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An Analysis of Field Goal Percentages in Basketball from Designated Shooting Areas

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This starred paper submitted by Kevin L. Schlagel in partial fulfillment of the requirements for the Degree of Master of Science at St. Cloud State University is hereby approved by the final evaluation committee.

Chairperson

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AN ANALYSIS OF FIELD GOAL PERCENTAGES IN BASKETBALL FROM DESIGNATED SHOOTING AREAS

by

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Since 1891, when James Naismith hung a peach basket on the wall of the YMCA in Springfield, Massachusetts, basketball has become a major part of the American lifestyle. While it is still considered to be in its infancy, with its major development in the future, it has grown to the point where it is the most participated sport in America. Hobson states, "The popularity of basketball has grown so rapidly that more spectators are turned away from basketball games than any other sport" (4:13). Facilities built during the early and middle stages of the development of basketball are no longer capable of seating the number of people interested in watching the game of basketball.

The drastic increase in the popularity of basketball is not limited to the United States. Internationally, basketball is played in more countries than any other team sport except soccer. For this reason, according to Ridl, "The rules of basketball have changed rather frequently, and the game is still in the process of development" (5:23).

While the development of basketball continues, it is felt by many, that very little has been done to analyze the game from a technical view point. Most coaches today are well versed in the fundamentals of the game and great strides have been made in developing offensive and defensive systems. While the development of these systems are greater, very few standards by which to measure the exact success or failure of these plays exist. As Hobson concludes, "We know whether a team wins or loses, but the factor that contributes to the victory or defeat are not well established" (4:19).

This author maintains that one of the areas most commonly overlooked in the development of offenses and defenses is shot selection. It is not uncommon for a coach to set up an offense that will enable his/her best player to get more shots than any other player on the team. The factor that many coaches have overlooked is that the shots obtained by an offense may not be high percentage shots.

Likewise, defensively there are many philosophies as to how to play the game of basketball. One philosophy that has become more and more prevalent over the past ten years, is the idea of forcing the opponents to the areas on the court where they are least likely to make a shot. Keeping the ball out of the areas where an offensive player is most efficient will enhance a team's chances

of winning.

It is the author's intention to attempt to determine which areas in a team's offensive end will produce the highest field goal percentage as well as the lowest. The results of this study could be used in aiding coaches as to where the emphasis should be placed in their offenses and defenses. Also, the author will attempt to show how a high field goal percentage is directly related to winning.

Statement of the Problem

In this investigation, the author will attempt to find out: (1) what area on the basketball court has the highest field goal percentage, (2) what area on the court has the lowest field goal percentage, (3) if there is any significant difference in the field goal percentage from the right side of the floor as compared to the left side of the floor, and (4) what is the relationship of the team shooting the highest field goal percentage to winning. The designated shooting areas are explained on the shot chart located in Appendix A.

Statement of the Hypotheses

The following hypotheses will be investigated:

(1) There is no significant difference between field goal percentages from the right side of the court as compared to the left side.

(2) There is no significant difference in field goal percentages among the eight designated areas.

(3) There is a significant relationship between the team shooting the highest field goal percentage and the team that wins.

Purpose of the Study

This study should contribute to a better understanding of the game of basketball. Coaches will be able to use the results of this investigation as a guide to setting up their offenses for the higher percentage shots. In addition, a coach may set up defenses that take away the better shooting areas and try to force the opponents to those areas with the poorest field goal percentages.

Definition of Terms

For this particular study, the following definitions will be used for the underlined terms based upon the 1982 NCAA Basketball Rules and Interpretations Guidelines.

Baseline. The out-of-bounds line that runs from sideline to sideline four feet behind the basket.

Block. A marking on the floor along the free throw lane that separates the first rebounding position from the second during a free throw. It is twelve

inches wide by eight inches deep.

Field goal percentage. The percentage of field goals made of the total number attempted by a team.

Free throw lane. Area from the baseline to the free throw line and six feet on either side of the basket. A two inch line marks off the 12 foot x 19 foot area.

