



Ohio High School Athletic Association



MaxPreps Soccer RPI Calculations

MaxPreps can calculate RPI based on strength of schedules and has offered to provide this service for the sport of soccer for the 2023 season. Coaches are asked to submit their scores through MaxPreps with the intent of using the established RPI seeding system to determine if the RPI data provides a more accurate, equitable way to determine a team's seed for the OHSAA Tournament.

This season will serve as an experimental year to evaluate the seed assignments based on a mathematical system compared to the current voting process. The data will be reviewed after the season and feedback will be solicited to determine if this system will be used in future years.

Below are answers to frequent questions surrounding the RPI system.

Additionally, MaxPreps has created a presentation about the [myths and facts about RPI](#), specifically as it relates to scheduling.

What's the RPI formula and where did it come from?

RPI stands for Ratings Percentage Index. This [Wikipedia page](#) is a good starting point for those looking to become familiar with the formula. In short, it is a way to measure a team's strength relative to other teams, based largely on the strength of their schedules.

The RPI formula is used by both the NCAA and NAIA, among other organizations, as part of their postseason system.

What percentages are being used in the formula?

The formula is as follows:

$$\text{RPI} = (0.35 \times \text{WP}) + (0.35 \times \text{OWP}) + (0.30 \times \text{OOWP})$$

Why use RPI instead of another type of rating system?

A major advantage to the RPI is the transparency that comes along with its accuracy. The components of the formula are known, and its results can be easily replicated.

What data will be used in the RPI formula?

All games played in the regular season shall be counted toward the RPI calculation, with the exception of games against non-varsity opponents (i.e. junior varsity teams, prep schools and international schools).

Where should we report scores?

Report scores to MaxPreps. The official RPI feed will be calculated from results entered into that platform.

Does margin of victory matter in the RPI formula?

No. There is no factor for score differential in the RPI formula. A 1-0 win counts the same as 100-1. Ties are worth 0.5 to each team for win and loss.

Where will the RPI standings be published?

The official OHSAA RPI standings will be published on OHSAA.org. It is worth noting that any RPI data published elsewhere is unofficial and should be viewed with skepticism as it may not be correct. The OHSAA RPI data should not be confused with the MaxPreps rankings. MaxPreps rankings are updated twice a week and posted on www.maxpreps.com.

How are the components of the formula specifically calculated?

- **Winning percentage (WP):** Divide the number of wins by the number of total games played. A tie is worth half a win. If a win in an individual contest gives that contest a winning percentage of 1.00, a tie would give that individual contest a winning percentage of .500 for both teams.
- **Opponents' winning percentage (OWP):** Average the winning percentages of a team's opponents. (Note: This is not calculated via the combined record of the opponents, instead by averaging each winning percentage of the opponents.) All games involving the team whose RPI is being calculated are ignored in this process.
- **Opponents' opponents winning percentage (OOWP):** The same process as described above, except calculated for the opponents of a team's opponents. Note that there is an exception for out-of-state teams, which is addressed below.

How will out-of-state opponents be handled?

Out-of-state opponents are treated just like in-state opponents.

How will cross-classification games be handled? (e.g., Division 1 vs Division 2)

Games will count the same as games contested between teams in the same classification. There is no modifier for playing a higher or lower division.

Are games against non-varsity teams counted toward the RPI calculation?

No, they are not. When teams have/schedule a non-varsity opponent on their MaxPreps schedule, the opponent will be designated a non-varsity opponent. As a reminder, scrimmages and previews do not count toward rankings, standings or seedings and should not be noted on your schedule in MaxPreps.

Does my RPI rating go down if I win a game?

No. This is a common misconception. The direct game is not factored into your RPI formula.

For example, if your team plays a team that is 9-0, and you beat them, their record is now 9-1 (for a winning percentage of .900). However, because the direct game is not included in your team's calculation, they are factored in as 9-0 for the purposes of your RPI calculation. In other words, their winning percentage for your calculation remains at 1.000.

This is true even if you play a team twice, or three times. All direct games against that opponent are removed from the calculation.

What happens if two teams are tied in the final RPI standings?

We have created a tiebreaker for this unlikely scenario. It is as follows:

1. Head-to-head result between the two teams
2. Winning percentage
3. Opponents' winning percentage
4. Opponents' opponents winning percentage
5. Highest-rated win (according to the final RPI standings)
6. Next-highest rated win (exhaust all possibilities)
7. Coin flip

The only reason for the coin flip is as a last result if all other scenarios happen to be tied.

How should teams be scheduling?

The main thing to remember with the RPI is it takes an entire schedule into account. Do not fret over scheduling one game. Instead, see the entire schedule as a whole and try to judge if it will be tough or not.

What happens if a game is cancelled and can't be rescheduled?

Because the RPI system works off averages, it won't make a difference in the final formula if a game cannot be rescheduled. It would not penalize, nor benefit, any team involved in that scenario.

How do schools that drop programs affect the RPI?

If a school drops a program prior to the start of their competitive season, no forfeits will be involved. Instead, their opponents now have open dates in the sports where they were scheduled to play the teams who dropped their program, and they are free to try and find another game, if possible.

If a school drops a program after their competitive season has started, that team shall forfeit their remaining games to their opponents.

In this instance, the competitive season is defined as the first day a team plays in a contest.

What if I forget to/don't update my scores?

Essentially, only one school needs to report the score into MaxPreps, but we recommend each school check the results to ensure accuracy. MaxPreps has several stat partners to aid in score collection and the OHSAA can check scores daily to see which games are missing results. MaxPreps also can monitor accounts so school participation can be tracked for those not entering results. If this becomes required, it will be easy to identify schools not participating and the OHSAA may administer fines.

How often will the RPI standings be published?

The RPI standings will not be published for the first time until early September. This is to allow teams to have at least competed in a few games to have RPI data. Once they are posted, feeds are updated hourly during the remaining regular season.