

The Best Parameter for Tennis Players

Research Question:

The Universal Tennis Rating (UTR) is an algorithm used to assess the skills and talent of tennis players. Is UTR substantial for measuring the talent of tennis players vs other parameters that are better for measuring different skills?

Universal Tennis Rating System

- The Universal Tennis Rating System (UTR) is an algorithm calculated using a player's last 30 eligible match scores from the last 12 months.
- For the eligible match, the algorithm calculates a match rating and a match weight including the reliability rate.
- The higher the reliability rate the more accurate the UTR is for that specific player.
- The Ratings start from 1 and lead up to 16.50. These serve as a grading of a tennis players level. 1 represents an underdeveloped tennis player and 16.50 represents a flawless master of tennis.
- However, 16.50 has never been reached by a tennis player. The highest UTR achieved was by Rafael Nadal who reached 16.49 in the peak of his career.

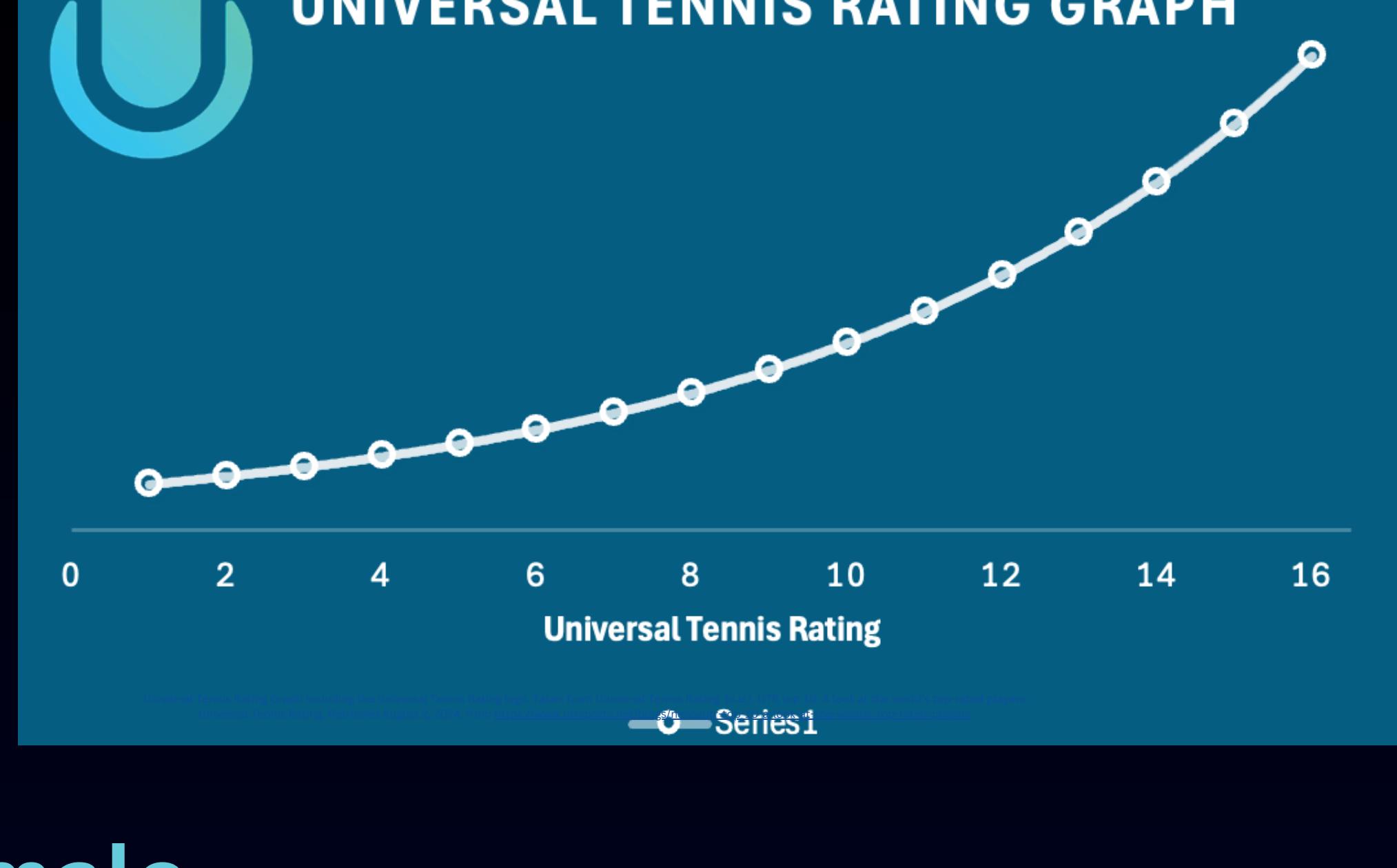
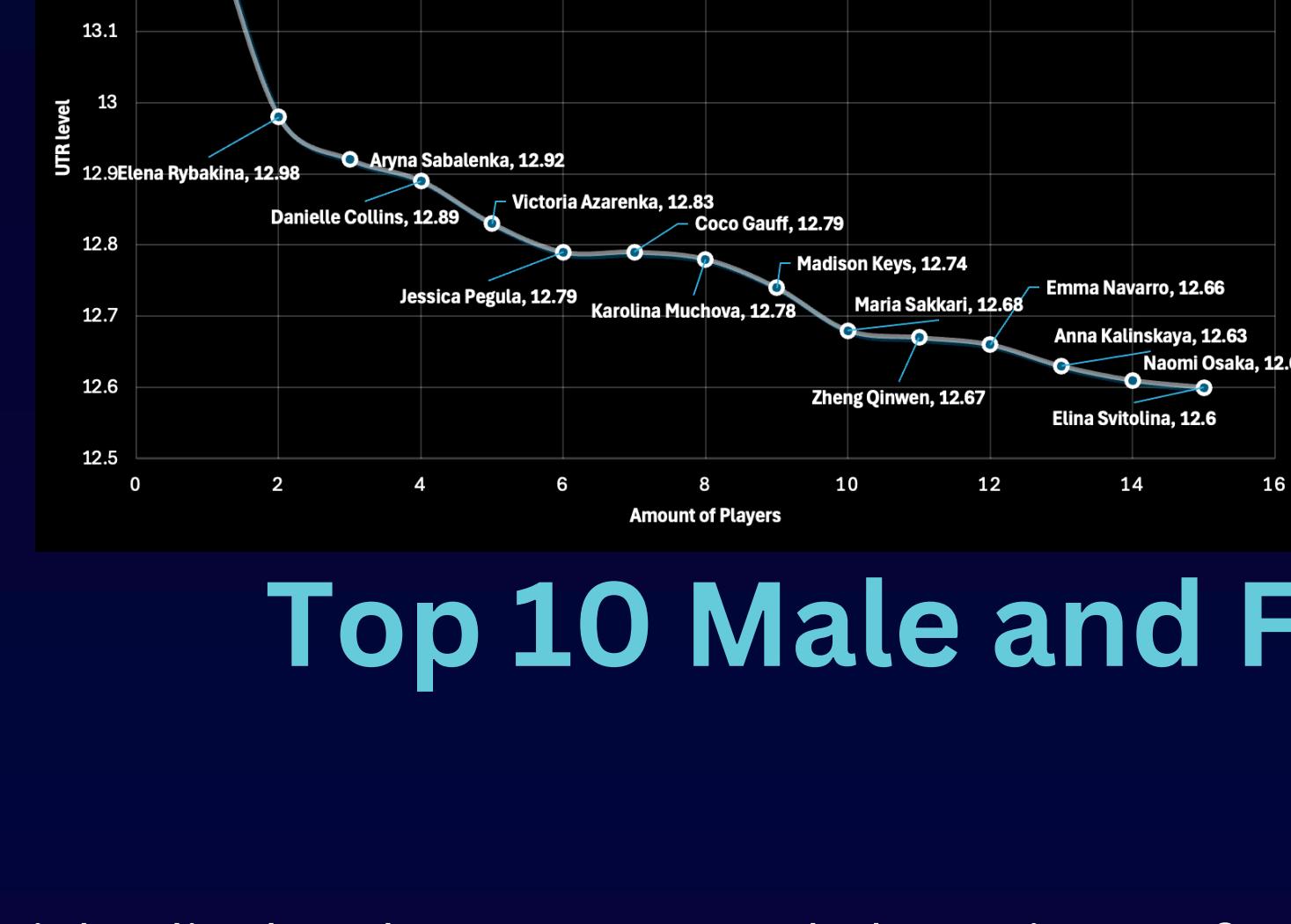
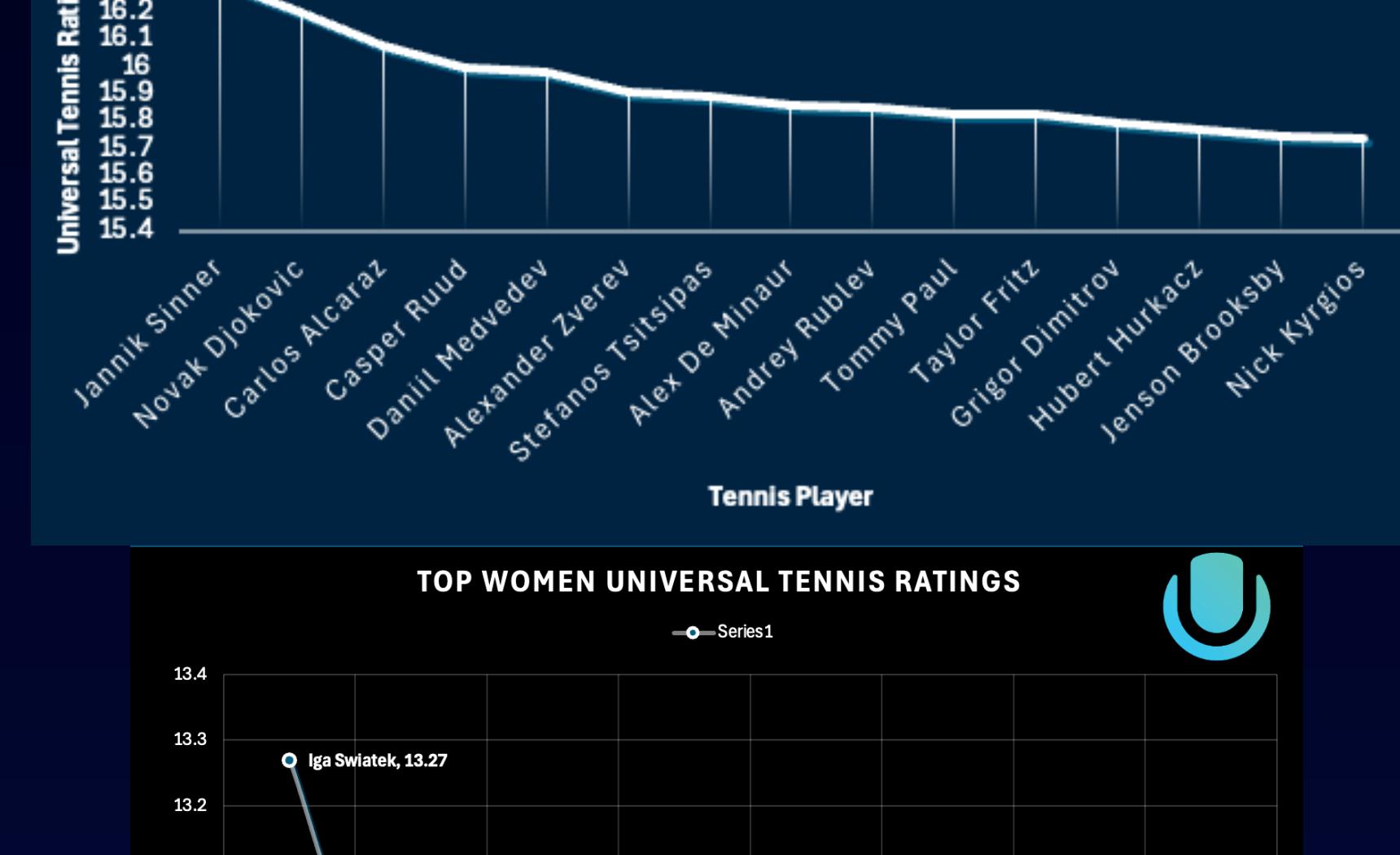


