

**Name of collection: SURVEY ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES FROM THE HOUSEHOLDS / ΕΡΕΥΝΑ ΧΡΗΣΗΣ ΤΕΧΝΟΛΟΓΙΩΝ ΠΛΗΡΟΦΟΡΗΣΗΣ & ΕΠΙΚΟΙΝΩΝΙΑΣ ΑΠΟ ΤΑ ΝΟΙΚΟΚΥΡΙΑ - 2006**

<p><b>Nature of collection</b> If possible, use the classification of collection types shown above e.g. <i>ICT use collection – business</i>. For “other” collections, provide details e.g. <i>Other ICT collection – ISPs</i>.</p>	ICT Use Collection – Household/individual
<p><b>Collection agency</b></p>	NATIONAL STATISTICAL SERVICE OF GREECE
<p><b>General references to collection material</b> Metadata, questionnaires etc</p>	
<p><b>Survey basis or vehicle</b> E.g. Labour Force supplement, standalone survey, administrative byproduct data</p>	Stand-alone survey
<p><b>Frequency of collection</b></p>	Yearly
<p><b>Collection history</b> Reference dates and/or periods from the first to the latest collection</p>	The first year of the survey was 2002 and since then it's been conducted yearly. The reference period for each year is the first quarter of the year.
<p><b>Whether collection is mandatory or voluntary</b></p>	Mandatory
<p><b>Scope and coverage of collection</b> Target population in terms of size, industry, population groups etc</p>	<p>All private households of the country and the members of them are covered in the survey, independently of their size or any socio-economic characteristics they may have.</p> <p>Excluded are collective households such as hotels, hospitals, military camps, nursing homes, etc (including households with more than 5 lodgers) and households having as members foreigners in diplomatic missions.</p> <p>Households with all members younger than 16 or older than 74 were excluded (non-target population).</p> <p>Target Population – Households: 3.675.853 Target Population – Individuals: 8.177.700</p>
<p><b>Main classifications used</b> E.g. industry, size, commodity, occupation</p>	Occupation (ISCO-88, 3 digits)
<p><b>Collection methodology</b> E.g. face-to-face, mail, Web, telephone interview</p>	Telephone interview
<p><b>Reporting and Statistical units</b> Enterprise, establishment, household, etc</p>	<p>Questions A1-A5 in the Eurostat Model questionnaire: households with at least one member aged 16-74.</p> <p>Modules B,C,D,E,F: One randomly pre-selected individual aged 16-74 years old per household.</p>
<p><b>Sample frame used</b></p>	The sampling frame containing the primary units (cluster of households in one or more unified blocks) for the ICT survey is the same as for the

	<p>EU-SILC of the year 2004, which is an area frame constructed using the necessary information from the Greek General Population Census 2001, and provides complete coverage of the target population of this survey.</p> <p>The sampling frame containing the secondary units (households) in the selected sampling primary units is updated before the selection of households.</p>
<p><b>Sampling method</b> E.g. stratified random sampling, cluster sampling</p>	<p><b>Sampling method</b></p> <p>Multistage stratified area sampling is applied for the survey. The primary units are the areas (one or more unified blocks) and secondary sampling units selected in each sampling area are the households containing members belonging to the target population. The final unit is one person randomly selected among the household members of age sixteen to seventy four years.</p> <p><b>Stratification</b></p> <p>The sampling design involves two levels of area stratification: (i) The first level is geographical stratification based on the partition of the total country area into thirteen standard administrative regions corresponding to the European NUTS II level. The two major city agglomerations of Greater Athens and Greater Thessalonica constitute separate major geographical strata. (ii) The second level of stratification involves grouping municipalities and communes within each NUTS II administrative region by degree of urbanization, i.e., according to their population size, into four categories. These categories are defined by the population size intervals 0-999, 1000-4999, 5000-29999, 30000 and over. The number of final strata in the thirteen regions, i.e., non-empty strata formed by crossing region and degree of urbanization, was 50. The two major city agglomerations were further partitioned into 31 and 9 substrata (administrative subsections), respectively, on the basis of the city blocks of the municipalities that constitute them. Thus, the total number of strata for this survey was 90.</p> <p><b>Stages of probability sampling</b></p> <p>The sample of households for the ICT survey of the year 2006 was selected from the sample used in the Greek Survey of Income and Living Conditions (EU-SILC of the years 2002, 2003 and 2004). The EU-SILC is an annual rotating household survey covering the target population of the ICT survey.</p> <p>The selection probabilities of the households for the ICT survey of the year 2006 were defined suitably so that the demands of the survey could be met. The definition of selection probabilities was as follows:</p> <p><b>1<sup>st</sup> stage:</b> The primary unit of order <math>i</math> in stratum <math>h</math> has probability of being drawn proportional to the target population size as follows:</p> $P_{hi} = \frac{N_{hi}}{N_h}$ <p><math>N_{hi}</math> : The updated (from EU-SILC survey) target population of households in the <math>hi</math> primary unit</p> <p><math>N_h</math> : The updated (from LFS 2005) target population of households in</p>

