

7 Sample Composition 4 Years on: Retention in SHARE Wave 3

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7.1 Introduction

Statistical inference from survey data builds upon the assumption that the analysed sample was drawn from a defined underlying population by means of a probability sample and that all sampled units are actually interviewed and their interview data recorded correctly. In any survey this assumption is violated as a result of survey errors, like coverage, nonresponse, measurement and coding error (Groves et al. 2009, p.48). In recent years, nonresponse error has received considerable attention in the literature due to continuously declining response rates across countries and survey types (de Leeuw & de Heer 2002). An analysis of survey response should therefore be an integral part of any methodological study report.

In a panel survey, like SHARE, where the same respondents are interviewed several times at fixed intervals, survey response consists of two parts: (1) response to the initial survey request and (2) response at subsequent waves, i.e. retention in the panel. The population of the third SHARE wave comprises all persons previously interviewed for SHARE plus their current partners/spouses living in the same household whether previously interviewed or not. (There are a few exceptions to this general rule. For details on the eligible sample see Klevmarken et al. 2005; de Luca and Rossetti 2008.) One should however note that while respondents from wave 2 and respondents who participated in wave 1 but not in wave 2 were eligible to be interviewed for SHARELIFE in wave 3, in many countries there are legal restrictions to re-approaching respondents, who refused in a previous wave. Therefore, only few wave-1-only respondents could be re-approached.

Since no new samples (refresher samples) were drawn for SHARELIFE and thus no initial response rates apply to this third wave, our report focuses on describing the retention in the SHARE panel.

Why is it important to monitor retention in a panel survey? First of all, attrition from the panel might be selective as certain groups of respondents might be more likely to leave the panel than others. In section 3, we thus analyse attrition according to various sub-groups in the SHARE population. Second, analyses of panel data look at continuity and change over time. To conduct such analyses, respondents need to be observed across various points in time. With high attrition rates, however, the number of cases in the panel decreases quickly, thus reducing the base for longitudinal analyses. While the first concern – selectivity due to panel attrition – can be modelled with the information respondents provided at previous wave, the second – panel mortality – decreases the number of observations, which cannot be corrected for.

Survey researchers can implement several measures to minimise attrition in their panel. Such panel care measures include actions to reduce attrition due to a failure to locate the respondent at a next wave, actions that increase the effectiveness of contacting a respondent and actions aimed at reducing reluctance to the survey request (for example Watson and Wooden 2009; Couper and Ofstedal 2009). Measure can include

- a) address searches to track respondents who moved between waves
- b) collecting so-called 'stable' addresses of the respondent's family or friends, who may give information about the respondents whereabouts
- c) sending of birthday and/or season's greetings cards
- d) sending information about the outcomes from previous panel waves
- e) sending advance letters announcing the interviewer for the upcoming wave
- f) offering monetary and non-monetary incentives, which may or may not be conditional participation in the wave
- g) employing well-trained, appropriately paid and well-monitored interviewers for the survey
- h) designing an interesting questionnaire that engages the respondent in the research

SHARELIFE has taken considerable effort to address all of these measures. However, differences in institutional and legal settings across countries mean that the measures available and the thoroughness with which they can be pursued differ across countries. In addition, methodological research has shown that differences in response and retention across countries are common (see for example de Leeuw & de Heer 2002) and are often attributed to differential survey climates (for example Lyberg & Dean 1992), i.e. differences in the general acceptance of surveys in a country. Thus, differences in the effect of response enhancing measures taken are to be expected. Finally, cross-national surveys pose an additional complication in monitoring fieldwork progress across countries, since communication flows can be slowed down and the effectiveness of control diminished if the interaction between the field interviewers and the monitors in the SHARE central coordination are mediated via the survey organisation, the country operator and the country team leader (see also Koch et al. 2009).

In the following we describe the outcome of these efforts on the retention rates in SHARELIFE. The analyses show that retention rates differed considerably across countries, leading to different sample sizes after wave 3. Subsequently, we look into retention rates by sub-groups of the SHARE population.

