

Appendix Coherence- Cross domain

An in-depth coherence analysis was carried out between the SILC survey and the Household Budget Survey (HBS), which is also conducted by the FSO. This analysis covers the percentage of households receiving the various components, the distribution of amounts above 0 and at-risk-of-poverty rates by individual profile. As the reference year for income in the 2018 SILC survey was 2017, a comparison was made with HBS data from 2017.

The Household Budget Survey is conducted annually and seeks to collect detailed information on households' income and expenditure. The survey samples 3 200 households, primarily through the use of written questionnaires. The response burden of the HBS is high, explaining why unadjusted response rates are relatively low at less than 40%. Unlike the SILC survey, no register information is reconciled with information gathered during fieldwork. However, in the event of inconsistencies arising during HBS quality controls, householders are contacted again to clear up issues and correct information where appropriate.

1. Comparison of SILC18-HBS17 income components

Compared income components are those whose Eurostat definitions are relatively similar in the two surveys. However, HBS goes into more detail about various items of income that may at times be problematic for comparisons. Although the linking of these items to Eurostat components was subject to a coordinated assessment between the SILC survey and the HBS, definition mistakes or discrepancies may still arise.

Table 1 shows the average of core income components for all households (N non-weighted 6680 for the SILC and 3217 for the HBS), while table 2 indicates the proportion of households with a positive amount in relation to an income component, along with the average of values above 0. All results have been calculated with weightings.

Findings from table 1 indicate that, of the 16 income components that were compared, the majority (11) had a similar average (with statistical significance of 95%) in both surveys.

The average amount per household is significantly higher in the SILC for the components *Survivor benefits* (PY110G), *Disability benefits* (PY130G), *Pension from individual private plans* (PY080G) and *Family /children-related allowances* (HY050G) whereas the components *Sickness benefits* (PY120G) is significantly higher in the HBS. None of these represents a significant part in the calculation of the available income. The differences concerning these latter components can be seen in Table 2 which this time only shows the average for households receiving the sub-component.

Table 1: Comparison SILC18-HBS17. Average and confidence interval of income sub-components for all households (with or without income) with weightings, in CHF. Components for which averages with confidence intervals of 95% do not correspond are outlined in red

		SILC18			HBS17		
		Confidence interval (95%)			Confidence interval (95%)		
		Average	min	max	Average	min	max
Employment income							
PY010G	Employee cash or near-cash income (Gross)	82 465	79 601	85 329	82 202	78 937	85 468
PY050G	Cash benefits or losses from self-employment	6 288	5 500	7 076	5 365	4 415	6 316
Investment and property income							
HY040G	Income from rental of a property or land	3 272	2 732	3 812	3 115	1 870	4 359
HY090G	Interest, dividends, profit from capital investments in unincorporated business	2 629	2 201	3 057	2 553	1 567	3 539
Transfer income							
PY100G	Old-age benefits	16 568	15 758	17 379	16 997	15 826	18 168
PY110G	Survivor benefits	781	644	917	376	225	527
PY130G	Disability benefits	2 516	2 179	2 853	1 429	1 112	1 746
PY120G	Sickness benefits	181	112	251	1 468	1 106	1 831
PY080G	Pension from individual private plans	655	524	787	261	159	364
PY140G	Education- related allow ances	123	75	170	63	20	106
HY050G	Family/Children-related allow ances	1 693	1 595	1 790	1 431	1 320	1 542
HY060G	Social exclusion not elsew here classified	1 392	1 156	1 629	1 590	1 331	1 849
HY070G	Housing allow ances	88	47	130	157	103	211
HY080G	Regular inter-household cash transfer received	1 292	1 072	1 511	1 879	1 434	2 325
Mandatory deductions							
HY130G	Regular inter-household cash transfer paid	1 882	1 648	2 116	2 234	1 609	2 859
HY140G	Tax on income and social contributions	34 525	33 645	35 404	32 962	31 794	34 131

We can see that there was no significant difference between the SILC and the HBS with regard to the average income from employment and self-employment across all households. Conversely, analyses carried out on households receiving income from employment show considerable differences in the percentage of households with a salaried income or an income from self-employment as well in the average income. The percentage of households with a salaried income (>0) is greater in the SILC than it is in the HBS. However, the percentage with an income from self-employed activity (>0) (PY050G *Cash benefits or losses from self-employment*) is higher in the HBS. Conversely, the average income from self-employment is higher in the SILC. This may be explained by a higher frequency of small amounts declared in the scope of the HBS, PAPI survey that also gives more rubrics for the income. In the SILC, the statutes of the activity (employed or self-employed) according to the CCO register are prioritised. In the HBS, priority is given to the option chosen by the respondent. It is thus possible that a proportion of the respondents classify themselves as self-employed even though they are considered to be employed in the CCO register (for example, employees of their own business) and are thus classified as such for the SILC.