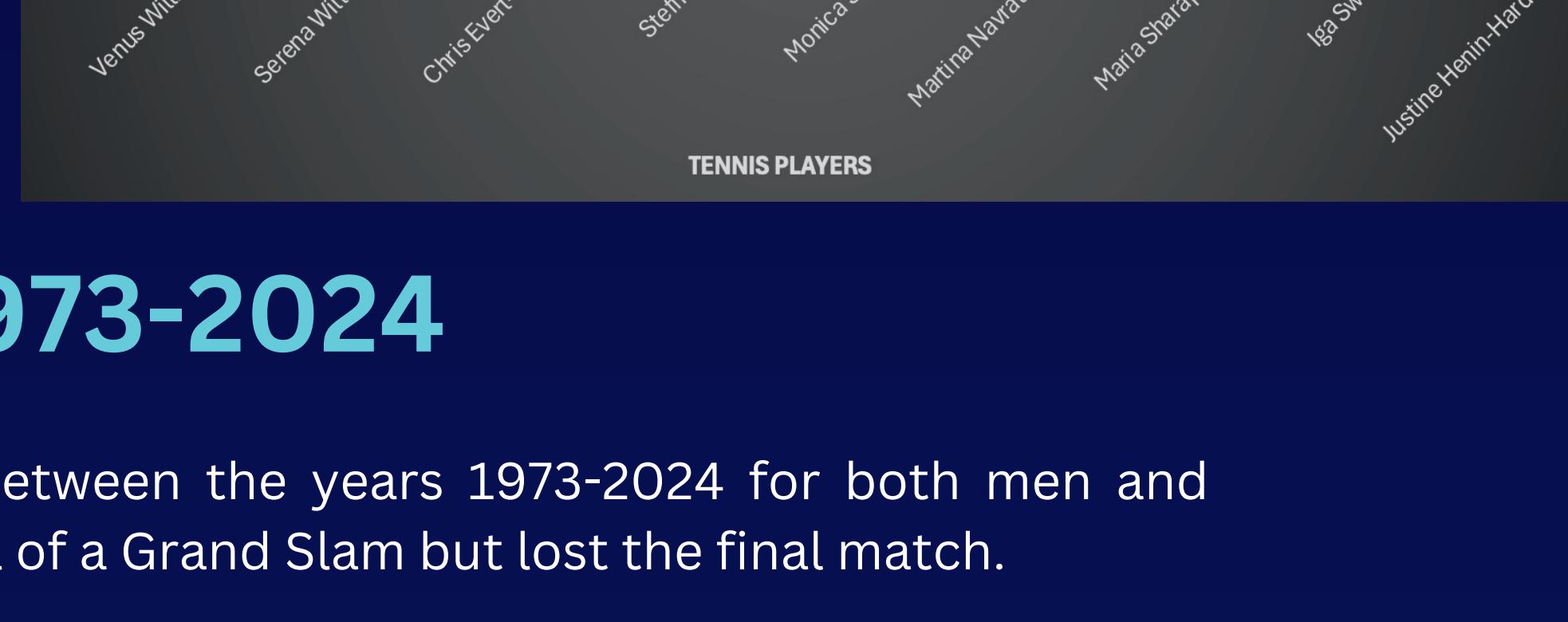
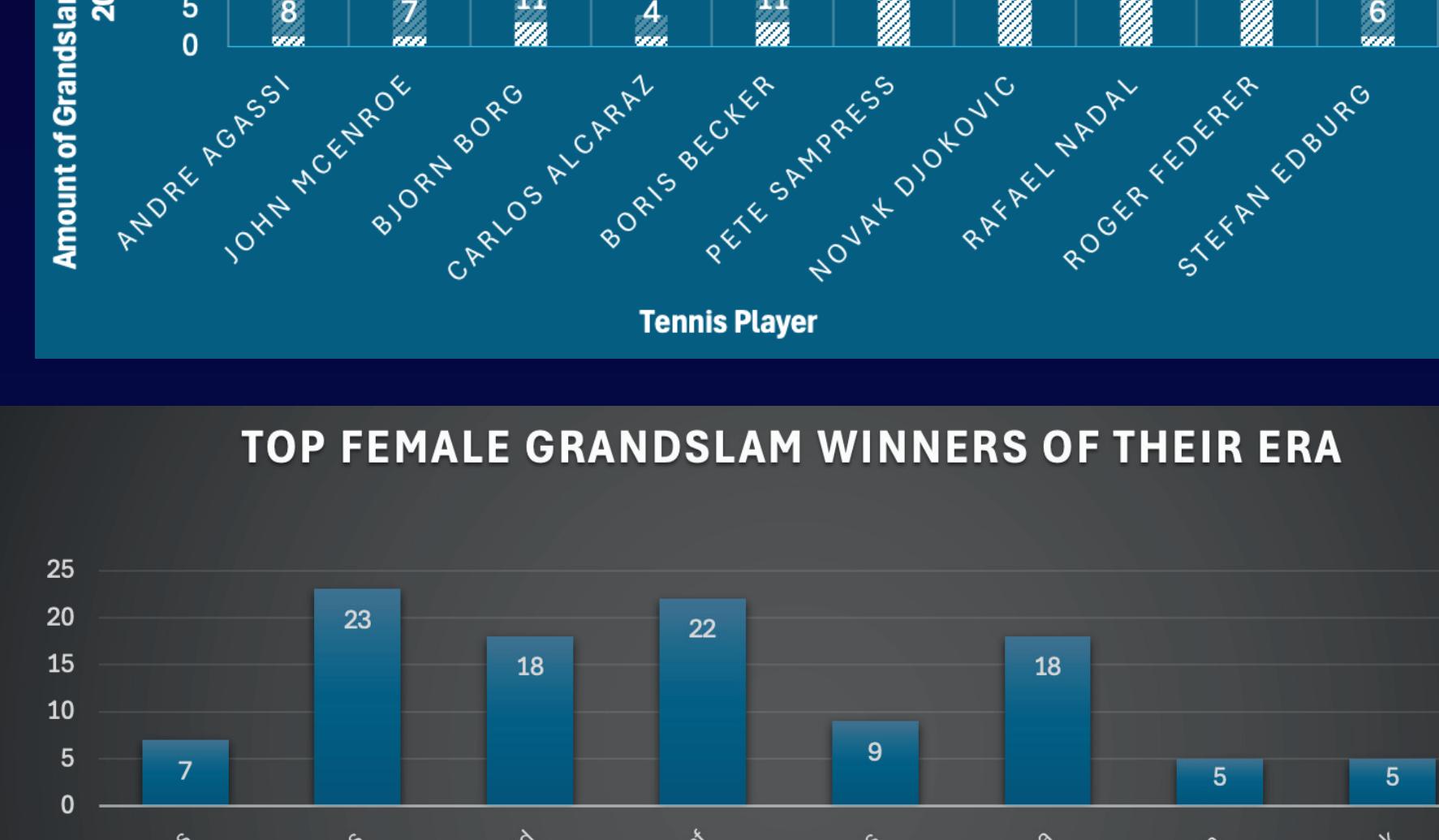
Table of Top 15 UTR Players Male and Female