7.2 Retention rates in SHARELIFE

When examining retention in a panel survey, first the definition of the retention rates needs to be outlined. In SHARELIFE several different types of retention rates can be calculated. First, one can distinguish between the individual retention rate and the household retention rate. In SHARE wave 1 complete households were sampled and all household members aged 50 and older were interviewed. For refresher samples since wave 2, one person per household is sampled and this person plus their partner or spouse are interviewed. Since the main unit of analysis

in SHARE is the household and to keep retention rates from the wave 1 baseline and the wave 2 refresher samples comparable, the household retention rate is key. However, since many analysts use the SHARE data to observe individuals across time, we also present the individual retention rate here.

Second, retention rates maybe calculated with regards to (a) all persons/households interviewed in wave 1, (b) all persons/households interviewed in wave 2 (including refresher cases in wave 2) and (c) all persons/households interviewed in wave 1 or 2. As mentioned in the introduction, in many countries legal restrictions make it impossible to re-approach wave 1 respondents, who refused to participate in wave 2. In addition, retention rates tend to differ significantly depending on whether the previous wave was the first wave respondents participated in (i.e. whether they were refresher cases) or whether the respondents are regular participants already, i.e. have already participated in two or more waves. Finally, since retention rates need to be considered in relation to the country and sample they are based on, retention rates are reported by country; i.e. no overall or average retention rates were calculated.

To yield the most transparent and comparative retention rate, we thus look into household retention rates from wave 2 to wave 3. We perform the analysis separately for individuals and households that were part of the refresher sample in wave 2, since the retention at the wave after refreshment tends to be different (typically lower) than retention at subsequent wave. Since in Belgium two different survey agencies carried out fieldwork in the Flemish and Walloon parts of the country, we report two rates for Belgium. (Note that in Austria as well as in the Flemish part of Belgium there have been no refresher samples in wave 2. Hence Figure 7.1 and Figure 7.2 do not show any rates in the “Sampled in wave 2” category for these countries.)

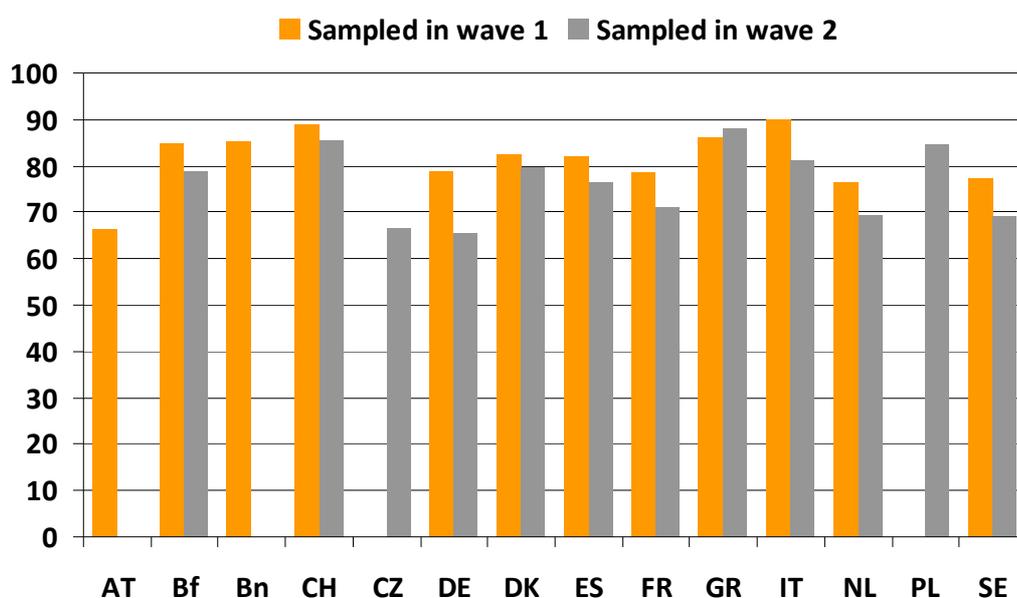


Figure 7.1: Household retention rates across SHARELIFE countries

Figure 7.1 shows the household retention rates for each country in wave 3 separately for sample units first sampled in wave 1 and for sample units first sampled in the wave 2 refresher or new baseline samples. Since the Czech Republic and Poland joined SHARE in wave 2, only the initial retention rate at wave 2 is displayed. The variation in retention rates across countries is considerable due to differences in legal restrictions, fieldwork procedures and survey climate.

