The Search for 'Missing' Stats: Dropped Catches in Test Cricket

By Charles Davis

For all its bewildering array of data, cricket statistics still has a few blind spots. One of the most obvious is in the area of dropped catches and other missed chances. There have been few if any extensive studies in this area. Gerald Brodribb in *Next Man In* mentioned that statistician R.H. Campbell estimated that 30% of catches were missed in Tests in the 1920s, and I have seen a figure of more than 30 dropped catches by the West Indies in Australia in 1968/69, a team plagued by poor fielding. But really basic questions like "Overall, what percentage of chances are dropped?" have lacked answers.

For a number of years I have been collecting all the missed chances I can find in ESPNCricinfo's ball-by-ball texts for Test matches. Because ESPNCricinfo does not always use standard terms to describe missed chances, and different commentators have their own ways of expressing themselves, the texts are searched for 40 or more words and phrases that might indicate a miss, from "drop" and "dolly" to "shell", "grass", and "hash". The process generally flags about 100-200 lines in each Test, which I then search manually to identify real chances. For some Tests, I also confirm data by checking match reports and other ball-by-ball sources.

While the texts go back to 1999, the textual detail can be patchy in the early years. I have logged missed chances from late 2000 onwards, but I would consider that data to be substantially complete only from 2003. I have compiled a list of over four thousand missed chances in Tests from this century; almost one-third of all Tests (635) are represented.

Unavoidably, there are caveats. Sometimes opinions may vary as to whether a chance should be considered a miss. I take a hard line: 'half' and 'technical' chances are included, and I try to include any chances where the fielder failed to touch the ball, but should have done so, if they can be identified. Edges passing between keeper and first slip are considered chances even if no one touches the ball. Since 2005, I have divided chances into two categories,

'normal' and 'difficult', according to the way they are described. About half fall into each category.

There will always be uncertainty about some dropped catches, as there is always the possibility that some others have been overlooked. However, as long as the collection method is as consistent and exhaustive as possible, I would argue that the great majority of misses have been identified, and that the data can be collated into useful statistics.

So back to the original question: how many chances are dropped? The answer is about one-quarter; typically there are about seven missed chances per Test. Here is a table showing missed chances by country

	2003-09	2010-15
New		
Zealand	23.6%	21.4%
South Africa	20.9%	21.6%
Australia	23.2%	21.8%
England	25.5%	24.8%
West Indies	30.5%	25.4%
Sri Lanka	25.3%	26.8%
India	24.6%	27.2%
Pakistan	30.8%	30.2%
Zimbabwe	27.1%	31.9%
Bangladesh	33.3%	33.1%

Table 1. Per Cent Chances missed 2003-2015 (fielding teams, catches and stumpings)

The difference between the top three countries in the last five years is not significant; however, there are more substantial differences going down the list. Generally, Bangladesh has had the weakest catching record ever since they started in Test cricket, although there are recent signs of improvement. Other countries have had fluctuating fortunes. West Indies had a miss rate of over 30% from 2002 to 2007, but have tightened up their game in the last couple of years. India has seen a rate of 33% in 2013 fall to 23% in 2015, and Sri Lanka has also improved its catching significantly in just the last two years.

In some years, countries like Australia, South Africa and New Zealand have seen their rates drop below 20%; the best single-year result was 16.9% by South Africa in 2013, when they were the No. 1 ranked team in Test cricket. In good years, the proportion of dropped catches rated as 'difficult' increases; good teams still miss the hard ones, but drop fewer easy ones. Typically, twothirds of Australia's missed chances are rated as difficult, but only one-third of Bangladesh's.

The Lucky

As an innings progresses, the odds of offering a chance increase. About 72% of batsmen reaching 50 do so without giving a chance, but the percentage for century-makers is 56% in the first 100 runs, while only 33% of double centuries are chanceless in the first 200 runs. The highest absolutely chanceless innings is 374 by Mahela Jayawardene; Lara's 400 contained a couple of 'academic' chances.

