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Ever since the game of cricket came into being, cricketers have been judged by just one method – batting and bowling averages.

The limitations of judging cricketers through averages are obvious - they ignore key factors that provide context to the statistical average – the opposition’s strength, state of the pitch and the match, speed of scoring (often a key momentum-swing, even in Tests), whether the wickets taken by a bowler are top or lower order wickets, and so on.

However, despite these shortcomings, a cricketer’s place in cricket history has hinged on what this version of aggregate statistics yields when it comes to their performances – chiefly because of the lack of a suitable alternative.

We have devoted five months of full-time study on this subject and come up with the means to address precisely this. Our methodology is called the *Impact Index* and it measures the contribution of a cricketer in a match and series context, and therefore presents a more accurate picture of a cricketer’s impact on the game than batting and bowling averages.

To demonstrate the efficacy of this system, we have also done the toughest exercise possible with this device - a comprehensive study of Test cricket since its inception in 1877 and come up with a ranking of the world’s most impactful 50 Test cricketers of all time.

For the first time, cricketers have been evaluated in a holistic way within a team context. Assessing cricketers’ impact requires going through numerous variables – eras, match conditions, etc – which cannot be covered by any blanket formula. To accurately take into account these intangible factors we examined every cricketing performance within the context of its match and the series.

So, this exercise has involved going through the score card of every single match played by about 120 cricketers of various nationalities – which makes it perhaps the most exhaustive study of this nature in cricket.

In its basic form, the methodology involved in determining the *Impact Index* is very simple.

- i) Every single Test match a player has played is studied carefully.
- ii) His performance in the match is rated on a scale of 0-5. This performance is rated as per the match and not just an innings, and is rated relative to the other performances in the match (which takes care of a lot of factors such as match conditions, etc).
- iii) The individual match ratings are all collated series-wise.
- iv) All the ratings are added up and divided by the number of matches. This is the Basic *Impact Index*.

So, on a scale of 0-5, this tells you what a cricketer's impact has been for his team throughout his career. Even in this basic form it already conveys more cricketing information than batting and bowling averages since it takes into account some of the variables that averages don't.

However, the Basic *Impact Index* has certain elements missing. The strength of the opposition is not accounted for yet nor is the significance of the performance both in a match and series context – ultimately the greatest legacy of a cricketer.

These are tackled by the assigning of bonus points in various capacities. First, by dividing the series in "A", "B" and "C" categories (with "A" as the strongest opposition and "C" the weakest) and then by rewarding the better performances ("5" and "4" rated efforts) with suitable weightings depending on the series category.

Further bonus points are given for captaincy and wicket-keeping responsibilities and also for longevity in international cricket. The maximum bonus points are reserved for performances which are "series defining" or series-deciding – performances that won (or drew) a Test series (usually in a crunch match) or changed the momentum during the course of the series.

The apprehension about subjectivity playing a role in this system is understandable. Interestingly, however, it is entirely misplaced. Ratings are based on cricketing commonsense, within clearly defined parameters. The process of rating can also be seen as a series of questions (like percentage of individual score in team total, top/middle or bottom order wickets taken, at what juncture the performance took place, etc) which merely have to be answered to yield the suitable rating.

This methodology and system applied to 132 years of Test cricket (and for cricketers who have played more than 40 Tests) reveal benchmarks to evaluate cricketers by, based on the *Impact Index* figures of the leading Test cricketers of all time. The *Impact Index* figures of these players help identify zones of greatness – Bradman and Sobers are in zones of their own (6-plus and 5-plus). The likes of Imran, Warne, Muralitharan, Hadlee and Marshall are clustered together with *Impact Indexes* of 4-plus, whereas greats like Richards, Lara, Dravid, Lillee and Worrell are in the next zone at 3.5-plus, amongst others (the complete ranking is listed in the following pages).

Impact Index has been applied here to Test cricket to demonstrate its versatility through eras and varied conditions. But it should have even more significant applications in ODI and T20 cricket, where aggregate statistics have even less meaning and where complexities are far fewer.

