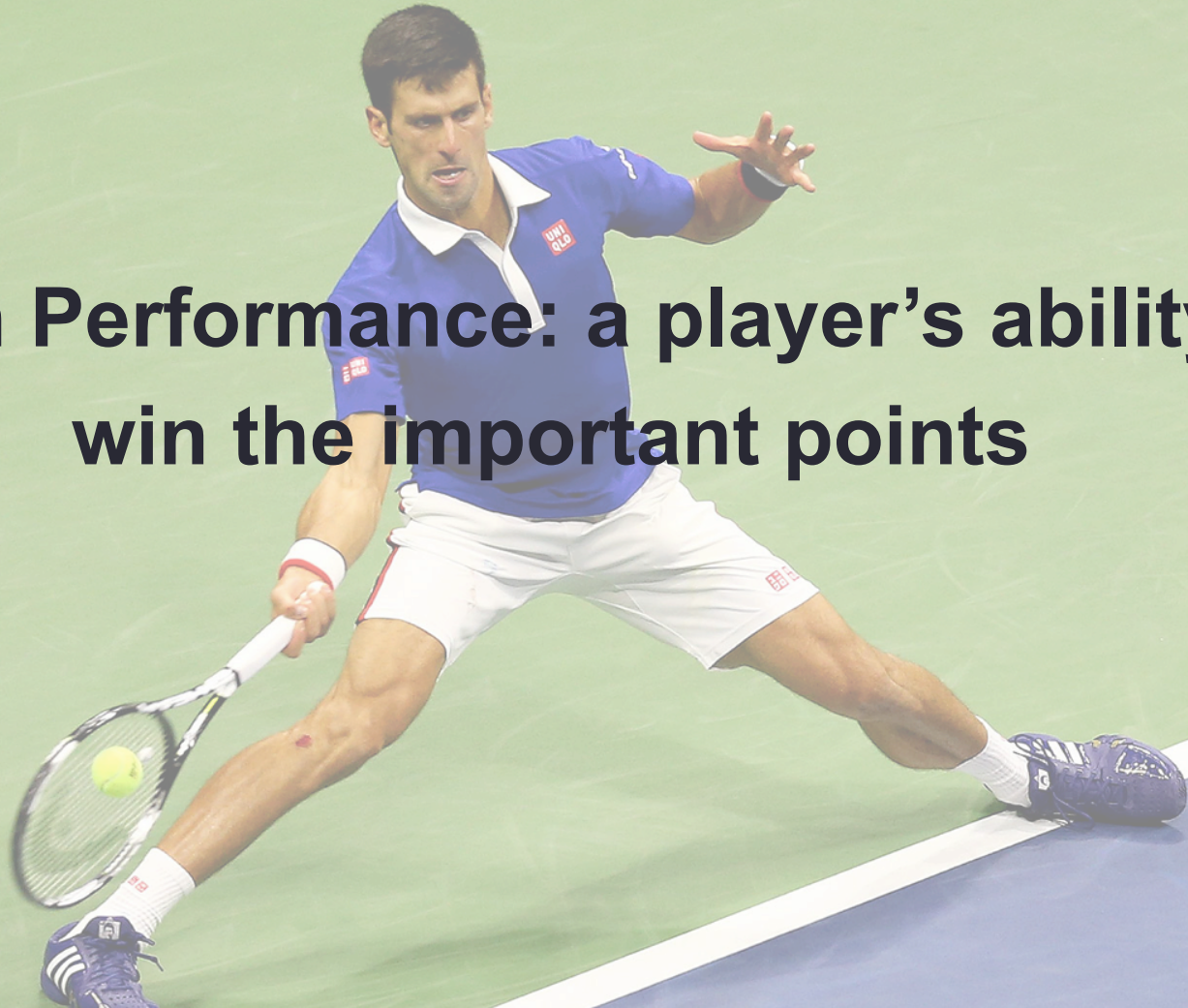


Analysis of Clutch Performance in Men's Professional Tennis

Kevin Haugh

Clutch Performance: a player's ability to win the important points



Methods

1. Assign every point a value of importance
2. Evaluate players based their performance on important points



Point Importance

Point importance =

$$P(\text{Player wins match} \mid \text{Player wins point}) \\ - P(\text{Player wins match})$$

