

Survey on the Equipment and Use of Information and Communications Technology in Households (ICT_H)

Analysis of non-response

November 2025

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I Introduction

The 2025 *Survey on Information and Communication Technology Equipment and Usage in Households* (ICT_H) is a statistical operation carried out by the National Statistics Institute (INE), following the methodological recommendations of the European Union's Statistical Office (EUROSTAT). The execution costs of this statistical operation have been co-financed by the European Union.

A three-stage sampling method is used, with stratification of the first-stage units. The first-stage units are the census sections. The second-stage units are primary family dwellings and, in the third stage, one individual over 15 years old is selected in each dwelling. Additionally, all minors aged 10 to 15 years old in each dwelling are surveyed.

The survey is a continuous rotating panel survey carried out annually. The sample of sections and dwellings is partially renewed using a rotation schedule (four rotations) in order to incorporate the variations occurring in the census sections, and also to prevent fatigue among the cooperating families and give new families a chance for selection.

To identify potential differences in behaviour between the units participating for the first time in the survey and those participating in a second or subsequent interview, the tables in this document have been prepared in duplicate to distinguish between these two types of units. Consequently, the titles of the tables specify either *first interview* or *subsequent interviews* as applicable, and the comments reference the results obtained in both types of interview.

As in 2024, the same number of dwellings (15) were selected in each of the 625 sections of the first interview in 2025, regardless of the autonomous community corresponding to each section.

The errors affecting surveys are divided into two large groups: sampling errors (see www.ine.es) and non-sampling errors. The former can be estimated using statistical procedures, while the latter are difficult to measure, among other reasons, due to the wide variety of factors that may cause them.

This document pays particular attention to the **non-sampling errors** that may arise in the different phases of the statistical process. These errors can occur prior to the data collection (e.g. due to the deficiencies of the framework and inadequacies in the definitions and questionnaires), during the collection (shortcomings in the interviewers' work, incorrect statements and failure to reply by the respondents) and in the post-field work stages (errors in the coding, recording, tabulation, etc.).

The potential causes that may give rise to the non-sampling errors include **failure to reply by the respondent units**. This may be due to several reasons, including refusal to cooperate, absence during attempts to make contact via the different collection channels, the inability of all the people living in the respondent unit to reply and the dwelling proving inaccessible at the moment of the interview.

II Data Analysis

Table 1 presents the distributions, by autonomous community, of the *theoretical sample*, expressed in the number of dwellings, and the *effective sample*, expressed as the number of surveyed households.

The theoretical sample consists of the new sample corresponding to the rotation group due for renewal in 2025, which is group four, in addition to the dwellings from the panel sample in previous cycles due to not having experienced any incidents leading to permanent removal, such as refusal, death, etc.

The effective sample is expressed in the number of households, as all the resident households in each selected dwelling are surveyed, although the average number of households per dwelling is very close to one.

At the national level, the total effective sample accounts for 63.1 per cent of the total theoretical sample (almost 0.2 points higher than in 2024), with *first interviews* and *subsequent interviews* accounting for 50.4 and 69.7 per cent, respectively. The highest percentage of the total effective sample (70.5 per cent) is recorded in La Rioja, while the lowest percentage is registered in Canarias (almost 53.7 per cent).

Autonomous Communities	Theoretical and effective samples in the first and subsequent interviews								
	Sample	Sample	First interview			Subsequent interviews			
	theoretica	effective	sample	Effective sample	sample	Effective sample	sample	Effective sample	
	Dwellings	Ids	%	Dwellings	Ids	%	Dwellings	Households	%
Total	26.862	16.943	63,07	9.375	4.727	50,42	17.487	12.216	69,86
01 Andalucía	2.562	1.450	56,60	885	399	45,08	1.677	1.051	62,67
02 Aragon	1.202	832	69,22	420	238	56,67	782	594	75,96
03 Asturias	1.299	881	67,82	450	246	54,67	849	635	74,79
04 Balearic Islands	1.267	693	54,70	435	189	43,45	832	504	60,58
05 Canaries	1.437	771	53,65	510	223	43,7	927	548	59,12
06 Cantabria	1.206	827	68,57	420	232	55,24	786	595	75,70
07 Castilla y León	1.451	962	66,30	510	263	51,57	941	699	74,28
08 Castilla - La Mancha	1.432	905	63,20	495	230	46,46	937	675	72,04
09 Catalonia	2.321	1.410	60,75	810	393	48,52	1.511	1.017	67,31
10 Valencia	1.918	1.197	62,41	675	340	50,4	1.243	857	68,95
11 Extremadura	1.454	892	61,35	510	254	49,80	944	638	67,58
12 Galicia	1.636	1.107	67,67	570	318	55,79	1.066	789	74,02
13 Madrid	2.171	1.522	70,11	750	450	60,00	1.421	1.072	75,44
14 Murcia, Region de	1.337	719	53,78	465	183	39,35	872	536	61,47
15 Navarre	1.231	810	65,80	435	238	54,71	796	572	71,86
16 Basque country	1.504	985	65,49	525	261	49,71	979	724	73,95
17 La Rioja	1.136	801	70,51	405	220	54,32	731	581	79,48
18 Ceuta and Melilla	298	179	60,07	105	50	47,6	193	129	66,84

