



Swiss Labour Force Survey Quality Report 2017

The Federal Statistical Office (FSO) publishes on its website quality reports providing information about the methodology and the definitions used as well as on the quality of the statistical results, thus facilitating interpretation and understanding. The reports are produced first and foremost in order to meet the requirements of Eurostat. For this reason they are only compiled for a limited number of statistics.

The concept of the quality reports is based on the European Statistics System's (ESS) concept of quality contained in the [European Statistics Code of Practice](#).

Statistical presentation

<i>Please take note of the abbreviations used in the report</i>	
Abbreviation	Explanation
CV	Coefficient of variation (or relative standard error)
Y/N	Yes / No
H/P	Households/Persons
M?	Member State doesn't know
NA	Not applicable/ Not relevant
UNA	Information unavailable
NR	Non-response: Member State doesn't answer to Eurostat request for information. Blank is allowed only in boxes with comments
LFS	Labour Force Survey
NUTS	Nomenclature of territorial units for statistics or corresponding statistical regions in the EFTA and candidates countries
SLFS	Swiss Labour Force Survey
ALTEL	<i>Alternative aux téléphones</i>
LAMAS	Labour Market Statistics Working Group at Eurostat
ILO	International Labour Organization

Data description

Coverage			
Coverage	Definition of household for the LFS	Inclusion/exclusion criteria for members of the household	Questions relating to employment status are put to all persons aged ...
The survey population consists of all persons living in private households aged 15 years and older. The SFLS covers only the permanent resident population in Switzerland and excludes some categories of foreign persons. The permanent resident population includes all persons who officially reside in Switzerland for the entire year. Swiss citizens, foreign citizens holding a permanent residence permit or a residence permit valid for at least one year fall into this category.	A household is defined as all persons who generally spend the majority of nights (four nights per week or more) at a given residence.	The SLFS is conducted as household/person survey; i.e. only one person per household is selected for the interview.	15+

Reference week	
Fixed week (<i>data collection refers to one reference week, to which the observation unit has been assigned prior to the fieldwork</i>)	Rolling week (<i>data collection always refers to the week before the interview</i>)
–	The reference week is the week before the interview. The SLFS is a quarterly survey and provides results as quarterly averages.

Statistical processing

Source data

Sampling design & procedure				
Sampling design (scheme; simple random sample, two stage stratified sample, etc.)	Base used for the sample (sampling frame)	Last update of the sampling frame (continuously updated or date of the last update)	Primary sampling unit (PSU)	Final sampling unit (FSU)
The samples (standard, foreign persons) are stratified by canton (the sample size of each stratum is proportionate to the population size of the respective canton).	<p>The sample for the SFLS is divided into two parts:</p> <p>a) Standard sample (size 2017: 72'526 households/persons)</p> <p>b) Extra sample of foreign persons, additionally stratified by nationality (size 2017: 16'847 persons)</p> <p>The base used for both subsamples is the SFSO's Sampling Frame for Person and Household Surveys, which contains administrative data provided by cantonal and communal resident's register offices and covers 100% of Switzerland's permanent resident population. This gross sample is first matched with a catalogue of all registered phone numbers (covering 70% to 75% of the target population), and subsequently, the remaining sample units are contacted by mail and asked to communicate a phone number under which they can be reached for the interview (=ALTEL-subsample). Once a household has been selected for a survey conducted by the SFSO, it remains ineligible for any other SFSO-survey during four years (coordination methods are used to reach this goal).</p>	continuously updated	NA	The sampling unit is the household, but only one person (aged 15 years and more) per household is interviewed

Data collection

Data collection methods: brief description	Use of dependent interviewing (Y/N)?	Participation is voluntary/compulsory?
Interviews are carried out by telephone (CATI). In the CATI questionnaire, data previously gathered in the preceding wave are included and asked to be confirmed. The questionnaire exists in 4 languages (German, French, Italian and English).	Y	voluntary

Final sampling unit collected by interviewing technique (%)				
CAPI	CATI	PAPI	CAWI	POSTAL - OTHER
NA	100%	NA	NA	NA

Relevance

Definition

The degree to which statistical information meet current and potential needs of the users.

