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How Does Length of Fieldwork Period Influence Non-Response? Findings from ESS 2 in Poland

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In this paper we show how one method of increasing the response rate, i.e. an extension of the fieldwork period, influences the structure of non-response and the differences between respondents and non-respondents. We used data from the Pilot Study and the Main Study for the European Social Survey, Round 2, and from follow-up studies conducted after each of those. The fieldwork period of the Pilot Study was 11 days and the one of the Main Study was nearly 2.5 months. The follow-up study involved distributing a mail questionnaire to people who did not participate in the face-to-face survey (non-respondents). Extension of the fieldwork period brought a relatively modest increase in the response rate. However, a comparison of differences between the respondents and non-respondents for a short and a long fieldwork period demonstrated that those differences occurred in demographic variables and in opinion questions. We also compared the effect of the length of fieldwork period on differences between the respondents and two categories of non-respondents: refusers and inaccessible for other reasons. We did not find any effect of the length of the fieldwork period on differences between respondents and inaccessible for other reasons, neither in socio-demographics nor in opinion questions. However, the effect did occur when we compared respondents and refusers.

Key words: non-response • fieldwork • European Social Survey

BACKGROUND

The non-response phenomenon in surveys is currently among the main areas drawing attention of methodologists. This is hardly surprising as the actual percentage of successful interviews in the original sample or, more precisely, the response rate,¹ has been systematically declining over time and this trend seems to affect all countries (see, for instance, de Leeuw and de Heer 2002; Alroistic et al. 2001). Meanwhile, the achieved response rate is generally considered to be the main criterion to assess the value of survey data. According to popular belief, the higher the response rate, the more trust we may have in the findings obtained. However, it is very likely that non-respondents may differ from respondents (i.e. those who actually participated) in systematic and unpredictable ways and if the response rate is low, the survey results may be biased. For this reason, many surveys apply special, often costly procedures in order to increase the response rate, for example advance letters, additional letters to refusers during the first contact, incentives, refusal conversion, repeated attempts to contact hard-to-reach persons etc. (for face-to-face interviews, see, for instance, *Guidelines for enhancing response rates*, www.europeansocialsurvey.org).

Meanwhile, results of many surveys indicate that even a considerable increase in the response rate does not reduce the non-response bias. As a rule, such studies are conducted according to the one of two different designs. The first one compares responses given by converted refusers and hard-to-contact respondents with those provided by initial co-operators, treating the former two categories as ‘difficult’ respondents (attempts to conduct interviews with them in a standard survey usually fail). The second design involves a comparison of findings from two parallel surveys: a standard survey and a rigorous survey, the latter applying special methods to enhance the response rate.

Tom Smith (1984) compared converted refusers (‘temporary refusers’) with co-operative respondents using the General Social Survey data. In his comparison he included 63 items concerning aspects where, based on previous research, refusers may be different from cooperatives, including demographics and interviewers’ assessment of the respondents’ co-operativeness in the interview. Statistically significant differences between refusers and co-operatives were found in only 12 items. Half of them concerned demographics, and, moreover, the differences were minor in the vast majority of cases. A difference exceeding 10 percentage points occurred only once, in refusals to provide an answer about incomes.

Curtin et al. (2000) used a similar method to analyse the effect of response rate on the Index of Consumer Sentiment (ICS) but, apart from converted refusers, they additionally included hard-to-reach respondents, i.e. cases where the interview was successfully completed not during the first call but the subsequent one. Those data came from face-to-face studies conducted over a period of nearly 20 years.

Over those years the response rate was about 70 percent. Analyses have shown that if converted refusers were excluded from the pool of completed interviews, the response rate fell by 5–10 points; if cases where only the 6th or subsequent attempt led to a completed interview were excluded, the rate was reduced by 25 points; and exclusion of respondents where more than two calls were required reduced the response rate by 50 points. Those categories differed from co-operatives in terms of their ICS but this effect disappears for converted refusers when demographic variables are controlled. However, those analyses involved very large samples, covering data from ca. 10 years, and for point estimates. Similar analyses conducted for smaller samples, close to those applied in standard studies, showed that only exclusion of the respondents who required more calls has an impact on ICS and only with the relatively largest, annual samples. On the other hand, time series estimates generally remained highly resistant to the exclusion of respondents who required more effort.

Keeter et al. (2000, 2006) applied a different research design to assess the impact of the response rate on non-response bias. They compared the results of a “standard” survey employing the Pew Research Center’s usual methodology with results from a “rigorous” survey. The surveys were conducted with the CATI methodology using random digit dial (RDD). The study was conducted twice.

In the first of the studies (Keeter et al. 2000), the “standard” survey was conducted over a 5-day period, each number was called a minimum of five times, and one follow-up call was made to households that refused. On the other hand, the “rigorous” survey was conducted over 8 weeks, and households with listed telephone numbers were sent an advance letter that included a \$2 bill. The questionnaire contained questions often found in opinion polls. Additionally, it included questions on issues where differences could be expected between co-operatives and reluctant respondents and between the easy-to-reach respondents and those who are more difficult to contact. The response rate achieved in the “standard” survey was 36 percent, whereas the “rigorous” one reached 60.6 percent. A comparison of answers from those surveys showed that out of 91 items considered only 14 had statistically significant differences, including seven in demographics. Overall, the differences were minor, none of them exceeding 9 percentage points. A comparison of demographics from the two surveys against the Current Population Survey (CPS) data demonstrated that the differences were generally minor, even though the distributions of those items in the standard survey resembled the CPS more closely than did the distributions in the “rigorous” survey.

The aforementioned study also separately compared two categories of the respondents: co-operatives vs. reluctant and easy-to-reach and hard-to-reach respondents. Out of the 91 covered items, a statistically significant difference between co-operatives and reluctant respondents occurred in eight, of which

three items concerned attitudes towards the interview and surveys, two related to demographics and three to opinions. As for accessibility, the differences between the easy-to-reach and hard-to-reach respondents were found in 20 items. The most significant of them concerned age and education. Most of the remaining items where differences occurred were strongly correlated with those variables.

In their second study, Keeter et al. (2006) conducted the “standard” survey in a similar way but each number was called a minimum of ten times. The “rigorous” survey was conducted over a period of 21 weeks, and apart from the previously applied procedures to maximise the response rate, refusal conversion letters were also used. The response rate achieved in the “standard” survey was 25 percent, whereas the “rigorous” survey brought a rate of 50 percent. Comparison of data from both surveys against CPS showed slight differences in certain demographics but, overall, the “rigorous” sample was not closer to population parameters than the “standard” one. As for the questions on attitudes and behaviours in the questionnaire, only 7 out of 84 survey items showed significant differences. However, even those were generally minor, not exceeding 8 points. Therefore, despite considerable differences in response rate between the “standard” and “rigorous” surveys, the study confirms the findings from the previous study: non-response does not introduce substantial bias into the estimates. The conclusion is similar when the category of “hardest-to-reach” is included in comparisons, i.e. the respondents who had refused the interview at least twice and/or required 21 or more calls to complete.

