

Swiss Confederation

# Statistical sources

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## 1.1 Swiss labour market statistics system

Information about the labour market is obtained from household surveys and business surveys and by mining the available administrative data (see Box 1). Whereas household surveys are mainly based on the labour supply, business surveys provide information that is oriented towards demand. This information can also be combined in order to obtain what is known as composite statistics. Such statistics help to supplement the information available to us and produce new results without the need to carry out costly additional surveys. Moreover, these statistics can allow us to combine specific benefits of several different statistics while compensating for certain deficiencies. Box 6 shows the great variety of statistics and registers that provide information concerning the labour market. In order to keep this publication relatively brief as well as for reasons related to the periodicity of the surveys, some of these statistical sources are not considered in further detail in terms of the methodological aspects or the results1.

The Swiss Labour Force Survey (SLFS) is carried out among households and is the primary source for the four composite statistics considered in this work. They are, namely, the Employment Statistics (ES), the Work Volume Statistics (WV), the Unemployment Statistics (ILO-based) (ELS-ILO) and the Labour Market Accounts (LMA). In the context of this publication, the SLFS also provides the figures required for international comparisons as well as for calculating the economic activity rate and the employment rate.

Besides the SLFS and the four composite statistics derived from it, there are seven other statistical sources that provide indicators relevant in the context of this "Labour market indicators" publication (see Box 2): four business surveys (the Job Statistics, the Swiss Earnings Structure Survey, the Wage Agreements Survey and the Survey on Collective Labour Agreements in Switzerland) and three statistics based on administrative data (the Statistics on Normal Workweek in Companies, the Unemployment Statistics of the State Secretariat for Economic Affairs and the Salary Trend Statistics). The overview is rounded out by the Cross-border Commuter Statistics (composite statistics based primarily on matching between ZEMIS data and OASI data and used as an input in the ES, the WV and the LMA).

Information about the statistical sources concerning the labour market that are not discussed in detail in this publication may be obtained from the following federal offices:

State Secretariat for Economic Affairs: Statistics on Reduction of Working Hours, Statistics on Announced Vacancies.

State Secretariat for Migration: Central Migration Information System (ZEMIS). Federal Statistical Office: Population Census, Business Census, Structural Business Statistics, Survey of Newly Born Enterprises, Primary Sector Business Census.

## Box 1: The Swiss labour market statistics system

#### Composite statistics

Employment Statistics (ES) - see 1.3

Cross-border Commuter Statistics (CCS) - see 1.6

Work Volume Statistics (WV) - see 1.7

Unemployment Statistics (ILO-based) (ELS-ILO) - see 1.10

Labour Market Accounts (LMA) - see 1.13

#### Household surveys

Swiss Labour Force Survey (SLFS)

Population Census (RFP)

- see 1.2

- A comprehensive census of the resident population was carried out every ten years between 1850 and 2000. It has gathered data on employment since 1860. Until 1960, only full-time employment was taken into account and until 1980, only employed persons working at least six hours per week. It was not until 1990 that the work limit was lowered to one hour per week (international definition). Since 2010, the traditional population census has been replaced by a series of surveys. This includes the annual structural survey (a sample survey carried out on the basis of 200 000 persons). It is an important source of data for labour market observation.

#### **Business surveys**

Job Statistics (JOBSTAT)
Business Census (BC)

Structural Business Statistics (STATENT)

Survey of Newly Born Enterprises

Federal Primary Sector Census, Farm Survey Swiss Earnings Structure Survey (ESS) Wage Agreements Survey (WAS) Survey on Collective Labour Agreements (SCLA) Survey on Collective Labour Disputes (KASE)

#### Administrative data

Central Migration Information System (ZEMIS)

Normal Workweek in Companies (NW) Statistics on Reduction of Working Hours / SECO SECO Unemployment Statistics

Statistics on Announced Vacancies / SECO

Salary Trend Statistics (SWI)