Serve Importance

Most important

22;66;A-	22;66;02	11;66;A-	00;66;A-	01;66;A-
0.4821521	0.3617379	0.2965386	0.2946851	0.2860739

Least important

21;05;40	20;50;41	02;05;40
0.000010896926	0.000010382747	0.000008573605

Player Evaluations

Top 10 Clutch Servers

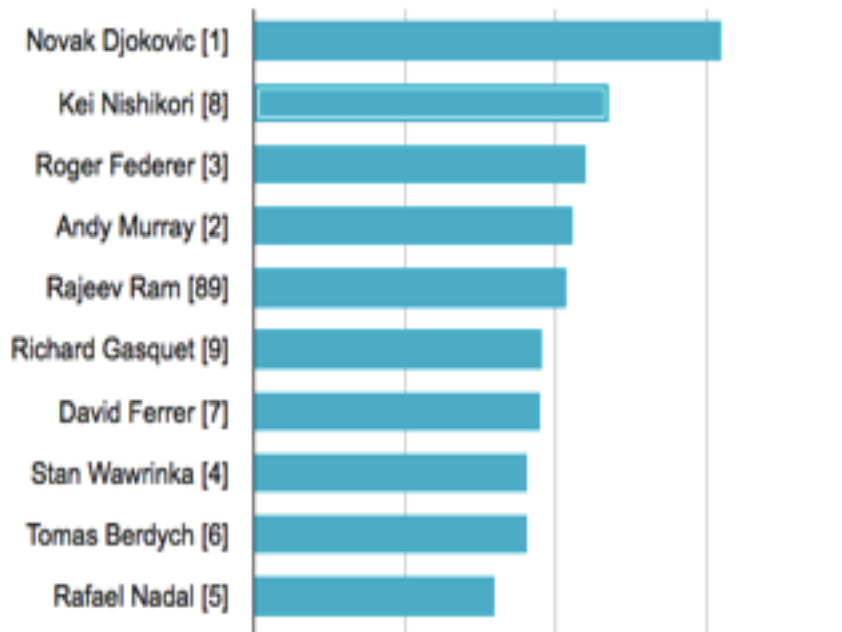
Rank	Player	Beta
1	Novak <u>Djokovic</u>	1.77%
2	Rafael <u>Nadal</u>	1.41%
3	Stan <u>Wawrinka</u>	1.27%
4	Roger Federer	1.26%
5	Jo- <u>Wilfried</u> Tsonga	1.18%
6	Andy Murray	1.05%
7	Tomas <u>Berdych</u>	0.97%
8	Milos <u>Raonic</u>	0.90%
9	Juan Martin Del <u>Potro</u>	0.87%
10	Andy Roddick	0.74%

Top 10 Clutch Returners

Rank	Player	Delta
1	Novak <u>Djokovic</u>	1.82%
2	Rafael <u>Nadal</u>	1.51%
3	Andy Murray	1.29%
4	Roger Federer	1.21%
5	David <u>Ferrer</u>	1.11%
6	Jo- <u>Wilfried</u> Tsonga	1.02%
7	Tomas <u>Berdych</u>	0.98%
8	<u>Stanislas</u> Wawrinka	0.92%
9	<u>Mardy</u> Fish	0.91%
10	Juan Martin Del <u>Potro</u>	0.76%