However, other research indicates that an increase in response rate may lead to a reduction in non-response bias. Teitler et al. (2003) analysed this issue by comparing information on fathers of new born babies obtained from mothers against information obtained from easy-to-reach and harder-to-reach fathers. Accessibility was measured with the effort required to hold an interview with the father (interview in hospital, by telephone or in person). In total, interviews with 80 percent of fathers were completed: 68 percent easy to reach, 9.6 percent harder to reach (telephone interview) and 2.3 percent hardest to reach (face-to-face). Compared were three sets of attributes: demographic, lifestyle/behavioural, and involvement. Analysis showed that “the characteristics of the sample approached those of the target population /all fathers, authors/ as response rates increased, but that the returns appear to have diminished at very high levels of effort. There is no question that our final sample, with an 80 percent response rate, more closely resembled the eligible population than it would have if we had stopped after our initial effort /.../, which yielded a response rate of 68 percent” (p. 135).

This paper will show how one method to increase the response rate, an extension of the fieldwork period, influences the structure of non-response and the differences between respondents and non-respondents, and, consequently, the non-response bias. Extension of the fieldwork period is among the most commonly used

methods to increase the response rate. It enables the repeated attempts to convince reluctant sampled persons to take part in the survey (refusal conversions), and multiple attempts to contact hard-to-contact persons as there is usually no time for such attempts in a standard survey. For this reason, this is one of the most costly methods, at least in face-to-face surveys.

DATA

In order to assess the effect of extended fieldwork period on non-response, we used data from two surveys and from follow-up mail studies conducted after each of them. The first one was the Pilot Study before the European Social Survey, Round 2. It was conducted between 26 February and 7 March 2004. The fieldwork period was 11 days. That survey was conducted on a random national sample of persons aged 15+, drawn without replacement. In towns of 100,000+ inhabitants a simple random sample was applied. In towns below 100,000 inhabitants and in rural areas the sampling was more complex: the sample was stratified by date of birth and clustered. The target sample size was 803 cases. A total of 505 interviews were completed, the response rate reached 64 percent.

The second case was the Main Study for the European Social Survey, Round 2. In that case the fieldwork period was nearly 2.5 months (from 10 October to 22 December 2004). The sample was drawn in an essentially identical fashion as in the Pilot Study. The only difference was that a simple random sample was applied in towns of 50,000+ inhabitants. The target sample size was 2,399 cases and the total number of interviews completed was 1716. The response rate was 74.1 percent. Out of 111 soft refusals 63 cases were successfully converted (56.7 percent).

Both surveys were completed by the Centre of Sociological Research at the Institute of Philosophy and Sociology, Polish Academy of Sciences. Interviews were conducted face-to-face in the respondent's own home. Both surveys followed the same rigorous design. Prior to commencement, advance letters were sent, and interviewers took part in a personal briefing session when they exchanged experience concerning doorstep interaction, refusal avoidance, and other refusal behaviours.

Around two months after the completion of each of those studies, we sent a mail questionnaire to people who, for a variety of reasons, did not participate in the face-to-face survey. The three-page questionnaire was anonymous. We assumed that the short time required for administration and a sense of anonymity would have a positive impact on the response rate. Questionnaires were not sent to people who were not included in the calculation of the response rate. This category consists of those who were found to be deceased, have emigrated permanently etc. Also, the mail questionnaire was not sent to individuals who had

moved to a new location and the new address could not be established, and those who were unable to participate in the survey for health reasons (e.g. advanced melanoma, mental impairment, and a variety of physical infirmities resulting from very advanced age).

Two weeks after the initial mailing of our questionnaire, we sent a reminder/thank you letter to the entire non-respondent sample. A total of 231 questionnaires were circulated after the Pilot Study. Entirely or partially completed questionnaires were received from 121 non-respondents, i.e. 52.4 percent. After finalizing the Main Study fieldwork, 567 questionnaires were sent and 204 non-respondents returned them (36 percent).

Both questionnaires sent after the Pilot Study and after the Main Study contained identical questions taken from the ESS questionnaire, including background characteristics items and opinion questions. The background items covered sex, age, main activity during the last seven days, level of education, number of people in the household, household income, and size of town/city.

The selection of opinion questions is crucial since their subject-matter, topic saliency, or strength of beliefs may determine similarities and differences between respondents and non-respondents. Knowing that an excessively long questionnaire may considerably reduce the response rate, we included only five opinion questions. They covered trust in other people, satisfaction with democracy, interest in politics, individual mood assessment, and role of women in the family. According to the social involvement hypotheses, non-respondents should be more distrustful than respondents towards other people, more critical towards the democratic system, less interested in politics, and bitter. We also assumed that the non-respondents have more traditional beliefs about women's roles².

LENGTH OF THE FIELDWORK PERIOD AND NON-RESPONSE STRUCTURE

The non-response structure is compared using materials deriving from the Pilot Study and Main Study in ESS2. As mentioned earlier, the former survey (fieldwork period: 11 days) yielded a response rate of 64.0 percent, whereas the latter one (fieldwork period: over 2.5 months) achieved a response rate of 74.1 percent. A considerable extension of the fieldwork period resulted in a very slight increase in the response rate: merely 10.1 points. If we juxtapose this result with the results obtained from the studies mentioned earlier (Curtin et al. 2000; Keeter et al. 2000, 2006), where the difference ranged from 25 to 35 points, we should conclude that this is not a very effective method to drive response rate, at least for ESS in Poland.

The tables below present changes in the structure of non-response (refusals and inaccessibility for other reasons) in the Pilot Study and the Main Study. The base

in the first table is the total number of unsuccessful attempts whereas the second table uses the total eligible sample. In both cases the base does not include the sampled persons who were not sent the mail questionnaire.

Table 1 Share of refusers and inaccessibles for other reasons among total non-response cases. A comparison between the Pilot Study (short fieldwork period) and the Main Study (long fieldwork period)

Study	Refusals	Inaccessibles for other reasons				Others
		Total	Respondent mentally or physically unable to co-operate	Respondent unavailable throughout the fieldwork period	No contacts	
Pilot Study N=284	56.7	43.3	3.9	23.5	15.9	-
Main Study N=592	71.1 (+14.4)	28.9 (-14.4)	3.2 (-0.7)	14.2 (-9.2)	9.0 (-6.9)	2.5

Table 2 Share of refusers and inaccessibles for other reasons in the total eligible sample. A comparison between the Pilot Study (short fieldwork period) and the Main Study (long fieldwork period)

Study	Refusals	Inaccessibles for other reasons				Others
		Total	Respondent mentally or physically unable to co-operate	Respondent unavailable throughout the fieldwork period	No contacts	
Pilot Study N=789	20.3	15.5	1.4	8.4	5.7	-
Main Study N=2308	18.2 (-2.1)	7.4 (-8.1)	0.8 (-0.6)	3.6 (-4.8)	2.3 (-3.4)	0.7

As may have been expected, extension of the fieldwork period influences the structure of non-response. If the base covers only the cases of non-response (Table 1), then we see a relative increase in the share of refusals and a relative decrease in the share of inaccessibles for other reasons. This is because, as data in Table 2 show, the overall increase in the response rate results primarily from the reduction in inaccessibility for other reasons with a similar percentage of refusals. Considering this, it is worth noting that despite a considerable extension of the fieldwork period in the Main Study, relatively few refusers were successfully converted. On the other hand, extension of the fieldwork period effectively reduced inaccessibility for other reasons, mostly because it opened the possibility to undertake repeated

contact attempts with unavailables throughout the fieldwork period and non-contacted persons.

