

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 2019 SILC survey was 2018, a comparison was made with HBS data from 2018.

The Household Budget Survey is conducted annually and seeks to collect detailed information on households' income and expenditure. The survey samples 3 400 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 SILC19-HBS18 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 7341 for the SILC and 3364 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 (10) 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), *Tax on income and social contributions* (HY140G) and *Family /children-related allowances* (HY050G) whereas the components *Housing allowances* (HY070G) and *Sickness benefits* (PY120G) are significantly higher in the HBS. None of these represents a significant part in the calculation of the available income, except for the HY130G *Tax on income and social contributions*. We are not able to explain this difference yet.

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 SILC19-HBS18. 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.

		SILC19			HBS18		
		Average	Confidence interval (95%)		Average	Confidence interval (95%)	
			min	max		min	max
Employment income							
PY010G	Employee cash or near-cash income (Gross)	83 780	80 368	87 192	78 186	74 777	81 595
PY050G	Cash benefits or losses from self-employment	6 258	5 491	7 024	4 603	3 567	5 638
Investment and property income							
HY040G	Income from rental of a property or land	2 577	2 216	2 938	2 194	1 776	2 611
HY090G	Interest, dividends, profit from capital investments in unincorporated business	2 243	1 439	3 048	2 396	1 697	3 094
Transfer income							
PY100G	Old-age benefits	16 881	16 152	17 611	17 839	16 677	19 001
PY110G	Survivor benefits	899	744	1 053	381	240	522
PY130G	Disability benefits	2 185	1 920	2 451	1 595	1 208	1 981
PY120G	Sickness benefits	196	99	293	1 709	1 315	2 103
PY080G	Pension from individual private plans	543	435	651	377	188	566
PY140G	Education- related allowances	97	60	134	85	35	134
HY050G	Family/Children-related allowances	1 677	1 576	1 779	1 380	1 261	1 499
HY060G	Social exclusion not elsewhere classified	1 376	1 139	1 612	1 937	1 609	2 265
HY070G	Housing allowances	80	32	128	294	181	407
HY080G	Regular inter-household cash transfer received	1 215	1 043	1 387	1 603	1 323	1 883
Mandatory deductions							
HY130G	Regular inter-household cash transfer paid	1 677	1 507	1 846	2 181	1 870	2 492
HY140G	Tax on income and social contributions	35 358	34 355	36 361	32 082	30 711	33 453

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 SILC19 and HBS18 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), and *Family/ Children-related allowances* (HY050G). This can largely be explained by differences in the reference period: the whole of 2018 for the SILC / month of reference for the HBS.

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 SILC19-HBS18. 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.

SILC19													HBS18				
		% of households with income > 0							% of households with income > 0								
		Confidence interval (95%)			Average	Confidence interval (95%)		Confidence interval (95%)			Average	Confidence interval (95%)					
		%	min	max		min	max	%	min	max		min	max				
Employment income																	
PY010G	Employee cash or near-cash income	74.0%	72.9%	75.2%	113 149	108 804	117 493	67.8%	66.0%	69.7%	115 291	111 291	119 291				
PY050G	Cash benefits or losses from self-employment	11.9%	11.1%	12.8%	52 416	46 993	57 840	14.2%	12.9%	15.5%	32 477	25 951	39 003				
Investment and property income																	
HY040G	Income from rental of a property or land	10.2%	9.5%	11.0%	25 167	22 183	28 151	10.5%	9.3%	11.6%	20 943	17 654	24 232				
HY090G	Interest, dividends, profit from capital investments in unincorporated business	75.4%	74.2%	76.6%	2 976	1 910	4 043	75.1%	73.3%	76.9%	3 191	2 263	4 118				
Transfer income																	
PY100G	Old-age benefits	31.2%	30.0%	32.3%	54 189	52 815	55 563	31.5%	29.7%	33.3%	56 687	54 565	58 809				
PY110G	Survivor benefits	3.4%	2.9%	3.9%	26 132	23 279	28 986	1.5%	0.9%	2.0%	25 928	18 984	32 872				
PY130G	Disability benefits	8.3%	7.5%	9.1%	26 244	24 398	28 089	4.4%	3.5%	5.2%	36 500	31 882	41 118				
PY120G	Sickness benefits	1.5%	1.1%	1.8%	13 427	8 099	18 755	4.2%	3.3%	5.0%	41 063	36 297	45 829				
PY080G	Pension from individual private plans	2.6%	2.3%	3.0%	20 578	17 602	23 554	1.9%	1.4%	2.4%	19 869	12 065	27 673				
PY140G	Education- related allowances	1.5%	1.2%	1.9%	6 307	4 733	7 881	0.9%	0.5%	1.3%	9 416	5 912	12 921				
HY050G	Family/Children-related allowances	28.0%	26.8%	29.3%	5 982	5 759	6 206	23.7%	22.0%	25.4%	5 828	5 554	6 103				
HY060G	Social exclusion not elsewhere classified	21.6%	20.3%	22.8%	6 373	5 395	7 351	19.2%	17.5%	20.8%	10 114	8 673	11 555				
HY070G	Housing allowances	0.9%	0.6%	1.3%	8 510	5 033	11 988	2.6%	1.8%	3.4%	11 346	9 554	13 139				
HY080G	Regular inter-household cash transfer received	7.8%	7.1%	8.6%	15 528	13 919	17 138	17.6%	16.1%	19.0%	9 127	7 745	10 509				
Mandatory deductions																	
HY130G	Regular inter-household cash transfer paid	15.6%	14.6%	16.6%	10 730	9 837	11 624	30.9%	29.1%	32.7%	7 061	6 138	7 984				
HY140G	Tax on income and social contributions	100.0%	100.0%	100.0%	35 358	34 355	36 361	99.9%	99.8%	100.1%	32 103	30 731	33 474				