User needs

Assessment of the relevance of the main LFS statistics at national level (e.g. for policy makers, other stakeholders, media and academic research)
The SLFS is one of the most-used surveys/statistics in Switzerland: statistics on persons employed and unemployed are the flagships of the SLFS. Unemployment statistics based on the SLFS are now widely known to allow international comparisons and to be free of breaks in time-series, which cannot be guaranteed when using registered unemployment statistics. Work Volume Statistics, mainly derived from the SLFS is used – among other goals – as the denominator to calculate labour productivity. Besides this, there is a long list of much-demanded labour market indicators produced on the basis of the SLFS (employment by occupations, by economic activity, underemployment, working schedule, on-call work, duration of contracts, etc.). There is also a long list of other indicators produced on the basis of the SLFS in the fields of migration/integration, education, gender equality, unpaid work, retirement, sustainable development, etc.. There are currently about 100 contracts for the use of micro-data for studies of all kind (universities, research institutes, other federal agencies, regional statistical institutes). Finally, the SLFS is regularly used to handle questions and/or motions of the Swiss federal parliament.

Completeness

NUTS level of detail			
Regional level of an individual record (person) in the national data set	Lowest regional level of the results published by NSI	Lowest regional level of the results delivered to researchers by NSI	Brief description of the method which is used to produce NUTS-3 unemployment and labour force data sent to Eurostat?
Commune	NUTS 2 (no publication below this level, except for some cantons that are participating and increasing the sample size for their territory)	NUTS 2 (on demand, researchers can access the micro-data containing all regional information down to the lowest possible level)	NA

Accuracy and reliability

Definition

Closeness of computations or estimates to the unknown exact or true values that the statistics were intended to measure.
Reliability of the data, defined as the closeness of the initial estimated value to the subsequent estimated value.

Sampling error

Publication thresholds			
Annual estimates		Annual estimates - wave approach	
		<i>(if different from full sample thresholds)</i>	
Limit below which figures cannot be published	Limit below which figures must be published with warning	Limit below which figures cannot be published	Limit below which figures must be published with warning
1000	5000	1000	5000

Sampling error - indicators

Coefficient of variation (CV) Annual estimates							
Sampling error - indicators - Coefficient of variation (CV), Standard Error (SE) and Confidence Interval (CI)							
	Number of employed persons	Employment rate as a percentage of the population	Number of part-time employed persons	Number of unemployed persons	Unemployment rate as a percentage of labour force	Youth unemployment rate as a percentage of labour force	Average actual hours of work per week ^(*)
	Age group: 20 - 64	Age group: 20 - 64	Age group: 20 - 64	Age group: 15 - 74	Age group: 15 - 74	Age group: 15 - 24	Age group: 20 - 64
CV	0.18344	0.18344	0.67405	2.05317	2.03033	4.60519	0.20213
SE	7781.27	0.001093517	10770.86	4796.51	0.000973890	0.003714962	0.076089
CI (**)	15251.28	0.002143294	21110.88	9401.22	0.001908824	0.007281326	0.14913

Description of the assumption underlying the denominator for the calculation of the CV for the employment rate
<p>Employment rate = number of employed / N, where N is the size of the population of persons aged 20-64 and N is fixed due to the calibration;</p> <p>Thus: Variance of employment rate = variance of number of employed / N²;</p> <p>And: CV(employment rate) = (variance of number of employed)^{1/2} / N * (N / number of employed)</p>

Reference on software used:	Reference on method of estimation:
SAS	<p>Since 2015: Purpose-made method that takes the effect of calibration into account (based on SAS procedures proc means, proc glm).</p> <p>From 2005 to 2014 the SAS procedures proc surveyfreq and proc surveymeans, and before 2005 the Jackknife method were used.</p>