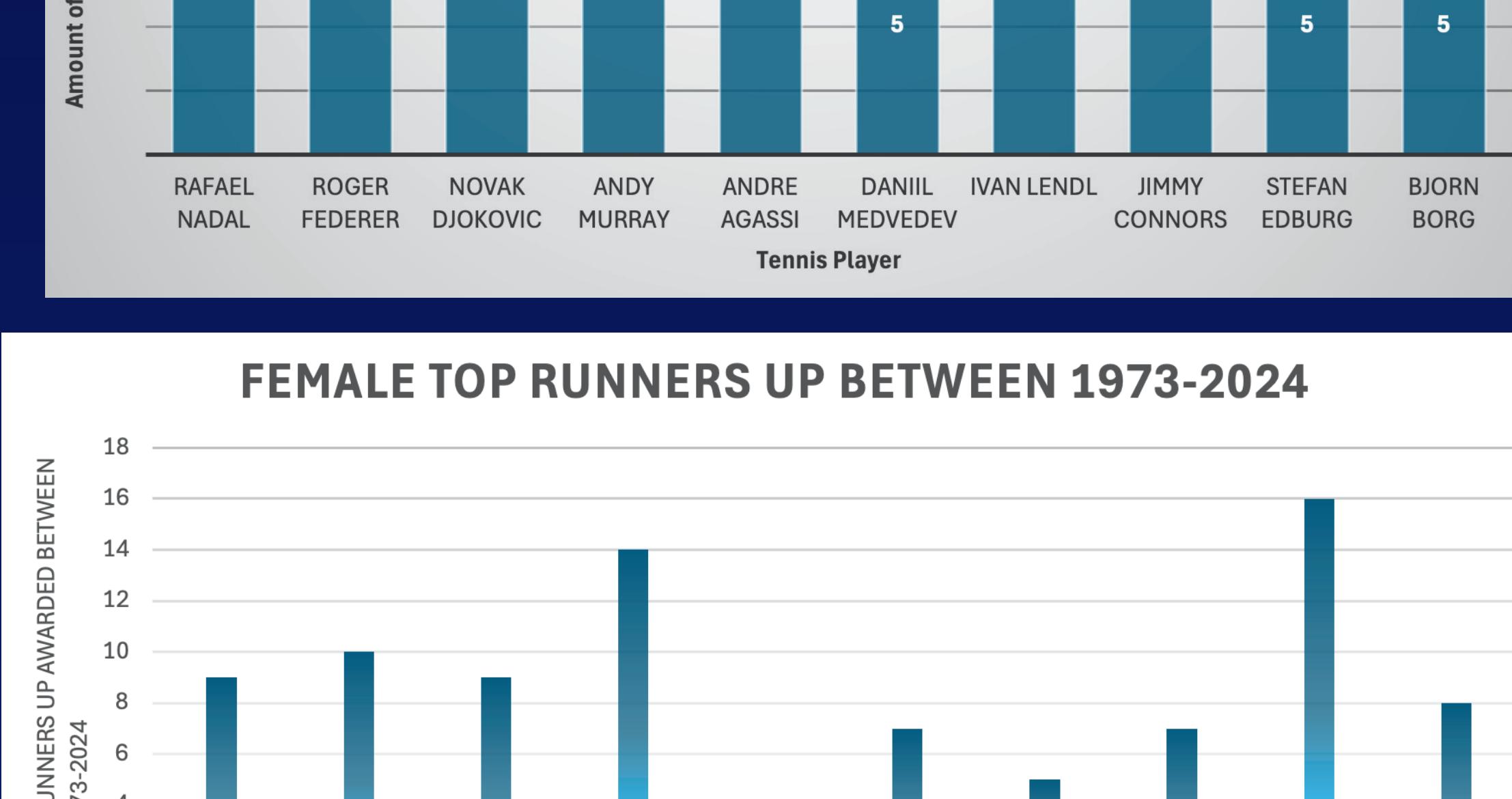
- The graphs to the left display the Universal Tennis Ratings for the top 15 men and women. The Mens Singles Graph ranges from a UTR of 15.74-16.32. The highest-rated male player was Jannik Sinner at a 16.32 UTR, with the 15th highest ranked player, Nick Kyrgios having a UTR of 15.74
- In the top women's UTR ratings, Iga Swiatek is the top rated Universal Tennis Rated player at 13.27, with the 15th highest ranked female player, Elina Svitolina having a UTR of 12.6.
- Both graphs display the top 15 men have a significantly higher UTR than the top 15 women.
- Both graphs incorporate the Universal Tennis Rating System logo as well as display a decreasing trend from the highest rated universal tennis rated player to the 15th universally tennis rated player.
- To be ranked in the top 15 for either men or women demonstrates a huge level of talent, determination, dedication and skill.

