5	-8	-1	0
1	10	15.3	18.5	-0.4	-12	7	-5	-4	2	-3	-3
0	-14	-7.7	-24.2	-12.2	-4	-10	-14	6	-1	0	-1
1	6	1.7	0	-19	2	-7	-5	5	7	-13	2
1	16	3.8	27.2	11.4	11	12	23	-5	2	4	4
1	15	18.6	1.7	24.3	-5	16	11	-4	3	9	3
0	-4	-2	12.5	-1.7	-6	-3	-9	-3	-4	1	0
0	-3	6.1	7.5	0	-9	4	-5	9	-5	8	0
1	20	16.3	37.5	20.9	-12	5	-7	-2	6	-3	2
1	5	-11.4	3.1	-6.4	7	-7	0	-1	0	-11	-2

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
1	5	4.1	9.9	9.8	3	10	13	-3	-1	8	0
0	-2	1.9	20	9.6	-4	0	-4	3	2	4	0
0	-14	-9.6	-23.3	12.5	4	-1	3	2	-1	4	2
0	-12	-10.3	14.1	1.3	-6	-10	-16	6	3	-2	1
1	5	4.9	-3.5	11.9	-6	7	1	5	2	5	1
0	-11	-11	4.9	19.5	2	-4	-2	2	-3	2	0
0	17	18.7	-9.4	7.4	-10	10	0	-6	6	-3	2
0	-13	0.3	-21.2	-15.9	-7	-9	-16	7	-1	-5	-1
0	-15	2.6	-7.7	-41.5	-2	-1	-3	4	9	4	2
0	-10	1	15	-14.4	2	5	7	2	1	9	3
0	-23	-16	-21	-14.4	5	-12	-7	3	-2	-3	-3
1	6	22.6	3.6	12.5	-13	15	2	4	1	8	4
1	6	5	3.5	-8.4	1	2	3	5	-7	5	-1
0	-19	-17.8	16.5	9.9	-2	-7	-9	7	-4	2	-3
0	-2	8	2.7	11.9	-7	12	5	-3	0	9	-2
0	-14	-1.3	-3.2	-14.5	-7	-1	-8	-1	29	7	-6
0	-2	-9.9	19.1	-8.8	6	-5	1	6	-1	1	0
0	-18	-14.5	1.1	-11.1	5	-4	1	8	-8	3	-5
1	4	4.3	14.5	-5.5	0	2	2	7	5	1	-1
1	14	15.6	9.5	5.5	0	10	10	-4	-1	6	0
1	1	4	11.1	36.2	0	11	11	-5	2	8	-7

Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-5	-3.5	10.6	11.4	-4	-1	-5	-2	0	1	-3
1	10	9.2	-4.7	46.2	-8	10	2	-9	0	2	2
1	14	-8	-9.6	8.3	4	-11	-7	-1	-2	-21	-3
0	-18	-6	-8.8	-22.5	0	-2	-2	3	-3	2	0
0	-6	6.1	4.2	-22	4	7	11	3	-8	9	-2
1	8	2.2	8.3	4.6	7	14	21	-3	0	14	4
1	39	27.9	53.1	0	-1	8	7	3	14	-9	0
0	-9	3.2	-5.2	3.8	-5	5	0	-2	-5	4	4
1	1	0.5	12.3	-9.2	4	4	8	-8	-9	0	-4
1	10	13.3	9.1	0	-5	5	0	-4	4	0	1
1	10	2.7	13.1	7.9	4	4	8	1	-1	2	0
0	-7	-5.7	8.6	-10.2	-4	-12	-16	4	-3	-6	-4
0	-4	2.5	7.4	-30.2	1	-5	-4	9	7	-1	-6
0	-32	-25.3	-23.6	10	2	-16	-14	3	-9	0	-4
0	-27	-23.3	-15.1	-11.8	1	-10	-9	-5	-5	2	-1
0	-2	4.5	16.5	-16.8	4	7	11	2	-1	9	-1
0	-19	-4.7	-6.6	5.7	-10	-6	-16	5	-11	1	3
0	-4	-2.9	29.6	11.2	-7	-3	-10	2	-5	4	3
0	-25	-15.8	-15.7	-11.8	0	-11	-11	2	-7	-1	-4
0	-9	-9.6	-31.2	17.8	-5	-13	-18	5	-6	-6	-1
0	-11	-12	-16.6	-12.5	11	-8	3	6	-6	-3	-7



Table B2. 2014, 2013, 2012 Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”)  
(Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-25	-7.7	-5.7	-51.4	-1	5	4	4	-8	13	-8
0	-16	-17.2	-7.3	-16.9	8	-9	-1	0	-12	-1	-7
0	-1	7.7	18.3	-15	-11	4	-7	-3	6	1	3
0	-8	-0.7	-15	-6.7	2	3	5	4	-6	5	-1
0	-1	3.2	4.5	-1.7	-3	3	0	1	1	2	0
0	-11	3	1.2	-3.1	-6	-1	-7	10	-1	7	5
0	-14	-0.3	12.9	8.9	-9	1	-8	0	-3	10	-3
0	-18	-6.8	-17	0	-4	-5	-9	2	-2	-1	-2
0	-7	-9.5	1.4	-6.9	-3	-11	-14	6	1	-3	4
1	12	11.5	17.5	-4.6	0	9	9	-6	7	7	2
1	7	6.2	-1.8	-18.6	-1	2	1	-4	3	-2	-5
1	11	10.5	9.5	-7.9	-1	9	8	-7	7	8	0
0	-5	-16.3	-1.5	-15	8	-9	-1	5	-7	-8	-1
0	-4	-1.8	8.5	-13.8	2	-6	-4	2	-1	1	-1

