FIBA World Ranking Women, presented by Nike
Detailed Examples

Examples of Method Stage 1

1. When China beat Australia in the Semi-Final of FIBA World Cup 2022, the basis points (BP) awarded for this game were 600 to China and 400 to Australia due to the Chinese 2-point margin of victory (59-61). The home or away points (HAP) were -70 for Australia and +70 for China as the game was played in Australia. Pre-game, Australia were ranked #3 with and an average rank of 63 across all teams (according to the ranking's new system). Therefore, **opposition ranking points (ORP) to be applied to China was 1.5 x (62 - 3) = 88.5**. Similarly, China were ranked #7, giving **the opposition ranking points (ORP) to be applied to Australia as 1.5 x (62 – 7) = 82.5**. The final rating points (RP) for Australia for this game are: **RP = BP + HAP + ORP = 400 – 70 + 82.5 = 412.5**. For China, the final rating points (RP) for this game are: **RP = BP + HAP + ORP = 600 + 70 + 88.5 = 758.5**.

2. Egypt beat Kenya 81 – 76 on 17 March 2017, in Qualifying for the 2017 FIBA AfroBasket tournament. The basis points (BP) awarded for this game were 600 to Egypt and 400 to Kenya, due to the 5-point margin of victory. The home or away points (HAP) were -70 for Egypt and +70 for Kenya, as the match was played in Egypt. Pre-game, Egypt had were ranked #69 and Kenya #70, with an average rank of 61 across all teams. This gave **an opposition rank points (ORP) of 1.5 x (61 – 69) = -12** to be applied to Kenya's final rating points, and **1.5 x (61 – 70) = -13.5** to be applied to Egypt. The final rating points (RP) for Egypt from this game are: **RP = BP + HAP + ORP = 600 – 70 - 13.5 = 516.5**. For Kenya, the final rating points (RP) from this game are: **RP = BP + HAP + ORP = 400 + 70 - 12 = 458**.

3. In the first round of the 2019 FIBA AmeriCup, USA beat Brazil 89-73. The 16-point margin of victory meant that USA were awarded 700 basis points (BP) and Brazil 300. The home or away points (HAP) were 0 for each team, because the game was played in the neutral venue of Puerto Rico. Pre-game, USA were ranked #1 with an average rank of 66 across all teams. This gave an **opposition ranking points (ORP) of 1.5 x (66 – 1) = 97.5** to be applied to Brazil's final ratings points. Brazil were ranked #17 pre-game, making **the opposition ranking points (ORP) applied to USA 1.5 x (66 – 17) = 73.5**. The final rating points (RP) for USA from this game are: **RP = BP + HAP + ORP = 700 + 0 + 73.5 = 773.5**. The final rating points for Brazil from this game are: **RP = BP + HAP + ORP = 300 + 0 + 97.5 = 397.5**.

Note that in all examples, the opposition ranking points use the rankings according to the new FIBA World Ranking Women, presented by Nike, applied to historical data. This is necessary because the new ranking system ranks more teams than the previous competition-based ranking system, and therefore rankings are needed for all teams.

Examples of Method Stage 2

1. For the Australia v China game in the example presented in stage 1 of the calculation, the competition is the FIBA World Cup, so the weight would be **C = 2.5**. The stage is a Final Tournament and the Semi-Final was the 3rd round played in the tournament. This gives **S = 1 and R = 4** for China (the winning team) and **S=1 and R = 1** for Australia (the losing team). The final weight (W) would depend on the date that the new FIBA World Ranking Women, presented by Nike, was being calculated, because the time decay (TD) will change as the game becomes less recent. If the rating was being calculated in August 2023, then the game would have been played within the last 2 years and the time decay would be **TD = 1**. This would give a weight for this game of **W = TD x C x S x R = 1 x 2.5 x 1 x 4 = 10** for China (the winning team) and **W = TD x C x S x R = 1 x 2.5 x 1 x 1 = 2.5** for Australia (the losing team).

2. For the Egypt v Kenya game in the example presented in stage 1 of the calculation, the competition is the FIBA AfroBasket, so the weight would be **C = 0.35**. As it is a qualifying game, the stage **S = 0.5 and R = 1** for both teams. The final weight (W) would depend on the date that the new FIBA World Ranking Women, presented by Nike, was being calculated, because the time decay (TD) will change as the game becomes less recent. If the rating was being calculated in August 2023, then the game would have been played between 6 and 8 years ago, and the time decay would be **TD = 0.25**. This would give a weight for this game of **W = TD x C x S x R = 0.25 x 0.35 x 0.5 x 1 = 0.04375** for both teams.

3. For the USA v Brazil game in the example presented in stage 1 of the calculation, the competition is the FIBA AmeriCup, so the weight would be **C = 0.7**. The stage is a Final Tournament and it is a 1st round game in the tournament, giving **S = 1 and R = 1** for both teams. The final weight (W) would depend on the date that the new FIBA World Ranking Women, presented by Nike, was being calculated, because the time decay (TD) will change as the game becomes less recent. If the rating was being calculated in August 2023, then the game would have been played between 2 and 4 years ago, and the time decay would be **TD = 0.75**. This would give a weight for this game of **W = TD x C x S x R = 0.75 x 0.7 x 1 x 1 = 0.525** for both teams.

To calculate the final **team ratings** the penalized weighting is calculated as:

$$\frac{\Sigma i\ RPi \times Wi}{max(K, \Sigma i\ Wi)}$$

Where the Greek symbol Σ denotes a sum which is over all the historical games (indexed by i) played by the team in the previous 8 years and for each game i,

RP*i* = Rating points for game i

W*i* = Weight of game i

The constant **K** is a mathematical penalty term that ensures that teams who have played few games are not ranked too highly because of small sample size.

To calculate the new FIBA World Ranking Men, presented by Nike, we then simply rank the teams according to the team ratings calculated above.