NATIONAL STATISTICAL
SERVICE OF GREECE
Division Of Population
and Labour Market Statistics
Unit of Special Household Surveys

EUROPEAN UNION- SURVEY ON THE USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

Final report of the results of the 2003 survey in Greece

Athens, April 2004

General Outline

The survey on the use of information and communication technologies is part of the European Statistical Program to which all member states participate. Basic aim of the survey is the study, both at national and European level, of the degree of usage of information and communication technologies from the households.

For comparability reasons the survey has been conducted with questionnaire designed centrally from Eurostat and after it's adjustment to national particularities.

Aim of the survey

The survey aims in the study of the households':

- access to selected IC technologies
- use of computers and internet
- purpose and nature of activities on the internet
- internet commerce details

in relation to households' demographic characteristics, educational level and activity of household members.

Coverage

The survey covers all households of the country, independently of their size or any socio-economic characteristics they may have.
Excluded from the survey are:
- collective households such as hotels, hospitals, military camps, nursing homes, etc. As collective households were also considered households with more than 5 lodgers.
- Households having as members foreigners in diplomatic missions.

Response Rates –Some Figures

The survey was carried out, from the National Statistical Service of Greece, in July-15 September 2003, according to the timetable of the contract. The achieved questionnaires are as following:
The *initial sample* was 4971 households from which :

- 4341 households have been *fully interviewed* (with answers at least up to question C1),
- 386 households have not been interviewed as having members aged <16 and/or >74 (only demographic characteristics have been recorded),
- 77 households have not been interviewed due to denial for cooperation
- 167 households have not been interviewed because contact wasn't made despite making the required phone calls.

Contact with households

Before the conduction of the survey, all the households received an advanced letter, almost a month before, informing them for the scope of the survey as well as of the time period of the survey conduction.

Methodological Report

The sample of the survey consisted of three of the four rotating panels that make up the Greek Survey of Income and Living Conditions (EU-SILC). Note that the EU- SILC is an annual rotating panel household survey with multistage stratified design that covers the target population of the ICT survey. It should be noted that all four initial panels of the EU-SILC were simultaneously introduced for its first wave conducted in 2003. The reasons for using panels of the EU-SILC to collect the ICT information was the operational convenience, the low cost and the facility in creating a representative sample of the requisite size.

 Survey technique

Telephone survey.

Since, the survey of the EU- SILC had been conducted only a few weeks before the ICT household survey, the composition of the households was already known. Relative texts had been printed with all the persons having been members of the households according to conditions having been set for the EU-SILC survey and among them one person in the age sixteen to seventy four years was randomly selected, with the help of Excel program.

The interviewer knowing the composition of the household, during the previous months, updates it, according to rules (mentioned below in BASIC CONCEPTS) and then asks to speak the pre-selected person, in order to get the information concerning the whole household (Questions A1-A4) and him/herself (rest of the questionnaire).

If that's feasible then the whole questionnaire was filled in by this member.

If the member was temporarily away from home (working, in a visit, etc.) the interviewer completed from the member on the phone, the demographic data as well as questions A1-A4 on households access to selected Information and Communication Technologies and fixed a telephone date, another hour or day, with the pre-selected members in order to get the rest of the information.

If the member had moved away from the household permanently, then he/she was replaced by another household member aged 16-74, or for convenience with the member on the phone, if the age prerequisite was fulfilled. The same holds if the pre-selected member joined the army or had gone away for studies, etc.

Target population

In accordance with the general outline of EUROSTAT's plan for the Household Survey on ICT Usage, the target population is the current population of persons aged sixteen to seventy four who are resident within private households in Greece.

Sampling unit

The sampling unit is the private household, and one person randomly selected among the household members of age sixteen to seventy four years.

Sampling frame

The sampling frame for the ICT survey is an area frame constructed using the necessary information from the recent Greek General Population Census 2001, and provides complete coverage of the target population of this survey.

Sampling design

The survey used a stratified multistage probability sampling to select the eligible sampling units.

Stratification

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 50.

Clustering

The sampling design involves clustering of households in the area units that comprise the area frame of each final stratum. By area unit we mean a part of inhabited area ending at artificial or natural boundaries well defined and identifiable on the ground by using a map of the locality. Such a unit could be one or more neighbouring blocks, or part of a rural locality with such boundaries. To reduce field costs and the time length of the fieldwork, the size of the area clusters was limited to an average of approximately fifty households in the thirteen administrative regions, and approximately seventy households in the two major city agglomerations

Sample size

The size of the ICT sample was 6.105 households/individuals —from the three panels of the EU-SILC— of which during the EU-SILC conduction 4.971 responded (completed household questionnaires) –81,4% response rate.

A few figures on EU-SILC results:

Size of the three rotational groups : 6.105
From these for 29 address couldn't be located
             2 address had been unable to access
         108 address didn't exist or had been non residential address or had been unoccupied or
           not principal residence.
For the rest 5.997 households to be interviewed :
           4.971 households completed households questionnaire
            433 refused to cooperate
            451 households were temporarily away for the duration of the fieldwork
             64 household were unable to respond (due to illness, incapacity, etc.)
             47 households weren't interview for other reasons
According to these results, the initial sample for the ICT survey was 4.971 households.

From the 4.971 households/ individuals forwarded for the ICT survey, finally 4.341 households/ individuals responded and were fully interviewed –response rate 87,3%. This satisfies the sample size requirement of a minimum number of 4000 completed questionnaires for the ICT survey. The number of respondents within the eligible age range (16-74) was 4.341. The sample of the EU-SILC was allocated to the various strata in proportion to their sizes, where size is measured as the number of private

households in these strata according to Population Census counts. Such allocation aimed at optimizing EU-SILC estimates at the country level, and led to a self-weighting sampling of households, i.e., selection of households with equal probability. Because of the sampling design of the EU-SILC, the number of clusters in the sample of each stratum of the ITC survey is a multiple of three.

Stages of probability sampling

The sample of private households and associated eligible residents was drawn in three stages. In the first stage of the EU-SILC sampling a random sample of area clusters, the primary sampling units (PSUs), was systematically selected from the frame of clusters in each final stratum with probability proportional to the number of private households in the clusters. The determination of the number of PSUs in each stratum was based on the allocated sample size, the desired number of households to select in each PSU (6 to 12 households, but the same number in the same stratum) and the panel rotation pattern requiring a multiple of 4 panels in each stratum. A total of 792 PSUs were selected in the three panels that were used for the ICT survey, with an average of 60 households per PSU according to Census 2001 counts. In the second stage, a systematic random sample of households was drawn with a pre-fixed sampling rate from the current population of households (based on a list prepared in the field) of each selected PSU. In the third stage of sampling, one of the residents aged sixteen to seventy four of each selected household was selected at random using Kish's method for the ICT survey.

Weighting/calibration

The household weights (inverses of household selection probabilities) of the ICT sample were inflated by the fraction of 4/3 to account for the use of only three out of the four panels of the EU-SILC.

The household weights of the ICT sample in each of the thirteen major geographic strata were also adjusted for non-response (using the inverse response rate) separately within each substratum defined by degree of urbanization. In the two major city agglomerations the non-response adjustment was made within each of their substrata. To produce a set of person weights, the household weights were further multiplied by the weight of the selected person (inverse household size, defined as the number of persons of the eligible age) and calibrated to the population total (based on demographic projection) for persons of the eligible age.

Basic concepts

- ***Household***

As household is considered a person living alone in a dwelling or a group of persons, relating or not, residing in the same dwelling.

- ***Members of the household***

In order to be in agreement with the requests of Eurostat, as far as the reference period is concerned, we considered as household members and registered them, all persons residing in the household during the first quarter of 2003 and for most of this time period.

More specifically, members residing in the dwelling during the reference period (first three months of the year 2003), and were absent during the conduction of the survey, because they had moved permanently in another dwelling, or they were doing their national service, etc. were registered as members. When they were the pre-sampled member they were replaced by another member of the household aged 16-74 (or for convenience with the person on the phone, if age condition was fulfilled).

Members residing in the dwelling during the survey conduction, but not residing during the reference period (returnees, newborns, etc.) weren't registered.

- ***Education***

Level of education completed during the conduction of the survey. Classification was made according to ISCED-97.

More specifically:

ISCED 0+1 : Pre-primary +primary education (nepiagogeion +dimotiko)

ISCED 2+3+4: Secondary + post secondary education (gymnasio, Lykeio, IEK)

ISCED 5+6: Tertiary education (Technical Educational Institutes, Universities, Master, PhD)

Separate code existed for persons having never attended any level of education.

- ***Activity status***

Activity status was self-defined. The following categories have been used and have been classified accordingly in the tabulation scheme.

1= Student

2=Employee

3=Self-employed

4=Family worker (unpaid)

5= In compulsory military service

6= Housewife

7=Unemployed

8=Retired

9=Man of independent means

10=Unable to work

11=Child not having yet attended school

- ***Home based business***

For the recording of this information for all household members, the following concepts have been used:

Household member running a home based business

For persons working in their main job or business <u>mainly</u> at home. This concept applies to many self-employed people, for example in artistic or professional activities, who work wholly or partly at home, often in a part of their living accommodation set aside for the purpose. However, if the place of work comprises a separate unit (for example, a doctor's surgery or tax consultant's practice) which is adjacent

to the person's home but contains a separate entrance, then work performed there should not be considered to be done "at home".
Also, for employees having working arrangements, where it is mutually understood by the employee and the employer that a certain part of the work is to be done at home.
Lastly, for persons working as salesmen preparing at home for appointments with clients.

"Working at home" does not cover cases where employees carry out tasks at home (because of personal interest or pressure of time), which under their working arrangements might equally have been performed at their place of work.