Top 10 Male and Female Grand Slam Winners Between 1973-2024

- The graphs to the right display the top 10 Grand Slam winners for both men and women.
- Novak Djokovic has the highest number of Grand Slam victories at 24, followed by Rafael Nadal at 22 and Roger Federer at 20.
- Carlos Alcaraz has only 4 Grand Slam victories during this period; however at his age of 21, it is anticipated that he has many years to continue playing and increasing the number of Grand Slam victories.
- In the graph showing the Female Grand Slam winners, Serena Williams has 23 Grand Slams, followed by 22 by Steffi Graf and 18 by Martina Navratilova and Chris Evert-Lloyd.
- The smallest record for the female graph is Maria Sharapova however she was suspended for 2 years because she failed her drug test and found guilty of taking Meldonium (drug used to increase endurance).
- It is important to note the Universal Tennis Rating System was introduced in 2008. Many of the players mentioned in this analysis would not have been exposed to the UTR process.



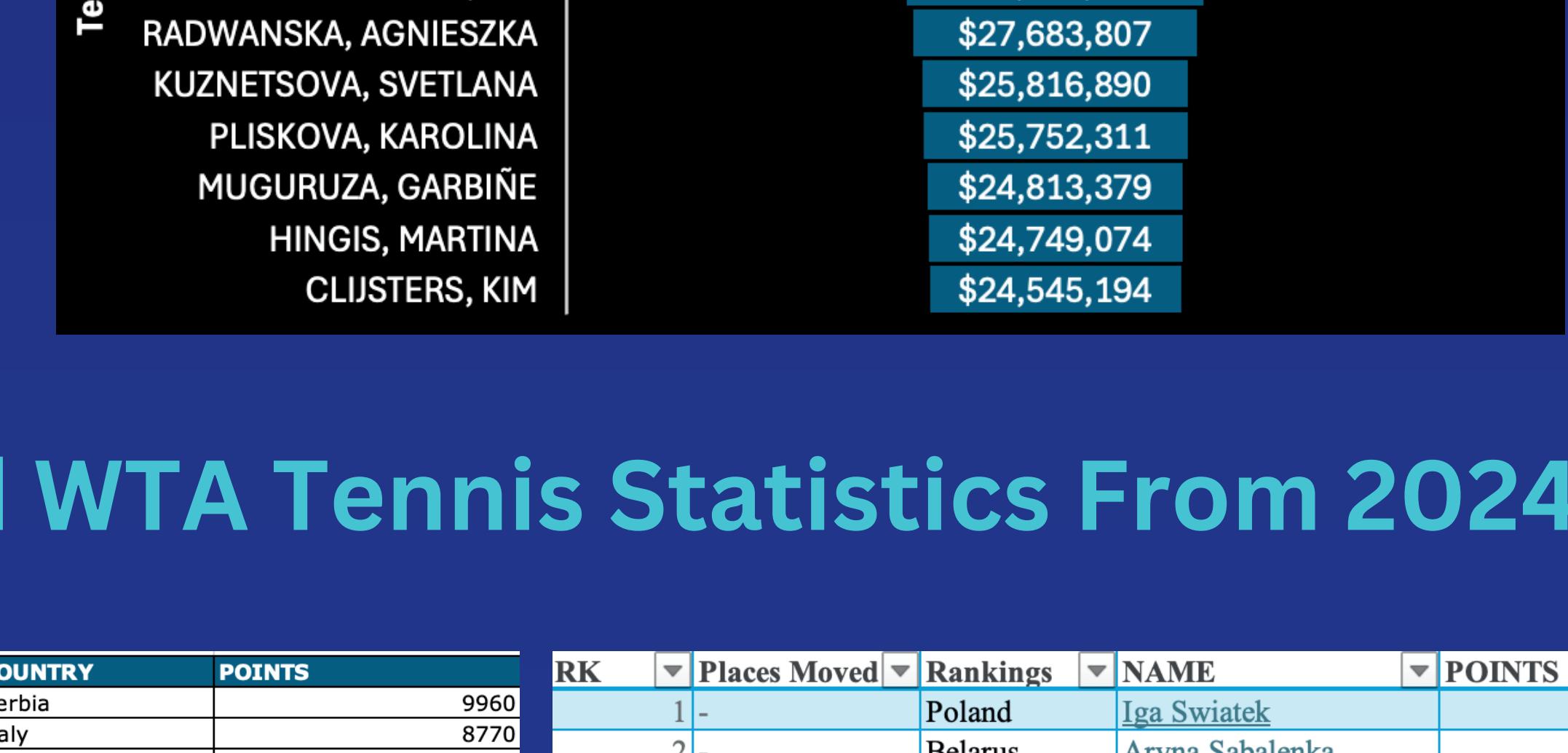
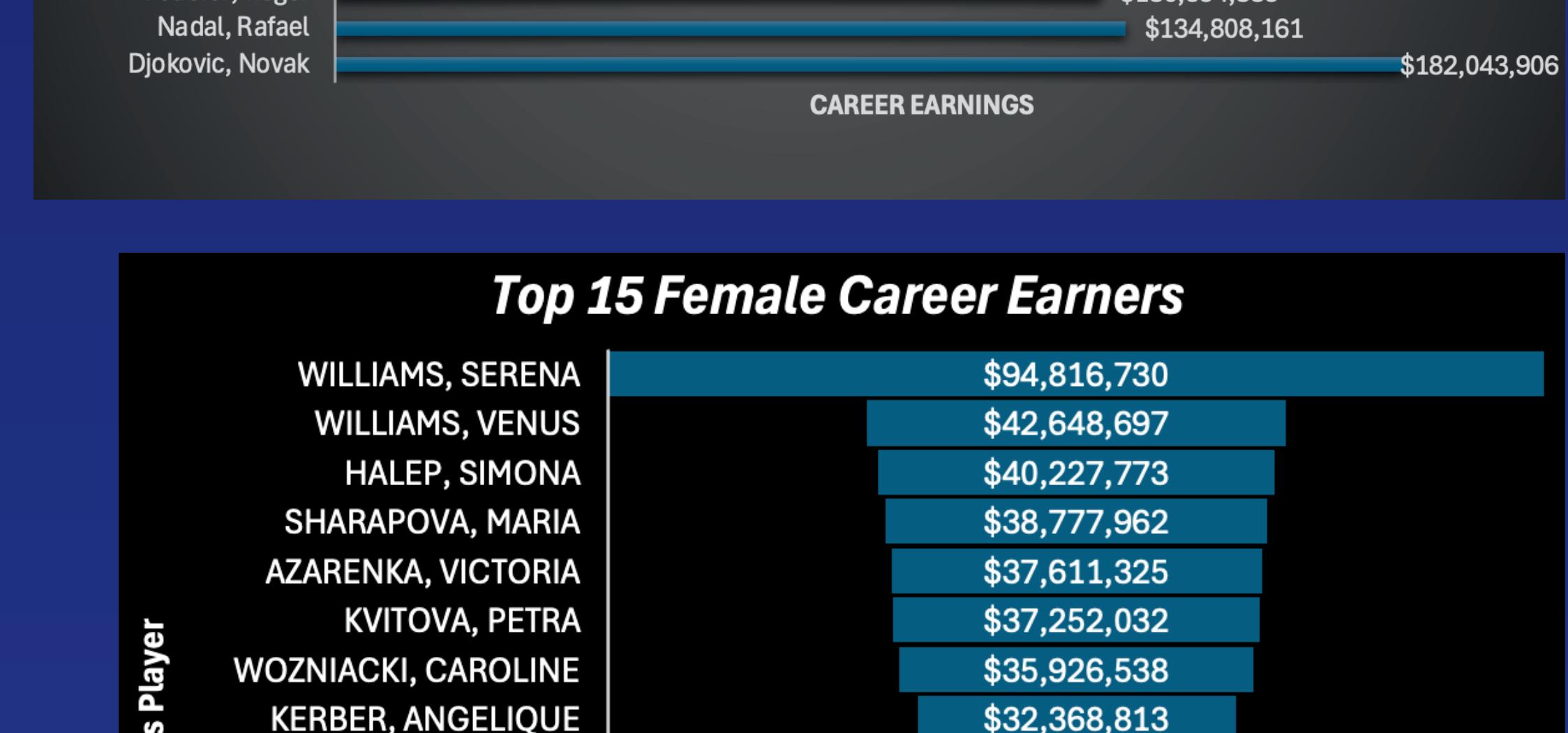
Top 10 Male and Female Runners-Up Between 1973-2024