This is illustrated by data from the Main Study of ESS2, concerning the completion of interviews during repeated calls. If we assume that the total number of completed interviews is 100 percent, then only 49.2 percent of the interviews were successfully conducted during the first visit, 26.9 percent were conducted during the second visit and further 19.4 percent were conducted during the 3rd and 4th visit. If the fieldwork period is short, there is no time to make the third and fourth call at the respondents who were unavailable earlier. Subsequent calls are far less effective because each of them brings ca. 1.5 percent interviews more. Interestingly, nearly identical findings were obtained in the same fieldwork procedure applied in the Main Study for ESS 3, conducted in 2006.

As may have been expected, an extension of the fieldwork period has little impact on the percentage of refusals but it significantly reduces the percentage of temporary unavailables and non-contacts.

LENGTH OF THE FIELDWORK PERIOD AND DIFFERENCES BETWEEN RESPONDENTS AND NON-RESPONDENTS: DEMOGRAPHICS

In order to check how the length of the fieldwork period may influence the differences between respondents and non-respondents, we compared survey data from respondents (Pilot Study and Main Study) against data obtained from non-respondents through the mail questionnaire circulated after the Pilot Study and the Main Study. Log-linear models were applied for our analysis.

Our analysis is based on unweighted data. However, a comparison of the structure of non-respondents who returned the mail questionnaire and the ones who did not revealed very little difference between those groups. The comparison was made with respect to three demographic characteristics: gender, age and domicile, and type of non-response: refusal and inaccessibility for other reasons (for details, see Sztabiński et al. 2007: 31-32).

Table 3 contains the results of the log-linear models applied for four socio-demographics: domicile, education, per capita income and main activity.³ In the case of those variables our previous analysis showed that non-respondents were different from respondents, either in the Pilot Study, or in the Main Study, or in both, in a statistically significant way (Sztabiński et al. 2007). In the [SG] [SD] [GD]⁴ model which we apply this time, we allow that non-respondents may differ from respondents with regard to the analysed variables. However, we assume that these differences are the same for two studies: the Pilot Study, where the fieldwork period was short, and the Main Study, where it was long. For instance, according to the tested hypothesis, it is possible that non-respondents are relatively more likely to be better educated, but this would have to be true for both studies and, moreover,

the size of those differences between non-respondents and respondents would have to be identical in both the Pilot Study and the Main Study. If we assume that both surveys are differentiated by the length of the fieldwork period, this model allows us to establish whether this characteristic has an effect on the differences between respondents and non-respondents, and, consequently, if extension of the fieldwork period may influence the non-response bias. A comparison of response distributions for the analysed variables is given in Appendix I, also decomposed into refusers and inaccessible.

Table 3 Goodness-of-fit for log-linear model^a claiming that differences between respondents and non-respondents are identical in terms of demographic variables in the Pilot Study and in the Main Study

D – analysed variable (socio-demographic characteristic)	df	χ^2	L ²
Domicile	6	9.90 (.129)	9.94 (.127)
Education	4	9.45 (.043)	9.25 (.043)
Per capita income	3	11.76 (.008)	11.71 (.008)
Mmain activity	4	1.10 (.893)	1.10 (.893)

^a The [SG] [SD] [GD] model assumes no three-way interaction between S (Pilot/Main Study), G (Respondents and Non-Respondents) and D (socio-demographic variables listed in the table), see the text for details.

Results of the analysis show that the model may be accepted at a significance level of 0.05 for two variables: domicile and main activity. This means that even if non-respondents do differ from respondents in these two variables in the Pilot Study (where the fieldwork period was short), similar differences between those groups occur in the Main Study (where the fieldwork period was long). Thus, there are no grounds to believe that the length of fieldwork period influences the differences between respondents and non-respondents with respect to these variables.

However, in the case of education and per capita income this model must be rejected at significance level 0.05. It implies that the differences between non-respondents and respondents with respect to these variables vary between the Pilot Study and the Main Study. This would mean that if we consider the differences in education and per capita income between non-respondents and respondents, then length of the fieldwork period does matter.

In order to see how the length of fieldwork period differentiates the interaction between being a non-respondent and education, we used saturated model parameters with a three-factor interaction, as presented in Table 4a below.

Table 4a Parameters^b for interaction between education and non-respondents for Pilot Study and Main Study

Study	Primary + lower secondary	Basic vocational	Secondary	Post-secondary, non tertiary	Tertiary
Pilot	-.467	-.139	.120	.290	.196
Main	-.183	-.065	-.011	.409	-.150

^b Parameters of saturated model [SGD] are totals of parameters which describe combined two factor [GD] and three factor effect [SGD]

In the Pilot Study a positive parameter for the category labelled as “Tertiary” indicates that this category of education is relatively more common among non-respondents than among respondents. This parameter is negative for the Main Study so the trend is reverse. Moreover, the discrepancies between respondents and non-respondents are more pronounced in the Pilot Study, as indicated by the absolute value of the parameters. For another category, “Post-secondary, non tertiary” parameter values in the two studies show that this category is more common among non-respondents and this regularity is more noticeable for the Main Study. The differing parameter values in the Main Study for two adjacent categories (.409 and -.150) is difficult to explain. As for the lowest category, “Primary + lower secondary”, the parameters are negative for both studies, which means that this category occurs relatively less frequently among non-respondents. The contrast between the respondents and non-respondents is more visible in the Pilot Study, as indicated in the higher absolute value of the parameter. Summing up, these results imply that better educated people are usually harder to reach, and less educated citizens are less likely to be among non-respondents. These trends seem more pronounced in the Pilot Study, when the fieldwork period is shorter.