Made shot. A shot attempted by a player that successfully passes through the basket from above the ring, or is interfered with by an opponent on its downward flight and has a possibility of entering the basket.

Shot attempted. An attempt by a player to score two points by throwing the ball into the basket.

Shot selection. The shot taken from a designated area on the floor.

Limitations

This study may have been limited to some extent by the intangible factors of basketball such as player motivation, the type of defense played against, and how severely the shot attempt was contested. It may also be limited to the degree of accuracy of the recorder

(i.e., distance of the shot or position on the floor) as well as the validity of the measuring instrument.

Delimitations

(1) This study was delimited to male varsity basketball players at St. Cloud State University in St. Cloud, Minnesota.

(2) It was also delimited to the 1980-81 and 1981-82 regular season basketball games.

CHAPTER 2

REVIEW OF THE LITERATURE

A review of literature showed that there have been many books and articles written on basketball, but little has been investigated in terms of statistically productive basketball. While the emphasis on defense has increased over the past few years, the part that has brought basketball to international popularity, is the offensive skills demonstrated by the players. There is little doubt that the major emphasis in the game of basketball by the coaches, players, and fans continues to be offense. How often does a team put the ball in the basket, and what is the most productive way of doing so, are the upper most thought on the minds of many coaches.

The earliest investigation that was available was concerned with finding the most productive scoring areas on a basketball court. It was conducted by Howard Hobson, who at that time, was the head basketball coach at Yale University (4). Hobson, over a period of 18 years, observed 592 college games in which he kept track of individual and team shooting percentages by means of a shot chart. His conclusions were that: (1) each year

scoring increased on the average, (2) the most productive scoring area is within 12 feet of the basket, and (3) field goal percentage decreased the further you go away from the basket.

Sharman (7) came to a conclusion that shot selection is the backbone of the game based upon statistics kept from his playing days and his coaching experiences. He felt that players must be aware of their individual shooting capabilities, and that it is the coach's task to make sure each player is aware of what areas on the floor are high percentage shooting areas.

Stier (8) was so concerned about his teams offensive production that he had statistics kept on his team's three basic offensive patterns, the fastbreak, the set offense, and the free lance offense. Comparisons were then made as to which type of offense was most productive and which was least productive. He found that his set offense was most productive and his free lance offense was the least productive.

In his study using 20 college men of different basketball ability, Girouard (3) found that a person's field goal percentage can increase significantly through daily practice. In a pre-test versus a post-test situation, the subjects were allowed to practice daily the various shots that they were to be tested on.

Ridl states that, "Without statistics, one may have a distorted view of a player's performance" (5:57). Ridl developed a grading system which would result in showing a player's overall contribution in areas other than total points. Numerical values were assigned to several aspects of the game including attempted and successful field goals.

In an attempt to show how depth perception experiments could improve a person's accuracy in basketball shooting, Dickinson found no evidence to support the hypothesis that a person's shooting accuracy would improve in basketball after being exposed to a series of depth perception experiments (2). There was no significant carry over in any of the 35 subjects when required to shoot the basketball with accuracy after the experiments had been conducted.

Summary of Related Literature

From the review of literature, it is quite evident that coaches feel the need to improve their team's offensive productivity.

While there are many ways to experiment and practice to improve your team's offense there are no guarantees. Each coach has to evaluate his/her personnel and come up with an offense that will get their personnel into areas where they can score from.

Most coaches agree that statistics are important in evaluating the success of a team, but few would argue that there is any one factor more important than a team's ability to shoot the ball with accuracy.

CHAPTER 3

PROCEDURE

The samples used in this study were the members of the St. Cloud State University men's basketball squad from the 1980-81 and 1981-82 seasons.

The data for this study were obtained from the basketball records of St. Cloud State University. The data for the study were obtained by a member of the Sports Information Department of the home team in the games played by St. Cloud State in the 1980-81 and 1981-82 seasons. A shot chart was kept for both halves of every game over the two seasons, such as the one in Appendix A. According to NCAA guidelines, a shot chart is kept in the following manner. On each shot attempt by a player, the recorder would write the jersey number of that player on the shot chart in a location that would correspond to the player's location on the court. If the attempted shot was made, then the recorder would circle the shooter's number for that particular shot. If a shot was taken while the player was moving through the air, from one designated area to another, the shot was recorded in

the area that the player was in at the time the ball was released from his hands.