The most expensive missed chance since the start of 2000 is 297 runs for Inzamam-ul-Haq, who made 329 after being missed on 32 at Lahore in 2002. Historically, there have been more expensive misses: Mark Taylor (334*) was dropped on 18 and 27 by Saeed Anwar, and there was a missed stumping on 40 for Len Hutton (364) in 1938. Perhaps even luckier was Kumar Sangakkara, who made 270 at Bulawayo after being dropped on nought. Sachin Tendulkar was dropped on nought when he made his highest score of 248* at the S.C.G. Mike Hussey gave a possible chance first ball at the Gabba in 2010, and went on to make 195. Graham Gooch was famously dropped by Kiran More when on 36 at Lord's in 1990. He went on to make 333.

The data turns up four batsmen who have been dropped five times in an innings: one was Andy Blignaut, whose 84 not out at Harare 2005 included an extremely rare hat-trick of dropped catches, Zaheer Khan the unhappy bowler. (There was also a hat-trick of missed chances at Old Trafford in 1972, Geoff Arnold bowling to two batsmen.) The others missed five times are Hashim Amla (253 at Nagpur 2010), Taufeeq Umar (135 at St Kitts 2011) and Kane Williamson (242* at Wellington 2014). Nothing in this century quite matches

the seven or eight missed catches (reports vary) off George Bonnor in making 87 in 1883, or six misses off Bill Ponsford in his 266 at The Oval in 1934.

Wavell Hinds was dropped twice at the MCG in 2000, and still made a duck.

The batsman with most reprieves in the study period is Virender Sehwag, missed 68 times, just one ahead of Sangakkara. About 37% of the chances Sehwag offered were dropped, which is well above average and probably a testament to the power of his hitting.

The Unlucky

Broadly, spin bowlers suffer more from dropped catches, and (of course) missed stumpings. Chances at short leg, along with caught and bowled, have the highest miss rates among fielding positions, and these positions happen to feature more strongly among spinners' wickets than pace bowlers'. Overall, 27% of chances off spin bowlers are missed, as against 23% off pace bowlers.

In the study period, the bowlers with the most missed chances are Harbhajan Singh (99) and Danish Kaneria (93). Harbhajan has had 26 chances missed at short leg alone. Bear in mind that these bowlers are not fully covered by the study; about 10 per cent of Harbhajan's career is not available.

Pace bowlers with the most misses are Jimmy Anderson (89) and Stuart Broad (85); their careers are continuing, and the available data ends in January 2016.

Spare a thought for James Tredwell of England, who has played only two Tests, but suffered ten missed chances, including seven on debut, the most for any bowler. Most were very difficult, with three of them missed by the bowler himself. Also worth mentioning is Zulfiqar Babar of Pakistan, who has had 30 chances missed in his Test career, and only 28 catches (and stumpings) taken (up to Jan 2016). At the other and of the scale, Adil Rashid has had eight catches taken off his bowling with no misses, at the time of writing. Neil Wagner of New Zealand has had only seven misses out of 63 chances, a rate of 11%.

Two bowlers have had catches missed off their first ball in Test cricket: David Warner (Brisbane 2012, Brownlie dropped by Pattinson) and RP Singh (Shoaib Malik dropped by Kumble, Faisalabad 2006).

There is an intriguing case from 1990. Against the West Indies at Lahore, Wasim Akram took four wickets in five balls: W, W, 1, W, W. In a surviving scorebook, the single, by Ian Bishop, is marked as a dropped catch at mid-on. If so, Akram came within a hair's breadth of five wickets in five balls, since the batsmen crossed, and Bishop did not face again. (*Wisden*, it should be noted, says that the catch was out of reach).

The Guilty

When it comes to catching, some positions are much more challenging than others. That will come as no surprise, but putting some numbers to this is an interesting exercise. Table 2 shows the miss rate for different field positions.

