

TECHNICAL ANNEX

CITH-2003 SURVEY

- **Survey Methodology**
- **Glossary of specific terms**
- **Questionnaire (common questions)**
- **Design of the final file register (excel file)**

Methodology of the Survey on the Equipment and Use of Communication and Information Technologies in households (CITH-2003) (pages 2 to 14, inclusive)

1. Introduction

The Survey on the Equipment and Use of Communication and Information Technologies in Households (CIT-H 2003) is a statistical operation carried out by the National Statistics Institute (INE) in collaboration with the Cataluña Statistics Institute (EUSTAT). On the other hand, sample initially designed has been increased on a national level in the Comunidad Foral de Navarra at the request of the department of statistics of this autonomous community. They are also financing the additional cost.

This is an investigation directed at persons who have lived in family dwellings for more 10 years or more who collate information on communication and information technologies as household equipment and the use of Internet and e-commerce by household members. In the case of the autonomous community of Euskadi the investigation includes persons 6 and over resident in family dwellings.

This is a continuation of the CIT-H 2002 survey carried out during the second quarter of 2002 although some modifications have been carried out with respect to this such as the incorporation of more detailed information on the use of the computer, Internet and e-commerce and the deletion of questions on a landline and mobile telephone. In the case of the autonomous community of Euskadi, this is an investigation initiated by Eustat in 1999 twice a year.

The survey follows the recommendations given by the European Union Statistical Office (EUROSTAT) who in turn has followed the guidelines and suggestions in this field made by the OECD.

2. Objectives of the survey

The survey has the following objectives:

- 1 To get to know communication and information technologies equipment in Spanish households (television, telephone, radio) and especially computer equipment.
- 2 To get to know the use that the Spanish population makes of Internet and e-commerce.
- 3 To serve as a base for international comparison and to cover the information requirements of international institutions, in particular European Union e-Europe indicators.
- 4 To obtain comparable information among autonomous communities.

3. Units

The investigation units are persons who have been living for 10 or more years in family dwellings. The units of analysis are family dwellings and persons 10 and over who live in them. In the case of the autonomous community of Euskadi the investigation units are persons 6 and over resident in family dwellings and the units of analysis family dwellings and persons 6 and over.

4. Scope of investigation

- The population scope is the set of persons 10 and over who live in main family dwellings. In the case of the autonomous community of Euskadi the population scope is the set of persons 6 and over who live in main family dwellings.
- The geographical scope is all of Spain.
- The temporal scope – collation of data and reference to results - is the second quarter of 2003.

5. Reference periods

The following will be distinguished for each one of the variables:

- Reference period of survey results: this will be the quarter when the interviews were conducted.
- The reference period of the information will be when the interview was conducted, except for the following variables:
 - The last three months for the use of computers
 - The last three months for the use of Internet
 - The last 12 months for security problems in the use of Internet
 - The last three months for purchases of products and services on Internet
 - The week prior to the interview for the relation of the persons selected with labour situation

6. Survey phases

The survey will be carried out by personal interview or telephone according to the availability of the telephone made to the INE by the dwelling selected in the survey sample. Prior to the survey, an information cross will be carried out between the directory of sample dwellings and appropriate telephone directories for the purposes of having a telephone available in the dwelling.

7. Sample design

7.1 7.1 Type of sample

For each Autonomous Community an independent sample that represents it is designed, due to one of the objectives of the survey being to facilitate data.

The type of sample used is stratified tri-phase.

The first stage units are the census sections. The second stage units are main family dwellings. In the third stage a person is selected from each dwelling who is 15 or over. Similarly, information is obtained from all children 10-14 in the dwelling. In the case of the autonomous community of Euskadi, if there were students and/or various employed persons in the dwelling and they were not selected in the first phase, an additional random selection is made for both groups in such a way that the presence of a representative from each one of these groups in the sample is guaranteed. This is apart from collating information on all children who are 6-14.

The framework used to select the sample is an areas framework formed by the relation of existing census sections referred to 1 January 2001. For the second stage units the list of main family dwellings in each one of the selected sections for the sample has been used. These were obtained from the continuous inhabitants register with the aforementioned time reference.

In the case of the autonomous community Euskadi, its population register will be used as a framework.

The stratification criteria used were the size of the municipality to which the section belongs. In the case of Navarra, by agreement of this community, other substrata have been defined based on the rural or urban type of municipality and on their geographical situation within the country. In the case of the autonomous community of Euskadi the stratification has been carried out in agreement with the general criteria for household surveys.

