

CONGU HANDICAPPING SYSTEM

“Myths & Misconceptions”

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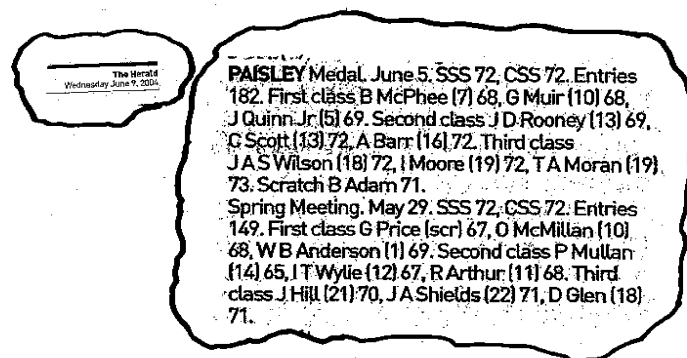
myth n.

ancient popular belief;
fictitious thing

Oxford English Dictionary

All golf handicap systems have their critics. The criticisms are frequently based on ‘myths and misconceptions’. This review attempts to examine the more commonly voiced concerns (myths) golfers have with the current handicapping system and offers statistical analyses to provide a more factual insight into the CONGU Unified Handicapping System as it operates in practice.

Much of the research information was obtained from analysis of the weekly golf returns in the Herald Newspaper. Each Wednesday the Herald publishes competition results from Scottish golf clubs and includes information on SSS, CSS, number of competitors and scores of the prizewinners and their handicaps.



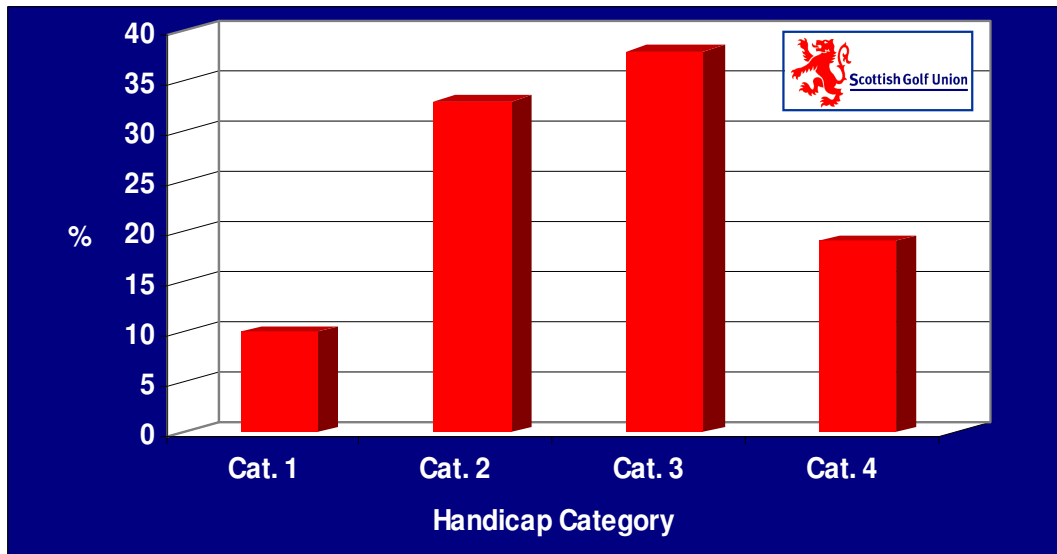
Thanks are due to The Herald for the valuable service they provide for club golfers in this respect.

Myth

"If all club handicap competitions were 'open' i.e. no handicap classes or divisions, the single figure handicap player would stand no chance of winning."