TABLE 1. Theoretical and effective sample distribution by autonomous communities

The distribution of the theoretical sample of dwellings by autonomous community for the first interview and subsequent interviews can be seen in **tables 2.1 and 2.2**. These tables allow the evaluation of the framework defects through the non-surveyable dwellings.

The instances of non-response in the surveyable dwellings due to absences, refusals, and inability to respond are presented in **tables 2.3 and 2.4**.

With regard to the **non-surveyable dwellings** (tables 2.1 and 2.2), which include empty and inaccessible dwellings, those used for other purposes, and previously selected ones, the national total stands at 2.2 per cent in the first interview and decreases to 1.2 per cent in the subsequent interviews. In the first interview, the lowest percentage of non-surveyable dwellings is recorded in Región de Murcia (almost 0.9 per cent) while Castilla-La Mancha registers the highest percentage (3.8 per cent of non-surveyable dwellings). In the subsequent interviews, Aragón and País Vasco are the communities with the lowest percentage (0.5 per cent), with the highest percentage corresponding to Castilla y León (2.3 per cent).

Based on this data, it can be stated that the non-surveyable dwelling percentages are very similar to those recorded in 2024.

Autonomous Communities	Dwellings sample for the first interview						
	Total	Surveyable		Non-surveyable		Inaccessible	
	No.	No.	%	No.	%	No.	%
Total	9.375	7.556	80,60	205	2,19	1.614	17,22
01 Andalucía	885	711	80,34	16	1,81	158	17,85
02 Aragon	420	345	82,14	10	2,38	65	15,48
03 Asturias	450	352	78,22	8	1,78	90	20,00
04 Balearic Islands	435	340	78,16	8	1,84	87	20,00
05 Canaries	510	414	81,18	9	1,76	87	17,06
06 Cantabria	420	345	82,14	9	2,14	66	15,71
07 Castilla y León	510	396	77,65	14	2,75	100	19,61
08 Castilla - La Mancha	495	378	76,36	19	3,84	98	19,80
09 Catalonia	810	684	84,44	11	1,36	115	14,20
10 Valencia	675	521	77,19	11	1,63	143	21,19
11 Extremadura	510	404	79,22	13	2,55	93	18,24
12 Galicia	570	466	81,75	20	3,51	84	14,74
13 Madrid	750	666	88,80	15	2,00	69	9,20
14 Murcia, Region de	465	325	69,89	4	0,86	136	29,25
15 Navarre	435	364	83,68	11	2,53	60	13,79
16 Basque country	525	417	79,43	13	2,48	95	18,10
17 La Rioja	405	341	84,20	13	3,21	51	12,59
18 Ceuta and Melilla	105	87	82,86	1	0,95	17	16,19

TABLE 2.1. Dwellings sample distribution by autonomous community.
First interview

Autonomous Communities	Total	Surveyable		Non-surveyable		Inaccessible	
	No.	No.	%	No.	%	No.	%
Total	17.487	16.271	93,05	210	1,20	1.006	5,75
01 Andalucía	1.677	1.535	91,53	16	0,95	126	7,51
02 Aragon	782	740	94,63	4	0,51	38	4,86
03 Asturias	849	799	94,11	10	1,18	40	4,71
04 Balearic Islands	832	737	88,58	17	2,04	78	9,38
05 Canaries	927	852	91,91	7	0,76	68	7,34
06 Cantabria	786	742	94,40	7	0,89	37	4,71
07 Castilla y León	941	884	93,94	22	2,34	35	3,72
08 Castilla - La Mancha	937	867	92,53	10	1,07	60	6,40
09 Catalonia	1.511	1.406	93,05	15	0,99	90	5,96
10 Valencia	1243	1148	92,36	18	1,45	77	6,19
11 Extremadura	944	876	92,80	16	1,69	52	5,51
12 Galicia	1.066	1.000	93,81	21	1,97	45	4,22
13 Madrid	1.421	1.353	95,21	8	0,56	60	4,22
14 Murcia, Region de	872	791	90,71	9	1,03	72	8,26
15 Navarre	796	744	93,47	9	1,13	43	5,40
16 Basque country	979	925	94,48	5	0,51	49	5,01
17 La Rioja	731	694	94,94	12	1,64	25	3,42
18 Ceuta and Melilla	193	178	92,23	4	2,07	11	5,70

TABLE 2.2. Dwellings sample distribution by autonomous community.
Subsequent interviews

The percentage of **surveyed dwellings** relative to surveyable dwellings (tables 2.3 and 2.4) is what we refer to as the **response** rate in the survey. Nationally, this percentage totals 62.6 per cent in the first interview and 75.1 per cent in the subsequent interviews, accounting for about 1.8 percentage points more than in 2024 in the first interview and 0.4 more in the subsequent interviews.