	<p>the <math>h</math> stratum</p> <p><b>2<sup>nd</sup> stage:</b> Out of <math>N_{hi}</math> households, a sample of <math>n_{hi}</math> households was selected with equal probabilities. Each of <math>n_{hi}</math> households has the same chance to be selected, equal to: <math>\frac{n_{hi}}{N_{hi}}</math>. As the estimator of the stratum total <math>Y_h</math> (for any characteristic) should be self-weighting, the <math>n_{hi}</math> was defined, as follows: <math>n_{hi} = \frac{n_h}{a_h}</math>, where <math>n_h = \sum_i n_{hi}</math> and <math>a_h</math> is the number of primary units in the <math>h</math> stratum.</p>
<p><b>Sample size</b> For the most recent collection</p>	<p>Households: 5500 Individuals: 5500</p>
<p><b>Response rate</b> The responding proportion of the live in-scope population, most recent collection</p>	<p>Households: 89,02% Individuals: 89,02%</p>
<p><b>Methods for dealing with non-response (item and unit)</b> Indicate whether imputations are made for non-response and a short description of methods used.</p>	<p>Weighting adjustments are used to compensate for total unit non-response. The essence of the weighted adjustment procedure is to increase the initial weights of specified respondents so that they represent non-respondents. The weighting adjustment or re-weighting is carried out as follows:</p> <p>The initial weights (inverse of selection probabilities) of all households belonging to respondents within a stratum are adjusted by the same multiplying factor, which is equal to the inverse of response rate.</p> <p>A new adjustment (population weighting adjustment or post stratification) is carried out in such a way that the weighted respondent distribution across the weighting classes (households with 1, 2, 3, 4 and 5+ members) conforms to the population households distribution. The population distribution has been estimated from data coming from the Labour Force Survey with reference period the 2<sup>nd</sup> quarter of the year 2005. Provided that the weighting classes are not small, the post stratification leads to lower standard errors and attempts to reduce the bias created by non-response and coverage errors.</p> <p>For individuals, a new adjustment is carried out in such a way that the weighted respondent distribution across the classes defined by age group (age groups: 16-19 20-24, 25-29, 30-34, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74) and sex (male, female) conforms to the population individuals' distribution. The population distribution has been estimated from data coming from the Labor Force Survey with reference period the 2<sup>nd</sup> quarter of the year 2005.</p>
<p><b>Weighting of results</b> Weighting method e.g. by employment, number of enterprises, revenue</p>	<p><b>Grossing-up procedures for households</b></p> <p>Let <math>h</math> be one of the final strata of households (Final stratum = Geography x Urbanization), then this will take the following values: <math>h = 1, 2, \dots, H</math> (where <math>H = 90</math>). In each of the final strata (let <math>h</math>), if</p>

statistical information was selected from a sample of  $n'_h$  households, the extrapolation factor of the household of order  $i$  was defined as:

$$w_{hi} = \frac{N_h}{n_h} \cdot \frac{1}{r_h} t_{hi}$$

where:

$N_h$  : The target population size in the  $h$  stratum according to LFS of the 2<sup>nd</sup> quarter 2005

$n_h$  : The initial sample size in the  $h$  stratum

$\frac{N_h}{n_h}$  : The initial probability of selection of the sampling households in  $n_h$

the the  $h$  stratum, as the the estimator of the stratum total  $Y_h$  (for any characteristic) is self-weighting,

$r_h = \frac{n'_h}{n_h}$  is the response rate in the  $h$  stratum

$t_{hi}$  : Factor, which adjusts the sample weights of households so that the sample totals conform to the population totals on a cell-by-cell basis (Population Weighting Adjustment). The auxiliary variable used at household level is the household size (1,2,3,4 or 5+ members) for the definition of cells or classes.