Table B3. 2015 Tournament in-game Statistics

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG% O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
<b>43.1</b>	25	76.9	13	23	36	17	11	18	6	50	30.8	77.8	11	24	35	12	12	10	0	69	86
<b>34.7</b>	24	81.8	11	30	41	20	10	12	3	46.6	32.1	69.2	8	40	48	14	19	13	6	67	85
<b>34.5</b>	20	50	13	34	47	16	9	19	8	29.3	30	82.4	8	26	34	13	4	10	3	46	51
<b>34.4</b>	30	83.3	16	27	43	14	14	20	8	36.5	41.7	83.3	13	27	40	10	6	15	1	58	61
<b>35</b>	21.4	72	13	28	41	19	8	8	1	45.3	40	75.9	10	43	53	19	15	21	5	77	86
<b>30.6</b>	21.4	64.3	15	13	28	22	11	13	4	44.2	18.2	75.9	14	32	46	17	6	25	3	50	62
<b>41.7</b>	43.8	54.8	16	26	42	17	8	14	5	43.1	50	66.7	17	35	52	24	16	21	2	84	79
<b>31.1</b>	26.7	83.3	12	31	43	8	14	14	1	37.7	30	75	12	31	43	17	14	14	6	57	58
<b>31.1</b>	26.7	83.3	12	31	43	8	14	14	1	37.7	30	75	12	31	43	17	14	14	6	57	58
<b>38.8</b>	28.6	61.5	18	23	41	19	10	12	0	45.3	45	83.3	9	24	33	14	13	11	4	66	77
<b>47.4</b>	50	63.6	11	28	39	13	12	12	3	38	15	100	17	24	41	21	5	15	2	71	53
<b>36.5</b>	25	66.7	13	26	39	20	17	11	3	44.2	38.9	63.6	9	29	38	17	19	12	6	60	67
<b>38.3</b>	25	76.9	12	28	40	23	18	14	2	37.5	0	87.1	11	28	39	14	10	8	6	59	69
<b>45.9</b>	46.7	69.2	20	32	52	12	17	18	2	34.4	20.8	80	10	17	27	14	8	9	3	72	57
<b>32.7</b>	22.2	85.7	9	23	32	15	10	16	3	29	21.2	78.6	26	25	51	12	12	12	6	40	58
<b>34.9</b>	11.1	83.9	6	33	39	22	6	19	3	33.8	35.7	70	19	25	44	22	6	9	3	57	69
<b>37.5</b>	52.9	84.6	11	27	38	21	11	20	2	48.3	50	75	6	24	30	18	15	8	2	62	76
<b>38.4</b>	33.3	69.2	19	18	37	20	10	17	3	52.9	61.5	78.3	10	28	38	16	25	22	3	66	80
<b>55.3</b>	46.7	83.3	7	27	34	17	15	18	1	39.4	32.3	81.3	16	16	32	26	22	12	5	84	79
<b>35.7</b>	30	66.7	7	29	36	11	10	16	0	37.3	23.8	100	18	32	50	17	15	11	5	55	69
<b>52.6</b>	45	64.3	16	30	46	11	24	23	4	37.1	38.1	66.7	15	14	29	14	8	11	3	78	66

Table B3. 2015 Tournament in-game Statistics (Continued)