Research

- The analysis covers 750 club handicap competitions reported in the Herald in the months May to September. The competitions selected had a minimum field size of 75 competitors.
- All competitions were evaluated as 'open' i.e. there was one overall winner of the competition irrespective of handicap.
- The winners of the 750 competitions were grouped into the four handicap categories. The distribution of winners by handicap category is shown below:



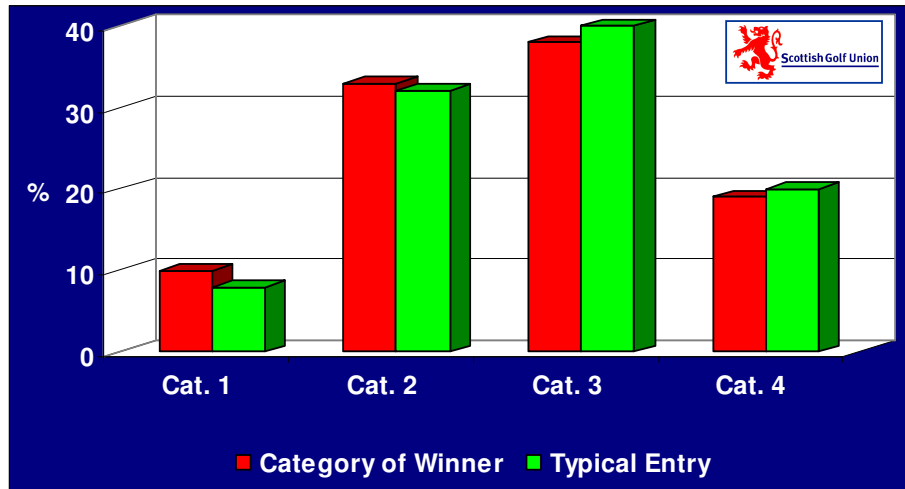
Outcome

- The winners by handicap category were as follows:

| | | | |
|--------------------------------|------|-------------------------|-----|
| Cat.1 (Handicaps of 5 or less) | 10 % | Cat.2 (Handicaps 6-12) | 33% |
| Cat.3 (Handicaps 13-20) | 38% | Cat.4 (Handicaps 21-28) | 19% |
- On face value this would suggest that the probability of winning a club competition is heavily and unfairly biased in favour of Category 2 and 3 players.

However, the story is incompleteread on!

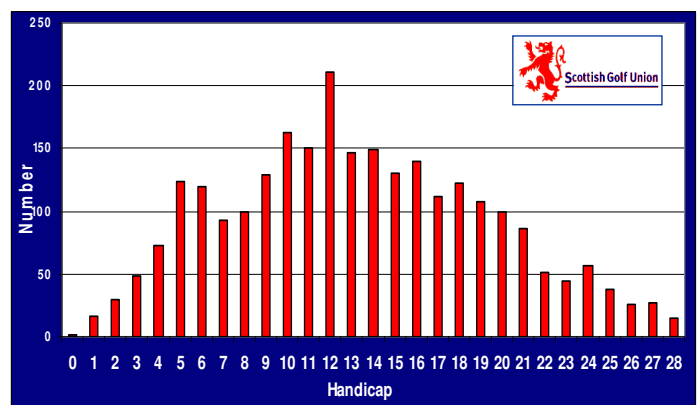
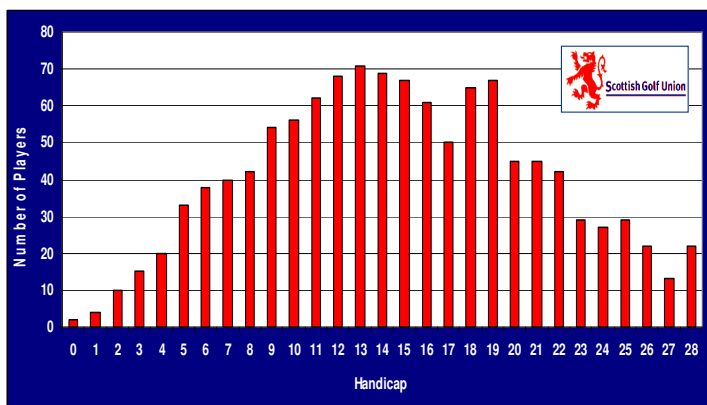
If the above findings are related to a typical club entry (average over a number of clubs in a range of competitions) a different picture emerges:



- When the distribution of winners by handicap category is related to their representation in the field, it can be seen that all handicap categories win in reasonable proportion to their entry i.e. Category 1 and Category 3 players typically comprise 8% and 40% of a club competition and in a 'single class' competition win 10% and 38% of the time.
- This would suggest that handicapping is acceptably fair and equitable throughout the handicap range.

