WIZARD Impact Values

Wizard Impact Values highlight performance levels.

Impact values with specific application to horse racing first made their appearance in a publication authored by American Fred Davis in the early 1970's. There were later publications which built on the work of Davis, notably the seminal work of Dr William Quirin, "Winning at the Races".

What is an Impact Value?

An impact value is an index which is calculated by looking at the percentage of winners that possess a particular characteristic when compared to the percentage of winners from the group as a whole. This is the generally agreed definition.

To make this clearer let us look at the following example:

- Type of race/Location: Open class handicaps in Sydney and Melbourne (excluding Welters and Highweights)
- Distance range: 1200m to 1399m
- Type of horse: male gallopers, 4yo to 6yo
- Variable: Finish position at last start.

In a 10 year time span there were 2967 runners that met the above conditions, and from these there were 259 winners, producing an 8.7% win rate.

Pos Last Start	Wins	Runs	Win%	Impact Value
1	64	542	11.8%	1.35
2-3	72	687	10.5%	1.20
4-9	97	1264	7.7%	0.88
>9	26	474	5.5%	0.63
total	259	2967	8.7%	

Again, an impact value is calculated by dividing the percentage of winners with a particular characteristic by the percentage of starters with that characteristic.

Let us assume that the characteristic in which we are interested from the above groups is that of last start winners.

We can see that there were 64 horses that had finished 1st at their last start that that won, out of a total of 259 winners from all of the groups. So the percentage of all the winners with that particular characteristic is 64/259 = 24.7%.

Next we find what percentage of the total runners had that characteristic. Here we can see that of the total number of 2967 horses there were 542 that had finished 1st last start. Therefore, the percentage of starters with that characteristic is 542/2967 = 18.3%.

Finally, to calculate the impact value you divide the percentage of winners with a particular characteristic, which is 24.7% for last start winners, by the percentage this sub-group formed as part of the group as a whole, here the last start winners make up 18.3% of the total number of runners.

Thus … 24.7% / 18.3% = 1.35 = the impact value

An impact value of 1.0 means that the horses with a particular characteristic won a percentage of their races that was equal to the percentage they were of the total number of runners in the group. For example, they won 16% of their races and they made up 16% of the total number of runners. Thus 16%/16% = 1, an impact value of one.Thus we can say that horses in this sub-group won exactly their "fair share" of the races won by runners in the groups as a whole.

As the worked example above showed an impact value of 1.35 we can interpret it as telling us that as last start winners this particular group of 4yo-6yo male gallopers, when competing in this type of open class races in Sydney, has historically won 1.35 times their fair share of races, compared to other 4yo-6yo male gallopers on the Sydney scene.

Compare this to those horses in the above table that finished 10th or worse last start, the latter group winning only 0.63 of their share of the races.

This is a useful way to view the significance of the impact value. It shows whether horses possessing a specific characteristic (eg back in 7 days or less, last start winner, beaten 3.1 to 5 lengths last start etc) have won more than their fair share of the races when compared to the group as a whole.

The Wizard Impact Values

The simplify the large number of categories, the wizard uses composite impact values. For example, rather than listing various impact values for (say) days since last run, runs from a spell, beaten margin last start etc etc, the wizard combines a number of the individual impact values that have been found to relate directly to (say) fitness and use this composite impact value to report on the significance of the fitness profile of each horse.

In the Wizard three major factors are currently covered by impact values… fitness, form, and distance.

Wizard impact values have grouped horses by age and sex in the following way:

- 2yo colts and geldings
- 2yo fillies
- 3yo colts and geldings
- 3yo fillies
- 4yo, 5yo, 6yo horses and geldings
- 4yo, 5yo, 6yo mares
- 7yo and older horses and geldings
- 7yo and older mares

So when you see an impact value against a horse you know that this is the impact value that applies to horses of that particular age and sex, recorded in the class of race being contested tomorrow, over a distance within 10% of the distance of tomorrow's race, and in the same location.

(Note: Location is determined by the way we have broken Australian racing into various levels of competitiveness for purposes of analysis and comparison.)

For example, if we had a 3yo colt (or gelding) contesting a welter handicap over 1600m

at Randwick, the Wizard impact value would show how, over the past 10 years, 3yo colts and geldings have performed in 1600m (+/- 10%) welters run on all Sydney metropolitan tracks when possessing the same fitness, form, and distance ability characteristics (profile) possessed by this 3yo runner.

Taking this explanation a step further, if the 3yo was having his 4th run from a spell, was back in 21 days since his last run, was beaten less than 3 lengths at his last start etc, it is this fitness profile that is being reflected in his Wizard fitness impact value.

If the Wizard impact value in this case was 1.40 we can say that the group of 3yo colts and geldings (of which this horse is a member) possessing this particular fitness profile has performed very successfully, winning 1.4 times its fair share of this type of race when compared to all 3yo's which have similarly competed.

So with the Wizard impact value you are able to see at a glance how certain age/sex groups have previously performed in the forthcoming class/distance/location.