Household member teleworking

For members carrying out all or part of their work at least half a day per week away from office space provided by the employer, usually from home, using information and communication technologies.

No home based business and no teleworking

For cases not included in the pre-mentioned cases.

Work in the countryside

For peasants, cattlemen, fishermen, etc. In the tabulation scheme provided by Eurostat this category has been included in "no home based business and no teleworking".

Reference periods

Reference periods used in the survey are:
- 31st of March 2003 (age, educational level completed)
- day of conduction of the survey (residential status, activity status, home based business)
- first 3 months of the year 2003 -January, February, March- (questions B4, B5, C3, C4, C5, C8, etc.)
- last 12 months (C1, C2, D6, etc.).

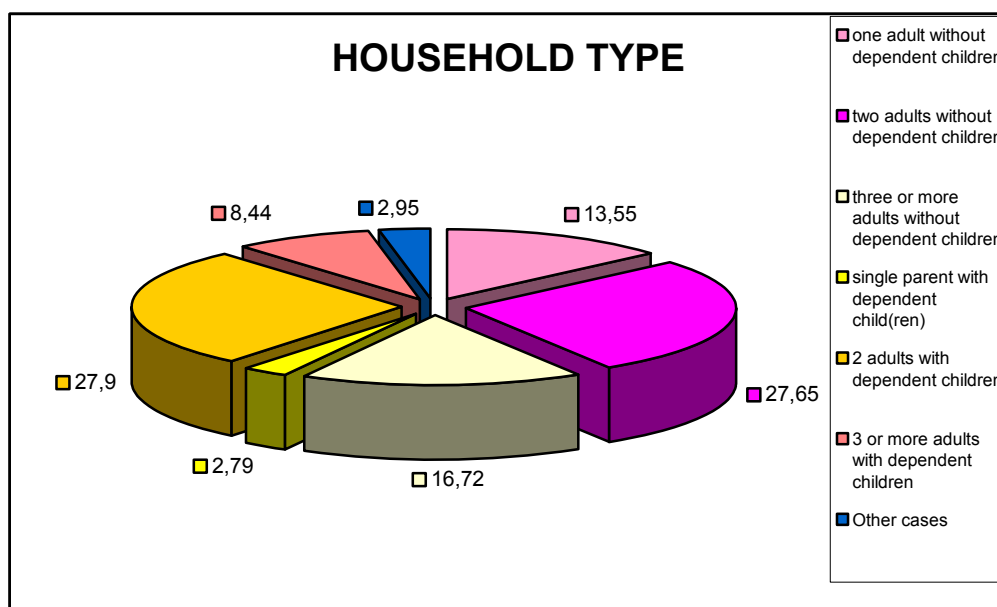### Training of the interviewers

In the 2003 survey 170 interviewers have been used. All interviewers were personnel of the NSSG, experienced with other household surveys.
Training lasted for one day and it was theoretical on the basic concepts of the survey, on the correct completion of the questionnaires and on the use of the computer.

MAIN RESULTS

*Some **socio-demographic** figures*

As we can see from our results, the percentages of households consisted of two adults with dependent children and of two adults without dependent children are almost the same, 27,90% and 27,65%, respectively. Then follow households with three or more adults without dependent children (16,72%) and households with one adult without dependent children (13,55%).

HOUSEHOLD TYPE

Legend:
- one adult without dependent children
- two adults without dependent children
- three or more adults without dependent children
- single parent with dependent child(ren)
- 2 adults with dependent children
- 3 or more adults with dependent children
- Other cases

Values: 8,44 — 2,95 — 13,55 — 27,9 — 2,79 — 16,72 — 27,65

As far as the composition of total population by sex is concerned, females are more with percentage 52,85% and males follow with 47,15%.

SEX BY AGE GROUPS

Age groups: 16-24, 25-34, 35-44, 45-54, 55-64, 65-74
Legend: Male, Female
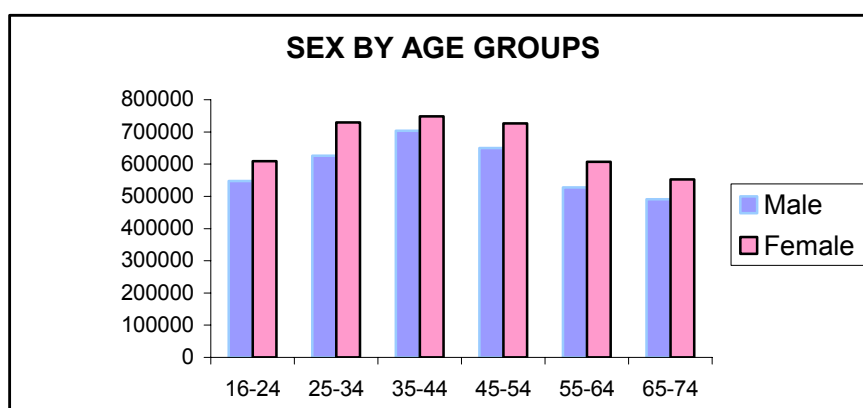
The activity status of the population is also of interest, in order to have a good view of the reference population. As presented in the following graph, working people (employees, self-employed, family workers, etc.) represent the 52,18% of total population, while students only the 8,37%.
In other activity status have been registered housewives, persons in national service, unemployed, persons of independent means, incapacitated for work, etc.

ACTIVITY STATUS OF POPULATION

Other
22,67%

Students
8,37%

Retired
persons
16,78%

Workers
52,18%
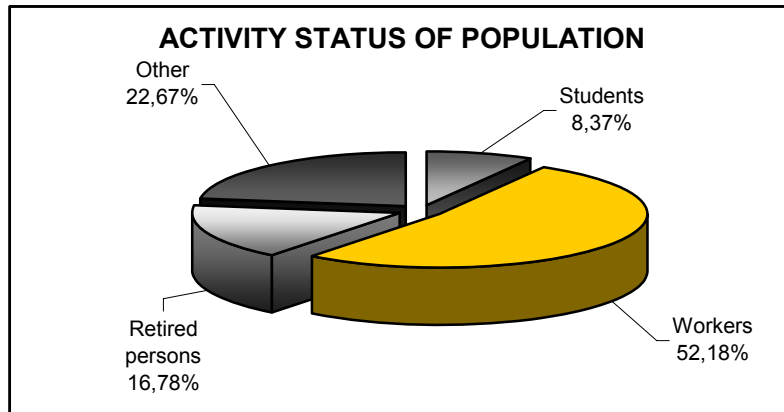
Also, of great importance in order to come to the correct conclusions is the educational level completed by the reference population. A total percentage of approximately half population (50%) has completed medium and high education, that is ISCED levels 2, 3, 4 (secondary +post secondary education) and 5, 6 (tertiary education –Technical Educational Institutes, Universities, Master, PhD).

EDUCATIONAL LEVEL- TOTAL POPULATION

High
16,13

No formal
education
6,22%

Medium
33,85%

Low
43,8%
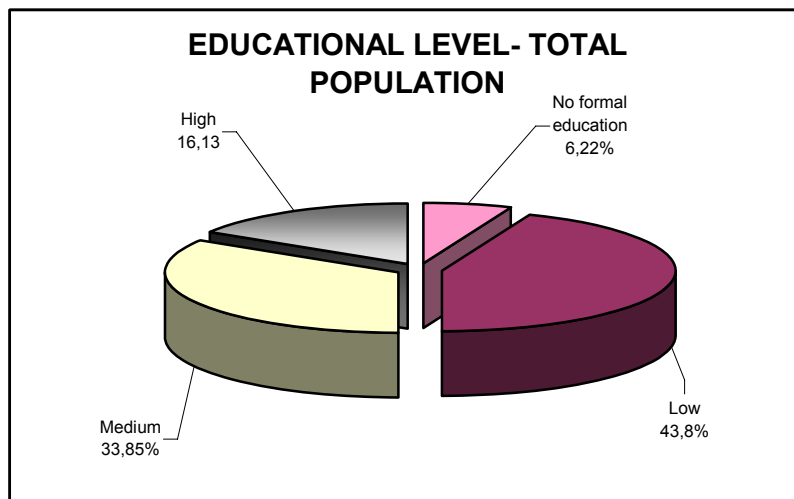
Teleworking is a new method of working demanding the use of information and communication technologies. According to the survey results only a percentage of 0,10% of total population appears to telework, besides the large percentage of working persons in reference population.

HOME BASED BUSINESS-TELEWORK

Telework
0,10%

Home based
business
7,76%

Rest
92,15%
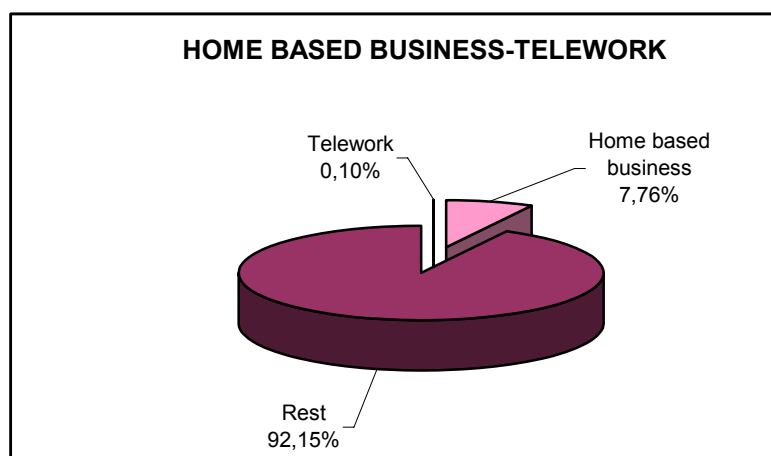
USAGE OF IC TECHNOLOGIES

From the results of the survey it is evident that almost all Greek households possess conventional analogue TV, with percentage 98,9%, while the percentages for digital TV (Filmnet, Supersport, Fox Kids), and satellite dish connected to TV (Nova) are 10,5% and 3,6%, respectively. Mobile phone (at least one, since question was directed to households and not to members) possesses 62,4% of the Greek households while the percentage of possession of internet enabled mobile phones is 16,94%. 28,7% of the households have personal computer (desktop or portable) at home and only 0,70% of them have handheld (palmtop) computer.