The distribution of 'Winners' with respect to playing handicap, assuming all competitions were run as a single class handicap event, can be looked at another way:

- Club handicaps are typically distributed as below left (aggregate of the handicap distribution of players playing in three or more competitions p.a. in a range of golf clubs)
- The average playing handicap of the players in the sample was 14.
- Below right is the distribution of winners by handicap derived from information published in the Herald Club Golf Returns over three years and embracing 2622 competitions (approximately 250,000 rounds of golf!)
- It can be seen from direct comparison of the two distributions that there is good correlation between the number of players at a given handicap and their winning frequency.
- The average handicap of the winning player was found to be 13.3 which bears very favourable comparison to the average club handicap of 14 (discounting those members playing less than three qualifying competitions p.a.)

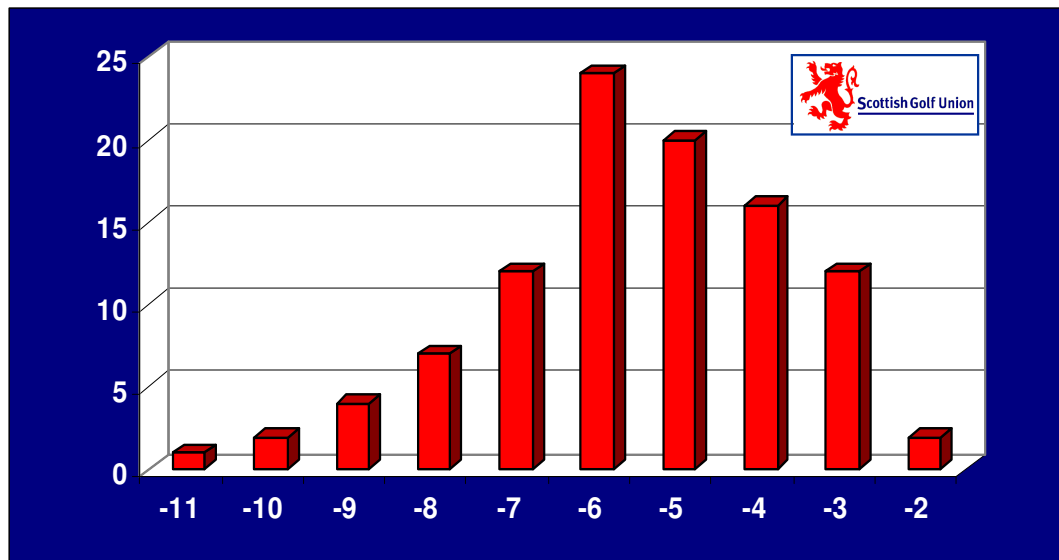


Myth....

“You require at return at least a nett 60 or 48 Stableford points to win a competition nowadays.....”

Research

- To examine this ‘myth’ winning scores in club competitions were analysed relative to the CSS. As before all competitions were considered to be ‘open’ i.e. overall lowest score irrespective of class, division or handicap category. (To qualify for inclusion in this analysis the competitions had to have a minimum of 75 competitors.)
- The distribution of winning scores over a typical year (c. 750 competitions) is shown below:



- In the year shown winning scores ranged from 2 below the CSS to 11 below.
- For the first year analysed, the average winning score was 5.6 strokes below the CSS (This equates to 41-42 Stableford points). In the following year the average winning score was 5.5 strokes below the CSS. This shows remarkable consistency!

In the above figure it can be seen (LHS of bar chart) that a relatively small number of competitions are won with scores of 9 strokes or more below the CSS. It is these ‘scandalous’ winning scores that give the handicapping system a ‘bad name’ and to which critics frequently refer.