Comparison to Importance Plus-Minus

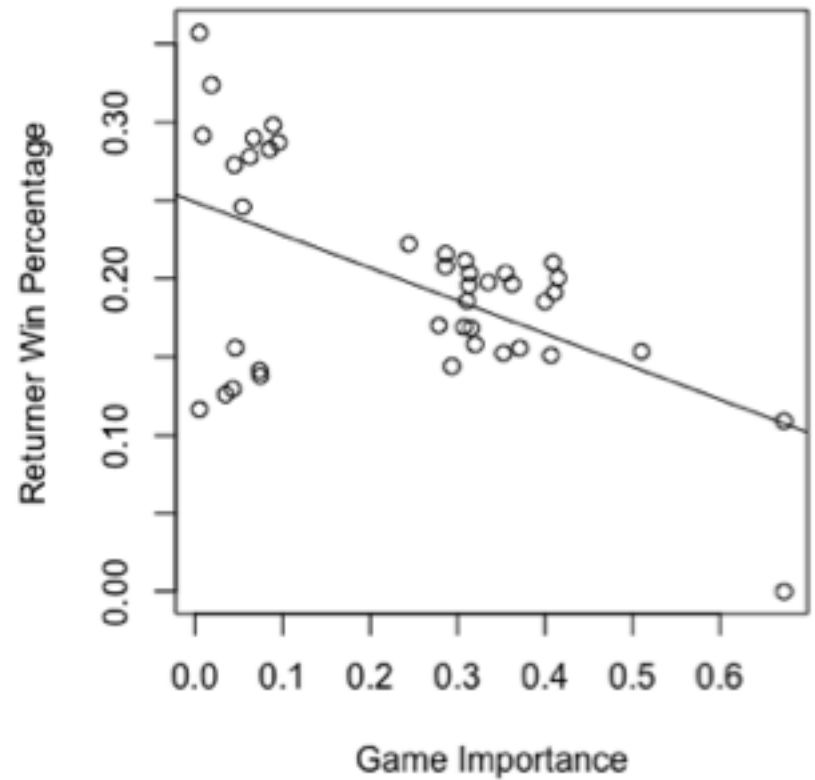
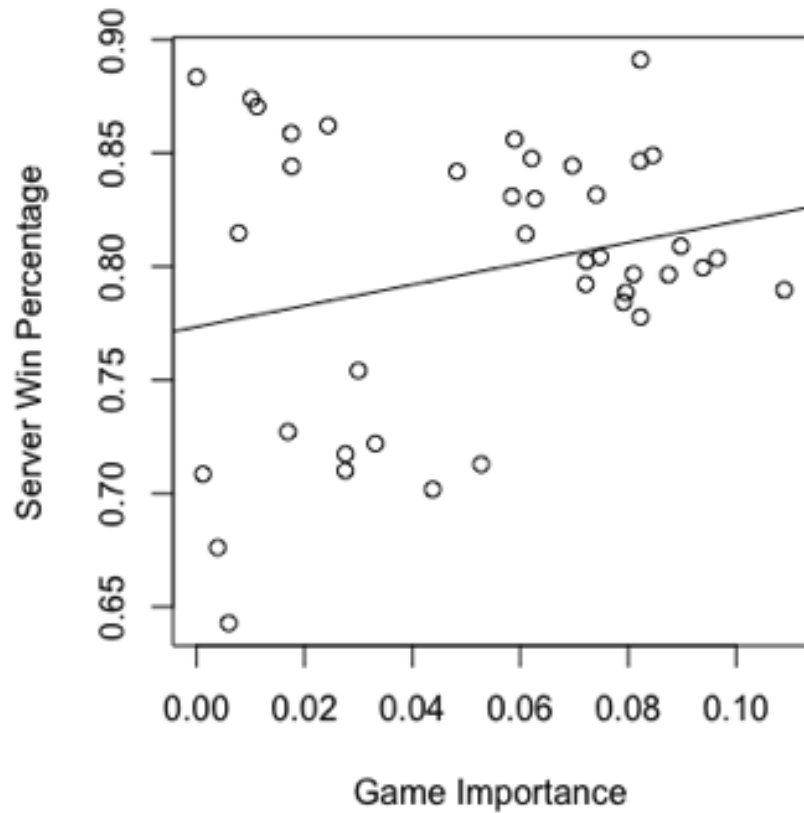
Figure 1. Top 20 ATP Players in Overall Importance Plus Minus