Player Rankings

The following are the rankings of the 50 most impactful Test cricketers of all time (who have played a minimum of 40 Tests) based on each cricketer's Consolidated *Impact Index* (all figures updated till April 2009).

In the following chart:

Basic Impact Index refers to the cricketer's basic career impact for his team on a scale of 5 without any bonuses. This figure connotes overall consistency.

Impact Index refers to the cricketer's Basic *Impact Index* plus bonuses for exceptional performances, especially against stronger opponents and series defining roles.

Consolidated Impact Index refers to the cricketer's *Impact Index* which has points added to it for longevity along with captaincy and/or wicket-keeping.

	Player	Matches	Basic Impact Index	Impact Index	Series Defining	Consolidated Impact Index
1	Donald Bradman (Aus)	52	2.73	5.63	4	6.32
2	Gary Sobers (WI)	93	2.44	4.60	5	5.33
3	Imran Khan (Pak)	88	2.56	4.28	3	4.97
4	Richard Hadlee (NZ)	86	2.42	4.40	6	4.69
5	Muttiah Muralitharan (SL)	127	2.50	4.24	8	4.65
6	Shane Warne (Aus)	145	2.28	4.12	10	4.58
7	Graeme Smith (SA)	77	1.86	3.18	4	4.22
8	Malcom Marshall (WI)	82	2.40	3.87	2	4.11
9	Bob Simpson (Aus)	62	1.77	3.23	3	4.00
10	Ian Botham (Eng)	102	2.25	3.59	4	3.99
11	Richie Benaud (Aus)	63	2.21	3.10	0	3.89
12	Kumar Sangakkara (SL)	80	1.75	3.18	4	3.82
13	Viv Richards (WI)	121	1.79	2.96	4	3.82
14	Dennis Lillee (Aus)	70	2.11	3.60	3	3.80
15	Jack Hobbs (Eng)	61	2.23	3.61	2	3.78
16	Brian Lara (WI)	131	1.95	3.15	4	3.77
17	Rahul Dravid (Ind)	134	1.85	3.22	6	3.75
18	Alan Davidson (Aus)	44	2.16	3.55	2	3.67
19	Frank Worrell (WI)	51	1.92	3.22	2	3.66
20	Sunil Gavaskar (Ind)	125	1.94	2.97	3	3.65

	Player	Matches	Basic Impact Index	Impact Index	Series Defining	Consolidated Impact Index
21	Ricky Ponting (Aus)	131	1.57	2.74	5	3.51
22	Jacques Kallis (SA)	131	2.12	3.16	4	3.48
23	Adam Gilchrist (Aus)	96	1.58	2.54	3	3.48
24	Trevor Goddard (SA)	41	2.15	3.10	1	3.46
25	Greg Chappell (Aus)	87	1.79	2.66	1	3.46
26	Chris Cairns (NZ)	61	2.20	3.30	2	3.45
27	Tony Grieg (Eng)	58	2.00	3.10	1	3.45
28	Steve Waugh (Aus)	168	1.57	2.70	8	3.45
29	Vinoo Mankad (Ind)	44	2.09	3.20	2	3.44
30	Len Hutton (Eng)	79	1.78	2.84	2	3.40
31	Clyde Walcott (WI)	44	1.91	3.02	1	3.39
32	Andrew Flintoff (Eng)	75	2.01	3.09	2	3.38
33	Allan Border (Aus)	156	1.69	2.49	2	3.37
34	Wally Hammond (Eng)	85	1.87	2.92	2	3.34
35	Herbert Sutcliffe (Eng)	54	1.80	3.19	2	3.32
36	Mushtaq Mohammad (Pak)	57	1.67	2.81	2	3.29
37	Everton Weekes (WI)	48	2.10	3.17	1	3.28
38	Clive Lloyd (WI)	110	1.49	2.21	2	3.28
39	Shaun Pollock (SA)	108	2.10	2.74	2	3.26
40	Allan Donald (SA)	72	2.03	3.07	2	3.24
41	Glenn McGrath (Aus)	125	2.10	2.91	2	3.20
42	Michael Holding (WI)	60	1.98	3.02	2	3.16
43	Ian Chappell (Aus)	75	1.52	2.24	1	3.13
44	Sachin Tendulkar (Ind)	159	1.82	2.65	4	3.12
45	Virender Sehwag (Ind)	69	1.96	2.93	2	3.08
46	Monty Noble (Aus)	42	1.83	2.57	0	3.08
47	Kapil Dev (Ind)	131	1.97	2.61	2	3.06
48	Anil Kumble (Ind)	132	1.98	2.67	3	3.03
49	Bill Lawry (Aus)	66	1.74	2.48	1	3.03
50	Jim Laker (Eng)	46	1.91	2.91	1	3.02

