Instituto Nacional de Estadística

MINISTERIO DE SANIDAD

National Health Survey (NHS 2023)

Evaluation of non-response

Year 2023

Contents

I Introduction

The errors that affect all surveys can be divided into two main groups: sampling errors and non-sampling errors. The former can be estimated by statistical procedures—in the case of this survey by the Jackknife method—and consulted in the survey results.

As for **non-sampling errors**, these occur in different phases of the statistical process, and may appear before the collection of the information (deficiencies in the framework, inadequate definitions or questionnaires), during the collection (errors in the work of the interviewers, incorrect declarations or non-response on the part of the informants) and, finally, in the **post-fieldwork** (errors in coding, recording, etc.).

It is very difficult to evaluate these errors, not least because of the wide variety of causes that can give rise to them.

Standing out among these causes is non-response of the respondent units, which may be due to a refusal to respond to the questionnaire, to their absence, to the unable to answer of all the persons who live in the dwelling, or to the fact that the dwelling is inaccessible at the time of the interview.

This paper analyses non-sampling errors, bearing in mind that the data collection in this survey has been carried out using CAWI and CAPI and was conducted between August 2023 and September 2024.

II Analysis of the data

Table 1 presents the distributions, by autonomous community, of the *theoretical sample*, expressed in number of dwellings, and of the *effective sample*, expressed as the number of households surveyed, given that in each dwelling selected, all the households resident therein are investigated. It may occur that several households live together in the same dwelling, although usually there is only one household per dwelling.

An effective sample is considered to be the set of sample households that have completed the household questionnaire and at least one individual questionnaire for the selected person.

Autonomous Communities	Theoretical and effective samples			
	Theoretical sample		Effective sample	
	Dwellings	%	s	%
Total	37.147	100,00	21.077	56,74
01 Andalusia	4.560	100,00	2.678	58,73
02 Aragon	1.560	100,00	1.044	66,92
03 Asturias, Principality of	1.380	100,00	706	51,16
04 Balearic Islands	1.440	100,00	683	47,43
05 Canary Islands	1.890	100,00	879	46,51
06 Cantabria	1.189	100,00	636	53,49
07 Castilla y Leon	2.130	100,00	1.344	63,10
08 Castilla - La Mancha	1.890	100,00	1.034	54,71
09 Catalonia	3.993	100,00	1.804	45,18
10 Comunitat Valenciana	3.090	100,00	2.060	66,67
11 Extremadura	1.410	100,00	1.101	78,09
12 Galicia	2.160	100,00	907	41,99
13 Madrid, Community of	3.720	100,00	1.884	50,65
14 Murcia, Region of	1.575	100,00	1.080	68,57
15 Navarra, Comunidad Foral de	1.305	100,00	855	65,52
16 Basque Country	1.890	100,00	1.371	72,54
17 Rioja, La	1.245	100,00	582	46,75
18 Ceuta	420	100,00	203	48,33
19 Melilla	300	100,00	226	75,33

TABLE 1. *Distribution of the theoretical and effective samples by Autonomous Community*

It can be seen that at the national level, the effective sample represents 56.7 per cent of the theoretical sample, indicating that of the total number of households in the theoretical sample, nearly 57.0 per cent were surveyed.

At the Autonomous Community level, the lowest percentage corresponds to Galicia and the highest to Extremadura.

Table 2.1, which presents the distribution of the different types of dwellings of the theoretical sample by autonomous community, provides for an assessment of the incidences relating to the framework deficiencies by means of the unsurveyable

dwellings. It can be seen that the percentage of this type of housing at the national level is 8.7 per cent, varying at the autonomous community level between 3.0 per cent in Melilla and almost 16.0 per cent in Castilla-La Mancha.

At this point, it is worth noting that there may be some crossover between empty dwellings and absences (in both directions), as sometimes it is not easy to distinguish between the two types of incidents.

Inaccessible dwellings, being so small in number, are not worth mentioning.

