Socio-Demographic Profile of I nternet Users
Analysis of INE 2010 Data


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# The study entitled "Socio-Demographic Profile of Internet Users, Analysis of INE (Spanish National Statistics Institute) 2010 Data" has been produced by the ONTSI (Spanish Observatory for Telecommunications and the Information Society) Study Team: 

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## 1. HIGHLI GHTS

In 2010, there were more than 26 million Internet users among the population aged 10 and over, which represents a year-on-year increase of $5.9 \%$. Taking into consideration only the population aged between 16 and 74 , the percentage of Internet users reaches $68.5 \%$ of the total population with almost 23.7 million, which represents an increase of $6 \%$ in the last year.

Besides the increase in the number of persons who have accessed the Internet at some time, we observe an increase in use evidenced by a greater frequency of access. $62.5 \%$ of the population used the Internet in the last month ( 21.6 million) and $58.4 \%$ do so weekly ( 20.2 million).

The age and level of education are the most discriminatory variables in user profile determination. Among all Internet users, young people with high level of education account for the highest percentages. The multivariate analysis reflects that the highest percentages are found in:

- Women aged 25 to 34 years, who have completed their university studies.
- Young students aged 16 to 24 who have completed the first stage of secondary education.

Within the segment of users that connect to the Internet weekly, the most relevant variables are level of education and employment situation. Age is not a determinant variable here, since the basis used for this segment is users who accessed the Internet in the last 3 months, the majority of whom are young people. There are two profiles with percentages close to $100 \%$ :

- Students who have completed the second stage of secondary education.
- Men with university level education who are students, employees or freelancers.

These are the main highlights in terms of evolution of the users who have accessed the Internet at some time over the last 5 years:

- Of the three groups studied, the highest percentage increase over the last five years was recorded by the most regular Internet users (those who access weekly), going from $35.1 \%$ to $58.4 \%$, which represents a growth of 23.3 percentage points.
- University graduates, students and young people (aged from 16 to 24) account for high percentages of Internet use and record small increases, since they are close to $100 \%$ (roof effect).
- Of those who have accessed the Web at some time, the group composed of individuals who have completed the first stage of secondary education records the greatest increase - 29.1 percentage points- over the last five years.
- The age groups of $35-44$ and $45-54$ also record important growth over the last five years, of 25.7 and 26.4 percentage points respectively, which means a penetration of $81.2 \%$ and $64.2 \%$ for each of them.
- Lastly, groups such as individuals aged over 55, those with primary education, and homemakers and pensioners, have a low percentage of Internet users and growth rates below the average.


## 2. I NTRODUCTION

This report has been produced by the ONTSI (Spanish Observatory for Telecommunications and the Information Society), which is part of the public entity red.es, using data produced by the INE (Spanish National Statistics Institute) in its "Survey of Equipment and Use of Information and Communication Technologies in Households 2010" (ICT-H 2010).
The report reflects the typical socio-demographic profile of Spanish Internet users, taking into consideration the variables of: sex, age, employment situation, completed education and size of habitat among the population aged 16 to 74 , residing throughout the national territory in 2010, and their evolution over the last five years. In contrast, the study universe of the initial analysis included individuals aged 10 and over, and the analysis period was the last three years.
The analysis presented in this report has been carried out based on the definition of three types of Internet users. In the first case, an Internet user is deemed as any user who has accessed the Internet at any time. For the second type of Internet user, the variable of "last Internet access" was taken into account (the most recent access at the time of completing the questionnaire), deeming Internet users as people who have accessed the Internet during the previous month. Lastly, for the third type of Internet user, the variable "frequency of access" was taken into account, deeming Internet users as people who stated they had connected to the Internet at least once a week during the last three months.
For each socio-demographic variable, the report presents the percentage of Internet users in each category (Internet use) together with their distribution (sociodemographic composition of each type of user), comparing it to the typical distribution of the Spanish population as a whole.
Additionally, a decision tree analysis has been carried out to obtain the sociodemographic profiles with the highest percentages of Internet users, users who have accessed the Internet during the previous month, and users who access weekly. This type of analysis creates a classification model (decision tree) through successive chisquare contrasts, to study the independence of the variables and determine which are the most relevant in order to group individuals into profiles.
As mentioned above, the primary data, which corresponds to the "Survey of Equipment and Use of Information and Communication Technologies in Households 2010" (ICT-H 2009) drawn up by the Spanish National Statistics Institute, have been processed and analysed by the Studies and Forecasts Area of the Spanish Observatory for Telecommunications and the Information Society. The definition of reference population as individuals aged between $\mathbf{1 6}$ and $\mathbf{7 4}$ responds to European Union criteria for Eurostat statistical operations, as well as those of the various statistical offices of Member States, for comparative purposes specific to The Information Society issues.
The sample size of the ITC-H 2010 survey for individuals aged 16 or over was 19,384 individuals, to which a sample of 3,122 individuals aged between 10 and 15 was added, which adds up to 22,506 individuals aged 10 and over. However, for the purposes of this report, which mainly considered the population aged between 16 and 74 , the sample size was reduced to 16,344 individuals. Further information on the survey methodology can be obtained at http://www.ine.es.

## 3. I NTERNET USERS AGED 10 AND OVER

In 2010, more than 26 million individuals aged 10 and over had accessed the Internet at some time, according to the Spanish National Statistics Institute. This represents an increase of 1.5 million individuals compared to the accumulated in 2009 or, in relative terms, a year-on-year increase of 5.9\% (against 4.8\% the previous year).

The greatest increase between 2009 and 2010 was recorded by users who had accessed the Internet in the last month, with a growth of $8.2 \%$ up to 21.7 million. Those who connected in the last three months exceed 24.5 million, with a year-on-year increase of 6.8\%.

Children aged from 10 to 15 who connected to the Internet in the last three months exceed 2.2 million, which represents a growth of $3.2 \%$ over the previous year.

Figure 1. Number of I nternet users aged 10 and over according to their last Internet use. Years 2008, 2009 and 2010.

## LAST INTERNET USE - Individuals aged 10 or over



Note: Children under 16 are only included if they have accessed the I nternet in the last three months.
Source: ONTSI using data from the Spanish National Statistics Institute (INE)

The most notable evolution over the past two years is that recorded by individuals who had used the Internet in the last month and those who had done so in the last 3 months, with increases of $15 \%$ and $13 \%$ respectively since 2008.

## 4. LAST INTERNET ACCESS AND FREQUENCY OF USE AMONG INDIVIDUALS AGED 16-74

From this point on, the analysis refers to the sample of people aged 16 to 74 and, therefore, it excludes children aged 10 to 15 and people over 74 .

Figure 2. Internet use in the population aged between 16 and 74 (\% of individuals). 2010


Source: Spanish National Statistics Institute (INE)
A total of $68.5 \%$ of individuals between the ages of 16 and 74 had accessed the Internet at some time, that is, 23.7 million people.

Figure 3. Last Internet access and frequency of use among individuals aged 16-74 (\% of individuals). 2010


Out of all the people who had used the Internet at some time, $91.3 \%$ had accessed the Internet in the last month ( 21.6 million). This represents $62.5 \%$ of the entire population aged 16 to 74 .
Out of those people who had used the Internet in the last three months, $69 \%$ access Internet daily (at least five days a week) and $21.1 \%$ connects every week. In total, 20.2 million people between the ages of 16 and 74 use the Internet daily or weekly (58.4\% of this population group).

Together with the increase in the number of individuals who accessed the Internet in the past year, there is also an increase in frequency of access and intensity of use. The largest growth has been observed in the percentage of users who connect to the Internet daily, with an increase of 4.8 percentage points, which means 1.7 million people aged from 16 to 74 .