Impact Index of other players

Below is a general list of many other important players of all eras, without any ranking. Those missing from this list should not be assumed to be ranked lower than those mentioned here.

Player	Matches	Basic Impact Index	Impact Index	Series Defining	Consolidated Impact Index
Peter May (<i>Eng</i>)	66	1.61	2.18	1	3.02
Keith Miller (<i>Aus</i>)	55	2.13	2.85	0	2.98
Mohammad Yousuf (<i>Pak</i>)	79	1.77	2.76	2	2.94
Younis Khan (<i>Pak</i>)	59	1.80	2.73	1	2.93
Gordon Greenidge (<i>WI</i>)	108	1.70	2.69	2	2.91
Wasim Akram (<i>Pak</i>)	104	1.77	2.47	2	2.87
Daniel Vettori (<i>NZ</i>)	92	1.92	2.57	1	2.86
Alec Bedser (<i>Eng</i>)	51	2.16	2.75	0	2.85
Bhagwat Chandrasekhar (<i>Ind</i>)	58	1.72	2.72	2	2.85
Rohan Kanhai (<i>WI</i>)	80	1.98	2.54	0	2.85
Inzamam Ul Haq (<i>Pak</i>)	120	1.38	2.36	5	2.84
Geoff Boycott (<i>Eng</i>)	108	1.63	2.58	2	2.83
Abdul Qadir (<i>Pak</i>)	67	1.54	2.67	3	2.81
Ken Barrington (<i>Eng</i>)	82	1.71	2.63	3	2.80
Javed Miandad (<i>Pak</i>)	124	1.65	2.27	1	2.79
Maurice Tate (<i>Eng</i>)	39	2.10	2.69	0	2.77
Dennis Amiss (<i>Eng</i>)	50	1.46	2.08	0	2.77
Fred Trueman (<i>Eng</i>)	67	2.00	2.63	1	2.76
Neil Harvey (<i>Aus</i>)	79	1.72	2.58	1	2.75
Michael Vaughan (<i>Eng</i>)	82	1.43	1.96	0	2.75
Aravinda De Silva (<i>SL</i>)	92	1.47	2.52	3	2.73
Curtly Ambrose (<i>WI</i>)	98	1.67	2.52	2	2.71
Bishan Singh Bedi (<i>Ind</i>)	67	1.76	2.36	1	2.69
Ray Lindwall (<i>Aus</i>)	61	1.95	2.54	0	2.67
Kamran Akmal (<i>Pak</i>)	40	1.15	1.83	1	2.63
Joel Garner (<i>WI</i>)	58	1.91	2.48	1	2.59
Saqlain Mushtaq (<i>Pak</i>)	49	1.98	2.49	0	2.58
Zaheer Abbas (<i>Pak</i>)	78	1.33	2.26	2	2.58
Mark Taylor (<i>Aus</i>)	104	1.39	1.78	0	2.57

