



Response based quality assessment in the ESS – Round 3

An update for 23 countries

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INTRODUCTION

Twenty-five countries participated in the third round of the European Social Survey (ESS). To achieve a high degree of cross-country comparability of results, several protocols were set out. This paper makes an assessment of data quality based on contact forms. Interviewers – as well as fieldwork organizations – tend to underestimate the importance of contact forms. Yet a lot of information can be derived from them. They are an important tool to measure nonresponse bias on the one hand and to decrease it on the other. An efficient contact procedure will also result in a higher response rate and lower fieldwork costs. In this analysis, countries which completed their final contact dataset and met our standards¹ by the end of 2008 have been included. This means twenty-three of the twenty-five participating countries.

In the first part of this report, an overview will be given of the samples of the participating countries and a rough evaluation of the contact forms will be made. In the process of data collection, many different actors participate, so mistakes can slip into the data at different moments of the data collection. Such mistakes (inconsistent or missing information) can originate from the interviewer, the respondent, the fieldwork organisation or the person who processes the paper contact form to produce the dataset. In some countries, there exist strict legal rules on the practice of surveys, which may mean a restriction on the data that can be collected or the sample units that can be approached.

In a second part, an evaluation will be made of the achieved results. A 70% target response rate was set by ESS but most countries did not manage to reach this figure. The response, refusal and non-contact rates will be discussed and the degree to which these rates are stable over time will be assessed. This of course can only be done for the 19 countries which participated in at least the last two rounds.

In a third part, Round 3 fieldwork efforts will be evaluated. Several contact protocols were written out by ESS but these are not always put into practice. Furthermore, it turns out that there is no clear-cut positive correlation between the amount of effort made by interviewers and the achieved response rates. This is where the aspect of contactability comes in and the usefulness of a uniform contact protocol is questioned. Refusal conversion efforts will also be evaluated in terms of their effect on final response rates through a comparison with the conversion efforts made in the two previous rounds.

In a final part, some overall conclusions will be drawn, and some loose ends in the data quality assessment will be discussed.

¹ Our standard procedure is to first test through an algorithm whether from each contact file a clear final status can be derived.

PART I – DESCRIPTION OF THE SAMPLES AND THE ESS CONTACT FORM

1.1. THE SAMPLES AND SAMPLE SIZES

Table 1 below gives the sample types of the twenty-three countries which have delivered a definite dataset and met our standards. Three different sample types were used: individual named sample, household sample and address sample.

Table 1. Sample types of countries, Round 3

Country	Sample type*	Country	Sample type*
Austria (AT)	AD	Norway (NO)	IND
Belgium (BE)	IND	Poland (PL)	IND
Bulgaria (BG)	HH	Portugal (PT)	HH
Cyprus (CY)	HH	Romania (RO)	AD
Denmark (DK)	IND	Russia (RU)	AD
Finland (FI)	IND	Slovenia (SI)	IND
France (FR)	HH	Slovakia (SK)	IND
Germany (DE)	IND	Spain (ES)	IND
Great Britain (GB)	AD	Sweden (SE)	IND
Ireland (IE)	AD	Switzerland (CH)	HH
Hungary (HU)	HH	Ukraine (UA)	AD
Netherlands (NL)	AD		

*IND: individual named sample; HH: household sample; AD: address sample

The total sample sizes vary between 1481 units in Cyprus and 5712 units in Germany (**Table 2**). For the measurement of the response rates, only the eligible sample units are taken into account. Following categories are left out of consideration because of ineligibility:

- respondent deceased
- derelict or demolished house
- not yet build or not ready for occupation
- not residential/business
- not residential/institution
- not occupied
- respondent moved, out of country
- other ineligible
- invalid profile²

² This category only refers to Belgium, where for 118 sampled units the profile (age and gender) according to the database did not match the age and gender of the respondent.

The categories that are counted here as ineligibles exceeds the categories according to the ESS-protocol. But because the categories of ineligibility will be expanded for Round 4, they are kept here this way. **Table 2** gives an overview of the total and eligible sample sizes, and the number of ineligibles (with the percentage ineligibles of the total sample size).

Table 2. Sample sizes of countries, Round 3

	Total sample size	Eligible sample size	Number of ineligibles
AT	3800	3760	40 (1.1%)
BE	3249	2947	302 (9.3%)
BG	2357	2162	195 (8.3%)
CH	3710	3601	109 (2.94%)
CY	1481	1479	2 (0.1%)
DE	5712	5508	204 (3.6%)
DK	3000	2964	36 (1.2%)
ES	3290	2832	458 (13.9%)
FI	3000	2946	54 (1.8%)
FR	4680	4320	360 (7.7%)
GB	4752	4402	350 (7.4%)
HU	2635	2298	337 (12.8%)
IE	3400	3227	173 (5.1%)
NL	3254	3159	95(2.9%)
NO	2750	2718	32 (1.2%)
PL	2574	2451	123 (4.8%)
PT	3135	3054	81 (2.6%)
RO	3210	2975	235 (7.3%)
RU	3551	3507	44 (1.2%)
SE	3000	2939	61 (2.0%)
SI	2340	2273	67 (2.9%)
SK	2500	2413	86 (3.4%)
UA	3014	3011	3 (0.1%)

Some countries clearly have a bigger group of ineligibles than other countries. This might be due to the quality of the database in which the sample is drawn. Some countries were allowed to use national registers to draw a sample, while other countries had to be inventive and make use of other sources like commercial databanks. This is for example the case in Belgium, where in Round 3 one could not

use the National register of individual inhabitants anymore because of problems with the Commission for Privacy Protection³. This resulted in a larger number of ineligibles than in the former two rounds when the use of the National Register was still allowed.

1.2. THE ESS CONTACT FORM

The contact form is extensive and offers – when filled in correctly – a huge insight in the contact procedure. Next, the variables of the contact form are described followed by the legal or organisational impediments which prevented the correct completion of it. After that, the quality of the contact forms will be discussed.

1.2.1. *Contact form variables*

Following items are questioned in the contact form:

- exact timing of the contact attempt (day, date, month, hour and minute)
- the result of the visit
- the exact outcome of the contact attempt in case of contact but no interview
- in case of refusal:
 - reason for refusal
 - estimation of future cooperation probability
 - estimation of age and gender
- in case of ineligibility, reason for ineligibility
- four neighbourhood characteristics

The standard contact form contained space for the registration of up to ten contact attempts, made by three different interviewers, and up to three refusals. Most countries added extra variables in order to register a higher order of contact attempts, refusals or different interviewers. **Table 3** below gives a view of how many variables were added by each country.

The availability of extra variables to register a higher number of contact attempts, does not necessarily imply that a substantial amount of the sampled units are in fact contacted that often. **Table 4** below gives the percentages of the total number of sampled units that are attempted to contact a certain number of times.

³ For more information on this, see the Research note by J. Billiet “*Survey among national coordinators of European Social Survey Round 3 on sampling and privacy regulations in their country.*”

Table 3. Extra variables added to questionnaire, Round 3

	A higher number of contact attempts	A higher number of refusals	A higher number of different interviewers
AT			
BE	20 attempts		
BG			
CH	93 attempts	8 refusals	15 interviewers
CY			
DE	27 attempts		4 interviewers
DK	20 attempts		
ES	30 attempts		
FI			
FR	12 attempts	4 refusals	
GB			
HU			
IE	12 attempts		
NL			4 interviewers
NO			
PL			
PT			
RO			
RU		4 refusals	
SE	35 attempts	7 refusals	
SI			
SK			
UA			

The availability of extra variables to register a higher number of contact attempts, does not necessarily imply that a substantial amount of the sampled units are in fact contacted that often. **Table 4** below gives the percentages of the total number of sampled units that are attempted to contact a certain number of times.

Table 4. Percentages of attempts made in each country, Round 3

	Number of attempts made					
	<11	11-15	16-20	21-30	31-40	41-93
AT	100					
BE	99.78	2.06	0.12	.	.	.
BG	100	.	.	.	.	.
CH	82.94	7.13	2.99	2.56	1.1	3.28
CY	100	.	.	.	.	.
DE	99.24	0.69	0.06	0.02	.	.
DK	99.3	0.63	0.06	.	.	.
ES	98.75	1.09	0.15	.	.	.
FI	100	.	.	.	.	.
FR	99.8	0.19		.	.	.
GB	100	.	.	.	.	.
HU	100	.	.	.	.	.
IE	99.47	0.53				
NL	100	.	.	.	.	.
NO	100	.	.	.	.	.
PL	100	.	.	.	.	.
PT	100	.	.	.	.	.
RO	100					
RU	100	.	.	.	.	.
SE	89.49	5.4	2.33	2.19	0.57	.
SI	100	.	.	.	.	.
SK	100	.	.	.	.	.
UA	100					

The table shows that in every country the bulk part of the sampled units are attempted to be contacted between one and ten times. For example, in Belgium, the contact form foresaw the registration of up to 20 contact attempts, but for most sampled units, the number of contact attempts lies between one and ten. In total, for only 2.18% of the sampled units, more than eleven contact attempts were made. The same story can be told for the rest of the countries which adapted the contact form for the registration of more than ten attempts. Switzerland and Sweden are exceptions on this. In Sweden, where up to 35 attempts could be registered, a substantial amount of the sampled units got attempted to be contacted more than ten times. In Switzerland the fieldworkers could register up to the impressive number of 93 contact attempts. Though, only 3.2% of the sampled units got attempted to be contacted more than 40 times. Furthermore, Switzerland made extensive use of the telephone mode to contact their sampled units.

1.2.2. Legal and organizational impediments

The impediments on fieldwork could derive from legal restrictions, beyond the decision field of the fieldwork organisation, or sometimes directly result from decisions made by the organisation. Denmark, Norway and Sweden had to deal with strict legal impediments on fieldwork. In Cyprus, Great-Britain, Slovenia and again Norway, there were decisions taken directly by the fieldwork organisation.

In **Denmark**, people can put themselves on a list which makes it impossible to contact them for the purpose of surveys. Of the total sample, 360 people appeared on this list and therefore could not be legally contacted. Because it is seen as a refusal on forehand, these 360 units were coded as refusals, which increased the refusal rate.

In **Norway**, extensive use was made of the telephone for the first contact attempts. Nonetheless, the Norwegian fieldwork organisation decided that when no one picks up the phone, the interviewer was not allowed to register the attempt as a non-contact. Only in case of an attempt at the door, the interviewer was allowed to register a contact attempt as a non-contact. The argumentation for this from the fieldwork organisation is that the ESS is a face-to-face survey and that the telephone is only to be used to set up an interview. This brings down the average number of attempts that had to be made before the first contact was achieved and may give the impression that the contactability among Norwegians is very high. Another problem was that the neighbourhood characteristics could not be registered because of a legal restriction.

In **Sweden** it is not allowed to register any information about people who refuse participation. As such, the estimation of age and gender could not be made in case of a refusal. Also, as in Norway, it is not permitted to register any neighbourhood characteristic.

In **Cyprus**, fieldwork was stopped prematurely. Fieldwork was stopped when the target response rate of 70% was reached, though this response rate was calculated as the percentage of interviewed units to all the attempted units at that moment: 1100 sampled units. In fact, the complete sample for Cyprus consisted of 1481 units, so 381 units never got attempted to contact at all. To compensate these not attempted units, 381 units got aggregated to the dataset afterwards and coded as 'other nonresponse'. Of course this brought down the Cypriot response rate, and caused a very high 'other nonresponse' rate.

In **Great Britain**, 87 contact forms were lost. These 87 units were interviewed, but no contact information is available. Another issue is that the contact form only left space to the registration of up to ten contact attempts, while more than ten attempts were made. Also in **Germany, Ireland, Slovenia and Slovakia**, this problem of missing contact forms is found.

1.2.3. Completeness and internal consistencies

On the incoming contact datasets, we performed extensive quality checks in an iterative way⁴. The respective countries received several reports with the request to

⁴ For details on the checks that have been made, see appendix 1.

adjust the dataset where necessary. Most countries were very cooperative and made the corrections as far as they were able to do. Though, even after several checks and corrections, most datasets are not faultless. Only the mistakes that were due to the processing of the paper contact form into the dataset could be corrected afterwards by looking up the original PAPI-version. Also, in some cases missing information can be retrieved by looking up data in the database which was used to draw the sample. For example in Poland this is the case for the missing information on gender and age.

Table 5 below gives an overview of the inconsistencies that occur in the datasets. According to the outcome on one variable, some questions might become inapplicable while others become mandatory to fill in. Internal inconsistencies in the dataset occur when the questionnaire trail was not properly filled in followed by the interviewer. Sometimes it might be impossible for the interviewer to fill in a variable when the respondent is not willing to fully cooperate. Several tests were performed on the datasets. Following inconsistencies or missing information remain in the definite datasets⁵:

1. Number of contact forms must match the number of sample units. Also, the final status in the main file must match with that in the contact file. But this was not always the case.
2. The contact procedure does not end when it should end - this means after that a valid interview was achieved or after an address was found to be ineligible.
3. The registration of a refusal is insufficient – in case of a refusal, several variables have to be filled in (the number of visit at which the refusal occurred, an estimation of the future cooperation probability, the reason for refusal and the estimation of age and gender of respondent).
4. The exact date and time of the contact attempt have to be filled in. In many cases there is a missing value on day, date, month, hour or minute of the attempt. In addition, subsequent attempts have to be sorted chronologically and the weekday and date of the attempt have to correspond to the calendar.
5. Depending on the result of the attempt, extra information has to be given. In case of a contact but no interview, the reason for nonresponse has to be given (refusal, respondent is not able). In case an address was found to be ineligible, the reason for ineligibility had to be given (derelict house, address not residential-institution, etc.). There has to be a correspondence between the number of attempts according to the different contact trails. For example, when there are seven different dates reported, also seven results should be filled in.
6. Observable information on neighbourhood characteristics must be recorded in all sample units.

⁵ Codes '9' or '99' – information not available - were accepted as valid codes by the ESS-protocol. Though the purpose here is to find out how much useful information there is available in the contact dataset, and as such these codes are counted here as missing information.

Table 5. Missing information or inconsistencies in dataset, Round 3

1. #contact forms		2. End of procedure		3. Correct registration in case of refusal				4. Registration of the timing of visit			5. Registration of the results of the contact attempt				6. Observable information	Sample size
(1) Missing CF	(2) Mismatch between main file & contact file	(3) No end after 'ineligible'	(4) No end after 'interview'	(5) Timing inconsistent	(6) Missing: COOP & RERSA	(7) Missing: AGER	(8) Missing: GNDRR	(9) Chronology	(10) Inconsistency date & day	(11) Missing timing info.	(12) No info. on RESULB	(13) No info. On OUTNIA.	(14) No info. ineligibility	(15) Total # attempts	(16) Missing info. Neighbourhood***	
AT				10				7		12795		35		3800	8	3800
BE		29	10	5				2							69	3249
BG															36	2357
CH		139			9	702	702			3				1058	41	3710
CY														2	389	1481
DE	163	18		17	356	436*	429*			1083	273		10	88	2176	5712
DK					5					44		480		1	13	3000
ES		21		284	282	160	146						14	21	26	3290
FI		3			5							2			96	3000
FR		140				28	6					1	94		1078	4680
GB	87	92	2		19					109	107			393	141	4752
HU		47				11	11								152	2635
IE	660		22		205	56	195			1716	134				1248	3400
NL				5	234	120	60	3	6	38	4	184	2	38	32	3254
NO		1	5		9					92	91	1	4	11	N.A.	2750
PL					44					58	7	72			108	2574
PT												6312			10	3135
RO				373	373			1	2		77			1	15	3210
RU						680**	680**								209	3551
SE		60	1			673	673								N.A.	3000
SI	92	12	6	114	114			1	126	255	4	895	11	854	280	2340
SK	33		2	4	16	145	43	44		82	15	1260	33		91	2500
UA		6		2	318	318	11		1	26	54		351	3	8	3014

* In Germany, there were in case of a refusal some questions were asked (age and gender) instead of being observed by the interviewer.

