

**Nations and Regions Q1 2010 Tech Report**

## **Preface**

This volume contains the full computer tabulations for the 2010 Nations & Regions study, which has been run by Saville Rossiter-Base on behalf of Ofcom. The objective of the survey is to track the attitudes and behaviour of the general public with respect to the residential telecommunications market as well as broadcasting more generally, and provide detailed comparisons at the nation, region and area level.

Fieldworks interviewed a quota sample of 9,013 adults, aged 15+, in the UK. Interviews were carried out across 776 different sampling points in the UK, face-to-face, in-home. All interviews were conducted between 4th January 2010 and 28th February 2010.

The data are initially weighted to correct the over-representation of nations, regions and areas to produce a geographically representative sample. They are then weighted by age, gender, social class, working status, and region to match the known population profile.

Details of the sampling frame, research methodology, and weighting procedures are outlined in the following pages. A note on statistical reliability is also included.

# 1 Sample Design

To ensure consistency with trend data, the sample approach to sampling has been used as in previous waves, using Output Areas (OAs)<sup>1</sup> as the basic building block for sampling, then using quota control by three key variables (age, gender and SEG) to control the sample interviewed within each sampling point.

## First Stage

The OAs in the UK were grouped into sampling units (SUs), which were then stratified by region and rural/urban:

- firstly, all the SUs were sorted by region,
- the SUs were then sorted within region by rural/urban.

The sample extracted was checked for close correspondence to the UK population on two key variables:

- Deprivation Index for Great Britain. Currently there is no deprivation index for Northern Ireland.
- Cable/ non-cabled area

Since region has been used as the first sorting variable, regional distribution of SUs will be more or less in proportion to the number of residential addresses in each region.

## Second stage

The size of a SU is measured by the number of addresses it contains. The SUs were selected with a probability proportionate to size. This ensures that all households within an SU have an equal chance of being selected, regardless of the size of the SU in which a household is situated. The number of interviews per SU was 12.

## Quotas

The following quotas were set (within each SU) to represent the population within that SU, which means the overall quotas across the UK will closely match the UK population. Quotas were set using 2001 Census data for Great Britain and Northern Ireland.

- Age (15-24, 25-44, 45+)
- Socio-economic grade (SEG)
- Gender

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<sup>1</sup>The 1991 Census Data was classified using Enumeration Districts (ED's). The 2001 Census data has been classified using Output Areas (OAs). These areas are essentially the same, but with slightly different boundaries.

## **Fieldwork**

Interviewers were provided with specific addresses. The average SU contains around 130 households in England and Wales and 160 households in Scotland, thus affording tight control over the addresses the interviewers called at. All interviews were conducted in the home, using pen and paper.

## **Reporting**

The sample is drawn on the basis of households within SUs, while quotas are set on the basis of adult population profiles. The data is then weighted to the profile of UK adults and so the data is representative of adults aged 15+. Therefore, when reporting it is necessary to state that the data represents the percentage of adults rather than the percentage of households.

# Weighting

The data are weighted to the national UK profile using target rim weights for age, gender, social class, working status, region and cable/non-cable. The following table shows the initial unweighted sample and the final weighted sample profile. It should be noted that differences by geographical area were an INTENTIONAL part of the sample design, to allow robust results for small areas to be produced. This in turn will introduce skews into other variables, such as working statuses and SEG, which does NOT in the latter case represent non-adherence to quotas.

<b>Figures are based on UK adults</b>	<b>% Weighted</b>	<b>% Unweighted</b>
	Census profile	Interviews achieved
Gender – Male 15+	48%	48%
Gender – Female 15+	52%	52%
Age – 15-34	33%	30%
Age – 35-54	35%	34%
Age – 55+	33%	36%
Social Grade – AB	25%	23%
Social Grade – C1	30%	30%
Social Grade – C2	18%	19%
Social Grade – DE	27%	29%
Working Status – working	56%	45%
Working Status – not working	44%	55%
Region – London	13%	8%
Region – South East	14%	8%
Region – East of England	9%	6%
Region – South West	8%	6%
Region – East Midlands	7%	5%
Region – West Midlands	9%	8%
Region – Yorkshire & Humber	8%	8%
Region – North East	4%	5%
Region – North West	11%	10%
Region – Scotland	9%	16%
Region – Wales	5%	12%
Region – Northern Ireland	3%	8%

The percentages described above as 'weighted' are the figures from the 2001 census data describing the UK adult profile and these figures were used to weight the data. 'Unweighted,' is the actual percentage of interviews achieved in January/ February 2010 fieldwork.

## 2 Appendix A – Deprivation

Business Geographic's 'Small Area Deprivation Index', which is designed to detect 'pockets' of deprivation within wards, was used as a stratification variable in sampling. The deprivation index is created using a combination of socio-economic variables. Please note that the deprivation index only applies to Great Britain.

The index composition score is based on the following four variables:

1. Unemployment – unemployed residents
2. Overcrowding – households with more than one person per room
3. Non-car ownership – households without a car
4. Non-home ownership – households not owning (or buying) their own home

The deprivation index ranges from 0, equalling the least deprived, to 100, equalling the most deprived. This is broken down into a high/medium/low classification for the overall population. The higher the index, the more deprived the area.