- see 1.4

- Carried out every three or four years among establishments in the secondary and tertiary sectors, for the last time in 2008. Jobs amounting to at least six hours per week are considered. Jobs in private households and self-employed persons without a company are not considered.
- These annual statistics has replaced the Business Census since 2011. Based mainly on administrative data, it covers jobs within companies or among people working for themselves (selfemployed) involving payment of mandatory OASI contributions on the basis of a minimum annual income of CHF 2300. The reporting units are the establishment and the enterprise.
- Carried out among enterprises that were newly recorded in the Business and Enterprise Register (BER) as part of an update of the register. The BER serves as a basis for the Business Census as well as for each sample survey carried out among enterprises.
- Survey of jobs by region in the primary sector.

see 1.14see 1.17see 1.18see 1.19

- Monthly data on the number of foreign workers. Since June 2002, the ZEMIS has no longer provided information about employment of persons from the EU holding a residence permit and persons holding a settlement permit.
- see 1.8
- Monthly survey of information about partial unemployment.
- see 1.11
- Monthly survey of vacancies reported to regional placement offices.

- see 1.16

## Box 2: Overview of statistics and indicators covered in the publication

Statistics	Supplied indicators
Composite statistics	
Employment Statistics (ES)	– Employed persons, employed persons in full-time equivalents
Cross-border Commuter Statistics (CCS)	– Foreign nationals working in Switzerland
Work Volume Statistics (WV)	– Actual hours worked
	<ul> <li>Normal working hours</li> </ul>
	- Overtime
	- Hours of absence
Unemployment Statistics (ILO-based) (ELS-ILO)	- ILO unemployed
L C' 's' and a local Advantage (LAAA)	- Unemployment rate based on ILO
definition Labour Market Accounts (LMA)	- Summary of employed population
Have about a comment	<ul> <li>Migration of economically active persons</li> </ul>
Household surveys Swiss Labour Force Survey (SLFS)	– Economic activity rate
Swiss Labour Force Survey (SLFS)	Employment rate
	Indicators used for international comparisons
Business surveys	indicators used for international compansons
Job Statistics (JOBSTAT)	– Jobs by work-time percentage, jobs in full-time equivalents
,	- Vacancies
	Indicators on the employment outlook
	Indicators on difficulties in recruiting staff
Swiss Earnings Structure Survey (ESS)	– Standardised gross monthly salary
Wage Agreements Survey (WAS)	– Adjustment of actual wages
	- Adjustment of minimum wages
Survey on Collective Labour Agreements	
in Switzerland (SCLA)	– Collective labour agreements
Survey on Collective Labour Disputes (KASE)	- Strikes and lockouts
	<ul> <li>Affected establishments and workers</li> </ul>
	<ul> <li>Working days lost</li> </ul>
Administrative data	
Normal Workweek in Companies (NW)	– Normal weekly duration of work by full-time salaried employees
Unemployment Statistics of the State Secretariat	
for Economic Affairs (SECO)	<ul><li>Registered unemployed persons</li><li>Unemployment rate</li></ul>
Registered job seekers	
Salary Swiss Wage Index (SWI)	– Index of nominal salaries
	- Index of real salaries

## 1.2 Swiss Labour Force Survey (SLFS)

The Swiss Labour Force Survey (SLFS) is a survey that is carried out among individuals with the main goal of obtaining data on the structure of the Swiss employed population as well as the different behaviours in relation to employment. The principal topics covered by the SLFS are employment, unemployment and its characteristics, occupations (learned and actual), working conditions, labour market mobility, economic branches, working hours, education (including further education), unpaid labour, family circumstances, housing conditions and income (see chapter 1.15). The vast range of available data allows a wide selection of breakdown criteria (e.g. employed persons by civil status, income group, type of work schedule; unemployed persons based on ILO definition by education, duration of employment, family type, etc.). Similar surveys (known as labour force surveys) are carried out in the different countries of the European Union.

## Concepts and definitions for the SLFS

The SLFS applies the international definitions of employment and unemployment (International Labour Office and EUROSTAT). A person is thus considered to be employed if they are engaged in a professional activity lasting at least one hour during the reference week. Usage of these definitions provides the basis for international comparisons.