FG%	3pt%	FT%	OF	DE	TOT	PF	A	TO	Block	FG% O	3pt% O	FT% O	OF O	DE O	TOT O	PF O	A O	TO O	Block O	Point	Point O
43.6	35.3	68.2	11	30	41	24	7	21	3	37.3	30	72.7	15	23	38	18	9	12	2	69	72
45.6	15.4	71.4	8	27	35	21	10	21	4	36.4	20	90	14	26	40	16	7	14	0	64	69
34.5	13.3	69	10	26	36	25	7	19	2	43.3	40	78.1	11	32	43	30	15	18	3	69	85
54	30	81.8	7	30	37	25	10	28	2	42.3	38.9	76	13	19	32	20	19	10	0	75	86
41.3	35.3	63.6	15	39	54	20	19	22	6	36	42.9	63.6	19	34	53	21	11	12	5	88	85
35.1	27.3	80.6	14	36	50	19	6	17	3	32.3	24.2	50	14	26	40	21	12	15	4	68	60
51.8	42.9	60	11	20	31	20	18	19	2	44.8	52.4	81.8	12	20	32	15	16	16	3	76	81
41	33.3	57.9	13	13	26	20	20	10	4	62.3	58.8	83.3	9	29	38	18	24	11	1	69	96
36.4	29.4	75	8	20	28	21	11	20	2	41.8	40	64	19	29	48	20	17	27	3	57	70
41.1	13.3	78.9	16	15	31	20	15	16	3	45.6	39.3	80	17	29	46	25	13	30	3	77	83
38.6	25	80	4	16	20	20	10	13	1	50.9	28.6	83.3	14	33	47	17	19	19	2	61	80
41.5	30.8	64.5	10	29	39	21	11	22	4	34.9	40	84.6	14	27	41	25	13	21	3	68	65
34.4	28.6	68.2	17	32	49	20	13	20	1	41	36.4	55.6	12	27	39	21	18	9	4	63	73
41.7	50	61.9	10	25	35	20	16	17	3	32.7	13.3	80.8	11	27	38	17	9	22	3	67	57
44.3	29.4	69.2	11	26	37	21	7	12	5	44.3	41.2	84.6	12	31	43	15	19	14	2	76	83
53.7	58.3	71.4	10	32	42	13	15	18	3	31.5	23.8	85.7	6	16	22	14	7	13	3	70	51
41.5	13.6	66.7	13	25	38	22	16	14	1	41.1	23.5	77.8	8	27	35	10	13	8	6	63	71
53.6	61.9	88.9	5	23	28	18	16	16	2	45.3	44.4	81.8	7	21	28	13	16	19	2	81	61
45.3	38.5	75	9	25	34	12	12	15	2	43.6	50	81.3	8	21	29	11	23	7	4	59	71
36.7	38.5	75	10	26	36	23	15	15	2	45.9	35.3	75	9	31	40	12	19	8	1	66	80
54.3	50	64.3	11	43	54	19	14	27	1	26.5	28.6	81	11	17	28	19	14	10	2	75	61
30.9	42.1	72.7	15	29	44	18	16	17	3	40.6	44	78.3	13	33	46	12	22	14	5	58	81

Table B3. 2015 Tournament in-game Statistics (Continued)

<b>FG%</b>	<b>3pt%</b>	<b>FT%</b>	<b>OF</b>	<b>DE</b>	<b>TOT</b>	<b>PF</b>	<b>A</b>	<b>TO</b>	<b>Block</b>	<b>FG% O</b>	<b>3pt% O</b>	<b>FT% O</b>	<b>OF O</b>	<b>DE O</b>	<b>TOT O</b>	<b>PF O</b>	<b>A O</b>	<b>TO O</b>	<b>Block O</b>	<b>Point</b>	<b>Point O</b>
<b>26.5</b>	18.2	50	16	24	40	12	10	13	3	41.8	46.2	71.4	14	37	51	15	23	18	8	46	73
<b>57.7</b>	28.6	87.5	3	32	35	12	24	10	6	40.6	40.7	77.8	10	18	28	24	22	10	3	90	74
<b>43.9</b>	45	83.3	13	28	41	15	18	25	5	32.9	17.4	68.8	23	18	41	14	16	13	4	64	63
<b>50</b>	45	76.9	7	38	45	10	17	22	8	34.9	25	57.1	18	23	41	11	24	8	4	77	69
<b>33.3</b>	25	81.8	16	27	43	13	14	9	1	31.1	21.7	87.5	12	27	39	17	13	8	6	61	57
<b>41.3</b>	41.7	69	17	36	53	16	20	18	12	26	31.6	78.3	17	24	41	22	11	11	10	77	62
<b>39.1</b>	50	53.8	14	34	48	17	12	14	9	34.3	15.8	70.6	14	30	44	16	17	10	8	66	61
<b>33.3</b>	12.5	92.3	8	28	36	21	10	10	5	42.6	33.3	67.9	9	33	42	13	14	11	1	54	70
<b>36.2</b>	26.7	80	7	26	33	17	11	10	9	33.9	29.4	88	13	32	45	10	13	12	5	54	65
<b>52.7</b>	64.3	81.3	5	28	33	18	20	16	4	46.8	52.2	85	8	23	31	17	19	10	4	80	87
<b>39.7</b>	33.3	66.7	6	30	36	14	15	17	8	40.3	30.4	69.2	15	29	44	11	14	8	4	57	74
<b>29.8</b>	0	85	13	23	36	20	2	11	3	38.9	31.8	79.2	12	29	41	20	10	12	9	51	68
<b>36.7</b>	9.1	61.5	13	27	40	19	12	9	3	40.7	25	68.4	10	25	35	14	10	10	8	53	60
<b>46.4</b>	34.8	70	9	23	32	16	17	6	3	44	39.3	100	5	24	29	13	13	12	1	67	62
<b>42.3</b>	50	88.9	7	16	23	17	8	9	1	39.7	10	83.3	16	21	37	25	8	17	4	75	66
<b>38.8</b>	38.5	68.2	6	26	32	9	13	12	4	35.7	38.9	66.7	11	27	38	14	9	17	4	63	51
<b>46.2</b>	33.3	84.6	18	30	48	22	20	15	5	42.6	35.3	67.9	16	19	35	25	16	11	5	92	83
<b>41.2</b>	42.9	71.4	10	23	33	9	15	14	4	43.1	41.7	20	9	19	28	21	10	14	3	66	56
<b>42.6</b>	37.5	68.2	14	31	45	17	9	1	2	35.4	29.6	73.9	15	23	38	19	14	8	5	73	71
<b>47.5</b>	47.4	76.5	14	30	44	16	17	23	4	31.2	10	68.4	15	17	32	18	11	16	3	78	58

