

## 1996 Five Nations Winners' Performance Profile

The performance of the winning side in each of the 1996 Five Nations matches was notated and analysed and then tested for their significance with the winning margin by a Spearman's Rank Correlation.

A limiting factor was the size of the data set since only ten matches were played in the tournament.

The matches recorded were:

Match Number	Teams	Winning Margin
1	France v England	3
2	Ireland v Scotland	6
3	England v Wales	6
4	Scotland v France	5
5	Wales v Scotland	2
6	France v Ireland	35
7	Ireland v Wales	13
8	Scotland v England	9
9	Wales v France	1
10	England v Ireland	13

The data collected was grouped in five sections - territory and try-scoring, primary possession, discipline, kicking and ball retention.

### 1. Territory and Try Scoring

Five variables were recorded in terms of territory and try scoring (territorial dominance, times in opposition 22 metre area, times in own 22 metre area, tries scored and tries conceded) and from these a further two calculated (try time and defence time).

No	Territorial Dominance	In Opposition 22m	In Own 22m	Tries For	Try Time	Tries Against	Defence Time
1	54.39	8	7	0	0.00	0	100
2	55.50	11	16	2	18.18	1	93.75
3	58.73	18	9	2	11.11	2	77.78
4	59.68	15	10	2	13.33	1	90.00
5	42.34	5	13	1	20.00	1	92.31
6	63.95	17	8	7	41.18	1	87.50
7	58.03	20	11	4	20.00	2	81.82
8	64.27	8	4	0	0.00	0	100
9	50.89	12	9	1	8.33	2	77.78
10	64.99	15	3	1	6.67	0	100
SR	0.781	0.580	-0.321	0.502	0.261	-0.158	0.121

These correlation coefficient values were then tested for significance at both the 0.05 and 0.01 level (See Appendix One). At the 0.05 level both territorial dominance and times in the opposition 22 metre area had a significant correlation with the winning margin while at the 0.01 level only the territorial dominance was significant.

## 2. Primary Possession

The performance of the winners was recorded at both lineout and scrum situations. The total number of lineouts and scrums awarded, their success rate on their own feeds as well as the total number won were noted.

No	Lineout Share %	Total Lineouts Awarded	Own Lineouts Won %	Own Lineouts Won	Own Lineouts Lost	Total Lineouts Won %	Total Lineouts Won	Total Lineouts Opp Won
1	24.14	7	85.71	6	1	50.00	13	13
2	46.15	18	55.56	10	7	42.86	15	20
3	48.15	13	46.15	6	4	30.43	7	16
4	58.97	23	65.22	15	5	54.55	18	15
5	34.21	13	76.92	10	2	41.67	15	21
6	53.57	15	60.00	9	2	45.83	11	13
7	41.03	16	56.25	9	0	31.25	10	22
8	35.56	16	75.00	12	3	43.19	19	25
9	52.50	21	71.43	15	4	59.38	19	13
10	57.50	23	73.91	17	3	55.88	19	15
SR	0.287	0.120	-0.378	-0.090	-0.258	-0.213	-0.251	0.195

These correlation coefficient values were once again tested for significance at both the 0.05 and 0.01 level. At neither the 0.05 or the 0.01 level did any of the primary possession variables have any significant correlation with the winning margin.

No	Scrum Share %	Total Scrums Awarded	Own Scrums Won %	Own Scrums Won	Own Scrums Lost	Total Scrums Won %	Total Scrums Won	Total Scrums Opp Won
1	47.37	18	77.78	14	0	53.85	14	12
2	44.74	17	82.35	14	0	50.00	14	14
3	72.41	21	33.33	7	0	58.33	7	5
4	51.61	16	68.75	11	0	52.38	11	10
5	56.00	14	64.29	9	1	47.37	9	10
6	46.88	15	73.33	11	0	42.31	11	15
7	67.74	21	66.67	14	0	63.64	14	8
8	52.38	11	45.45	5	0	50.00	5	5
9	57.58	19	68.42	13	0	59.09	13	9
10	47.83	11	90.91	10	0	52.63	10	9
SR	-0.226	-0.224	0.177	-0.093	-0.409	-0.180	-0.093	-0.037

### 3. Ball Retention

In terms of ball retention, the ability to maintain possession from primary possession was measured at both rucks and mauls. This was done by looking at the overall time that the team was in possession of the ball as well as notating the total number of rucks and mauls set-up, the team's ability to recycle this ball and their ability to turnover opposition ball at these breakdowns.