Due to the survey method, the results of the survey relate solely to the permanent resident population. Consequently, the SLFS does not take into account certain groups of foreign nationals such as cross-border commuters, short-term residence permit holders or asylum seekers. In order to make up for these gaps, the groups that do not belong to the permanent resident population (see Graphic G 1.1) are added during a key step in the processes involved in calculating the composite statistics (Employment Statistics, Work Volume Statistics, Labour Market Accounts). Although this operation makes it possible to take into account all persons working in Switzerland as well as all unemployed persons based on the ILO definition residing in Switzerland, it does have one disadvantage, namely a loss of flexibility in terms of the ability to break down the results.

## SLFS calculation method

## a) Survey method

The SLFS is a sample survey among individual persons. From 1991 to 2009, it was carried out between the month of April and the month of June. Since 2010, it has taken place on a continuous basis in the aim of supplying quarterly and annual indicators. The FSO contacts the selected persons in writing. Since 2021, a multimode survey technique is being used (online survey/telephone survey), with preference given to the online survey. An interview lasts about 20 minutes on average. The persons participating in the survey are interviewed four times over 15 months. This panel structure makes it possible to closely observe the changing labour market and to carry out longitudinal studies.

#### b) Extrapolation of the results

Utilisation of the survey results requires weighting the responses supplied by the interviewed persons. This weighting is calculated based on Switzerland's permanent resident population. For the period 2010–2016, the weighting of the SLFS data was revised. Some new adjustments based on social insurance data were integrated into the weighting process. Inclusion of these new dimensions provides the basis for improvements in terms of statistical accuracy, particularly as it relates to labour-market status (employed /unemployed person based on the ILO definition/inactive). This revision causes a break in the series for part of the results between 2009 and 2010.

Each quarter, a single participant in the SLFS represents on average 230 persons among the permanent resident population aged 15 years and over (the quarterly sample consists of approximately 30 000 persons).

The main results of the SLFS are available on the Federal Statistical Office's website. Customised studies can also be made upon request.

## Concepts and definitions for the Swiss Labour Force Survey

Subject of the statistics: Structure of the employed

population and behaviours in

relation to employment

Survey method: Survey of individuals

(approx. 120 000 interviews per

year)

Reference population: Permanent resident population

excluding diplomats, international civil servants (including their family members)

and asylum seekers

Reference period/

periodicity: Since 2010: Each quarter,

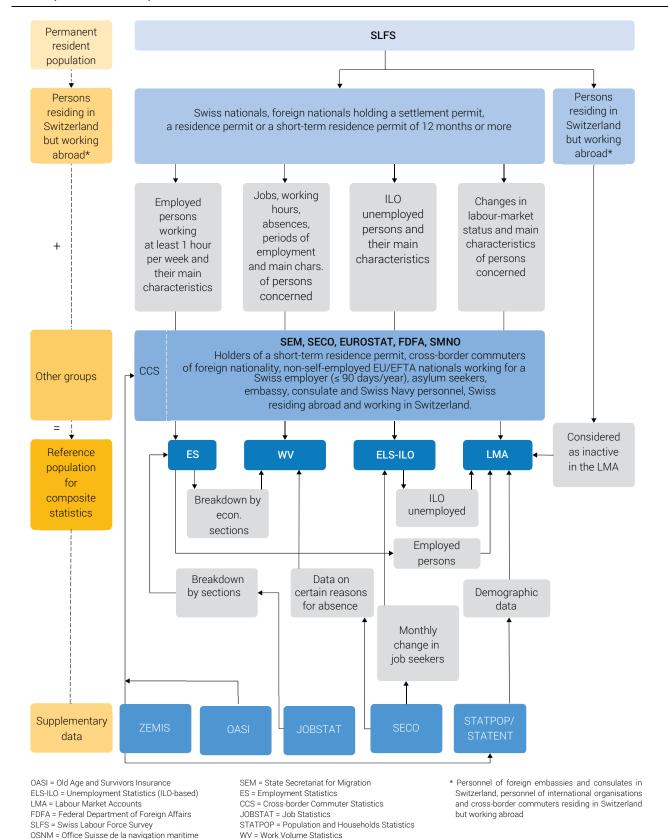
continuous survey

From 1991 to 2009: second quarter (from April to June),

annual survey

#### Breakdown criteria

The many topics covered by the survey allow a wide selection of breakdown criteria. Conversely, crosstabulations between variables are limited because this is a sample survey (the more the isolated groups exhibit a reduced size, the greater the coefficient of variation).