Table B4. 2015Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-17	-6.9	-5.8	-0.9	2	-1	1	5	-1	8	6
0	-18	-11.9	-8.1	12.6	3	-10	-7	6	-9	-1	-3
0	-5	5.2	-10	-32.4	5	8	13	3	5	9	5
0	-3	-2.1	-11.7	0	3	0	3	4	8	5	7
0	-9	-10.3	-18.6	-3.9	3	-15	-12	0	-7	-13	-4
0	-12	-13.6	3.2	-11.6	1	-19	-18	5	5	-12	1
1	5	-1.4	-6.2	-11.9	-1	-9	-10	-7	-8	-7	3
0	-1	-6.6	-3.3	8.3	0	0	0	-9	0	0	-5
0	-1	-6.6	-3.3	8.3	0	0	0	-9	0	0	-5
0	-11	-6.5	-16.4	-21.8	9	-1	8	5	-3	1	-4
1	18	9.4	35	-36.4	-6	4	-2	-8	7	-3	1
0	-7	-7.7	-13.9	3.1	4	-3	1	3	-2	-1	-3
0	-10	0.8	25	-10.2	1	0	1	9	8	6	-4
1	15	11.5	25.9	-10.8	10	15	25	-2	9	9	-1
0	-18	3.7	1	7.1	-17	-2	-19	3	-2	4	-3
0	-12	1.1	-24.6	13.9	-13	8	-5	0	0	10	0
0	-14	-10.8	2.9	9.6	5	3	8	3	-4	12	0
0	-14	-14.5	-28.2	-9.1	9	-10	-1	4	-15	-5	0
1	5	15.9	14.4	2	-9	11	2	-9	-7	6	-4
0	-14	-1.6	6.2	-33.3	-11	-3	-14	-6	-5	5	-5
1	12	15.5	6.9	-2.4	1	16	17	-3	16	12	1
0	-3	6.3	5.3	-4.5	-4	7	3	6	-2	9	1

Table B4. 2015Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
0	-5	9.2	-4.6	-18.6	-6	1	-5	5	3	7	4
0	-16	-8.8	-26.7	-9.1	-1	-6	-7	-5	-8	1	-1
0	-11	11.7	-8.9	5.8	-6	11	5	5	-9	18	2
1	3	5.3	-7.6	0	-4	5	1	-1	8	10	1
1	8	2.8	3.1	30.6	0	10	10	-2	-6	2	-1
0	-5	7	-9.5	-21.8	-1	0	-1	5	2	3	-1
1	-27	-21.3	-25.5	-25.4	4	-16	-12	2	-4	-1	3
0	-13	-5.4	-10.6	11	-11	-9	-20	1	-6	-7	-1
0	-6	-4.5	-26	-1.1	-1	-14	-15	-5	2	-14	0
0	-19	-12.3	-3.6	-3.3	-10	-17	-27	3	-9	-6	-1
0	3	6.6	-9.2	-20.1	-4	2	-2	-4	-2	1	1
0	-10	-6.6	-7.8	12.6	5	5	10	-1	-5	11	-3
1	10	9	36.7	-18.9	-1	-2	-3	3	7	-5	0
0	-7	0	-11.8	-15.4	-1	-5	-6	6	-12	-2	3
1	19	22.2	34.5	-14.3	4	16	20	-1	8	5	0
0	-8	0.4	-9.9	-11.1	5	-2	3	12	3	6	-5
1	20	8.3	17.5	7.1	-2	2	0	5	0	-3	0
0	-12	1.7	-11.5	-6.3	1	4	5	1	-11	8	-2
0	-14	-9.2	3.2	0	1	-5	-4	11	-4	7	1
1	14	27.8	21.4	-16.7	0	26	26	0	0	17	-1
0	-23	-9.7	-1.9	-5.6	2	-4	-2	6	-6	3	-2
0	-27	-15.3	-28	-21.4	2	-13	-11	-3	-13	-5	-5

Table B4. 2015Tournament in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff 3pt%	diff FT%	diff OF	diff DE	diff TOT	diff PF	diff A	diff TO	diff Block
1	16	17.1	-12.1	9.7	-7	14	7	-12	2	0	3
1	1	11	27.6	14.5	-10	10	0	1	2	12	1
1	8	15.1	20	19.8	-11	15	4	-1	-7	14	4
1	4	2.2	3.3	-5.7	4	0	4	-4	1	1	-5
1	15	15.3	10.1	-9.3	0	12	12	-6	9	7	2
1	5	4.8	34.2	-16.8	0	4	4	1	-5	4	1
0	-16	-9.3	-20.8	24.4	-1	-5	-6	8	-4	-1	4
0	-11	2.3	-2.7	-8	-6	-6	-12	7	-2	-2	4
0	-7	5.9	12.1	-3.7	-3	5	2	1	1	6	0
0	-17	-0.6	2.9	-2.5	-9	1	-8	3	1	9	4
0	-17	-9.1	-31.8	5.8	1	-6	-5	0	-8	-1	-6
0	-7	-4	-15.9	-6.9	3	2	5	5	2	-1	-5
1	5	2.4	-4.5	-30	4	-1	3	3	4	-6	2
1	9	2.6	40	5.6	-9	-5	-14	-8	0	-8	-3
1	12	3.1	-0.4	1.5	-5	-1	-6	-5	4	-5	0
1	9	3.6	-2	16.7	2	11	13	-3	4	4	0
1	10	-1.9	1.2	51.4	1	4	5	-12	5	0	1
1	2	7.2	7.9	-5.7	-1	8	7	-2	-5	-7	-3
1	20	16.3	37.4	8.1	-1	13	12	-2	6	7	1