** This was household refusal.

*** It is noted missing when one of the neighbourhood variable is missing (4 variables must be collected).

Contents of each column:

- (1) When the final status is recorded as 'missing contact forms', this is highlighted.
- (2) When the final status in the main file does not match with that in the contact file, this is highlighted.
- (3) When the outcome of a contact attempt was "address not eligible", it is expected that the contact procedure ends.
- (4) When the outcome of a contact attempt was "valid interview achieved", it is expected that the contact procedure ends.
- (5) The visit at which a refusal occurred according to the variable 'REFVIS' has to coincide with the report of a refusal for that visit in the variable 'OUTNIA' (outcome in case of no interview).
- (6) In case of a refusal, the interviewer has to make an assessment of the future cooperation probability of the respondent, and the reason for refusal has to be filled in.
- (7) In case of a refusal, the interviewer has to make an estimation of the age of the sample unit.
- (8) In case of a refusal, the interviewer has to fill in the gender of the sample unit.
- (9) Subsequent contact attempts have to be sorted out chronologically.
- (10) The registered weekday and date should correspond to the calendar.
- (11) No missing value should be recorded on date, month, day, hour or minute of the contact attempt.
- (12) No missing information on the RESULTB-variable should be recorded.
- (13) When the outcome of a contact attempt was "contact but no interview", a more specific outcome has to be filled in (OUTNIA). In these cases, there was either no OUTNIA-code filled in when it had to, or the OUTNIA-code was inconsistent with the RESULTB-code.
- (14) When the outcome of a contact attempt was "address not eligible", the reason for ineligibility has to be given.
- (15) The total number of contact attempts according to the variable "TOTCINT" has to be the same as the total number of attempts according to the successive contact trails (registered dates, days, results, ...).
- (16) Interviewers must assess the observable information (4 variables on neighbourhood characteristics) for eligible sample units.

When taking a look at the table with inconsistencies, it is striking that some issues are more prone to mistakes than others. This might imply that the structure of the contact form questionnaire created vagueness and confusion for the interviewer filling it out. The biggest problems occur when reporting a refusal. In case of a refusal, a certain questionnaire trail has to be followed by the interviewer, in order to obtain at least some basic information about the respondent. An estimation of age, gender, the reason for refusal and an estimation of the likelihood that the respondent will cooperate when he would be contacted again, has to be filled in. Another difficulty is the registration of a more specific outcome in case there was a contact but when no interview was achieved. This is a very important variable in evaluating the contact procedure. It gives the number of how many sample units were ineligible, who refused (the respondent himself, a proxy or the household), whether the respondent moved out of the country, etc. Finally there appears to be a lot of missing information on the timing of the contact

attempt. In most cases it concerns a missing value on the hour or minute of the contact attempt. This is an important variable for measuring the effectiveness of contact attempts at a certain moment (for instance, evenings vs. daytime) in time and without this information the contact procedure cannot be evaluated properly.

In some countries the interviewers made more mistakes than in other countries. This might be an indication that some countries have paid more attention to the selection, training and follow-up of their interviewers than others. Some countries managed to deliver almost faultless datasets while in some other countries more missing information or inconsistencies were found. Though at this point, three things have to be kept in mind. First, also the size of the dataset should be taken into account. As was seen earlier, in Switzerland up to 93 contact attempts were made, so it is logic that more mistakes will occur.

Second, not every mistake has the same impact on the data-quality. As was discussed earlier, especially the variables on timing of the attempt and outcome in case of no interview are very important to evaluate the data and to draw conclusions for future improvement of the contact procedure. When taking into account the frequency of inconsistencies in the dataset and the impact of these inconsistencies on the data quality, for four countries in particular the use of the dataset in analysis might be problematic. In Austria, Germany and Ireland, for a very high number of attempts the exact timing of the attempt is not known. In Portugal, Slovenia and Slovakia, the information on 'outcome in case of no interview' is frequently not filled in by the interviewer (or filled in an inconsistent way). This means that insufficient information is available about the reason for non-cooperation by the sampled unit.

A third aspect to keep in mind is that sometimes the interviewer is simply not able to fill in all the required information. In case of a refusal, the age and gender of the respondent had to be filled in. So it is obvious that the type of refusal – whether it concerns a refusal by the respondent, by proxy or by household – has a substantial impact on the completion⁶. In case of a household refusal before the selection of the respondent was made, no estimation of age and gender could be made. This way also the sample type that can affect the completion rate. **Table 6** below gives an overview of the amount of substantial information on the variables age and gender in case of a refusal according to the type of refusal. For example in Russia (address sample), the biggest proportion of the refusals happened by the household. This explains the high number of missing information on age and gender in case of a refusal. When only considering the cases where there was a refusal by the respondent himself, in 80% of the cases age and gender were estimated. In Sweden the interviewer was not allowed to fill in the estimated age and gender because of legal restrictions. This makes that in 0% of the refusals, information on age or gender is available.

⁶ Demographic information on refusal by proxy will be collected in Round 4.

Table 6. Complete information on age and gender according to type of refusal, Round 3

% filled in Total	Estimation of age			Estimation of gender			Total refusals
	Refusal by respondent	Refusal by proxy	Refusal by household	Refusal by respondent	Refusal by proxy	Refusal by household	
AT	97.83%	40.13%	1.91%	100.00%	53.50%	4.46%	912
	598	157	157	598	157	157	
BE	94.07%	79.07%	55.56%	98.63%	93.02%	77.78%	710
	658	43	9	658	43	9	
BG	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	565
	177	31	357	177	31	357	
CH	12.57%	6.17%	44.66%	13.29%	6.17%	50.43%	1467
	692	81	694	692	81	694	
CY	100.00%	100.00%	98.15%	100.00%	100.00%	100.00%	60
	5	1	54	5	1	54	
DE*	69.39%	0.00%	.	69.96%	0.00%	.	1400
	1235	165	.	1235	165	.	
DK	97.63%	89.55%	0.00%	99.43%	100.00%	100.00%	1122
	1054	67	1	1054	67	1	
ES	73.51%	32.15%	100.00%	81.37%	64.29%	100.00%	615
	585	28	2	585	28	2	
FI	100.00%	100.00%	.	100.00%	100.00%	.	683
	634	49	.	634	49	.	
FR	95.21%	94.44%	36.06%	98.69%	100.00%	32.41%	1754
	459	36	1259	459	36	1259	
GB	89.03%	50.00%	35.21%	93.71%	73.19%	26.67%	1174
	556	138	480	556	138	480	
HU	97.44%	42.86%	6.25%	98.14%	75.51%	6.25%	607
	430	49	128	430	49	128	
IE	62.87%	61.11%	37.88%	62.87%	66.67%	42.42%	444
	342	36	66	342	36	66	
NL	90.66%	73.17%	37.10%	94.91%	85.36%	36.29%	1052
	846	82	124	846	82	124	
NO	99.39%	100.00%	100.00%	99.39%	100.00%	100.00%	703
	657	43	3	657	43	3	
PL	100.00%	100.00%	.	100.00%	100.00%	.	400
	303	97	.	303	97	.	
PT	100.00%	12.60%	17.15%	100.00%	17.72%	19.34%	640
	112	254	274	112	254	274	
RO	100.00%	100.00%		100.00%	100.00%		526
	275	251		275	251		

RU	80.00%	80.00%	0.32%	100.00%	100.00%	0.31%	
	160	35	642	160	35	642	837
SE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	638	32	3	638	32	3	673
SI	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	303	51	7	303	51	7	361
SK	87.54%	60.66%	71.43%	91.81%	77.05%	92.86%	
	281	61	14	281	61	14	356
UA	93.74%	50.00%	27.75%	95.64%	53.33%	27.17%	
	527	30	173	527	30	173	730

* See note under Table 5 for likely reason of this low number.

A last quality check on the dataset is the amount of missing values on the neighbourhood variables. These had to be filled in for every eligible sampled unit. There were four neighbourhood variables: TYPE (type of house respondent lives in), PHYS (physical state of the building and dwellings in the area), LITTER (how common rubbish is lying around the immediate area) and VANDA (how common vandalism, graffiti or deliberate damage is to property). In general, when one of the neighbourhood variables is missing (or answered as 'information not available'), all other neighbourhood variables are also missing. That is why they are treated as one variable in the table below. **Table 7** gives the percentages of missing information on the neighbourhood variables by the final contact outcome (interviewed, non-contact, refusal or other). The percentages in each column refer to the percentage of that particular group. For example in Belgium, of all the interviewed sampled units, for 0.83% there is no information for one of the four neighbourhood variables.

Table 7. Missing information on neighbourhood variables by type of sample units, percentages, Round 3

Estimation of TYPE, PHYS, LITTER and VANDA					
Country	CONTACT OUTCOME				Eligible sample*
	Interviewed	Non-contact	Refusal	Not able/Other	
AT	0.00	0.00	0.00	8.42	0.21
BE	0.83	0.00	0.85	13.56	2.34
BG	0.00	0.00	0.00	25.90	1.67
CH	0.67	3.75	0.82	5.53	1.14
CY	0.20	3.13	5.00	97.70	26.30
DE	27.09	71.01	43.43	63.54	39.51
DK	0.20	0.00	0.80	0.42	0.44
ES	0.43	0.00	0.33	6.45	0.92
FI	1.58	2.53	4.98	10.42	3.26
FR	13.39	33.92	33.92	40.96	24.95
GB	0.09	0.32	2.39	17.74	3.20
HU	5.61	25.37	4.94	18.52	6.61
IE	21.22	62.46	44.37	60.53	38.67
NL	1.06	1.23	0.38	5.11	1.01
NO	100.00	100.00	100.00	100.00	100.00
PL	2.15	16.13	5.00	15.23	4.41
PT	0.36	0.00	0.16	1.27	0.33
RO	0.51	0.34	0.57	0.00	0.50
RU	2.95	18.97	11.35	15.25	5.96
SE	100.00	100.00	100.00	100.00	100.00
SI	1.76	23.08	18.56	46.11	12.32
SK	1.13	12.90	3.09	24.24	3.77
UA	0.20	0.63	0.41	0.00	0.27

* This column gives the percentage of the complete eligible sample having at least one missing value for neighbourhood variables.

The extent to which the neighbourhood variables are filled in by the interviewer gives a view of the compliance by the interviewer. For these variables, the completion rate shouldn't be much affected by the sample type because interviewers could fill it in without any cooperation by the respondent. Nonetheless, when taking into account the different groups of sample unit, it can be concluded that the compliance by the interviewer to fill in the neighbourhood variables is largest when it concerns interviewed units, and is smallest for the non-contacts.

From the column 'proportion item non-response (INR) for eligible sample units', it can be concluded that there exist large cross-country differences in the compliance by

interviewers to fill in the neighbourhood variables. In six countries (AT, DK, ES, PT, RO, UA) the percentage missing is less than one percent. Seven countries had a percentage missing higher than 10 percent with four countries of those seven (CY, DE, FR, IE) even having a percentage missing higher than 20 percent. In Norway and Sweden, neighbourhood variables could not be registered due to legal restrictions (See section 1.2.2).

From this section, it is clear that the datasets of the contact forms are not problem-free. Problems and mistakes can arise at different stages of the fieldwork, and their impact on the data quality can go from minor to major ones. For more details on the problems that still occur with the definite contact dataset, and which may have implications when analyzing this dataset, see appendix 2. These issues will be kept in mind in completing the quality assessment of contact procedure.

PART II – DATA QUALITY ASSESSMENT IN ROUND 3 & COMPARISONS WITH ROUNDS 1 & 2

In this section, the data quality will be evaluated based on the achieved response, non-contact and refusal rates. First the achieved results for the third round of the ESS will be discussed, second a comparison with the former rounds will be made. The exact numbers on which the figures are based, can be consulted in appendix 3.

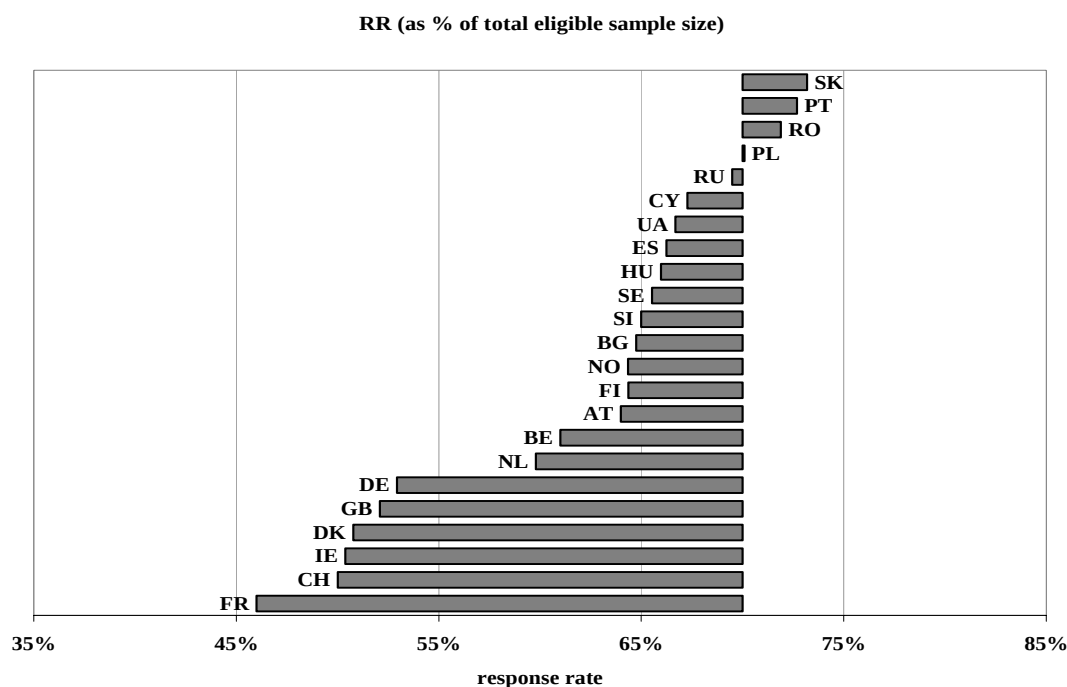
2.1. ACHIEVED RATES IN ROUND 3

Following goals were set out by the ESS:

- Minimum 70% response rate
- Maximum 3% non-contact rate
- These rates are calculated for the total eligible sample size

The standard set out by ESS was a 70% response rate of the eligible sample size. **Figure 1** depicts the achieved response rates, expressed as percentages of the total eligible sample size.

Figure 1. Response rates, Round 3
(deviations from target response rate 70%)

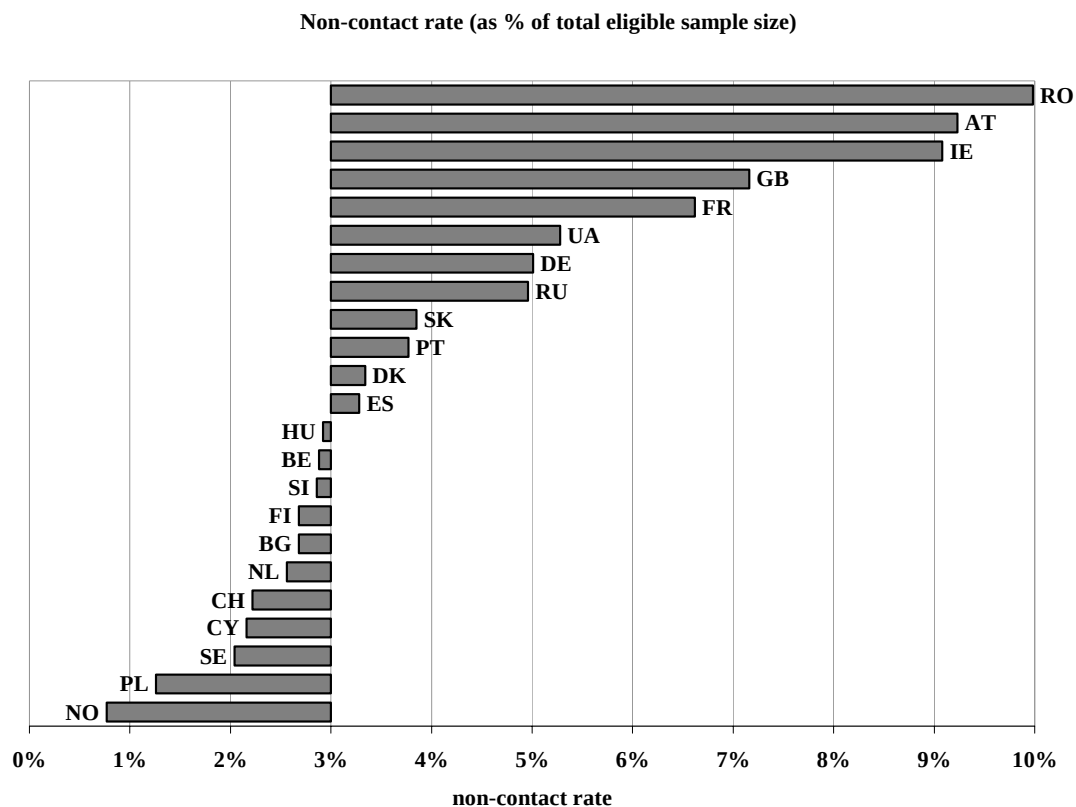


Four countries (SK, PT, RO, PL) reached the ESS target response rate of 70%. Thirteen countries (RU, CY, UA, ES, HU, SE, SI, BG, NO, FI, AT, BE, NL) reached rates between

60 and 69%. The remaining six countries (DE, GB, DK, IE, CH, FR) reached rates between minimum 46 and maximum 53%.