Table 2

Chances by Position Dec 2008 - Jan 2016

		%
Position	Chances	Missed
Keeper (Ct)	2188	15%
Stumping	254	36%
Slip	2062	29%
Gully	404	30%
Third man	36	17%
Point	371	29%
Cover	319	23%
Mid-off	253	20%
Bowler	378	47%
Mid-on	340	22%
Midwicket	455	23%
Short leg	518	38%
Square leg	286	19%
Fine leg	170	30%

The highest miss rates are seen for caught and bowled, and at short leg. Bowlers lack the luxury of setting themselves for catches, while short leg has the least time of any position to react to a ball hit well, and many of the chances there are described as half chances or technical.

Slips catches are twice as likely to be dropped as wicket keepers', a measure of the advantage of keepers' gloves.

However, it would be unwise to read too much into Table 2. Slips fielders are not inferior to mid-off fielders; they get much more difficult chances. In the period of the study, Alastair Cook missed more chances than any other nonkeeper, some 62 misses, but since many of his misses came in the most difficult position of short leg, his miss rate doesn't look so bad.

While comparing lapse rates of different fielders is risky, it is worth mentioning South Africa's Graeme Smith, whose drop rate of only 14% is the best among long-serving players, by a considerable margin. Between August 2012 and February 2013, Smith took 25 catches and recorded no missed chances. Other slip fielders with outstanding catching records included Andrew Strauss and Ross Taylor on 20%, Michael Clarke on 21% and Ricky Ponting on 22%. David Warner at one stage took 20 consecutive chances that came to him.

Of those who have recorded more drops than catches, Umar Gul has had the most chances, taking 11 catches and missing 14. In 2014, Mushfiqur Rahim of Bangladesh missed ten consecutive chances that came his way. Oddly enough, he caught his next 13 chances.

The most dropped catches in a match for one team, in this dataset, is twelve by India against England at Mumbai in 2006. The most in an innings is nine by Pakistan against England at Faisalabad in 2005, and also by Bangladesh against Pakistan at Dhaka in 2011. At Karachi in 2009, Mahela Jayawardene (240) was dropped on 17 and 43, Thilan Samaraweera (231) on was dropped on 73 and 77, and Younis Khan (313) was dropped on 92. The combined runs cost of all the dropped catches in the match was 1152 runs, or 684 runs based on 'first' drops off each batsman.

India dropped six catches in the space of ten overs at Rawalpindi in 2004, five of them coming in the first hour of the fourth day. I don't know if this is evidence of 'contagious' butter fingers. It is rare enough for six chances to be offered at all in the space of ten overs at all, let alone to see all of them missed.

Behind the Stumps

Here is some data on the miss rates, including stumpings, of various wicketkeepers of the 21st Century. Not all are listed, but those with particularly low or high drop rates are given.

	Chances	% Miss
MV Boucher	364	10%
BJ Watling	119	11%
T Taibu	57	11%
AB de Villiers	94	11%
AC Gilchrist	357	12%
Kamran Akmal	203	20%
Sarfraz Ahmed	63	21%
KD Karthik	50	22%
Adnan Akmal	77	22%
Mushfiqur Rahim	86	32%

Table 3. Missed Chances by wicketkeepers

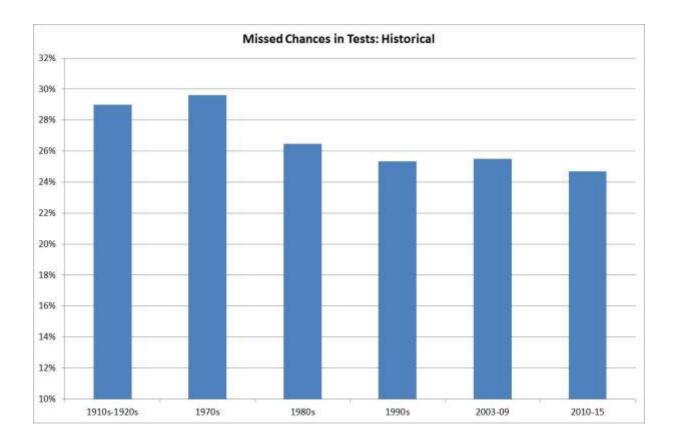
Minimum 50 chances. Chances are the total of all catches, stumpings and missed chances while keeping wickets. Innings where the player did not keep wickets are excluded.