HOUSEHOLD ACCESS TO IC TECHNOLOGIES
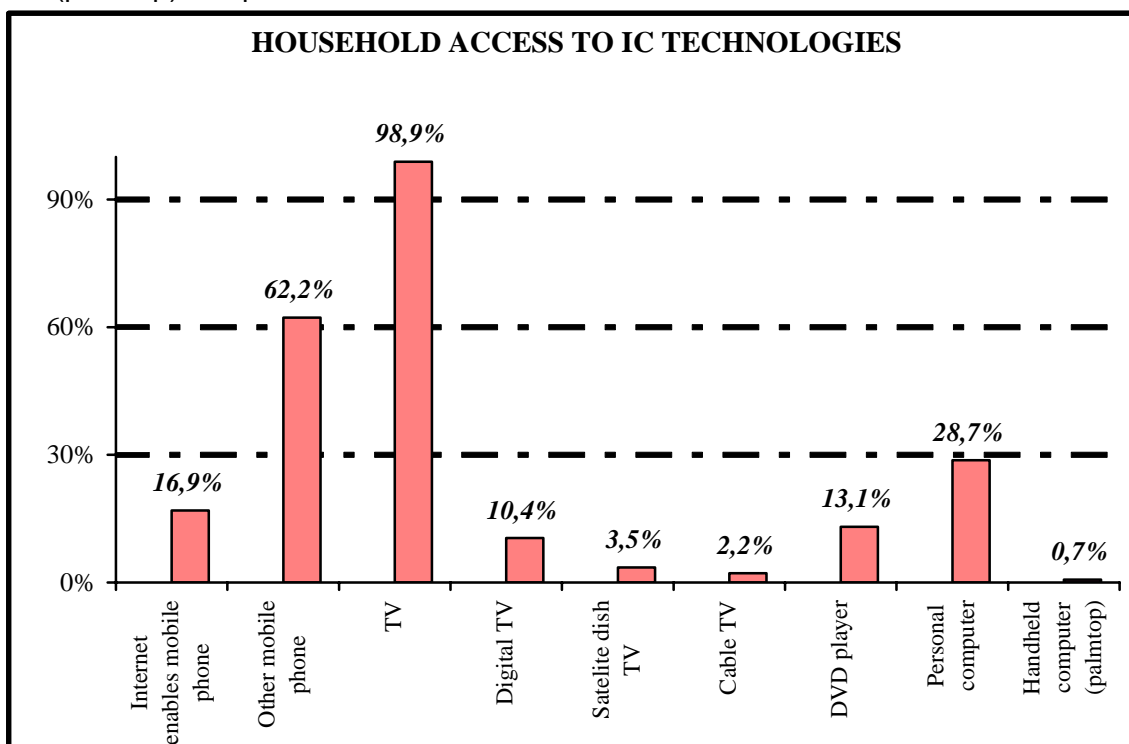
Households have access to internet at home at a percentage of 16,3%. For these households main devices used for internet are :

- Desktop or portable computer   97,06%
- Handheld computer 0,83 %
- Digital TV or set top box 1,18%
- Mobile phone (WAP, GPRS, UMTS) 8,36%
- Games console 0,79%
- Other device 1,40%

As far as type of connection is concerned, results are as following:
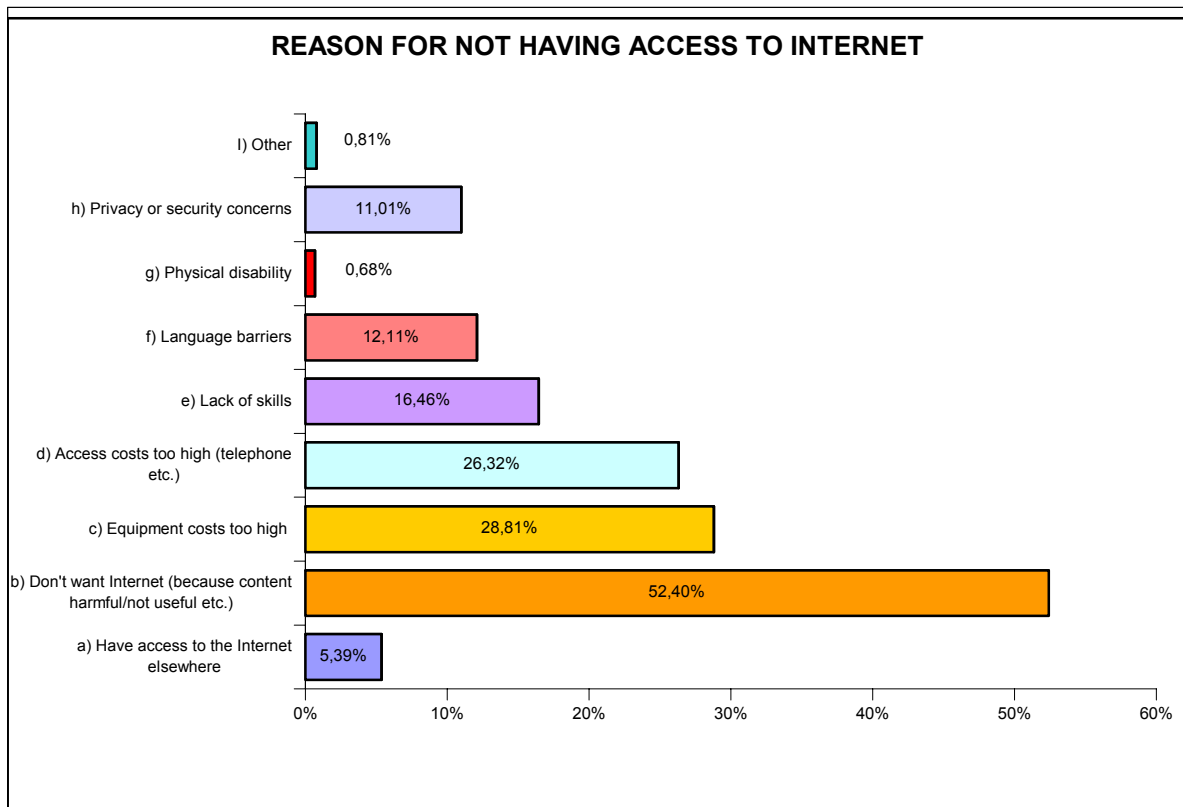
- Dial-up telephone line (analogue, ISDN) 69,64%
- Modem or TV set top box 35,25%
- Broadband connection 3,65%
  - DSL (ADSL, SDSL etc.) 0,84%
  - Cable TV network (cable modem) 0,57%
  - Mobile phone (UMTS) 2,24%
- LAN (wireless or cable) 0,87%

The next question refers to person and not to household and results from this are as following:
Main reasons for not having access to Internet at home are :

- "Don't want / internet content not useful" with 52,40%
- "Equipment costs too high" with 28,81%
- "Access costs too high (telephone, etc.) with 26,32%

Privacy or security concerns only present 11,01%. As other reasons have been recorded "due to age", "don't know what internet is" or "don't know the usefulness of internet", etc.

Relative graph is presented below, for males and females.

REASON FOR NOT HAVING ACCESS TO INTERNET

| Reason	Percentage
l) Other	0,81%
h) Privacy or security concerns	11,01%
g) Physical disability	0,68%
f) Language barriers	12,11%
e) Lack of skills	16,46%
d) Access costs too high (telephone etc.)	26,32%
c) Equipment costs too high	28,81%
b) Don't want Internet (because content harmful/not useful etc.)	52,40%
a) Have access to the Internet elsewhere	5,39%

We note that also for the year 2002, main reason for not accessing the internet with percentage 63% was "don't want internet, because content not useful, etc.". Comparing these data with the ones of the present survey, a significant and comforting decrease in this percentage is observed of approximately 11%.