## 5. I NTERNET USE ACCORDING TO SOCIODEMOGRAPHIC CHARACTERISTICS

This section analyses the socio-demographic characteristics of Internet users who accessed the Internet in the last month and those who do so every week, as compared to the total population.
Differences are greater when considering users who access the Internet every week, than when considering those who have accessed at some time.

### 5.1. Gender

The gender analysis reveals higher percentages of men than women. The greatest contrast is found in users with weekly access, with $61.8 \%$ men and less than $55 \%$ women.

Among Internet users who accessed the Internet in the last month, the difference between the sexes is less, at 6 percentage points in favour of men.

Figure 4. Percentage of I nternet users in the different categories by gender. 2010


Source: Spanish National Statistics Institute (INE)

### 5.2. Age

One of the most distinguishing variables in Internet use is age; the higher percentage of Internet users is found in the younger age groups. Young people use the Internet more than older ones.
$96.3 \%$ of young people aged 16 to 24 years have accessed the Internet on some occasion and almost nine out of ten of them access the Internet every week. The percentages for individuals aged from 25 to 34 are slightly lower, but still high, reaching 89.4\% and 78.2\% respectively.

Figure 5. Percentage of I nternet users in the different categories by age. 2010


Source: Spanish National Statistics Institute (INE)
Hardly one out of ten individuals aged 65-74 access the Internet weekly, $13 \%$ did so in the last month and $16.4 \%$ has connected to the Internet at some time.

### 5.3. Employment Situation

The highest percentage of Internet users is found among students. Almost all of them have accessed the Internet at some time, and $96 \%$ of them do it weekly. Eight out of ten employees have accessed the Internet at some time, and seven out of ten do it weekly. Additionally, over 74\% of active self-employed workers have accessed the Internet at some time, and almost 64\% are weekly users.

Figure 6. Percentage of I nternet users in the different categories by employment situation. 2010


Source: Spanish National Statistics Institute (INE)

On the other hand, seven out of ten unemployed persons have accessed the Internet at some time, but only 55\% are weekly users. Finally, though just 23\% of pensioners have accessed the Internet at some time, most of these are weekly users.

### 5.4. Level of education

The level of completed education is also a determining factor when it comes to Internet use. The higher the level of education, the higher the percentage of Internet users.

Individuals with university studies record percentages above $90 \%$, as compared to those with primary education with percentages below $26 \%$. In the case of weekly users, the difference between these two groups (individuals with university or primary education) is very notable, of 74 percentage points.

Figure 7. Percentage of I nternet users in the different categories by level of education. 2010


Source: Spanish National Statistics Institute (INE)

Individuals with advanced vocational training or those who have completed the second stage of secondary education record percentages above the average, both of weekly users and users who accessed the Internet in the last month.

Finally, one out of four individuals with primary education has connected to the Internet at some time, and one out of five is a weekly user.

### 5.5. Habitat

The size of the city/town is the least relevant variable to discriminate between levels of Internet use. Notwithstanding, we observe differences in use by inhabitants of large capitals and those living in towns with less than 10 thousand inhabitants.
$77 \%$ of those living in capitals with more than 500,000 inhabitants have accessed the Internet at some time, as compared to $59 \%$ of those living in municipalities of less than 10,000 inhabitants, which represents a gap of 18 percentage points.

Figure 8. Percentage of I nternet users in the different categories by habitat size. 2010


## 6. SOCIO-DEMOGRAPHIC COMPOSITION OF THE I NTERNET USER POPULATI ON

This section offers a comparative analysis of the population profiles of people who have accessed the Internet at some time, those who connected to the Internet in the last month and those who connect weekly. The three profiles are compared to each other and to the total population (aged between 16 and 74) according to the different sociodemographic variables, taken independently: sex, age, employment situation, level of education and size of habitat.

There are differences between the general population profile and each of the three types of Internet user considered here. However, there are no significant socio-demographic differences among the three types of Internet users. The age and level of education are the most discriminatory variables in user profile determination, while variables such as employment situation, sex and size of habitat produce more moderate discrepancies.

### 6.1. Gender

Differences in gender distribution are not significant between the types of Internet users considered and the total population of the study. $52 \%$ of all Internet users are men, as compared to the total population of $50 \%$.

Figure 9. Distribution of Internet users and total population by gender (\% of individuals). 2010


Source: Spanish National Statistics I nstitute (INE)

There is a greater presence of men in both last month and weekly users. $52.4 \%$ of the users who accessed the Internet in the last month were men, as well as $53 \%$ of weekly users.

### 6.2. Age

There are important age related differences between the types of Internet users considered and the total population of the study. In general, the Internet user population is significantly younger than the total population.

Figure 10. Distribution of Internet users and total population by age (\% of individuals). 2010


Source: Spanish National Statistics I nstitute (INE)

While only one third of the total population is aged between 16 and $34,45 \%$ of all Internet users were in this age group, as well as $48 \%$ of those who connect to the Internet weekly.

On the contrary, $11 \%$ of the total population is aged between 65 and 74 , as compared to $2.6 \%$ of all users who accessed the Internet in the last month and $2.2 \%$ of those who access on a weekly basis.

### 6.3. Employment Situation

When considering the employment situation, we find important differences between the total population and the three Internet user populations analysed. Among Internet users, the percentage of employees is greater and the percentage of pensioners and homemakers is lower as compared to the total population.

In the first case (employees), there is a difference of 10 percentage points between the Internet user population and the total population. $53 \%$ of individuals who have used the Internet at some time are employees, compared to $43.2 \%$ of the total population.

On the contrary, there are three times more pensioners among the total population than among the Internet user population, and there are also 2.5 times less homemakers among Internet users.

The percentage of students is around 4 percentage points greater in the different Internet user populations than in the total population.

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Figure 11. Distribution of Internet users and total population by employment situation (\% of individuals). 2010


Source: Spanish National Statistics Institute (INE)

### 6.4. Level of education

The most determinant variable that differentiates the total population and the three Internet user populations analysed (individuals who have used the Internet at some time, in the last month, or every week) is the level of education -together with age-. The Internet user population has a higher level of education than the total population.

Figure 12. Distribution of I nternet users and total population by level of education
(\% of individuals). 2010

$23 \%$ of the individuals who have accessed the Internet at some time have university studies. This percentage rises to $30 \%$ in the case of weekly Internet users. Among the total population, this percentage is below $20 \%$.


The differences are also important when considering individuals who have completed the second stage of secondary education. $22 \%$ of the total population has completed this level of education, while among the Internet user population the percentage exceeds $27 \%$. In the case of individuals with advanced vocational training, the percentages are $10 \%$ of the total population and $14 \%$ of the Internet user population.

### 6.5. Habitat

The size of the city/town is not a relevant variable to discriminate between the total population and the Internet user population. It should only be noted that, among Internet users, the percentage of individuals living in large capitals with more than 500 thousand inhabitants is greater, and the percentage of residents of small municipalities (less than 10,000 inhabitants) is lower, as compared to the total population.

The differences between the three types of Internet users are not significant for this socio-demographic variable.

Figure 13. Distribution of I nternet users and total population aged 16-74 by habitat size (\% of individuals). 2010


Source: Spanish National Statistics I nstitute (INE)

## 7. SOCIO-DEMOGRAPHIC PROFILES OF INTERNET USERS

The decision tree analysis used for this section is new this year, in the 8th edition of this report. It has been carried out to obtain the socio-demographic profiles with the highest percentages of Internet users, users who have accessed the Internet during the previous month, and users who access weekly.
This type of analysis creates a classification model (decision tree) through successive chi-square contrasts ${ }^{1}$ to determine the most relevant variables to group individuals into profiles. The final goal is to determine the profiles with the highest/lowest percentages of Internet users. These analyses have been carried out at sample level due to the difficulty of inferring the objectives.

