Estonia 2023 Technical Document

Sampling
A telephone (mobile phone only) sample design was used to complete 1,006 telephone surveys.

Target Population/Coverage:
Adult population (15 years of age or older) who have a mobile phone for personal calls. It excludes business phone numbers. The coverage error (percentage of target population not accessible for sampling) is expected to be less than 1%.

Stratification: The mobile sampling frame was explicitly stratified by the three mobile service providers in the market. The sample allocation across the strata was proportional to their market shares in terms of the count of mobile numbers they can possibly generate.

Sample Selection: A sample of specified size was drawn using pure Random Digit Dial (RDD) procedures among the mobile sampling frame. All sampled mobile phone numbers were pre-screened for working status. Respondents contacted by mobile telephone were screened for those aged 15 and older; no additional selection procedure was performed.

For the purpose of data collection, the total initial sample was split into random subsamples (replicate samples) and released sequentially based on the progress of interviewing in different strata. The goal was to release an optimum amount of sample each time to achieve a high response rate while completing the targeted number of interviews within the field period.

Data Collection: June 13, 2023 – July 27, 2023

AAPOR3 response rate: 17%

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 correct for unequal selection probabilities. At the next step, the base weights ere 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. The standard demographic variables used for post-stratification are: age, gender, education, region, urbanicity.

As the realized sample skewed towards more employed individuals, in addition to standard demographic adjustments, employment status (whether employed for an employer/self or not-employed) was used in the post-stratification stage. As there are no consistent population target information available for employment status, the average weighted estimate over the last 5 waves of World Poll data collection efforts was used as the target.

Design Effect: 1.53

Margin of error: ± 3.8% (95% confidence level)

Population sources used for constructing weights were based on the following:
Age, Gender, Region, Education, Urbanicity: Census 2021
Employment: WP data estimates

Age	SAMPLE_UNWTD	SAMPLE_WTD	TARGET
15-24	3.5	8.2	11.5
25-34	13.5	16.0	15.5
35-44	21.6	17.7	17.2
45-54	22.0	16.8	16.1
55-64	18.7	16.0	15.3
65+	20.8	25.3	24.4
Education_Group	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Lower Sec or Less Level	3.8	15.4	20.0
Upper Sec/Post Secondary	46.4	45.3	42.9
Short Cycle Tertiary /Tert Level	49.8	39.2	37.1
Sex	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Male	42.0	44.4	46.8
Female	58.0	55.6	53.2
Region	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
North Estonia	46.9	46.7	45.6
West Estonia	9.9	10.7	11.1
Central Estonia	10.7	9.4	9.2
North-Eastern Estonia	8.2	8.8	10.4
South Estonia	24.3	24.5	23.8
Urbanicity	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Urban	66.9	69.4	70.1
Rural	32.9	30.4	29.7
Employment	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Employed	74.9	62.2	60.0
Not Employed	25.1	37.8	40.0