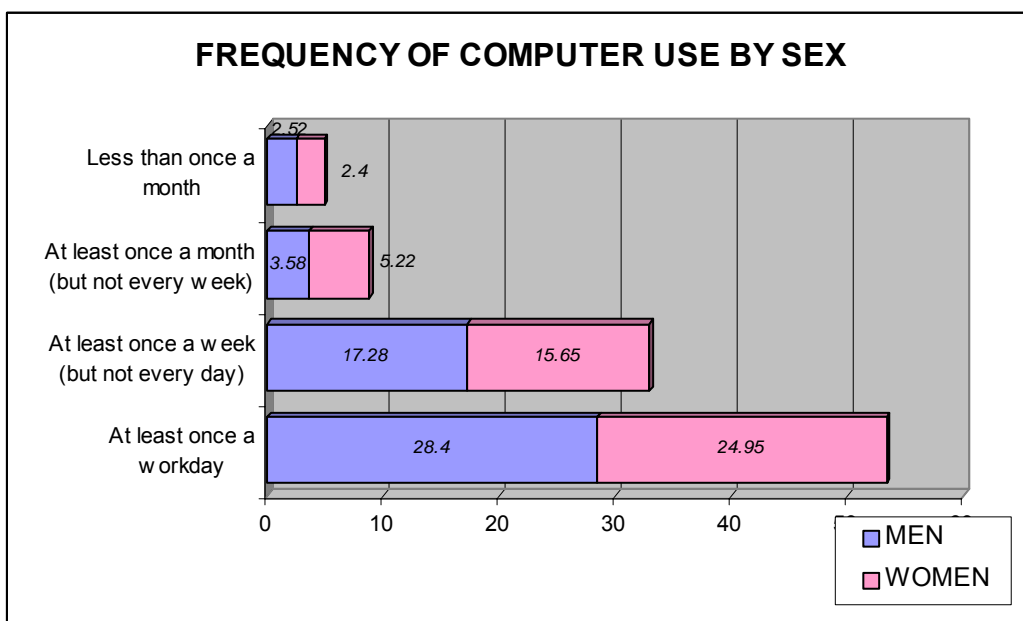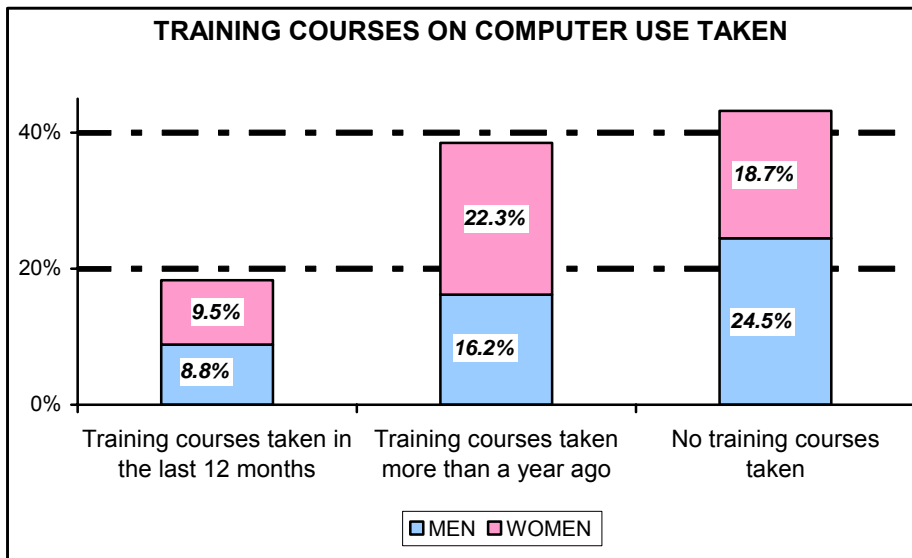**USE OF COMPUTERS – ACCESS TO INTERNET– LOCATION, FREQUENCY OF USE, ACTIVITIES**

The questions referring to information listed below, have been addressed to pre-selected members of the households (at individual level). So, the percentage of persons ever having used a computer is 30,88%. The distribution of persons having used computers by sex is:
- Men 49,48%
- Women 50,52%

USE OF COMPUTER

YES
30,88%

NO 69,12%
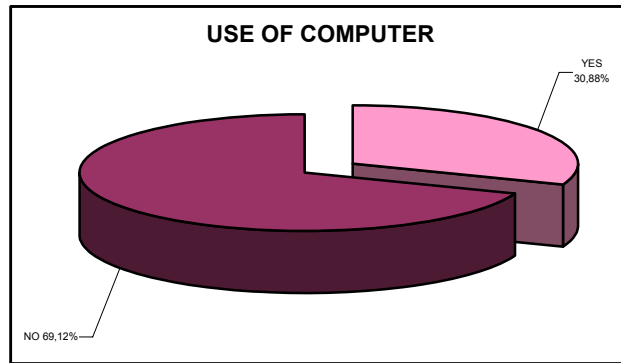
From the persons ever having used a computer a percentage of 56,81% has attended training courses of at least ½ day .

TRAINING COURSES ON COMPUTER USE TAKEN

40%

20%

0%

		18.7%
	22.3%	
9.5%		24.5%
8.8%	16.2%	

Training courses taken in the last 12 months | Training courses taken more than a year ago | No training courses taken

☐ MEN ☐ WOMEN

FREQUENCY OF COMPUTER USE BY SEX

Less than once a month — 2.52 | 2.4

At least once a month (but not every week) — 3.58 | 5.22

At least once a week (but not every day) — 17.28 | 15.65

At least once a workday — 28.4 | 24.95

0   10   20   30   40

☐ MEN
☐ WOMEN

The pre-mentioned percentages on computer use correspond to all places of using the computer. For each location separate percentages are shown in the following graph.

It is worth noticing that 16,66% of computer use is at place of education, almost two times the percentage of last year which was 9.97%. As other places are considered internet cafes, houses of friends, public services, etc.

LOCATION OF COMPUTER USE
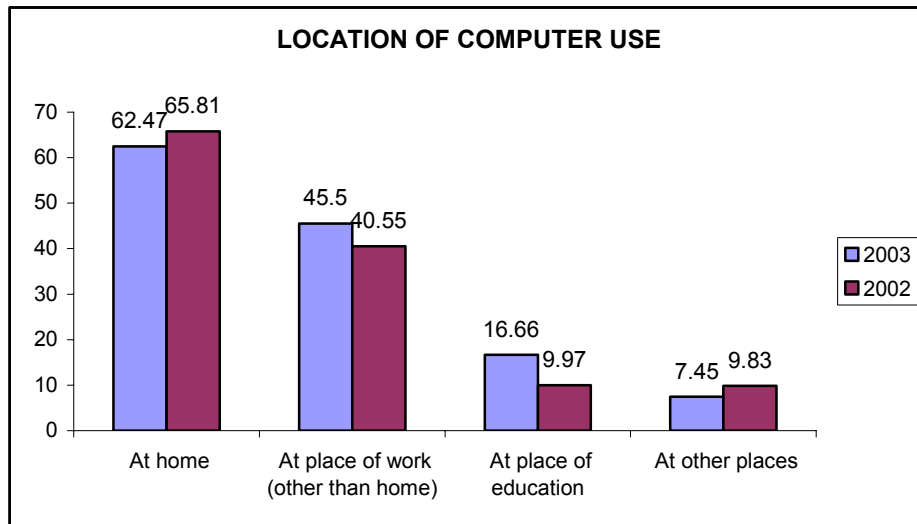
At a percentage of 49,7% persons using computer have completed secondary education (ISCED levels 3 and 4) while the 35,9% of them have completed higher education (ISCED levels 5 and 6) . From persons using the computer everY working day 44,3% have completed secondary education, while the 46,3% higher education. On the contrary, the majority (49,5%) of persons, using the computer at least once a week, but not every working day, have completed secondary education.

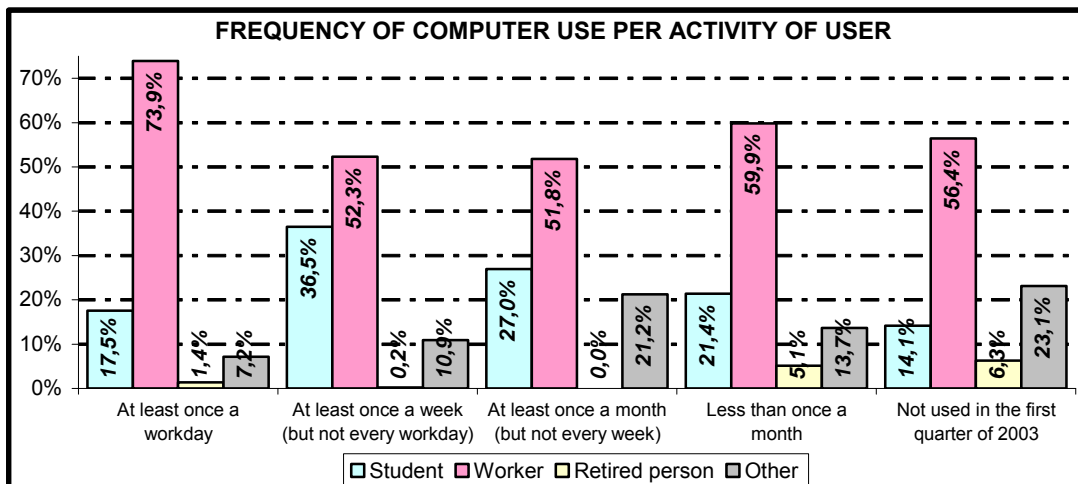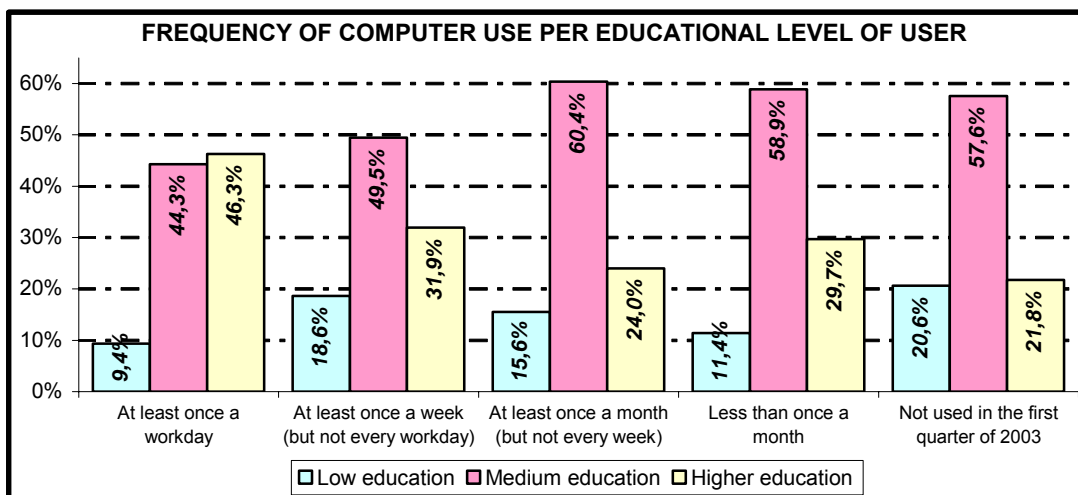**EDUCATIONAL LEVEL OF COMPUTER USERS**
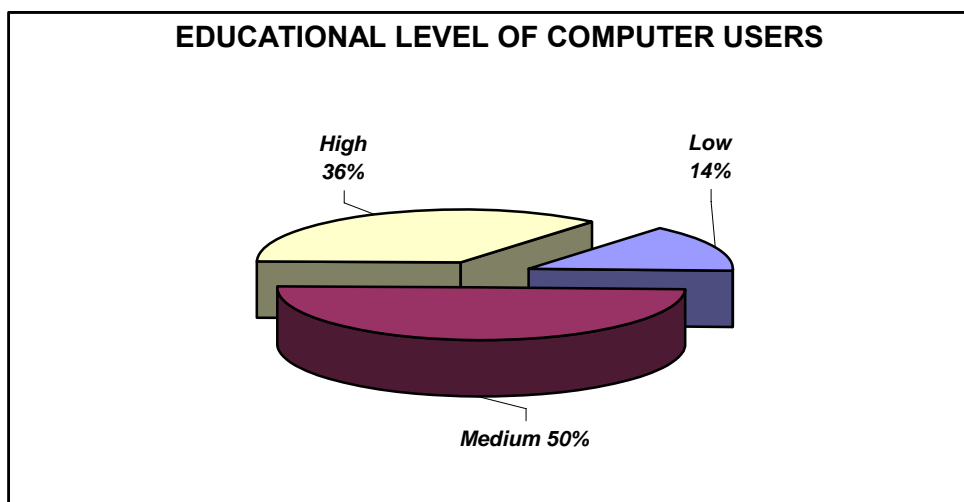
Workers (employees, self employed, family workers, etc.) are the majority of computer users and as being the largest population group, is also in the first place of computer use with percentage 62,9%, while students follow with percentage 23%.