### 7.1. I ndividuals who have used the I nternet at some time

The age and level of education are the most discriminatory variables in user profile determination. On the contrary, the town/city size is not such a determining factor.

Figure 14. Socio-demographic profiles with the highest percentages of Internet users 2010

| $\begin{aligned} & \square(99 \%-100 \%] \\ & \square(97 \%-99 \%] \\ & \square(95 \%-97 \%] \end{aligned}$ | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{gathered} \text { オ } \\ 0 \\ 0 \\ 0 \\ 0 \\ \vdots \\ \frac{0}{4} \end{gathered}$ |  |  |  |  |  | University graduate | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \frac{\otimes}{\widetilde{\sigma}} \\ & \stackrel{\widetilde{\sigma}}{\mathbb{D}} \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & 0 \\ & \stackrel{0}{0} \\ & \frac{0}{c} \\ & \stackrel{0}{0} \\ & 5 \end{aligned}$ | $\stackrel{\rightharpoonup}{\stackrel{\rightharpoonup}{0}}$ $\stackrel{0}{\vec{D}}$ $\stackrel{\rightharpoonup}{n}$ |  | ㅎ $\stackrel{0}{0}$ $\stackrel{0}{\omega}$ $\stackrel{\omega}{0}$ |  | 'qeyu! 'noul 00 S < s\|ex!ldeכ |  |  | $\text { Towns } 50 \text { to } 100 \text { thou. inha }$ |  |  | 'qequ! 'noul 0T > sumol |
| P1: Profile1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P4: Profile4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P6: Profile6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P7: Profile7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P8: Profile8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P9: Profile9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P10: Profile10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Base: Pers old | s | ag | ed | be | N |  | 16 | an |  |  | ars |  |  |  | Ou | urce | Sp | pan | ish |  | ion | al | Sta | ist |  |  | stiti | $\begin{aligned} & \text { ute } \\ & \text { NE) } \end{aligned}$ |

The profiles with the highest percentages of Internet users are young people with high level of education. On the contrary, the lower percentages of Internet users are found among older people with basic education.

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Figure 15. (Highest) Percentages of I nternet users by socio-demographic profile. 2010


The size of the bubble is proportional to the sample size of the profile
Base: Persons aged between 16 and 74 years old

Source: Spanish National Statistics I nstitute (INE)

Women aged 25 to 34 years who have completed their university studies are the profile with the highest percentage of Internet users. In second place, young students aged 16 to 24 , who have completed the first stage of secondary education, have a similar percentage of Internet users.

A third profile with a high percentage of Internet users is that of individuals aged between 35 and 44, with university studies, who are employed or self-employed. Lastly, we find the profile of young people aged 16 to 24 , who have completed the first stage of secondary education or higher studies and are now working or studying.

In these four cases, the percentage of Internet users is above 99\%.

Figure 16. Socio-demographic profiles with the lowest percentages of I nternet users 2010

| $\begin{aligned} & \square(5 \%-10 \%] \\ & \square[0 \%-5 \%] \end{aligned}$ | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|l} \text { J } \\ \text { O} \\ \text { N } \\ \text { N } \\ \text { 은 } \end{array}$ |  |  |  | $\begin{aligned} & \text { N } \\ & \text { O} \\ & \text { 긍 } \\ & \text { E } \\ & \text { 은 } \end{aligned}$ |  |  |  |  |  |  | $\frac{0}{\frac{0}{N}}$ |  |  |  |  | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \stackrel{\rightharpoonup}{0} \\ & \stackrel{\rightharpoonup}{\omega} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| P1: Profile1 P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 <br> P4: Profile4 <br> P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Base: Persons aged between 16 and 74 years old

[^1]On the other hand, we find the socio-demographic profiles with the lowest percentages of Internet users. For all of them, the age and level of education are key factors. The employment situation is not decisive anymore, since the majority of the profiles are individuals aged over 65, most of whom are pensioners.

There are almost no Internet users among illiterate persons aged from 55 to 74 , and very few among seniors aged from 65 to 74 with primary education.

Figure 17. (Lowest) Percentages of I nternet users by socio-demographic profile. 2010


The size of the bubble is proportional to the sample size of the profile

Base: Persons aged between 16 and 74 years old

Source: Spanish National Statistics I nstitute (INE)

### 7.2. Internet users who have used the Internet in the last month

The following are the profiles with the highest percentages of individuals who accessed the Internet in the last month as compared to the total Internet user population.

Figure 18. Socio-demographic profiles with the highest percentages of individuals who accessed the I nternet in the last month 2010

|  | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \square_{(95 \% ~-~ 99 \%] ~} \\ & \square(93 \%-95 \%] \end{aligned}$ |  |  |  |  | $\begin{array}{\|c} \hline \\ 0 \\ 0 \\ \text { 合 } \\ \text { E } \\ \text { 은 } \end{array}$ |  |  |  |  |  |  |  | $\frac{\otimes}{\frac{0}{N}}$ |  |  |  | $\begin{aligned} & \overline{0} \\ & \stackrel{\rightharpoonup}{0} \\ & \frac{0}{0} \\ & \stackrel{0}{0} \\ & \stackrel{0}{5} \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathbf{0}} \\ & \stackrel{\rightharpoonup}{D} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | $\begin{aligned} & \bar{\omega} \\ & \stackrel{\rightharpoonup}{\omega} \\ & \stackrel{\rightharpoonup}{0} \\ & \stackrel{\rightharpoonup}{0} \\ & \text { 우 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| P1: Profile1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P4: Profile4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Base: I nternet users. Source: Spanish National Statistics I nstitute (INE)

The employment situation and level of education are the most discriminatory variables here. On the contrary, variables such as time, age, size of town/city and gender, lose relevance.

Students and active employed individuals with university studies are the profiles with the highest percentages of individuals who accessed the Internet in the last month. Also the unemployed with higher university education record a high percentage of last month users. Another remarkable profile is that of employed or self-employed individuals aged under 55 who have completed the second stage of secondary education.

Figure 19. (Highest) Percentages of individuals who have used the I nternet in the last month by socio-demographic profile. 2010


The size of the bubble is proportional to the sample size of the profile
Base: I nternet users.
Source: Spanish National Statistics Institute (INE)
Also, over $93 \%$ of unemployed people who have completed the first stage of secondary education and live in provincial capitals, have used the Internet in the last month.
With a percentage of last month users between $60 \%$ and $90 \%$, we find pensioners and homemakers with primary education or no education.

Figure 20. Socio-demographic profiles with the lowest percentages of individuals who accessed the I nternet in the last month. 2010

| $\begin{aligned} & \square^{(70 \% ~-~ 90 \%]} \\ & \square[60 \%-70 \%] \end{aligned}$ | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} 0 \\ 0 \\ 0 \\ 0 \\ \text { in } \\ \text { E } \\ \text { 은 } \end{gathered}$ |  |  |  |  |  |  |  | $\frac{\otimes}{\frac{0}{N}}$ |  |  |  | $\begin{aligned} & \overline{0} \\ & \stackrel{0}{0} \\ & \stackrel{0}{E} \\ & \stackrel{0}{D} \\ & \stackrel{0}{5} \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \stackrel{\rightharpoonup}{亏} \\ & \stackrel{\rightharpoonup}{\omega} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| P1: Profile1 <br> P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 P4: Profile4 P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Base: I nternet users. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Source: Spanish National Statistics Institute <br> (I NE) |  |  |  |  |  |  |  |  |  |  |  |  |  |

Women who have completed the second stage of secondary education and are pensioners or homemakers record also percentages between $60 \%$ and $90 \%$. Lastly, the profile with the lowest percentage of last month users is composed of adults and seniors, whose education level is below the first stage of secondary education and are unemployed.