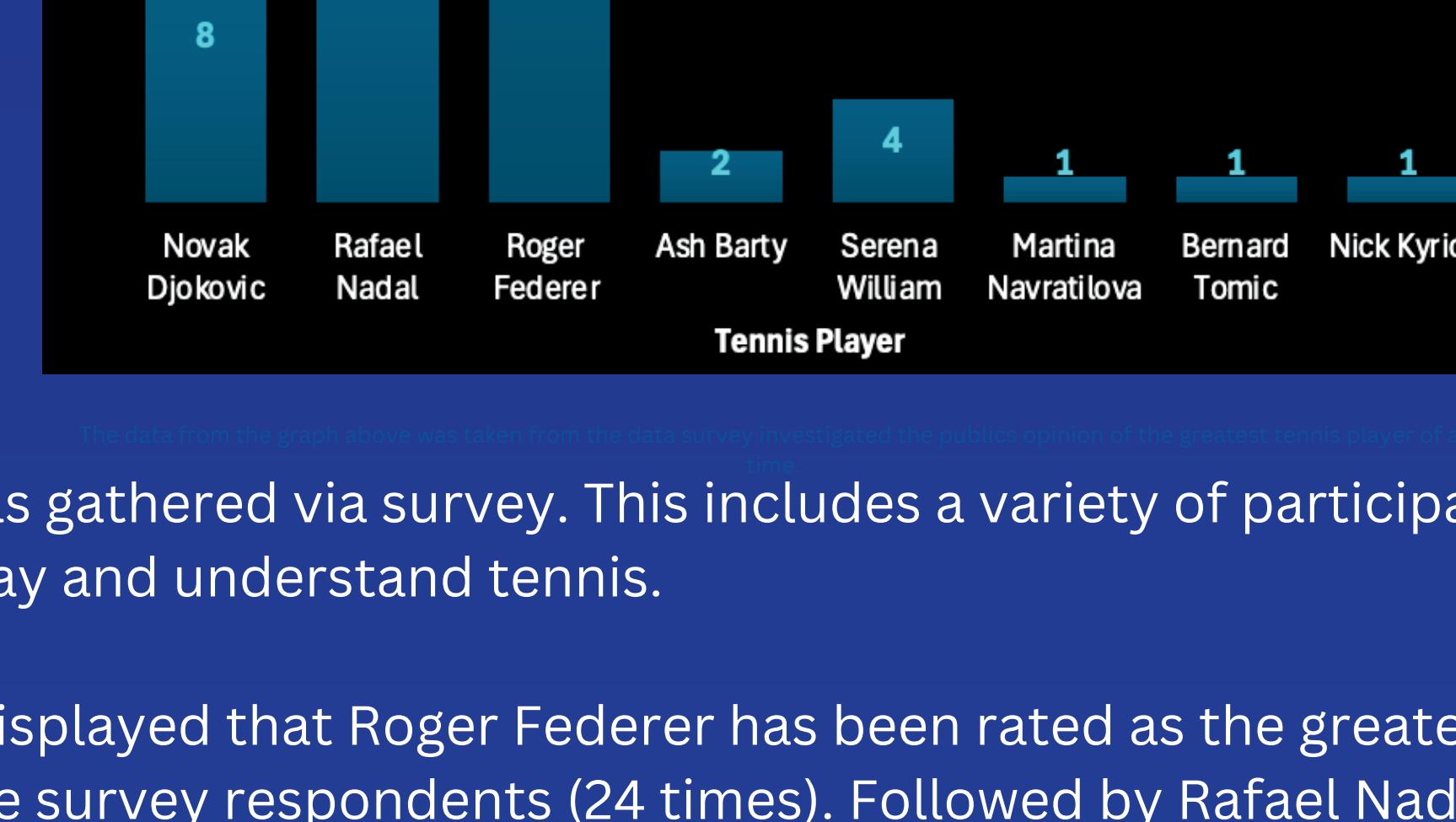
- The graphs to the left display the top 10 runners-up between the years 1973-2024 for both men and women. A runner-up is a player who has made it to the final of a Grand Slam but lost the final match.
- Novak Djokovic was a runner-up 13 times, followed by Roger Federer and Ivan Lendl at 11 times.
- The lowest number of runners-ups displayed in the graph was Daniil Medvedev, Stefan Edborg, and Bjorn Borg at 5 Grand Slams.
- Chris-Evert-Lloyd was a 16 times runner-up, Martina Navratilova at 14 times and Serena Williams at 10 times.
- The lowest number of runners-up in Grand Slams was 4 times by Monica Seles.
- The majority of the names mentioned in runner-up graph such as Novak Djokovic, Roger Federer, Serena Williams, Chris Evert-Lloyd, and Martina Navratilova are also mentioned in the Grand Slam winner graph as well.
- The graphs capturing Grand Slam winners and runners up are adequate parameters because they measure the success of each player in their respective competitions; instead of measuring every tennis player in the world on one scale.