Upon completion of each game, the recorder would determine the team's field goal percentage for that particular game.

The author then went back through the shot charts and counted up the number of shots attempted and made from each of the designated areas. The results were recorded on a tabulation sheet such as the one found in Appendix A.

Upon completion of the investigation, the totals from each shooting area were added up and the field goal percentage was calculated for each designated area.

In addition, by using the same shot chart, field goal percentages would be calculated for the left and right sides of the court by drawing a line from the basket to the middle of the center jump circle. A shot taken from directly in front of the basket was placed on the side of the court the shooter's pivot foot was located in. Results are recorded on a "Right and Left Percent" sheet such as the one found in Appendix A.

To determine the relationship between winning and the team shooting the highest field goal percentage, data were taken from the shot charts and placed on the Game Results Sheet, such as the one found in Appendix A. The

percentage of the games won by the team shooting the highest field goal percentage was then calculated.

A difference of 5 percent among any of the designated shooting areas or the difference in field goal percentage of the right or left side is considered to be significantly different.

CHAPTER 4

ANALYSIS AND RESULTS OF DATA

This investigation conducted over the 1980-81 and 1981-82 St. Cloud State University basketball seasons, was undertaken to determine what areas on the basketball court proved to be efficient in terms of field goal percentage, as well as which areas were not efficient in terms of field goal percentage. Also to be determined from the two year analysis was what correlation there was between the team with the highest field goal percentage actually winning the game. A game by game breakdown of recorded data may be found in Appendix B. These data were used to determine the following results.

In studying the field goal percentages from the designated shooting areas listed in Table 1, it was found the 1980-81 team shot a higher percentage from all areas except four and six, compared with the 1981-82 team.

Table 1

Individual Season Shot Analysis

Designated Areas	1	2	3	4	5	6	7	8
1980-81	47%	67%	48%	38%	57%	35%	51%	39%
1981-82	39%	62%	40%	45%	42%	46%	40%	39%

When the total shots attempted and made were calculated over the two seasons, shooting areas #2 and #5 produced the highest field goal percentages with area #8 being the lowest.

Table 2

Two Year Analysis of Field Goal Percent

Designated Areas	1	2	3	4	5	6	7	8
Shots Attempted	253	681	193	277	404	222	160	163
Shots Made	113	445	85	115	196	91	73	64
Field Goal Percent	45%	65%	44%	42%	49%	41%	47%	39%

In further analysis, it was determined that the players involved in the 1980-81 and 1981-82 basketball seasons made a higher percentage of their shots from the right side of the court as compared to the left side of

court, although the percentage difference was not significantly different for this study.

Table 3

Right and Left Side Percent

	Right Side Shots		Left Side Shots	
	Attempts	Made	Attempts	Made
1980-81	638	351	633	326
1981-82	529	255	553	250
Total	1167	606	1186	576
Field Goal Percent	52%		48%	

In studying the relationship of a team field goal percentage to winning, it was calculated that over the two year period the team with the highest field goal percentage won 34 out of 54 games. Calculated out, that means that over the two year period the team with the highest field goal percentage won 63% of the games.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to determine what designated shooting areas on the basketball court would yield the highest field goal percentage over the course of two seasons as well as whether or not there was a significant difference between field goal percentages between the right and left sides of the basketball court. Another purpose was to determine how often the team with the highest field goal percentage actually was successful in winning the game.

Conclusion

Within the limitations of this study, the following conclusions were reached:

1. That there was a significant difference between the field goal percentages of the eight designated shooting areas.

2. There was no significant difference in field goal percentages over the two year period between the right and left sides of the basketball court.

3. That there was a significant relationship between the team shooting the highest field goal percentage and the team winning the game.