Another ESS-standard was a maximum non-contact rate of 3%. Again for the calculation of this rate, the ineligible units are left out of consideration. **Figure 2** represents the non-contact rates in Round 3 as deviations from the target maximum non-contact rate of 3%.

Figure 2. Non-contact rates, Round 3
(deviations from target non-contact rate 3%)



Different than for the postulated 70% response rate, the target maximum non-contact rate seems to be easier to accomplish. Eleven countries (HU, BE, SI, FI, BG, NL, CH, CY, SE, PL, NO) all achieved a non-contact rate below the 3%. Spain, Denmark, Portugal, and Slovakia exceeded the 3% target by less than 1 percent point. Seven countries (DE, UA, FR, GB, IE, AT, RO) had a non-contact rate of five percent or more.

As was also the case for ESS Round 2, good response rates do not necessarily coincide with low non-contact rates and vice versa. This is again shown in the aforementioned figures of Round 3. While Portugal and Romania achieved high response rate, it now exceeded the maximum non-contact rate (3.77% and 9.98%). Also Russia had a good response rate, but scores amongst the higher non-contact rates. On the other hand,

countries with a response rate below 60% do not necessarily have a high non-contact rate. Switzerland had a low response rate of 50%, but only a non-contact rate of 2.22%.

The absence of a clear relation between response rates and non-contact rates, was already explained in Round 2 by the fact that non-contacts do not make up the bulk part of the nonrespondents. The data assessment of Round 2 showed that, if the non-respondent group is decomposed in 'non-contacts', 'refusals' and 'not able/other', the refusals form the largest part of the nonresponse. **Figure 3** shows the outcome of the decomposition of nonresponse in Round 3⁷.

Figure 3. Achieved response, non-contact and refusal rates, Round 3

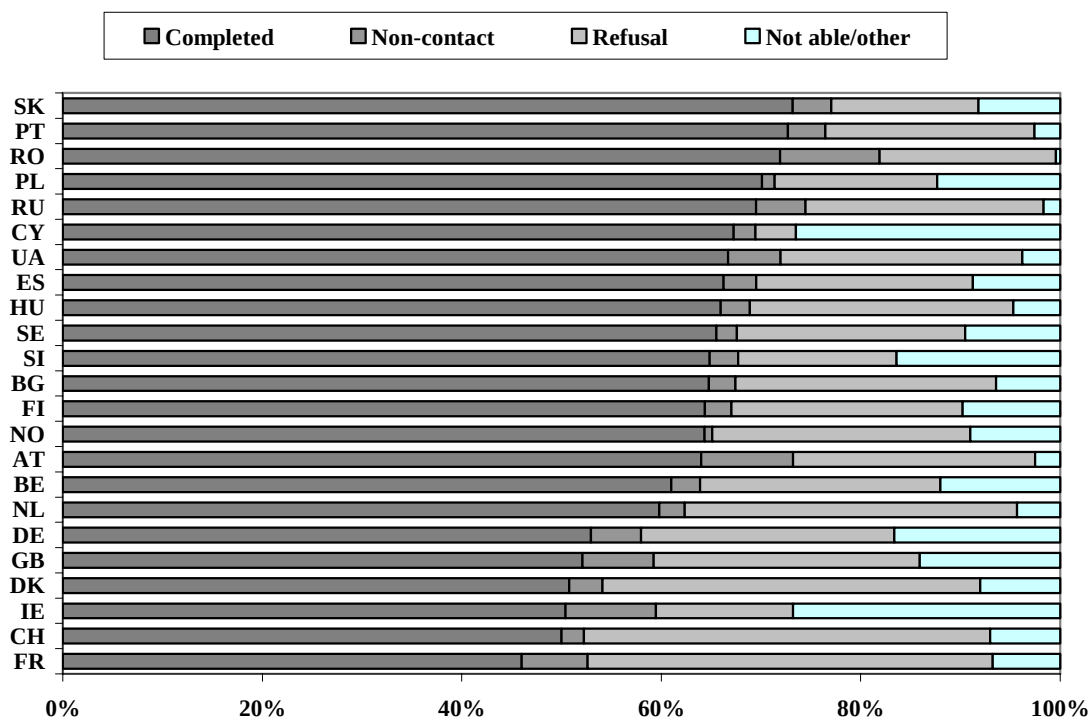
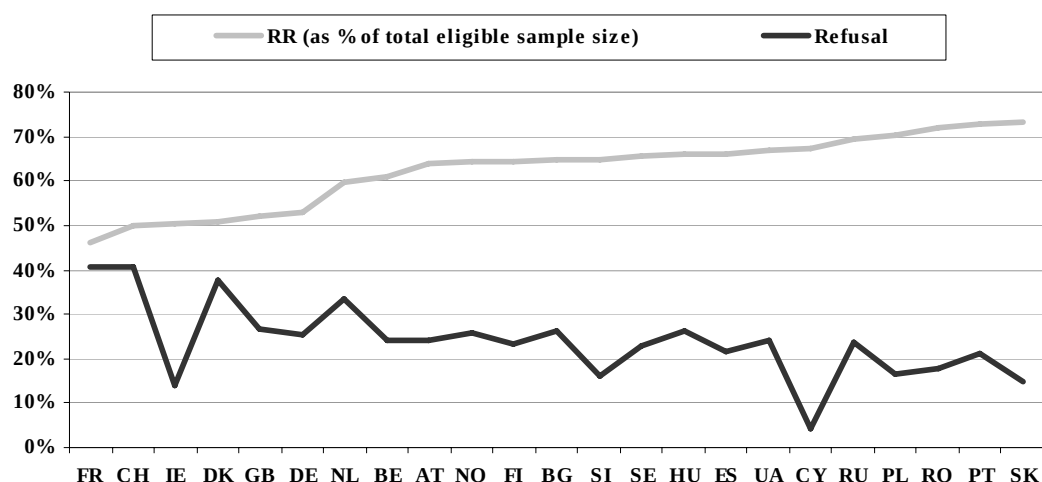


Figure 3 shows that except for Cyprus and Ireland, the refusals make up the major part of the nonresponse. The high 'other nonresponse' rate in Cyprus, was already explained earlier as a result of the 381 sampled units which got never contacted. The problem with Ireland has to do with number of missing contact forms. Switzerland and France, which scored the lowest response rates, have a remarkable higher refusal rates than the rest of the countries (40.7% and 40.6% respectively). So, where there was no clear-cut relation between the amount of non-contacts and response rates, there is a negative relation between the refusal- and response rate. **Figure 4** below depicts this negative correlation between response- and refusal rates.

⁷ The category "other" refers to the following outcomes: partial interview/break-off, invalid interview, broken appointment, language barrier, contact but no interview/other, address not traceable, not attempted, contact form missing. The category "not able" refers to the situation where the respondent was not available or away, or where the respondent was physically or mentally not able.

Figure 4. Refusal and response rates, Round 3



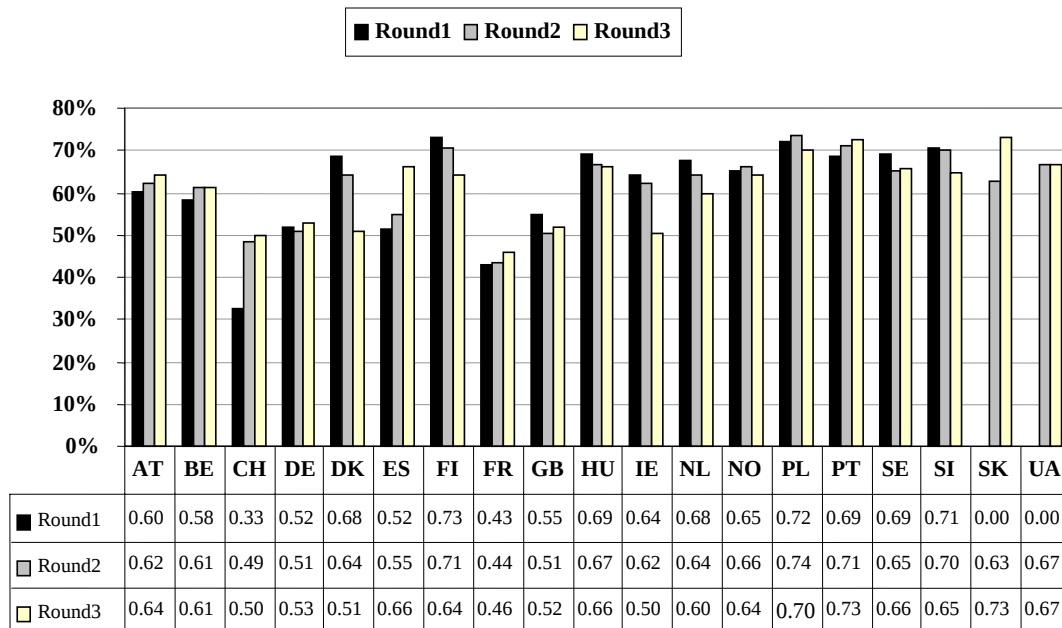
Cyprus and Ireland are special cases because of the very high number in the category 'other nonresponse' (see above). This has brought down the response rate, while the non-contact and refusal rates remained relatively low.

2.2. COMPARISONS OF THE ACHIEVED RATES BETWEEN ROUND 1, ROUND 2 AND ROUND 3

For the 19 countries which took part in two or three Rounds of the ESS, it is possible to make comparisons over time. These countries are the following: Austria, Belgium, Denmark, Finland, France, Germany, Great-Britain, Hungary, Ireland, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and Ukraine. In what follows, we will check whether the response, non-contact and refusal rates are stable over time. **Figure 5** shows the response rates for the first, second and third round of ESS.

The countries with a more or less stable response rate pattern over the three (or two) rounds - where the difference between the highest and lowest achieved response rate is less than four percent points - are the following: Austria (difference in 3.6 percent), Belgium (difference is 2.8 percent points), Germany (2.0 percent points), France (2.9 percent points), Hungary (3.3 percent points), Norway (1.8 percent points), Poland (3.6 percent points), Portugal (3.9 percent points), Sweden (3.6 percent points) and Ukraine (0.1 percent).

Figure 5. Achieved response rates, Round 1-3*



* See footnote of Table A2 in Appendix to find out for which countries National Technical Summary figures are used for R1 or R2.

The countries which have augmented their response rate with more than four percent points are: Switzerland (rise of 17.5 percent points), Spain (14.7 percent points) and Slovakia (10.5 percent points).

In six countries the response rate decreased with more than four percent points: Denmark (dropped 17.6 percent points), Finland (8.9 percent points), Ireland (14.0 percent), Great Britain (4.4 percent points), the Netherlands (8 percent points) and Slovenia (5.7 percent points).

Figures 6 and 7 show in what degree these fluctuations are caused by changes in the non-contact or refusal rates over three rounds. Because the refusals make up the biggest part of the nonresponse, it can be expected that the fluctuations in response rate over the three rounds are in concordance with the fluctuations in the refusal rate. In both figures, first the ten countries with a stable response rate, second the three countries with a higher response rate in the latter rounds and last the six countries with a lower response rate in the latter rounds, are shown.

Figure 6. Non-contact rates, Round 1-3

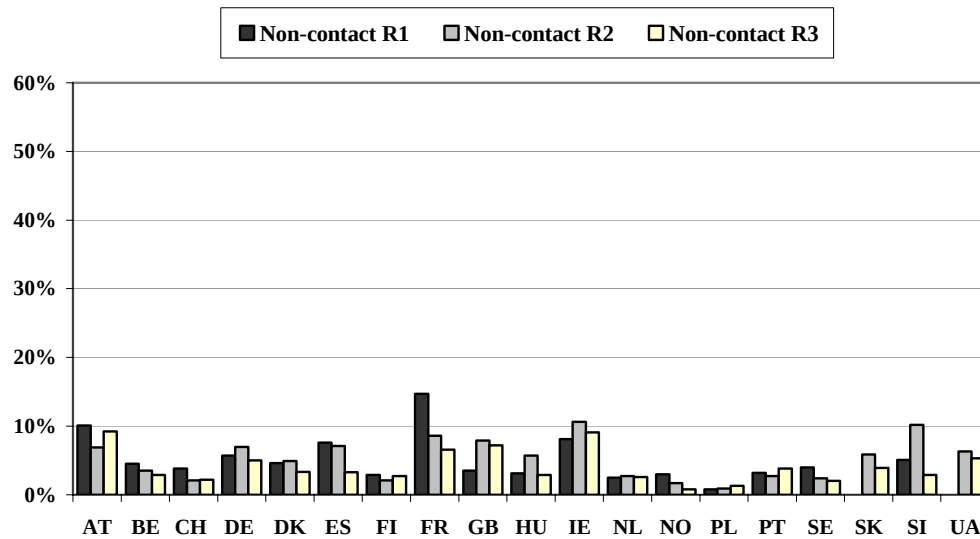
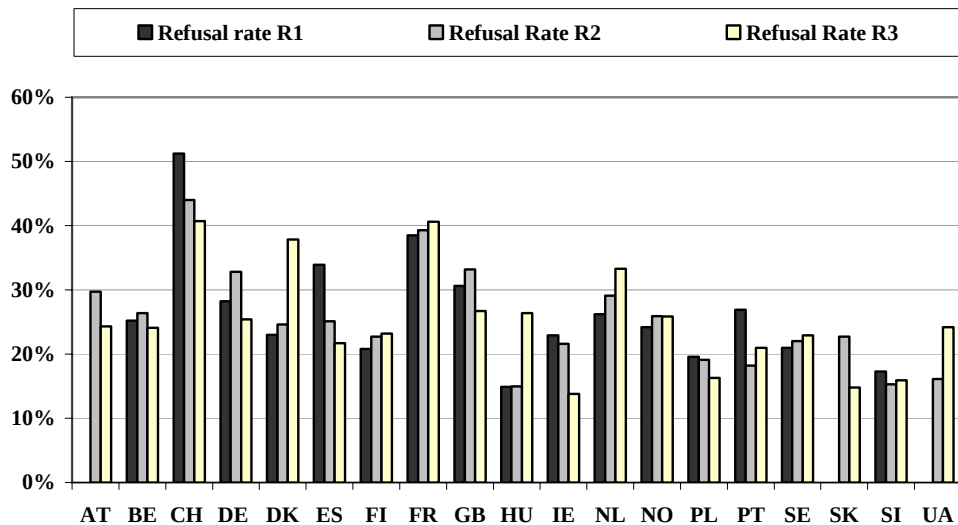


Figure 7. Refusal rates, Round 1-3



When comparing figures of different rounds, it is essential that figures are calculated in the same way. As such, some variance in the figures might be caused by a difference in reporting. Especially the difference between the categories refusal and not able/other nonresponse could be unstable.

The changes in achieved rates over the three rounds will be discussed per group, according to the stability of their response rate pattern. Among the ten countries with a stable response rate over the three rounds, the non-contact rates are rather stable. The

refusal rates on the other hand differ over the three rounds. In Germany and Portugal, the refusal rates dropped 7.4, and 8.7 percent points between the second and third Round, and first and second Round respectively. In Hungary and Ukraine, an increase of 11.4 percent and 8.10 percent refusal rates were found between the second and third Round. In Germany the non-contact rate also dropped for 5.7 percent between Round 3 and Round 1. This means that the proportion of 'other nonresponse' has increased so that the response rates have remained stable.

For each of the three countries with a rising response rate over the three Rounds, the refusal rates have decreased. For Spain, the refusal rate dropped from 33.9% in Round 1, to 25.1% in Round 2, to eventually 21.7% in the third Round. When observing non-contact rate, it dropped from 7.6% in Round 1, to 7.1% in Round 2, to eventually 3.3% in the third Round. In a report prepared by Spain, it shows that for the third Round a lot more efforts were made to achieve both lower refusal and non-contact rates. In Round one, the average number of contact attempts that were made to a sample unit was 2.6, in Round two this figure was 2.58, and in Round 3 an average of 3.4 attempts were made. The percentages of households or individuals who were never attempted to contact, dropped for all four time periods (afternoon, late evening, evening and weekend). The non-contact rates remained more stable around 2 and 4 % in Switzerland and around 4 and 6% in Slovakia, respectively.

For the last six countries with a decrease in response rate over the three Rounds, there is no uniform explanation. For all these countries, except for Great Britain and Ireland, it is clear that the refusal rates have also increased. The increase in the Danish refusal rate is partially caused by the 360 sampled units which could not be contacted because they are on a list of people who ask not to be contacted for the purpose of surveys (see Section 1.2.2).

In Great Britain, the response rate dropped between the first and second Round and then remained stable. There was an increase of 4.4 percent non-contact rate and also an increase of 2.6 percent refusal rate between these rounds. Between the second and third Round, an increase of 1.5 percent response rate was observed together with a decrease of 6.5 percent and .7 percent refusal rate and non-contact rate respectively.