Autonomous Communities	Sample of dwellings								
	Total	Surveyable		Non-surveyable		Inaccessible		Previously selected	
	No.	No.	%	No.	%	No.	%	No.	%
Total	37.147	33.782	90,94	3.228	8,69	129	0,35	8	0,02
01 Andalusia	4.560	4.218	92,50	328	7,19	14	0,31	0	0,00
02 Aragon	1.560	1.405	90,06	154	9,87	0	0,00	1	0,06
03 Asturias, Principality of	1.380	1.294	93,77	84	6,09	1	0,07	1	0,07
04 Balearic Islands	1.440	1.201	83,40	212	14,72	27	1,88	0	0,00
05 Canary Islands	1890	1647	87,14	226	11,96	17	0,90	0	0,00
06 Cantabria	1.189	1.098	92,35	90	7,57	1	0,08	0	0,00
07 Castilla y Leon	2.130	1.868	87,70	256	12,02	4	0,19	2	0,09
08 Castilla - La Mancha	1.890	1.586	83,92	302	15,98	2	0,11	0	0,00
09 Catalonia	3.993	3.762	94,21	223	5,58	6	0,15	2	0,05
10 Comunitat Valenciana	3090	2857	92,46	223	7,22	10	0,32	0	0,00
11 Extremadura	1.410	1.315	93,26	94	6,67	1	0,07	0	0,00
12 Galicia	2.160	1.836	85,00	319	14,77	5	0,23	0	0,00
13 Madrid, Community of	3.720	3.596	96,67	112	3,01	12	0,32	0	0,00
14 Murcia, Region of	1.575	1.336	84,83	231	14,67	8	0,51	0	0,00
15 Navarra, Comunidad Foral de	1305	1155	88,51	148	11,34	1	0,08	1	0,08
16 Basque Country	1.890	1.832	96,93	57	3,02	1	0,05	0	0,00
17 Rioja, La	1.245	1.097	88,11	146	11,73	1	0,08	1	0,08
18 Ceuta	420	388	92,38	14	3,33	18	4,29	0	0,00
19 Melilla	300	291	97,00	9	3,00	0	0,00	0	0,00

TABLE 2.1. *Distribution of the dwellings in the theoretical sample by Autonomous Community*

Table 2.2 presents the non-response in the households of surveyable dwellings, produced by the non-completion of the household questionnaire, due to refusals, absences and inabilities to answer.

In table 2.2, all percentages are calculated with respect to the total number of households in surveyable dwellings, that is, excluding unsurveyable and inaccessible dwellings, and it can be seen that the percentage of surveyed households at the national level is 62.4 per cent. In terms of autonomous communities, Extremadura stands out with the highest percentage of 83.7 percent, and at the other extreme, Catalonia with nearly 48.0 percent.

Autonomous Communities	Households in surveyable dwellings										
				Non-response							
	Total	Surveyed		Total		Refusals		Absences		answer	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
National Total	33.782	21.077	62,39	12.705	37,61	5.237	15,50	7.166	21,21	302	0,89
01 Andalusia	4.218	2.678	63,49	1.540	36,51	581	13,77	916	21,72	43	1,02
02 Aragon	1.405	1.044	74,31	361	25,69	151	10,75	208	14,80	2	0,14
03 Asturias, Principality of	1.294	706	54,56	588	45,44	156	12,06	430	33,23	2	0,15
04 Balearic Islands	1.201	683	56,87	518	43,13	174	14,49	298	24,81	46	3,83
05 Canary Islands	1647	879	53,37	768	46,63	242	14,69	480	29,14	46	2,79
06 Cantabria	1.098	636	57,92	462	42,08	182	16,58	278	25,32	2	0,18
07 Castilla y Leon	1.868	1.344	71,95	524	28,05	204	10,92	312	16,70	8	0,43
08 Castilla - La Mancha	1.586	1.034	65,20	552	34,80	294	18,54	240	15,13	18	1,13
09 Catalonia	3.762	1.804	47,95	1.958	52,05	764	20,31	1.161	30,86	33	0,88
10 Comunitat Valenciana	2857	2060	72,10	797	27,90	390	13,65	398	13,93	9	0,32
11 Extremadura	1.315	1.101	83,73	214	16,27	95	7,22	118	8,97	1	0,08
12 Galicia	1.836	907	49,40	929	50,60	398	21,68	514	28,00	17	0,93
13 Madrid, Community of	3.596	1.884	52,39	1.712	47,61	768	21,36	932	25,92	12	0,33
14 Murcia, Region of	1.336	1.080	80,84	256	19,16	155	11,60	91	6,81	10	0,75
15 Navarra, Comunidad Foral de	1155	855	74,03	300	25,97	193	16,71	90	7,79	17	1,47
16 Basque Country	1.832	1.371	74,84	461	25,16	155	8,46	302	16,48	4	0,22
17 Rioja, La	1.097	582	53,05	515	46,95	258	23,52	230	20,97	27	2,46
18 Ceuta	388	203	52,32	185	47,68	36	9,28	149	38,40	0	0,00
19 Melilla	291	226	77,66	65	22,34	41	14,09	19	6,53	5	1,72