Interestingly the individual retention rates (Figure 7.2) differ only slightly from the household retention rates (Figure 7.1). This is due to the large proportion of two-person households in which two interviews or more were completed (82 percent of two-person households across all countries).

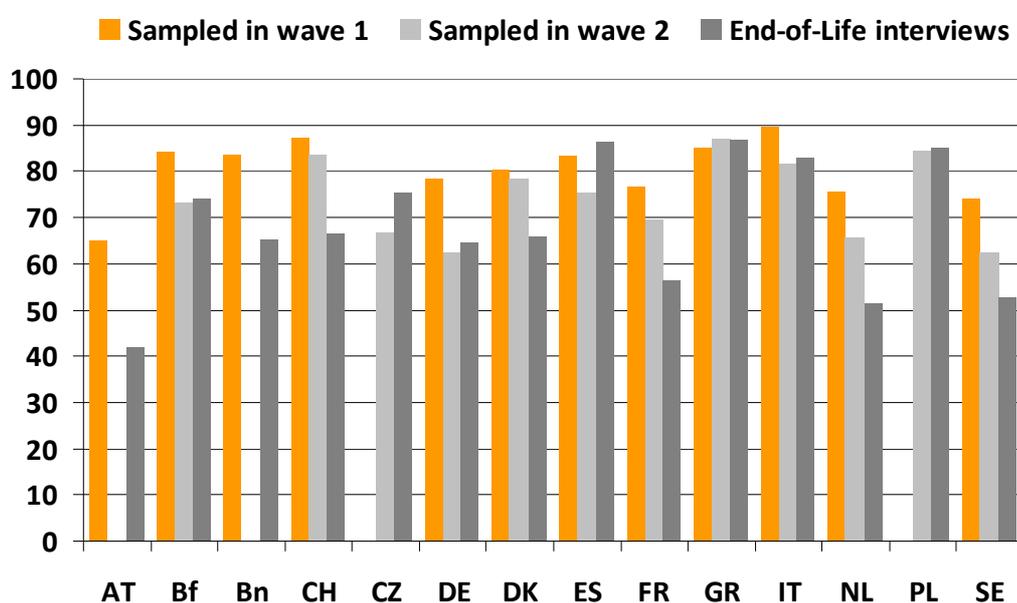


Figure 7.2: Individual retention rates across SHARELIFE countries

Figure 7.2 also displays the percentage of cases in which end-of-life interviews, i.e. interviews with family or friends of a wave 1 or 2 respondent who died, were conducted. These end-of-life interviews are an integral part of the SHARE survey, as they constitute a valuable source of information about the last year of a person's life.

7.3 Sub-group differences in retention

In addition to looking at retention rates across countries, we can examine sub-group differences in retention within each country. In this section we look at differences in individual retention rates from wave 2 to wave 3 by gender and age groups of persons first sampled in wave 1.

Figure 7.3 shows that gender differences in individual retention rates varied across countries, but overall no clear gender gap was detected. Overall, retention was slightly higher amongst women than men.

In a study on ageing, retention rates by age groups are of particular interest. Specifically, amongst the ‘oldest old’ researchers are often concerned that the mental and physical degeneration of respondents might cause them to suspend their participation in the panel survey. The individual retention rates by age groups presented in Figure 7.4 can somewhat ease this concern. No consistent pattern can be found across countries and in fact in many SHARE countries, retention is actually larger amongst the older age groups.

