

Sample – Weighting Strategy

The weighting approach used rim weighting to adjust to population estimates of: age by sex; UK geographical region counts; ethnic group.

The age by sex and region counts were extracted from the ONS mid-year population estimates (1), and the ethnic group counts from the Labour Force Survey (Annual Population Survey) (2). To allow for the different sources of population estimates, the rim weighting was carried out on the proportions rather than population totals.

Age was grouped into seven categories: 18 to 24; 25 to 34; 35 to 44; 45 to 54; 55 to 64; 65 to 74; 75 or older. So the age and sex groups had 14 categories.

The reported ethnicity was grouped into nine categories: white; mixed / multiple ethnic groups; Indian; Pakistani; Bangladeshi; Chinese; any other Asian background; black African / Caribbean / other; and any other ethnic group or missing.

The rim weighting was carried out in two stages. At the first stage, the sample was weighted to region counts and age by sex groups only. This put the sample back into the correct proportion for UK geographical regions which corrects for the differential non-response. In the same stage, the age and sex groups were also adjusted to make sure that the final weighted profile was as close to the population as possible.

The second stage of rim weighting adjusted to all four measures, using the first stage weights as the starting weights. The adjustment factor between the first and second stage weights were trimmed at the 1st and 99th percentiles to dampen the extreme weights which improves efficiency. The final weights were calculated as the first stage weights multiplied by the trimmed adjustment factor for the second stage.

Sample profile

	Population of United Kingdom Profile	COMPLETED SURVEY - UNWEIGHTED (%)	COMPLETED SURVEY - WEIGHTED (%)
GENDER			
Male	48.9%	47.4%	48.6%
Female	51.1%	52.6%	51.4%
AGE			
18 to 24	10.9%	10.3%	11.1%
25 to 34	17.3%	14.0%	14.4%
35 to 44	16.1%	18.8%	19.3%
45 to 54	17.5%	16.8%	17.5%
55 to 64	15.0%	13.7%	14.6%
65 to 74	12.6%	20.5%	17.9%
75+	10.5%	6.0%	5.2%
REGION			
North East	4.0%	4.7%	4.4%
North West	11.0%	11.7%	10.9%
Yorkshire & Humber	8.2%	8.4%	8.0%
East Midlands	7.2%	7.5%	7.7%
West Midlands	8.9%	8.3%	8.4%
East of England	9.3%	9.4%	9.1%
London	13.4%	11.3%	13.1%
South East	13.7%	13.1	13.0%
South West	8.4%	9.9%	9.6%
N. Ireland, Scotland, Wales	15.7%	15.7%	15.9%

ETHNICITY			
White	86.3%	94.2%	93.9%
Mixed/Multiple ethnic groups	1.1%	1.6%	1.7%
Indian	2.9%	1.0%	1.1%
Pakistani	1.9%	0.52%	0.54%
Bangladeshi	0.8%	0.14%	0.15%
Chinese	0.5%	0.43%	0.46%
Any other Asian background	1.2%	0.14%	0.16%
Black/African/Caribbean/Black British	3.3%	0.95%	1.0%
Other ethnic group / DK	1.9%	1.0%	1.0%

REFERENCES

1. Office for National Statistics. Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019 2020 [Available from: www.ons.gov.uk/releases/populationestimatesfortheukenglandandwalesscotlandandnorthernirelandmid2019].
2. Office for National Statistics. Annual Population Survey/Labour Force Survey 2020 [Available from: <https://www.nomisweb.co.uk/sources/aps>].