



# Is there a relationship between junior and senior tennis success?

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## ABSTRACT

*Imagine you've just won a Wimbledon Championship and reached the number one world ranking, all before the age of 18. It sounds pretty unlikely but it happens more often than you would think—in the international junior game, that is. But what does this type of success mean in relation to the professional game? Do elite juniors become elite pros? This article will provide some evidence on this issue by presenting the tennis specific research conducted during the last years.*

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## INTRODUCTION

### Will a good junior become a world class pro?

Many studies have investigated the relationship between junior and professional success in tennis, yet no universally accepted criteria exist for forecasting junior talent. A recent study found that competitors (both male and female) in three tournaments that are regarded as being among the most important international under-14 events—les Petits As (Tarbes), the French Open, and the European Championship—subsequently achieved significantly better professional rankings if they progressed to a final in one of the three events (Brouwers, De Bosscher & Sotiriadou, 2012). Indeed, approximately 18% of the male winners and 22% of the female winners, reached the ATP and WTA Top 20, respectively. Similar findings are reported for results in the ITF junior (18 and under) competition. Separate studies into the ITF boys' and girls' circuits (Reid, Crespo, Santilli, Miley & Dimmock, 2007; Reid, Crespo & Santilli, 2009) revealed significant associations between the junior and subsequent professional rankings of athletes who reached an ITF year-end junior Top 20 ranking. However, the vast majority of variance in professional rankings remained unexplained in these studies, and junior ranking should only be considered as an indicator of professional success, rather than a precursor. The raw numbers suggest that approximately 45% of boys and girls who reach the ITF junior Top 20 later achieve a ranking in the ATP/WTA Top 100, with 16% of boys and 11% of girls going on to make the ATP/ WTA Top 20. (Bowers et al, 2012) This compares favourably to the US college tennis circuit (for male players), which has been reported to have an 18% conversion rate from Top 10 college ranking to Top 100 ATP ranking (Reid et al., 2007).

### Junior success

Success at the junior Grand Slams can be an indicator of future ATP/WTA rankings. For example, every single winner of the boys' French Open title between 1980 and 2000 reached the ATP Top 100, and 81% reached the ATP Top 50. The US Open boys' champions (35%) were the most likely to later achieve an ATP Top 10 ranking. More generally, 82%, 62%, and 28% boys' Grand Slam winners (1980-2000) achieved a ranking in the ATP Top 100, 50, and 10, respectively. The girls' French Open title is an even better predictor of success as a professional, with 100%, 90%, and 62% of winners achieving a position in the WTA Top 100, 50, and 10, respectively. Of all the girls'

Grand Slam winners (1980-2000), 91%, 80%, and 35% achieved a ranking within the WTA Top 100, 50, and 10 respectively, indicating that success at this level translates to success

Year Won	Player-Female	Peak Senior Ranking
1980	Kathy Horvath	10
1981	Bonnie Gadusek	8
1982	Manuela Maleeva	3
1983	Pascale Paradis	20
1984	Gabriela Sabatini	3
1985	Laura Garrone	32
1986	Patricia Tarabini	12
1987	Natasha Zvereva	5
1988	Julie Halard	7
1989	Jennifer Capriati	1
1990	Magdalena Maleeva	4
1991	Anna Smashnova	15
1992	Rossana de los Ríos	51
1993	Martina Hingis	1
1994	Martina Hingis	1
1995	Amélie Cocheteux	55
1996	Amélie Mauresmo	1
1997	Justine Henin	1
1998	Nadia Petrova	3
1999	Lourdes Domínguez	40
2000	Virginie Razzano	16

Table 1: Girls junior French Open champions between 1980-2000 and their peak senior ranking.

s on the professional circuit more readily in women’s tennis.

Year Won	Player- Male	Peak Senior Ranking
1980	Henri Leconte	5
1981	Mats Wilander	1
1982	Tarik Benhabiles	22
1983	Stefan Edberg	1
1984	Kent Carlsson	6
1985	Jaime Yzaga	18
1986	Guillermo Pérez Roldán	31
1987	Guillermo Pérez Roldán	31
1988	Nicholas Pereira	74
1989	Fabrice Santoro	17
1990	Andrea Gaudenzi	18
1991	Andriy Medvedev	4
1992	Andrei Pavel	13
1993	Roberto Carretero	58
1994	Jacobo Díaz	68

Year Won	Player- Male	Peak Senior Ranking
1995	Mariano Zabaleta	21
1996	Alberto Martín	34
1997	Daniel Elsner	92
1998	Fernando González	5
1999	Guillermo Coria	3
2000	Paul-Henri Mathieu	12

Table 2: Boys junior French Open champions between 1980-2000 and their peak senior ranking.