ACTIVITY STATUS FOR COMPUTER USERS

Retired person 2%
Other 12%
Students 23%
Employee, self employeed family worker 63%
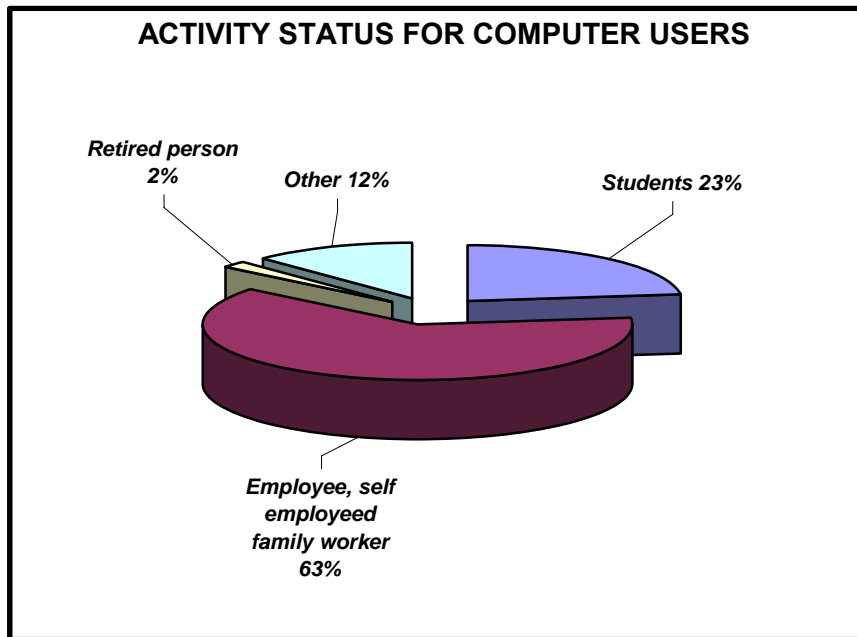
Generally, the profile of the person using computers, is the person aged 16-34, working and having completed secondary education.

Following presented are graphs for the frequency of computer use per educational level and per activity.

FREQUENCY OF COMPUTER USE PER EDUCATIONAL LEVEL OF USER

	At least once a workday	At least once a week (but not every workday)	At least once a month (but not every week)	Less than once a month	Not used in the first quarter of 2003
Low education	9,4%	18,6%	15,6%	11,4%	20,6%
Medium education	44,3%	49,5%	60,4%	58,9%	57,6%
Higher education	46,3%	31,9%	24,0%	29,7%	21,8%

FREQUENCY OF COMPUTER USE PER ACTIVITY OF USER

|	At least once a workday	At least once a week (but not every workday)	At least once a month (but not every week)	Less than once a month	Not used in the first quarter of 2003
Student	17,5%	36,5%	27,0%	21,4%	14,1%
Worker	73,9%	52,3%	51,8%	59,9%	56,4%
Retired person	1,4%	0,2%	0,0%	5,1%	6,3%
Other	7,2%	10,9%	21,2%	13,7%	23,1%

USE OF INTERNET – LOCATION , FREQUENCY OF USE

Access to internet during the first three months of 2003, have had the 16,25% of population, while last year's percentage was 14,67%. This percentage refers to use from all different places (home, work, education, other places) and as also mentioned before it is information provided at individual level.
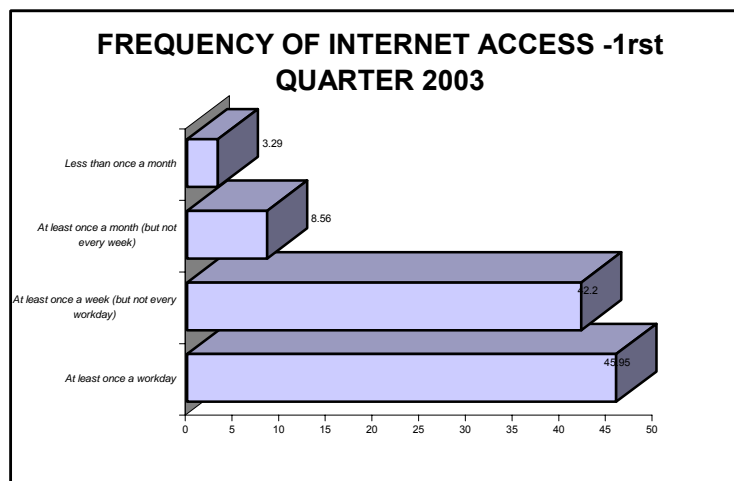
The distribution of members having access to internet by sex is:
- Men 56,26%
- Women 43,74%

Again as other places are considered internet cafes, houses of friends, public services, etc.

ACCESS TO INTERNET IN THE FIRST QUARTER OF 2003

YES 16,25%

NO 83,74%
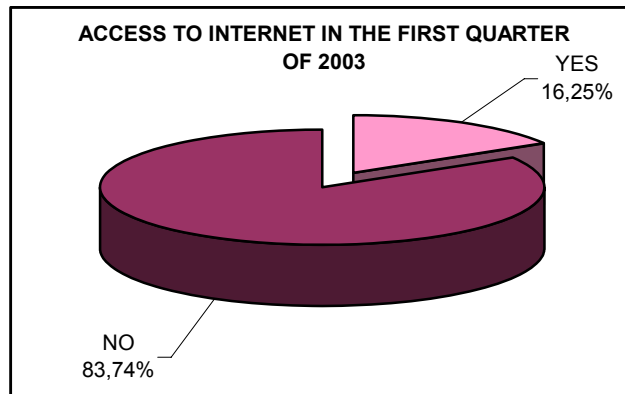
Concerning security problems, most didn't encounter any security problems using the internet (84,37%), and among the rest 16,01% , a percentage of 14,75% faced the problem of a computer virus resulting in loss of information or time.

FREQUENCY OF INTERNET ACCESS -1rst QUARTER 2003

Category	Value
Less than once a month	3.29
At least once a month (but not every week)	8.56
At least once a week (but not every workday)	42.2
At least once a workday	45.95

LOCATION OF INTERNET ACCESS

Location	Value
At other places	20,44
At place of education	19,45
At place of work (other than home)	44,34
At home	63,55
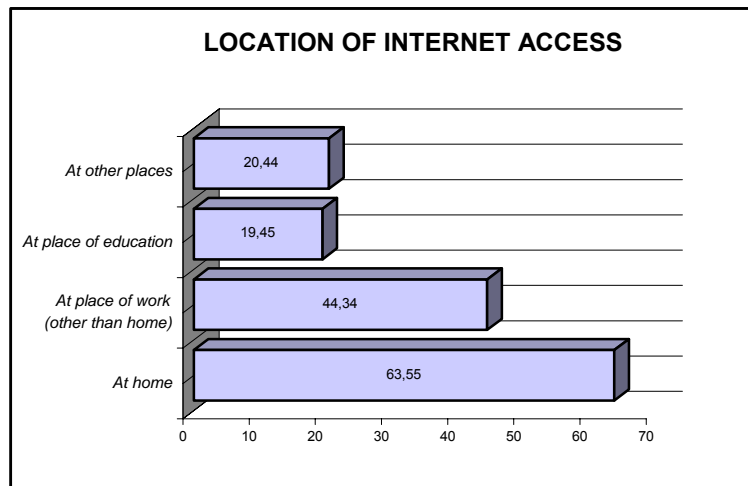
As shown in the graphs, internet is accessed mostly from home and then from the place of work. As far as access from other places is concerned relative graph follows.

On the activity of persons having access in the internet, users mostly are workers (employees, self-employed, family workers) with percentage 64,42% and students follow with percentage 26,18%. In other cases included are housewives, persons in national service, unemployed, men/women of independent means, invalidated/ incapacitated etc. As far as their education is concerned they have mostly completed high educational level (45,02%).