7.2 SIZE OF THE SAMPLE. FIXATION

In order to cover the objectives of the survey to be able to facilitate estimates with a certain degree of reliability on a national and autonomous community level, a sample of 3,061 census sections and 23,238 dwellings have been selected, whereby 8 dwellings have been selected in each census section (6 in the autonomous community of Euskadi).

The sample is distributed among autonomous communities by using a compromise solution between uniform fixation and proportional to the size of the community. For this, information coming from the CIT-H survey carried out in 2002 has been borne in mind.

The survey is a rotating panel with four rotation shifts in such a way that each year a fourth part of the sample is renewed (two thirds in the case of Euskadi).

For this reason, the number of sections by autonomous community (except Euskadi) is a multiple of four which facilitates the appropriate distribution of sections in each shift except in Euskadi where the number stands at 625.

Between strata, fixation is proportional to the size of these always maintaining that the number of sections by stratum in each autonomous community is a multiple of four.

The sample has been increased in Navarra to provide a greater level of breakdown of the data.

The distribution of the number of sections selected by autonomous community is:

Autonomous Community	Number of census sections
Andalucía	300
Aragón	128
Asturias (Principado de)	120
Baleares	92
Canarias	120
Cantabria	80
Castilla-León	172
Castilla-La Mancha	132
Cataluña	264
Comunidad Valenciana	196
Extremadura	112
Galicia	156
Madrid (Comunidad de)	204
Murcia (Región de)	100
Navarra (Comunidad Foral de)	160
País Vasco	625
La Rioja	72
Ceuta and Melilla (Autonomous cities)	28
Total	3061

7.3 SELECTION OF THE SAMPLE

The selection of first stage units in each stratum has been carried out with probability proportional to the size of each section. In the second stage dwellings have been selected by means of a systematic sample with random start and equal probabilities of selection for each dwelling from the section. This procedure leads us to obtain self weighted samples of dwellings in each stratum.

In a third stage and within each dwellings, a person 15 or over will be chosen with equal probability by using Kish's random method. In the case of Euskadi an employed persons and a student is also selected, wherever possible to potentiate the representation of these groups of persons in the sample.

7.4 ESTIMATORS

Ratio estimators will be used for which balancing techniques will be applied with the use of external information coming from population projections by age groups and sex.

8. Collection of the information

The collation of information will be made by means of phone interviews (CATI methodology) for households with telephones. The first persons interviewed who is ideal will provide the data to fill in the household file in which household members, their age and sex will be determined. To provide the information requested in the main questionnaire, the merit based selection process of the person selected will be required according to the criteria explained in point 7.3 of this document.

With respect to household who do not have a telephone, the collation of information will be carried out by means of personal interview of one of the interviewers.

Prior to information collation, a letter will be issued to each persons who features as main in the survey framework directory informing them of the objectives to invite them to collaborate.

9. Treatment of the information

When information collation is conducted by telephone, the information will be recorded at the same time, assisted by an appropriate support for these purposes in such a way that movement controls (which guarantee the formulation of questions in their correct order) and control of content and coherence of the variables among themselves, are incorporated.

For dwellings whose information is collated by personal interview *on paper*, the recording of the questionnaires will be conducted after coding and filtering of these questionnaires. This recording will incorporate the controls in effect establishing consistency between themselves or the statistical variables collated. In the case of Euskadi, personal interviews will be carried out by using laptop computers which will have a variable control program incorporated.

10. Dissemination of results

The publications that each institution considers appropriate, will be elaborated on paper and electronically.

11. Definitions

Definitions specifically associated with the survey objectives feature in the glossary appendix. The general definitions are detailed below.

11.1 FAMILY DWELLING

A family dwelling is considered to be any room or set of rooms and their outbuildings which occupy a building or a structurally separated part of the same and that, by the way in which they have been constructed, reconstructed or transformed, are destined to be habited by one or several households and on the date of the interview are not used totally for other purposes. Included in this definition are:

- --Fixed lodgings: areas which do not respond totally to the definition of family dwelling due to them being semipermanent (huts or cabins), improvised with waste material such as cans and boxes (huts or shacks), or not having been conceived in a principle with residential purposes nor reformed to be used with these purposes (stables, mills, garages, stores, caves, natural refuges), but which however constitute the main and normal residence of one or various households.