Figure 21. (Lowest) Percentages of individuals who have used the Internet in the last month by socio-demographic profile. 2010


Base: I nternet users.
Source: Spanish National Statistics I nstitute (INE)

### 7.3. Users who access the I nternet every week

Focusing on those who use the Internet most intensively (weekly access) among the users who accessed the Internet in the last 3 months, the employment situation and the level of education are the most discriminatory variables. Age is not a determinant variable here, since the majority of users who accessed the Internet in the last 3 months (the basis for the analysis) are young people.

Figure 22. Socio-demographic profiles with the highest percentages of weekly I nternet users. 2010

| $\begin{aligned} & \square(97 \%-99 \%] \\ & \square \\ & \square \\ & (95 \%-97 \%] \end{aligned}$ | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \pm \\ \pm \\ 0 \\ 0 \\ 0 \\ \varepsilon \\ \stackrel{0}{4} \end{gathered}$ |  | $\begin{gathered} \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ c \\ \vdots \\ \frac{0}{4} \end{array} \\ \hline \end{gathered}$ | $$ |  |  |  |  |  |  | $\frac{0}{\frac{0}{\pi}}$ | $\stackrel{0}{0}$ <br> $\stackrel{\rightharpoonup}{0}$ <br> $\stackrel{U}{U}$ |  | Active self-employed | $\begin{aligned} & 0 \\ & \stackrel{\rightharpoonup}{\imath} \\ & \stackrel{0}{0} \\ & \stackrel{0}{0} \\ & \stackrel{0}{5} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |
| P1: Profile1 P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 <br> P4: Profile4 <br> P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Base: Users who accessed the Internet in the last 3 months |  |  |  |  |  |  |  |  |  |  |  |  | Source: Spanish National Statistics Institute <br> (INE) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Almost all the students who have completed the second stage of secondary education access the Internet every week. Another profile with a high percentage of weekly Internet users is that of men with university level education who are students, employees or freelancers. For women (with university level education who are students, employees or freelancers) the percentage is slightly lower -97\%-. Also, among men with university level education, who are unemployed or pensioners, there is a high percentage of weekly users.

Figure 23. (Highest) Percentages of weekly Internet users by socio-demographic profile. 2010


The size of the bubble is proportional to the sample size of the profile
Base: Users who accessed the I nternet in the last 3 months

Source: Spanish National Statistics Institute (INE)
Among users who have accessed the Internet in the last three months, the sociodemographic profiles with the lowest percentages of weekly users are those of individuals with a medium-low level of education who are unemployed, pensioners, and homemakers.

Figure 24. Socio-demographic profiles with the lowest percentages of weekly Internet users. 2010

|  | AGE |  |  |  |  |  | LEVEL OF EDUCATION |  |  |  |  |  | GENDER |  | EMPLOYMENT STATUS |  |  |  |  |  |  | HABITAT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \square(70 \%-80 \%] \\ & \square(55 \%-70 \%] \end{aligned}$ |  |  |  | $$ |  | $$ |  |  | 1st stage sec. education |  |  |  | $\frac{0}{\frac{0}{N}}$ | $\begin{aligned} & \frac{\otimes}{\widetilde{\sigma}} \\ & \underset{\sim}{\sim} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P1: Profile1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P2: Profile2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: Profile3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P5: Profile5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Base: Users who accessed the I nternet in the last 3 months |  |  |  |  |  |  |  |  |  |  |  |  |  |  | O | re | S | an | h | Na | ion | al | ta | sti | cs |  |  |  |

Specifically, women who have completed the first stage of secondary education and are unemployed, and pensioners or homemakers, living in small municipalities constitute the profile with the lowest percentage of weekly Internet users (between 55\% and 70\%).

Figure 25. (Lowest) Percentages of weekly Internet users by socio-demographic profile. 2010


The size of the bubble is proportional to the sample size of the profile

Base: Users who accessed the I nternet in the last 3 months

Source: Spanish National Statistics I nstitute (INE)

## 8. EVOLUTI ON OF INTERNET USE

The following section measures the evolution of the different types of Internet users in this study (those who have used the Internet at some time, in the last month, or every week) from 2005 to 2010, based on socio-demographic variables such as gender, age, employment situation, level of education and size of habitat.

For benchmarking purposes, the category 'active employed population' includes both employees and freelancers (self-employed), because the segmentation into two subcategories has been first made in 2010.

To analyse the evolution, all the socio-demographic variables mentioned in this report are used and compared for the different types of Internet users.

In general, data shows a positive trend in all three cases, but there are differences based on the type of Internet user.
The percentage of users who have accessed the Internet at some time has gone from $50.4 \%$ to $68.5 \%$ over the last five years, which represents an increase of 18.1 percentage points.

The percentage of users who accessed the Internet in the last month showed a slightly greater increase ( 21.3 percentage points), from $41.2 \%$ in 2005 to $62.5 \%$ in 2010.

The highest percentage increase over the last five years was recorded by the most regular Internet users (those who access weekly), going from $35.1 \%$ to $58.4 \%$, which represents a growth of 23.3 percentage points.

Figure 26. Evolution of the percentage of I nternet users. 2010


Source: Spanish National Statistics I nstitute (I NE)

Users who have accessed the Internet at some time

This type of Internet users shows the highest percentages of use in all cases. We see that Internet use by students, university graduates and the $16-24$ age group is almost universal. However, these are the groups that record the least evolution over the past five years, since the starting point is very high.

The group that shows the greatest increase over the last five years is the one formed by individuals who have completed the first stage of secondary education (29.1 percentage points). Notwithstanding, persons between the ages of 18 and 35 years also showed increases of more than 25 percentage points over the period.

|  | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 1 0}$ | Variation <br> (p.p) |
| :--- | :---: | :---: | :---: |
| Total | $50.4 \%$ | $68.5 \%$ | 18.1 |
| Male | $54.7 \%$ | $71.1 \%$ | 16.5 |
| Female | $46.2 \%$ | $65.8 \%$ | 19.6 |
| Aged 16 to 24 | $87.7 \%$ | $96.3 \%$ | 8.6 |
| Aged 25 to 34 | $72.8 \%$ | $89.4 \%$ | 16.6 |
| Aged 35 to 44 | $55.5 \%$ | $81.2 \%$ | 25.7 |
| Aged 45 to 54 | $37.8 \%$ | $64.2 \%$ | 26.4 |
| Aged 55 to 64 | $21.1 \%$ | $38.1 \%$ | 17.1 |
| Aged 65 to 74 | $5.2 \%$ | $16.4 \%$ | 11.2 |
| Active employed | $62.5 \%$ | $81.8 \%$ | 19.4 |
| Active unemployed | $50.8 \%$ | $70.8 \%$ | 20.0 |
| Student | $95.7 \%$ | $99.1 \%$ | 3.4 |
| Homemaker | $12.8 \%$ | $30.5 \%$ | 17.7 |
| Pensioner | $9.6 \%$ | $23.6 \%$ | 14.0 |
| Other employment situation | $51.4 \%$ | $53.7 \%$ | 2.3 |
| Illiterate | $0.8 \%$ | $1.5 \%$ | 0.7 |
| Primary education | $10.2 \%$ | $26.0 \%$ | 15.7 |
| 1st stage secondary ed. | $36.1 \%$ | $65.2 \%$ | 29.1 |
| 2nd stage secondary ed. | $73.0 \%$ | $85.8 \%$ | 12.8 |
| Advanced voc. training | $79.9 \%$ | $91.4 \%$ | 11.5 |
| University graduate | $90.4 \%$ | $96.3 \%$ | 5.8 |
| Capitals > 500 thou. inhab. | $59.1 \%$ | $76.9 \%$ | 17.9 |
| Capitals < 500 thou. inhab. | $56.3 \%$ | $73.2 \%$ | 16.8 |
| Towns > 100 thou. inhab. | $52.8 \%$ | $69.4 \%$ | 16.6 |
| Towns 50 to 100 thou. inhab. | $50.6 \%$ | $69.3 \%$ | 18.6 |
| Towns 20 to 50 thou. inhab. | $50.8 \%$ | $69.9 \%$ | 19.1 |
| Towns 10 to 20 thou. inhab. | $48.5 \%$ | $65.5 \%$ | 17.0 |
| Towns < 10 thou. inhab. | $38.6 \%$ | $58.6 \%$ | 20.0 |



