

## WHICH RACES DO HARRIERS PREFER? THE MAGIC FORMULA

Mostly for a bit of fun I looked at which races attract the biggest Toddie attendance from this year's Grand Prix. Partly this was a reaction to grumblers with comments like "that race was too expensive" or else "too far away" or "too long and difficult for me." Partly it is from a belief that maybe we could pick the Grand Prix races to better reflect those that will attract more runners. Partly it is to make better use of the excellent work done by Dave O'Neill in presenting our race statistics on the web site.

The table below may still have a few mistakes. We could try and repeat the exercise at the end of the year when the full Grand Prix list is available. However just at first glance it does look as if we can conclude that;

- Attendance falls off a bit during the year
- Fell races have bigger attendance than road, with trail even less
- Races closer to Todmorden have higher attendance
- Hard to see a clear relationship with distance. Maybe there is some preference for shorter races but hard to be sure.

Have a look at the table and see what you can conclude.

<b>Race</b>	<b>Distance to Todmorden</b>	<b>Type</b>	<b>Length (km)</b>	<b>Toddies Racing</b>
Soreen Stanbury Stoop	13	Fell	11	22
Meltham	29	Road	10	26
Liversedge Half	30	Road	21	11
Standish Hall	36	Trail	10	12
Midgeley Moor	9	Fell	10	30
Sweatshop 10m	50	Road	16	10
Heptonstall	5	Fell	25	25
Ron Hill Accrington 10K	16	Road	10	15
Guisseley Gallop	25	Trail	10	16
Blackpool Half	50	Road	21	7
Stretton Six Summits	117	Fell	10	6

Blackstone Edge	11	Fell	6	20
Ilkley	27	Trail	11	15
Duddon	125	Fell	29	9
Otley 10m	27	Road	16	6
Freckleton Half	40	Road	21	3
Whaley Waltz	37	Fell	9	13
Eccup 10m	46	Road	16	4
Lingmell Dash	116	Fell	7	2
Lee Mill	14	Fell	10	14

With the above data I have also done a regression analysis and come up with a formula which predicts the number of Toddlies likely to race on any given month, type of race etc. This "formula" seems to predict the past correct to between 1 and 6 people (and the two biggest exceptions Lingmell Dash and Duddon are both English Champs). So maybe we could add this variable in together with a few extra variables such as price and number of runners taking part for which I already have partial data.

The magic formula is ;

Number of Tod Runners =  $21.2 - 0.42 \times \text{distance in miles to travel} - 0.004 \times \text{month of the year} - 1.25 \times \text{type of race} + 1.60 \times \text{race distance in km}$

Here race type is 1,2 or 3 depending on fell road or trail and month is just 1 to 7 from January to July. So the formula suggests that a trail race will likely only have 2 or 3 fewer Toddlies running than a fell race after other variables are already accounted for. Also that a Lakes race will have as many as 30 fewer runners than a local race of similar attractiveness as seen by type, distance and so on.

Clearly this is only a preliminary finding and anybody who believes every number in this predictive tool needs to have their head examined, however there does seem to be enough here in Dave O'Neil's statistics to warrant more study – and perhaps a few jokes as well.