

BILLIE JEAN KING CUP NATIONS RANKING

The Billie Jean King Cup Nations Ranking system was updated in 2020 to reflect the new format of the competition.

The system aims to ensure that ranking points are fairly distributed to nations no matter the level of the competition or how many ties a nation plays in a year.

Nations Rankings will be officially published after each round of Billie Jean King Cup ties and will continue to be based on results over a four-year period, with recent performances weighted more heavily.

Results from 2020 and 2021 count as the same calendar year for the purposes of the rankings due to the competition being held over two years as a result of the Covid-19 pandemic.

Definitions

T	=	Total ranking points for a nation
P _{YEAR}	=	Total ranking points earned by a nation within a specific year
S	=	Stage points
W	=	Win bonus
R	=	Rank bonus
A	=	Away bonus

Points structure overview

STAGE POINTS (S)	WIN BONUS (W)	RANKING BONUS (R)	AWAY BONUS (A)
Finals – 350	Finals, Final – 50	vs rank 1 – 50	Qualifiers – 50
Qualifiers – 250	Finals, Semi-final – 50	vs rank 2-5 – 30	Play-offs – 50
Group I – 150	Finals, Group stage – 25	vs rank 6-10 – 20	
Group II – 100	Qualifiers – 100	vs rank 11-20 – 10	
Group III – 50	Play-offs – 25	vs rank 21 & below – 0	
Group IV – 0	Groups I-IV – Variable, maximum 120 per event		

Calculation of future P_{YEAR} values

Stage Points, S

A nation will receive the following points depending on the stage of the competition they start the year in. These points are earned once, at the start of the year.

STAGE OF COMPETITION	STAGE POINTS (S)
Finals	350
Qualifiers	250
Group I	150
Group II	100
Group III	50
Group IV	0

Win Bonus, W

Nations will receive a Win Bonus for winning a tie at a specific stage of the competition.

LEVEL OF COMPETITION	WIN BONUS (W)
Finals, Final	50
Finals, Semi-final	50
Finals, Group Stage	25
Qualifiers	100
Play-offs	25
Groups I-IV	Variable, but maximum 120

Many nations will earn several Win Bonuses through the year.

For Regional Group Events, nations are awarded Win Bonus points as per the table below and with a maximum of 120 points per event. The number of ties played includes both round robin and play-off ties.

NUMBER OF TIES PLAYED	WIN BONUS (W)
1 tie	120
2 ties	60
3 ties	40
4 ties	30
5 ties	24
6 ties	20

Ranking Bonus, R

Nations will receive a ranking bonus for winning a tie based on the opponent's ranking at the time of the tie.

OPPONENT'S RANKING	RANKING BONUS (R)
1	50
2 – 5	30
6 – 10	20
11 – 20	10
21 and below	0

Nations can potentially earn several Rank Bonuses, most likely in the Group Stages and Knock-out rounds of the Finals.

Away Bonus, A

An Away Bonus of 50 points is awarded to nations winning ties away from home in the Qualifiers and Play-offs.

Calculation total ranking points at year-end

A nation's total ranking points (T) are the combination of the current single-year rankings points earned plus the discounted points from the three previous years. So for year y:

$$T = P_Y + (0.75 \times P_{Y-1}) + (0.5 \times P_{Y-2}) + (0.25 \times P_{Y-3})$$

T = Total ranking points for a nation
PYEAR = Ranking points earned in a single-year

S = Stage points
W = Win bonus

R = Ranking bonus
A = Away bonus

For example, if we were to calculate a nation's ranking points at the end of 2023:

$$T = (100\% \text{ of the points earned in 2023}) + (75\% \text{ of the points earned in 2022}) \\ + (50\% \text{ of the points earned in 2020-21}^*) + (25\% \text{ of the points earned in 2019})$$

*the 2020 competition was played over a two-year period due to the pandemic.

Transition of old ranking points

The points that nations have earned under the previous competition structure and ranking methods will be required for the discounted single-year values moving forward. However, they need adjusting so that the weightings of the discounted single-year points are balanced under the new structure and methods. To do this, the 2019 year-end points are scaled using the following formula.

$$T_{new} = 55 T_{old}^{0.3} - 20$$

For nations with very low (e.g. zero) points at the end of 2019, this formula can give a negative value. Any negative values are replaced with zeros.

The transition formula achieves the following key objectives:

1. Maintain the order of nations. Nations will have their same position in the rankings after the transition to the new system
2. Balances the single-year values for use in the new ranking system
3. Uses a single formula on the 2019 year-end ranking points to carry over to the new system

Tied rankings and decimal rounding

If two or more nations have the same number of ranking points then the nation who has played the least amount of ties in the ranking period will assume the higher position. If the nations have played the same number of ties in the ranking period, then they will have a joint ranking.

For administrative purposes, we will continue to round ranking points to two decimal places. For example, ranking points of 426.765 would be rounded to 426.77 and 426.764 would be rounded to 426.76.