Users who have accessed the Internet in the last month

|  |  | 2005 | 2010 | $\underset{\substack{\text { (p.p) }}}{\text { Variation }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Individuals who have used the | Total | 41.2\% | 62.5\% | 21.3 |
| Internet in the last month also show | Male | 45.7\% | 65.5 | 19.8 |
| an upward trend. As in the case of | Female | 36.7\% | 59.5\% | 22.7 |
| individuals who had used the Internet | Aged 16 to 24 | 73.2\% | 92.9\% | 19.8 |
| at some time, here, people who have | Aged 25 to 34 Aged 35 to 44 | 60.2\% $45.2 \%$ | 82.8\% | 22.5 27.2 |
| completed the first stage of secondary | Aged 45 to 54 | 30.4\% | 58.2\% | 27.8 |
| education (with 30.9 points) and | Aged 55 to 64 Aged 65 to 74 | 15.9\% | 33.2\% $12.9 \%$ | 17.3 9.4 |
| individuals aged between 35 and 54 | Active employed | 51.6\% $35.6 \%$ | $76.0 \%$ $61.4 \%$ | 24.4 25.8 |
| (with more than 27 points) are the | Active nemploy | 35.6\% $88.8 \%$ | ${ }_{\text {¢ }}^{61.4 \%}$ | 9.3 |
| groups that experienced the highest | Homemaker Pensioner | 7.0\% |  | 16.4 12.5 |
| growth. | Primary edu | 6.2\% | 20.8\% | 14.6 |
|  | 1st stage secondary ed. 2nd stage secondary ed. | 25.6\% $59.8 \%$ | 56.5\% | 18.6 |
| There are no sharp differences | Advanced voc. training | 64.3\% | 86.1\% | 21.7 |
| between the other groups. The | University graduate | 83.4\% | 93.7\% | 10.2 |
| unemployed recorded a five-year | Capitals > 500 thou. inhab. Capitals < 500 thou. inhab. | 51.9\% | $70.9 \%$ $67.4 \%$ | 19.0 20.3 |
| increase of 25.8 points in Internet use, | Towns $>100$ thou. inhab. | 41.4\% | 62.8\% | 21.4 |
| and the employed of 24.4 . | Towns 50 to 100 thou. inhab. | 40.3\% $40.3 \%$ | $63.1 \%$ $64.7 \%$ | 22.8 24.4 |
|  | Towns 10 to 20 thou. inhab. | 38.8\% | 59.1\% | 20.3 |
|  | Towns < 10 thou. inhab. | 30.3\% | 52.6\% | 22.3 |



| Gender <br> Age | Employment Situation <br> Level of education | Habitat $\quad \square \quad$ Source: Spanish National Statistics II nstitute |
| :--- | :--- | :--- | :--- |
| $(\mathbb{N} E)$ |  |  |

Users who access the Internet weekly

The most regular Internet users (those who access weekly) recorded the most significant and generalised growth. The socio-demographic group with the greatest increase is that of individuals who have completed the first stage of secondary education (with 30.2 points), but there are many other groups with important five-year increases.

People with advanced vocational training and those aged between 35 and 54 experienced a noteworthy increase in Internet use (of over 28 percentage points). Additionally, active employed people, the unemployed, and individuals living in towns with between 10 and 20 thousand inhabitants, recorded increases of more than 27 points.

|  | 2005 | 2010 | Variation <br> (p.p) |
| :--- | :---: | :---: | :---: |
| Total | $\mathbf{3 5 . 1 \%}$ | $58.4 \%$ | 23.3 |
| Male | $40.3 \%$ | $61.8 \%$ | 21.4 |
| Female | $30.0 \%$ | $54.9 \%$ | 25.0 |
| Aged 16 to 24 | $61.9 \%$ | $88.9 \%$ | 27.0 |
| Aged 25 to 34 | $51.9 \%$ | $78.2 \%$ | 26.3 |
| Aged 35 to 44 | $38.5 \%$ | $67.0 \%$ | 28.5 |
| Aged 45 to 54 | $25.2 \%$ | $53.3 \%$ | 28.1 |
| Aged 55 to 64 | $14.0 \%$ | $30.5 \%$ | 16.5 |
| Aged 65 to 74 | $3.0 \%$ | $11.7 \%$ | 8.6 |
| Active employed | $44.3 \%$ | $71.6 \%$ | 27.3 |
| Active unemployed | $27.4 \%$ | $55.1 \%$ | 27.6 |
| Student | $77.2 \%$ | $95.8 \%$ | 18.7 |
| Homemaker | $4.5 \%$ | $19.2 \%$ | 14.7 |
| Pensioner | $5.7 \%$ | $17.1 \%$ | 11.5 |
| Primary education | $4.6 \%$ | $17.7 \%$ | 13.1 |
| 1st stage secondary ed. | $20.0 \%$ | $50.3 \%$ | 30.2 |
| 2nd stage secondary ed. | $49.7 \%$ | $73.1 \%$ | 23.4 |
| Advanced voc. training | $54.0 \%$ | $82.8 \%$ | 28.8 |
| University graduate | $76.8 \%$ | $91.3 \%$ | 14.5 |
| Capitals > 500 thou. inhab. | $46.9 \%$ | $68.3 \%$ | 21.4 |
| Capitals < 500 thou. inhab. | $40.4 \%$ | $63.6 \%$ | 23.2 |
| Towns > 100 thou. inhab. | $34.7 \%$ | $57.7 \%$ | 23.0 |
| Towns 50 to 100 thou. inhab. | $33.7 \%$ | $59.3 \%$ | 25.6 |
| Towns 20 to 50 thou. inhab. | $33.4 \%$ | $60.8 \%$ | 27.3 |
| Towns 10 to 20 thou. inhab. | $32.5 \%$ | $54.6 \%$ | 22.1 |
| Towns < 10 thou. inhab. | $25.2 \%$ | $47.5 \%$ | 22.3 |



Percentage of users who access the Internet weekly 2010 (\%)

| Employment Situation <br> Gevel of education <br> Age$\square \quad$ Habitat $\quad \square \quad$ Source: Spanish National Statistics Institute |
| :--- |
| $(\\| N E)$ |