These ‘scandalous’ but infrequent very low winning scores prompted the following question:

See next page....

**Who are those players who return scores of nine or more under the CSS?
(Sandbaggers – Bandits – Handicap Builders?)**

Research

- The Herald newspaper until recently identified the ‘Bandit of the Week’ (in a kind and sympathetic manner!) from their weekly golf returns i.e. the player(s) returning the most ‘scandalous’ score(s).
- With the co-operation of clubs and players, the playing records of a wide range of ‘Bandits’ were obtained.
- Analysis of these returns identified that ‘Bandits’ fell into three fairly distinct and evenly spread categories.
 - Many displayed no previous ‘form’ and simply had a day ‘in the golfing sun’ playing beyond all reasonable expectation. (Group A)
 - With the benefit of hindsight the second group gave a fairly clear indication of their potential to score lower than their handicap. A more vigilant handicapping committee could perhaps have applied a Clause 19 (General Play) handicap reduction before the ‘scandalous’ score occurred (Group B)
 - Members of the third group were infrequent stroke play competitors and possessed handicaps that did not reflect their current improved ability. (Group C)
- Typical scoring patterns expressed as Nett Differentials for members of Groups A – C were as follows:

| | |
|---------|--|
| Group A | 11, NR, 15, 3, NR, 4, 5, 3, 9, 5, 8, 7, 0, 2, -9 , 5, 8, 11, 6, 3, 10, 16. <i>(Year starting h'cap 28. Closing h'cap 22.6. Clause 19 reduction of 2.4)</i> |
| Group B | -2, -2, -5, -2, 0, 5, NR, 6, NR, -10 , 13, NR, 4, 0, 3, 6, 4, 3. <i>(Year starting h'cap 16.3. Closing h'cap 10.3.)</i> |
| Group C | Year 1 NR, 3 Year 2 NR, -1 Year 3 0, -8 , 5, -11 , 13, 7, -1, 3, 1, NR, 6, 5. <i>(Year starting h'cap 17.3. Closing h'cap 8.5. Clause 19 reduction 3.8)</i> |

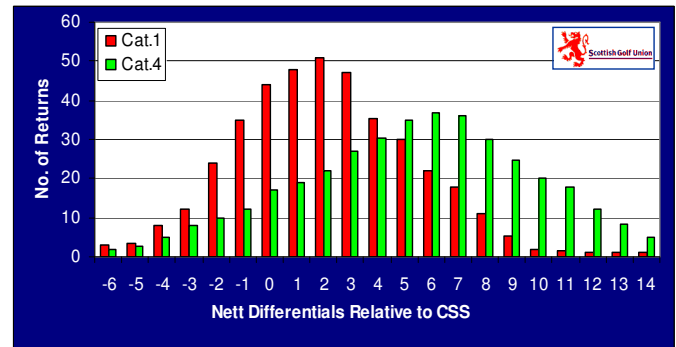
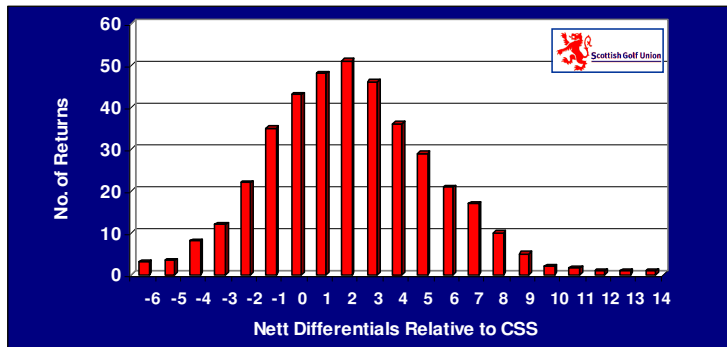
Myth

“Low winning scores suggest that handicaps in general are too high”

Research

- A large number of stroke play returns were obtained for players in Category 1 and the nett scores plotted against frequency of occurrence. The resulting bar chart is shown below left.
- The plot shows a normal distribution once again depicted by a ‘bell shaped curve’. It can be seen that Cat.1 players typically score in the range 2 below to 6 above their handicap with a mean score of around 2 above the CSS.
- In contrast the chart on the right shows the nett scores plotted against frequency of occurrence returned by Category 4 players from a large number of stroke play competitions and can be compared to the distribution for Category 1 players (as shown on the left hand bar chart.)