Coefficient of variation (CV) Annual estimates at NUTS-2 Level								
NUTS-2		CV of regional (NUTS-2) annual aggregates (in %)						
Regional Code	Region	Number of employed persons	Employment rate as a percentage of the population	Number of part-time employed persons	Number of unemployed persons	Unemployment rate as a percentage of labour force	Youth unemployment rate as a percentage of labour force	Average actual hours of work per week ^(*)
		Age group: 20 - 64	Age group: 20 - 64	Age group: 20 - 64	Age group: 15 - 74	Age group: 15 - 74	Age group: 15 - 24	Age group: 20 - 64
CH01	Lake Geneva Region	0.53572	0.53572	1.88414	3.72789	3.64724	7.4735	0.50944
CH02	Espace Mittelland	0.4221	0.4221	1.46003	4.78773	4.74341	11.4076	0.49289
CH03	Northwestern Switzerland	0.56386	0.56386	1.87125	6.21261	6.15527	14.8634	0.59225
CH04	Zurich	0.47274	0.47274	1.64949	5.17595	5.12481	14.1788	0.50901
CH05	Eastern Switzerland	0.54622	0.54622	1.90551	6.4325	6.38293	13.3479	0.58066
CH06	Central Switzerland	0.62166	0.62166	2.28179	8.72191	8.67213	22.8208	0.6953
CH07	Ticino	1.0899	1.0899	3.74179	8.56795	8.4803	19.2622	0.98619

(*) The coefficient of variation for actual hours worked should be calculated for the sum of actual hours worked in 1st and 2nd jobs, and restricted to those who actually worked 1 hour or more in the reference week.

(**) The value is based on a CI of 95%. For the rates the CI should be given with 2 decimals.

Non-sampling error

Coverage error

Frame quality (under-coverage, over-coverage and misclassifications ^(b))						
Under-coverage rate (%)	Over-coverage rate (%)	Misclassification rate (%)	Comments: specification and impact on estimates ^(a)			Reference on frame errors
			Undercoverage	Overcoverage	Misclassification ^(b)	
0%	0%	M?	NA	NA	Differing household composition. Unit non response if the selected person is not living in the selected household (anymore), else no impact on estimates.	M?

(a) Mention specifically which regions / population groups are not suitably represented in the sample.

(b) Misclassification refers to statistical units having an erroneous classification where both the wrong and the correct one are within the target population.

Over-coverage - rate

[Over-coverage rate, please see concept 6.3.1 Coverage error in the LFS quality report]

Measurement error

Errors due to the medium (questionnaire)				
Was the questionnaire updated for the 2017 LFS operation? (Y/N)	Synthetic description of the update	Was the questionnaire tested? (Y/N)	If the questionnaire has been tested, which kind of tests has been applied (pilot, cognitive, internal check)?	
N	NA	N	NA	

Main methods of reducing measurement errors			
Error source			
Respondent	Letter introducing the survey (Y/N)	Phone call for booking or introducing the survey (Y/N)	
	Y	Y	
Interviewer	Periodical training (at least 1 time per year) (Y/N)	Feedbacks from interviewer (reports, debriefings, etc.) (Y/N)	
	Y	Y	
Fieldwork	Monitoring directly by contacting the respondents after the fieldwork (Y/N)	Monitoring directly by listening the interviews (Y/N)	Monitoring remotely through performance indicators (Y/N)
	N	Y	Y
Questionnaire	Questionnaire in several languages (Y/N)	On-line checks (for computer assisted interviews (Y/N)	
	Y	Y	
Other / Comments	NA		

Non response error

Unit non-response - rate

IN THIS SECTION INFORMATION REFERS TO THE FINAL SAMPLING UNITS *

Methods used for adjustments for statistical unit non-response		
Adjustment via weights (Y/N)	Variables used for non-response adjustment	Description of method
Y	<p>First wave: Household type, age, sex, marital status, canton of residence, nationality, residence permit, and duration of residence. Furthermore, the non response in the ALTEL-subsample (cf. 3.1. Source data: Sampling design & procedure) is modeled separately from the non response among owners of a registered phone number.</p> <p>Subsequent waves: in addition to the abovementioned variables, the labour market status and the education level as surveyed in the previous waves are also taken into account.</p>	Response homogeneity groups
Substitution of non-responding units (Y/N)	Substitution rate	Criteria for substitution
N	NA	
Other methods (Y/N)	Description of method	
N	NA	

Rates of non-response by survey mode. Annual average				
Survey				
CAPI	CATI	PAPI	CAWI	POSTAL
NA	19.68	NA	NA	NA

Divisions of non-response into categories. Quarterly data and annual average				
Quarter	Non-response rate			
	Total (%)	of which:		
		Refusals (%)	Non-contacts (%)	Other reasons (%)
1	18.43	2.52	8.51	7.40
2	20.32	2.33	10.73	7.25
3	20.49	2.60	10.69	7.20
4	19.46	2.90	9.64	6.92
Annual	19.68	2.59	9.89	7.19