## 9. ANNEX

I NTERNET USE BY SOCI O-DEMOGRAPHIC SEGMENTS

|  | \% of individuals | Internet users |  |  | In the last month |  |  | Weekly users |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 |
| ㅎ000 | Male | 64.9 | 67.6 | 71.1 | 58.8 | 61.4 | 65.5 | 53.6 | 57.9 | 61.8 |
|  | Female | 58.5 | 61.3 | 65.8 | 50.2 | 53.9 | 59.5 | 44.7 | 49.3 | 54.9 |
| $\stackrel{9}{8}$ | Aged 16 to 24 | 94.1 | 95.2 | 96.3 | 88.0 | 90.1 | 92.9 | 81.8 | 86.0 | 88.9 |
|  | Aged 25 to 34 | 84.7 | 85.7 | 89.4 | 75.7 | 77.1 | 82.8 | 67.6 | 72.4 | 78.2 |
|  | Aged 35 to 44 | 70.2 | 74.3 | 81.2 | 60.6 | 65.9 | 72.5 | 54.0 | 59.8 | 67.0 |
|  | Aged 45 to 54 | 56.1 | 60.0 | 64.2 | 48.1 | 52.7 | 58.2 | 43.1 | 48.5 | 53.3 |
|  | Aged 55 to 64 | 28.1 | 32.9 | 38.1 | 23.8 | 27.9 | 33.2 | 21.5 | 25.6 | 30.5 |
|  | Aged 65 to 74 | 10.6 | 13.4 | 16.4 | 8.3 | 10.2 | 12.9 | 7.4 | 9.3 | 11.7 |
|  | Active employed Active self-employed | 74.0 | 77.1 | $\begin{aligned} & 83.6 \\ & 74.1 \end{aligned}$ | 66.3 | 70.4 | $\begin{aligned} & \hline 77.6 \\ & \hline 69.0 \end{aligned}$ | 60.2 | 66.0 | 73.4 63.8 |
|  | Active unemployed | 63.9 | 67.4 | 70.8 | 52.2 | 55.1 | 61.4 | 43.4 | 48.9 | 55.1 |
|  | Student | 98.1 | 99.0 | 99.1 | 95.9 | 97.8 | 98.1 | 91.1 | 95.3 | 95.8 |
|  | Homemaker | 24.8 | 27.4 | 30.5 | 17.0 | 20.2 | 23.5 | 13.0 | 15.6 | 19.2 |
|  | Pensioner | 16.9 | 19.9 | 23.6 | 12.7 | 15.8 | 18.9 | 11.2 | 14.6 | 17.1 |
|  | Other employment situation | 48.5 | 61.3 | 53.7 | 41.9 | 50.1 | 44.6 | 36.8 | 46.7 | 40.0 |
|  | Illiterate | 0.4 | 1.2 | 1.5 | 0.4 | 0.6 | 0.0 | 0.0 | 0.3 | 0.0 |
|  | Primary education | 16.9 | 21.0 | 26.0 | 12.8 | 15.9 | 20.8 | 10.9 | 13.2 | 17.7 |
|  | 1st stage secondary ed. | 58.7 | 60.8 | 65.2 | 47.5 | 50.7 | 56.5 | 40.2 | 45.2 | 50.3 |
|  | 2nd stage secondary ed. | 82.3 | 84.3 | 85.8 | 73.8 | 75.6 | 78.3 | 66.0 | 70.7 | 73.1 |
|  | Advanced voc. training | 86.9 | 89.4 | 91.4 | 77.6 | 83.5 | 86.1 | 70.5 | 77.8 | 82.8 |
|  | University graduate | 94.4 | 94.5 | 96.3 | 90.5 | 91.1 | 93.7 | 86.5 | 88.3 | 91.3 |
|  | Cannot be coded | 47.8 | 11.5 | 45.1 | 47.8 | 11.5 | 45.1 | 31.1 | 11.5 | 45.1 |
| $\begin{aligned} & \stackrel{N}{\omega} \\ & \stackrel{N}{\omega} \\ & \stackrel{N}{\pi} \\ & \frac{0}{0} \\ & \stackrel{\pi}{\top} \end{aligned}$ | Capitals > 500 thou. inhab. | 69.2 | 73.7 | 76.9 | 64.0 | 67.6 | 70.9 | 59.6 | 64.1 | 68.3 |
|  | Capitals < 500 thou. inhab. | 67.1 | 69.3 | 73.2 | 60.0 | 63.6 | 67.4 | 54.5 | 59.6 | 63.6 |
|  | Towns > 100 thou. inhab. | 64.4 | 64.1 | 69.4 | 57.5 | 57.8 | 62.8 | 51.5 | 53.9 | 57.7 |
|  | Towns 50 to 100 thou. inhab. | 64.7 | 66.4 | 69.3 | 58.5 | 59.5 | 63.1 | 52.3 | 55.5 | 59.3 |
|  | Towns 20 to 50 thou. inhab. | 61.7 | 65.0 | 69.9 | 54.1 | 58.6 | 64.7 | 48.4 | 54.2 | 60.8 |
|  | Towns 10 to 20 thou. inhab. | 57.1 | 60.6 | 65.5 | 47.9 | 53.1 | 59.1 | 43.7 | 49.1 | 54.6 |
|  | Towns < 10 thou. inhab. | 52.0 | 55.0 | 58.6 | 44.1 | 47.0 | 52.6 | 38.3 | 42.3 | 47.5 |
|  | Total indiv. (aged 16 to 74) | 61.7 | 64.5 | 68.5 | 54.5 | 57.7 | 62.5 | 49.2 | 53.6 | 58.4 |