ACCESS TO INTERNET BY ACTIVITY OF USERS

Activity	Value
Student	26,18
Employee, self-employed, family worker	64,42
Retired person	0,8
other, including persons not in paid employment (unemployed, fulfilling domestic tasks, etc)	8,6

ACCESS TO INTERNET BY EDUCATIONAL LEVEL OF USERS

Level	Value
Low	11.74
Medium	43.24
High	45.02
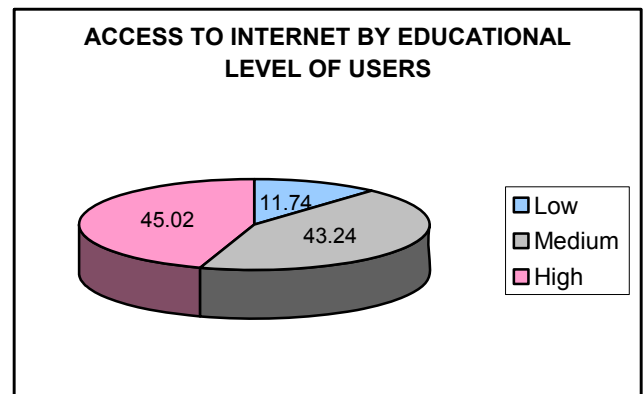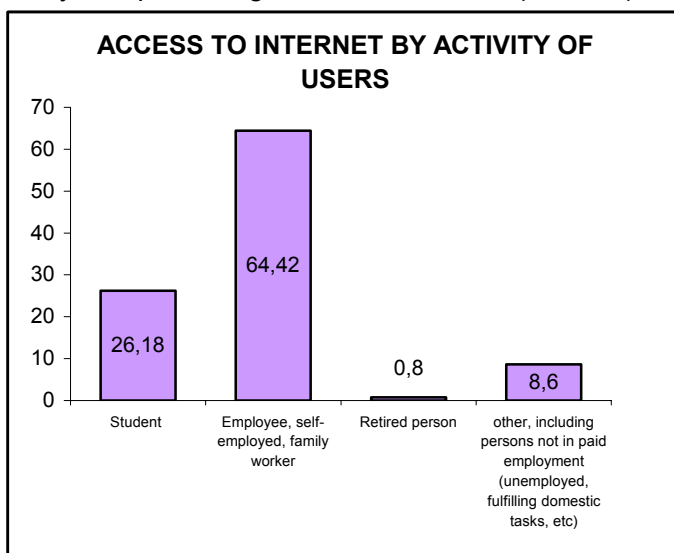
Concerning telework only 0,51% of persons having access in the internet teleworks.

29,65% of persons accessing internet on average spend 1-2 hours per week on the internet at home or elsewhere, while 24,58% of them spends 3-5 hours per week. Relative pie, follows.

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HOURS PER WEEK SPEND ON THE INTERNET

HOURS SPENT IN INTERNET BY ACTIVITY OF USER
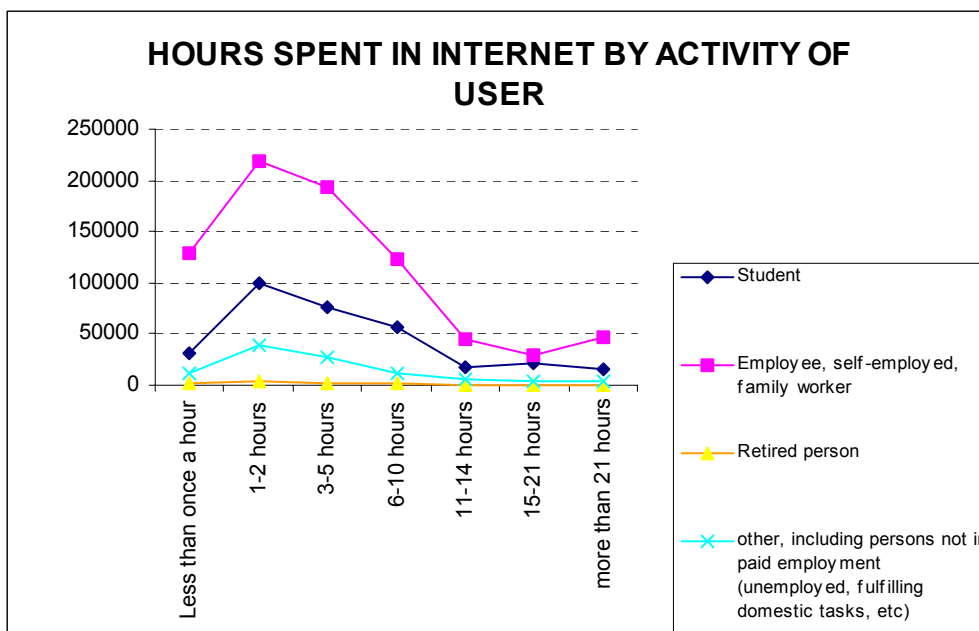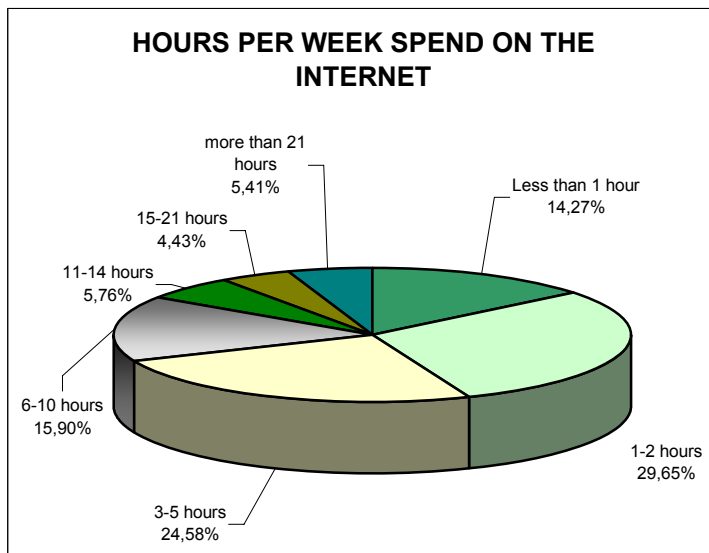
Concerning security precautions taken, a percentage of 40,11% of persons have installed a virus checking program, 29,82% have updated the existing virus checking program, while only 18,49% use online authentication, such as a password, PIN or a digital signature when using the internet.
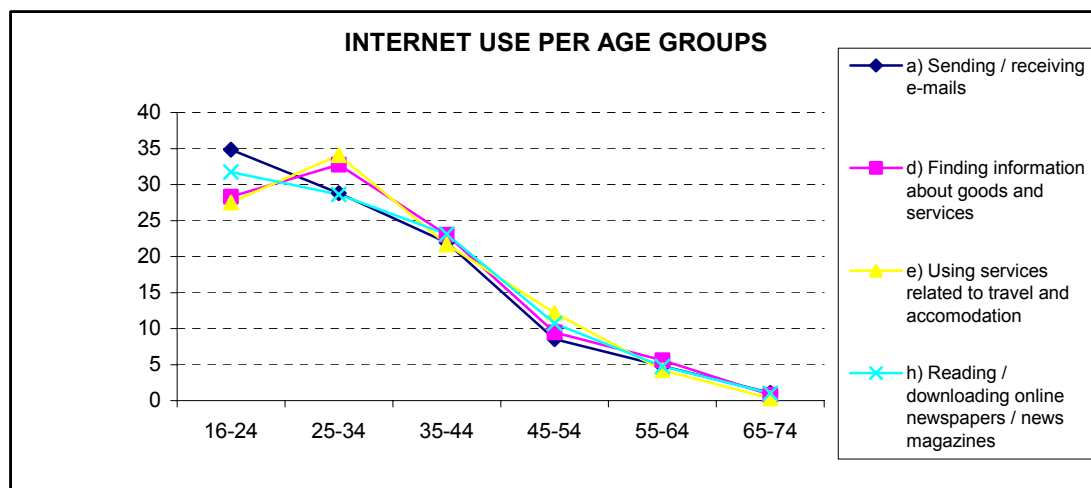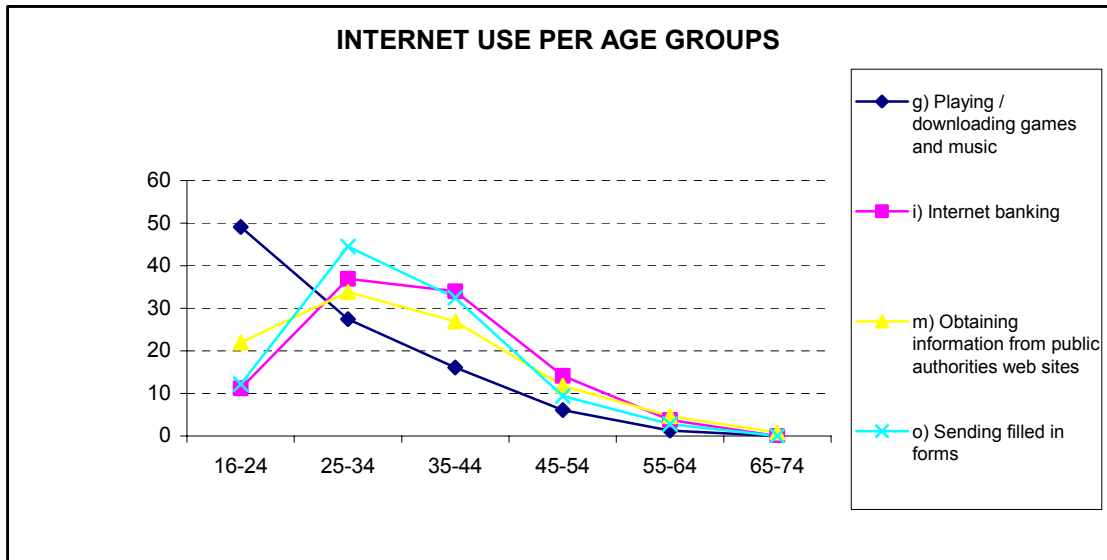

PURPOSES AND NATURE OF ACTIVITIES ON THE INTERNET

One of the most important information arising from the survey concerns the purposes for which persons access the internet as well as the nature of activities done. Contrary to last years' questionnaire, this year we collect the information for personal or for any other purpose of accessing the internet.