The keeper with the most misses is MS Dhoni with 66 (18%). In his defence, Dhoni has to deal with a high percentage of spin bowling, which presents a much greater challenge for keepers. Miss rates for leading wicketkeepers off spinners average around 30%, for both catches and stumpings, but it is only 10% for catches off pace bowlers. It can certainly be argued that keeping to spinners is the true test of a keeper. It is not uncommon for keepers to start with a bang, but fade later in their careers. Boucher, Watling, Gilchrist and de Villiers all had miss rates in single digits earlier in their careers. Gilchrist's miss rate definitely rose in the last couple of years before his retirement. Others with very low rates, who did not qualify for the table, include Peter Nevill and Chris Read, on 7%. Read, to my eye, was one of the best modern keepers, but he did not get very many opportunities, since he was unable to score enough runs to hold his place.

A Short History of Dropped Catches

In addition to the data for the 21st Century, I have gathered data from other periods of Test history, using scorebooks that recorded dropped catches. The best sources are scorebooks by Bill Ferguson in the 1910s and 1920s, and by Bill Frindall from the early 1970s to the late 90s; I have also used a limited number of other sources, including scores by Irving Rosenwater and some Pakistan TV linear scores. I have extracted data from about 200 Test scores, in all, dating from before 1999.

Again, there must be caveats. We cannot be sure that the judging of dropped catches was on the same terms throughout, and we cannot be sure of the effect of TV replays on these assessments. I would say, however, that in the case of Bill Frindall we have a meticulous observer with a very consistent style over multiple decades. In any case, the data is presented as is...



Once again, it would be unwise to read too much into each little blip in the data, but in general there is a trend toward lower rates of missed chances. The trend would probably be steeper if the data were limited to Australia and England, as the recent data includes countries such as Bangladesh that have little or no coverage in earlier decades.

I might add an opinion from decades of observation: I believe that the greatest area of improvement has been with weaker fielders. Today everyone, including those with limited skills, has to do extensive fielding drills, and take that part of the game very seriously. This has been one effect of the one-day game. In past decades, fielding was taken seriously by many: players like Jack Hobbs, Don Bradman and Neil Harvey worked hard at it, and I doubt if any player today works as hard on fielding as South Africa's Colin Bland did in the 1960s (Bland would spend hours practicing picking up and throwing at a single stump: his record of run outs is superior to anyone today). However, there were also players who did much less work on their fielding skills. In the modern one-day game, there is nowhere to hide, and everyone must put in the training effort. As a result, overall standards have risen. Bio: Charles Davis is a Melbourne-based statistician and author who has developed a large ball-by-ball database for Test matches.

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Data for the Chart

1910s-1920s	29%
1970s	30%
1980s	26%
1990s	25%
2003-09	26%
2010-15	25%

Note added in 2017:

The overall average 'cost' of dropped catches is similar to the overall batting average, at around 33 runs.

I suppose one way to evaluate a keeper in a match is to tally the total number of chances he receives. Then calculate how many of these an 'average' keeper would be expected to drop. Take the difference between this and the actual number of drops, multiply by 33, and you have a runs value for the keeper's catching.

Say that a keeper received 8 catching chances in a match, and catches 5. The average keeper would be expected to drop 15%; that is, 1.2 catches. Our keeper has dropped 3, so he has an excess of 1.8. At 33 runs per drop, our keeper has cost the team about 60 runs.

By the same calculation, a keeper who received 8 chances, and catches them all, has gained his team an advantage of about 40 runs.

Stumpings would be calculated separately. One might also do separate calculations for pace and spin bowling, since these have very different drop rates for keepers. This would require ball-by-ball records.

Of course, you can add in other factors, such as the value of the batsmen dismissed. This can create difficulties, because there are many possible factors. When you use lots of factors, the final result becomes rather arbitrary, depending on the weight you place on each factor.