By autonomous communities, Principado de Asturias stands out with the highest percentage in the first interview (69.9 per cent), while La Rioja has the highest percentage in the subsequent ones (83.7 per cent). The lowest response rate in both the first interview and the subsequent interviews corresponds to Canaries (53.9 and 64.3 per cent, respectively).

Regarding **refusals**, their national percentage totals 0.9 of surveyable dwellings in the first interview and 0.7 per cent in the subsequent interviews (see tables 2.3 and 2.4). As can be observed, La Rioja displays the highest percentage of refusals in the first interview (1.8 per cent), while Extremadura has the highest percentage in the subsequent interviews (1.6 per cent). On the other hand, the lowest percentages of refusals are recorded in Ceuta and Melilla, where there are no refusals in either the first interview or subsequent interviews.

Finally, the national percentage of **absences** stands at 36.5 per cent in the first interview and 24.2 in the subsequent interviews. By autonomous communities, Canaries is the community with the highest percentage of absences in both the first interview (45.7 per

cent) and the subsequent interviews (35.5 per cent). The lowest percentages are obtained in Principado de Asturias (29.0 per cent) in the first interview and in La Rioja in the subsequent interviews (15.6 per cent).

The incidence of the **inability to reply** doesn't require a detailed analysis, given its low frequency compared to the cases of refusal to cooperate and absence.

Overall, the community with the highest total non-response percentage, both in the first interview and in the subsequent interviews, is once again Canarias (46.1 and 35.7 per cent, respectively).

At the opposite extreme, the communities with the lowest non-response percentages are Principado de Asturias in the first interview (30.1 per cent), and La Rioja in the subsequent interviews (16.3 per cent).

Autonomous Communities	Surveyable dwellings for the first interview											
	Non-response											
	Total		Surveyed		Total		Refusals		Absences		respond	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%	
National Total	7.556	4.727	62,56	2.829	37,44	64	0,85	2.754	36,45	11	0,15	
01 Andalucía	711	399	56,12	312	43,88	9	1,27	302	42,48	1	0,14	
02 Aragon	345	238	68,99	107	31,01	3	0,87	103	29,86	1	0,29	
03 Asturias	352	246	69,89	106	30,11	4	1,14	102	28,98	0	0,00	
04 Balearic Islands	340	189	55,59	151	44,41	0	0,00	150	44,12	1	0,29	
05 Canaries	414	223	53,86	191	46,14	1	0,24	189	45,65	1	0,24	
06 Cantabria	345	232	67,25	113	32,75	2	0,58	110	31,88	1	0,29	
07 Castilla y León	396	263	66,41	133	33,59	2	0,51	131	33,08	0	0,00	
08 Castilla - La Mancha	378	230	60,85	148	39,15	2	0,53	146	38,62	0	0,00	
09 Catalonia	684	393	57,46	291	42,54	6	0,88	285	41,67	0	0,00	
10 Valencia	521	340	65,26	181	34,74	3	0,58	177	33,97	1	0,19	
11 Extremadura	404	254	62,87	150	37,13	6	1,49	144	35,64	0	0,00	
12 Galicia	466	318	68,24	148	31,76	8	1,72	140	30,04	0	0,00	
13 Madrid	666	450	67,57	216	32,43	7	1,05	207	31,08	2	0,30	
14 Murcia, Region de	325	183	56,31	142	43,69	0	0,00	142	43,69	0	0,00	
15 Navarre	364	238	65,38	126	34,62	1	0,27	124	34,07	1	0,27	
16 Basque country	417	261	62,59	156	37,41	4	0,96	151	36,21	1	0,24	
17 La Rioja	341	220	64,52	121	35,48	6	1,76	114	33,43	1	0,29	
18 Ceuta and Melilla	87	50	57,47	37	42,53	0	0,00	37	42,53	0	0,00	

TABLE 2.3. Surveyable dwelling distribution by autonomous communities.
First interview