Recommendations

The following recommendations are made for further study:

1. A study should be conducted on how the distance from the basket within the eight designated shooting areas affects the field goal percentage.

2. A similar study encompassing a greater number of colleges and universities should be conducted to increase the validity of the results.

3. A study should be conducted measuring field goal percentages of a given team coming from their set offenses and eliminating those shots coming out of transition.

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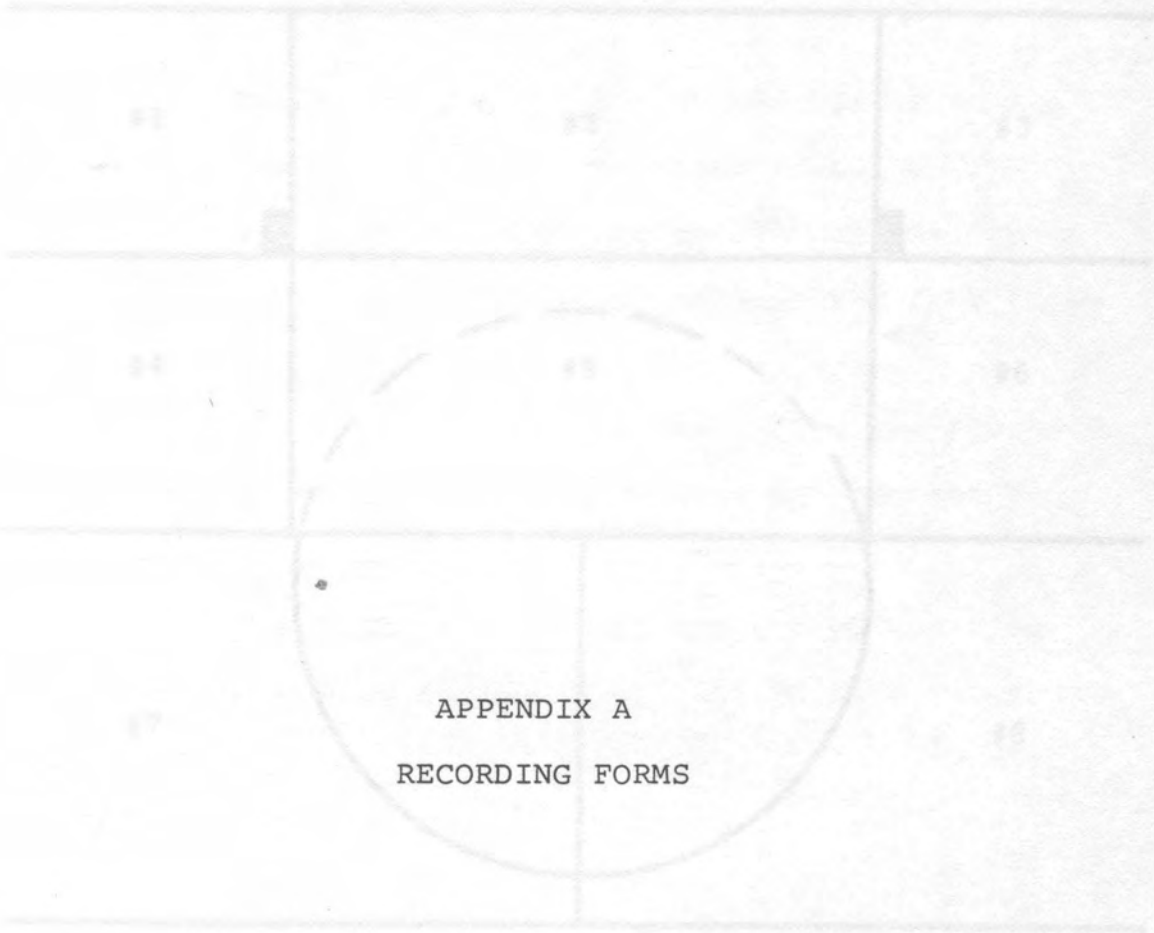
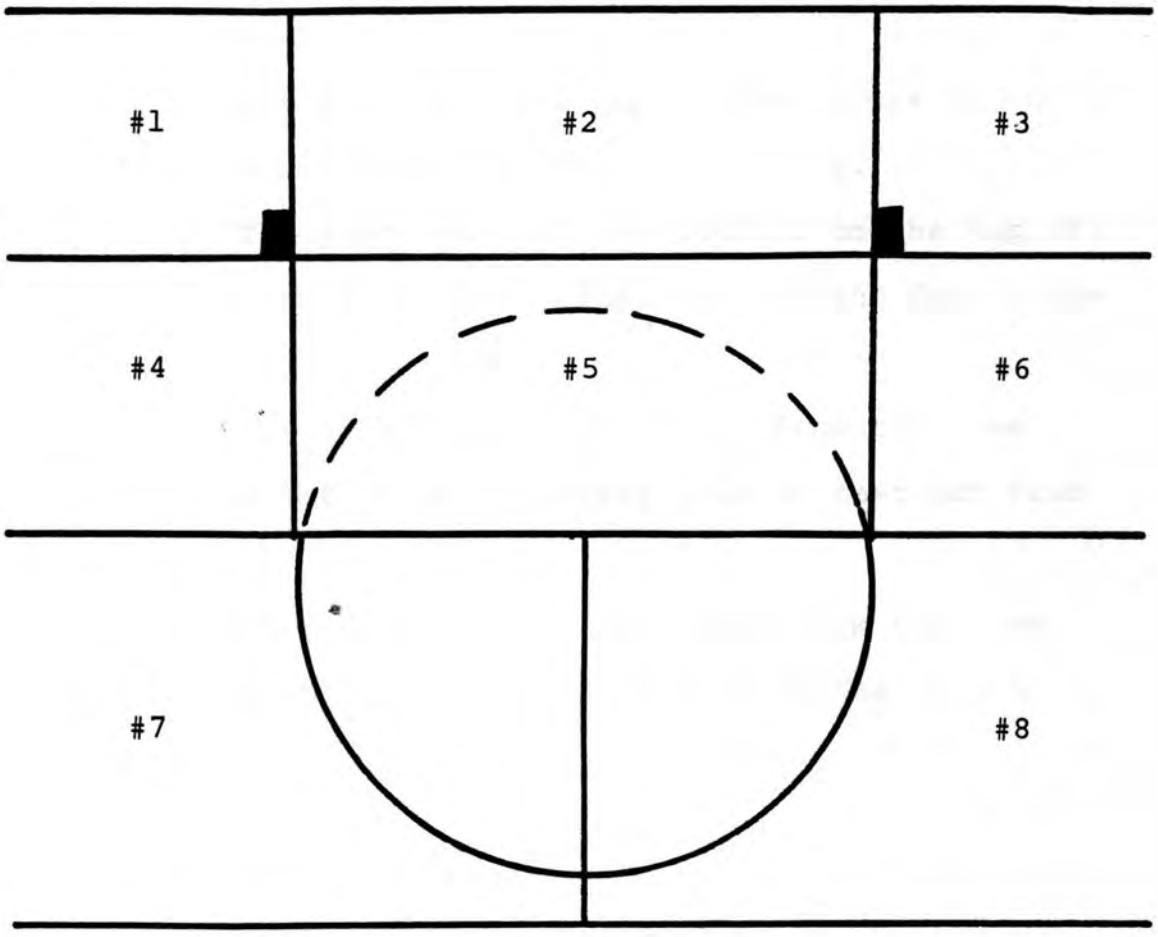
APPENDIXES