TABLE 2.2. *Distribution of households resident in surveyable dwellings by Autonomous Community and type of incident*

Breaking down non-response into its components, the highest percentage of refusals, 23.5 per cent, corresponds to La Rioja, with Extremadura having the lowest, at 7.2 per cent. In terms of absences, Ceuta has the highest percentage, with 38.4 percent, while Melilla has the lowest, 6.5 percent. Lastly, regarding being unable to answer, despite its low importance in quantitative terms, it has the greatest relative importance in the Balearic Islands, where it represents 3.8 per cent of households in surveyable dwellings.

Table 3 shows a detailed breakdown of the incidences in dwellings of the theoretical sample, in households of surveyable dwellings and in persons selected in the surveyable dwellings.

Type of incident	Dwellings/households/persons No.	%
Incidents in dwellings		
Total	37.147	100,00
Surveyable	33.782	90,94
Non-surveyable	3.228	8,69
-Empty	2.222	5,98
-Previously selected	238	0,64
-Unreachable	768	2,07
-Other reasons	129	0,35
Inaccessible	8	0,02
Incidents in the households of surveyable dwellings		
Total	33.782	100,00
Surveyed	21.077	62,39
Non-response:		
Total	12.750	37,74
By incidents in the household:		
Total	12.705	37,61
-Refusal	5.237	15,50
-Absence	7.166	21,21
-Unable to answer	302	0,89
By incid. in the selected adult		
Total	45	0,13
-Refusal	24	0,07
-Absence	19	0,06
-Unable to answer	2	0,01
Per incid. in the selected minor		
Total	282	0,83
-Refusal	38	0,11
-Absence	229	0,68
-Unable to answer	15	0,04

TABLE 3. *Breakdown of incidents in the theoretical sample*

With regard to the incidences in dwellings, it can be seen that the greatest weight falls on empty dwellings, which represent almost 6.0 per cent of the theoretical sample. With regard to incidences in households, it can be seen that the greatest weight falls on absences (21.2 per cent) and, finally, with regard to incidences in the selected persons, it can be observed that, despite their low importance in quantitative terms, the greatest weight falls on the absence of the selected minor.

The following tables have been compiled from the information from the **Sampling Framework for Targeted Population Surveys** ***(Geo-referenced Address Framework, GAF***) used in the sample selection.

Table 4 shows the percentage distributions, by number of members, of surveyable and surveyed dwellings (both obtained from the GAF). If both are compared, taking the first as a reference, it can be seen that the percentage is higher in those dwellings with *one member*, which would indicate that non-response has been concentrated in these dwellings, or, in other words, that dwellings with *one member* would be under-represented in the effective sample with respect to the original distribution f the selected sample.