Hence, sending /receiving e-mails is in the first position with percentage 81,01%, and then follow, in order, finding information about goods and services (70,08%), reading/ downloading online newspapers / magazines (54,72%) and playing games / downloading music (44,19%). Financial services appear with 8,26%.

Of interest also is the communication citizens have with public authorities via their web-sites (37,54%), obtain information and sends filled in forms, certificates, or makes tax return (12,52% and 16,98%, respectively). Detailed table follows.

Main purposes for accessing the internet (1rst quarter of 2003)	%
Communication	
1.Sending/ receiving e-mails	76,09
2.Telephoning over the internet / videoconferencing	6,88
3.Other (use of chat sites, etc.)	22,50
4.Finding information about goods and services	70,08
5.Using services related to travel and accommodation	41,76
6.Listening to radio / watching web television	18,31
7.Playing games / downloading music	44,19
8.Reading / downloading online newspapers /magazines	54,72
9.Internet banking	8,26
10.Other financial services (e.g. shares purchasing)	1,86
11.Purchasing /ordering goods or services (excluding shares /financial services)	5,69
12.Selling goods and services (e.g. via auctions)	0,66
13.Obtaining information from public authorities web sites	37,54
14. Downloading official forms	12,52
15. Sending filled in forms	16,98
16.Formalised educational activities (school, university, etc.)	43,01
17.Post educational courses	27,60
18.Other educational courses related specifically to employment opportunities	20,47

INTERNET USE PER AGE GROUPS

Legend:
- a) Sending / receiving e-mails
- d) Finding information about goods and services
- e) Using services related to travel and accomodation
- h) Reading / downloading online newspapers / news magazines

INTERNET USE PER AGE GROUPS

According to our results the main activity, when using the internet is sending /receiving e-mails (76,09%). As seen in the first graph 85,59% of the persons who send / receive e-mails are in the age of 16-44.

Only 22,50% use chat sites, the 52,56% of them being in the age 16-24.

Finding information about goods and services (70,08%) is the second mostly used activity, according to survey's results, also for younger people. The same holds for using services related to travel and accommodation (41,76%) and for reading / downloading online newspapers or magazines (54,72%).

As far as internet banking is concerned, this is an activity done by 8,26% of population, while other financial services (excluding shares purchasing) are only done by 1,86% of population.

Interaction with governmental bodies, is of great interest, and presents a large increase of approximately 28%. More specifically 37,54% of population obtain information from public authorities' web sites, 12,52% downloads official forms and 16,98% sends filled in forms. In this last activity category an increase (≈4%) is observed being attributed to the increasing number of citizens preparing their tax return via the internet.

TRAINING AND EDUCATIONAL ACTIVITY / AGE GROUPS
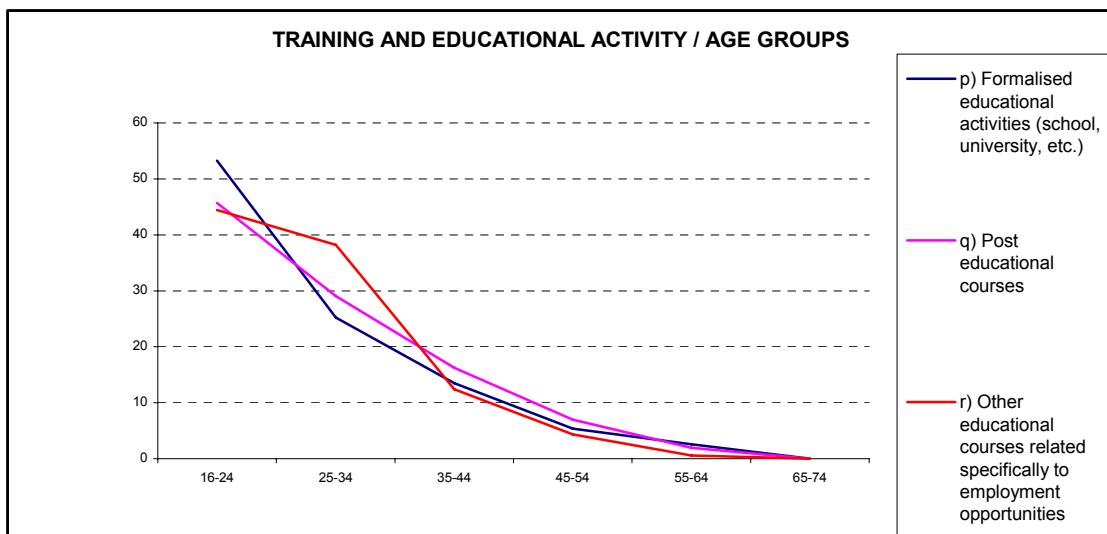
Also, activities relating to training and educational activities present a large increase, although in this years' survey the one question included in the questionnaire of 2002, had been split in three more detailed sub-questions. So, this year looking for information on formalized educational activities is presented with 43,01%, while for post educational courses with 27,60% and for other educational courses related specifically to employment opportunities with 20,47%.

From the survey data it is observed that the use of internet in relation to user's age mostly concerns –with a percentage of more than 60%- and for all kind of activities, people aged 16-34, except for the purchase and selling of goods and services and banking.

More specifically, in ages 16-24 training and education activities come first with a percentage of 53,24% of population finding information on formalized educational (school, university, etc.) activities and then follows a percentage of 52,56% of population using chat sites. The two pre-mentioned activities are the only ones that, in ages 16-24, concentrate more than 50% of population performing them.

As, also pre-mentioned other categories presenting high percentages in ages 16-24 are playing/ downloading games and music (44,19%) and listening to web radios/ watching web television (42,36%). In this specific age group less met are the activities that concern purchasing and selling goods and services and banking.

In ages 25-34 a more balanced use of internet is observed, for all kind of activities. All percentages lie among 20-40%, except for selling goods and services (via auctions, etc.) which present almost zero cases.

In ages 34-44, people mostly purchase and sell goods and services and do banking activities.

In ages 45-54, generally, a sharp decrease is observed in the use of internet and percentages lie among 5-14%. The higher percentage is observed in internet banking (14,15%).

Lastly, in ages 55-64 and 65-74 the use of internet is insignificant in all kind of activities, especially in the last age group.

Health related activities are of great significance, however presenting low percentages of use. Specifically, seeking health information on injury, disease or nutrition does 16,36% of internet users, while the rest uses present the following percentages:
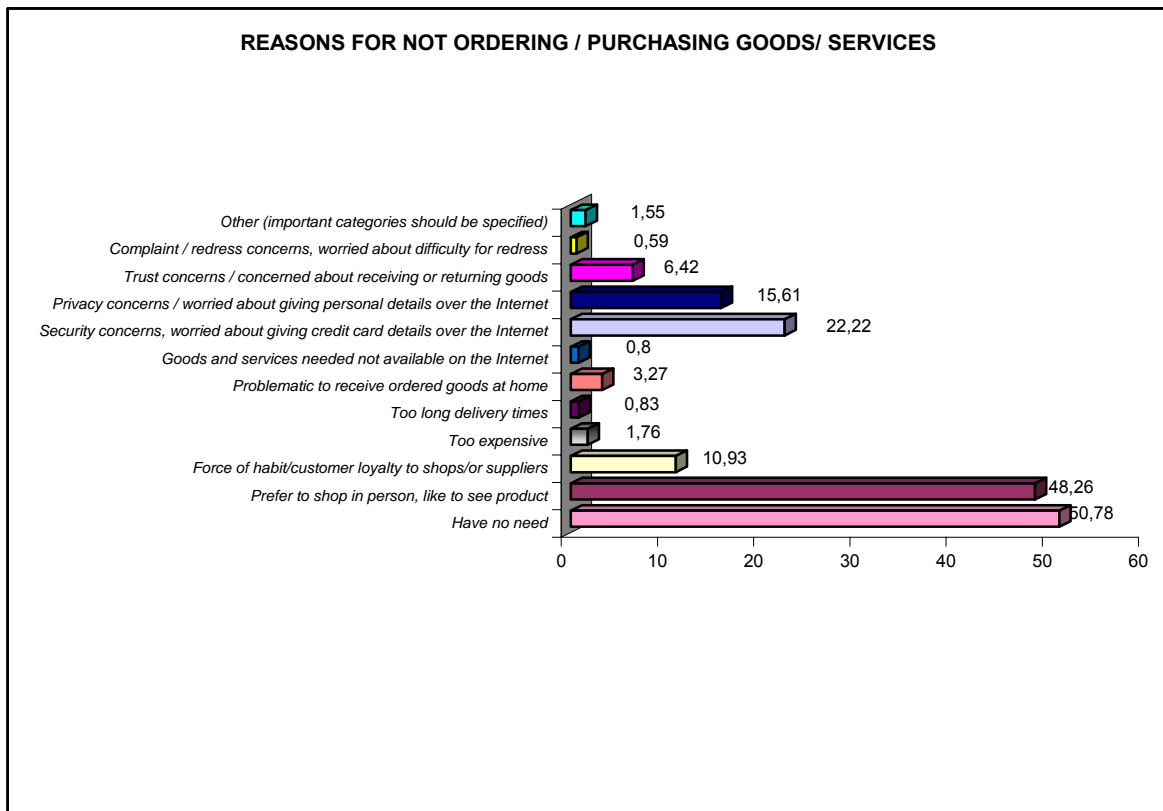-Making an appointment online with a practitioner 7,18%
-Requesting a prescription online from a practitioner 7,04% and
-Seeking medical advice online from a practitioner 7,82%.