APPENDIX A

RECORDING FORMS

SHOT CHART



Designated Shooting Areas

1) The left side of the court from the free throw lane to the sideline and from the baseline to the top of the block.

2) From the baseline to the top of the blocks, inside the free throw lane.

3) The right side of the court from the free throw lane to the sideline and from the baseline to the top of the blocks.

4) The left side of the court from the top of the block to the free throw line, outside the free throw lane.

5) The area from the top of the blocks to the free throw line, inside the free throw lane.

6) The right side of the court from the top of the block to the free throw line, outside the free throw lane.

7) The left side of the court from the free throw line on out to an imaginary line 24 feet out from the basket.

8) The right side of the court from the free throw line on out to an imaginary line 24 feet out from the basket.

TABULATION SHEET

ST. CLOUD VS.

OPPONENT'S NAME	AREA # 1		AREA # 2		AREA # 3		AREA # 4		AREA # 5		AREA # 6		AREA # 7		AREA # 8	
	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE
TOTAL																
%																

GAME RESULTS SHEET

OPPONENTS	OPPONENT'S FIELD GOAL PERCENT	SCSU FIELD GOAL PERCENT	SCORE SCSU	SCORE OPPONENT

The number of times the team with the highest field goal percentage won the game was _____.

RIGHT AND LEFT % CHART

GAME		RIGHT SIDE SHOTS ATT.	RIGHT SIDE SHOTS MADE	LEFT SIDE SHOTS ATT.	LEFT SIDE SHOTS MADE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
TOTALS					
FIELD GOAL %					

APPENDIX B

RECORDED DATA

1980-81 TABULATION SHEET

ST. CLOUD VS.

OPPONENT'S NAME	AREA # 1		AREA # 2		AREA # 3		AREA # 4		AREA # 5		AREA # 6		AREA # 7		AREA # 8	
	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE
St. John's	7	4	22	18	2	1	6	3	5	3	3	0	6	3	2	1
Montana State	4	2	10	6	2	1	4	2	3	1	5	0	2	0	3	0
E. Montana	4	4	6	5	3	1	1	0	5	0	2	1	0	0	1	0
St. John's	4	2	15	9	2	2	8	2	10	5	4	0	5	1	7	2
Gustavus	5	3	35	20	7	4	6	4	8	3	4	1	0	0	0	0
N.D.S.U.	5	3	21	16	6	4	7	3	10	4	1	0	2	1	4	2
Augustana																
Northern	2	1	5	3	2	2	6	0	6	3	5	2	1	1	2	1
St. Olaf																
St. Olaf	4	2	24	18	5	2	12	1	12	10	6	3	6	4	4	2
Stevens Point	3	1	13	7	2	1	6	4	8	5	4	2	2	1	4	1
St. John's	3	2	17	11	2	0	3	3	15	9	3	2	2	0	1	1
Bemidji	6	3	18	16	5	1	11	4	8	2	6	2	8	4	5	1
UM-Duluth	2	0	34	18	7	3	2	1	9	7	6	1	0	0	3	2
Mankato	11	4	22	12	3	1	4	1	11	4	5	3	4	0	3	2
Winona	7	4	20	11	4	1	8	4	5	2	6	2	5	5	3	1
Moorhead	6	1	9	6	5	2	10	3	22	16	8	3	4	3	6	2
UM-Morris																
TOTAL																
%																

1980-81 TABULATION SHEET

ST. CLOUD VS.

OPPONENT'S NAME	AREA # 1		AREA # 2		AREA # 3		AREA # 4		AREA # 5		AREA # 6		AREA # 7		AREA # 8	
	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE
Bemidji	6	1	19	13	6	2	6	1	9	3	7	1	6	3	2	1
UM-Duluth	10	5	6	5	8	3	5	2	12	6	5	1	3	0	2	0
Bemidji	3	0	11	6	4	1	7	2	9	3	7	5	1	0	5	2
St. John's	7	3	4	3	4	1	1	1	5	4	2	2	3	1	5	3
Winona	7	1	14	6	6	2	10	5	14	6	7	1	6	3	4	1
Mankato	2	1	14	8	3	1	3	1	6	0	4	1	4	2	4	1
Southwest	8	2	14	11	2	2	7	3	12	4	6	3	4	2	2	2
UM-Duluth	6	5	10	6	6	2	6	2	8	5	4	4	2	0	6	3
UM-Morris	No	Chart														
TOTAL	122	48	252	157	96	38	131	59	188	79	117	54	84	34	92	36
%	39%		62%		40%		45%		42%		46%		40%		39%	

1981-82 TABULATION SHEET

ST. CLOUD VS.