Autonomous Communities	Surveyable dwellings for subsequent interviews										
	Non-response										respond
	Total	Surveyed		Total		Refusals		Absences			
	No.	No.	%	No.	%	No.	%	No.	%	No.	
National Total	16.271	12.216	75,08	4.055	24,92	113	0,69	3.937	24,20	5	0,03
01 Andalucía	1.535	1.051	68,47	484	31,53	9	0,59	475	30,94	0	0,00
02 Aragon	740	594	80,27	146	19,73	2	0,27	144	19,46	0	0,00
03 Asturias	799	635	79,47	164	20,53	7	0,88	157	19,65	0	0,00
04 Balearic Islands	737	504	68,39	233	31,61	3	0,41	230	31,21	0	0,00
05 Canaries	852	548	64,32	304	35,68	2	0,23	302	35,45	0	0,00
06 Cantabria	742	595	80,19	147	19,81	8	1,08	138	18,60	1	0,13
07 Castilla y León	884	699	79,07	185	20,93	8	0,90	176	19,91	1	0,11
08 Castilla - La Mancha	867	675	77,85	192	22,15	5	0,58	186	21,45	1	0,12
09 Catalonia	1.406	1.017	72,33	389	27,67	11	0,78	377	26,81	1	0,07
10 Valencia	1.148	857	74,65	291	25,35	6	0,52	285	24,83	0	0,00
11 Extremadura	876	638	72,83	238	27,17	14	1,60	224	25,57	0	0,00
12 Galicia	1.000	789	78,90	211	21,10	6	0,60	204	20,40	1	0,10
13 Madrid	1.353	1.072	79,23	281	20,77	14	1,03	267	19,73	0	0,00
14 Murcia, Region de	791	536	67,76	255	32,24	5	0,63	250	31,61	0	0,00
15 Navarre	744	572	76,88	172	23,12	4	0,54	168	22,58	0	0,00
16 Basque country	925	724	78,27	201	21,73	4	0,43	197	21,30	0	0,00
17 La Rioja	694	581	83,72	113	16,28	5	0,72	108	15,56	0	0,00
18 Ceuta and Melilla	178	129	72,47	49	27,53	0	0,00	49	27,53	0	0,00

TABLE 2.4. Surveyable dwelling distribution by autonomous communities.
Subsequent interviews

The incidences in the theoretical sample, both for the initial interview and the subsequent interviews, are broken down in **table 3**. The percentages for inaccessible and non-surveyable dwellings have been calculated based on the total number of dwellings, while those for surveyed dwellings and non-responses have been calculated based on the number of surveyable dwellings.

In relation to 2024, an increase in the inaccessible dwellings can be observed in the first interview (from 10.7 per cent in 2024 to 17.2 per cent in 2025), while there is a decrease in the subsequent interviews from 7.1 per cent in 2024 to 5.8 per cent in 2025. There is a decrease in the number of refusals in the first interview from 1.4 per cent to 0.9 per cent and in the subsequent interviews from 0.8 per cent to 0.7 per cent between 2024 and 2025.

The most notable difference between the two types of interview can be observed in the total absences, as in the first interview they account for 36.5 per cent of the surveyable dwellings, while in subsequent interviews they account for 24.2 per cent.

Incident type	Dwellings sample			
	First interview		Subsequent interviews	
	No.	%	No.	%
Total	9.375	100,00	17.487	100,00
Inaccessible	1.614	17,22	1.006	5,75
Non-surveyable dwelling:	205	2,19	210	1,20
- Empty	199	2,12	205	1,17
- Previously selected	0	0,00	2	0,01
- Unreachable	0	0,00	0	0,00
- Other purposes	6	0,06	3	0,02
Surveyable dwelling:	7.556	100,00	16.271	100,00
- Surveyed	4.727	62,56	12.216	75,08
- Non-response:	2.829	37,44	4.055	24,92
- Total absence	2.754	36,45	3.937	24,20
- Absence of selected person	0	0,00	0	0,00
- Total refusal	64	0,85	113	0,69
- Refusal of selected person	0	0,00	0	0,00
- Unable to respond	11	0,15	5	0,03

TABLE 3. Breakdown of incidents in the theoretical sample

The remaining tables have been prepared based on the most up-to-date information from the **Sample Framework for Surveys Directed to the Population (Georeferenced Address Framework)** for non-response cases, both for the tables corresponding to the **first interview** and for the tables corresponding to **subsequent interviews**. All the tables include the *Not specified* category, which includes dwellings not classified as primary family dwellings in the most current available framework.

The distribution of surveyable dwellings by number of household members can be seen in **tables 4.1 and 4.2**. For the calculation of household size, all the individuals residing in the dwelling are considered, including those under 15 years old.

If we compare the distribution of the theoretical sample of surveyable dwellings with that of refusals in the **first interview** (table 4.1), it can be seen that there is a concentration of refusals primarily in two-member households. Regarding absences, it can be observed that there is a concentration of absences in households with 5 or more members.