Quarter 1 2010 fieldwork achieved the following break-down of interviews; note that the interview data is weighted by household size to attempt an address-based comparison:

	<b>GB Profile (address based)</b>	<b>GB Interviews achieved: Weighted</b>	<b>GB Interviews achieved: Unweighted</b>
<b>Low Deprivation (0-33.33)</b>	61%	62%	60%
<b>Medium Deprivation (33.34 – 66.66)</b>	36%	35%	37%
<b>High Deprivation (66.67 – 100)</b>	3%	3%	3%

### 3 Appendix B – Quotas

The following quotas were set at the outset of the project:

#### Great Britain

Adults 15+	Quotas set	Interviews achieved Q1 2010: Weighted (6,682)	Interviews achieved Q1 2010: Unweighted (9,013)
Gender – Male	48%	48%	48%
Gender – Female	52%	52%	52%
Age – 15-24	15%	15%	15%
Age – 25-44	36%	38%	35%
Age – 45-64	29%	30%	29%
Age – 65+	20%	18%	21%
SEG AB	24%	25%	23%
SEG C1	29%	30%	30%
SEG C2	19%	18%	19%
SEG DE	28%	27%	29%

### 4 Appendix C - Guide to Statistical Reliability

The variation between the sample results and the “true” values (the findings that would have been obtained if everyone had been interviewed) can be predicted from the sample sizes on which the results are based, and on the number of times that a particular answer is given. The confidence with which we can make this prediction is usually chosen to be 95%, that is, the chances are 95 in 100 that the “true” values will fall within a specified range. However, as the sample is weighted, we need to use the ESS (effective sample size) rather than actual sample size to judge the accuracy of results. The following table compares ESS & actual samples for some of the main analysis groups.

	Actual	ESS
UK	9,013	6,682
GENDER: MALE	4,298	3,179
GENDER: FEMALE	4,715	3,503
AGE: 15-34	2,729	2,018
AGE: 35-54	3,038	2,276
AGE: 55+	3,246	2,468
SOCIAL GROUP: AB	2,029	1,514
SOCIAL GROUP: C1	2,631	1,962
SOCIAL GROUP: C2	1,735	1,290
SOCIAL GROUP: DE	2,569	1,907
HOUSEHOLD INCOME: UNDER £11.5K	2,122	1,571
HOUSEHOLD INCOME: £11.5K-£17.5K	826	605
HOUSEHOLD INCOME: £17.5K-£29.9K	995	744
HOUSEHOLD INCOME: £30K+	1,221	959
MOBILE PHONE USER	7,826	5,825
INTERNET ACCESS AT HOME	6,163	4,624

URBANITY: RURAL	7,511	5,706
URBANITY: URBAN	1,502	978
NATION: ENGLAND	5,709	4,986
NATION: WALES	1,075	885
NATION: SCOTLAND	1,468	1,340
NATION: NORTHERN IRELAND	761	699
ENGLAND REGIONS: LONDON	736	698
ENGLAND REGIONS: SOUTH EAST	712	673
ENGLAND REGIONS: SOUTH WEST	508	479
ENGLAND REGIONS: EAST MIDLANDS	439	414
ENGLAND REGIONS: WEST MIDLANDS	693	589
ENGLAND REGIONS: EAST OF ENGLAND	539	507
ENGLAND REGIONS: YORKSHIRE & HUMBER	766	621
ENGLAND REGIONS: NORTH EAST	456	427
ENGLAND REGIONS: NORTH WEST	860	729

The table below illustrates the required ranges for different sample sizes and percentage results at the “95% confidence interval”:

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**Approximate sampling tolerances applicable to percentages at or near these levels**

Effective sample size	10% or	20% or	30% or	40% or	50%
	90%	80%	70%	60%	±
	±	±	±	±	
6,682 (All respondents)	0.7	1.0	1.1	1.2	1.2
3,179 (Male)	1.0	1.4	1.6	1.7	1.7
1,962 (SEG C1)	1.3	1.8	2.0	2.2	2.2
729 (North West)	2.2	2.9	3.3	3.6	3.6

For example, if 30% or 70% of a sample of 6,682 gives a particular answer, the chances are 95 in 100 that the “true” value will fall within the range of  $\pm 1.1$  percentage points from the sample results.

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 again have to know the size of the samples, the percentages giving a certain answer and the degree of confidence chosen. If we assume “95% confidence interval”, the difference between two sample results must be greater than the values given in the table below to be significant:

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**Differences required for significant at or near these percentages**

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Sample sizes being compared (sub-groups or trends)	<b>10% or 90%</b>	<b>20% or 80%</b>	<b>30% or 70%</b>	<b>40% or 60%</b>	<b>50%</b> ±
	±	±	±	±	
3,179 v 3,503 (male vs. female)	1.4%	1.9%	2.2%	2.4%	2.4%
885 v 1,340 (Wales vs. Scotland)	2.5%	3.4%	3.9%	4.2%	4.2%