

## Romania 2023 Technical Document

### Romania Sampling

A stratified multi-stage cluster sample design was used to complete 1,000 face-to-face surveys.

**Target Population/Coverage:** The target population is non-institutionalized adult population (15 years of age or older) living in households. Stratification and selection used information from the 2011 population census.

**Stratification:** The sampling frame was stratified by geographic region and population size resulting in a total of 38 strata groups. These include the 8 geographic regions: RO01 North-East, RO02 South-East, RO03 South, RO04 South-West, RO05 West, RO06 North-West, RO07 Centre, RO08 Bucharest (capital). The regions were further stratified by population size: Rural <2500, Rural >2500, Urban <30K, Urban 30K-99K, Urban 100K-199K, Urban 200K and more, Bucharest (the capital as a separate strata).

**Sample Selection:** Primary Sampling Units (PSUs) in Romania are cities/town and villages. PSUs were selected using probabilities proportional to population size (PPS), where the 0+ population was the measure of size. A total of 125 PSUs were selected.

Within each selected PSU a random starting point was identified. Using the right-hand rule and a fixed interval of 3 households (i.e. every third household is selected), interviewers selected eligible households until the required number of interviews were completed. In large apartment buildings (with 10 or more residential units), an interval of 5 was used. Within each selected household, interviewers listed all eligible (15+ adults) individuals and the CAPI program randomly selected a respondent. In case of refusals or non-contacts, households were replaced along the random route using the same interval.

**Data Collection:** September 10, 2023 – December 10, 2023

**AAPOR3 response rate:** 63%

**Weighting:** The sample data were weighted to minimize bias in survey-based estimates. The weighting procedure was formulated based on the sample design and was carried out in multiple stages. A probability weight factor (base weight) was constructed to account for unequal selection probabilities. At the next step, the base weights were post-stratified to adjust for non-response and to match the weighted sample totals to known target population totals obtained from country-level census data.

**Design Effect:** 1.43

**Margin of error:**  $\pm 3.7\%$  (95% confidence level)

**Population sources used for constructing weights were based on the following:**

Age and Gender: National Institute of Statistics, 2018

Education and Region/Strata: Census 2011, National Institute of Statistics

<b>Age</b>	<b>SAMPLE_UNWTD</b>	<b>SAMPLE_WTD</b>	<b>TARGET</b>
15-24	7.7	12.6	12.6
25-34	10.4	15.0	15.2
35-44	15.0	17.7	18.0
45-54	16.5	17.4	17.3
55-64	14.9	15.3	15.2
65+	35.5	22.0	21.8
<b>Education</b>	<b>SAMPLE_UNWTD</b>	<b>SAMPLE_WTD</b>	<b>TARGET</b>
Primary	7.4	11.6	12.2
Secondary	70.7	69.5	69.1
Tertiary	21.9	18.9	18.7
<b>Sex</b>	<b>SAMPLE_UNWTD</b>	<b>SAMPLE_WTD</b>	<b>TARGET</b>
Male	43.0	48.7	48.5
Female	57.0	51.3	51.5
<b>Strata</b>	<b>SAMPLE_UNWTD</b>	<b>SAMPLE_WTD</b>	<b>TARGET</b>
North-East rural <2500	1.6	1.4	1.3
North-East rural >2500	8.0	8.5	8.5
North-East urban <30 K	2.4	2.1	2.1
North-East urban 30-100 K	1.6	2.0	2.0
North-East urban >100K	3.2	2.6	2.6
South-East rural <2500	1.6	1.3	1.3
South-East rural >2500	4.0	4.4	4.7
South-East urban <30 K	1.6	1.0	1.0
South-East urban 30-100 K	1.6	1.6	1.6
South-East urban 100-200 K	1.6	1.5	1.5
South-East urban >200 K	2.4	2.4	2.5
South rural <2500	1.6	1.8	1.8
South rural >2500	8.0	7.8	7.8
South urban <30 K	3.2	2.4	2.4
South urban 30-100 K	1.6	1.9	1.9
South urban 100-200 K	1.6	1.8	1.8
South-West rural <2500	1.6	2.0	2.1
South-West rural >2500	4.0	3.8	3.8
South-West urban <30 K	1.6	1.7	1.7
South-West urban >30 K	3.2	3.0	3.0
West rural <2500	1.6	1.3	1.3
West rural >2500	2.4	2.2	2.2
West urban <30 K	1.6	1.9	1.9
West urban 30-100 K	1.6	1.3	1.3
West urban >100 K	1.6	2.4	2.4
North-West rural <2500	1.6	1.5	1.7

North-West rural >2500	5.6	4.7	4.7
North-West urban <30 K	1.6	1.9	1.9
North-West urban 30-100 K	1.6	1.7	1.7
North-West urban >100 K	2.4	3.2	3.2
Central rural <2500	1.6	1.7	1.6
Central rural >2500	4.0	3.5	3.4
Central urban <30 K	2.4	2.8	2.8
Central urban 30-100 K	1.6	1.4	1.4
Central urban > 100 K	2.4	2.6	2.6
Bucharest rural >2500	1.6	1.1	1.1
Bucharest urban <100 K	1.6	0.8	0.8
Bucharest	7.2	8.9	8.8