No. of members	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Refusals		Absences		respond	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	7.556	100,00	4.727	100,00	2.829	100,00	64	100,00	2.754	100,00	11	100,00
Not specified	73	0,97	0	0,00	73	2,58	1	1,56	72	2,61	0	0,00
1 member	2.195	29,05	1.454	30,76	741	26,19	18	28,13	717	26,03	6	54,55
2 members	2.181	28,86	1.441	30,48	740	26,16	23	35,94	714	25,93	3	27,27
3 members	1.420	18,79	877	18,55	543	19,19	13	20,31	529	19,21	1	9,09
4 members	1.135	15,02	752	15,91	383	13,54	6	9,38	376	13,65	1	9,09
5 or more members	552	7,31	203	4,29	349	12,34	3	4,69	346	12,56	0	0,00

TABLE 4.1 Surveyable dwelling distribution by number of members.
First interview

A similar analysis was made in table 4.2, but for the **subsequent interviews**. A clear concentration of the refusals can be seen in two-member households. Regarding absences, they are concentrated in households with 5 or more members.

No. of members	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Refusals		Absences		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	16.271	100,00	12.216	100,00	4.055	100,00	113	100,00	3.937	100,00	5	100,00
Not specified	306	1,88	0	0,00	306	7,55	3	2,65	301	7,65	2	40,00
1 member	4.087	25,12	3.110	25,46	977	24,09	29	25,66	947	24,05	1	20,00
2 members	5.123	31,49	4.034	33,02	1.089	26,86	43	38,05	1.044	26,52	2	40,00
3 members	3.274	20,12	2.550	20,87	724	17,85	18	15,93	706	17,93	0	0,00
4 members	2.532	15,56	1.999	16,36	533	13,14	11	9,73	522	13,26	0	0,00
5 or more members	949	5,83	523	4,28	426	10,51	9	7,96	417	10,59	0	0,00

TABLE 4.2 Surveyable dwelling distribution by number of members.
Subsequent interviews

The following tables, both for the first interview (5.1, 6.1, and 7.1) and for subsequent interviews (5.2, 6.2, and 7.2) are tables of households classified based on the characteristics of the selected person within them, which, as previously mentioned, was obtained from the information in the **Georeferenced Address Framework**.

The tables include the distribution of the effective sample based on the different characteristics analysed, with the aim of observing the deviations it has undergone compared to the selected theoretical sample (surveyable dwellings).

In **table 5.1**, there is an analysis of the distribution of non-response **households in the first interview** from the theoretical sample, according to the age and sex of the selected person. When comparing the distribution of people in surveyable dwellings, it is noticeable that the refusals are concentrated in the *75 years old and over* range, while the absences are mainly concentrated in the *26 to 35 years old* and *36 to 45 years old* groups.

Age	Theoretical sample											
	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Refusals		Absences		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	7.556	100,00	4.727	100,00	2.829	100,00	64	100,00	2.754	100,00	11	100,00
Not specified	73	0,97	0	0,00	73	2,58	1	1,56	72	2,61	0	0,00
16-25 years old	580	7,68	360	7,62	220	7,78	4	6,25	216	7,84	0	0,00
26-35 years old	826	10,93	476	10,07	350	12,37	6	9,38	343	12,45	1	9,09
36-45 years old	1.249	16,53	754	15,95	495	17,50	6	9,38	487	17,68	2	18,18
46-55 years old	1.408	18,63	872	18,45	536	18,95	10	15,63	526	19,10	0	0,00
56-65 years old	1.180	15,62	806	17,05	374	13,22	7	10,94	367	13,33	0	0,00
66-74 years old	1.021	13,51	678	14,34	343	12,12	9	14,06	332	12,06	2	18,18
75 years old and over	1.219	16,13	781	16,52	438	15,48	21	32,81	411	14,92	6	54,55
Total men	3.550	46,98	2.170	45,91	1.380	48,78	33	51,56	1.342	48,73	5	45,45
16-25 years old	302	4,00	198	4,19	104	3,68	2	3,13	102	3,70	0	0,00
26-35 years old	387	5,12	212	4,48	175	6,19	3	4,69	171	6,21	1	9,09
36-45 years old	588	7,78	341	7,21	247	8,73	0	0,00	245	8,90	2	18,18
46-55 years old	729	9,65	413	8,74	316	11,17	8	12,50	308	11,18	0	0,00
56-65 years old	598	7,91	392	8,29	206	7,28	5	7,81	201	7,30	0	0,00
66-74 years old	456	6,03	295	6,24	161	5,69	6	9,38	154	5,59	1	9,09
75 years old and over	490	6,48	319	6,75	171	6,04	9	14,06	161	5,85	1	9,09
Total women	3.933	52,05	2.557	54,09	1.376	48,64	30	46,88	1.340	48,66	6	54,55
16-25 years old	278	3,68	162	3,43	116	4,10	2	3,13	114	4,14	0	0,00
26-35 years old	439	5,81	264	5,58	175	6,19	3	4,69	172	6,25	0	0,00
36-45 years old	661	8,75	413	8,74	248	8,77	6	9,38	242	8,79	0	0,00
46-55 years old	679	8,99	459	9,71	220	7,78	2	3,13	218	7,92	0	0,00
56-65 years old	582	7,70	414	8,76	168	5,94	2	3,13	166	6,03	0	0,00
66-74 years old	565	7,48	383	8,10	182	6,43	3	4,69	178	6,46	1	9,09
75 years old and over	729	9,65	462	9,77	267	9,44	12	18,75	250	9,08	5	45,45

TABLE 5.1 Surveyable dwelling distribution by age and sex of the selected person. First interview.