Player	Matches	Basic Impact Index	Impact Index	Series Defining	Consolidated Impact Index
Stephen Fleming (NZ)	111	1.33	1.76	1	2.56
Mahela Jayawardene (SL)	102	1.50	2.11	1	2.55
Mushtaq Ahmed (Pak)	52	1.63	2.44	1	2.54
Bob Willis (Eng)	90	1.62	2.27	2	2.53
Shivnarine Chanderpaul (WI)	121	1.53	2.25	2	2.53
Brett Lee (Aus)	76	1.91	2.38	1	2.52
Hanif Mohammad (Pak)	55	1.58	2.22	0	2.50
Derek Underwood (Eng)	86	1.42	2.31	3	2.47
Courtney Walsh (WI)	132	1.73	2.23	1	2.46
Sanath Jayasuriya (SL)	109	1.53	1.95	0	2.45
Justin Langer (Aus)	105	1.52	2.25	2	2.43
Jeffery Dujon (WI)	81	0.95	1.10	0	2.43
Martin Crowe (NZ)	77	1.49	2.16	2	2.43
Marcus Trescothick (Eng)	76	1.50	2.22	2	2.41
Matthew Hayden (Aus)	103	1.69	2.21	1	2.39
Gundappa Vishwanath (Ind)	91	1.46	2.20	2	2.35
Andy Flower (Zim)	63	1.51	2.05	0	2.35
Damien Martyn (Aus)	67	1.45	2.33	2	2.33
Bill Johnston (Aus)	40	1.90	2.25	0	2.32
Arthur Morris (Aus)	46	1.61	2.22	0	2.30
Stuart MacGill (Aus)	44	1.91	2.20	0	2.28
Trevor Bailey (Eng)	61	1.64	2.08	1	2.27
Waqar Younis (Pak)	87	1.69	2.06	1	2.20
Lance Gibbs (WI)	78	1.62	2.06	0	2.19
Mark Waugh (Aus)	127	1.49	1.99	2	2.19
Richie Richardson (WI)	86	1.50	1.74	0	2.19
Alan Knott (Eng)	95	1.07	1.33	0	2.17
Erapalli Prasanna (Ind)	49	1.67	2.08	0	2.16
Jason Gillespie (Aus)	70	1.73	1.94	0	2.05
Dennis Compton (Eng)	78	1.46	1.94	0	2.05
AL Hassett (Aus)	43	1.60	1.95	0	2.02
Victor Trumper (Aus)	48	1.33	1.94	1	2.01
Larry Gomes (WI)	60	1.27	1.87	0	1.95
Bert Sutcliffe (NZ)	42	1.33	1.57	0	1.62

Greats with under 40 tests

For the greatest Test players exercise, we set a minimum qualification of 40 Test matches to be included on the main list. The *Impact Index* tended to be slightly distorted for players below this number of Tests, much as it is with batting and bowling averages as well. Our study found this number of 40 Tests a steady and safe place to qualify as a minimum. Still, we cannot help but put together this list of great players who didn't make the cut because of not reaching this figure (for circumstances beyond their control, most of the time). Besides many recognisable greats, there are a few surprises in here too.

Player	Matches	Basic Impact Index	Impact Index	Series Defining	Consolidated Impact Index
Graeme Pollock (SA)	23	2.26	5.57	3	5.57
George Headley (WI)	22	2.27	5.18	2	5.23
Sydney Barnes (Eng)	27	2.89	4.78	1	4.78
Fazal Mahmood (Pak)	34	1.85	3.79	2	4.1
George Lohmann (Eng)	18	2.67	3.89	0	3.89
Bill O'Reilly (Aus)	27	2.33	3.63	1	3.63
Spofforth (Aus)	18	2.22	3.33	0	3.33
WG Grace (Eng)	22	1.68	2.41	0	3.16
Johnny Briggs (Eng)	33	1.79	2.85	1	2.85
Dudley Nourse (SA)	34	1.85	2.38	0	2.6
Eddie Paynter (Eng)	20	1.75	2.5	0	2.5