It should be noted that the number of returns from each category has been adjusted to the same total rounds to allow a strict comparison to be made.



- The above charts are the key to the understanding of golf handicapping.
- It can be seen that the scoring of the Cat.4 players has a wider spread and a mean nett differential of 5/6 strokes above the CSS, compared to 2 strokes above CSS for Cat.1 as previously identified.
- This demonstrates that handicapping is not strictly a ‘level playing field’ and that the CONGU handicapping system, as in all major handicapping systems, incorporates a ‘bonus for excellence’ in favour of the lower handicap players. The reason for this is that Category 1 players are set a more challenging examination each time they play i.e. the Buffer Zone for a Cat.1 player is one stroke compared to four for the Cat.4 player. In addition, handicap reductions for Cat.1 are 0.1 of a stroke for each shot below the CSS in contrast to 0.4 per shot for Cat. 4 players.
- It is worth re-iterating that each time a scratch player takes part in a stroke play competition his expected score is not to his handicap (i.e. nett differential of zero) but to two strokes above his handicap. In contrast if a Cat.4 player plays to five/six strokes above the CSS that is no more, or no less, than his expected performance.
- It is for this reason that it is necessary in match play to allow the full difference in handicaps to promote fair and equitable competition.
- It should not be concluded, however, that the handicap system is overly biased in favour of the better player. It should be noted from the above right bar chart that due to the greater spread of the Cat.4 returns, the two distributions come close together at the extreme left hand side i.e. low nett differential end from which the ‘winning’ scores are derived. This of course is equally true of Cat.2 and Cat.3 returns.

Myth

“Having to calculate a Competition Scratch Score (CSS) is not really necessary.”

Research

- The weekly golf returns in the Herald newspaper were again the prime source of information in the examination of the value of the CSS in handicapping.
- The table below tracks the movement in CSS over a wide range of club competitions in the course of a playing season.

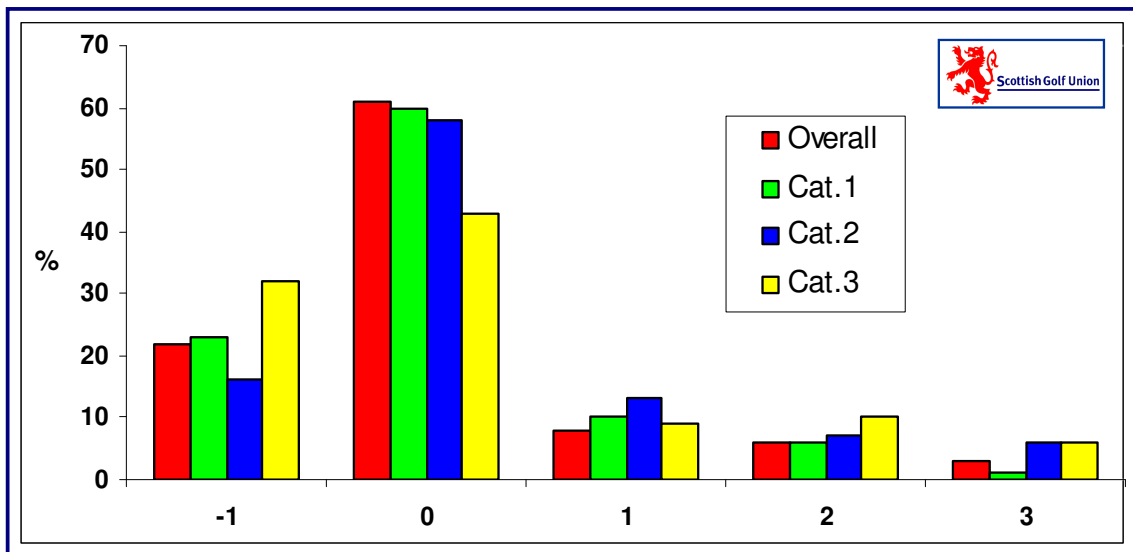
| CSS v SSS | | | | | |
|------------------------------------|--------|-----------|--------|--------|--------|
| <i>(Typical Variation v Month)</i> | | | | | |
| Month | SSS -1 | CSS = SSS | SSS +1 | SSS +2 | SSS +3 |
| | % | % | % | % | % |
| April | 1 | 46 | 23 | 15 | 15 |
| May | 3 | 56 | 25 | 9 | 7 |
| June | 12 | 63 | 18 | 5 | 2 |
| July | 30 | 61 | 7 | 2 | 0 |
| August | 24 | 63 | 7 | 4 | 2 |
| September | 5 | 69 | 16 | 6 | 4 |