As far as frequency for this kind of activity is concerned, all of the pre-mentioned uses are usually done weekly.
In all other activities for using the internet retired persons do not present high percentages of use, but in the specific health related activity the use is zero. Mostly persons using health related activities over the internet are workers in the age range of 25-35 years old, having completed high level of education.

INTERNET COMMERCE – ACTIVITIES AND BARRIERS

On internet commerce according to the survey a percentage of 5,22% among persons having accessed the internet, during the first quarter of 2003, has in the same period made orders or purchases for goods and/or services for non-work use over the internet. The rest 94,78% hasn't made any orders/ purchases. From those (5,22%) not having made, in the first quarter of 2003, orders/ purchases the 3,51% has made orders sometime in the past while the rest 96,42% hasn't ever made any. The most frequent reasons for not making any orders/ purchases for goods and services are listed below.

REASONS FOR NOT ORDERING / PURCHASING GOODS/ SERVICES

Reason	Value
Other (important categories should be specified)	1,55
Complaint / redress concerns, worried about difficulty for redress	0,59
Trust concerns / concerned about receiving or returning goods	6,42
Privacy concerns / worried about giving personal details over the Internet	15,61
Security concerns, worried about giving credit card details over the Internet	22,22
Goods and services needed not available on the Internet	0,8
Problematic to receive ordered goods at home	3,27
Too long delivery times	0,83
Too expensive	1,76
Force of habit/customer loyalty to shops/or suppliers	10,93
Prefer to shop in person, like to see product	48,26
Have no need	50,78

As other reasons, have been recorded "person has access to internet only from place of education and hence is not permitted to make orders/ purchases", "do not have credit card", etc.

Orders are mainly for books/ magazines/ e-learning material (46.62%), . Computer hardware -incl. accessories for upgrading PC eg. memory, hard disk, graphic cards etc.- (30,0%), Travel and holiday accommodation (22,76%), and films (videos, dvd etc.), music systems, cds (20,50%). Detailed table on products and services ordered follows.

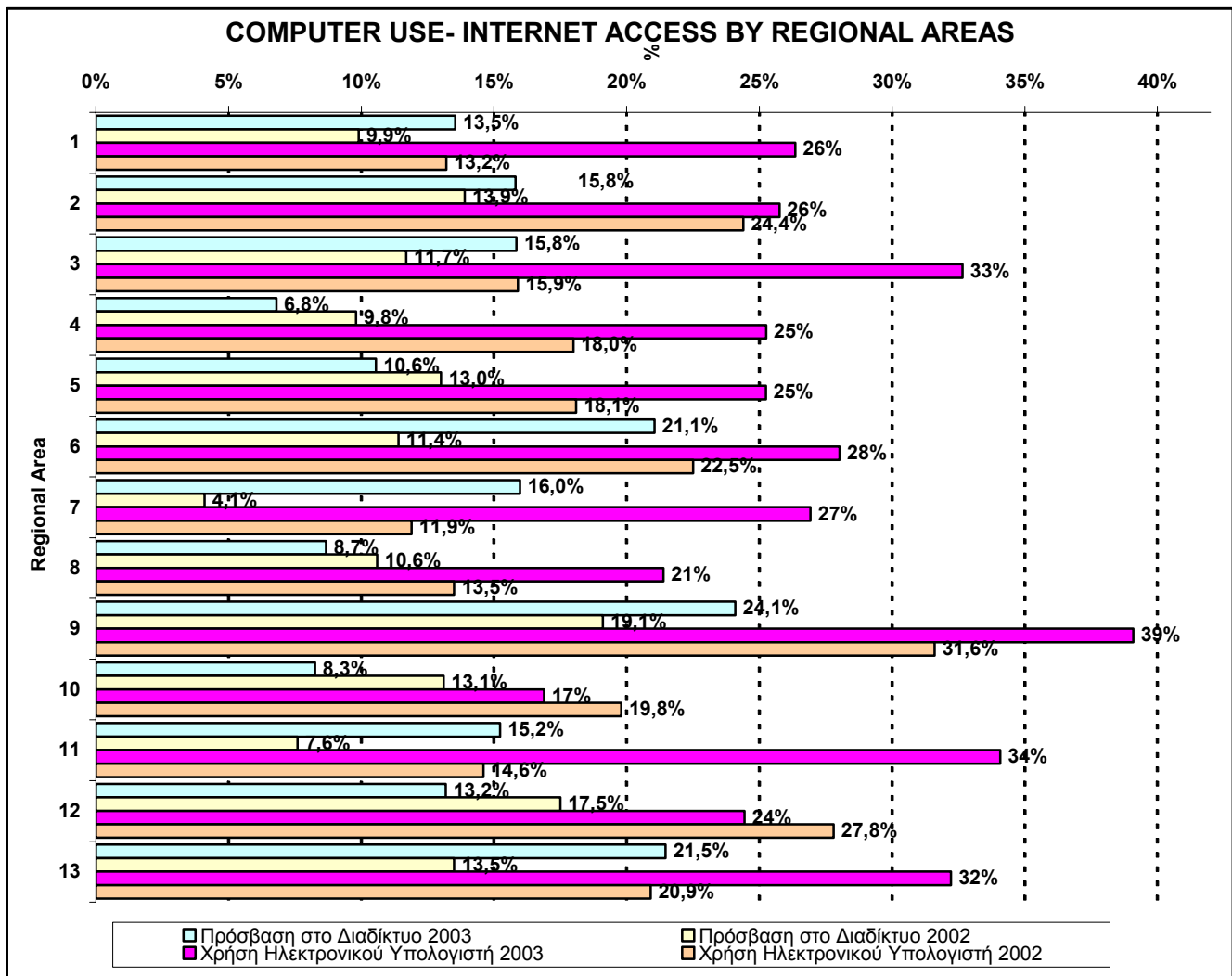| Products and Services	Estimated percentage of purchases
1. Food / Groceries	7.89%
2. Films (videos, dvd etc.), music systems, cd's, photographic films	20,50%
3. Books/ Magazines/ E-learning material	46.62%
4. Clothes, sports goods	13.80%
5. Computer software (incl. Video games)	17.09%
6. Computer hardware (incl. accessories for upgrading PC eg. memory, hard disk, graphic cards etc.)	30.00%
7. Electronic equipment (incl. cameras, megaphones etc.)	5,89%
8. Share purchases / Financial services /Insurances	0.92%
9. Travel and holiday accommodation	22.76%
10. Tickets for events (conferences, theater, etc.)	19.83%
11. Lotteries and betting	0.00%
12. Other. Please, specify_____	3.13%

As other goods were recorded motorbike accessories.

Concerning any problems encountered when making purchases over the internet most answered that had no problem at all (89,32%). For the rest 10,68% problems seem to be mainly the uncertainty concerning guarantees, the speed of delivery of goods, the non satisfactory response received after complaint or the higher delivery costs.

USE OF COMPUTER – ACCESS TO INTERNET BY REGIONAL AREAS

The regional distribution of persons using computer and accessing the internet is represented in the graph following.
In the first place is the Prefecture of Attiki with the 39,0% of its population making use of computer and 24,1% accessing the internet. Then follow with comparably large percentage the islands of North Aigaion with 34,0% of their population making use of computer and 15,2% accessing the internet. West Macedonia and Kriti Island come next with percentages 33,0% and 15,8% and 32,0% and 21,5%, respectively.

COMPUTER USE- INTERNET ACCESS BY REGIONAL AREAS

Regional Area	Πρόσβαση στο Διαδίκτυο 2003	Πρόσβαση στο Διαδίκτυο 2002	Χρήση Ηλεκτρονικού Υπολογιστή 2003	Χρήση Ηλεκτρονικού Υπολογιστή 2002
1	13,5%	9,9%	26%	13,2%
2	15,8%	13,9%	26%	24,4%
3	15,8%	11,7%	33%	15,9%
4	6,8%	9,8%	25%	18,0%
5	10,6%	13,0%	25%	18,1%
6	21,1%	11,4%	28%	22,5%
7	16,0%	4,1%	27%	11,9%
8	8,7%	10,6%	21%	13,5%
9	24,1%	19,1%	39%	31,6%
10	8,3%	13,1%	17%	19,8%
11	15,2%	7,6%	34%	14,6%
12	13,2%	17,5%	24%	27,8%
13	21,5%	13,5%	32%	20,9%

1st REGIONAL AREA: EAST MACEDONIA AND THRACE
2nd REGIONAL AREA: CENTRAL MACEDONIA
3rd REGIONAL AREA: WEST MACEDONIA
4th REGIONAL AREA : IPIROS
5th REGIONAL AREA : THESSALIA
6th REGIONAL AREA : IONIAN ISLANDS
7th REGIONAL AREA : WEST GREECE
8th REGIONAL AREA: REST STEREA ELLADA
9th REGIONAL AREA : ATTIKI
10th REGIONAL AREA : REST PELOPONISOS
11th REGIONAL AREA: NORTH AGAIO
12th REGIONAL AREA : SOUTH AGAIO
13th REGIONAL AREA : KRITI