SOCI O-DEMOGRAPHIC PROFI LE

|  | \% of individuals | Internet users |  |  | In the last month |  |  | Weekly users |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 |
| $\bar{\circ}$ㅇ$\vdots$00 | Male | 52.7 | 52.6 | 52.0 | 54.1 | 53.4 | 52.4 | 54.7 | 54.1 | 53.0 |
|  | Female | 47.3 | 47.4 | 48.0 | 45.9 | 46.6 | 47.6 | 45.3 | 45.9 | 47.0 |
| $\stackrel{9}{8}$ | Aged 16 to 24 | 20.3 | 19.3 | 18.0 | 21.5 | 20.4 | 19.1 | 22.2 | 21.0 | 19.6 |
|  | Aged 25 to 34 | 30.5 | 29.1 | 27.6 | 30.8 | 29.2 | 28.0 | 30.5 | 29.6 | 28.4 |
|  | Aged 35 to 44 | 24.7 | 25.2 | 26.2 | 24.1 | 25.0 | 25.6 | 23.8 | 24.4 | 25.4 |
|  | Aged 45 to 54 | 16.2 | 16.9 | 17.5 | 15.8 | 16.6 | 17.3 | 15.7 | 16.4 | 17.0 |
|  | Aged 55 to 64 | 6.4 | 7.2 | 8.0 | 6.2 | 6.9 | 7.7 | 6.2 | 6.8 | 7.5 |
|  | Aged 65 to 74 | 1.9 | 2.2 | 2.6 | 1.6 | 1.9 | 2.2 | 1.6 | 1.9 | 2.2 |
|  | Active employed Active self-employed | 71.6 | 65.3 | $\begin{aligned} & \hline \hline 52.8 \\ & 10.8 \end{aligned}$ | 72.5 | 66.7 | $\begin{aligned} & 53.7 \\ & 11.0 \end{aligned}$ | 73.0 | 67.2 | $\begin{aligned} & \hline 54.4 \\ & 10.8 \end{aligned}$ |
|  | Active unemployed | 6.7 | 11.9 | 14.0 | 6.2 | 10.9 | 13.3 | 5.7 | 10.4 | 12.8 |
|  | Student | 11.6 | 11.5 | 12.0 | 12.8 | 12.7 | 13.0 | 13.5 | 13.3 | 13.6 |
|  | Homemaker | 4.9 | 4.8 | 4.7 | 3.8 | 3.9 | 3.9 | 3.2 | 3.3 | 3.5 |
|  | Pensioner | 3.3 | 3.9 | 4.4 | 2.8 | 3.4 | 3.9 | 2.7 | 3.4 | 3.8 |
|  | Other employment situation | 2.0 | 2.6 | 1.3 | 1.9 | 2.4 | 1.2 | 1.9 | 2.4 | 1.2 |
|  | Illiterate | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | Primary education | 6.6 | 7.9 | 8.7 | 5.7 | 6.6 | 7.7 | 5.3 | 5.9 | 7.0 |
|  | 1st stage secondary ed. | 24.3 | 22.6 | 22.4 | 22.2 | 21.0 | 21.2 | 20.9 | 20.2 | 20.2 |
|  | 2nd stage secondary ed. | 27.7 | 27.7 | 27.6 | 28.1 | 27.7 | 27.6 | 27.9 | 27.9 | 27.6 |
|  | Advanced voc. training | 13.1 | 13.5 | 13.5 | 13.2 | 14.0 | 14.0 | 13.3 | 14.1 | 14.4 |
|  | University graduate | 28.3 | 28.4 | 27.7 | 30.7 | 30.6 | 29.5 | 32.6 | 31.9 | 30.8 |
|  | Cannot be coded | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | Capitals > 500 thou. inhab. | 18.1 | 18.5 | 18.1 | 18.9 | 18.9 | 18.3 | 19.5 | 19.3 | 18.9 |
|  | Capitals < 500 thou. inhab. | 17.7 | 17.2 | 17.3 | 17.9 | 17.7 | 17.5 | 18.0 | 17.9 | 17.7 |
|  | Towns > 100 thou. inhab. | 10.1 | 9.5 | 9.3 | 10.2 | 9.5 | 9.2 | 10.1 | 9.6 | 9.1 |
|  | Towns 50 to 100 thou. inhab. | 10.0 | 9.9 | 9.9 | 10.3 | 9.9 | 9.9 | 10.2 | 10.0 | 9.9 |
|  | Towns 20 to 50 thou. inhab. | 15.0 | 15.2 | 14.6 | 14.9 | 15.3 | 14.8 | 14.8 | 15.2 | 14.8 |
|  | Towns 10 to 20 thou. inhab. | 11.2 | 11.4 | 12.4 | 10.7 | 11.1 | 12.2 | 10.8 | 11.1 | 12.1 |
|  | Towns < 10 thou. inhab. | 17.9 | 18.3 | 18.4 | 17.2 | 17.5 | 18.1 | 16.6 | 17.0 | 17.5 |
|  | Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

POPULATION AGED 16 TO 74 AND I NTERNET USE IN ABSOLUTE FI GURES

|  | \% of individuals | Internet users |  |  | In the last month |  |  | Weekly users |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 |
| ㅎㅇ00 | Male | 11,217,041 | 11,745,686 | 12,319,646 | 10,164,549 | 10,677,759 | 11,343,024 | 9,275,651 | 10,058,937 | 10,699,871 |
|  | Female | 10,064,115 | 10,602,831 | 11,374,230 | 8,638,946 | 9,326,787 | 10,285,807 | 7,682,439 | 8,526,070 | 9,500,192 |
| $\stackrel{\leftrightarrow}{\stackrel{0}{4}}$ | Aged 16 to 24 | 4,327,047 | 4,316,220 | 4,276,413 | 4,046,428 | 4,084,916 | 4,127,975 | 3,764,528 | 3,901,644 | 3,949,446 |
|  | Aged 25 to 34 | 6,485,310 | 6,504,312 | 6,550,888 | 5,793,474 | 5,850,144 | 6,062,622 | 5,179,037 | 5,494,370 | 5,730,425 |
|  | Aged 35 to 44 | 5,248,860 | 5,634,075 | 6,209,684 | 4,533,965 | 4,997,071 | 5,542,655 | 4,039,377 | 4,531,012 | 5,125,214 |
|  | Aged 45 to 54 | 3,457,394 | 3,775,662 | 4,136,644 | 2,962,537 | 3,317,310 | 3,749,041 | 2,654,150 | 3,051,783 | 3,432,834 |
|  | Aged 55 to 64 | 1,365,057 | 1,617,232 | 1,904,725 | 1,157,702 | 1,373,389 | 1,660,047 | 1,043,087 | 1,258,720 | 1,523,045 |
|  | Aged 65 to 74 | 397,488 | 501,017 | 615,521 | 309,388 | 381,716 | 486,490 | 277,912 | 347,477 | 439,099 |
| 흥́ㅡㅇ을을푼 | Active employed Active self-employed | 15,231,604 | 14,602,168 | $\begin{gathered} \hline \hline 12,512,320 \\ 2,547,546 \end{gathered}$ | 13,632,668 | 13,339,908 | $\begin{gathered} 11,613,545 \\ 2,371,538 \end{gathered}$ | 12,377,622 | 12,495,162 | $\begin{gathered} \hline 10,987,387 \\ 2,191,071 \end{gathered}$ |
|  | Active unemployed | 1,420,452 | 2,656,450 | 3,327,363 | 1,160,380 | 2,173,181 | 2,884,308 | 966,322 | 1,926,044 | 2,588,348 |
|  | Student | 2,469,245 | 2,571,005 | 2,836,640 | 2,413,414 | 2,538,180 | 2,806,899 | 2,292,630 | 2,474,417 | 2,741,676 |
|  | Homemaker | 1,040,128 | 1,066,566 | 1,109,014 | 711,232 | 785,523 | 853,409 | 542,156 | 605,963 | 697,670 |
|  | Pensioner | 699,999 | 862,017 | 1,045,338 | 523,319 | 686,050 | 836,833 | 460,781 | 633,561 | 759,141 |
|  | Other employment situation | 419,727 | 590,311 | 315,655 | 362,481 | 481,704 | 262,299 | 318,580 | 449,860 | 234,770 |
|  | Illiterate | 2,259 | 7,114 | 7,968 | 2,259 | 3,782 | 0 | 0 | 1,533 | 0 |
|  | Primary education | 1,399,809 | 1,756,774 | 2,072,960 | 1,064,347 | 1,325,686 | 1,663,579 | 901,399 | 1,099,665 | 1,409,907 |
|  | 1st stage secondary ed. | 5,165,494 | 5,054,266 | 5,308,171 | 4,179,493 | 4,210,863 | 4,594,417 | 3,538,324 | 3,756,318 | 4,088,349 |
|  | 2nd stage secondary ed. | 5,895,045 | 6,182,402 | 6,532,143 | 5,285,801 | 5,542,489 | 5,962,422 | 4,728,390 | 5,185,246 | 5,567,795 |
|  | Advanced voc. training | 2,786,884 | 3,006,493 | 3,207,583 | 2,488,955 | 2,807,303 | 3,019,013 | 2,260,691 | 2,617,990 | 2,905,071 |
|  | University graduate | 6,019,464 | 6,339,653 | 6,555,162 | 5,770,439 | 6,112,608 | 6,379,512 | 5,521,354 | 5,922,440 | 6,219,053 |
|  | Cannot be coded | 12,200 | 1,815 | 9,888 | 12,200 | 1,815 | 9,888 | 7,932 | 1,815 | 9,888 |
| $\begin{aligned} & \text { N } \\ & \stackrel{N}{\omega} \\ & \text { N } \\ & \frac{0}{0} \\ & \text { I } \end{aligned}$ | Capitals > 500 thou. inhab. | 3,847,114 | 4,129,062 | 4,292,676 | 3,558,417 | 3,790,117 | 3,954,011 | 3,313,659 | 3,594,373 | 3,808,931 |
|  | Capitals < 500 thou. inhab. | 3,758,899 | 3,855,085 | 4,109,462 | 3,363,053 | 3,541,575 | 3,787,569 | 3,054,765 | 3,318,072 | 3,572,018 |
|  | Towns > 100 thou. inhab. | 2,145,856 | 2,115,726 | 2,208,452 | 1,914,874 | 1,906,927 | 1,997,781 | 1,714,877 | 1,777,417 | 1,835,727 |
|  | Towns 50 to 100 thou. inhab. | 2,136,611 | 2,215,951 | 2,346,071 | 1,932,041 | 1,986,241 | 2,137,355 | 1,728,456 | 1,854,000 | 2,007,878 |
|  | Towns 20 to 50 thou. inhab. | 3,185,897 | 3,399,822 | 3,450,529 | 2,793,200 | 3,061,330 | 3,194,512 | 2,501,728 | 2,833,205 | 2,999,522 |
|  | Towns 10 to 20 thou. inhab. | 2,388,235 | 2,539,039 | 2,926,716 | 2,005,157 | 2,223,185 | 2,638,962 | 1,828,970 | 2,055,898 | 2,438,193 |
|  | Towns < 10 thou. inhab. | 3,818,544 | 4,093,832 | 4,359,969 | 3,236,753 | 3,495,171 | 3,918,641 | 2,815,637 | 3,152,040 | 3,537,794 |

