

2011 Media Tracker: Technical Report

Preface

This volume contains the methodology for the 2011 Media Tracker Survey, which has been run by BDRC Continental on behalf of Ofcom.

The Media Tracker Survey looks at the media penetration and usage habits of adults in the United Kingdom, as well as their attitudes across a range of media related issues. Issues examined include consumers' attitudes towards programming standards, the amount of advertising shown on TV, and the impartiality of various news media.

The tracker runs twice per annum, in April and October and results are combined for publication. In 2011, the overall unweighted sample size across the two waves was 1754 and the effective sample size was 1434.

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1.1 Research Methodology

The sample size for each region in the UK was set so that smaller regions and nations (by population) such as Wales and Northern Ireland were boosted to allow for more robust analysis, and larger regions such as London and the South East were consequently down weighted to maintain the overall sample size of approximately 850 per wave.

As the questionnaire is long (40 minutes+), an in-home face-to-face methodology is utilised. In the 2011 surveys, quotas were set for each nation (England, Scotland, Wales, Northern Ireland) reflecting the profile of adults living in that nation as follows:

- TV platform – cable TV, satellite TV, any Freeview, Freeview only
- Gender – male, female
- Age – 16-24, 25-34, 35-44, 45-54, 55-64, 65+
- Social class – AB, C1, C2, DE
- Working status – working, not working
- Household size – 1-2, 3+
- Children in household – child in household, no child in household

In addition, within England, minimum quotas were set by the 9 English regions.

1.2 Sources of Error

As in all samples the estimates from the survey are subject to various sources of error. The total error in a survey estimate is the difference between the estimate derived from the data collected and the true (unknown) value for the population. The total error consists of two main elements; the sampling error and the non-sampling error. Good sample design minimises the potential for non-sampling error to occur through, for example, bias. Sample size and more importantly effective sample size is the main influence on sampling error.

Reporting in the Media Tracker is designed to take account of sampling error. When testing for significant differences between different sub-populations, all testing is undertaken on the effective sample size:

- The sampling error is the error that arises because the estimate is based on a survey rather than a census of the population. The results obtained for any single sample may, by chance, vary from the true values for the population but the variation would be expected to average to zero over a number of repeats of the survey.
- The standard error is the estimated value of the sampling error. Our estimate for a variable, plus and minus the standard error for the variable, gives a range in which the true unknown value for the population should lie. The closer the standard error to 0, the more reliable the estimate.
- Effective sample size is the size of simple random sample (where everyone has an equal chance of being chosen) which would have the same level of accuracy as that given by the Media Tracker. The design effect is the ratio of the variance of the Media Tracker over the variance over the associated random sample. The closer this ratio is to 1, the smaller the impact of the design effect. Effective sample sizes for key subgroups, including those on which quotas have been set, are shown below.

When results are compared between separate groups within a sample, different results may be obtained. The difference may be “real”, or it may occur by chance (because not everyone has been interviewed). To test if the difference is a real one – i.e. if it is “statistically significant” – we have to know the size of the samples, the percentages giving a certain answer and the degree of confidence chosen. The difference is “statistically significant” if the lowest value possible for one value (i.e. lower limit of confidence interval) is higher than the highest possible value for the other.

1.3 Weighting

At the analysis stage, data from the two waves is combined and treated as one survey. The data is then weighted in total within each region and nation by gender, age, working status and social class. In all nations except for NI data is also weighted on Household Tenure (NI is excluded as equivalent census information is not available for this nation). Weighting necessarily reduces the effective sample size, unless all targets are met exactly. In practice, with six weighting variables to be applied, this is unlikely and the key ambition is to maximise the effective sample size so that sampling error does not increase unduly.

As different census data is available for GB and NI, different weighting was used. The overall targets used to weight the data were as follows:

GB

MALE	50%
FEMALE	50%
16-24 YRS	17%
25-44 YRS	36%
45+ YRS	47%
ABC1	54%
C2DE	46%
WORKING	58%
NOT WORKING	42%
Home owner occupied	66%
Home rented form local authority	19%
Home – other tenure	13%
North East	6%
North West	11%
Yorkshire /Humber	9%
East Mids	8%
West Mids	9%
East	9%
London	11%
South East	14%
South West	9%
Scotland	9%
Wales	6%

NI

MALE	50
FEMALE	50
16-35 YRS	35
35+ YRS	65
AB	17
C1	28
C2	22
DE	33
WORKING	52
NOT WORKING	48

The cable % is not weighted specifically, but weighting has minimal effect on this, with the same national figure of 53% for both weighted and unweighted data.

Appendix 1: Effective Sample Sizes

As mentioned earlier, weighting reduces the effective sample size and increases sampling error. In the regions that were over sampled, we would expect the weighting to have more effect in those regions, bringing down the weighting efficiency. With a wide array of rim weights, the impact of weighting on the effective sample size varies by subgroup, as follows:

	Unweighted base	Effective Base	% efficiency
TOTAL	1754	1434	82%
MALE	851	713	84%
FEMALE	903	721	80%
16-24 YRS	273	202	74%
25-44 YRS	659	544	83%
45-64 YRS	490	406	83%
65+	332	294	89%
AB	448	390	87%
C1	512	388	76%
C2	307	251	82%
DE	487	408	84%
WORKING	988	787	80%
NOT WORKING	764	648	85%
North East	76	66	87%
North West	179	159	89%
Yorkshire /Humber	139	130	94%
East Mids	98	68	69%
West Mids	150	131	87%
East	132	106	80%
London	209	182	87%
South East	254	226	89%
South West	132	109	83%
Scotland	172	143	83%
Wales	107	89	83%
Northern Ireland	106	85	80%

Overall, the weighting efficiency is 82%, which is acceptable in terms of such a complex weighting regime. In terms of the subgroups for which quota controls were set, the variation in weighting efficiency runs from 74% for the 16-24 age group to 94% for the Yorkshire and Humberside region. Again, the variations in sampling efficiency are quite consistent from one subgroup to another confirming that the sampling regime in practice generated a sample profile close to that expected from the demographic profile of the UK.

At a regional level, the weighting efficiency is lowest for East Midlands and highest for Yorkshire /Humber.

With these effective sample sizes, the confidence intervals applicable to various example subgroups are as follows:

Effective sample size	10% or 90%	20% or 80%	30% or 70%	40% or 60%	50%
Total (1434)	1.6	2.1	2.4	2.5	2.6
Male (713)	2.2	2.9	3.4	3.6	3.7
C1 (388)	3.0	4.0	4.6	4.9	5.0
NI (85)	6.4	8.5	9.7	10.4	10.6