Rates of non-response. Annual average	
NUTS-2 region (code + name)	Non response rate (%)
CH01 - Lake Geneva region	20.3190
CH02 - Espace Mittelland	18.6262
CH03 - Northwestern Switzerland	21.1042
CH04 - Zurich	21.0744
CH05 - Eastern Switzerland	19.7093
CH06 - Central Switzerland	18.3930
CH07 - Ticino	16.2411

* If the final sampling unit is the household it must be considered as responding unit even in case of some household members (not all) do not answer the interview

Processing error

Editing of statistical item non-response	
Do you apply some data editing procedure to detect and correct errors? (Y/N)	Overall editing rate (Observations with at least one item changed / Total Observations)
N	NA

Imputation - rate

Imputation of statistical item non-response		
Are all or part of the variables with item non response imputed? (Y/N)	Overall imputation rate (Observations with at least one item imputed / Total Observations)	
N	NA	
Main variables	Imputation rate	Describe method used, mentioning which auxiliary information or stratification is used
NA	NA	NA

Seasonal adjustment

Do you apply any seasonal adjustment to the LFS Series? (Y/N)	If Yes, is your adopted methodology compliant with the ESS guidelines on seasonal adjustment? (ref. http://ec.europa.eu/eurostat/web/research-methodology/seasonal-adjustment) (Y/N)	If Yes, are you compliant with the Eurostat/ECB recommendation on Jdemetra+ as software for conducting seasonal adjustment of official statistics. (ref. http://ec.europa.eu/eurostat/web/ess/-/jdemetra-officially-recommended-as-software-for-the-seasonal-adjustment-of-official-statistics) (Y/N)	If Not, please provide a description of the used methods and tools
Y	Y	Y	NA

Data revision - policy

Do you adopt a general data revision policy fully compliant with the ESS Code of Practice principles? (in particular see the 8th principle) (Y/N)	Are you compliant with the ESS guidelines on revision policy for PEEIs? (ref. http://ec.europa.eu/eurostat/documents/3859598/5935517/KS-RA-13-016-EN.PDF) (Y/N)
Y	N

Timeliness and punctuality**Timeliness**

Quarterly LFS data Reference period, transmission date and coverage			
Quarter	Main dates in the national production process		
	Start date of data collection	End date of the quality check for statistics requested by Eurostat	Date of national publication
1	09.01.2017	05.05.2017	23.05.2017
2	10.04.2017	28.07.2017	17.08.2017
3	10.07.2017	27.10.2017	16.11.2017
4	09.10.2017	02.02.2018	15.02.2018

Punctuality

Quarterly LFS Data						
Quarter	Full dataset			Single characteristic(s)		
	Deadline	Delivery date	Reason for late delivery	Characteristic(s)	Delay (days)	Reason for late delivery
1	25/06/2017	23/05/2017	NA	NA	NA	NA
2	24/09/2017	17/08/2017	NA	NA	NA	NA
3	24/12/2017	16/11/2017	NA	NA	NA	NA
4	25/03/2018	15/02/2018	NA	NA	NA	NA
Yearly weights (*)	31/03/2018	20/03/2018	NA	NA	NA	NA

Measures to improve timeliness and punctuality
NA

(*) Only if ad hoc yearly weights are used for yearly variables

Coherence and comparability

Definition

Adequacy of statistics to be reliably combined in different ways and for various uses and the extent to which differences between statistics can be attributed to differences between the true values of the statistical characteristics.

Comparability - geographical

Divergence of national concepts from European concepts		
<i>(European concept or National proxy concept used) List all concepts where any divergences can be found</i>		
Is there a divergence between the national and European concepts for the following characteristics?	(Y/N)	Give a description of difference and provide an assessment of the impact of the divergence on the statistics
Definition of resident population (*)	N	NA
Identification of the main job (*)	N	NA
Employment	N	NA
Unemployment	N	NA

Comparability - over time

Changes at CONCEPT level introduced during the reference year and affecting comparability with previous reference periods (including breaks in series)					
Changes in	(Y/N)	Description of the impact of the changes	Statistics also revised backwards (if Y: year / N)	Variables affected	Break in series to be flagged (if Y: year and quarter/N)
concepts and definition	N	NA	NA	NA	NA
coverage (i.e. target population)	N	NA	NA	NA	NA
legislation	N	NA	NA	NA	NA
classifications	N	NA	NA	NA	NA
geographical boundaries	N	NA	NA	NA	NA