For Finland, the lower response rates cannot be explained completely by both refusal and non-contact rates since these rates did not substantially differ across different rounds.

Finally in Slovenia, the response rate decreased but refusal rates do not differ that much between the three Rounds. More instability is found in the non-contact rates: 5.1% in the first Round, 10.2% in the second Round and 2.9% in the third Round. Communication with Slovenia may give clue to this. It reveals that non-contact rate was calculated differently in Round 2, and that the fieldwork was stopped prematurely once the 70% response rate was reached. In case the never-attempted sampled units were counted as non-contacts, this can explain the high non-contact rate.

PART III - FIELDWORK EFFORTS IN ESS ROUND 3

In this section, the efforts that were made to obtain a high response rate will be discussed. Obtain a high response rate means lowering the nonresponse. The nonresponse can be explained in terms of contactability and willingness. The third group, people who are contactable and willing but are not able to participate due to circumstances, will not be discussed here. In general they only make up a very small part of the nonresponse.

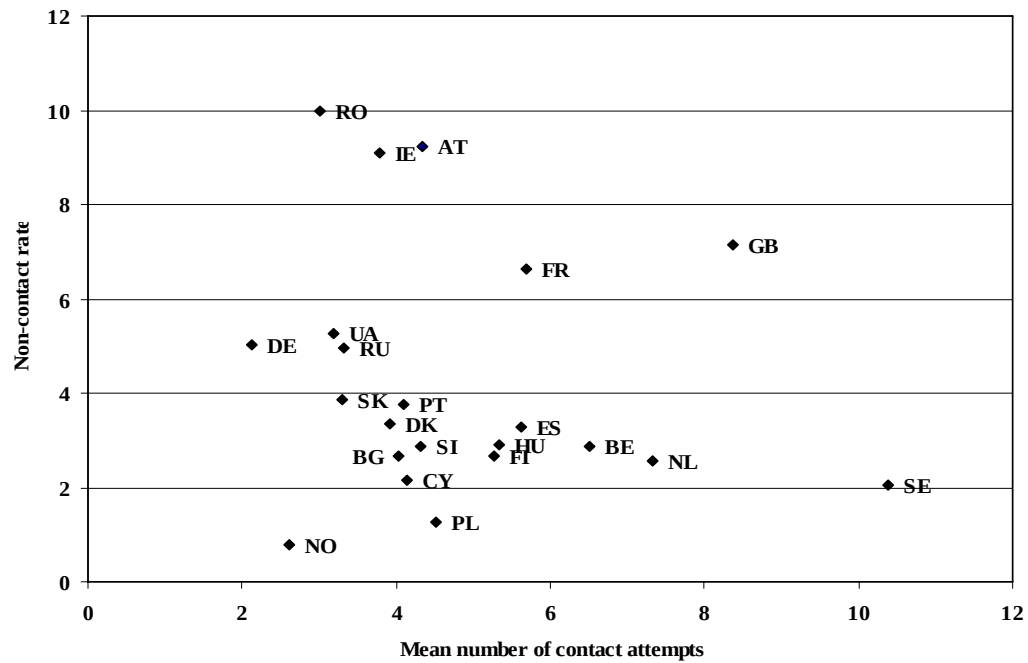
Several protocols were prescribed to bring down the non-contact and refusal rate as much as possible. In what follows, first the efficiency of the contact procedure will be discussed. Therefore it will be checked in what degree the ESS-protocol were implemented on the one hand, and whether there are cross-country differences in the levels of contactability - and the consequences of this for the validity of one uniform contact protocol – on the other. Secondly, the refusal conversion efforts will be evaluated and how these efforts increased or decreased over the three Rounds.

3.1. EFFECTIVENESS OF THE CONTACT PROCEDURE

A first quick assessment about the compliance with the protocol and the effectiveness of it can be made on the base of the scatterplot depicted below. It contains for each country the mean number of visits made to non-contacts versus the non-contact rate. The mean number of contact attempts for Norway is incorrect because the first attempts were not registered.

Clearly not all countries contacted their sampled units at least four times before they were called a 'non-contact'. But not making many contact attempts does not necessarily imply a high non-contact rate. As seen in the scatterplot, the mean number of attempts made to non-contacts does not have a negative correlation with the non-contact rate.

Figure 8. Non-contact rate according to number of contact attempts, Round 3



* Switzerland (outlier) is left out from the figure above.

What could be the explanation of these cross-country differences? Two issues can be noted: in some countries the interviewers chose a bad timing in contacting their respondents, or in some countries people are less 'contactable' than in others. Probably the explanation is a combination of both.

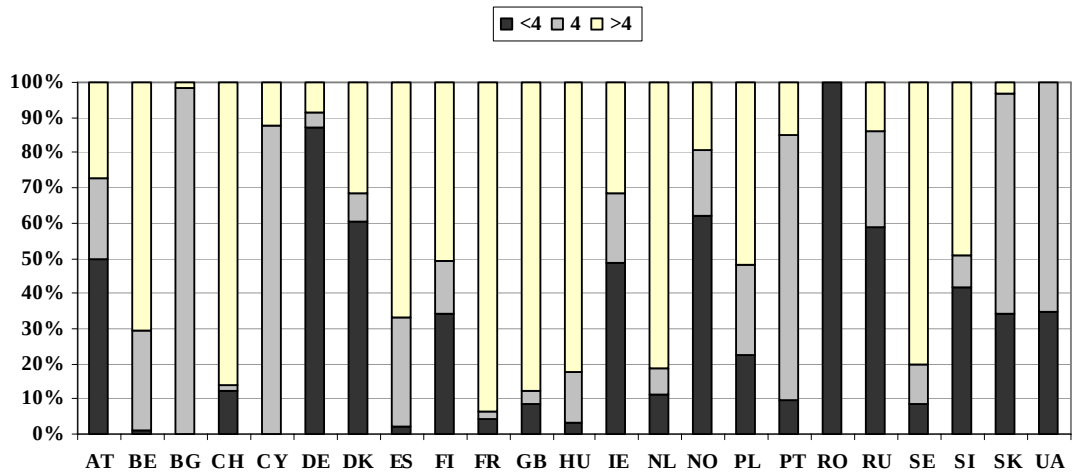
3.1.1. Contact efforts to non-contacts

In what follows, the compliance with the four protocol rules will be evaluated:

- At least four personal, face-to-face visits
- At least one visit in the evening (after 5PM)
- At least one visit during the weekend
- The visits should be spread over at least two weeks

As was seen in **Figure 8** above, all countries did not comply with the protocol-rule of at least four visits before a sampled unit could be considered as a 'non-contact'. **Figure 9** shows in more detail the distribution of contact attempts made to non-contacts.

Figure 9. Distribution of number of calls made to non-contacts, Round 3



The figure reveals big cross-country differences in number of contact attempts. In Romania and Germany, almost all non-contacts got contacted less than four times, while in France over 90% got contacted more than four times.

The second and third protocol rule concerns the timing of the visits. Before a sampled unit can be called a 'non-contact', at least one visit has to be made in the evening and at least one visit has to be made during the weekend. **Figure 10** below depicts both. It shows the percentages of non-contacts that were not visited, visited once, or visited more than once during the evening and during the weekend.

Figure 10. Distribution of number of evening and weekend contact attempts made to non-contacts, Round 3

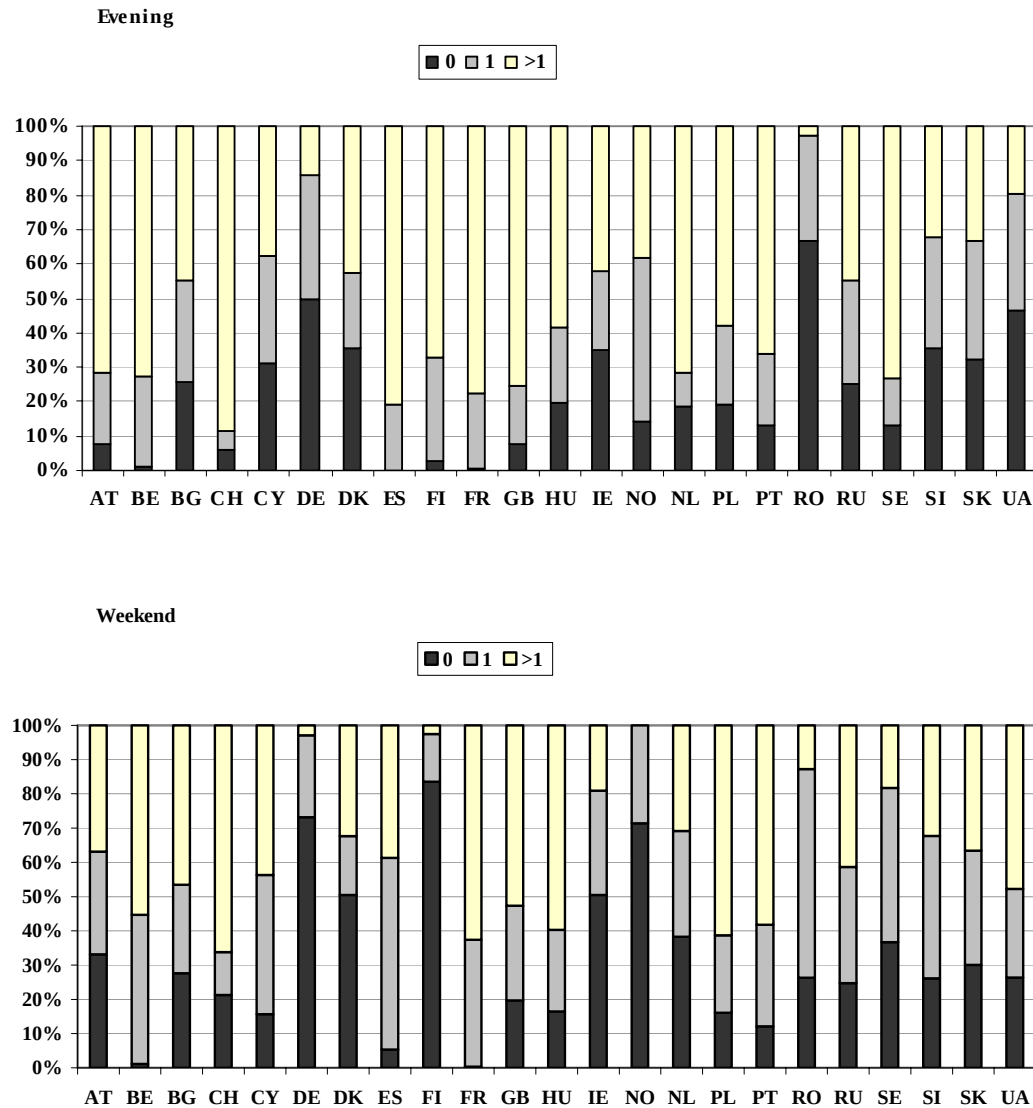


Figure 10 shows that interviewers complied better with the rule of one visit in the evening than one visit during the weekend. Secondly, again there is a lot of variation between the countries. And thirdly, those countries which complied well with the evening-rule do not necessarily comply well with the weekend-rule.

The final rule concerning non-contacts, refer to the period during which the contact attempts have to take place. Following the protocol, the interviewers have to spread their visits over at least two weeks. **Figure 11** shows the percentages of non-contacts which have been visited over less than fourteen days versus fourteen days or over.

Figure 11. Period during which attempts were made to contact non-contacts, Round 3

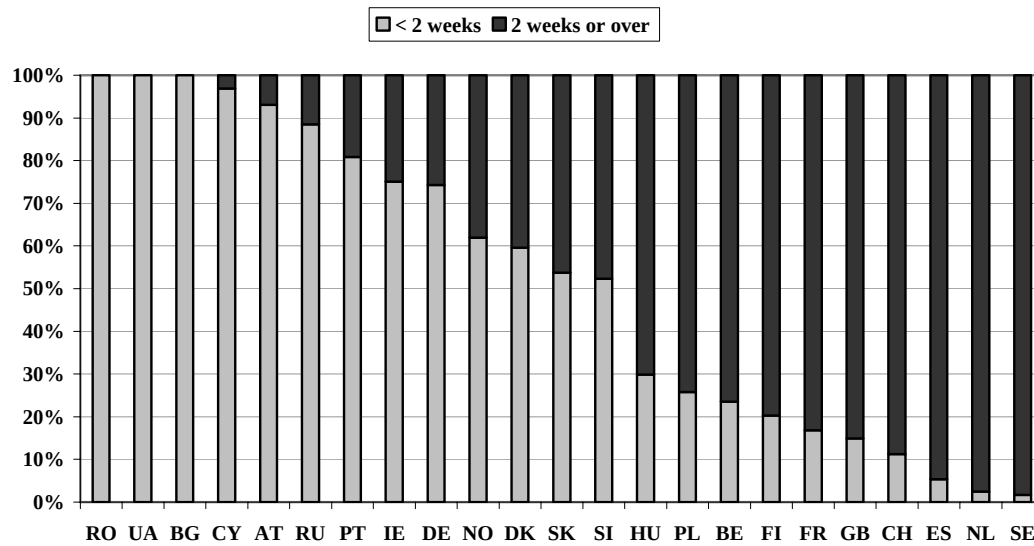
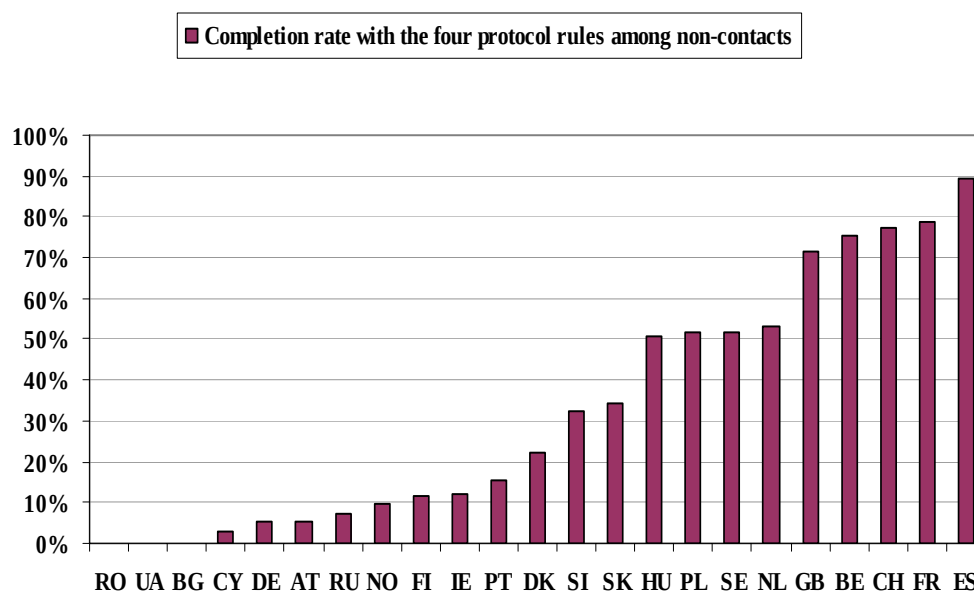


Figure 11 shows that again, the cross-country differences in efforts that were made, are tremendous. For the first 14 countries, at least 70% of the final non-contacts were attempted to contact during less than two weeks. For the last nine countries, less than 30% of the final non-contacts were attempted to contact during less than two weeks. Most efforts were made by Sweden, the Netherlands and Spain, where only less than 10% of the final non-contacts were attempted to contact during less than two weeks. The least contact efforts were made by Romania and Ukraine, Bulgaria and Cyprus where nearly 100% of the final non-contacts were attempted to contact during less than two weeks.

If all the four contact efforts are combined in one 'effort-variable', it can be evaluated in one look how many of the four prescribed efforts were actually carried out. **Figure 12** shows for each country for how many of the final non-contacts the four protocol rules were implemented.

