2.4 The Number of Living Children
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The number of living children that SHARE respondents have is clearly an important aspect of their lives. Children are a major source of support and therefore the number of living children is of particular interest as a potential determinant of the quality of life in old age. Furthermore, geographical and historical variation in European life-cycle fertility is presumably well represented in the SHARE data. The goal of this contribution is to present an overview of the number of living children of SHARE respondents with a special focus on the number of living children ever born to women, by age and country.

Information Available in SHARE
In the CHILDREN module SHARE respondents were first asked about the total number of living children they had both in and outside the household, and whether all of them were natural children. In the case of couples this module was administered only to the first person in the couple doing the interview, the family respondent. The number of living children in this case explicitly includes those of the current spouse or partner and not just those of the respondent, and a natural child in the second question is a child of both members of the couple. For every living child, information was then collected on their birth year, and for up to four children additional information was obtained including their type, i.e., whether they were natural children, stepchildren, adopted or fostered children of either (or both) members of the couple. Therefore, even in the case of couples information at the level of the individual respondent can be recovered².

Since most respondents in the sample are married to another respondent and in their first union we would not expect the distributions of the number of living children to vary greatly by sex. In what follows, we focus on women over the age of 50 and we refer to men only for noteworthy differences.

Type of Children
Table 2A.17 in the Appendix to this chapter presents the distribution of female respondents according to the type of living children they have. 14% of respondents have no living children of any type, and this proportion is much higher (23%) among the oldest old. The proportion of men with no children is the same as for women, but for men it is the youngest ones that are most likely to have no children. Although sample sizes in each country-age cell are not large enough for very precise inferences, the same pattern can be seen in most SHARE countries as well as in the ELSA study in the UK. Among respondents who have children, most of them (96%) only have natural children, and very few have fostered or adopted children. The proportion of respondents who have stepchildren is not very large, but some interesting differences emerge across sexes, countries and age groups which reflect a weakening of the traditional family structure consisting of a couple with children in a stable first union. Men (3.5%) are more likely to have stepchildren than women (2.2%), younger respondents more likely than the older ones, and respondents in the two Scandinavian countries much more likely than those in Spain and Italy. If we take all of these categories together we see that around 15% of Scandinavian male respondents aged 50-54 have stepchildren.
Number of Natural Children, by Age and Country

Figure 1 displays the (locally smoothed) mean number of natural living children by age and country (see Table 2A.18 in the Appendix for the whole distribution). Looking across age groups, we find that for the whole sample as well as in most countries the age profile is hump-shaped, with women in the middle age groups (60-75) having the highest number of natural children. This is almost certainly a reflection of the baby boom - baby bust cycle in fertility rates in Europe after World War II. As for the oldest women in the sample (75 and over), their fertile years overlapped with World War II and its immediate aftermath, and furthermore as a consequence of the war in some countries women suffered a relative shortage of potential husbands. However, it should be noted that differences across age groups in our sample may reflect not only true differences in fertility behaviour across generations, but also a) selective attrition of respondents, i.e., potential respondents died, and those who died may have had a different number of children than those who survived to be interviewed, and b) differences in the proportion of children that have survived.

![Graphs showing number of natural children by age and country](image)

*Figure 1* Natural living children (y-axis), by age (x-axis) and country (females)

*Note: Locally weighted regressions*
Comparing across countries in Figure 2, we find large differences, with women in Spain (2.46) and The Netherlands (2.27) having had by far the highest fertility, and those in Germany (1.77) and Austria (1.82) the lowest. These differences in the mean number of children across countries are somewhat smaller for younger women. In particular, the decline in the number of natural children seen in the youngest age groups is especially marked in the two countries, Spain and The Netherlands, which had the highest fertility overall.

The proportion of women with 3 or more natural children alive is 30% overall, but it reaches almost 50% in several age groups in Spain and The Netherlands. At the other end of the distribution, 16% of women have no natural children alive, and this proportion is much higher for the oldest old.

Note that for respondents or couples who had more than four children, some of which were not natural children, we estimate a lower bound on their number of natural living children. There are few respondents in this category, around 1% of the whole sample, so the downward bias introduced in our estimates of the mean number of natural living children is likely to be small. Interestingly, the number of respondents of this type is larger in the two Scandinavian countries and among younger respondents. For instance, it reaches 9% for Swedish males aged 50-54. This probably reflects the higher prevalence of couples whose members are not in their first union.

The Number of Natural Children, Education and Health

We end with a preliminary exploration of the correlation between the number of living children and a few key socio-economic and health indicators in the SHARE data.

Figure 3 compares the mean number of natural children that are alive for women across three broad education categories: primary at most, secondary and some college. Our data confirm the well documented negative relationship between education and fertility: for all 50+ women, the mean number of children falls from 2.32 to 1.87 and 1.65, respectively. Across countries (not shown in the graph), Sweden is the only exception to this pattern. For men, there is not such a strong and robust (across countries) relationship between education and the number of children.

Turning to the relationship between the number of living children and health measures, we selected three binary indicators of mental and physical health. EURODCAT is one if the respondent has clinically significant symptoms of depression (a score greater than 3 in the EURO-D scale), zero otherwise. The variable CHRONIC2 is one if the respondent reports suffering from two or more chronic diseases and zero otherwise. Variable SPHEU2
Figure 3 Number of natural children by education and sex

Note: the educational categories correspond to a grouping of the ISCED-97 created by SHARE. The first group includes no education and primary education; the second group includes lower and upper secondary education as well as post-secondary but non tertiary education; the third group includes first or second stage of tertiary education.

dichotomises the European version of self-perceived health scale into two categories: (0) good or very good health and (1) less than good health. Table 2A.19 reports the ratios in the probabilities of observing a value of 1 for EUROHQL, CHRONIC2 and SPHEU2 for women who had any number of children N and N-1 children (“odds ratios”). As an example, the value of 1.086 shown at the top of the last column of the table means that having an additional child is associated with an 8.6% increase in the probability that a woman will suffer from chronic diseases. Alternatively, odds ratios of 1.0 or 0.7 would mean that the probability is the same or 30% lower. We find that the prevalence of depression, chronic diseases and poor self-perceived health increases with the number of natural living children for both women and men. This correlation may be explained by common factors such as age or socio-economic status which relate systematically to both health and fertility. For instance, we know that less educated women tend to have more children and poorer health. In Table 2A.19 we also obtained the odds ratios controlling for education, age group and country. Although the odds ratios are smaller, a negative (partial) correlation between the number of children and health is still measured for both men and women, overall and within most countries. This issue deserves further investigation.
Conclusions

• Significant geographical and historical variation in life-cycle fertility is represented in the SHARE data. Across countries, the average number of natural living children that female respondents have ranges from 1.77 in Germany to 2.46 in Spain. The baby boom of the 1950's and 1960's is reflected in the higher number of children of women aged 60-75.

• One out every four women over the age of 80 has no living children.

• We confirm the well known negative correlation between education and the number of natural children that women have. We also find a negative correlation between measures of physical and mental health and the number of natural children in the SHARE data. This issue deserves further investigation, although it can partly be explained in terms of common factors such as age, country and education.

References


1 Note that SHARE did not collect full fertility histories of female respondents: the birth years of natural children are available only for those children who were alive at the time of the interview. In the extent that we are interested in social relationships and in sources of support in old age collecting information on all living children, natural or not, is more important than collecting full fertility histories.