Changes at MEASUREMENT level introduced during the reference year and affecting comparability with previous reference periods (including breaks in series)					
Changes to	(Y/N)	Description of the impact of the changes	Statistics also revised backwards (if Y: year / N)	Variables affected	Break in series to be flagged (if Y: year and quarter/N)
sampling frame	N	NA	NA	NA	NA
sample design	N	NA	NA	NA	NA
rotation pattern	N	NA	NA	NA	NA
questionnaire	N	NA	NA	NA	NA
instruction to interviewers	N	NA	NA	NA	NA
survey mode	N	NA	NA	NA	NA
weighting scheme	N	NA	NA	NA	NA
use of auxiliary information	N	NA	NA	NA	NA

Coherence - cross domain

Coherence of LFS data with Business statistics data				
	Description of difference in concept	Description of difference in measurement	Give an assessment of the effects of the differences	Give references to description of differences
Total employment	Business statistics data cover all persons working in Switzerland (domestic concept, NACE sections B-S, registered firms), while SLFS data cover all persons whose main place of residence is in Switzerland (permanent resident population concept, NACE sections A-U).	Business statistics data unit is "job", while SLFS data unit is "person".	Concept level: the covered population differs considerably, which leads to significant discrepancies in the results. Measurement level: persons having 2 jobs appear twice in the Business statistics, while they appear only once in the SLFS data.	SFSO website: Employment and income - Definitions
Total employment by NACE	Business statistics data cover all persons working in Switzerland (domestic concept, NACE sections B-S, registered firms), while SLFS data cover all persons whose main place of residence is in Switzerland (permanent resident population concept, NACE sections A-U).	Business statistics data unit is "job", while SLFS data unit is "person".	Concept level: the covered population differs considerably, which leads to significant discrepancies in the results. Measurement level: persons having 2 jobs appear twice in the Business statistics, while they appear only once in the SLFS data.	SFSO website: Employment and income - Definitions
Number of hours worked	The number of hours worked is not measured by the Business statistics.	NA	NA	NA

Coherence of LFS data with registered unemployment		
Description of difference in concept	Description of difference in measurement	Give references to description of differences
In the SLFS, unemployment corresponds to the ILO/Eurostat definition. The State Secretariat for Economic Affairs SECO publishes a monthly unemployment rate which only takes into account unemployed persons registered at the public employment office.	SLFS: survey Registered unemployment: monthly collection of data from the public employment offices	SFSO website: Employment and income - Definitions

Assessment of the effect of differences of LFS unemployment and registered unemployment					
Give an assessment of the effects of the differences					
Overall effect	Men under 25 years	Men 25 years and over	Women under 25 years	Women 25 years and over	Regional distribution (NUTS-3)
LFS unemployment is higher than registered unemployment. On the basis of an annual average situation (2015 to 2017), the LFS unemployment rate for the total population is 1,6 percentage point higher than the registered unemployment rate.	On the basis of an annual average situation (2015 to 2017), the LFS unemployment rate for men under 25 years is 5,1 percentage points higher than the registered unemployment rate for the same group.	On the basis of an annual average situation (2015 to 2017), the LFS unemployment rate for men aged 25 years and older is 0,8 percentage points higher than the registered unemployment rate for the same group.	On the basis of an annual average situation (2015 to 2017), the LFS unemployment rate for women under 25 years is 5,3 percentage points higher than the registered unemployment rate for the same group.	On the basis of an annual average situation (2015 to 2017), the LFS unemployment rate for women aged 25 years and older is 1,4 percentage point higher than the registered unemployment rate for the same group.	NA