OPPONENT'S NAME	AREA # 1		AREA # 2		AREA # 3		AREA # 4		AREA # 5		AREA # 6		AREA # 7		AREA # 8	
	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE
Michigan Tech	No	chart														
No. Michigan	No	chart														
Augustana	5	2	15	5	7	4	3	0	7	2	8	3	2	1	3	0
Gustavus	7	3	6	5	4	2	2	2	4	3	1	1	5	2	6	1
St. John's	4	1	7	4	7	2	5	2	8	3	4	3	2	1	2	1
Northern	3	1	14	10	0	0	2	1	11	8	2	1	2	2	5	3
N.D.S.U.	8	5	11	7	3	2	5	1	5	2	5	3	5	1	4	3
St. Olaf	7	3	11	5	4	0	3	1	3	1	5	1	4	1	4	4
Concordia	1	1	15	9	6	2	4	3	6	1	7	4	2	0	6	1
UW-LaCrosse	2	1	4	2	4	3	6	3	17	6	5	1	6	3	4	1
Mankato	5	3	9	4	4	4	5	3	4	1	4	1	6	2	5	1
Winona	7	3	18	12	3	0	8	2	5	4	3	1	1	1	7	3
Mankato	5	0	12	8	1	0	10	5	11	7	9	3	7	2	3	1
Moorhead	4	1	11	9	2	2	6	3	7	1	4	3	2	0	4	2
UM-Morris	7	4	9	7	6	3	6	5	7	2	3	2	2	2	0	0
Southwest	5	1	12	9	4	0	9	4	7	2	6	4	4	2	2	1
Moorhead	3	1	6	3	2	0	12	7	11	6	9	5	5	3	7	1
Northern	No	Chart														
TOTAL																
%																

1981-82 TABULATION SHEET

ST. CLOUD VS.

OPPONENT'S NAME	AREA # 1		AREA # 2		AREA # 3		AREA # 4		AREA # 5		AREA # 6		AREA # 7		AREA # 8	
	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE	SHOTS ATTPTD	SHOTS MADE
Southwest	9	3	21	15	3	1	10	5	10	5	6	1	3	2	3	1
Moorhead	3	2	11	5	4	1	8	1	17	10	6	1	5	3	6	4
Northern	10	5	21	17	5	4	8	2	8	4	7	6	2	1	0	0
Bemidji	6	2	26	16	2	1	5	2	9	3	2	0	2	0	2	0
UM-Duluth	12	5	17	14	10	5	3	2	3	2	3	1	4	2	2	0
Mankato																
Winona	8	6	11	11	7	5	10	5	17	12	7	5	5	4	3	2
Southwest	7	5	28	17	6	4	3	1	2	1	3	0	5	3	7	1
UM-Morris	3	1	23	17	3	0	5	3	13	6	3	1	3	1	0	0
TOTAL	131	65	429	288	97	47	146	56	216	117	105	37	76	39	71	28
%	47%		67%		48%		38%		57%		35%		51%		39%	

1980-81

GAME RESULTS SHEET

OPPONENTS	OPPONENT'S FIELD GOAL PERCENT	SCSU FIELD GOAL PERCENT	SCORE SCSU	SCORE OPPONENT
St. John's	47	58	75	80
Montana St.	50	40	62	86
East. Mont.	51	56	66	94
St. John's	48	39	61	76
Gustavus	39	62	78	70
N.D.S.U.	37	62	88	80
Augustana	42	45	82	83
Northern	48	41	71	83
St. Olaf	37	42	63	57
St. Olaf	36	57	96	59
Stevens Pt.	43	48	46	60
St. John's	54	61	92	85
Bemidji	52	49	87	78
UM-Duluth	52	49	97	84
Mankato	59	44	77	81
Winona	39	52	83	74
Moorhead	55	57	96	104
UM-Morris	45	52	81	82
Southwest	47	51	73	80
Moorhead	45	44	69	68
Northern	45	61	90	77
Bemidji	44	50	74	64
UM-Duluth	41	58	76	70
Mankato	69	39	71	79
Winona	40	60	115	89
Southwest	54	54	94	85
UM-Morris	48	56	80	79

The number of times the team with the highest field goal percentage won the game was 16/27.