The differences observed between SILC18 and HBS17 on other sub-components have already been observed in previous years.

For several income sub-components, the percentage of households receiving a non-zero amount is higher in SILC than in HBS, as shown in Table 2. These are the sub-components *Survivor's benefits* (PY110G), *Disability benefits* (PY130G), *Pension from individual private plans* (PY080G), *Education-related allowances* (PY140G) and *Social exclusion not elsewhere classified* (HY060G). This can largely be explained by differences in the reference period: the whole of 2017 for the SILC / month of reference for the HBS. Furthermore, the latter sub-component has a rather vague definition in both the SILC and the HBS, encouraging us to treat findings cautiously.

With regard to income from wealth (HY090G), the rate of households receiving an income (>0) is higher in the HBS. This is undoubtedly due to the different survey methods and the fact that in CATI, households with a small income from interest and dividends state these less frequently than in PAPI.

The percentage of households with transfers paid to other households (HY130G) or received from other households (HY080G *Regular inter-household cash transfer received*) is far higher in the HBS, even though the average of the positive amounts, both the transfers received and paid, is significantly higher in the SILC than in the HBS. However, the average of all households (Table 1) is ultimately higher for the HBS. This can largely be explained by the fact that the irregular transfers between households are integrated into this component for the HBS, whereas in the SILC only the regular transfers are considered.

Table 2 SILC18-HBS17. Proportion (%) of households with income sub-component (>0) and average (in CHF) thereof where this is non-zero. Sub-components for which ratios or averages with confidence intervals of 95% do not correspond are outlined in red.

		SILC18						HBS17					
		% of households w ith income > 0			Average	Confidence interval		% of households w ith income > 0			Average	Confidence interval	
		Confidence interval				(95%)		Confidence interval				(95%)	
		%	min	max		min	max	%	min	max		min	max
Employment income													
PY010G	Employee cash or near-cash income	73.4%	72.1%	74.6%	112 417	108 894	115 939	69.2%	67.5%	71.0%	118 729	115 151	122 308
PY050G	Cash benefits or losses from self-employment	11.2%	10.3%	12.1%	56 142	50 651	61 634	18.6%	17.0%	20.2%	28 815	24 399	33 231
Investment and property income													
HY040G	Income from rental of a property or land	10.7%	9.8%	11.5%	30 700	26 182	35 218	9.4%	8.3%	10.5%	33 143	20 674	45 613
HY090G	Interest, dividends, profit from capital investments in unincorporated business	78.2%	77.0%	79.5%	3 360	2 816	3 904	84.1%	82.6%	85.6%	3 036	1 866	4 206
Transfer income													
PY100G	Old-age benefits	30.4%	29.2%	31.6%	54 564	52 899	56 229	29.7%	28.0%	31.4%	57 258	54 952	59 565
PY110G	Survivor benefits	3.3%	2.8%	3.9%	23 327	20 936	25 719	1.4%	0.9%	1.8%	27 738	20 720	34 757
PY130G	Disability benefits	9.1%	8.2%	10.0%	27 751	25 526	29 975	4.4%	3.6%	5.2%	32 503	28 656	36 349
PY120G	Sickness benefits	1.1%	0.8%	1.5%	15 910	11 206	20 614	3.6%	2.8%	4.3%	41 082	36 159	46 006
PY080G	Pension from individual private plans	2.8%	2.4%	3.1%	23 735	20 211	27 258	2.0%	1.5%	2.5%	13 251	9 324	17 178
PY140G	Education- related allow ances	1.5%	1.1%	2.0%	7 955	5 911	9 999	0.5%	0.2%	0.8%	11 943	7 564	16 321
HY050G	Family/Children-related allow ances	27.9%	26.6%	29.2%	6 064	5 873	6 255	24.9%	23.3%	26.6%	5 739	5 502	5 975
HY060G	Social exclusion not elsew here classified	21.4%	20.1%	22.7%	6 517	5 541	7 493	18.4%	16.8%	19.9%	8 658	7 456	9 860
HY070G	Housing allow ances	1.0%	0.7%	1.4%	8 633	6 460	10 806	1.7%	1.2%	2.2%	9 223	7 953	10 493
HY080G	Regular inter-household cash transfer received	8.6%	7.7%	9.4%	15 105	13 045	17 165	19.2%	17.6%	20.7%	9 806	7 611	12 000
Mandatory deductions													
HY130G	Regular inter-household cash transfer paid	15.1%	14.1%	16.2%	12 446	11 126	13 765	31.4%	29.6%	33.1%	7 122	5 176	9 069
HY140G	Tax on income and social contributions	100.0%	100.0%	100.0%	34 525	33 645	35 404	100.0%	100.0%	100.0%	32 962	31 794	34 131