Table 4b Parameters^b for interaction between per capita income and non-respondents for Pilot Study and Main Study

Study	PLN 300 or less	PLN 301-600	PLN 601-1,200	PLN 1,201 or more
Pilot	0.084	-0.104	-0.270	0.290
Main	0.237	-0.047	-0.055	-0.136

^b Parameters of saturated model [SGD] are totals of parameters which describe combined two factor [GD] and three factor effect [SGD]

Analogous parameters for per capita income are presented in Table 4b. In the Pilot Study, the highest income (PLN 1,201 or more) occurs relatively more frequently among non-respondents rather than respondents. In contrast, the relationship is different in the Main Study yet the differences are less pronounced, which is reflected in the lower absolute value of the parameter. Interestingly, this trend is not found in the adjacent income group (PLN 601-1,200): in the Pilot Study this category is relatively less frequent among non-respondents than among respondents. In the Main Study, this parameter is close to zero, which means there are no significant differences between non-respondents and respondents. Overall, however, in the Main Study one may claim that the higher the income, the lower the likelihood of being a non-respondent, which may partially stem from the fact that this variable is strongly correlated with education, as discussed above. Nevertheless, it is difficult to explain why individuals who belong to the lowest income group (PLN 300 or less) are more likely to be non-respondents in the Main Study whereas this trend is visibly weaker in the Pilot Study, where the fieldwork period was shorter.

Table 5 Goodness-of-fit for log-linear model^a claiming that differences between respondents and refusers and between respondents and inaccessible for other reasons are identical for demographic variables in the Pilot Study and the Main Study

D - analysed variable (socio-demographic characteristic)	Respondents vs Inaccessibles for other reasons			Respondents vs Refusers	
	df	χ^2	L ²	χ^2	L ²
Domicile	6	1.75 (.096)	11.08 (.086)	4.80 (.569)	4.84 (.564)
Education	4	3.05 (.549)	3.10 (.541)	8.75 (.067)	8.67 (.070)
Per capita income	3	4.2 (.240)	4.2 (.240)	9.0 (.029)	8.8 (.032)
Main activity	4	2.30 (.679)	2.35 (.672)	2.82 (.588)	2.85 (.582)

^a The [SG] [SD] [GD] model assumes no three-way interaction between S (Pilot/Main Study), G (respondents vs refusers or respondents vs inaccessible for other reasons) and D (socio-demographic variables listed in the table), see the text for details.

We also examined how length of the fieldwork period influences the differences between respondents and two groups of non-respondents: refusers and inaccessible for other reasons. The results from Table 5 indicate that when we analyse differences between respondents and inaccessible for other reasons, the model may be accepted at a significance level of 0.05 for all demographics under consideration. Therefore, in those cases the length of the fieldwork period has no effect on differences between those categories. On the other hand, if we compare

the differences between respondents and refusers, the results are different for one variable, i.e. per capita income. This shows that for this parameter the length of the fieldwork period has an effect on differences between respondents and refusers. Moreover, it is worth noting that the p-value obtained for education is only slightly beyond the significance level of 0.05. If we assumed a significance level of 0.1, those differences would need to be considered statistically significant.

This result may seem somewhat contrary to expectations. As we showed earlier, the percentage of refusers does not change much if the fieldwork period is extended, whereas the percentage of inaccessible for other reasons does shrink considerably. Therefore, it should have been expected that the length of the fieldwork period would have a stronger effect on the differences between respondents and this category of non-respondents, as the respective percentage shrinks most visibly in the Main Study. The result obtained here may lead to the conclusion that inaccessible for other reasons, encompassing primarily unavailables throughout the fieldwork period and non-contacted persons, can be described as “potential respondents” and, in this sense, are not different from those who actually take part in surveys.

Table 6a Parameters^b for interaction between per capita income and refusers for Pilot Study and Main Study

Study	PLN 300 or less	PLN 301-600	PLN 601-1,200	PLN 1,201 or more
Pilot	.123	.059	-.368	.186
Main	.310	.068	-.031	-.347

^b Parameters of saturated model [SGD] are totals of parameters which describe combined two factor [GD] and three factor effect [SGD]

Let us go back to the differences between refusers and respondents. In order to check how the length of fieldwork period differentiates the interaction between being a refuser and per capita income, we used the saturated model parameters with a three-factor interaction, as we did in our earlier analyses. Those parameters are shown in Table 6a.

The main findings are similar to those following from Table 4b where respondents and non-respondents were compared in an analogous analysis. Nevertheless, it is worth noting that the values for the Main Study are higher, which indicates that with a longer fieldwork period refusers are more likely to be the persons with relatively lower income and less likely to belong to the highest per capita income group.

Table 6b Parameters^b for interaction between education and refusers for Pilot Study and Main Study

Study	Primary + lower secondary	Basic vocational	Secondary	Post-secondary, non tertiary	Tertiary
Pilot	-.340	-.002	.042	.107	.201
Main	-.068	-.006	-.062	.470	-.334

^b Parameters of saturated model [SGD] are totals of parameters which describe combined two factor [GD] and three factor effect [SGD]

Table 6b shows analogous parameters for education where the differences between respondents and refusers were insignificant at 0.05 but with a slightly higher significance level they would need to be considered statistically significant. The length of the fieldwork period seems to have the strongest effect on refusals in the highest category which encompasses higher professional education and university education. In the Pilot Study, the most educated individuals were relatively more likely to occur among refusers than among respondents, whereas in the Main Study the best educated citizens were relatively less likely to be found among refusers. This is in line with our earlier findings for per capita income in the sense that more affluent citizens in Poland tend to be better educated and they have more opportunities to take up extra jobs. If the fieldwork period is shorter, many of them must refuse to take part in a survey, probably because lack of time. Extension of the fieldwork period creates an opportunity to hold an interview with them. However, the relationship is different for individuals with post-secondary non-tertiary education. Generally speaking, this group is relatively more likely to be refusers. This is more visible in the Main Study. As for individuals with primary and lower secondary education, they are relatively less likely to be found among refusers and this relationship is noticeable mostly when the fieldwork period is shorter.

LENGTH OF THE FIELDWORK PERIOD AND DIFFERENCES BETWEEN RESPONDENTS AND NON-RESPONDENTS: OPINION QUESTIONS

Analysis in this section is confined to the five questions which were included in the mail questionnaire circulated among non-respondents. Those questions pertain to trusting other people, satisfaction with democracy, interest in politics, individual mood assessment, and role of women in the family⁵. We conducted an analysis which was similar to that conducted for socio-demographic characteristics. As the first step, we tested the hypothesis that differences between non-respondents and respondents regarding the aforementioned variables are not affected by the type of survey (Pilot Study vs. Main Study) i.e. by the length of the fieldwork period. A comparison of response distributions for the analysed variables, also in the decomposition into refusers and inaccessible, is presented in Appendix II.

Table 7 Goodness-of-fit for log-linear model^a claiming that the differences between respondents and non-respondents are identical for the analysed opinion questions in the Pilot Study and the Main Study

D - analysed variable (socio-demographic characteristic)	df	χ^2	L ²
Trust in others	3	2.67 (.445)	2.67 (.445)
Satisfaction with democracy in Poland	3	8.12 (.044)	8.08 (.044)
Interest in politics	3	8.70 (.034)	8.72 (.033)
Individual mood assessment	3	12.15 (.007)	11.00 (.007)
Opinion on the role of women	4	7.62 (.106)	7.62 (.107)

^a The [SG] [SD] [GD] model assumes no three-way interaction between S (Pilot/Main Study), G (Respondents and Non-Respondents) and D (opinion variables listed in the table), see the text for details.