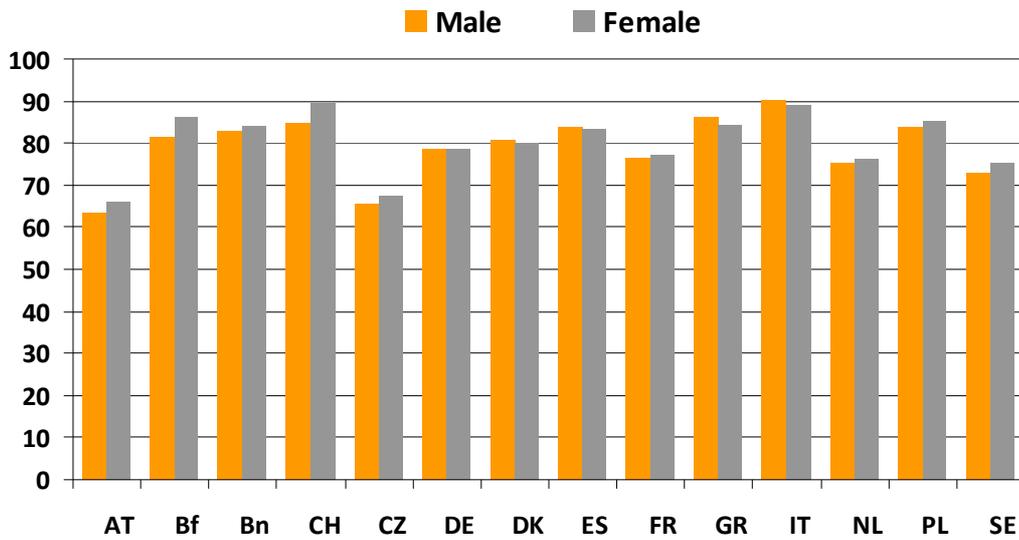


Figure 7.3: Individual retention rates by gender

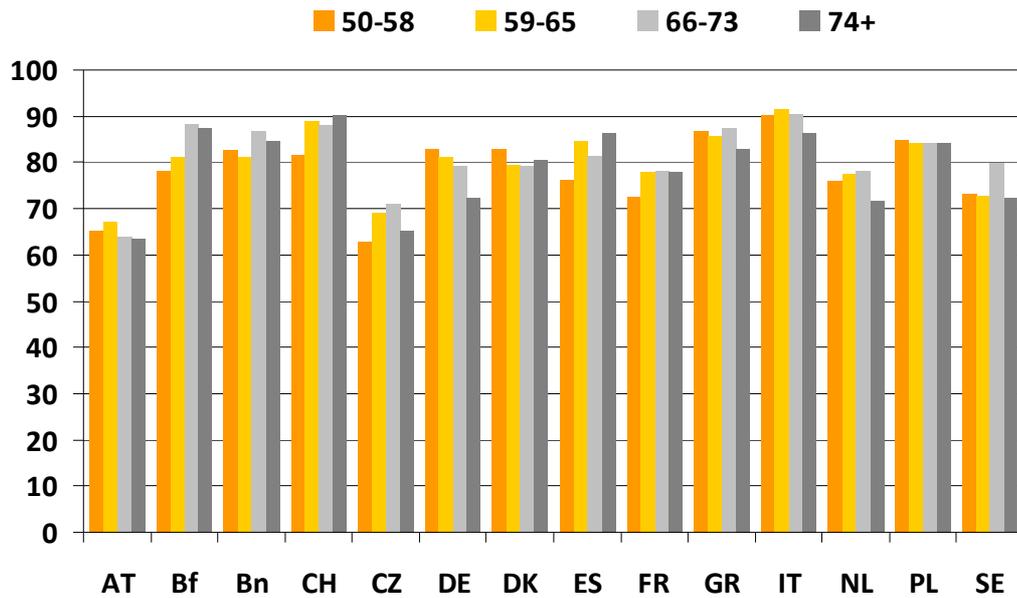


Figure 7.4: Individual retention rates by age group

Thus overall, no consistent gender or age attrition bias was found across SHARE countries. Obviously, more detailed analyses would be needed to rule out such bias completely. However, as mentioned above, since much is already known about attriters from previous wave participation, selectivity due to panel attrition can always be adjusted for in statistical models.

7.4 Conclusion

This chapter provides an overview of the level and nature of attrition in the third wave of the SHARE panel study. We show retention rates for both respondents that were sampled in the initial wave of SHARE and for respondents that were sampled in refresher samples or new baseline surveys in wave 2. Since SHARE interviews the sampled person plus their spouse or partner, both household and individual retention rates can be calculated. The analyses showed that household and individual retention rates were very similar, indicating that the study managed to interview all eligible persons within a household in a large proportion of cases. Furthermore, while retention rates differed across countries, no consistent attrition patterns across gender and age groups were found.

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