Figure 12. Combined contact efforts made to non-contacts expressed as percentage of final non-contacts, Round 3



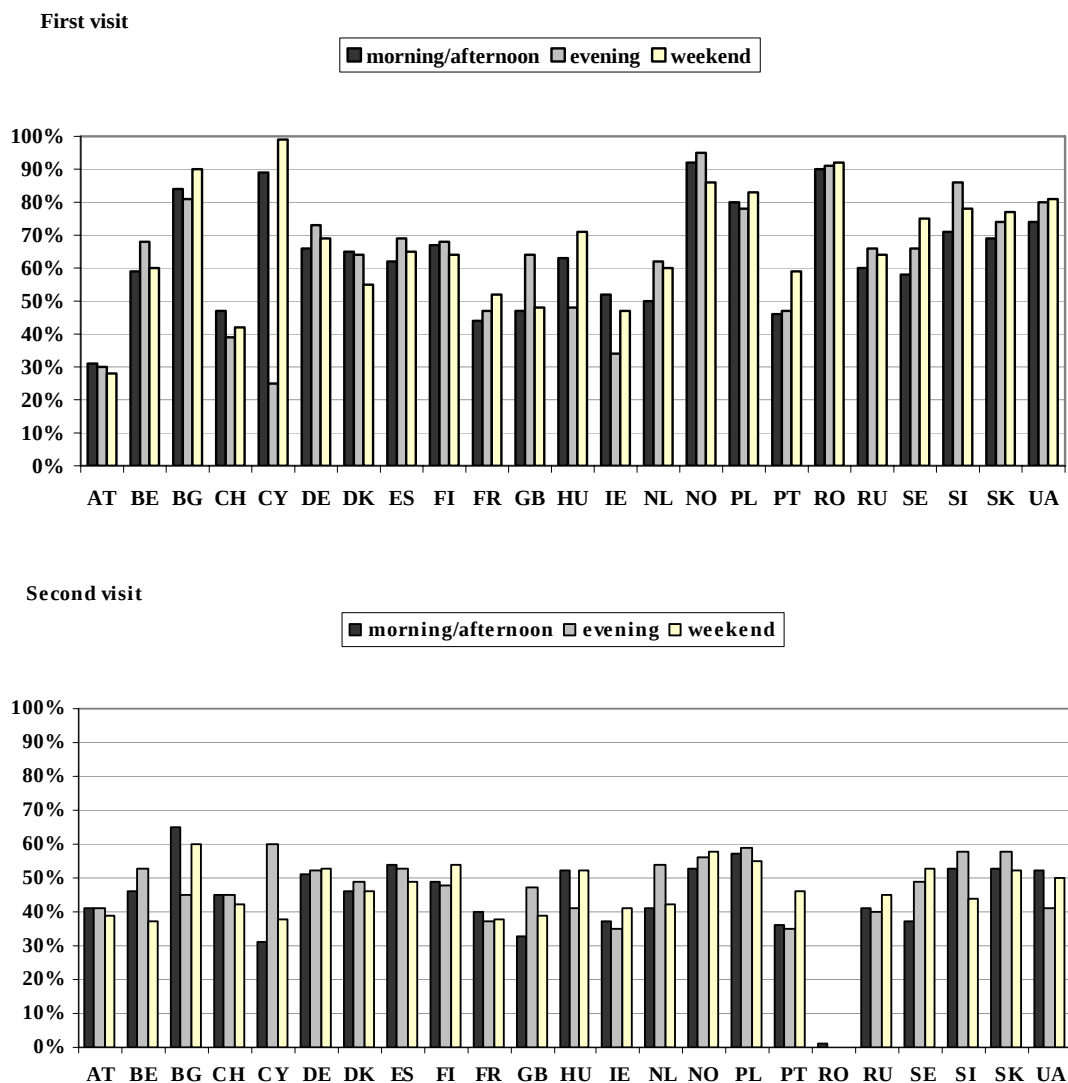
In Spain, all the four rules were implemented for more than eighty percent of the final non-contacts. This investment may be one of the reasons why the response rate of Spain was much higher than in previous rounds. The percentage of non-contacts was half of the amount in previous rounds. Also in France, Switzerland, Belgium and Great Britain, these rules were followed up for more than 70% of the final non-contacts. In 8 countries (RO, UA, BG, CY, DE, AT, RU, NO), for less than 10% of the non-contacts the four protocol rules were implemented.

Of the four countries which implemented the most all four protocol-rules (Spain, France, Switzerland, Belgium and Great Britain), only two did not exceed the maximum 3% non-contact rate (Switzerland and Belgium). Among the 8 countries which followed the four rules in less than 10% (RO, UA, BG, CY, DE, AT, RU, NO), except for 3 countries (BG, CY, NO) all exceeded the maximum 3% non-contact rate. So the contact efforts made by the interviewers alone are not a sufficient explanation for the variance of the contact rate. Some countries seem to make a lot more efforts than others yet achieve a higher non-contact rate. Maybe people in one country are just easier to contact than people in another country? The next paragraph discusses the cross-country variance of contactability.

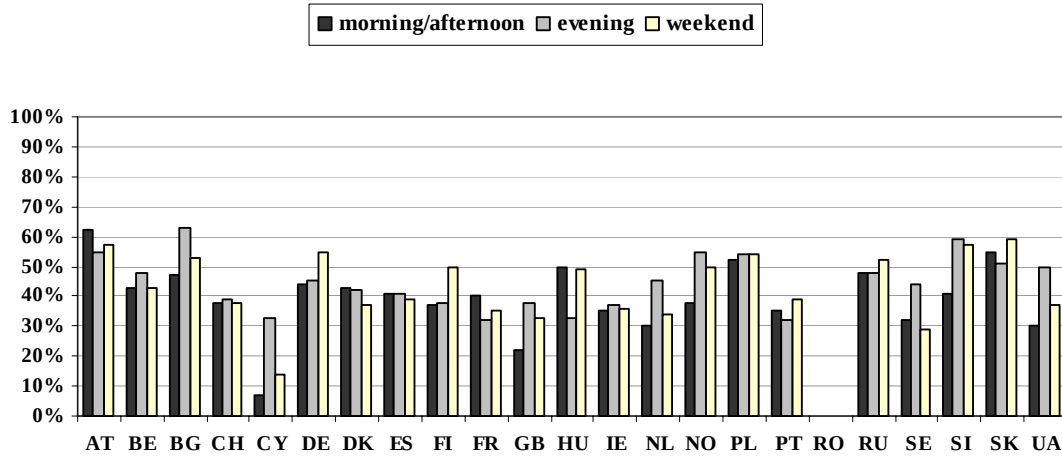
3.1.2. Contactability of respondents

Contactability can be defined as the probability that a contact attempt will result in a contact. It is plausible that, due to cross-country socio-cultural and structural differences, people in one country are less contactable than people in another country or have a different at-home-pattern. **Figure 13** shows the probability of contact at the first three visits, and according to the timing of the visit.

Figure 13. Probability of contact at occasion of first, second and third visit according to the timing of visit, Round 3



Third visit



These figures show that in some countries (like Bulgaria, Cyprus, Poland, Norway, Romania⁸, Slovenia and Ukraine), it is more likely that a contact with the sampled unit will be achieved than in other countries (like Austria, Switzerland, France, Great Britain or Portugal). Also the most successful timing of the visit is different between countries. In Great Britain, people are more likely to be contacted during the evening, and this is so for the first three visits. In Hungary, the contact probability is higher during the day and in weekends than in the evening. In other countries the timing of the attempt does not seem to matter. In other words, there is no such thing as one cross-country at-home-pattern but more probably these patterns are country specific depending on the socio-demographic profile (e.g. working during the day or not) of the sample unit.

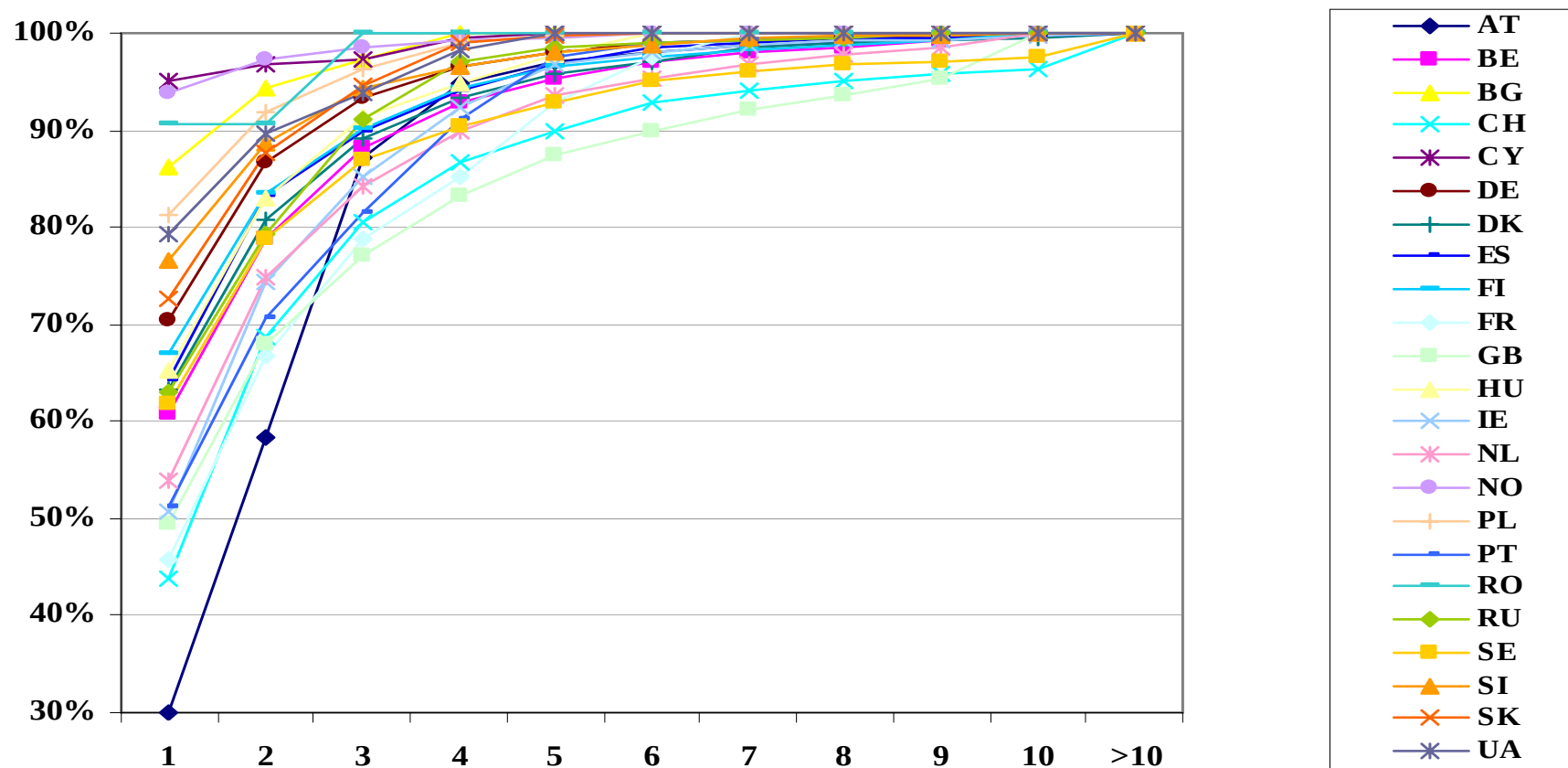
The contactability rates also explain some of the earlier findings. Switzerland had to make a very high number of contact attempts to achieve a low non-contact rate. The figures now show that in Switzerland fewer people are contacted during the first visit than in most other countries. Bulgaria and Poland scored low non-contact rates while not making more efforts than the other countries. Apparently, in Bulgaria and Poland there exists a favourable at-home pattern.

3.1.3. Optimal number of contact attempts

The former sections showed that the contact efforts made by countries vary and that their efforts do not directly correlate with the achieved results. Furthermore it showed that the contactability per country is not the same. What does this mean for the optimal number of contact attempts that have to be made, and as such for the validity of one uniform contact protocol? In this section it is questioned whether the postulated rule of a minimum of four contact attempts, is optimal for every country. We also study this in terms of contacted units, as well as in terms of achieved interviews.

⁸ 1st timing only

Figure 14. Cumulative percentages of all contacted units that are contacted at each visit (ESS Round 3)⁹

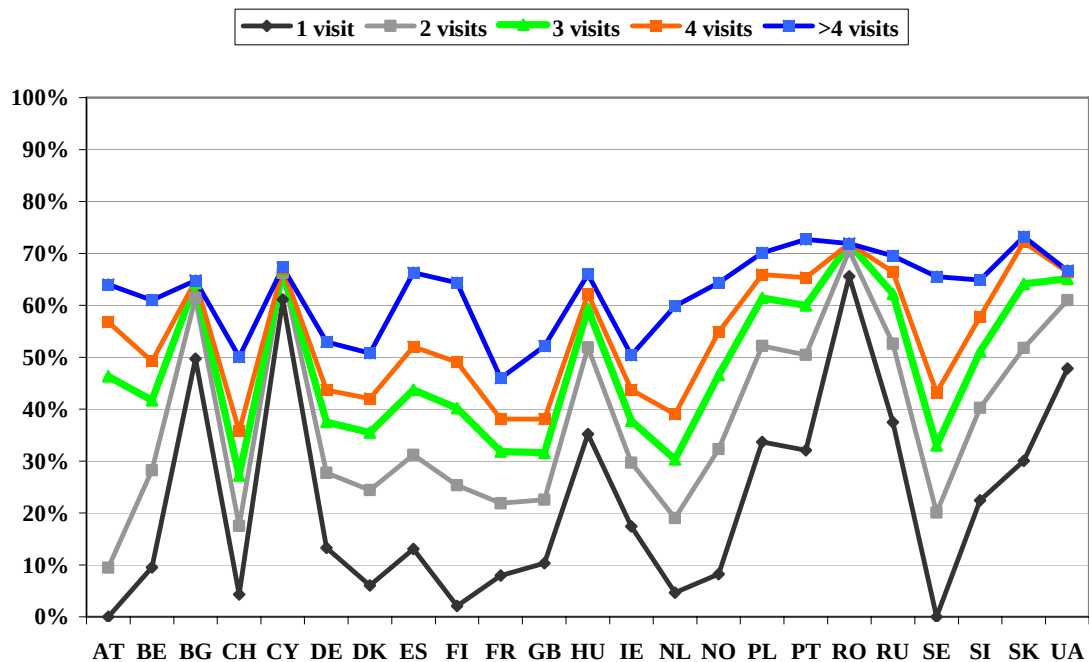


⁹ Computed on the total number of sample units that were contacted.

Figure 14 shows the cumulative percentages of all contacted units that are contacted at each visit. It is clear that in every country an additional visit attempt results in extra contacted units. For the first four visits, the contact rates increase the most, then this positive relation gets smaller. For countries which started with a low contact rate at the first visit, it is useful to make more than four attempts. But for countries, on the other hand, which already started with a high contact rate, it does not seem very useful to invest in more than four visit attempts. Based on this, the rule of minimum four attempts before a sample unit can be called a 'non-contact' seems to be justified for countries with a high contactability. Though for countries with a low contactability, this rule is not sufficient because also after the fourth attempt, their contact rate rises substantially.

A similar conclusion can be drawn from the impact of the number of contact attempts on the achieved response rates. **Figure 15** shows the obtained response rate after the first, second, third, fourth, or more than four visits.

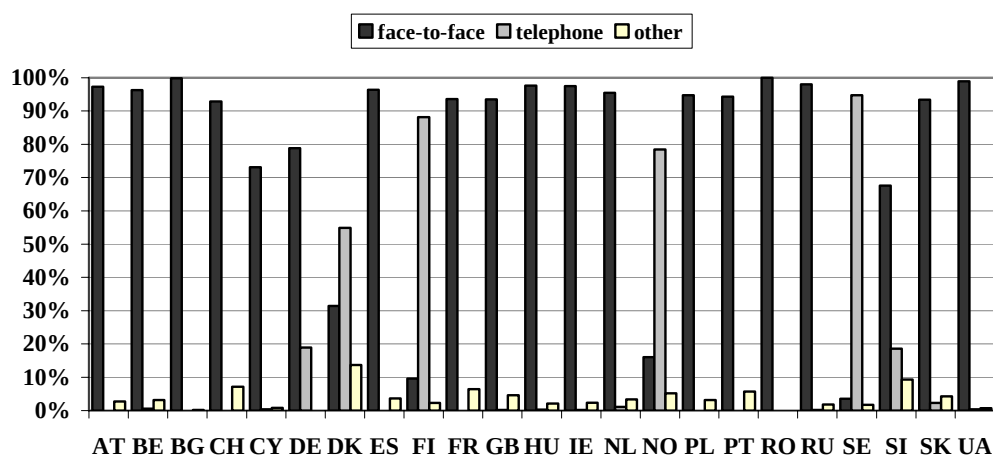
Figure 15. Obtained response rate after 1, 2, 3, 4 and more visits, Round 3



The response rates keep rising after each contact attempt, though the benefit of investing in more attempts is not the same for each country. Those countries which start with a low response rate can improve their response rate a lot by investing in more than four contact attempts (e.g. Belgium, Switzerland, Spain, Finland, Great Britain, the Netherlands and Sweden raise their response rate with more than 10 percent points after the fourth contact attempt). For countries which start with a high response rate, the benefits of extra attempts seem to be small (e.g. Bulgaria, Cyprus, Romania, Slovakia and Ukraine raise their response rate with one to three percent points by making more than four attempts).