No. of members	Surveyable dwellings		Surveyed dwellings	
	No.	%	No.	%
Total	33.782	100,00	21.077	100,00
1 member	9.620	28,48	5.771	27,38
2 members	9.355	27,69	6.038	28,65
3 members	6.608	19,56	4.147	19,68
4 members	5.161	15,28	3.237	15,36
5 or more membe	3.038	8,99	1.884	8,94

TABLE 4. *Distribution of dwellings by number of members*

Tables 5.1 and 5.2 present the distributions of households with non-response, by number of members, obtained from the GAF.

Table 5.1 presents the percentage distribution of surveyable dwellings by number of members. This distribution can be taken as a valid reference for comparisons with the non-response categories, since it has been obtained from a considerable number of dwellings. Based on this benchmark, the total non-response is more evident in one-member dwellings. On the other hand, refusals are concentrated, to a greater extent, in three- and four-member households. As for absences, they are clearly recorded in single-person households. In the case of being unable to answer, since the occurrence is very low, any comparison is unrepresentative.

No. of members	Surveyable dwellings		Effective sample		Households with non-response							
					Total		Refusals		Absences		Unable to answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	33.782	100,00	21.077	100,00	12.705	100,00	5.237	100,00	7.166	100,00	302	100,00
1 member	9.620	28,48	5.771	27,38	3.849	30,3	1.347	25,72	2.405	33,56	97	32,12
2 members	9.355	27,69	6.038	28,65	3.317	26,11	1.349	25,76	1.893	26,42	75	24,83
3 members	6.608	19,56	4.147	19,68	2.461	19,37	1.136	21,69	1.286	17,95	39	12,91
4 members	5.161	15,28	3.237	15,36	1.924	15,14	888	16,96	1.008	14,07	28	9,27
5 or more members	3.038	8,99	1.884	8,94	1.154	9,08	517	9,87	574	8,01	63	20,86

TABLE 5.1 *Distribution of households with non-response by number of members*

Table 5.2 provides another perspective on the information provided by table 5.1, showing the distribution of non-responding households by household size.

No. of members	Households with non-response							
	Total		Refusals		Absences		Unable to answer	
	No.	%	No.	%	No.	%	No.	%
Total	12.705	100,00	5.237	41,22	7.166	56,40	302	2,38
1 member	3.849	100,00	1.347	35	2.405	62,48	97	2,52
2 members	3.317	100,00	1.349	40,67	1.893	57,07	75	2,26
3 members	2.461	100,00	1.136	46,16	1.286	52,26	39	1,58
4 members	1.924	100,00	888	46,15	1.008	52,39	28	1,46
5 or more members	1.154	100,00	517	44,80	574	49,74	63	5,46

TABLE 5.2 *Distribution of surveyable dwellings by number of members.*

It can be seen that the biggest difference between the percentages of absences and refusals is in the one- and two-member dwellings (27.5 and 16.4 percentage points respectively).

Table 6 shows the distribution of households with non-response of surveyable dwellings by type of household.

Level of education	Theoretical sample				Households with non-response							
	Surveyable dwelling		Effective sample		Total		Negative		Absence		Unable to answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	33.782	100,00	21.077	100,00	12.705	100,00	5.237	100,00	7.166	100,00	302	100,00
Adult only under 65	5.535	16,38	3176	15,07	2359	18,57	751	14,34	1566	21,85	42	13,91
Adult only 65 and over	3.959	11,72	2524	11,98	1435	11,29	572	10,92	809	11,29	54	17,88
Adults alone	15.258	45,17	9.871	46,83	5.387	42,40	2.370	45,25	2.892	40,36	125	41,39
Adults with minors	7.651	22,65	4.723	22,41	2.928	23,05	1.325	25,30	1.527	21,31	76	25,17
An adult with minors	1.223	3,62	690	3,27	533	4,20	194	3,70	335	4,67	4	1,32
Other type of household	156	0,46	93	0,44	63	0,50	25	0,48	37	0,52	1	0,33

TABLE 6. *Distribution of surveyable dwellings by type of household.*

A comparison of the distributions of non-response and the effective sample shows that non-response is concentrated in households with one person under 65 years of age, which confirms the findings in table 4.