$\begin{array}{llllllllll}\text { Total indiv. (aged } 16 \text { to 74) } & 21,281,156 & 22,348,517 & 23,693,875 & \mathbf{1 8 , 8 0 3 , 4 9 5} & \mathbf{2 0 , 0 0 4}, 546 & \mathbf{2 1 , 6 2 8 , 8 3 1} & \mathbf{1 6 , 9 5 8 , 0 9 0} & \mathbf{1 8 , 5 8 5 , 0 0 6} & \mathbf{2 0 , 2 0 0 , 0 6 3}\end{array}$

|  | \% of individuals | Total population (16 to 74) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2008 | 2009 | 2010 |
| $\begin{aligned} & \bar{\top} \\ & \stackrel{0}{0} \\ & \text { © } \\ & 0 \end{aligned}$ | Male | 17,294,420 | 17,380,209 | 17,318,789 |
|  | Female | 17,203,526 | 17,288,169 | 17,292,733 |
| $\stackrel{\otimes}{0}$ | Aged 16 to 24 | 4,600,582 | 4,535,457 | 4,441,181 |
|  | Aged 25 to 34 | 7,658,076 | 7,590,154 | 7,325,536 |
|  | Aged 35 to 44 | 7,481,103 | 7,581,371 | 7,649,938 |
|  | Aged 45 to 54 | 6,164,279 | 6,297,064 | 6,439,617 |
|  | Aged 55 to 64 | 4,856,360 | 4,922,425 | 4,993,398 |
|  | Aged 65 to 74 | 3,737,546 | 3,741,907 | 3,761,852 |
|  | Active employed | 20,573,846 | 18,936,760 | 14,964,276 |
|  | Active self-employed | 20,573,846 |  | 3,435,794 |
|  | Active unemployed | 2,224,599 | 3,941,882 | 4,698,739 |
|  | Student | 2,516,437 | 2,596,156 | 2,861,554 |
|  | Homemaker | 4,185,885 | 3,896,104 | 3,635,609 |
|  | Pensioner | 4,132,115 | 4,335,086 | 4,427,989 |
|  | Other employment situation | 865,064 | 962,392 | 587,562 |
|  | Illiterate | 625,267 | 588,052 | 539,961 |
|  | Primary education | 8,292,081 | 8,358,116 | 7,983,056 |
|  | 1st stage secondary ed. | 8,803,303 | 8,306,486 | 8,135,716 |
|  | 2nd stage secondary ed. | 7,166,642 | 7,329,613 | 7,612,762 |
|  | Advanced voc. training | 3,205,613 | 3,363,472 | 3,508,132 |
|  | University graduate | 6,379,516 | 6,706,824 | 6,809,961 |
|  | Cannot be coded | 25,525 | 15,814 | 21,934 |
|  | Capitals > 500 thou. inhab. | 5,560,411 | 5,606,153 | 5,579,588 |
|  | Capitals < 500 thou. inhab. | 5,604,957 | 5,566,760 | 5,616,083 |
|  | Towns > 100 thou. inhab. | 3,332,580 | 3,298,170 | 3,182,247 |
|  | Towns 50 to 100 thou. inhab. | 3,304,011 | 3,337,669 | 3,386,755 |
|  | Towns 20 to 50 thou. inhab. | 5,166,454 | 5,227,772 | 4,937,257 |
|  | Towns 10 to 20 thou. inhab. | 4,183,362 | 4,188,965 | 4,466,155 |
|  | Towns < 10 thou. inhab. | 7,346,171 | 7,442,888 | 7,443,438 |

Total indiv. (aged 16 to 74)

## 10. TECHNI CAL SPECI FI CATI ONS

The primary data, which corresponds to the "Survey of Equipment and Use of Information and Communication Technologies in Households" (ICT-H 2010) drawn up by the Spanish National Statistics Institute, have been processed and analysed by the Studies and Forecasts Area of the Spanish Observatory for Telecommunications and the Information Society.

Universes: 17.1 million households. Individuals aged between 16 and 74: 34.6 million.
The data published in this report refer to individuals aged between 16 and 74 years old. The definition of reference population as individuals aged between 16 and 74 responds to European Union criteria for Eurostat statistical operations, as well as those of the various statistical offices of Member States, for comparative purposes specifically related to Information Society issues.

Sample: The sample size of the ITC-H 2010 survey for individuals aged 16 or over was 19,384 individuals, to which a sample of 3,122 individuals aged between 10 and 15 was added, which adds up to 22,506 individuals aged 10 and over. However, for the purposes of this report, which mainly considered the population aged between 16 and 74 , the sample size was reduced to 16,344 individuals.

Scope: Spain.
Further information on the survey methodology (sample design, fieldwork, sampling errors, questionnaires, etc.) can be obtained at http://www.ine.es.

The decision tree analysis used in this report creates a classification model based on trees to classify cases into groups. This procedure provides validation tools for exploratory and confirmatory factor analyses. The analysis is based on a chi-square test. The chi-square test is a statistical hypothesis test to approximate a chi-square distribution. The chi-square goodness of fit test allows us to compare the distribution of classes of observations with an expected distribution in order to test whether the observed proportions for a categorical variable differ from hypothesized proportions.
The decision tree analysis has been carried out to obtain the socio-demographic profiles with the highest percentages of Internet users, users who have accessed the Internet during the previous month, and users who access weekly. This type of analysis creates a classification model (decision tree) through successive chi-square contrasts, to study the independence of the variables and determine which are the most relevant in order to group individuals into profiles.
Acknowledgements: This report has been developed under the ITC-H survey collaboration framework with the Spanish National Statistics Institute (INE). We thank the INE for its contribution to this project.


[^0]:    ${ }^{1}$ Test of statistical significance

[^1]:    Source: Spanish National Statistics I nstitute (INE)