Table B5. 2015 Seasonal Averages for Significant in-game Statistics

FG%	FT%	3pt%	A/ game	Block/ game	TO/ game	PF/ game	OF/ game	DE/ game	FG% O	FT% O	3pt% O	A/ Game O	Block/ game O	TO/ game O	PF/ game O	OF/ game O	DE/ game O	Point/ game	Point/ game O
44.9	79.3	38	14.7	2.9	11.7	15.6	9	28	38	63.1	22.4	11.9	3.8	19.9	18.6	16	28	<b>92</b>	<b>83</b>
38.1	68.8	29.6	10.9	4	17.8	18.7	17	29	36.8	63.7	23.4	11.7	2.7	20.1	22.3	19	29	<b>78</b>	<b>58</b>
45.5	65.4	34.8	16.5	2.9	16.3	16.3	11	26	44.9	57	32.6	15	3.8	18.4	20.9	14	26	<b>66</b>	<b>56</b>
45.4	74.6	32.4	16.2	2	16	16.2	10	28	37.1	67.2	29.3	14.3	3.7	13.7	16.5	16	29	<b>71</b>	<b>73</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	43.2	71.3	35.5	15	2.6	16.1	18.3	12	27	<b>86</b>	<b>75</b>
42.8	66.7	32.9	15	3.9	15.5	15.7	16	27	39.3	66.1	35.7	19.2	5.5	14.8	20.9	12	30	<b>85</b>	<b>88</b>
45.9	69.8	36.9	18.8	3	14.4	15.7	13	28	42.8	68.9	34.1	14.9	3.6	15	19.3	12	28	<b>60</b>	<b>68</b>
43.3	76.3	37.3	16.2	3.4	15.6	16.4	11	25	40.5	70.5	30.9	15.2	3	15.3	15.9	15	27	<b>81</b>	<b>76</b>
43.7	67.6	34.4	16.9	3.3	17.1	19.6	18	25	40.6	75.4	32.8	12.2	3.3	13.7	15.5	12	25	<b>63</b>	<b>64</b>
45.8	75.3	35.6	18	3.1	13.3	17.6	13	30	44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	<b>69</b>	<b>77</b>
37.8	73.6	30.4	11.8	3.3	13.7	17.7	16	28	41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	<b>57</b>	<b>61</b>
42.9	74.2	37.1	16	3.9	15.9	19.4	13	27	44.8	78.5	38	14.6	4.4	15.1	17.5	11	25	<b>62</b>	<b>77</b>
44.7	68.6	36.4	17.3	2.8	15.7	20.2	12	28	38.1	72.9	28.2	16.1	2.5	15.5	17	14	30	<b>79</b>	<b>84</b>
43.6	76.2	33.5	17.3	3.5	15.3	15.3	11	28	42.4	69.5	27	14.9	4.3	17.8	19.6	14	28	<b>80</b>	<b>66</b>
41.5	72.6	30.5	11.3	4	13.7	17.9	14	29	43.3	68.2	37.8	14	2.1	14.2	15.9	14	25	<b>69</b>	<b>55</b>
42.7	69.3	35.8	13.1	3.2	15.2	16.9	15	23	43.1	77.4	28.2	15.4	2.6	17	17	9	30	<b>66</b>	<b>78</b>
42	68.2	32.2	14.3	5.9	11.3	13.5	14	29	40.8	75.6	35.8	15.5	3.6	15.4	18	12	28	<b>74</b>	<b>57</b>
45.8	77.1	37.3	15.3	3.8	13.9	15.1	8	28	43.4	70.4	35	15.7	3.7	14.1	17.7	11	30	<b>87</b>	<b>80</b>
43.3	70.7	35.6	13.4	8	14.8	19	14	30	45.6	71	32.6	14.5	2.5	16.6	20.3	14	26	<b>68</b>	<b>51</b>
43.1	76	33.7	12.6	4.6	11.6	16.6	11	28	43.8	72.9	29.3	15.6	3.9	11.9	13.4	13	29	<b>60</b>	<b>53</b>
49.2	71.8	37.8	17.6	2.1	16.8	19	12	26	42	67.2	37.5	11.8	3	15.8	17.8	11	27	<b>80</b>	<b>61</b>

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Table B5. 2015 Seasonal Averages for Significant in-game Statistics (Continued)