In order to analyse the incidences in non-responding households (due to incidences in the household) according to sex, age, level of education and nationality of all persons residing in the household, the information from the GAF, as indicated above, will be utilised again.

Table 7 shows the distribution of non-response according to gender and age of these people. The column for the population distribution by sex and age in surveyable dwellings has been included.

If this distribution is taken as a reference and the differences are observed between the percentages of persons in non-responding dwellings and those of persons in the surveyable dwellings, it can be seen, considering only sex, that non-response takes very similar values in men and women.

Age	Theoretical sample				Households with non-response							
	Surveyable dwellings		Effective sample		Total		Refusals		Absences		Unable to answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	86.935	100,00	54.483	100,00	32.452	100,00	14.110	100,00	17.481	100,00	861	100,00
Total men	42.519	100,00	26.617	100,00	15.902	100,00	6.913	100,00	8.553	100,00	436	100,00
Under 15 years old	5.971	14,04	3.651	13,72	2.320	14,59	1.007	14,57	1.241	14,51	72	16,51
15-25 years old	5.167	12,15	3.261	12,25	1.906	11,99	890	12,87	980	11,46	36	8,26
From 26-35 years old	4.880	11,48	2.985	11,21	1.895	11,92	780	11,28	1.055	12,33	60	13,76
From 36-45 years old	6.207	14,60	3.742	14,06	2.465	15,50	996	14,41	1.389	16,24	80	18,35
From 46-55 years old	7.078	16,65	4.302	16,16	2.776	17,46	1.158	16,75	1.556	18,19	62	14,22
56-65 years old	5.872	13,81	3.879	14,57	1.993	12,53	898	12,99	1.049	12,26	46	10,55
More than 65 years	7.344	17,27	4.797	18,02	2.547	16,02	1.184	17,13	1.283	15,00	80	18,35
Total women	44.416	100,00	27.866	100,00	16.550	100,00	7.197	100,00	8.928	100,00	425	100,00
Under 15 years old	5.600	12,61	3.394	12,18	2.206	13,33	949	13,19	1.186	13,28	71	16,71
15-25 years old	4.995	11,25	3.131	11,24	1.864	11,26	824	11,45	1.000	11,20	40	9,41
From 26-35 years old	4.793	10,79	2.891	10,37	1.902	11,49	755	10,49	1.096	12,28	51	12,00
From 36-45 years old	6.113	13,76	3.708	13,31	2.405	14,53	1.039	14,44	1.305	14,62	61	14,35
From 46-55 years old	7.109	16,01	4.407	15,81	2.702	16,33	1.138	15,81	1.513	16,95	51	12,00
56-65 years old	6.258	14,09	4.101	14,72	2.157	13,03	960	13,34	1.152	12,90	45	10,59
More than 65 years	9.548	21,50	6.234	22,37	3.314	20,02	1.532	21,29	1.676	18,77	106	24,94

TABLE 7. *Distribution of persons in surveyable dwellings according to age and sex*

If we now consider gender and age, we see that non-response is concentrated in the *36 to 45* and *46 to 55* age groups, both in men and in the *under 15*, *26 to 35* and *36 to 45* age groups in women.

Doing the same considering only refusals, we can observe that the differences between percentages are generally similar to the case of total non-response, with the highest positive sign being males in the *15-25* age group.

In the case of absences, the highest differences with a positive sign are obtained for both men and women in the *26-35* age group.

Table 8 shows the distribution of non-response, according to the level of education of the household members, considering in this case only those aged 15 years and over, since this characteristic is mostly blank for minors (0 to 14 years). The distribution of these persons in surveyable dwellings has also been included.

On comparing the distributions of non-response and persons in surveyable dwellings, taking the latter as a reference, it could be said that non-response is concentrated in the modality *High school graduate or 2nd degree Vocational Training, or equivalent or higher degrees*, due to the concentration of absences, fundamentally, and of refusals in this modality.