- It can be seen from the above that there is a sensible correlation between movement of the SSS and seasonal weather and course conditions. In the summer months of the year analysed the SSS reduced more often than it increased. Early and late in the playing season the converse was the case.
- It is the reliability of the CSS to reflect course and weather conditions that permits entrants in competitions to compete in less than ideal conditions with the comfort that their handicap is not being put unnecessarily at risk.
- The CSS system is well accepted by golfers and is a fundamental component of the system.

Myth

“It would be fairer to calculate a separate CSS for each handicap category.”

- Low handicap players usually voice this question on occasions when the CSS equals SSS minus one ($CSS=SSS-1$)
- To examine the validity of this assertion a wide range of club and open handicap events were analysed by calculating separate Competition Scratch Scores for each handicap category and comparing the outcome with the CSS calculated taking account of the entire field (less of course Cat.4 returns, as required under the CONGU Unified Handicapping System CSS calculation)
- As can be seen in the chart below, although there is some volatility in the Cat.3 figures, in general there is very acceptable agreement between individually calculated CSS's and the overall figure throughout the CSS range.
- Another consideration is that in many club competitions the number of Cat.1 players is often very small and not statistically meaningful enough to allow a reliable CSS to be calculated.



Myth

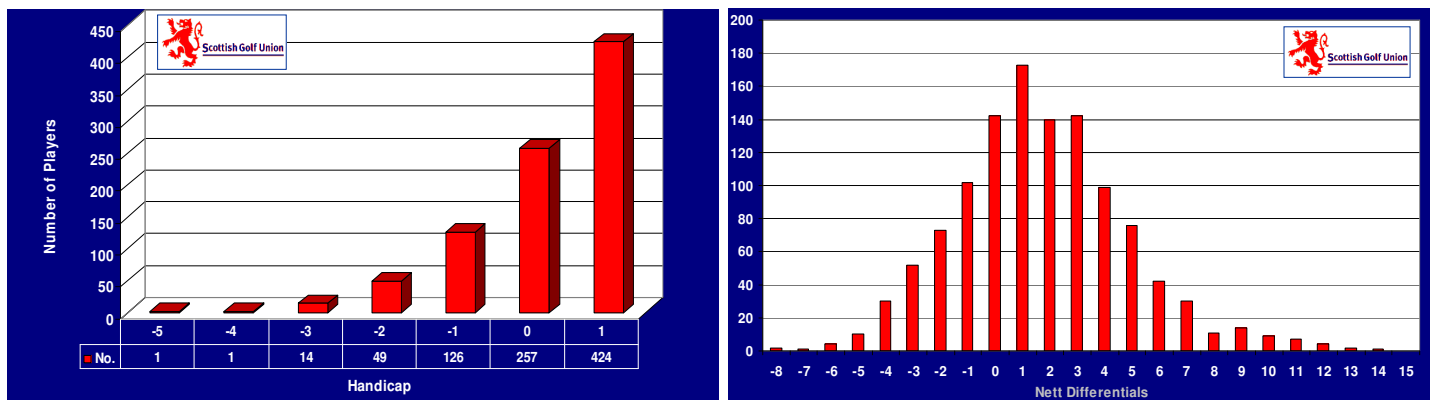
“There are too many players with a plus (+) handicap nowadays and many of them cannot play to it!”