In **table 5.2**, there is an analysis of the distribution of non-response households in **subsequent interviews** in the theoretical sample, according to the age and sex of the selected person. When comparing with the distribution of surveyable dwellings, it is observed that the refusals are again concentrated in households where the selected person is *75 years old or over*. Regarding the absences, they are mainly concentrated in the *26 to 35 years old* group.

Age	Theoretical sample											
	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Refusals		Absences		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	16.271	100,00	12.216	100,00	4.055	100,00	113	100,00	3.937	100,00	5	100,00
Not specified	306	1,88	0	0,00	306	7,55	3	2,65	301	7,65	2	40,00
16-25 years old	1.346	8,27	987	8,08	359	8,85	3	2,65	356	9,04	0	0,00
26-35 years old	1.381	8,49	929	7,60	452	11,15	12	10,62	440	11,18	0	0,00
36-45 years old	2.364	14,53	1.752	14,34	612	15,09	16	14,16	595	15,11	1	20,00
46-55 years old	3.204	19,69	2.487	20,36	717	17,68	14	12,39	703	17,86	0	0,00
56-65 years old	2.721	16,72	2.165	17,72	556	13,71	21	18,58	535	13,59	0	0,00
66-74 years old	2.234	13,73	1.767	14,46	467	11,52	18	15,93	449	11,40	0	0,00
75 years old and over	2.715	16,69	2.129	17,43	586	14,45	26	23,01	558	14,17	2	40,00
Total men	7.268	44,67	5.536	45,32	1.732	42,71	46	40,71	1.685	42,80	1	20,00
16-25 years old	694	4,27	511	4,18	183	4,51	1	0,88	182	4,62	0	0,00
26-35 years old	635	3,90	420	3,44	215	5,30	7	6,19	208	5,28	0	0,00
36-45 years old	1.095	6,73	806	6,60	289	7,13	7	6,19	282	7,16	0	0,00
46-55 years old	1.578	9,70	1.210	9,91	368	9,08	8	7,08	360	9,14	0	0,00
56-65 years old	1.301	8,00	1.024	8,38	277	6,83	8	7,08	269	6,83	0	0,00
66-74 years old	959	5,89	781	6,39	178	4,39	4	3,54	174	4,42	0	0,00
75 years old and over	1.006	6,18	784	6,42	222	5,47	11	9,73	210	5,33	1	20,00
Total women	8.697	53,45	6.680	54,68	2.017	49,74	64	56,64	1.951	49,56	2	40,00
16-25 years old	652	4,01	476	3,90	176	4,34	2	1,77	174	4,42	0	0,00
26-35 years old	746	4,58	509	4,17	237	5,84	5	4,42	232	5,89	0	0,00
36-45 years old	1.269	7,80	946	7,74	323	7,97	9	7,96	313	7,95	1	20,00
46-55 years old	1.626	9,99	1.277	10,45	349	8,61	6	5,31	343	8,71	0	0,00
56-65 years old	1.420	8,73	1.141	9,34	279	6,88	13	11,50	266	6,76	0	0,00
66-74 years old	1.275	7,84	986	8,07	289	7,13	14	12,39	275	6,99	0	0,00
75 years old and over	1.709	10,50	1.345	11,01	364	8,98	15	13,27	348	8,84	1	20,00

TABLE 5.2 Surveyable dwelling distribution by age and sex of the selected person. Subsequent interviews

The distribution of non-response **households in the first interview**, based on the education level of the selected person, can be seen in **table 6.1**. In this table, individuals have been classified into the four main groups from the Census, as doing it at a higher level of disaggregation could be risky due to the coding system used in this administrative register, which in many occasions does not allow to determine a clear distinction of each person's specific education level.

Education level	Theoretical sample											
	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Negative		Absence		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	7.556	100,00	4.727	100,00	2.829	100,00	64	100,00	2.754	100,00	11	100,00
Education level not documented	115	1,52	0	0,00	115	4,07	2	3,13	113	4,10	0	0,00
Cannot read or write	290	3,84	244	5,16	46	1,63	3	4,69	42	1,53	1	9,09
Qualifications below school level	1.366	18,08	727	15,38	639	22,59	21	32,81	611	22,19	7	63,64
School graduate or equivalent	1.894	25,07	877	18,55	1.017	35,95	16	25,00	1.000	36,31	1	9,09
vocational training or equivalent, or higher	3.891	51,50	2.879	60,91	1.012	35,77	22	34,38	988	35,88	2	18,18

TABLE 6.1 Surveyable dwelling distribution by education level of the selected person. First interview

When comparing the distribution of non-responses with those of individuals in surveyable dwellings, it is observed that the refusals and absences are concentrated in the groups of people with *Qualifications below school level*, while the absences are concentrated in the group of people with *Qualifications below school level* but especially that of *School graduate or equivalent*.