Level of education	Theoretical sample											
	Surveyable dwelling		Effective sample		Households with non-response							
					Total		Negative		Absence		Unable to answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	75.364	100,00	47.438	100,00	27.926	100,00	12.154	100,00	15.054	100,00	718	100,00
No record of level of education	2.046	2,71	1.269	2,68	777	2,78	354	2,91	391	2,60	32	4,46
Total classified	73.318	100,00	46.169	100,00	27.149	100,00	11.800	100,00	14.663	100,00	686	100,00
Cannot read or write	1.253	1,71	841	1,82	412	1,52	165	1,40	238	1,62	9	1,31
Qualifications below the level of schooling	16.108	21,97	10.701	23,18	5.407	19,92	2.389	20,25	2.761	18,83	257	37,46
School graduate or equivalent.	26.043	35,52	16.246	35,19	9.797	36,09	4.370	37,03	5.194	35,42	233	33,97
vocational training or equivalent or higher	29.914	40,80	18.381	39,81	11.533	42,48	4.876	41,32	6.470	44,12	187	27,26

TABLE 8. *Distribution of persons in surveyable dwellings according to educational level*

Table 9 shows the distribution of persons in the dwellings with non-response, according to their nationality. The distribution according to this same characteristic of the resident persons in the surveyable dwellings has been included as a reference.

Nationality	Theoretical sample											
	Surveyable dwellings		Effective sample		Households with non-response							
					Total		Negative		Absence		Unable to answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	86.935	100,00	54.483	100,00	32.452	100,00	14.110	100,00	17.481	100,00	861	100,00
No nationality recorded	116	0,13	71	0,13	45	0,14	20	0,14	21	0,12	4	0,46
Total classified	86.819	100,00	54.412	100,00	32.407	100,00	14.090	100,00	17.460	100,00	857	100,00
Spanish	76.059	87,61	47.951	88,13	28.108	86,73	12.526	88,90	15.221	87,18	361	42,12
Foreign	10.760	12,39	6.461	11,87	4.299	13,27	1.564	11,10	2.239	12,82	496	57,88

TABLE 9. *Distribution of surveyable dwellings according to the nationality of the selected person.*

Taking this distribution as a reference, it can be seen that refusals are concentrated among people of Spanish nationality, while absences are very slightly concentrated among people with foreign nationality.

It has not been possible to obtain the distribution of persons aged 15 years old and over in the dwellings with non-response from the GAF information according to the relationship with the activity, since this characteristic is not included in the framework.

III Estimation of the differential non-response correction coefficient due to nationality

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

In order to then estimate it, the theoretical sample of surveyable dwellings has been broken down into surveyed dwellings (effective sample) and incidents. As in the previous tables, only those corresponding to households have been considered as incidents, as they are, in quantitative terms, much more important than those due to the selected persons.

The starting approach was to separate the dwellings, both those surveyed and those that had some kind of incident, into two groups:

– Dwellings in which there is at least one non-EU migrant (non-communitarian)
– Dwellings without non-EU migrants, which in turn were divided into two subgroups:
  - Dwellings with at least one EU migrant (from an EU country other than Spain)
  - Housing where only Spaniards were present

The *country of nationality*, obtained from the Population Register, has been used for the above breakdown.

The horizontal percentages have been calculated (with regard to the total dwellings of the theoretical sample with nationality, with regard to the total of each type of incident and with regard to the total of the effective sample) and vertical percentages (with regard to the theoretical sample with nationality within each group of dwellings), both for the dwellings in which there is at least one non-EU national and for those in which there are no non-EU nationals.

The estimate of the differential non-response correction coefficient has been calculated considering the theoretical sample in three different ways:

– 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 10 shows the results obtained.

Looking at this table, it can be seen that dwellings with at least one non-EU resident represent 9.1 per cent of the total surveyable dwellings in the theoretical sample. This percentage drops to 5.3 per cent in the case of dwellings with at least one EU resident.

Other highlights include the following:

– The percentage of absences is lower in dwellings with at least one non-EU national (14.3 per cent) and in dwellings with at least one EU national (15.5 per cent) than in dwellings with only Spaniards (15.6 per cent).

