

Bite Sized Thought Piece  
**2010**

A young child with blonde hair, wearing a striped shirt and light-colored pants, is sitting on a grassy bank. The child is looking down at a laptop computer that is open on their lap. The child's feet, wearing blue sandals, are visible. The scene is reflected in a calm body of water in the foreground. The background is a clear blue sky.

# **Weighting Online Surveys**

## Why do we weight?

**Most surveys conducted online use online access panels as a sample source. Results are then weighted to be representative of the population of interest. Weighting is the standard approach used to correct for the fact that those interviewed are not a perfect fit to that population.**

When using the normal technique, usually called rim weighting, we assume that the variables used as targets account for the variation in statistics. Standard demographics and sometimes simple internet usage variables are used.

For surveys involving population representation this can cause difficulties in producing results that are representative when comparing to offline sources.





## What is wrong with online samples?

There are a number of factors that affect the representation of samples drawn from online panels:

1. Often we are interested in total population measures and not everyone is online (current NRS GB adult figure for 2009 = 74%).
2. Not everyone who is online is invited to join a panel. This area is a huge and largely unknown area of bias as panel providers use various sources of opt-in lists. This we believe is a primary reason why different panels sometimes produce widely varying results.
3. Not everyone invited agrees to join an online panel. The current UK Ipsos Online Access Panel numbers some 330,000 adults, representing around 1% of the online population. Responses from invitations to join are typically 0.5% - 3%. Those joining tend to be heavier internet users.
4. Not everyone invited to take part in an online survey does so – current participation is around 15% but is dependent on the task.

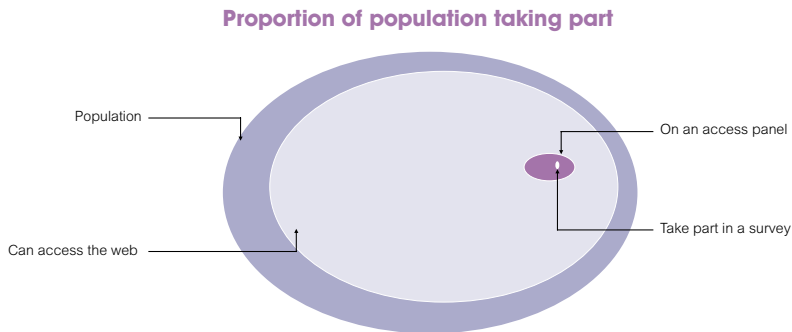
Rather than a rigorous offline survey where response is based on a sample drawn from the entire population, such as the NRS which had a 2009 response rate of 52%, true online panel response rates are minutely small.

We know from studies that compare results collected online to offline that there are differences that traditional weighting struggles to correct. What can be done about this? One of the areas we have been exploring is whether we can use improved weighting techniques to produce better results.

## Our Weighting test

Full results from our test have been reported (<http://www.readershipsymposium.org/papers/947.pdf>) and further developments are looking at other non-media topics.

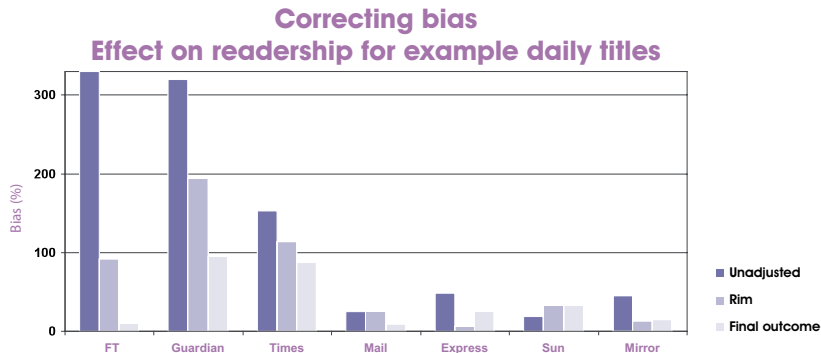
We have been using the NRS, the Ipsos Online Access Panel and a survey drawn from the panel to compare results on newspaper readership to see if we can produce a more robust weighting solution.



Weighting is a method for correcting biases in the survey sample and taking account of population differences. An immediate problem with online research is that we have several reasons for bias and they often have confounding factors. For example, those with a higher level of education are more likely to be online but are less likely to join a panel and take part in a survey. This issue is often ignored in final solutions where all causes of bias are grouped together.

Our approach used was to compartmentalise the biases into phases (whether online, whether on a panel, whether take part) and correct via weighting in stages. Also, rather than using rim weighting on standard demographics, we have used a logistic regression with many variables to identify the most important ones before applying weighting. This has introduced new variables into the weighting mix that would not normally be included in a standard solution (internet usage, technology ownership, general readership interests).

The results for a range of daily newspapers show that, whilst the new approach can offer big reductions in bias for some titles, some bias remains. Titles with the largest unadjusted bias usually show the most improvement.





## Are we there yet?

We have not removed all biases and we have certainly not accounted for all the differences. There are other causes that need to be considered. How are questions asked? How we can keep respondents engaged? What is the difference between self-completion and offline interviewer administered?

A challenge we also face when applying corrective weighting on surveys is having a technique that is portable for various research requirements. Also key is having enough relevant up-to-date information on the sample to help identify the best variables for weighting.

How online surveys are weighted cannot be ignored. We feel that the current techniques can produce misleading results. More work needs to be carried out to get a way forward that can be applied to surveys.

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