#### **Grossing-up procedures for individuals**

In each of the final strata of households ( $h$ ), if statistical information was selected from a sample of  $m_h$  individuals, the extrapolation factor of the individual of order  $j$  belonging to the  $hi$  household is defined as follows:

$$w_{hij} = w_{hi} \cdot \frac{1}{p_{hij}} \cdot g_{hij}$$

where:

$w_{hi}$  : The extrapolation factor of the  $hi$  household in which the  $hij$  individual belongs

$p_{hij}$  : The selection probability of the  $hij$  individual, which belongs to the  $hi$  household. As one individual was selected with equal

probabilities out of  $m_{hi}$  members belonging to the target population, the  $p_{hij}$  is defined as:  $p_{hij} = \frac{1}{m_{hi}}$

$g_{hij}$  Factor, which adjusts the sample weights of individuals, so that the sample distribution conforms to the population distribution across a set of classes. The classes are 24, which are defined by crossing sex by age groups (2 sex categories  $\times$  12 age groups). The age groups are defined by the year intervals: 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69 and 70-74. The population distribution of individuals by sex and age groups was estimated from data coming from Labour Force Survey with reference period the 2<sup>nd</sup> quarter of 2005.

<p><b>Relative standard errors (or coefficients of variation) on main aggregates</b></p> <p>For the most recent collection. These can be expressed as a range of values. For a given variable, the RSE or CV is equal to the ratio of the square root of the estimate of the sampling variance to the estimated value. It can be expressed as a fraction or a percentage.</p>	<i>Indicator or subindicator</i>	<i>Number of 'yes' responses</i>	<i>Estimated proportion</i>	<i>Standard error</i>
	Proportion of households having access to the Internet at home	849.955	23,1	22.023
	Proportion of households using a broadband connection	141.042	16,6	0,01148
	Proportion of individuals regularly using the Internet: overall	1.855.769	22,7	50.734
	Proportion of ind. regularly using the Internet: males	1.101.929	59,4	0,01343
	Proportion of ind. regularly using the Internet: females	753.839	40,6	0,01343
	Proportion of ind. regularly using the Internet: age group 16-24 years	512.831	27,6	0,01204
	Proportion of ind. regularly using the Internet: age group 25-34 years	595.167	32,1	0,01306
	Proportion of ind. regularly using the Internet: age group 35-44 years	435.587	23,5	0,01122
	Proportion of ind. regularly using the Internet: age group 45-54 years	217.053	11,7	0,00916
	Proportion of ind. regularly using the Internet: age group 55-64 years	80.07	4,3	0,00535

	Proportion of ind. regularly using the Internet: age group 65-74 years	15.06	0,8	0,00215
	Proportion of ind. regularly using the Internet: low educational level	172.828	9,3	0,00931
	Proportion of ind. regularly using the Internet: medium educat. level	824.08	44,4	0,01686
	Proportion of ind. regularly using the Internet: high educational level	858.861	46,3	0,01642
	Proportion of ind. regularly using the Internet: students	399.584	21,5	0,01277
	Proportion of ind. regularly using the Internet: employees	919.849	49,6	0,01636
	Proportion of ind. regularly using the Internet: self-employed	333.557	18,0	0,01272
	Proportion of ind. regularly using the Internet: unemployed	85.286	4,6	0,00793
	Proportion of ind. regularly using the Internet: retired, other inactive	117.494	6,3	0,00776
	Proportion of individuals having downloaded official forms	79.397	3,2	0,00528
	Proportion of individuals having ordered goods or services for private use over the internet in the last 3 months	253.197	10,7	0,00990
<p><b>Known data quality issues with this collection</b> E.g. non-response bias, comparability problems over time, definitional issues, coverage deficiencies, timeliness of frame, high item non-response (identify topics which are particularly problematic).</p>				
<p><b>Output details</b> Please list (or link to) relevant publications for this collection. You can</p>	<p>Tables of key results in our site <a href="http://www.statistics.gr">www.statistics.gr</a> . Publication on the use of information and communication from households/ individuals (under editing).</p>			

also email relevant files to the OECD.	
<b>Other comments</b>	
<p><b>Contact/s</b> Where available, provide names and email addresses.</p>	<p>1. <i>CHALKIADAKI MARIA</i> UNIT OF HOUSEHOLD SURVEYS TEL. 0030 -210-485 2896 FAX. 0030 -210-485 2906 E-MAIL: MCHALK@STATISTICS.GR</p> <p>2. <i>ZOULIATIS IOANNIS</i> UNIT OF HOUSEHOLD SURVEYS TEL. 0030 -210-485 2896 FAX. 0030 -210-485 2906 E-MAIL: ZOULIATI@STATISTICS.GR</p>