Home ground

Success on the professional circuit has been linked to more than just the rankings and results achieved in junior competition—it has also been associated with the court surface on which players predominantly develop their game. Researchers (Reid, Crespo, Santilli, Miley & Dimmock, 2007; Reid, Crespo & Santilli, 2009) have found that both male and female players who originate from countries in which the majority of junior competition is played on clay go on to achieve significantly higher professional tennis rankings.

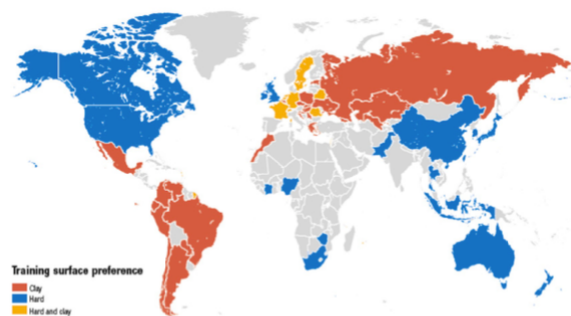


Figure 1. Training surface preferences around the world.

Surface success

These tables show the winners in the girls’ and boys’ Wimbledon and US Open junior championships from 1990 to 2000, their nationalities, and the surfaces on which they

learned to play tennis. Clay surfaces clearly predominate.

Year	Girls Wimbledon Champion	Country	Predominant Training Surface
1990	Andrea Strnadova	Czechoslovakia	Clay
1991	Barbara Rittner	Germany	Clay/Hard
1992	Chanda Rubin	USA	Hard
1993	Nancy Feber	Belgium	Clay
1994	Martina Hingis	Switzerland	Clay/Hard
1995	Aleksandra Olsza	Poland	Clay
1996	Amelie Mauresmo	France	Clay/Hard
1997	Cara Black	Zimbabwe	Hard
1998	Katarina Srebotnik	Slovenia	Clay
1999	Iroda Tulyaganova	Uzbekistan	Clay
2000	María Emilia Salerni	Argentina	Clay

Table 3. Developmental surfaces of girls junior Wimbledon champions 1990-2000.

Year	Boys’ Wimbledon Champion	Country	Predominant Training Surface
1990	Leander Paes	India	Hard
1991	Thomas Enqvist	Sweden	Clay/Hard
1992	David Škoch	Czechoslovakia	Clay
1993	Razvan Sabau	Romania	Clay/Hard
1994	Scott Humphries	USA	Hard
1995	Olivier Mutis	France	Clay/Hard
1996	Vladimir Voltchkov	Russia	Clay
1997	Wesley Whitehouse	South Africa	Hard
1998	Roger Federer	Switzerland	Clay/Hard
1999	Jürgen Melzer	Austria	Clay
2000	Nicolas Mahut	France	Clay/Hard

Table 4: Developmental surfaces of boys junior Wimbledon champions 1990-2000.

Year	Girls US Open Champion	Country	Predominant Training Surface
1990	Magdalena Maleeva	Bulgaria	Hard
1991	Karina Habšudov.	Czechoslovakia	Clay
1992	Lindsay Davenport	USA	Hard
1993	Maria Bentivoglio	Italy	Clay
1994	Meilen Tu	USA	Hard
1995	Tara Snyder	USA	Hard
1996	Mirjana Lučić	Croatia	Clay
1997	Cara Black	Zimbabwe	Hard
1998	Jelena Dokić	Australia	Hard
1999	Lina Krasnoroutskaya	Russia	Clay
2000	María Emilia Salerni	Argentina	Clay

Table 5: Developmental surfaces of girls junior US Open champions 1990-2000.

Year	Boys US Open Champion	Country	Predominant Training Surface
1990	Andrea Gaudenzi	Italy	Clay
1991	Leander Paes	India	Hard
1992	Brian Dunn	USA	Hard
1993	Marcelo R.os	Chile	Clay
1994	Sjeng Schalken	Netherlands	Clay/Hard
1995	Nicolas Kiefer	Germany	Clay/Hard
1996	Daniel Elsner	Germany	Clay/Hard
1997	Arnaud di Pasquale	France	Clay/Hard
1998	David Nalbandian	Argentina	Clay
1999	Jarkko Nieminen	Finland	Hard
2000	Andy Roddick	USA	Hard

Table 6: Developmental surfaces of boys junior US Open champions 1990-2000.

**CONCLUSION**

For a game so rich in history, tennis is remarkably low in systematic and objective insight. It is a surprise to many industry outsiders that tennis trails other sports in understanding its own trends. It has been slow to embrace the virtues of performance analysis and this has hindered the extent to which the game's stakeholders (that is, players and coaches) can make informed decisions both on and off the court. The recent rule change by the ITF to allow technology to be used to collect data during play demonstrates that the game's governing body accepts that technology is part of tennis, and indeed the sport has now begun to benefit from the more strategic use of technology to grow its repository of game intelligence. The manner in which this information can then be leveraged to inform the coaching process represents an increasingly important competitive advantage in our sport.

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