It might seem strange that the initial response rates after one visit differ immensely between the countries. While some reach an initial response rate of thirty to sixty-one percent (Bulgaria, Cyprus, Romania, Slovakia and Ukraine), other countries reach a rate close to zero (Austria, Finland and Sweden). Though, when taking into account the mode of the first attempt, the results are more plausible. The most important modes of contact are face-to-face and by telephone. Furthermore there is contact by intercom, or information through the survey organisation, but these only make up a very small proportion. In most countries, the first few contact attempts are made face-to-face. As the number of attempts rises, the portion of telephone attempts increases. Though, if the first contact attempt is by telephone, the actual response can – at the earliest – be at the second call. **Figure 16** shows the contact-mode at first visit.

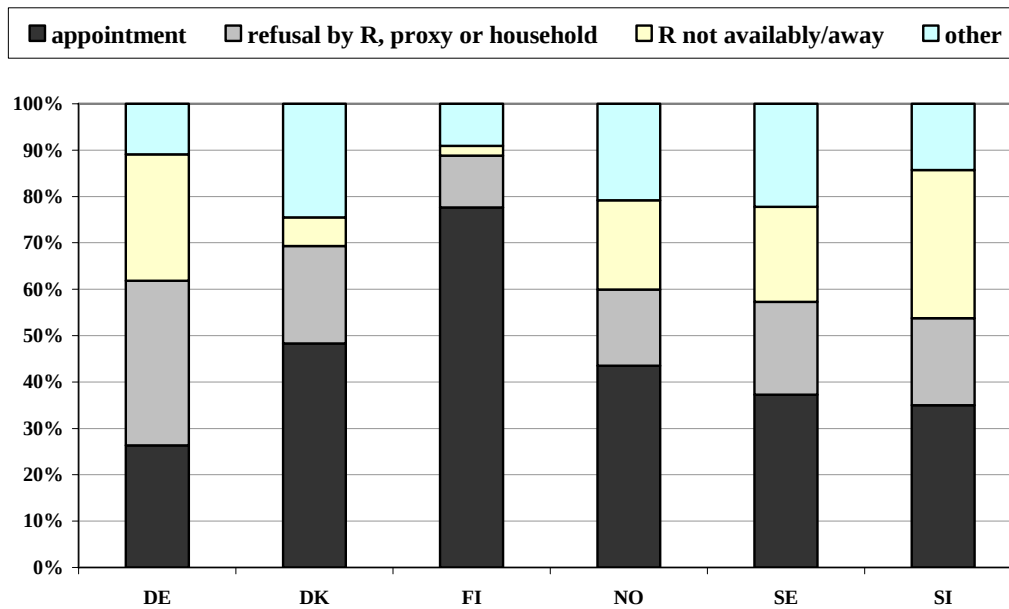
Figure 16. Mode of contact at first visit, Round 3



In Germany, Denmark, Finland, Norway, Sweden and Slovenia a substantial amount of sampled units got contacted for the first time by telephone. This might explain the low response rate after the first contact attempt, as was seen in **Figure 15**. Only for Switzerland it remains unclear why so few interviews were achieved at the first contact attempt, as these were almost all face-to-face. Earlier it already showed that Switzerland is a special case. The contactability is very low, and they had to make a lot of efforts just to achieve regular results.

In case of a contact attempt by phone, a successful attempt is not an achieved interview, but an appointment for the interviewer to conduct an interview. Of course an appointment can always be broken afterwards so that the interview does not take place after all, but these will rather be exceptions. **Figure 17** below shows the results of the first contact by telephone for Germany, Denmark, Finland, Norway, Sweden and Slovenia. It gives the outcomes in case that contact was made with either the respondent himself or someone else from the household.

Figure 17. Result of first contact by telephone, Round 3, 6 selected countries



The figure shows that a contact by telephone often results in an appointment. In Finland, almost 80% of the telephone contacts resulted in an appointment. Only in Germany there were more refusals than appointments at the first contact attempt. So for these countries with a very low response rate after the first attempt, part of the success rate of the second attempt was already guaranteed by making appointments.

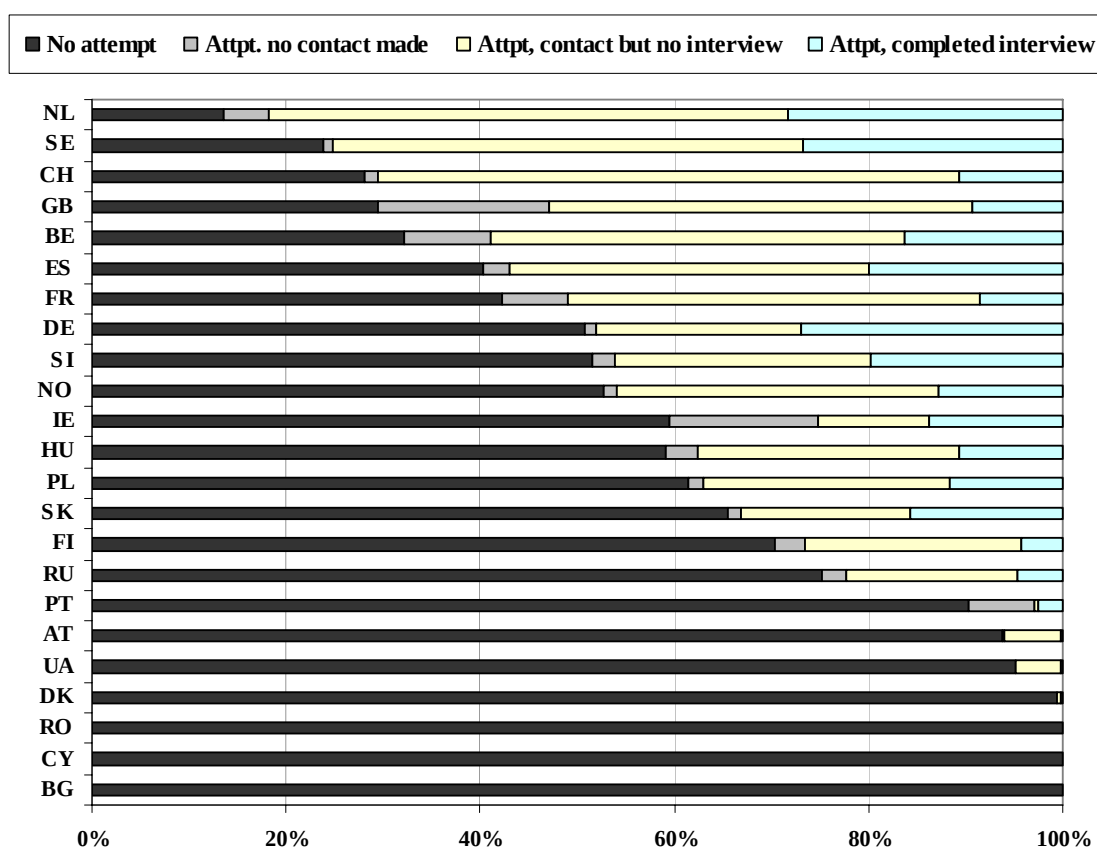
3.2. REFUSAL CONVERSION EFFORTS

As seen above, the most important part of the nonresponse is made up by the refusers. So, the efforts to convert (initial) refusers might be more beneficial for the response rate than the efforts to contact a higher proportion of the sampled units. This part deals with the efforts that were made to convert initial refusers in Round 3, and the effects it generated on the final response rate. Following is the ESS-protocol for how to deal with a refusal:

- All 'soft' refusals and as many 'hard' refusals as possible, should be reissued;
- Conversion cases should be reissued to another, more senior interviewer

Following the protocol, all soft refusals and as many hard refusals as possible had to be re-issued. This might be the protocol rule that is mostly violated. Figure 18 shows the refusal conversion efforts that are made in Round 3.

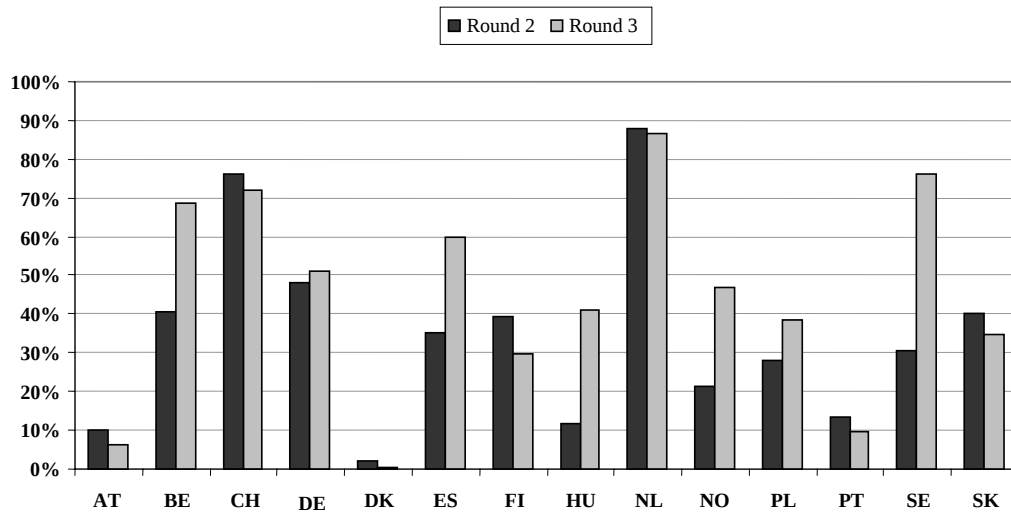
Figure 18. Outcome refusal conversion attempts, Round 3



As with the contact efforts, also the conversion efforts differ immensely between the participating countries, going from (almost) no conversion attempts at all in 4 countries Cyprus, Bulgaria, Romania and Denmark, to conversion attempts in more than 80% of the refusal-cases in the Netherlands. Only in seven countries, more than 50% of the initial refusers got re-approached for a conversion attempt. Also in Poland and Portugal – the two out of three countries which achieved the 70% target response rate – only 39% and 10 % were reapproached. In Slovakia, the remaining one country which achieved the 70% target rate, had a rather high conversion rate.

Even though the attempts to refusal conversion are not as many as they should be according to the protocol, there is already a big improvement in comparison to the attempts that were made in Round 2. **Figure 19** shows the percentages of refusals that were re-issued in Round 2 and Round 3 (irrespective of the outcome of the refusal conversion attempt).

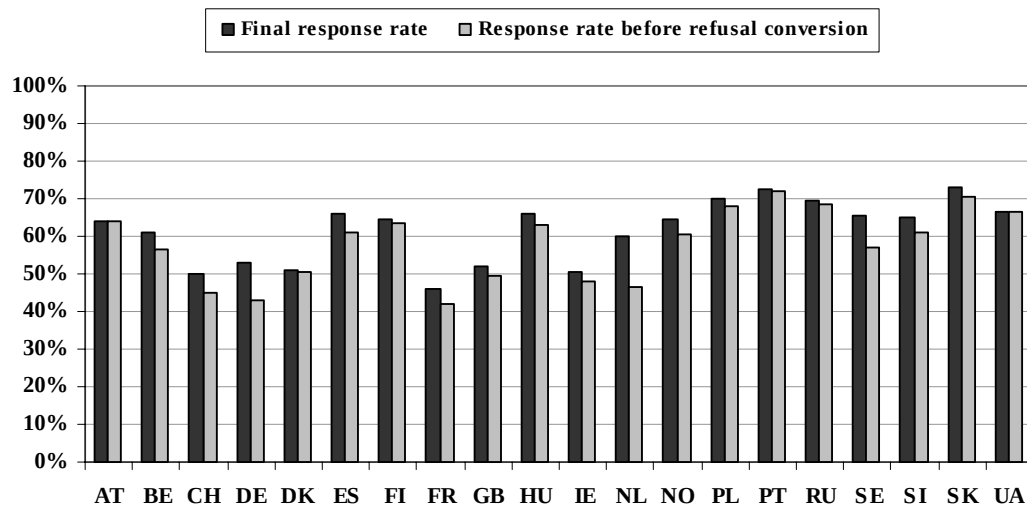
Figure 19. Refusal conversion attempts, Round 2-3



In some countries the refusal conversion efforts increased substantially (Belgium, Hungary, Norway, Poland, Spain, and Sweden), while in other countries there was a clear decrease in efforts (Finland, Portugal, Slovakia and Switzerland).

In fact, not the conversion attempts as such, but the results these attempts generated in terms of extra completed interviews, are important for the data quality. **Figure 20** shows the response rate before and after the refusal conversion attempts.

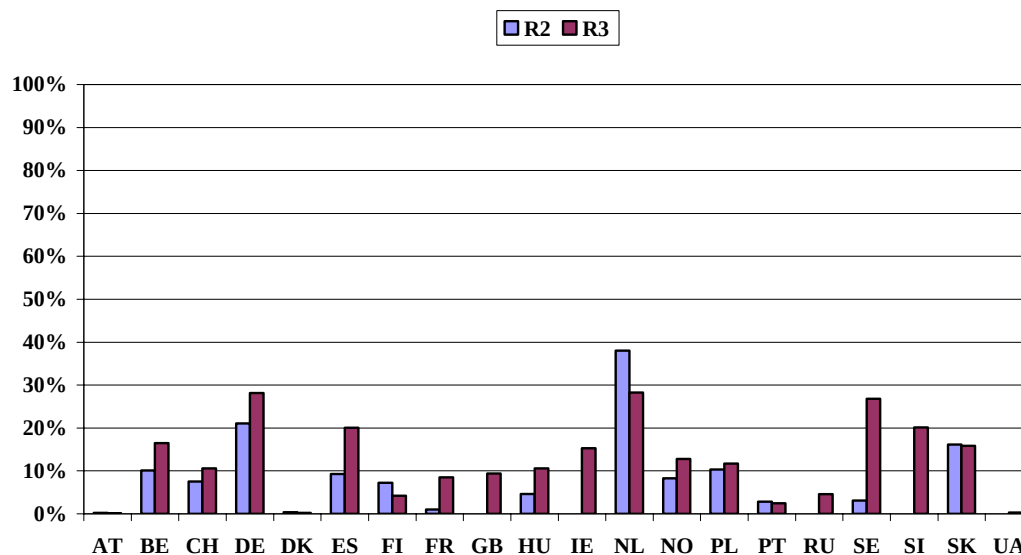
Figure 20. Effects of refusal conversion activities on final response rates, Round 3



The efficiency of the conversion attempts is not negligible. Countries with an increase of response rate more than four percents were: Belgium, Germany, Netherlands, Slovenia, Spain, Sweden Switzerland. Among which, an increase of more than 10 percent in Netherlands and Germany is noteworthy. The question can be asked whether the cost of the refusal conversion attempts outweighs the benefits. Especially

for those countries which invested a lot in refusal conversion. More than 50 percent of refusal cases were re-contacted in seven countries. Despite some discrepancies in the final response rate in these countries, these countries were able to achieve an increase in response rates. This demonstrates the importance of refusal conversion activities.

Figure 21. Success rate of refusal conversion, Round 2-3



The effect of refusal conversion activities on the response enhancement is also illustrated in Figure 21, and tables A15 and A16 in Appendix. The overall refusal conversion success rate is calculated by multiplying the proportion of successfully converted refusals among all re-approached refusals with the share (%) of refusals which were reapproached. This results in the share of the total number of refusals which was successfully converted. In five countries (Germany, Netherlands, Spain, Sweden, Slovenia), the effect of refusal conversion on response enhancement rate exceeded 20 percent. In the case of Spain, the Round 3 rate was substantially higher than the Round 2 rate. The effect expressed as percentage of refusals where converted was in Germany somewhat higher then in Round 2, and it was somewhat lower in the Netherlands.

PART IV – CONCLUSIONS

This data quality assessment report of the third Round of the ESS has shown that data quality can be affected at several stages of the data collection process. The field organisation has at its disposal the tools necessary for creating the optimal conditions to obtain a high quality dataset. The quality of the final dataset depends very much on the quality of the interviewers and of the training the interviewers are provided with. Datasets with mistakes and inconsistencies can hinder data analysis. Yet ‘problematic’ datasets were also included in the analysis here. The problems that affected the datasets were described, which makes it possible to interpret the results with the appropriate reservations.

As a result of the analysis of the results achieved, some general conclusions can be drawn. The target 70% response rate was achieved only by Poland, Portugal, Romania and Slovakia, while the maximum 3% non-contact rate was not exceeded by eleven countries. The most important part of the nonresponse is accounted for by refusals, as was also the case in former Rounds. Because this was already the third Round of ESS, it was possible to make comparisons over time of response rates. These rates were not very stable over time yet a trend of decreasing cross-country variance was observed. In other words, compared to Round 1, the response and refusal rates of Round 3 did not differ much across countries. The countries with the lowest response rates in the first Round managed to increase their response rates by the third Round while some of the countries with high initial response rates gave in a little bit in the third Round.