- Since 1996 the Scottish Golf Union has conducted an annual audit of the returns of players with a handicap of one or better. Clubs are required to submit the full handicap record for each player falling into this category.
- The number of players in this category with handicaps in the range 1 to +5 is shown in the following table. This illustrates the sharp reduction in numbers through the plus handicap range.

| Handicap v Frequency | | | | | | | |
|----------------------|-----|------|-----|----|----|----|----|
| H'cap | 1 | Scr. | +1 | +2 | +3 | +4 | +5 |
| No. | 424 | 257 | 126 | 49 | 14 | 1 | 1 |

Source: SGU National Handicap Audit 2003

This table is shown graphical form in the left hand chart below.



- To further evaluate the playing capabilities of the very low handicap golfers the handicap records arising from the 2003 audit were used to plot the nett differentials returned by players with a handicap of one or better in the course of a playing season. This included Club, Area, National and International events. The resulting distribution is shown in the chart above right.
- The chart features the expected bell shaped curve or normal distribution.
- The mean nett differential of this group of players was 1.7.
- This analysis demonstrates that as a group, players with a handicap of one or better are worthy of their low handicap status.
- In support of this contention it is of interest to examine the performance of the top player in the Scottish Golf Union Ranking which has been run since 2000.
- This award goes to the player with the lowest running average of all rounds recorded in the 72 hole Scottish Golf Union Order of Merit events expressed in relation to the CSS.
- The winners since inception and their performance details are listed below.

| Scottish Golf Union Ranking - Running Average v CSS | | | | |
|--|---------------|----------------------|-----------------------------------|-----------------------------|
| <i>Year</i> | <i>Player</i> | <i>Rounds Played</i> | <i>Cumulative Score v CSS</i> | <i>Average GD v CSS</i> |
| 2000 | S.O'Hara | 32 | -57 | -1.78 |
| 2001 | S.O'Hara | 30 | -79 | -2.63 |
| 2002 | G.Gordon | 42 | -90 | -2.14 |
| 2003 | S.Wilson | 26 | -75 | -2.89 |
| 2004 | J.McLeary | 26 | -61 | -2.35 |

Myth

“Entrants to prestigious championships (e.g. Amateur Championship) from CONGU / EGA / USGA etc. handicap systems do not play to the same standard.....”

- To examine this contention, the scores returned in the two most recent British Amateur Championships by entrants handicapped under CONGU, EGA and other systems (USGA, Australian, South African, New Zealand etc.) were analysed.
- The average score from players representing the various handicapping systems on the four golf courses used for qualifying purposes are detailed below:

| Year | Course | SSS | CSS | Average Scores | | |
|-------------|----------------|------------|------------|-----------------------|------------|--------------|
| | | | | CONGU | EGA | OTHER |
| 2003 | Irvine Bogside | 72 | 74 | 74.7 | 74.2 | 74.7 |
| | Royal Troon | 75 | 77 | 78.0 | 77.7 | 78.0 |
| 2004 | Old Course | 75 | 75/74 | 73.8 | 74.1 | 74.7 |
| | St. Andrews | | | | | |
| | Jubilee Course | 73 | 73 | 72.8 | 73.3 | 73.6 |
| | St. Andrews | | | | | |

- In relation to the CONGU players, respective variance of EGA players was -0.5, -0.3, +0.3 and +0.5 producing an overall variance of 0.0 strokes.
- In relation to the CONGU players, the respective variance of 'other' players was 0.0, 0.0, +0.9 and +0.8 producing an average variance of 0.4 strokes.

Myth

“It is unfair in singles match play to require the lower handicap player to concede full handicap difference to his opponent. Three-quarters of the difference was more equitable.”