Coherence - National Accounts

Coherence of LFS data with National Accounts data				
	Description of difference in concept	Description of difference in measurement	Give an assessment of the effects of the differences	Give references to description of differences
Total employment	National accounts data cover all persons working in Switzerland (domestic concept, NACE sections A-T), while SLFS data cover all persons whose main place of residence is in Switzerland (permanent resident population concept, NACE sections A-U).	NA	Concept level: the covered population differs considerably, which leads to significant discrepancies in the results.	SFSO website: Employment and income - Definitions
Total employment by NACE	National accounts data cover all persons working in Switzerland (domestic concept, NACE sections A-T), while SLFS data cover all persons whose main place of residence is in Switzerland (permanent resident population concept, NACE sections A-U).	NA	Concept level: the covered population differs considerably, which leads to significant discrepancies in the results.	SFSO website: Employment and income - Definitions
Number of hours worked	National accounts data cover all persons working in Switzerland (domestic concept, NACE sections A-T), while SLFS data cover all persons whose main place of residence is in Switzerland (permanent resident population concept, NACE sections A-U).	NA	Concept level: the covered population differs considerably, which leads to significant discrepancies in the results.	SFSO website: Employment and income - Definitions

Which is the use of LFS data for National Account Data?					
Country uses LFS as the only source for employment in national accounts.	Country uses mainly LFS, but replacing it in a few industries (or labour status), on a case-by-case basis	Country not make use of LFS, or makes minimal use of it	Country combines sources for labour supply and demand giving precedence to labour supply sources (i.e. LFS)	Country combines sources for labour supply and demand not giving precedence to any labour side	Country combines sources for labour supply and demand giving precedence to labour demand sources (i.e. employment registers and/or enterprise surveys)
N	N	N	Y	N	N

Accessibility and clarity

Definition

The conditions and modalities by which users can obtain, use and interpret data.

Publications

Please provide a list of type and frequency of publications
<p>All informations, publications and standard tables are published and available on the SFSO website: http://www.bfs.admin.ch in particular: a) General description www.sfs.bfs.admin.ch b) Publications and findings SLFS Publications and findings</p>

On-line database

Documentation, explanations, quality limitations, graphics etc.			
Web link to national methodological publication	Conditions of access to data	Accompanying information to data	Further assistance available to users
SLFS Methodology (in german language only)	Access to anonymized micro-dataset possible by signing a contract pertaining to the use of the data	See point 9.2 (Dissimination format - Publications)	email: info.arbeit@bfs.admin.ch phone: 0041 (0) 58 463 64 00

Micro-data access

Accessibility to LFS national microdata (Y/N)	Who is entitled to the access (researchers, firms, institutions)?	Conditions of access to data	Accompanying information to data	Further assistance available to users
Y	Anyone signing a contract pertaining to the use of the data.	Use for scientific means only. No further disclosure to third parties. No data linking. Data protection. Destruction of the data after the completion of the research project for which the data have been accessed.	See point 9.2 (Dissimination format - Publications)	email: info.arbeit@bfs.admin.ch phone: 0041 (0) 58 463 64 00

Documentation on methodology

References to methodological notes about the survey and its characteristics
SLFS Methodology (in german language only)

Cost and burden

Definition

Cost associated with the collection and production of a statistical product and burden on respondents.

Number of staff involved in the LFS in central and regional offices, excluding interviewers Consider only staff directly employed by the NS	Full-time equivalents
Total	7.6
- of which professional and managerial	scientific: 4.4 / administrative: 3.2

Duration of the interview by Final Sampling Unit	Minutes		
	Total	First wave	Later waves
Average duration of the interview	58.0	25.4	32.6
Core questionnaire (pr person)	56.5	23.9	32.6
Ad hoc Modules (pr person)	1.5	1.5	NA

Note: This table should only show the burden on the respondents, not time spent in the field to contact the household or fill in administrative forms.

Number of units	Number		
	Total	First wave	Later waves
Households visited over the year	122'439	34'863	87'576
Persons interviewed over the year	122'439	34'863	87'576
Persons interviewed for the ad hoc module over the year	7'494	7'494	NA

Confidentiality

Definition

A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties.

Confidentiality - data treatment

Please provide information on the policy for anonimizing microdata in your country
National microdata contain only the year of birth. Furthermore, the commune of residence is not made available in cases where it has fewer than 5000 residents.

Contact organisation: Swiss Federal Statistical Office

Contact organisation unit: Unit 'Employment and Income'

Contact name: Christian Hutter

Contact person function: Research associate

Contact mail address: Espace de l'Europe 10
CH-2000 Neuchâtel

Contact email address: christian.hutter@bfs.admin.ch

Contact phone number: 0041 58 463 68 26

Contact fax number: -