Differences in interviewer contact and refusal conversion efforts were brought up as possible explanations for these cross-country differences in the results. Several contact rules were set out by the ESS protocol but from the analysis it would appear that the interviewers did not always pay sufficient attention to them. The rules were not always completely observed and even if they were, this was still not a guarantee that the target response rate would be reached. Apparently some countries made substantial efforts just to achieve response rates worse than other countries which made comparatively little effort. This apparent contradiction can be understood by invoking the concept of ‘contactability’: if all people in a certain country have more or less the same at-home-pattern, less effort will indeed have to be made by the interviewers. The probability of contacting a respondent can differ a lot between countries. In addition, the best timing of the contact attempt but also the optimal number of contact attempts seems to be country-specific. Results for the relation between contact attempts on the one hand and contact and response rates on the other showed that while four contact attempts might be enough for some countries, they would lead to unacceptable rates in other countries. The rules imposed by ESS actually concern the minimum efforts that should be made, and in some countries one has to do more in order to obtain high response rates. Countries may want to learn lessons more systematically from previous rounds.

Because a far bigger part of non-response is accounted for by refusals than by non-contacts, refusal conversion efforts might have a bigger impact on the response rate than contact efforts. Though the extent of conversion efforts varies by country, our results illustrate the positive effect of refusal conversion activities on the final response rate. A careful study of the conversion rate of reapproached cases showed that in most

countries refusal conversion activities had positive effects. For a number of countries such as Germany, the Netherlands, Spain, Sweden, Slovenia, Belgium, and Switzerland, response rates were much higher after refusal conversion.

APPENDIX 1 - CHECKS ON THE DATASETS OF THE CONTACT FORMS

In order to achieve datasets of high quality and comparability, each dataset was tested on variable labels and values and on internal consistency. In an iterative way, following tests were performed:

1. Check whether the number of contact forms matches with the number of sample units. Also, check whether the number of interviews according to the contact files matches the number of units in the main file (with the actual interview).
2. Check whether all mandatory variables are present and whether other non-mandatory variables were added. Check whether variables are named correctly according to data protocol.
3. Detection of 'wild codes' or invalid codes on variables.
4. Consistency on number of interviewers and number of interviews per interviewer: check if every additional interviewer number is accompanied by an additional number of contact attempts by that interviewer.
5. Consistency in reporting of contact attempts: check whether all the data of a contact attempt is present. E.g. an attempt is registered, but there is a missing value on month, date, day, hour, minute, mode or result.
6. Consistency in the registration of the date and day of the contact attempt: check whether the date of a contact attempt corresponds to the correct day according to the calendar.
7. Consistency between the total number of contact attempts according to reported dates, and the total number of contact attempts according to successive contact trails (total number of attempts for each interviewer). E.g. according to the registered dates there are five contact attempts but the variable 'TOTCINT' (total number of interviews per interviewer) only indicates four attempts.
8. Check if contact attempts are chronologically sorted.
9. Check whether the variable 'OUTNIA' (outcome in case of no interview) is filled in after the result of the contact attempt was coded as a 'no-interview'.
10. Consistency in registration of visit at which refusal occurred: check whether the number of visit at which a refusal occurred according to the variable 'REFVIS' (number of visit at which a refusal occurred) coincides the number of visit at which a refusal occurred according to the variable 'OUTNIA' (outcome in case of no interview).
11. Consistency in registration of refusal: Check whether in case of refusal, the variables 'RERSA' (reason of refusal) and 'COOP' (estimation of future cooperation probability) are registered.
12. Check whether estimation of age was made in case of refusal.
13. Check whether estimation of gender was made in case of refusal.

14. Consistency in registration of ineligible cases: check whether the reason for ineligibility is filled in after a respondent has found to be 'ineligible' by the interviewer.
15. Check whether the contact procedure ended after the result was registered as 'ineligible'.
16. Check whether the contact procedure ended after the result was registered as 'completed interview'.
17. Check whether 4 types of neighbourhood variable were collected.

APPENDIX 2 - EVALUATION OF CONTACT FORM DATA: COUNTRY BY COUNTRY REPORT

This section contains information that should be kept in mind when analysing the data and should be read together with Table 5. Two problems are common to a number of countries. First, the contact procedure sometimes continues even after the sample unit has been found to be 'ineligible' or after 'interview'. Secondly, information is often missing for one of the neighbourhood variables. Where these problems affect a larger number of cases they have been discussed below.

1. Austria

The most serious problem is the fact that information is missing on the timing of each contact attempt. An additional problem concerns discrepancies between the total number of contact attempts recorded in the contact history record and that recorded in the variable ('totcint').

2. Belgium

Some minor issues are to be noted: (i) inconsistencies concerning the timing of refusal (e.g. according to REFVIS at visits 3, 6, 7; according to OUTNIA at visits 2, 3, 6.); (ii) the contact procedure does not end after RESULB has been coded '1' (interview) and after the address has been found to be invalid.

3. Bulgaria

No major issue is to be noted except that for some information of neighbourhood variables are missing.

4. Cyprus

As already noted in the main text, the fieldwork was ended prematurely, which has affected the validity of the survey. Out of a total sample of 1481 units, only 1100 units were contacted. 381 units were coded as a 'non-contact'. As far as available data are concerned, there are no big problems except for some missing information for neighbourhood characteristics.

5. Denmark

Two issues must be noted. First, 360 units refused participation even before the first contact attempt,¹⁰ the so-called 'blocked units'. Their contact file has been filled in as follows: the date of the first visit has been taken as the date the sample was drawn; the result of the visit has been registered as an invalid address; and the reason for ineligibility has been registered as 'other'. Age and gender information was still available from the sample. For these units, all other contact information is missing.

¹⁰ According to Danish law, people have to give their consent to be contacted for a survey on forehand. A letter was sent to each of the sample units, to inform them about the survey. 360 people sent back a letter with the explicit refusal to participate, and as such could never be legally contacted.

Second, in a number of cases, there is no information about the 'outcome when there was no interview' (OUTNIA variable).

6. Finland

No major issue is to be noted except for some inconsistencies and some missing information: (i) in the case of refusal, information is missing on 'estimation of future cooperation' and 'reason for no-participation'; (ii) some information of neighbourhood variables is missing.

7. France

Some problems are the following: (i) as seen in other countries, sometimes the contact procedure did not end after an address was registered as 'invalid' and in the majority of these cases, no reason for ineligibility was given; (ii) age and gender information is missing in some cases; (iii) the proportion item non-response is high for neighbourhood characteristics.

8. Germany

Several issues are to be noted for this dataset: (i) all mandatory variables have been registered except for TELNUM; (ii) a number of sample units were never contacted at all; for these cases, INTNUM has been coded as '999999' and DEFECTCF as '2' (no contact file available); (iii) in number of cases, information is missing on the timing of each contact attempt; (iv) in number of cases, no estimation of future cooperation probability has been made in the case of a refusal; (v) some information is missing for the variable 'result of visit' (vi) the proportion item non-response is high for neighbourhood characteristics.

9. Great Britain

Several issues are to be noted for the dataset: (i) sometimes the contact file is missing and sometimes there has been an interview but this has not been reported as such in the contact file; (ii) in some cases, there have been more than ten contact attempts but only ten have been recorded; for these cases, the final outcome of the contact procedure is not known; (iii) some information on neighbourhood characteristics is missing.

10. Hungary

No major issue is to be noted except for some cases where the contact procedure continued even after the address had been found to be ineligible and some cases where information on neighbourhood characteristics was missing.

11. Ireland

Some outstanding issues include the following: (i) in a number of cases, the final status had been recorded as 'missing contact forms'; (ii) in a large number of cases, the timing of each contact attempt is missing; (iii) in a number of cases, the outcome of visits has not been specified; (iv) as far as refusers are concerned, some additional information

has not been recorded well, e.g. interviewer's assessment of likelihood of future cooperation, reasons for refusal and age and gender; (v) the proportion item non-response for neighbourhood characteristics is quite high.

12. Netherlands

In the first place, information is not available on variable 'INTERV' (interview information for the sample unit). Other problems include the following: (i) some information is missing on timing (hour, minute); (ii) some information is missing on 'outcome when there was no interview' (OUTNIA variable); (iii) in the case of refusal, more information is missing: COOP and RERSA are not estimated and age and gender are not estimated respectively (code '99').

13. Norway

Some issues are to be noted: (i) four neighbourhood variables have not been registered due to legal restrictions; (ii) for some sample units, values are missing because of 'opt out' list and some mistake in the fieldwork management; (iii) initial contact attempts were made by phone and not registered as contact attempts until contact was made, which caused an underestimation of the total number of contact attempts; (vi) some information is missing on timing and on the 'result of contact attempt'.

14. Poland

Some minor problems are to be noted: (i) for refusals, information is missing on the likelihood of future cooperation and/or on the reason for refusal; (ii) some information is missing on the timing and variable OUTNIA 'outcome when there was no interview'; and (iii) some information is also missing on neighbourhood characteristics.

15. Portugal

The major problem is the fact that the 'outcome when there was no interview' (OUTNIA variable) has not always been recorded properly.

16. Romania

Some issues are to be noted: (i) in the case of refusal, some information is missing such as the exact timing of the refusal, the interviewer's assessment of future cooperation, and/or the reason for the refusal; (ii) in a number of cases, the 'result of visit' (RESULB variable) has not been recorded.

17. Russia

No major issue is to be noted except for some cases where information on neighbourhood characteristics was missing. In number of cases, age and gender information is missing but this is acceptable since refusal was at the household level.

18. Slovakia

Some outstanding issues are to be noted: (i) for a number of units, the final status has been recorded as 'missing contact forms'; (ii) information is missing on 'outcome when there was no interview' (OUTNIA variable); (iii) the information on each contact attempt is not always fully complete (date, day, hour, minute or mode of the visit); (iv) in the case of refusal, some information is missing concerning timing, probability of future cooperation, reason, age and gender; (v) some information on neighbourhood characteristics is missing.

19. Slovenia

Some outstanding issues are to be noted: (i) for a number of units, the final status has been recorded as 'missing contact forms' and in some cases, there are inconsistencies between the contact file and the main file; (ii) some contact information is missing such as missing values on timing and mode of visits; (iii) for variable 'TOTCINT' some information was missing; (iv) there are inconsistencies between the number of visits recorded in the contact history and the total number of contact attempts; (v) the weekday recorded for a particular date is not always correct; (vi) 'outcome when there was no interview' (OUTNIA variable) is not filled in correctly; (vii) for refusals, some information is missing, such as, timing of refusal; estimation of likelihood of future cooperation and reason for refusal (viii) and some information for neighbourhood characteristics is missing.

20. Spain

Some issues are noted: (i) for refusals, some information is missing: timing of refusal, likelihood of future cooperation, and reason for refusal as well as estimation of age and gender; (ii) in some cases, more than three interviewers visited the unit but this was not always reported in the contact forms therefore complete contact procedure information is missing.

21. Sweden

Some issues are noted: (i) four variables on neighbourhood characteristics and information on age and gender among refusers are missing due to legal restrictions; (ii) for each refusal, only one reason for refusal was recorded; (iii) there have been additional contact attempts even after an address was registered as ineligible.

22. Switzerland

Some issues are to be noted: (i) age and gender have not been estimated in the case of refusals; (ii) the contact procedure did not always end after an address was found to be invalid.

23. Ukraine

Some issues are to be noted: (i) some information is missing on the 'outcome when there was no interview' (OUTNIA variable); (ii) for refusals, timing, the interviewer's assessment of future cooperation and the reason for refusal have not been well recorded; (iii) some contact information on timing and mode is missing.

APPENDIX 3 - TABLES

Table A1. Achieved response, non-contact, refusal and not able/other rates, Round 3 ¹¹

	Response	Non-contact	Refusal	Not able/other nonresponse	Total
AT	2406	347	912	95	3760
	63.99	9.23	24.26	2.53	
BE	1798	85	710	354	2947
	61.01	2.88	24.09	12.01	
BG	1400	58	565	139	2162
	64.75	2.68	26.13	6.43	
CH	1801	80	1467	253	3601
	50.01	2.22	40.74	7.03	
CY	995	32	60	392	1479
	67.28	2.16	4.06	26.50	
DE	2916	276	1400	916	5508
	52.94	5.01	25.42	16.63	
DK	1505	99	1122	238	2964
	50.78	3.34	37.85	8.03	
ES	1876	93	615	248	2832
	66.24	3.28	21.72	8.76	
FI	1896	79	683	288	2946
	64.36	2.68	23.18	9.78	
FR	1987	286	1754	293	4320
	46.00	6.62	40.60	6.78	
GB	2293	315	1174	620	4402
	52.09	7.16	26.67	14.08	
HU	1516	67	607	108	2298
	65.97	2.92	26.41	4.70	
IE	1626	293	444	864	3227
	50.39	9.08	13.76	26.77	
NL	1889	81	1052	137	3159
	59.80	2.56	33.30	4.34	
NO	1749	21	703	245	2718
	64.35	0.77	25.86	9.01	
PL	1718	31	400	302	2451
	70.09	1.26	16.32	12.32	
PT	2220	115	640	79	3054
	72.69	3.77	20.96	2.59	
RO	2139	297	526	13	2975
	71.90	9.98	17.68	0.44	
RU	2437	174	837	59	3507
	69.49	4.96	23.87	1.68	
SE	1926	60	673	280	2939
	65.53	2.04	22.90	9.53	
SI	1474	65	361	373	2273
	64.85	2.86	15.88	16.41	
SK	1766	93	356	198	2413
	73.19	3.85	14.75	8.21	
UA	2008	159	730	114	3011
	66.69	5.28	24.24	3.79	

¹¹ This is without the category 'ineligible'.

Table A2. Achieved response, non-contact, refusal rates and sample sizes, Round 1-3

country	Response rate			Non-contact rate			Refusal rate			Eligible sample size			Total sample size		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
AT	60.4	62.4	63.99	10.1	6.9	9.23	27	29.7	24.26	3739	3615	3760	3828	3672	3800
BE	58.4	61.2	61.01	4.5	3.5	2.88	25.2	26.4	24.09	3252	2906	2947	3340	3018	3249
BG			64.75			2.68			26.13			2162			2357
CH	32.5	48.5	50.01	3.8	2.1	2.22	51.2	44.0	40.74	6283	4600	3601	5086	4863	3710
CY			67.28			2.16			4.06			1479			1481
CZ	43.3	55.3		11.6	10.9		20	11.1		3139	5474		3330	5531	
DE*	51.7	51.0	52.94	5.7	7.0	5.01	28.2	32.8	25.42	5642	5633	5508	5796	5868	5712
DK**	68.4	64.2	50.78	4.6	4.9	3.34	23	24.6	37.85	2143	2313	2964	2150	2433	3000
EE		79.1			3.4			11.3			2515			2861	
ES	51.5	54.9	66.24	7.6	7.1	3.28	33.9	25.1	21.72	3360	3031	2832	3657	3206	3290
FI	73.3	70.7	64.36	2.9	2.1	2.68	20.8	22.7	23.18	2732	2859	2946	2766	2893	3000
FR***	43.1	43.6	46	14.7	8.6	6.62	38.5	39.3	40.6	3488	4145	4320	3748	4400	4680
GB****	55	50.6	52.09	3.5	7.9	7.16	30.6	33.2	26.67	3763	3746	4402	4013	4032	4752
GR	79.5	78.8		1.7	3.6		16.9	16.5		3226	3055		3227	3056	
HU	69.3	66.6	65.97	3.1	(5.7)	2.92	14.9	15.0	26.41	2430	2248	2298	2484	2463	2635
IE	64.4	62.0	50.39	8.1	10.6	9.08	22.9	21.6	13.76	3179	3689	3227	3241	3981	3400
LU	42.6	50.1		6.7	7.1		36.5	34.8		3641	3261		3773	3497	
NL	67.8	64.3	59.80	2.5	2.7	2.6	26.2	29.1	33.3	3486	2924	3159	3570	3009	3254
NO	65	66.2	64.35	3	1.7	0.77	24.2	25.9	25.86	3131	2657	2718	3215	2750	2750
PL	72.1	73.7	70.09	0.8	0.9	1.26	19.6	19.1	16.32	2927	2329	2451	2978	2392	2574
PT	68.8	71.3	72.69	3.2	2.7	3.77	26.9	18.2	20.96	2196	2879	3054	2366	3079	3135
RO			71.90			9.98			17.68			2975			3210
RU			69.49			4.96			23.87			3507			3551
SE*	69	65.4	65.53	4	2.4	2.04	21	22.0	22.9	2878	2980	2939	3000	2997	3000
SI**	70.5	70.2	64.85	5.1	10.2	2.86	17.3	15.3	15.88	2154	2053	2273	2222	2201	2340
SK		62.7	73.19		5.90	3.85		22.70	14.75		2410	2413		2500	2500
UA		66.6	66.69		6.3	5.28		16.1	24.24		2845	3011		3050	3014

* Discrepancy between NTS and CF about number of selected sample units that are moved out of county. NTS reports 339 cases but no trace of this in CF. This is reason for discrepancy between response rates based on NTS (55.7%) and on CF (51.7%).

