# First results of the (new) International Questionnaire on Non-response: response of the LFS

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### Introduction

Many survey researchers claim that response rates have been steadily falling over the last decades. There are a few international overview studies, but they are either somewhat outdated or tell an incomplete story. Over the last two decades the communication with survey respondents has changed to a wide variety of survey modes and combinations of survey modes. Do these changing data collection methods result in a different picture?

During the 2015 Workshop, it was decided to revive the comparison of international time series of response rates (De Leeuw and De Heer 2002) and perform a new investigation into response rate patterns as a function of survey mode and with respect to relevant subgroups.

The first initiative to compare international data on non-response was taken in the first Workshop on Household Survey Non-response in 1990. Data collection was performed yearly from 1991 to 1997. In the first year, retrospective time series were inventoried. The 16 NSI’s that participated provided data from time series as long back as 1972. De Leeuw and de Heer (2002), who analysed the data of these time series , showed that response rates declined over the years, with refusal rates increasing with 0.3% per year, and contact rates declining with 0.2% per year.

The analysis also showed that there were substantial differences between countries and surveys in the amount of (non-)response, refusal and (non-)contact. The original Non-response Questionnaire was designed to shed light on these differences, by inventorying relevant design aspects like rules of respondent selection, refusal conversion, substitution or interviewer employment.

The new Questionnaire replicated the old one as far as relevant, and added elements like mixed mode data collection, fieldwork effort and fieldwork costs. The (paper) questionnaire was sent to all European LFS contact persons, as well as some non-European other countries, like Australia, New Zealand, Canada and the USA. We tried to include non-NSI’s in the query, and succeeded in a number of cases. The LFS contacts were asked to recruit a colleague for one additional time series.

A retrospective inventory was proposed, linked to one household survey (preferably the Labour Force Survey) and one person survey. Respondents were asked to report on the response, refusal and contact rates from 1998 to 2015. For respondents who were also present in the first query, we thus created long time series. In order to limit the respondent burden, we asked for a description of the 2015 design, and asked respondents to indicate if, and in which years, design changes were implemented.

### Results

More countries participated in this query than in the first one (16 then, 22 already now, with 37 questionnaires filled in); Two more countries promised to fill in at least one questionnaire. Two time series were received from non-NSIs. Not all respondents were able to complete the entire time series, although the number of years filled in was substantial for most: mean number of years filled in was 13. In this first analysis we concentrate on the findings on the response rates of the LFS (or non-European equivalent surveys). We differentiate between voluntary and mandatory surveys, as levels and trends proved to be different in the earlier analyses. In the new data, we see the difference again: mean response rate for voluntary LFS was 72.5, while 84.7 for mandatory surveys. Refusal rates were 14.1 and 3.4, respectively. Noncontact rates 11.6 vs 9.3 and the rate of ineligible addresses was 4.9 versus 7.5%.

#### Change in response rates

Figure 1 gives an overview of the response rates of voluntary LFSs, the difference between the first and the last enty, and the mean difference per year. Figure 2 gives the same results for mandatory surveys.



***Figure 1. Response voluntary LFS (first minus last year, mean change per year)***



***Figure 2. Response mandatory LFS (first minus last year, mean change per year)***

We ran a series of multilevel repeated measures models on response, refusal and non-contact data, first on arcsinus transformed data, but also on raw data, to help interpretation. Both analyses show the same pattern, so we report on the raw data here. For all three outcome variables, we ran a multilevel regression model using REML estimation in the MIXED procedure of SPSS 21. Predictors were occasion (year), transformed so that 2015=0 and 1998=-17, and whether the survey was mandatory or not. All results are significant (except one marked *ns*) and in the expected direction: response went down over the years, refusals and noncontact rates went up, with comparable extent. Mandatory surveys have higher response rates, and lower refusal rates. The difference in noncontact is not significant.

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| Table 1. Model on raw outcomes | | | |
| Model: | Response | Refusal | Noncontact |
| **Fixed part** | Coefficient | Coefficient | Coefficient |
| Intercept | 54.85 | 28.00 | 14.45 |
| Occasion (year) | -7.28 | 3.36 | 3.36 |
| Mandatory | 12.62 | -11.36 | -1.28ns |
| **Random part**a |  |  |  |
|  | 6.50 | 2.01 | 3.17 |
|  | 72.24 | 67.25 | 45.19 |
|  | 30.09 | 16.28 | 14.78 |
| a For simplicity the covariances are not included | | | |

#### Comparison with de Leeuw and de Heer data

We combined the de Leeuw and de Heer data with the new data in a single data file. Some countries existed only in one of the data collection periods, these were left out. Some countries reported not all years, but these were left in. Next, we ran multilevel regression on the entire observation period, adding the ‘period’ and the ‘period\*occasion’ interaction to see if there is a shift in the time series and if the trend changes.

For the response rate and the refusals, the regression is almost flat in the period 1984-1997. In the period 1998-2015, there is a small shift in the response rate[[1]](#footnote-1), and a larger shift in the slope over time. The response rates decrease faster and the refusal rates increase faster after 1998. The noncontact rates show a different trend: they increase through the entire range of years, but show no shift or change in trend after 1998. Overall, the main conclusion is that the trends visible in de Leeuw and de Heer mostly continue, with possibly a small acceleration.

The trends are visible in the following graphs, where blue dots indicate data from 1984-1997 and green dots data from 1998-2015.







In the coming months, we will continue these analyses, adding more data, analysing the other survey(s) and replicating the earlier analyses on correlates of response, refusal and (non-)contact.

### References

De Leeuw, E. and de Heer, W. (2002). Trends in Household Survey Nonresponse: A longitudinal and international comparison. In R.M. Groves, D.A. Dillman, J.L. Eltinge and R.J. Little (Eds.) *Survey Nonresponse.* New York: Wiley & sons.

1. This may be the result of differences in the calculation of the response rates. In the first series, we calculated the rates ourselves, based on raw numbers. In the second series, the countries reported on rates, not numbers. [↑](#footnote-ref-1)