FG%	FT%	3pt%	A/ game	Block/ game	TO/ game	PF/ game	OF/ game	DE/ game	FG% O	FT% O	3pt% O	A/ Game O	Block/ game O	TO/ game O	PF/ game O	OF/ game O	DE/ game O	Point/ game	Point/ game O
39.3	77.1	34.2	15.6	4.1	15.3	19	12	28	39.3	64.5	29.3	15.1	4.1	15.7	19.5	16	31	<b>65</b>	<b>68</b>
43	73.5	35.5	14.8	3.9	15.4	19.1	14	28	39	68.7	30.8	12.8	2.6	14.5	14.6	12	26	<b>73</b>	<b>61</b>
41.9	73.8	34.6	13.9	4.3	17.2	17	14	25	41	72.9	28	14	4.1	16.8	17.5	12	25	<b>57</b>	<b>67</b>
42.8	70.4	33.7	15.5	2.7	14	15.3	15	27	38.9	69.8	28.2	12.2	2	16.3	18.1	17	27	<b>76</b>	<b>62</b>
41.8	68.5	30.2	16.7	1.7	15.6	19.3	15	25	40.6	72.8	36.1	12.7	2.1	16.2	16.8	14	26	<b>57</b>	<b>72</b>
41	63.7	31.3	12.9	4.5	15.1	17.5	17	30	41.6	74.2	33.1	15.6	3.8	16.9	19	13	26	<b>58</b>	<b>40</b>
40.5	70.3	31.9	12.4	2.9	15	18.4	17	26	42.5	73.5	31.8	14.6	2.5	15	16.2	11	25	<b>69</b>	<b>57</b>
44.1	76.9	38.2	15.1	4.6	10.6	15	9	25	47	73.6	37.9	16.3	2.7	17.8	17.2	10	30	<b>71</b>	<b>59</b>
43.4	74.2	34.5	15.5	2.8	15.6	15.7	13	26	47.1	76.6	39	17.9	3.2	17.3	17	10	30	<b>61</b>	<b>81</b>
46.5	77.9	35.9	18.9	5	13.7	14.2	13	31	42.6	70.1	32.7	13.6	2.9	15.4	17.2	13	27	<b>80</b>	<b>66</b>
44.9	81.3	38.3	14.5	1.4	12.7	18.3	11	25	46.5	72	34.8	15.3	3.6	14.9	18.1	15	27	<b>61</b>	<b>75</b>
44.9	79.3	38	14.7	2.9	11.7	15.6	9	28	38.1	68.8	29.6	10.9	4	17.8	18.7	17	29	<b>75</b>	<b>66</b>
45.5	65.4	34.8	16.5	2.9	16.3	16.3	11	26	37.1	67.2	29.3	14.3	3.7	13.7	16.5	16	29	<b>63</b>	<b>51</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	39.3	66.1	35.7	19.2	5.5	14.8	20.9	12	30	<b>69</b>	<b>64</b>
42.8	68.9	34.1	14.9	3.6	15	19.3	12	28	43.3	76.3	37.3	16.2	3.4	15.6	16.4	11	25	<b>69</b>	<b>85</b>
44.9	79.3	38	14.7	2.9	11.7	15.6	9	28	45.5	65.4	34.8	16.5	2.9	16.3	16.3	11	26	<b>62</b>	<b>67</b>
45.5	65.4	34.8	16.5	2.9	16.3	16.3	11	26	41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	<b>79</b>	<b>84</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	43.3	76.3	37.3	16.2	3.4	15.6	16.4	11	25	<b>72</b>	<b>69</b>
40.6	75.4	32.8	12.2	3.3	13.7	15.5	12	25	44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	<b>46</b>	<b>73</b>
44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	<b>81</b>	<b>58</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	44.8	78.5	38	14.6	4.4	15.1	17.5	11	25	<b>90</b>	<b>74</b>

Table B5. 2015 Seasonal Averages for Significant in-game Statistics (Continued)