The results of analysis shown in Table 7 indicate that the model which assumes no effect of the length of fieldwork period (type of survey: Pilot Study and Main Study), may be accepted in the case of “Trust in others” and “Opinion on the role of women”. On the other hand, this model should be rejected in the case of “Interest in politics”, “Satisfaction with democracy” and “Individual mood assessment,” which means that the differences between non-respondents and respondents vary, depending on the type of study. This fact may support the conclusion that the length of fieldwork does influence the differences between respondents and non-respondents in the case of these variables.

Table 8a Parameters^b for interaction between interest in politics and Non-Respondents for Pilot Study and Main Study

Study	How interested would you say you are in politics?			
	1. Very interested	2. Quite interested	3. Hardly interested	4. Not at all interested
Pilot	.397	.085	-.178	-.304
Main	.009	.048	.078	-.135

^b Parameters of saturated model [SGD]. Values in the table describe combined two factor [GD] and three factor effect [SGD].

Table 8a shows how the length of fieldwork period differentiates the interaction between being a non-respondent and interest in politics. As in earlier analyses, we used saturated model parameters with a three-factor interaction. As we can see, non-respondents in the Pilot Study are relatively more likely than respondents to be interested in politics. There is no such relationship in the Main Study. This result

seems to stem from the aforementioned differences in non-respondents' education between the Pilot Study and the Main Study, that is individuals with higher professional and university education were more likely to be non-respondents in the Pilot Study. Results of additional analyses, which are not presented here, indicate that better educated people are more interested in politics. This result suggests that if the fieldwork period is shortened, interviews with individuals most interested in politics may be more difficult to hold.

Table 8b Parameters^b for interaction between satisfaction with democracy and non-respondents for Pilot Study and Main Study

Study	How satisfied are you with the way democracy works in Poland?			
	Very dissatisfied (0-1)	(2-4)	5	Very satisfied (6-10)
Pilot	.127	-.174	.098	-.050
Main	.364	-.032	-.056	-.276

^b Parameters of saturated model [SGD]. Values in the table describe combined two factor [GD] and three factor effect [SGD]

Also in the case of opinion questions concerning satisfaction with democracy in Poland (Table 8b) the differences between the two studies turned out to be statistically significant. Overall, in both studies, non-respondents are relatively likely to be dissatisfied with the way democracy works, yet this trend is much more visible for the Main Study. Satisfaction with democracy is less likely to occur among non-respondents, with the Main Study showing a clear relationship here and the Pilot Study showing a very weak one.

Table 8c Parameters^b for interaction between mood self-assessment and non-respondents for Pilot Study and Main Study

Study	How often have you felt cheerful and in good spirit over the last two weeks?			
	1. At no time + Some of the time	2. Less than half of the time	3. More than half of the time	4. Most of the time + All of the time
Pilot	.073	-.001	.031	-.102
Main	.344	.158	-.209	-.293

^b Parameters of saturated model [SGD]. Values in the table describe combined two factor [GD] and three factor effect [SGD]

Table 8c presents results of an analogous analysis for individual mood assessment. As regards mood self-assessment, the differences between respondents and non-respondents in the Main Study are more marked than those in the Pilot Study. In the case of the Pilot Study, all parameters are close to nil. On the other hand, non-respondents in the Main Study display a relatively stronger propensity to choose answers showing that they were rarely in a good mood and have a relatively weaker propensity to choose options that signify a good mood. These findings indicate, therefore, that the length of the fieldwork period may have an effect on the differences between respondents and non-respondents not only in the case of socio-demographics but also in the case of opinion questions.

Let us now move on to analysing the effect of the fieldwork period on the differences between respondents and refusers, and between respondents and inaccessible for other reasons. Table 9 shows statistics for goodness-of-fit for log-linear models for the questions included in our analysis.

Table 9 Goodness-of-fit for log-linear model^a claiming that the differences between respondents and refusers and between respondents and inaccessible for other reasons are identical for opinion questions in the Pilot Study and the Main Study

	df	Respondents vs inaccessibles for other reasons		Respondents vs refusers	
		χ^2	L ²	χ^2	L ²
Trust in others	3	3.28 (.350)	3.31 (.346)	3.32 (.345)	3.33 (.344)
Satisfaction with democracy	3	6.10 (.107)	6.20 (.102)	8.99 (.029)	9.44 (.024)
Interest in politics	3	6.15 (.104)	6.27 (.099)	3.14 (.371)	3.15 (.370)
Mood assessment	3	6.12 (.106)	5.98 (.113)	8.38 (.039)	8.13 (.043)
Role of women	4	6.55 (.162)	6.54 (.162)	3.10 (.541)	3.04 (.551)

^a The [SG] [SD] [GD] models assumes no three-way interaction between S (Pilot/Main Study), G (respondents vs refusers or respondents vs inaccessible for other reasons) and D (opinion variables listed above), see the text for details.

The results of analysis are, in some respects, convergent with those for socio-demographics. When we compare respondents and inaccessible for other reasons, the effect of the length of fieldwork period on differences between the categories cannot be identified (at the significance level of 0.05). This applies to all opinion questions covered in our analysis.

However, if we compare respondents and refusers, the length of the fieldwork period has an effect only in two questions: satisfaction with democracy and mood assessment. As for the former question (cf. Table 10a), all parameters are close to

nil in the Pilot Study (short fieldwork period), which means that the differences between refusers and respondents are minor. On the other hand, refusers in the Main Study (long fieldwork period) are much more likely to be dissatisfied with democracy. In the case of mood assessment (cf. Table 10b) parameters in the Pilot Study are, again, close to nil. On the other hand, refusers in the Main Study were more likely to choose answers showing that they had been rarely in a good mood (categories “at no time” and “some of the time”) and less likely to choose answers indicating frequent good moods (“most of the time” and “all of the time”). Therefore, the Main Study data provide a stronger confirmation for the hypothesis regarding social isolation of refusers.

Table 10a Parameters^b for interaction between satisfaction with democracy and refusers for Pilot Study and Main Study

Study	How satisfied are you with the way democracy works in Poland?			
	Very dissatisfied (0-1)	(2-4)	5	Very satisfied (6-10)
Pilot	-.045	-.020	.123	-.058
Main	.432	-.056	-.105	-.271

^b Parameters of saturated model [SGD]. Values in the table describe combined two factor [GD] and three factor effect [SGD]

Table 10b Parameters^b for interaction between mood self-assessment and refusers for Pilot Study and Main Study

Study	How often have you felt cheerful and in good spirit over the last two weeks?			
	1. At no time + Some of the time	2. Less than half of the time	3. More than half of the time	4. Most of the time + All of the time
Pilot	.104	.030	-.022	-.112
Main	.399	.173	-.153	-.418

^b Parameters of saturated model [SGD]. Values in the table describe combined two factor [GD] and three factor effect [SGD]

SUMMARY AND DISCUSSION

The research findings referred to at the beginning of this paper demonstrate that while costly endeavours such as refusal conversion, multiple calls, incentives and the like do drive the response rate considerably, it has zero effect on non-response bias.