2. Comparison of at-risk-of-poverty rates SILC18-HBS17

Table 3 sets out estimated at-risk-of-poverty rates in regard to SILC18 and HBS17 for some socio-demographic sub-groups. The findings shown in the table substantiate the high degree of consistency between the two sources, except for people aged 50-64 years and homeowners, where the at-risk-of-poverty rates are significantly different. At-risk-of-poverty rates are situated within confidence intervals at 95%.

Table 3 SILC18-HSB17 Comparison of at-risk-of-poverty rates by socio-demographic category

Variable		SILC18			HBS17				
		n	At-risk-of-poverty rate (%)	Confidence interval (95%)		n	At-risk-of-poverty rate (%)	Confidence interval (95%)	
				min	max			min	max
Total population		15 200	14.6	13.3	15.9	7 163	16.2	14.6	17.8
Age	0-17 years	2 911	19.0	15.7	22.3	1 520	18.3	14.7	21.9
	18-64 years	9 294	11.0	9.7	12.3	4 362	13.1	11.5	14.7
	18-24 years	1 122	11.0	7.6	14.3	397	12.9	8.2	17.5
	25-49 years	4 792	11.7	10.1	13.3	2 399	11.8	9.9	13.7
	50-64 years	3 380	9.8	8.1	11.5	1 566	15.4	13.0	17.9
	65 years and over	2 995	23.1	20.9	25.3	1 281	25.5	22.1	28.8
Sex	Men	7 884	15.1	13.7	16.4	3 741	16.9	15.1	18.6
	Swiss	6 817	13.1	11.9	14.3	3 162	15.5	13.7	17.2
	Foreign	1 067	21.3	17.0	25.6	579	21.4	16.7	26.2
	Women	7 316	14.1	12.5	15.7	3 422	15.6	13.8	17.4
	Swiss	6 216	11.9	10.6	13.2	2 843	13.6	11.8	15.4
	Foreign	1 100	20.2	15.5	24.9	579	21.1	16.1	26.1
Type of household	Single person aged below 65	1 212	13.8	11.4	16.2	681	16.3	13.0	19.6
	Single person aged 65 or over	877	31.3	27.7	34.9	346	32.3	26.7	37.9
	Couple aged below 65 with no child in the household	2 128	5.5	3.7	7.2	1 188	10.0	6.9	13.1
	Couple aged 65 or over with no child in the household	2 146	19.6	16.9	22.4	1 010	22.5	18.4	26.5
	Mother or father alone with child(ren)	747	27.9	19.9	35.8	409	27.7	19.1	36.4
	Couple with child(ren)	6 802	12.7	10.2	15.2	3 166	13.6	10.6	16.6
	Other type	1 288	12.4	7.0	17.7	363	15.3	7.0	23.5
Housing occupancy status	Owner	7 917	9.2	8.0	10.5	3 692	13.2	11.0	15.4
	Tenant	7 129	18.1	15.9	20.3	3 471	18.7	16.2	21.2
Region	Lake Geneva region	2 658	15.8	12.1	19.5	1 209	18.2	13.7	22.6
	Espace Mittelland	3 756	16.8	14.0	19.5	1 572	16.8	13.3	20.3
	Northwest Switzerland	2 167	16.1	11.1	21.1	811	14.0	8.9	19.1
	Zurich	2 704	9.6	7.2	12.0	1 148	14.8	10.5	19.2
	Eastern Switzerland	1 926	13.8	10.1	17.6	872	18.5	13.6	23.3
	Central Switzerland	1 373	11.3	7.6	14.9	742	7.4	4.8	10.0
	Ticino	616	23.9	17.2	30.6	809	27.9	21.7	34.2