– The percentage of refusals is similar in dwellings with only Spaniards and in those with at least one non-EU resident (21.0 and 20.9 per cent respectively), being somewhat higher in dwellings with at least one EU resident (25.6 per cent).

– The percentage of inabilities to answer is significantly higher in dwellings where at least one EU citizen (4.7 per cent) or non-EU citizen (3.4 per cent) resides than in dwellings where only Spaniards reside (0.4 per cent). These differences can probably be explained by the lack of knowledge of the Spanish language by some EU and non-EU nationals.

– As a consequence of the different impact of the incidents, there are appreciable differences in the percentage of dwellings surveyed between that achieved in dwellings with at least one non-EU national and in dwellings where only Spaniards live (61.4 and 63.0 per cent respectively) and that obtained in dwellings with at least one EU national (54.2 per cent).

– The ratio *refusals/refusals+effective sample* can be observed to be the same for the group of dwellings without non-EU nationals (25.4 per cent) as for the group of dwellings with at least one non-EU national (13.4 per cent).

– The ratio of *refusals+absences/refusals+absences+effective sample* can be observed to be higher for the group of dwellings without non-EU nationals (37.1 percent) than for dwellings with at least one non-EU national (36.5 percent), which is due to the greater weight of absences in the latter type of dwellings.

– Regarding the estimate of the differential non-response correction coefficient, it is observed to be very close to one in the three cases considered, which indicates that the behaviour of both types of dwellings is practically the same regardless of the incidents considered, as their weights are quite evenly balanced.

Dwellings	Total	Dwellings with at least 1 non-EU nationals			Dwellings with no non-EU nationals	
			% hori zontal	% verti- cal	Total	% hori zontal
Surveyable dwellings	33.782	3.087	9,1		30.695	90,9
-Incidents	12.705	1.193			11.512	
In households:						
-Absences	5.237	442	8,4	**14,3**	4.795	91,6
-Refusals	7.166	645	9,0	**20,9**	6.521	91,0
-Unable to answer	302	106	35,1	**3,4**	196	64,9
-Surveyed **(effective sample)**	21.077	1.894	9,0	**61,4**	19.183	91,0

(Conclusion)

Dwellings	Dwellings with no non-EU nationals					
	Dwellings with at least 1 EU national			Spaniard-only dwellings		
		% hori zontal	% verti- cal		% hori zontal	% verti- cal
Surveyable dwellings	1.776	5,3		28.919	85,6	
-Incidents	814			10.698		
In households:						
-Absences	276	5,3	**15,5**	4.519	86,3	**15,6**
-Refusals	454	6,3	**25,6**	6.067	84,7	**21,0**
-Unable to answer	84	27,8	**4,7**	112	37,1	**0,4**
-Surveyed **(effective sample)**	962	4,6	**54,2**	18.221	86,4	**63,0**

	Ratios	
		%
Refs. non-EU theoretical sample	645	25,4
Total non-EU (eff. sample + refs.)	2.539	
Refs. remainder theoretical sample	6.521	25,4
Total remainder (eff. sample + refs.)	25.704	
		%
Refs. + Abs. non-EU theoretical sampl	1087	36,5
Total non-EU (eff.samp. + ref. + abs.)	2.981	
Refs. + Abs. remainder theoretical sam	11.316	37,1
Total remainder (eff.samp.+ refs + abs	30.499	

Coefficient estimate (propensity for non-response differential)

	With refusals	With absences	With refs. and abs.
Vxt(dwel. w/ theor.samp.extraction)	2.539	2.336	2.981
Vxr(dwel. w/ eff.samp.extraction)	1.894	1.894	1.894
Vyt(dwel. w/o theor.samp.extraction)	25.704	23.978	30.499
Vyr(dwel. w/o eff.samp.extraction)	19.183	19.183	19.183
Estimated value (Vxt/Vxr)/(Vyt/Vyr)	1,00	0,99	0,99