1981-82

GAME RESULTS SHEET

OPPONENTS	OPPONENT'S FIELD GOAL PERCENT	SCSU FIELD GOAL PERCENT	SCORE SCSU	SCORE OPPONENT
Mich. Tech	42	36	42	53
No. Mich.	48	41	48	68
Augustana	42	36	42	53
Gustavus	33	54	51	54
St. John's	51	43	47	55
Northern	57	69	60	59
N.D.S.U.	51	50	57	64
St. Olaf	47	36	54	42
Concordia	48	44	54	57
LaCrosse	50	41	43	61
Mankato	51	47	48	53
Winona	42	37	75	72
Mankato	45	44	53	56
Moorhead	47	52	49	51
UM-Morris	54	62	56	58
Southwest	48	41	43	49
Moorhead	48	44	56	80
Northern	33	42	50	51
Bemidji	48	46	71	66
UM-Duluth	50	45	61	83
Bemidji	42	41	51	41
St. John's	45	61	65	58
Winona	51	46	58	55
Mankato	49	38	37	45
Southwest	43	50	71	51
UM-Duluth	59	53	59	65
UM-Morris	56	46	54	64

The number of times the team with the highest field goal percentage won the game was 18/27.

1980-81

RIGHT AND LEFT % CHART

GAME		RIGHT SIDE SHOTS ATT.	MADE	LEFT SIDE SHOTS ATT.	MADE
1	SJU	25	16	28	17
2	Mont.	16	7	17	5
3	E.Mont.	11	4	11	7
4	SJU	24	10	31	13
5	Gust.	32	17	33	18
6	NDSU	28	19	28	14
7	August.	No Chart			
8	North.	14	5	15	8
9	St.Olaf	No Chart			
10	St.Olaf	37	27	36	15
11	UWSP	24	14	18	8
12	SJU	25	17	21	11
13	Bemidji	31	16	36	17
14	UMD	33	15	30	17
15	Mankato	38	16	25	11
16	Winona	28	13	30	17
17	Moorh.	37	19	33	17
18	UMM	No Chart			
19	SSU	32	16	33	17
20	Moorh.	35	18	25	9
21	North.	33	24	28	15
22	Bemidji	27	13	27	13
23	UMD	25	14	29	17
24	Mankato	No Chart			
25	Winona	29	22	39	28
26	SSU	30	15	31	17
27	UMM	24	14	29	15
TOTALS		638	351	633	326
FIELD GOAL %		55%		51%	

1981-82

RIGHT AND LEFT % CHART

GAME		RIGHT SIDE SHOTS ATT.	MADE	LEFT SIDE SHOTS ATT.	MADE
1	Tech	No Chart			
2	N.Mich.	No Chart			
3	August.	22	11	23	6
4	Gustav.	16	7	19	12
5	St.John	22	9	17	8
6	North.	20	14	19	12
7	NDSU	18	13	28	11
8	St.Olaf	18	8	23	8
9	Concord	32	12	15	9
10	LaCross	26	12	22	8
11	Mankato	19	9	23	10
12	Winona	27	12	25	14
13	Mankato	26	12	32	14
14	Moorh.	20	14	20	7
15	UMM	20	11	20	14
16	SSU	22	10	33	13
17	Moorh.	29	12	26	13
18	North.	No Chart			
19	Bemidji	30	13	31	12
20	UMD	25	12	26	10
21	Bemidji	25	12	21	7
22	St.John	17	10	14	8
23	Winona	36	14	32	11
24	Mankato	17	3	23	12
25	SSU	23	14	32	15
26	UMD	19	11	29	16
27	UMM	No Chart			
TOTALS		529	255	553	250
FIELD GOAL %		48%		45%	