Top 15 Career Earners Male and Female

- The graphs to the right display the top 15 male and female career earners in terms of prize money and sponsorship deals.
- The highest male career earner is Novak Djokovic at \$182,043,906, followed by Rafael Nadal at \$134,808,161 and Roger Federer at \$130,594,339. The lowest career earner or number 15 in the male graph was Carlos Alcaraz at \$28,934,769.
- The highest career earner for women was Serena Williams at \$94,816,730, followed by Venus Williams at \$42,648,697 and Simona Halep at \$40,227,773. The lowest career earner or number 15 in the female graph was Kim Clijsters at \$24,545,194.
- This links back to the research question and is a substantial measurement for tennis players however this only applies to players in the ATP (Association of Tennis Professionals) tournament or WTA (Women's Tennis Association). All players that have played in a Grand Slam are registered in these associations.
- The more Grand Slams won, the more sponsorships and endorsements are received. This is not correlation but a causation event as Novak Djokovic is at 16.2 UTR (not the highest) achieved the most Grand Slam Wins and has earned the most out of all the players in the career earnings graph.



The Greatest Tennis Player of all Time According to Primary Data



- Primary data was gathered via survey. This includes a variety of participants including a majority who play and understand tennis.
- The response displayed that Roger Federer has been rated as the greatest tennis player of all time by the survey respondents (24 times). Followed by Rafael Nadal who had 11 mentions and Novak Djokovic at 8 times.
- These names have been consistently mentioned throughout this infographic as they had the highest number of Grand Slams, runners up, career earnings and UTRs.
- Therefore UTR should be recognised as a statistic but is not the best parameter, rather the accumulation of multiple parameters is the best as public opinion differs from UTR.

ATP and WTA Tennis Statistics From 2024

RK	Places Moved	Rankings	NAME	POINTS	AGE
1	-	Poland	Iga Swiatek	11,695	22
2		Belarus	Aryna Sabalenka	8,138	26
3		USA	Coco Gauff	7,654	20
4	-	Kazakhstan	Hlena Rybalkina	5,673	24
5		USA	Jessica Pegula	4,550	30
6	-	Greece	Martina Trevisan	4,143	24
7		Russia	Maria Sakkari	3,980	28
8		China	Zheng Qinwen	3,945	21
9		Tunisia	Ousmane	3,748	29
10	-	2 USA	Danielle Collins	3,472	30
11		Latvia	Jeļena Ostapenko	3,318	26
12		4 USA	Madison Keys	3,283	29
13		2 Russia	Daria Kasatkina	3,258	27
14		Brazil	Beatriz Haddad Maia	2,983	27
15	-	Italy	Jasmine Paolini	2,898	28

To the right is the ATP (Association of Tennis Professionals) graph. Above on the left side is the WTA (Women's Tennis Association) table.

Data was parsed from ESPN on 2/1/24.

Conclusion

The Universal Tennis Rating System is a substantial measurement for tennis players, however, this should not be the only parameter taken into account. Other parameters such as the number of Grand Slams won and lost, career earnings, tennis statistics from ATP and WTA and public opinion are also useful measures. When used together they can form a view of a tennis player's skill and talent.