2. Comparison of at-risk-of-poverty rates SILC19-HBS18

Table 3 sets out estimated at-risk-of-poverty rates in regard to SILC19 and HBS18 for some socio-demographic sub-groups. The findings shown in the table substantiate the high degree of consistency between the two sources. At-risk-of-poverty rates are situated within confidence intervals at 95%.

Table 3 SILC19-HSB18 Comparison of at-risk-of-poverty rates by socio-demographic category

Variable			SILC19			HBS18				
			n	At-risk-of-poverty rate (%)	Confidence interval (95%)		n	At-risk-of-poverty rate (%)	Confidence interval (95%)	
					min	max			min	max
Total population			16 662	16.0	14.7	17.4	7 360	16.3	14.7	17.9
Age	0-17 years	3 145	18.1	14.9	21.3	1 501	16.2	13.1	19.3	
	18-64 years	10 086	12.4	11.0	13.8	4 379	12.4	10.8	14.1	
	18-24 years	1 202	15.5	10.7	20.4	361	16.3	9.3	23.3	
	25-49 years	5 016	11.9	10.4	13.5	2 383	10.2	8.5	12.0	
	50-64 years	3 868	12.0	10.3	13.6	1 635	15.0	12.6	17.4	
	65 years and over	3 431	27.1	24.9	29.4	1 480	30.1	26.5	33.8	
Sex	Men	8 069	15.9	14.3	17.4	3 567	15.4	13.7	17.2	
	Swiss	6 794	12.9	11.5	14.2	2 986	14.1	12.2	15.9	
	Foreign	1 275	24.1	19.4	28.7	581	19.3	14.6	24.1	
	Women	8 593	16.2	14.8	17.6	3 793	17.2	15.4	19.0	
	Swiss	7 368	13.8	12.5	15.1	3 224	15.4	13.6	17.2	
	Foreign	1 225	23.5	18.9	28.2	569	23.2	17.5	28.9	
Type of household	Single person aged below 65	1 294	16.3	13.8	18.7	724	13.0	10.1	15.9	
	Single person aged 65 or over	1 024	32.8	29.4	36.3	391	38.5	32.8	44.2	
	Couple aged below 65 with no child in the household	2 240	6.7	4.7	8.7	1 160	7.1	4.8	9.4	
	Couple aged 65 or over with no child in the household	2 418	24.2	21.4	27.0	1 138	24.3	20.0	28.5	
	Mother or father alone with child(ren)	829	23.0	16.7	29.2	348	23.5	14.7	32.3	
	Couple with child(ren)	7 352	13.4	10.7	16.1	3 242	13.7	10.8	16.6	
	Other type	1 505	16.2	10.6	21.8	357	24.2	14.2	34.2	
Housing occupancy status	Owner	8 632	11.0	9.7	12.4	3 788	13.5	11.4	15.6	
	Tenant	7 835	19.0	16.8	21.1	3 572	18.7	16.2	21.1	
Region	Lake Geneva region	2 957	20.3	15.8	24.8	1 357	21.4	16.8	25.9	
	Espace Mittelland	3 951	19.2	16.3	22.1	1 496	20.0	15.7	24.2	
	Northwest Switzerland	2 379	14.0	9.7	18.3	865	10.7	7.0	14.4	
	Zurich	2 965	10.8	8.5	13.1	1 089	9.8	6.5	13.2	
	Eastern Switzerland	2 193	13.9	10.6	17.3	878	16.7	12.0	21.3	
	Central Switzerland	1 563	13.0	9.0	16.9	795	13.9	9.8	18.0	
	Ticino	654	22.9	17.1	28.6	880	22.2	16.4	27.9	