Top 10 Overall Clutch Performers

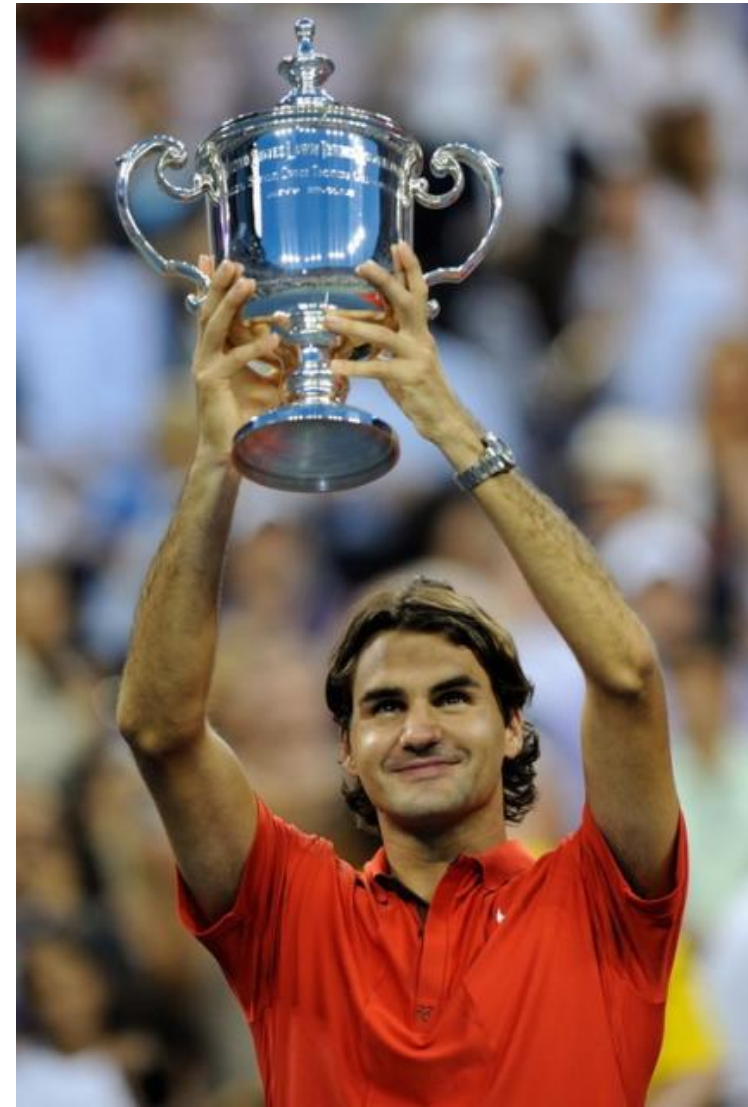
Rank	Player	Beta
1	Novak <u>Djokovic</u>	1.79%
2	Rafael <u>Nadal</u>	1.46%
3	Roger Federer	1.23%
4	Andy Murray	1.17%
5	Jo- <u>Wilfried</u> Tsonga	1.08%
6	Stan <u>Wawrinka</u>	1.01%
7	Tomas <u>Berdych</u>	0.97%
8	David <u>Ferrer</u>	0.91%
9	Juan Martin Del <u>Potro</u>	0.78%
10	<u>Mardy</u> Fish	0.73%

Overall Serve/Return Clutchness



Limitations/Extensions

- Favors players in close matches
- Include how a player wins the point
- Doesn't take round into account



Sources

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