No	Time In Control %	Rucks & Mauls Share	Rucks & Mauls Formed	Own Rucks & Mauls Won %	Own Rucks & Mauls Won	Total Rucks & Mauls Won	Total Rucks & Mauls Won	Total Ruck & Maul Steals	Total Ruck & Maul T-over
1	41.81	62.11	59	71.19	42	58.90	43	3	4
2	37.97	47.90	57	84.21	48	53.54	53	8	4
3	42.72	53.49	46	69.57	32	49.28	34	4	7
4	45.67	56.25	45	75.56	34	60.66	37	8	6
5	45.89	58.95	56	80.36	45	62.03	49	7	6
6	45.32	49.53	53	86.79	46	53.26	49	7	4
7	43.22	54.55	48	83.33	40	64.29	45	10	3
8	39.50	50.75	34	64.71	22	56.86	29	9	3
9	43.80	56.25	54	77.78	42	61.04	47	9	6
10	48.82	61.11	66	78.79	52	60.44	55	5	4
SR	0.018	-0.446	-0.134	0.341	0.147	-0.335	0.153	0.071	-0.598

Again due to the limited number of matches in the tournament only one variable, number of ruck and maul possessions turned over by the opposition, had a significant correlation with the winning margin and this was a negative relationship at the 0.05 significance level.

### 4. Discipline

No	Pens & FK Conceded Share	Pens & FK Conceded Total	Pens & FK Awarded Total	Pens & FK Conceded Own 22m	Pens & FK Conceded Own 22m-HW	Pens & FK Conceded HW-Opp 22m	Pens & FK Conceded Opp 22m
1	36.84	7	12	2	3	2	0
2	56.67	17	13	4	7	4	2
3	36.67	11	19	1	3	5	2
4	36.36	8	14	2	3	3	0
5	42.31	11	15	5	2	3	1
6	65.52	19	10	6	4	6	3
7	36.36	12	21	2	6	3	1
8	53.13	17	15	2	3	6	6
9	35.48	11	20	1	4	4	2
10	40.00	10	15	1	5	4	0
SR	0.456	0.523	-0.136	0.169	0.489	0.495	0.248

The only measure of discipline analysed was that of the number of penalties and free-kicks both conceded and awarded but in terms of those conceded their relation to area of the field was additionally recorded.

The correlation coefficient levels were generally stronger in this category but because of the size of the data set were again not significant at any of the confidence levels.

## 5. Kicking Game

Each kick was notated and whether the outcome of it was successful or not. The kicks were sub-divided into categories depending on whether they were touch kicks, goal-kicks, restarts from the half-way or 22 metre line and tactical kicks.

Once more there was no significant relationship with the winning margin and this could be an indicator that success rates are not what are important in terms of successful kicks but absolute figures.

No	Goal-Kicking Success %	Touch Kicking Success %	Restart Kicking Success %	Other Kicking Success %	Total Kicking Success %	Total Successful Kicks %
1	50.00	80.00	60.00	62.50	63.41	26
2	40.00	91.67	80.00	65.22	71.11	32
3	40.00	73.91	60.00	58.33	62.00	31
4	30.00	78.57	28.57	68.75	57.45	27
5	80.00	60.87	71.43	66.67	66.00	33
6	50.00	100.00	80.00	76.47	74.36	29
7	44.44	100.00	80.00	65.00	75.93	41
8	54.55	89.47	33.33	66.67	70.59	36
9	50.00	95.45	50.00	46.15	70.21	33
10	70.00	87.50	20.00	50.00	58.54	24
SR	-0.006	0.505	0.195	0.281	0.378	-0.061

## Summary

	0.05 level	0.01 level
Positive	Territorial Dominance Times in Opposition 22 metre area	Territorial Dominance
Negative	Rucks & Mauls turned over by Opposition	

## Appendix One

### Spearman Rank Correlation Coefficients

n	Significance Level (one-tailed test)	
	0.05	0.01
4	1.000	
5	0.900	1.000
6	0.829	0.943
7	0.714	0.893
8	0.643	0.833
9	0.600	0.783
10	0.564	0.746
12	0.506	0.712
14	0.456	0.645
16	0.425	0.601
18	0.399	0.564
20	0.377	0.534
22	0.359	0.508
24	0.343	0.485
26	0.329	0.465
28	0.317	0.448
30	0.306	0.432