- Numerous researchers and golfing bodies including the United States Golf Association, English Golf Union and Scottish Golf Union have investigated the relative merits of full versus three-quarters difference in handicap.
- All of these independent pieces of research have come to a single conclusion – full difference between the handicaps of the two players is clearly the more equitable allowance.
- A Scottish Golf Union survey covering 4000 handicap singles matches showed:

| | ¾ Diff | Full Diff. |
|---|--------|------------|
| Matches won by lower handicap player | 61% | 55% |
| Matches won by the higher handicap player | 39% | 45% |

From the above it can be seen that even when conceding full difference the lower handicap player retains an advantage.

- To further explore the significant advantage given to the lower handicap player by limiting the handicap allowance in match play to ¾ of the difference in handicaps, a handicap match play event with a large entry was analysed in detail.
- The following table tracks the representation, and hence performance of players in respect to Handicap Category at various stages of the competition.

| Representation | Handicap Category | | | | | | | |
|----------------|-------------------|-----|-------|------|-------|------|-------|-----|
| | Cat.1 | | Cat.2 | | Cat.3 | | Cat.4 | |
| | No. | % | No. | % | No. | % | No. | % |
| Comp. Start | 27 | 13 | 104 | 50 | 72 | 34.5 | 5 | 2.5 |
| Last 32 | 9 | 28 | 21 | 65.5 | 2 | 6.5 | 0 | 0 |
| Last 4 | 2 | 50 | 2 | 50 | 0 | 0 | 0 | 0 |
| Finalists | 2 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |

- The above is a fairly dramatic example of the bias in favour of the better player but the general trend repeats in the majority of club singles handicap events.
- In addition, the increasing probability of the lower handicap player prevailing with an increase in strokes conceded was clearly demonstrated as follows:

| Difference in Handicaps (Strokes) | No. of Matches Won by Higher Handicap Player | No. of Matches Won by Lower Handicap Player | % of Matches Won by Lower Handicap Player |
|-----------------------------------|--|---|---|
| 1 to 2 | 20 | 28 | 58 |
| 3 to 5 | 19 | 40 | 68 |
| 6 to 8 | 12 | 29 | 71 |
| 9 to 11 | 7 | 22 | 76 |
| 12 to 14 | 0 | 11 | 100 |
| 15 to 18 | 0 | 4 | 100 |

- CONGU recommends the full difference between the handicaps of the two players in singles match play. A Union may at its discretion make this recommendation mandatory.

SUMMARY

- In Club stroke play competitions the System provides a fair and equitable distribution of 'winners' over all handicap categories.
- To preserve 'fair-play' in singles / foursomes match play, across all handicap categories, it is necessary to operate to full handicap difference. This is due to the 'bonus for excellence' factor biased in favour of the lower handicap player.
- Very low or 'scandalous' scores are infrequent and do not necessarily imply that the 'perpetrator' is grossly over-handicapped. In general 'winning scores' are at an acceptable level.
- To take account of variable course and weather conditions the CSS has proved to be a valuable component of the system.
- There is no compelling evidence that it would be beneficial to calculate a separate CSS for each Handicap Category.
- Based on the comparative performance of CONGU, EGA and USGA etc. participants in the two most recent Amateur Championships it would appear that the respective handicap systems provide very similar handicaps at the 'expert' end of the range.
- With handicaps extending down to +5 there is a meaningful separation reflective of ability at the 'expert' end of the handicap range. The 'logjam' of the past has been eliminated, where + handicaps were only allocated by the National Union to players of international repute.

A FINAL THOUGHT...

- "In many sports such as tennis, one player's superiority over another is quickly established and monotonously reaffirmed. The inexhaustible competitive charm of golf lies in its handicap strokes, whereby all players are theoretically equalised and an underdog can become, with a small shift of fortunes, a top dog."

John Updike

- Although handicapping is a relatively inexact science, if we all fulfil our obligations to the System, uniformity and equity in handicapping will be achieved.