Education level	Theoretical sample											
	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Negative		Absence		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	16.271	100,00	12.216	100,00	4.055	100,00	113	100,00	3.937	100,00	5	100,00
Education level not documented	370	2,27	0	0,00	370	9,12	3	2,65	365	9,27	2	40,00
Cannot read or write	659	4,05	615	5,03	44	1,09	0	0,00	44	1,12	0	0,00
Qualifications below school level	2.851	17,52	2.042	16,72	809	19,95	32	28,32	775	19,69	2	40,00
School graduate or equivalent	3.585	22,03	2.187	17,90	1.398	34,48	45	39,82	1.353	34,37	0	0,00
vocational training or equivalent, or higher	8.806	54,12	7.372	60,35	1.434	35,36	33	29,20	1.400	35,56	1	20,00

TABLE 6.2 Surveyable dwelling distribution by education level of the selected person. Subsequent interviews

In the case of the **subsequent interviews (table 6.2)**, taking the distribution of surveyable dwellings as a reference, it can again be seen that the refusals and absences are mainly concentrated in households in which the selected person has *Qualifications below school level* or is a *School graduate or equivalent*.

The distribution of surveyable dwellings according to the nationality of the selected person for households in the **first interview** can be seen in **table 7.1**. When comparing the distribution of individuals in the surveyable dwellings, it can be observed that the refusals are concentrated in the *Spanish nationals* group, while the absences are concentrated in the *dual nationality* group.

Nationality	Theoretical sample											
	Dwellings		Sample		Non-response dwellings							
	surveyable		effective		Total		Negative		Absence		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	7.556	100,00	4.727	100,00	2.829	100,00	64	100,00	2.754	100,00	11	100,00
Nationality not documented	73	0,97	0	0,00	73	2,58	1	1,56	72	2,61	0	0,00
Spanish	6.772	89,62	4.424	93,59	2.348	83,00	59	92,19	2.281	82,82	8	72,73
Foreign	711	9,41	303	6,41	408	14,42	4	6,25	401	14,56	3	27,27

TABLE 7.1 Surveyable dwelling distribution by nationality of the selected person. First interview

In the **subsequent interviews (table 7.2)**, it can be observed that the refusals are again concentrated in the group of persons with *Spanish nationality*, while the absences are concentrated in the group with *no recorded nationality* and that of *foreign nationality*.

Nationality	Theoretical sample											
	Dwellings		Households		Non-response dwellings							
	surveyable		surveyed		Total		Negative		Absence		Unable to resp	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	16.271	100,00	12.216	100,00	4.055	100,00	113	100,00	3.937	100,00	5	100,00
Nationality not docume	306	1,88	0	0,00	306	7,55	3	2,65	301	7,65	2	40,00
Spanish	15.031	92,38	11.715	95,90	3.316	81,78	106	93,81	3.208	81,48	2	40,00
Foreign	934	5,74	501	4,10	433	10,68	4	3,54	428	10,87	1	20,00

TABLE 7.2 Surveyable dwelling distribution by nationality of the selected person. Subsequent interviews

Regarding the distribution of non-responses by relationship with the person's activity, it has not been possible to create a table, as was the case in previous occasions, due to the fact that the *relationship with the person's activity* characteristic is not collected in the Census.

Table 8 shows the percentage distribution by relationship with the selected person's activity for both first and subsequent interviews in the households from the effective sample.

Relationship with the ac	Surveyed dwellings			
	First interview		Subsequent interview	
	No.	%	No.	%
Total	4.727	100,00	12.216	100,00
Not specified	568	12,02	1.458	11,94
Employed	2.017	42,67	5.260	43,06
Unemployed	229	4,84	508	4,16
Student	18	0,38	48	0,39
Housework	348	7,36	812	6,65
Pensioner	251	5,31	698	5,71
Other situation	1.296	27,42	3.432	28,09

TABLE 8. Effective sample distribution by relationship with the selected person's activity

III Estimation of the Differential Non-Response Correction Coefficient by Nationality

The differential non-response correction coefficient is a measure of the different behaviour of sample groups in relation to non-responses. Specifically, it is the ratio of the inverse of the response probability in each group. If it is close to one, it indicates that both groups have a similar behaviour. Values greater than one represent higher non-responses in the numerator group, while values below one indicate higher non-responses in the denominator group.