Converted refusers and hard-to-reach persons have generally similar demographic characteristics and opinions in comparison with co-operative respondents. As a result, the findings from “rigorous” surveys are not much different than those from “standard” surveys, with much lower response rates.

In our studies we applied a different procedure, resembling, in some aspects, that adopted by Teitler et al. (2003). In order to assess the effect of the length of the fieldwork period on non-response bias, we compared data obtained from respondents and non-respondents. The latter were collected through a mail questionnaire circulated among non-respondents. The questionnaire was mailed twice: after the Pilot Study, where the fieldwork period was short, and after the Main Study in ESS2, where a long fieldwork period was applied.

Extension of the fieldwork period and, consequently, the opportunity for refusal conversion and multiple calls to contact hard-to-reach sampled persons, brought a relatively modest increase in the response rate in our studies, amounting to 10 points. However, a comparison of differences between the respondents and non-respondents in the case of a short fieldwork period (Pilot Study ESS2) and a long one (Main Study) demonstrated that those differences had a mixed pattern. Such differences occurred in two out of four analysed demographic variables (education and per capita income) and in three out of five analysed opinion questions (Interest in politics, Satisfaction with democracy and Individual mood assessment). This suggests that the non-response bias changed, depending on the length of the fieldwork period. Our findings do not allow us to declare with certainty whether a longer fieldwork period increases or decreases bias. It is worth noting that in the study cited above (Teitler et al. 2003), a similarly minor increase in the response rate meant that the effective sample more closely resembled the eligible population, which means that the non-response bias was eventually reduced.

We also compared the effect of the length of fieldwork period on differences between respondents and two categories of non-respondents: refusers and inaccessible for other reasons. We did not find any effect of the length of the fieldwork period on differences between respondents and inaccessible for other reasons, neither in socio-demographics nor in opinion questions. However, the effect did occur when we compared respondents and refusers. Differences between those two categories were identified both in socio-demographics (‘per capita income’), and in opinion questions (‘satisfaction with democracy’ and ‘individual mood assessment’). It was also striking that the differences between respondents and refusers were more pronounced in the Main Study.

This finding is, in some ways, surprising and difficult to interpret. The aforementioned 10-point increase in response rate due to a longer fieldwork period resulted mostly from a reduction in the percentage of inaccessible for other reasons as the percentage of refusals decreased only by 2 points in the total

sample. Therefore, we expected that an extension of the fieldwork period would widen the gap between respondents and inaccessible for other reasons rather than between respondents and refusers. Yet, the reverse was true. There are two possible explanations of these findings, none of which precludes the other. The first one is connected with the changed structure of refusals. While the percentage of refusers remained similar, the changes in their structure meant that the differences between respondents and refusers were different, depending on the length of the fieldwork period. This assumption is confirmed, to some extent, by the reasons for refusals provided by refusers (see table 11). Those data were collected through the mail questionnaire distributed to non-respondents after both the Pilot Study and the Main Study in ESS2. Therefore, they only pertain to those refusers whose socio-demographics and responses to opinion questions became the basis for analyses presented in this paper. The number of reasons was not limited.

Table 11 Reasons for refusals in the Pilot Study (short fieldwork period) and the Main Study (long fieldwork period)

Reasons for refusal	Pilot Study (short fieldwork period)	Main Study (long fieldwork period)
I am very busy	10.7	11.8
The interviewer came at a wrong time; I had to take care of other things at that time	7.4	11.3
I think that surveys are a waste of time and money	8.3	13.2
I am afraid of letting strangers in	6.6	6.9
Surveys are an intrusion into my privacy; I do not provide information about myself	6.6	11.3
I had participated in surveys too many times	2.5	2
I have bad experience from previous participation in similar studies	0.8	0.5
I was afraid I would not cope with providing answers to the survey questions	4.1	4.9
I am not interested in the subject of the survey	5.8	4.9
My family members opposed to my participation in the survey	1.7	1.5

The relatively highest differences, although not exceeding five points, occurred in the case of three reasons: “The interviewer came at a wrong time; I had to take care of other things at that time”, “ I think that surveys are a waste of time and money” and “surveys are an intrusion into my privacy; I do not provide

information about myself". The first reason is temporary in nature so it should enable easy conversion during a long fieldwork period. However, this reason is more commonly found in the Main Study, which may mean that there are other, more permanent reasons for refusal, ones that refusers might not realise or might be reluctant to disclose (Brehm 1993, Sztabiński et al. 2008). The two other reasons are related to the overall "inclination" to be interviewed and they are relatively permanent (Smith 1984).

If changes in the structure of refusals explains the variation in differences between respondents and refusers under different fieldwork periods, then a question arises about the factors which may have caused such changes. The only explanation that occurred is as follows: in the Pilot Study, where the fieldwork period was short and there was no time for refusal conversions, a considerable percentage of returned mail questionnaires came from "soft" refusers, i.e. potentially co-operative individuals. On the other hand, in the Main Study, where the fieldwork period was long, a significant number of "soft" refusers actually participated in the survey so their share in the returned mail questionnaires was relatively lower whereas the share of "hard" refusers was accordingly higher. While we are unable to verify this hypothesis empirically, it is worth noting that this hypothesis is confirmed in the direction of changes in the structure of refusals shown in Table 11.

Another hypothesis which explains the variation in differences between respondents and refusers under different fieldwork periods is connected with a change in the respondents' structure in the Main Study versus the Pilot Study. In the Main Study the response rate increased because, within the longer fieldwork period, interviews were successfully completed with individuals who were inaccessible for other reasons in the Pilot Study. Those were mostly unavailables throughout the fieldwork period and non-contacted persons. As seen from the comparison between respondents and non-respondents, those are usually better educated, more affluent persons, also more satisfied with the way democracy works and claiming to be generally in a better mood. As a result, the variation in differences between refusers and respondents in the Pilot Study and in the Main Study may result from the changed structure of respondents with respect to those variables.

As mentioned earlier, the hypotheses explaining the effect of fieldwork on the differences between respondents and refusers are not mutually exclusive. It is possible that the results obtained from analysis originate from changes in the structure of refusers as well as from changes in the structure of respondents. This may be the cause of hard-to-identify results, especially concerning per capita income and education.

