

# District III Power Rating

The power rating will be a combination of the team's weighted winning percentage (TWWP) and their opponents' weighted winning percentage (OWWP). The proposed power rating would be the sum of 55 percent of the team's TWWP and 45 percent of the team's OWWP.

## CALCULATING TEAM WEIGHTED WINNING PERCENTAGE (TWWP)

The TWWP is based on the results of all games that a team plays. It values wins and losses by the classification of the opponent. The TWWP is calculated by dividing the WEIGHTED WIN VALUE by the sum of the WEIGHTED WIN VALUE and WEIGHTED LOSS VALUE.

### WEIGHTED WIN - LOSS VALUES

#### 4 CLASS SYSTEM (Basketball)

CLASS	WIN	LOSS
AAAA	1.3	0.7
AAA	1.1	0.9
AA	0.9	1.1
A	0.7	1.3

#### 3 CLASS SYSTEM (Boys Soccer)

CLASS	WIN	LOSS	TIE (Win/Loss)
AAA	1.2	0.8	0.6/0.4
AA	1.0	1.0	0.5/0.5
A	0.8	1.2	0.4/0.6

#### 2 CLASS SYSTEM (Field Hockey)

CLASS	WIN	LOSS	TIE (Win/Loss)
AAA	1.1	0.9	0.55/0.45
AA	0.9	1.1	0.45/0.55

All games against PIAA opponents will count in calculating a team's TWWP. Games against NON-PIAA opponents will no longer be considered for power rating calculations.

## EXAMPLES

### 4 CLASS SYSTEM – Football Example

Game	Class	Result	WW	WL
1	AAAA	W	1.3	
2	AAA	W	1.1	
3	AA	L		1.1
4	AAA	L		0.9
5	AAA	W	1.1	
6	AA (Non-D3)	W	0.9	
7	AAAA	L		0.7
8	A	L		1.3
9	Non-PIAA	L		0.0
10	AAA	W	1.1	
<b>TOTALS</b>			<b>5.5</b>	<b>4.0</b>
<b>WWP = 5.5/(5.5+4.0) = 0.5789473</b>				

### 3 CLASS SYSTEM

Game	Class	Result	WW	WL
1	A (Team 1)	W	0.8	
2	AAA (Team 2)	W	1.2	
3	AA (Team 3)	L		1.0
4	AAA (Team 4)	T	0.6	0.4
5	AAA (Team 2)	W	1.2	
6	AA (Non-D3)	W	1.0	
7	A (Team 1)	L		1.2
8	AA (Team 5)	W	1.0	
9	Non-PIAA	L		0.0
10	AAA (Team 2)	W	1.2	
11	A (Non-D3)	W	0.8	
12	A (Team 6)	T	0.4	0.6
13	AA (Team 3)	L		1.0
14	AAA (Team 4)	L		0.8
15	A (Team 6)	W	0.8	
16	A (Team 7)	W	0.8	
<b>TOTALS</b>			<b>9.8</b>	<b>4.8</b>
<b>WWP = 9.8/(9.8+4.8) = 0.6712328</b>				

## CALCULATING OPPONENTS' WEIGHTED WINNING PERCENTAGE (OWWP)

The OWWP is calculated by totaling the weighted win values and weighted loss values of all of the team's opponents; then, dividing the total of the weighted win values by the sum of the totals of the weighted win values and the weighted loss values. Non-PIAA opponents will not be included in calculating the OWWP. If you play your opponent more than once, their totals will be included for each time they are played.

### EXAMPLES

4 CLASS SYSTEM – Football Example				
Game	Class	Result	WW	WL
1	AAAA	W	4.2 *	6.4 #
2	AAA	W	6.3	2.6
3	AA	L	8.6	1.1
4	AAA	L	7.4	1.8
5	AAA	W	1.1	8.7
6	AA	W	4.5	5.1
7	AAAA	L	10.4	1.6
8	A	L	6.3	2.4
9	Non-PIAA	L		
10	AAA	W	6.4	3.4
<b>TOTALS</b>			<b>55.2</b>	<b>33.2</b>
<b>OWP = 55.2/(55.2+33.2) = 0.6244344</b>				

3 CLASS SYSTEM				
Game	Class	Result	WW	WL
1	A (Team 1)	W	7.8	9.4
2	AAA (Team 2)	W	2.2	13.4
3	AA (Team 3)	L	13.2	1.6
4	AAA (Team 4)	T	6.6	12.2
5	AAA (Team 2)	W	2.2	13.4
6	AA (Non-D3)	W	8.8	5.4
7	A (Team 1)	L	7.8	9.6
8	AA (Team 5)	W	9.6	5.6
9	Non-PIAA	L		
10	AAA (Team 2)	W	2.2	13.4
11	A (Non-D3)	W	14.4	0.8
12	A (Team 6)	T	7.4	9.2
13	AA (Team 3)	L	13.2	1.6
14	AAA (Team 4)	L	6.6	12.2
15	A (Team 7)	W	8.2	5.4
16	A (Team 8)	W	4.4	10.6
<b>TOTALS</b>			<b>114.6</b>	<b>123.8</b>
<b>OWP = 114.6/(114.6+123.8) = 0.4807047</b>				

- \* 4.2 equals 2 wins against AA opponents (.9 + .9), 1 win against AAA opponent (1.1) and 1 win against a AAAA opponent (1.3)
- # 6.4 equals 2 losses against A opponents (1.3 + 1.3), 2 losses against AA opponents (1.1 + 1.1), 1 loss against a AAA opponent (.9) and 1 loss against a AAAA opponent (.7)

## CALCULATING POWER RATING

The Power Rating is the sum of 55% of the TWWP and 45% of the OWWP. This number will not be over 1.000.

### EXAMPLES (USING THE CALCULATIONS ABOVE)

4 CLASS SYSTEM	
TWWP:	0.5789473 * 0.55 = 0.318421
OWWP:	0.6244344 * 0.45 = 0.2809954

3 CLASS SYSTEM	
TWWP:	0.6712328* .55 = 0.369178
OWWP:	0.4807047* .45 = 0.2163171

$$0.318421 + 0.2809954$$

$$0.4807047 + 0.2163171$$

$$\text{POWER RATING} = 0.5994164$$

$$\text{POWER RATING} = 0.5854951$$

## TIE BREAKING CRITERIA

- #1 – Head to Head
- #2 – Best TWWP
- #3 – Unweighted Winning Percentage against common Regular Season
- #4 – Unweighted Winning Percentage against Regular Season
- #5 – Unweighted Winning Percentage of Common Regular Season
- #6 – Unweighted Winning Percentage of Regular Season Opponents
- #7 – Lowest Points/Goals Yielded Average Against Common Opponents
- #8 – Lowest Points/Goals Yielded Average Against All Opponents
- #9 – Coin Toss