FG%	FT%	3pt%	A/ game	Block/ game	TO/ game	PF/ game	OF/ game	DE/ game	FG% O	FT% O	3pt% O	A/ Game O	Block/ game O	TO/ game O	PF/ game O	OF/ game O	DE/ game O	Point/ game	Point/ game O
44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	41.5	72.6	30.5	11.3	4	13.7	17.9	14	29	<b>86</b>	<b>77</b>
38.1	72.9	28.2	16.1	2.5	15.5	17	14	30	43.6	76.2	33.5	17.3	3.5	15.3	15.3	11	28	<b>60</b>	<b>67</b>
43.6	76.2	33.5	17.3	3.5	15.3	15.3	11	28	41.5	72.6	30.5	11.3	4	13.7	17.9	14	29	<b>57</b>	<b>58</b>
41.5	72.6	30.5	11.3	4	13.7	17.9	14	29	43.1	77.4	28.2	15.4	2.6	17	17	9	30	<b>69</b>	<b>59</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	43.3	70.7	35.6	13.4	8	14.8	19	14	30	<b>51</b>	<b>46</b>
41.7	72.8	29.9	12.7	2.7	14.1	15.5	14	24	44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	<b>86</b>	<b>69</b>
44	69.2	33.9	18.4	4.7	17.5	16.5	15	32	42.8	70.4	33.7	15.5	2.7	14	15.3	15	27	<b>85</b>	<b>67</b>
42	68.2	32.2	14.3	5.9	11.3	13.5	14	29	45.8	77.1	37.3	15.3	3.8	13.9	15.1	8	28	<b>70</b>	<b>54</b>
42	68.2	32.2	14.3	5.9	11.3	13.5	14	29	43.3	70.7	35.6	13.4	8	14.8	19	14	30	<b>61</b>	<b>66</b>
43.3	70.7	35.6	13.4	8	14.8	19	14	30	43.1	76	33.7	12.6	4.6	11.6	16.6	11	28	<b>65</b>	<b>54</b>
43.3	70.7	35.6	13.4	8	14.8	19	14	30	49.2	71.8	37.8	17.6	2.1	16.8	19	12	26	<b>62</b>	<b>50</b>
49.2	71.8	37.8	17.6	2.1	16.8	19	12	26	39.3	64.5	29.3	15.1	4.1	15.7	19.5	16	31	<b>70</b>	<b>57</b>
49.2	71.8	37.8	17.6	2.1	16.8	19	12	26	43	73.5	35.5	14.8	3.9	15.4	19.1	14	28	<b>96</b>	<b>69</b>
43	73.5	35.5	14.8	3.9	15.4	19.1	14	28	41	72.9	28	14	4.1	16.8	17.5	12	25	<b>83</b>	<b>77</b>
42.8	70.4	33.7	15.5	2.7	14	15.3	15	27	40.6	72.8	36.1	12.7	2.1	16.2	16.8	14	26	<b>77</b>	<b>66</b>
42.8	70.4	33.7	15.5	2.7	14	15.3	15	27	40.5	70.3	31.9	12.4	2.9	15	18.4	17	26	<b>72</b>	<b>38</b>
41	63.7	31.3	12.9	4.5	15.1	17.5	17	30	40.5	70.3	31.9	12.4	2.9	15	18.4	17	26	<b>53</b>	<b>71</b>
42.8	70.4	33.7	15.5	2.7	14	15.3	15	27	46.5	77.9	35.9	18.9	5	13.7	14.2	13	31	<b>61</b>	<b>58</b>
44.1	76.9	38.2	15.1	4.6	10.6	15	9	25	47.1	76.6	39	17.9	3.2	17.3	17	10	30	<b>51</b>	<b>70</b>
47.1	76.6	39	17.9	3.2	17.3	17	10	30	46.5	77.9	35.9	18.9	5	13.7	14.2	13	31	<b>76</b>	<b>83</b>
46.5	77.9	35.9	18.9	5	13.7	14.2	13	31	46.5	72	34.8	15.3	3.6	14.9	18.1	15	27	<b>71</b>	<b>63</b>

Table B6. 2015 Seasonal Averages for Significant in-game Statistics (differences between “Team of Interest” and “Opposing Team”)

Win/Lose	diff Point	diff FG%	diff FT%	diff 3pt%	diff A/game	diff Block/game	diff TO/game	diff PF/game	diff OF/game	diff DE/game
1	9	6.9	16.2	15.6	2.8	-0.9	-8.2	-3	-7	0
1	20	1.3	5.1	6.2	-0.8	1.3	-2.3	-3.6	-2	0
1	10	0.6	8.4	2.2	1.5	-0.9	-2.1	-4.6	-3	0
0	-2	8.3	7.4	3.1	1.9	-1.7	2.3	-0.3	-6	-1
1	11	-1.5	1.5	-5.6	-2.3	0.1	-2	-2.8	2	-3
0	-3	3.5	0.6	-2.8	-4.2	-1.6	0.7	-5.2	4	-3
0	-8	3.1	0.9	2.8	3.9	-0.6	-0.6	-3.6	1	0
1	5	2.8	5.8	6.4	1	0.4	0.3	0.5	-4	-2
0	-1	3.1	-7.8	1.6	4.7	0	3.4	4.1	6	0
0	-8	1.8	6.1	1.7	-0.4	-1.6	-4.2	1.1	-2	-2
0	-4	-3.9	0.8	0.5	-0.9	0.6	-0.4	2.2	2	4
0	-15	-1.9	-4.3	-0.9	1.4	-0.5	0.8	1.9	2	2
0	-5	6.6	-4.3	8.2	1.2	0.3	0.2	3.2	-2	-2
1	14	1.2	6.7	6.5	2.4	-0.8	-2.5	-4.3	-3	0
1	14	-1.8	4.4	-7.3	-2.7	1.9	-0.5	2	0	4
0	-12	-0.4	-8.1	7.6	-2.3	0.6	-1.8	-0.1	6	-7
1	17	1.2	-7.4	-3.6	-1.2	2.3	-4.1	-4.5	2	1
1	7	2.4	6.7	2.3	-0.4	0.1	-0.2	-2.6	-3	-2
1	17	-2.3	-0.3	3	-1.1	5.5	-1.8	-1.3	0	4
1	7	-0.7	3.1	4.4	-3	0.7	-0.3	3.2	-2	-1
1	19	7.2	4.6	0.3	5.8	-0.9	1	1.2	1	-1
0	-3	0	12.6	4.9	0.5	0	-0.4	-0.5	-4	-3