One should now consider the possible reasons behind the discrepancies in the results of studies concerning the effect of research design ("rigorous" vs "standard" survey) on the differences in non-response bias. There seem to be two

possible reasons behind such discrepancies, none of which excludes the other. The first one is related to the subject-matter of the study. It is known that non-response bias depends on two factors: the non-response rate and the differences between respondents and non-respondents. Therefore, the non-response rate alone is not necessarily a good indicator of non-response bias. Such bias occurs when the response propensity is correlated with the attributes the researcher is measuring (Groves and Couper 1998; Groves 2006). While in some of the cited studies (Smith 1984; Keeter et al. 2000, 2006) the scope of the issues was very broad and some questions virtually overlapped with those applied in the ESS, it might as well be that the response propensity in those cases was varied. It needs to be remembered that, firstly, a decision to take part in a survey is made on the basis of very brief and incomplete information about the topic(s) and, secondly, in a study covering the same range of topics the response propensity may vary from country to country.

Another reason behind the variation in results of studies on the effect of research design (“rigorous” vs “standard” survey) on non-response bias may be connected with the research procedure. In most of the cited studies two procedures have been applied to detect the occurrence of non-response bias. According to the first procedure, responses given by respondents were compared against those obtained from converted refusers and hard-to-reach persons. However, in our study we compared respondents with non-respondents, and also with refusers and inaccessible for other reasons. While studies designed in order to describe non-respondents quite often use the information on converted refusers and hard-to-reach persons, the weaknesses of this method are well-known (Smith 1983). On the other hand, Lin and Schaeffer (1995) empirically proved that estimation of non-participation bias on this basis might not be justified.

Under the second procedure, answer distributions are compared between the “rigorous” and the “standard” survey to assess non-response bias. When making an evaluation one should consider our results which indicate that the effect of the length of fieldwork period on non-response bias does occur when we compare respondents with refusers but not when we compare respondents with inaccessible for other reasons. Meanwhile, an increase in the response rate in “rigorous” surveys occurs mostly as a result of the declining percentage of inaccessible for other reasons, whereas the percentage of refusals shrinks very slightly even though, as our study shows, their structure may change. As a result, when comparing response distributions between “rigorous” and “standard” surveys, the consequences of changes in the structure of refusers may not come to the surface.

Our remarks on the procedure applied in the cited studies should not be viewed as criticism. The authors of those studies pursued a practical goal, asking: Will an increase in the response rate, which entails considerable costs, reduce the

non-response bias? With this formulation of the problem, those studies provide valid answers.

What are the conclusions that may be drawn from our studies? Firstly, it seems, that it is a good idea to apply in surveys procedures to increase the response rate, in particular fieldwork period extension, thus creating an opportunity for refusal conversions and additional calls to contact hard-to-reach persons. Although non-response bias is not a simple consequence of the response rate, in most surveys it is difficult to predict whether and how the response propensity would be correlated with the range of topics covered. We conclude that it is impracticable to predict the likelihood of non-response bias. In this context it is useful to recall that in the studies cited earlier in this paper, Smith (1984) and Keeter et al. (2000), included questions which could reasonably (based on previous research) be expected to generate differences between respondents and non-respondents. Yet, despite this measure, no such differences occurred. This shows the complexity of non-response as a phenomenon and the underlying reasons of non-response bias.

The second conclusion is related to our finding indicating that the length of fieldwork period has no effect on differences between respondents and inaccessible for other reasons, yet it may have an effect on the differences between respondents and refusers. It seems that a greater emphasis should be placed on attempts to convert refusers than inaccessible for other reasons. The latter seem to be potential respondents, hardly different from actual ones.

A final question to consider is: how conclusive are our findings? A number of reservations and doubts may be voiced with regard to those findings and the resulting conclusions. Firstly, ours was a one-off study and it is not clear whether a repeated study would bring similar results. Consequently, the findings presented here are closer to hypotheses than to definitive conclusions. Secondly, our analyses covered only four socio-demographics and five opinion questions. While we did find an effect of the length of fieldwork period on differences between respondents and non-respondents, it is difficult to speak about the scope of such an effect: a much broader range of questions would need to be analysed to find an answer.

Thirdly, one cannot clearly state whether the individuals who did not take part in the Pilot Study and the Main Study but answered the mail questionnaire can, indeed, be considered non-respondents. It seems that, in a large part, those are, indeed, non-respondents rather than inaccessible in face-to-face interviews who were later accessible in the mail questionnaire. The cover letter attached to the mail questionnaire applied a different type of motivation than the request to participate in the ESS, and that reference was clearly stressed. We did not just encourage the addressees to take part in a survey (“We understand that not everyone wants or is able to participate in a survey ...”) but, instead, we

informed them that ESS had been funded from public money for which we feel responsible and for this reason we want to make sure that the findings are valid before publishing the results. Based on the leverage-saliency theory (Groves et al. 2000) one may think that the introduction of a new component, i.e. a reference to commonly shared values, convinced at least some reluctant individuals and hard-to-reach persons to take part in the mail survey. However, this claim cannot be verified empirically.

Fourthly, we make claims about all non-respondents based on answers provided by non-respondents who took the trouble to complete and return the mail questionnaires. While their structure is not much different from that of the total sample of non-respondents with regard to sex, age and domicile, yet they might represent a special category of non-respondents, different from the remaining ones.

Further reservations concern the research procedure. The Pilot Study and the Main Study were ca. 8 months apart so opinions on matters covered by the analysed questions may have changed. Naturally, one may argue that the questions did not concern any transient issues but, rather, deeply-rooted beliefs. However, we are not in a position to assess the extent to which such an assumption is valid. On the other hand, this kind of reservation can be put forward in any studies with a long fieldwork period. It is worth noting at this point that the “rigorous” survey conducted by Keeter et al. (2006) took nearly five months to complete.

A similar point may be made about the opinions expressed by non-respondents in the mail questionnaires, distributed ca. two months after completion of each of the two surveys. In addition, a mode effect is possible in that case. Of course, mode effects occurred, for instance, in income questions where the item non-response was higher in the face-to-face survey than in the mail questionnaire. However, it seems unlikely that these elements of research procedure could have influenced the findings discussed here, i.e. the differences between respondents and non-respondents. The procedure applied in both studies (Pilot Study and Main Study) was exactly the same, i.e. the mail questionnaire was sent to non-respondents approximately two months after the face-to-face survey.

NOTES

- 1 Usually, this rate is computed after discounting permanently ineligible, i.e. individual cases of those deceased, emigrated, living at an unidentifiable address etc. For computation method, see www.europeansocialsurvey.org/project-specification and *Standard Definitions. Final Dispositions of Case Codes and Outcome Rates for Surveys*, developed by AAPOR. At ESS, it is assumed that the response rate should reach min. 70%.
- 2 In selecting questions for this questionnaire we applied an additional criterion: a non-skewed distribution of responses in the European Social Survey, Round 1.