** Figures based on NTS for Round 1. () Figure for non contacts comes from NTS

*** For reason of comparability, figures for France are based on NTS for both rounds because of Round 1 (call record data were missing for France)

**** Figures based on NYS in Round 2.

Table A3. Distribution of mean number of calls made to non-contacts, Round 3

	Mean number contact attempts	Non-contact rate
AT	4.35	9.23
BE	6.52	2.88
BG	4.02	2.68
CH	39.48	2.22
CY	4.13	2.16
DE	2.13	5.01
DK	3.91	3.34
ES	5.62	3.28
FI	5.28	2.68
FR	5.69	6.62
GB	8.37	7.16
HU	5.33	2.92
IE	3.78	9.08
NL	7.32	2.56
NO	2.62	0.77
PL	4.52	1.26
PT	4.1	3.77
RO	3	9.98
RU	3.33	4.96
SE	10.38	2.04
SI	4.32	2.86
SK	3.29	3.85
UA	3.19	5.28

Table A4. Distribution of number of calls made to non-contacts, Round 3

	<4	4	>4
AT	49.86%	22.77%	27.38%
BE	1.18%	28.24%	70.59%
BG	0.00%	98.28%	1.72%
CH	12.50%	1.25%	86.25%
CY	0.00%	87.50%	12.50%
DE	86.96%	4.71%	8.33%
DK	60.61%	8.08%	31.31%
ES	2.15%	31.18%	66.67%
FI	34.18%	15.19%	50.63%
FR	4.55%	2.10%	93.36%
GB	8.57%	3.49%	87.94%
HU	2.99%	14.93%	82.09%
IE	48.46%	20.14%	31.40%
NL	11.11%	7.41%	81.48%
NO	61.90%	19.05%	19.05%
PL	22.58%	25.81%	51.61%
PT	9.57%	75.65%	14.78%
RO	100.00%	0.00%	0.00%
RU	58.62%	27.59%	13.79%
SE	8.33%	11.67%	80.00%
SI	41.54%	9.23%	49.23%
SK	34.41%	62.37%	3.23%
UA	34.59%	65.41%	0.00%

Table A5. Distribution of number of weekend, evening and morning/afternoon attempts made to non-contacts, Round 3

	% non-contacts evening attempts			% non-contacts weekend attempts		
	0	1	>1	0	1	>1
AT	7.78%	20.46%	71.76%	33.14%	29.97%	36.89%
BE	1.18%	25.88%	72.94%	1.18%	43.53%	55.29%
BG	25.86%	29.31%	44.83%	27.59%	25.86%	46.55%
CH	6.25%	5.00%	88.75%	21.25%	12.50%	66.25%
CY	31.25%	31.25%	37.50%	15.63%	40.63%	43.75%
DE	49.64%	36.23%	14.12%	73.19%	23.91%	2.90%
DK	35.35%	22.22%	42.42%	50.51%	17.17%	32.32%
ES	0.00%	19.35%	80.65%	5.38%	55.91%	38.71%
FI	2.53%	30.38%	67.09%	83.54%	13.92%	2.53%
FR	0.35%	22.03%	77.63%	0.35%	37.06%	62.59%
GB	7.62%	16.83%	75.57%	19.68%	27.62%	52.70%
HU	19.40%	22.39%	58.22%	16.42%	23.88%	59.70%
IE	35.15%	22.87%	41.98%	50.51%	30.38%	19.11%
NO	14.29%	47.62%	38.09%	71.43%	28.57%	0.00%
NL	18.52%	9.88%	71.60%	38.27%	30.86%	30.86%
PL	19.35%	22.58%	58.06%	16.13%	22.58%	61.29%
PT	13.04%	20.87%	66.08%	12.17%	29.57%	58.26%
RO	66.67%	30.64%	2.69%	26.26%	60.94%	12.79%
RU	25.29%	29.89%	44.83%	24.71%	33.91%	41.38%
SE	13.33%	13.33%	73.33%	36.67%	45.00%	18.33%
SI	35.38%	32.31%	32.31%	26.15%	41.54%	32.31%
SK	32.26%	34.41%	33.33%	30.11%	33.33%	36.56%
UA	46.54%	33.96%	19.50%	26.42%	25.79%	47.80%

Table A6. Period during which attempts were made to contact non-contacts, Round 3

	< 2 weeks	2 weeks or over
RO	100%	0%
UA	100%	0%
BG	100%	0.00%
CY	96.88%	3.13%
AT	93.08%	6.92%
RU	88.51%	11.49%
PT	80.87%	19.13%
IE	75.09%	24.91%
DE	74.28%	25.72%
NO	61.90%	38.10%
DK	59.60%	40.40%
SK	53.76%	46.24%
SI	52.31%	47.69%
HU	29.85%	70.15%
PL	25.81%	74.19%
BE	23.53%	76.47%
FI	20.25%	79.75%
FR	16.78%	83.22%
GB	14.92%	85.08%
CH	11.25%	88.75%
ES	5.38%	94.62%
NL	2.47%	97.53%
SE	1.67%	98.33%

Table A7. Probability of contact at occasion of first, second and third visit according to the timing of visit, Round 3

1. First contact attempt

	Timing attempt 1		
	Morning/afternoon	Evening	Weekend
AT	0.31	0.30	0.28
BE	0.59	0.68	0.60
BG	0.84	0.81	0.90
CH	0.47	0.39	0.42
CY	0.89	0.25	0.99
DE	0.66	0.73	0.69
DK	0.65	0.64	0.55
ES	0.62	0.69	0.65
FI	0.67	0.68	0.64
FR	0.44	0.47	0.52
GB	0.47	0.64	0.48
HU	0.63	0.48	0.71
IE	0.52	0.34	0.47
NL	0.50	0.62	0.60
NO	0.92	0.95	0.86
PL	0.80	0.78	0.83
PT	0.46	0.47	0.59
RO	0.90	0.91	0.92
RU	0.60	0.66	0.64
SE	0.58	0.66	0.75
SI	0.71	0.86	0.78
SK	0.69	0.74	0.77
UA	0.74	0.80	0.81

2. Second contact attempt

	Timing attempt 2		
	Morning/afternoon	Evening	Weekend
AT	0.41	0.41	0.39
BE	0.46	0.53	0.37
BG	0.65	0.45	0.60
CH	0.45	0.45	0.42
CY	0.31	0.60	0.38
DE	0.51	0.52	0.53
DK	0.46	0.49	0.46
ES	0.54	0.53	0.49
FI	0.49	0.48	0.54
FR	0.40	0.37	0.38
GB	0.33	0.47	0.39
HU	0.52	0.41	0.52
IE	0.37	0.35	0.41
NL	0.41	0.54	0.42
NO	0.53	0.56	0.58
PL	0.57	0.59	0.55
PT	0.36	0.35	0.46
RO	0.01	0.00	0.00
RU	0.41	0.40	0.45
SE	0.37	0.49	0.53
SI	0.53	0.58	0.44
SK	0.53	0.58	0.52
UA	0.52	0.41	0.50

3. Third contact attempt

	Timing attempt 3		
	Morning/afternoon	Evening	Weekend
AT	0.62	0.55	0.57
BE	0.43	0.48	0.43
BG	0.47	0.63	0.53
CH	0.38	0.39	0.38
CY	0.07	0.33	0.14
DE	0.44	0.45	0.55
DK	0.43	0.42	0.37
ES	0.41	0.41	0.39
FI	0.37	0.38	0.50
FR	0.40	0.32	0.35
GB	0.22	0.38	0.33
HU	0.50	0.33	0.49
IE	0.35	0.37	0.36
NL	0.30	0.45	0.34
NO	0.38	0.55	0.50
PL	0.52	0.54	0.54
PT	0.35	0.32	0.39
RO	0.00	0.00	0.00
RU	0.48	0.48	0.52
SE	0.32	0.44	0.29
SI	0.41	0.59	0.57
SK	0.55	0.51	0.59
UA	0.30	0.50	0.37

Table A9. Obtained interview rate after one, two, three, four and more visits, Round 3

	Number of visits				
	1 visit	2 visits	3 visits	4 visits	>4 visits
AT	0.00	9.47	46.33	56.73	63.99
BE	9.50	28.23	41.70	49.24	61.01
BG	49.68	61.42	64.25	64.71	64.75
CH	4.28	17.52	27.21	35.77	50.01
CY	61.12	66.19	66.80	67.07	67.28
DE	13.29	27.72	37.51	43.63	52.94
DK	6.01	24.43	35.46	42.04	50.78
ES	13.06	31.21	43.71	52.01	66.24
FI	2.07	25.36	40.16	49.05	64.36
FR	7.92	21.85	31.81	38.06	46.00
GB	10.31	22.54	31.58	38.07	52.09
HU	35.20	51.91	59.31	62.18	65.97
IE	17.42	29.66	37.75	43.70	50.39
NL	4.65	18.99	30.33	39.03	59.80
NO	8.24	32.30	46.54	54.86	64.35
PL	33.70	52.18	61.40	65.89	70.09
PT	32.06	50.46	59.95	65.32	72.69
RO	65.58	70.49	71.90	71.90	71.90
RU	37.47	52.58	62.19	66.41	69.49
SE	0.00	20.04	32.97	43.21	65.53
SI	22.44	40.26	51.08	57.81	64.85
SK	30.05	51.76	64.11	72.15	73.19
UA	47.82	60.97	65.12	66.38	66.69

Table A10. Mode of contact at first visit, percentages, Round 3

	face-to-face	telephone	other
AT	97.24	0	2.76
BE	96.28	0.55	3.17
BG	99.79	0	0.21
CH	92.86	0	7.14
CY	73.13	0.34	0.81
DE	78.76	18.96	0
DK	31.40	54.93	13.66
ES	96.38	0	3.61
FI	9.63	88.13	2.23
FR	93.55	0	6.45
GB	93.5	0.15	4.58
HU	97.65	0.27	2.08
IE	97.47	0.21	2.32
NL	95.45	1.11	3.35
NO	16.07	78.44	5.16
PL	94.79	0	3.19
PT	94.32	0	5.68
RO	100.00	0	0
RU	97.97	0.20	1.83
SE	3.50	94.77	1.73
SI	67.61	18.59	9.32
SK	93.40	2.24	4.24
UA	98.90	0.37	0.73

Table A11. Result of first contact by telephone, Round 3, 6 selected countries

	OUTCOME AFTER FIRST ATTEMPT BY TELEPHONE			
	appointment	refusal by R. proxy or household	R not availably/away	other
DE	26.3%	35.48%	27.26%	10.9%
DK	48.27%	21.01%	6.15%	24.5%
FI	77.58%	11.18%	2.04%	9.1%
NO	43.49%	16.41%	19.24%	20.8%
SE	37.21%	20.02%	20.49%	22.2%
SI	34.93%	18.81%	31.9%	14.3%

Table A12. Outcome refusal conversion attempts¹², Round 3

N cases %	No attempt	Attpt. no contact made	Attpt, contact but no interview	Attpt, completed interview	Total
AT	856	3	53	1	913
	93.76	0.33	5.81	0.11	
BE	276	77	366	140	859
	32.13	8.96	42.61	16.30	
BG	565	0	0	0	565
	100.00	0.00	0.00	0.00	
CH	461	24	983	174	1642
	28.08	1.46	59.87	10.60	
CY	60	0	0	0	60
	100.00	0.00	0.00	0.00	
DE	1029	25	425	547	2026
	50.79	1.23	20.98	27.00	
DK	1117	0	5	2	1124
	99.38	0.00	0.44	0.18	
ES	311	21	285	154	771
	40.34	2.72	36.96	19.97	
FI	501	23	159	30	713
	70.27	3.23	22.30	4.21	
FR	815	128	820	163	1926
	42.32	6.65	42.58	8.46	
GB	385	230	567	122	1304
	29.52	17.64	43.48	9.36	
HU	402	22	183	72	679
	59.20	3.24	26.95	10.60	
IE	348	89	67	80	584
	59.59	15.24	11.47	13.70	
NL	198	69	785	415	1467
	13.50	4.70	53.51	28.29	
NO	424	10	266	103	803
	52.80	1.25	33.13	12.83	
PL	278	7	115	53	453
	61.37	1.55	25.39	11.70	
PT	594	45	3	16	658
	90.27	6.84	0.46	2.43	
RO	526	0	0	0	526
	100.00	0	0	0	
RU	659	22	156	40	877
	75.14	2.51	17.79	4.56	
SE	220	9	445	246	920
	23.91	0.98	48.37	26.74	
SI	237	10	121	91	459
	51.63	2.18	26.36	19.83	
SK	279	6	74	67	426
	65.49	1.41	17.37	15.73	
UA	697	0	33	2	732
	95.22	0.00	4.51	0.27	

¹² Only refusers are included.

Table A13. Effects of refusal conversion activities on final response rates, percentages,
Round 3

	Final response rate	Response rate before refusal conversion	Differences before and after conversion
AT	63.99	63.96	0.03
BE	61.01	56.26	4.75
CH	50.01	45.18	4.83
DE	52.94	43.01	9.93
DK	50.78	50.71	0.07
ES	66.24	60.81	5.44
FI	64.36	63.34	1.02
FR	46.00	42.22	3.77
GB	52.09	49.32	2.77
HU	65.97	62.84	3.13
IE	50.39	47.91	2.48
NL	59.80	46.66	13.14
NO	64.35	60.56	3.79
PL	70.09	67.93	2.16
PT	72.69	72.17	0.52
RU	69.49	68.35	1.14
SE	65.53	57.16	8.37
SI	64.85	60.84	4.00
SK	73.19	70.41	2.78
UA	66.69	66.62	0.07

Table A14. Percentage of refusal conversion attempts, Round 2-3

	Round 2	Round 3
AT	9.94	6.24
BE	40.75	68.59
CH	75.98	71.97
DE	48.29	51.21
DK	2.10	0.62
ES	35.12	59.82
FI	39.22	29.73
HU	11.78	40.80
NL	87.78	86.50
NO	21.47	47.02
PL	28.02	38.63
PT	13.36	9.76
SE	30.37	76.17
SK	40.03	34.75

Table A.15. Initial refusal rate, amount of refusal conversion attempts and success rate of refusal conversion, Round 3

Country	# reapproached	% of refusals reapproached (1)	reapproach non contact	reapproach refusal	re-approach & interview	success rate* (on # reapproached) (2)	Effect on response enhancement (1X2)
AT	57	6.24	3	53	1	0.018	0.11
BE	583	68.59	77	366	140	0.240	16.47
BG	0	0.00	0	0	0	0.000	0.00
CH	1181	71.97	24	983	174	0.147	10.60
CY	0	0.00	0	0	0	0.000	0
DE	997	51.21	25	425	547	0.549	28.09
DK	7	0.62	0	5	2	0.286	0.18
ES	460	59.82	21	285	154	0.335	20.03
FI	212	29.73	23	159	30	0.142	4.21
FR	1111	57.96	128	820	163	0.147	8.50
GB	919	70.91	230	567	122	0.133	9.41
HU	277	40.80	22	183	72	0.260	10.60
IE	236	45.04	89	67	80	0.339	15.27
NL	1269	86.50	69	785	415	0.327	28.29
NO	379	47.02	10	266	103	0.272	12.78
PL	175	38.63	7	115	53	0.303	11.70
PT	64	9.76	45	3	16	0.250	2.44
RO	0	0.00	0	0	0	0.000	0.00
RU	218	24.86	22	156	40	0.183	4.56
SE	700	76.17	9	445	246	0.351	26.77
SI	222	49.12	10	121	91	0.410	20.13
SK	147	34.75	6	74	67	0.456	15.84
UA	35	4.78	0	33	2	0.057	0.27

* The success rate is dependent on the proportion successful refusal conversion and the percentage of original refusals who are reapproached. It is defined as the proportion success times percentage re-approached.

Table A16. Success rate of refusal conversion activities, Round 2-3

	Proportion success (on # reapproached)		Overall effect rate	
	R2	R3	R2	R3
AT	0.019	0.018	0.19	0.11
BE	0.247	0.240	10.07	16.47
CH	0.099	0.147	7.53	10.60
DE	0.435	0.549	21.03	28.09
DK	0.167	0.286	0.35	0.18
ES	0.264	0.335	9.29	20.03
FI	0.185	0.142	7.24	4.21
FR	0.381	0.147	0.96	8.50
GB		0.133		9.41
HU	0.395	0.260	4.66	10.60
IE		0.339		15.27
NL	0.433	0.327	38.04	28.29
NO	0.385	0.272	8.27	12.78
PL	0.367	0.303	10.28	11.70
PT	0.208	0.250	2.78	2.44
RU		0.183		4.56
SE	0.102	0.351	3.11	26.77
SI		0.410		20.13
SK	0.402	0.456	16.10	15.84
UA		0.057		0.27