To carry out the estimation, the theoretical sample of dwellings has been broken down into surveyed dwellings (effective sample) and incidents. The latter have been divided into dwelling-related incidents (or frame-related incidents) and household-related incidents.

The initial approach was to separate the dwellings, both surveyed and those with any type of incident, into two groups:

- Dwellings with at least one foreigner
- Dwellings without foreigners

To carry out this breakdown, the nationality of the person was used, which was obtained from the GAF (Georeferenced Address Framework).

The **horizontal percentages** have been calculated (relative to the total number of dwellings in the theoretical sample with nationality, relative to the total of each type of incidence, and relative to the total effective sample), as well as **vertical percentages** (relative to the theoretical sample with nationality within each group of dwellings), for both dwellings where only Spanish nationals live and those with at least one foreigner.

The estimation of the differential non-response correction coefficient was calculated considering the theoretical sample in four different ways:

- With all: theoretical sample = effective sample + all incidents
- With refusals: theoretical sample = effective sample + refusals
- With absences: theoretical sample = effective sample + absences
- With refusals and absences: theoretical sample = effective sample + refusals+ absences

Table 9 presents the obtained results. Firstly, it was observed that dwellings with at least one foreigner account for 8.0 per cent of the total dwellings in the effective sample.

Other important facts worth highlighting are:

- The percentage of **empty dwellings** is very similar in both types of dwellings, dwellings with at least one foreigner and dwellings in which only Spanish nationals reside.
- **Inaccessible dwellings** were more numerous percentage-wise in those dwellings with at least one foreigner (20.4 percent) than in those where only Spanish nationals reside (7.8 percent).
- Regarding **absences**, their percentage was higher in dwellings with at least one foreigner (39.5 percent).

- The **refusal** percentage was lower in dwellings with at least one foreigner (0.4 percent).
- As usual, the percentage of **surveyed dwellings** is higher in dwellings where only Spanish nationals reside (67.2 percent).
- The **refusals / (refusals + effective sample)** ratio is over nine tenths lower in the group of dwellings in which only Spanish nationals reside.
- As for the **(refusals + absences) / (refusals + absences + effective sample)** ratio, the difference is much greater (twenty-nine points higher) in dwellings in which at least one foreigner resides).
- As for the estimation of the **differential non-response correction coefficient**, it is observed that it moves further away from one when the theoretical sample is considered to be the sum of the effective sample and all the incidences, or when only taking the refusals into account. Conversely, it reaches the lowest value when the theoretical sample is considered to be the effective sample plus the absences.

Dwellings	Total	Dwellings with at least a foreigner			Dwellings only with Spanish nationals		
		% hori- zontal	% verti- cal	Total	% hori- zontal	% verti- cal	Total
Total incidents	26.862						
Nationality not documented	745						
-Incidents involving nationality	26.117	2.101	8,04	100,0	24.016	91,96	100,0
-Inaccessible	2.304	429	18,620	20,42	1.875	81,38	7,81
In scope:							
- Empty	355	27	7,610	1,29	328	92,39	1,37
- Other purposes	8	0	0,000	0,00	8	100,00	0,03
- Previously selected	2	0	0,000	0,00	2	100,00	0,01
- Unreachable	0	0	0,000	0,00	0	0,00	0,00
In households:							
- Absences	6.318	829	13,120	39,46	5.489	86,88	22,86
- Refusals	173	8	4,620	0,38	165	95,38	0,69
- Unable to respond	14	4	28,570	0,19	10	71,43	0,04
- Surveyed (effective sample)	16.943	804	4,750	38,27	16.139	95,25	67,20

TABLE 9. Incidents in the theoretical sample by nationality of the people residing in the dwellings.

Ratios		
		%
Neg. Foreigners in theoretical sample	8	0,99
Total foreigners (effective sample + neg.)	812	
		%
Neg. Spanish nationals in theoretical sample	165	1,01
Total Spanish nationals (effective sample + neg.)	16.304	
		%
Neg. + Abs. foreigners in theoretical sample	837	51,01
Total foreigners (effective sample + neg + abs)	1.641	
		%
Neg. + Abs. Spanish nationals in theoretical sample	5.654	25,94
Total Spanish nationals (effective sample + neg + abs)	21.793	

Coefficient estimation (non-response differential propensity)

	With all	With refusals	With absences	With refu and abs.
Vxt (dwellings with foreigners, theoretical sample)	2.101	2.109	2.930	2.938
Vxr (dwellings with foreigners, effective sample)	804	812	1.633	1.641
Vyt (dwellings with Spanish nationals, theoretical sample.)	24.016	24.181	29.505	29.670
Vyr (dwellings with Spanish nationals, effective sample.)	16.139	16.304	21.628	21.793
Estimated value (Vxt/Vxr)/(Vyt/Vyr)	1,76	1,75	1,32	1,32