- 3 It proved necessary to merge some categories in order to have adequately sized cell counts in contingency table, which is desirable for analysis based on log-linear models.
- 4 Each analysis concerns three variables: variable S informs about study type (1-pilot study; 2- main study), variable G speaks about to which group a given respondent belongs: respondents (1) or non-respondents (2), variable D signifies analysed socio-demographic variable (domicile, education, per capita income and main activity).
- 5 It proved necessary to merge some categories in order to construct adequately sized cell counts in the contingency table, which is desirable for analysis based on log-linear models. When merging categories, we considered both the merits and statistical issues. On the one hand, it was important that the categories are relatively homogenous in order to be merged; on the other, it was important not to merge categories with relatively high numbers of responses.

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www.europeansocialsurvey.org/Guidelines for enhancing response rates

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APPENDIX I

A comparison of respondents and non-respondents with regard to socio-demographic characteristics.

	Pilot Study ESS 2				Main Study ESS 2			
	Respondents	Non-respondents			Respondents	Non-respondents		
		Total	Re-fusers	Inaccessibles for other reasons		Total	Re-fusers	Inaccessibles for other reasons
Domicile*								
Rural	38.1	16.5	17.3	15.9	36.9	19.6	22.1	16.0
Towns								
-20000 inhabitants	11.7	13.9	15.4	12.7	11.8	16.0	14.2	18.5
20000-49000	11.1	12.2	11.5	12.7	10.6	8.2	9.7	6.2
50000-199000	15.8	15.7	11.5	19.0	16.8	25.7	22.2	30.9
200000-499000	11.1	8.7	15.4	3.2	11.2	12.4	13.3	11.1
500000-999000	6.7	20.0	19.3	20.6	7.6	12.9	15.0	9.9
Warsaw	5.5	13.0	9.6	15.9	5.1	5.2	3.5	7.4
N=	505	115	52	63	1716	194	113	81
Level of education*								
Primary + lower secondary	29.9	12.4	15.7	9.8	27.7	21.2	25.7	15.2
Basic vocational	24.4	19.5	25.5	13.1	26.2	25.4	27.4	22.8
Secondary	25.7	34.4	29.4	39.4	30.1	32.7	28.3	38.0
Post-secondary, non tertiary	7.5	14.2	9.8	18.0	4.6	11.4	12.4	10.1
Tertiary	12.5	19.5	19.6	19.7	11.4	9.3	6.2	13.9
N=	505	112	51	61	1712	192	113	79

How Does Length of Fieldwork Period Influence Non-Response?

	Pilot Study ESS 2				Main Study ESS 2			
	Respondents	Non-respondents			Respondents	Non-respondents		
		Total	Re- fusers	Inaccessibles for other reasons		Total	Re- fusers	Inaccessibles for other reasons
Family income per capita*								
PLN 300 or less	23.2	27.7	28.8	26.7	21.3	33.2	34.9	30.8
PLN 301-600	31.5	25.9	34.6	18.3	34.5	30.4	34.9	24.4
PLN 601-1,200	28.9	17.0	13.5	20.0	27.6	24.1	22.9	25.6
PLN 1,201 and more	16.4	29.4	23.1	35.0	16.6	12.3	7.3	19.2
N=	440	112	52	60	1407	187	109	78
Main activity*								
In paid work	39.7	38.8	44.3	34.4	43.9	37.6	39.4	35.0
In education	15.7	15.5	15.4	15.6	13.9	13.4	13.2	13.8
Unemployed	7.1	10.3	11.5	9.4	8.1	12.9	8.8	18.7
Retired	28.2	23.3	17.3	28.1	25.9	22.2	24.6	18.7
Other	9.3	12.1	11.5	12.5	8.2	13.9	14.0	13.8
N=	504	116	52	64	1715	194	114	80

* Response categories have been grouped. Grouping is in line with the analyses presented in the paper.

APPENDIX II

A comparison of respondents and non-respondents: Answers to attitudinal questions.

	Pilot Study ESS 2				Main Study ESS 2			
	Respondents	Non-respondents			Respondents	Non-respondents		
		Total	Re- fusers	Inaccessibles for other reasons		Total	Re- fusers	Inaccessibles for other reasons
Trust in other people*								
00-01	21.8	31.6	29.6	33.3	22.3	38.9	44.2	30.8
02-04	32.6	26.7	29.6	24.2	37.3	24.6	23.0	27.2
05	22.4	25.0	22.3	27.3	22.2	20.7	21.3	19.8
06-10	23.2	16.7	18.5	15.2	18.2	15.8	11.5	22.2
N=	500	120	54	66	1707	203	122	81
Satisfaction with democracy*								
00-01	18.1	25.0	16.7	31.9	18.4	35.5	40.2	28.4
02-04	44.0	32.5	42.6	24.2	42.9	37.9	35.2	42.0
05	17.3	22.5	22.2	22.7	18.7	15.8	13.9	18.5
06-10	20.6	20.0	18.5	21.2	20.0	10.8	10.7	11.1
N=	475	120	54	66	1619	203	122	81
Interest in politics								
Very interested	5.4	13.0	7.7	17.5	5.9	5.7	4.4	7.6
Quite interested	35.7	46.1	38.4	52.3	32.7	33.7	28.1	41.8
Hardly interested	39.9	29.6	32.7	27.0	42.1	46.6	49.1	43.0
Not at all	19.0	11.3	21.2	3.2	19.3	14.0	18.4	7.6
N=	499	115	52	63	1713	193	114	79

How Does Length of Fieldwork Period Influence Non-Response?

	Pilot Study ESS 2				Main Study ESS 2			
	Respondents	Non-respondents			Respondents	Non-respondents		
	Total	Re-fusers	Inaccessibles for other reasons		Total	Re-fusers	Inaccessibles for other reasons	
Mood assessment (over the last two weeks: 'I have felt cheerful and in good spirits')*								
No time + Some of the time	27.7	32.2	34.6	30.2	18.1	37.7	41.3	32.5
Less than half of the time	16.1	16.5	17.3	15.9	15.1	21.6	21.9	21.2
More than half of the time	15.9	17.4	15.4	19.0	23.3	16.0	17.5	13.8
Most of the time + All of the time	40.3	33.9	32.7	34.9	43.5	24.7	19.3	32.5
N=	498	115	52	63	1711	194	114	80
Opinion on the role of women ('A woman should be prepared to cut down on her paid work for the sake of her family')								
Agree strongly	9.7	14.9	13.5	16.1	15.0	14.0	14.9	12.7
Agree	51.8	30.7	38.4	24.2	44.0	39.3	42.2	35.4
Neither agree, nor disagree	14.4	27.2	25.0	29.0	20.0	24.4	21.9	27.8
Disagree	21.3	21.1	17.3	24.2	18.7	17.1	17.5	16.5
Disagree strongly	2.8	6.1	5.8	6.5	2.3	5.2	3.5	7.6
N=	493	114	52	62	1672	193	114	79

* Response categories have been grouped. Grouping is in line with the analyses presented in the paper.