Table B6. 2015 Seasonal Averages for Significant in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff FT%	diff 3pt%	diff A/game	diff Block/game	diff TO/game	diff PF/game	diff OF/game	diff DE/game
<b>1</b>	<b>12</b>	4	4.8	4.7	2	1.3	0.9	4.5	2	2
<b>0</b>	<b>-10</b>	0.9	0.9	6.6	-0.1	0.2	0.4	-0.5	2	0
<b>1</b>	<b>14</b>	3.9	0.6	5.5	3.3	0.7	-2.3	-2.8	-2	0
<b>0</b>	<b>-15</b>	1.2	-4.3	-5.9	4	-0.4	-0.6	2.5	1	-1
<b>1</b>	<b>18</b>	-0.6	-10.5	-1.8	-2.7	0.7	-1.8	-1.5	4	4
<b>1</b>	<b>12</b>	-2	-3.2	0.1	-2.2	0.4	0	2.2	6	1
<b>1</b>	<b>12</b>	-2.9	3.3	0.3	-1.2	1.9	-7.2	-2.2	-1	-5
<b>0</b>	<b>-20</b>	-3.7	-2.4	-4.5	-2.4	-0.4	-1.7	-1.3	3	-4
<b>1</b>	<b>14</b>	3.9	7.8	3.2	5.3	2.1	-1.7	-3	0	4
<b>0</b>	<b>-14</b>	-1.6	9.3	3.5	-0.8	-2.2	-2.2	0.2	-4	-2
<b>1</b>	<b>9</b>	6.8	10.5	8.4	3.8	-1.1	-6.1	-3.1	-8	-1
<b>1</b>	<b>12</b>	8.4	-1.8	5.5	2.2	-0.8	2.6	-0.2	-5	-3
<b>1</b>	<b>5</b>	2.4	6.7	-5.8	-6.5	-2.8	-0.7	-5.4	2	-6
<b>0</b>	<b>-16</b>	-0.5	-7.4	-3.2	-1.3	0.2	-0.6	2.9	1	3
<b>0</b>	<b>-5</b>	-0.6	13.9	3.2	-1.8	0	-4.6	-0.7	-2	2
<b>0</b>	<b>-5</b>	3.8	-7.4	4.9	3.8	0.2	2.2	0.8	-3	2
<b>1</b>	<b>3</b>	-1.6	-3.5	-7.4	-3.5	-0.7	-1.5	-0.9	3	-1
<b>0</b>	<b>-27</b>	-3.4	6.2	-1.1	-6.2	-1.4	-3.8	-1	-3	-7
<b>1</b>	<b>23</b>	2.3	-3.6	4	5.7	2	3.4	1	1	8
<b>1</b>	<b>16</b>	-3.1	-5.7	-8.1	-1.9	-1.7	-1	-2	3	-1
<b>0</b>	<b>9</b>	2.5	-3.4	3.4	7.1	0.7	3.8	-1.4	1	3

Table B6. 2015 Seasonal Averages for Significant in-game Statistics (differences between “Team of Interest” and “Opposing Team”) (Continued)

Win/Lose	diff Point	diff FG%	diff FT%	diff 3pt%	diff A/game	diff Block/game	diff TO/game	diff PF/game	diff OF/game	diff DE/game
0	-7	-5.5	-3.3	-5.3	-1.2	-1	0.2	1.7	3	2
0	-1	2.1	3.6	3	6	-0.5	1.6	-2.6	-3	-1
1	10	-1.6	-4.8	2.3	-4.1	1.4	-3.3	0.9	5	-1
1	5	-1.6	2.1	-5.7	-0.7	-5.3	-0.7	-3.5	0	-6
1	17	-2.3	3.6	-4	-5.7	-2	-3.4	-1	-1	-8
1	18	1.2	-1.2	0.2	2.9	2	3.5	1.2	0	5
1	16	-3.8	-8.9	-5.1	-1	2.1	-2.6	-1.6	6	1
0	-5	-1.3	-2.5	-3.4	0.9	-2.1	-3.5	-5.5	0	-1
1	11	0.2	-5.3	1.9	0.8	3.4	3.2	2.4	3	2
1	12	-5.9	-1.1	-2.2	-4.2	5.9	-2	0	2	4
1	13	9.9	7.3	8.5	2.5	-2	1.1	-0.5	-4	-5
1	27	6.2	-1.7	2.3	2.8	-1.8	1.4	-0.1	-2	-2
1	6	2	0.6	7.5	0.8	-0.2	-1.4	1.6	2	3
1	11	2.2	-2.4	-2.4	2.8	0.6	-2.2	-1.5	1	1
1	34	2.3	0.1	1.8	3.1	-0.2	-1	-3.1	-2	1
0	-18	0.5	-6.6	-0.6	0.5	1.6	0.1	-0.9	0	4
1	3	-3.7	-7.5	-2.2	-3.4	-2.3	0.3	1.1	2	-4
0	-19	-3	0.3	-0.8	-2.8	1.4	-6.7	-2	-1	-5
0	-7	0.6	-1.3	3.1	-1	-1.8	3.6	2.8	-3	-1
1	8	0	5.9	1.1	3.6	1.4	-1.2	-3.9	-2	4