20 Economic and Social Situation of the Population

Summary report of the SILC 2014 revision

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1   Introduction

The sample for the Survey on Income and Living Conditions (SILC) has been drawn from the FSO's new population survey sample frame (SRPH) since 2014. The latter is compiled from data provided by the official registers of persons, notably the communal and cantonal[1] population registers, in relation to the new Federal Population Census system . It also covers households with no fixed-line telephone number, which was not the case in the previous survey sampling frame. The weighting model has subsequently been revised and improved, taking into account new data from the administrative registers. These changes entail a break in series between SILC 2013 and SILC 2014. Thus, from 2014 onwards, results can no longer be directly compared with those of previous years.

This document summarises the improvements to the SILC survey methodology and details the main changes that ensue for the results. Detailed methodological documentation will be available in the SILC 2014 quality report, which will be available from summer 2016 on the www.silc.bfs.admin.ch website.

2   Change in survey sampling frame

SILC is a 4-year panel survey, which means that each year, a quarter of the sample is renewed and that the remainder are questioned again for the 2nd, 3rd or 4th consecutive year. The new 2014 sample was drawn from the SRPH sample frame.

The previous sample frame was a register of fixed-line telephone numbers. However, an ever-increasing number of households no longer have a fixed-line telephone. The new frame makes it possible to integrate this sub-population, composed most commonly of young people, often living alone and who are more likely to be foreign nationals (from Southern Europe or outside Europe). Their income from employment or assets is significantly lower or less frequent than the population as a whole. Although the introduction of this sub-population seems to have little effect on the main indicators, it is difficult to assess its impact accurately.
The main advantage of the SRPH is therefore that its coverage of the resident population in Switzerland is better than the previous frame. This means that all households of interest to SILC now have the potential to be sampled.

Secondly, the new sample frame, based on administrative registers, supplies basic information on people and households from the sample, which itself allows data on certain income components to be obtained from register data. The new frame thus gives access, even before the start of the telephone survey, to valuable information concerning all the households sampled, which has led to considerable improvement in the weighting process.

3   Improvements in weightings

Although the samples are representative of the population living in Switzerland, the same cannot be said for the people who actually respond to the survey. Certain types of households and persons are more willing to respond than others. If data were not processed in another way, the results would therefore be biased towards the characteristics of the households who are more willing to respond. In an extreme example where only people with a high income answered, the population's standard of living would be over-estimated and absolute poverty under-estimated.
The whole point of weightings, therefore, is to determine the characteristics of persons/households that do not respond and to increase the weights of persons/households who most resemble them. The same approach is taken by reducing the weights of households/persons most like the profiles that are most willing to respond. The last stage, called calibration, enables the sample's weight to be balanced so that the totals of the socio-economic characteristics of the weighted sample coincide as far as possible with the known totals of these characteristics in Switzerland's permanent resident population[2] .

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[1] More information available at http://www.bfs.admin.ch/asset/en/338-0078

2 Until 2013, the final calibration was carried out for major region, sex, age, distinction between Swiss/foreign nationality and married/unmarried. These are the only variables available for the entire sample. From 2014, the new calibration variables are, for example, the type and size of household, the nationality in 4 categories, civil status in 4 categories, the surface area of dwellings by person, the presence of certain income sub-components, and income level by the sub-components present in the registers

The large quantity of information available in the new survey base has allowed us to simplify the weighting process and to improve its quality at the same time. Henceforth, using the registers, many variables are available for the entire sample, including certain income components. This results in a better correction for non-response and consequently better quality of final estimates. Furthermore, all variables known for our entire sample are also known for the entire Swiss population, resulting in a calibration that is much more finely-tuned and accurate than before.

4 Impact on results

The effect of these revisions[3] on the standard SILC socio-demographic breakdowns are moderate and account for one or two percentage points at most. The most noticeable effect on the structure of results is an increase in the **size of the population estimated by SILC** of 240 085 people between 2013 and 2014. Most of this increase is due to the calibration revision[4]. The population total for December 2013 estimated by SILC 2014 is 8 020 447. This increase in population size estimated by SILC has an impact on the estimation of the number of people in a precarious situation. We also observe an increase in the percentage of **people aged under 65 living alone**[5] and a slight change in the structure of the **population of foreign nationals**[6].

The effects of these revisions on the SILC indicators are greater. Firstly they lead to a decline in the median and in the 1st quartile of **equivalised disposable income**[7], a decline in the average **salaried income** and an increase in **income from social assistance and health insurance subsidies**. However, there is no significant impact on the **risk of poverty**[8] of the population as a whole. The **material deprivation rate**[9] has risen slightly because of mixed effects due to changes in the sampling frame, to the weighting revision and to real annual change. Regarding the **absolute poverty** rate[10], based on the norms for access to social assistance, it also rose slightly. This was due only to the weighting revision.

5 Conclusion

The changeover to the SRPH sample frame had a not inconsiderable impact on the data and on certain indicators in particular, leading to a break in series between 2013 and 2014. To overcome this problem, the FSO is planning a revision of the years 2012 and 2013 so that they can be compared with 2014. These results should be available by the end of 2017.

Ultimately, because the improvement in the quality of the sample frame offers considerably fuller coverage of the population of interest and a larger number of data available on the population, a fundamental revision of the weighting methods was possible. The result is a major improvement in the quality of estimates produced with SILC since 2014.

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3 For a better distinction between the effects specifically due to the new 2014 weighting and annual effects or those due to the introduction of households without a fixed-line telephone, the previous weighting method was also applied to the 2014 data (results not published).

4 With the previous weighting method, the final calibration was made on the Population and household statistics (STATPOP), whereas with the new method, the final calibration was made on the SRPH, which includes non-permanent residents living in a household with at least one permanent resident, which was not the case in the previous base used.

5 The percentage of people aged under 65 living alone was 8.1% in 2013, 8.6% in 2014 according to the previous weighting method and 10.5% in 2014 with then new weighting method.

6 The overall percentage of foreign nationals remains stable. The percentage of people from Northern and Western Europe falls (7.9% in 2013, 8.0% in 2014 according to the previous weighting method and 6.8% in 2014 with the new weighting method). The percentage of people from outside Europe increases (8.1% in 2013, 7.7% in 2014 according to the previous weighting method and 9.1% in 2014 with the new weighting method).

7 The equivalised disposable income median was CHF 51 282 in 2013, CHF 51 156 in 2014 according to the previous weighting method and CHF 49 168 in 2014 with the new weighting method.

8 The increase in the weight of low-income households had no impact on the risk of poverty because of the lowering of the risk of poverty threshold (threshold at 60% of median), due to the decrease in the median equivalised disposable income.

9 The material deprivation rate was 3.7% in 2013, 3.9% in 2014 according to the previous weighting method and 4.6% in 2014 with the new weighting method.

10 The absolute poverty rate was 5.9% in 2013, 5.6% in 2014 according to the previous weighting method and 6.6% in 2014 with the new weighting method.