ZEMIS = Central Migration Information System

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SECO = State Secretariat for Economic Affairs

## 1.3 Employment Statistics (ES)

The Employment Statistics (ES) were created in 1977. There are overall figures going back to 1948 and other (more detailed) figures going back to 1960. The Employment Statistics take into account all persons working in Switzerland. As a result, the ES provides data on the overall economy, including the primary sector. The ES are composite statistics, i.e. they are based on different statistical sources. The main sources are the Swiss Labour Force Survey (SLFS), the Central Migration Information System (ZEMIS) managed by the State Secretariat for Migration (SEM) and the Job Statistics (JOBSTAT). By combining results from different sources, it is possible on one hand to take advantage of the strengths while eliminating the weaknesses of the statistics included in the ES. On the other hand, the domain covered by the ES can be adapted to the domestic concept.

#### Concepts and definitions for the ES

The ES surveys all persons working at least one hour per week in Switzerland (see chapter 3.8, "The domestic concept"). They thus correspond to the employment definition recommended by the International Labour Office. In particular, the ES considers certain population groups that are not taken into account for various reasons in the JOBSTAT. This involves persons working in the primary sector, persons employed by private households as well as persons engaged in a professional activity that is not subject to OASI contributions (see chapter 1.5). The reference population for the ES also differs from that of the SLFS. Unlike the SLFS (which only considers the permanent resident population), the ES also takes into account cross-border commuters, asylum seekers, short-term residence permit holders as well as other minor groups. The number of employed persons is also represented in full-time equivalents as well as in a seasonally adjusted form.

#### ES calculation method

The ES is carried out in three steps.

#### 1) Adaption to the domestic concept

The quarterly values are calculated based on the SLFS. However, since its definitions do not fully coincide with the definitions for the ES, the SLFS data (which refers to the permanent resident population) are adapted to the domestic concept (see Graphic G 1.2). In other words, short-term residence permit holders, persons asylum seekers, Swiss embassy and consulate personnel abroad, Swiss Navy personnel, cross-border commuters and workers from the EU/EFTA who have been hired by a Swiss employer for 90 days or less are added to the employed persons in the SLFS. In contrast, foreign embassy and consulate personnel in Switzerland as well as cross-border commuters residing in Switzerland and working abroad are removed.

This calculation is performed separately for men and women, for Swiss nationals and for foreign nationals (the latter being divided according to the type of residence permit they hold).

#### 2) Breakdown of the results

The values according to the domestic concept (which are already split by gender, nationality and type of residence permit) are further broken down by major region, age group, employment status, sector and economic section. The main sources for these breakdowns are the SLFS, ZEMIS, CCS and JOBSTAT.

#### 3) Employed persons in full-time equivalents

In order to convert employed persons into full-time equivalents (FTE), the work-time percentages for the different jobs are added together. Thus, a person with a first job having a work-time percentage of 50% and a second job of 20% will be treated as having 0.7 FTE. The work-time percentages are determined by dividing the effective working hours for each job by the average number of effective hours for full-time jobs.

#### 4) Routine revision

The ES is updated each quarter by integrating the revised figures from the Cross-border Commuter Statistics (CCS) up to the last reference value for the CCS.

For further details on the ES, see the methodological report "La statistique de la population active occupée (SPAO), Bases méthodologiques" [Employment Statistics (ES), methodological bases], FSO, 2021.

## Adaptation of the ES to the domestic concept

G 1.2

Swiss employed persons residing in Switzerland

+

Employed persons holding a settlement permit (permit C)

+

Employed persons holding a residence permit (permit B)

+

Employed persons holding a short-term residence permit longer than or equal to 12 months (permit L)

=

Employed persons in the permanent resident population

+

Employed persons holding a short-term residence permit of less than 12 months (permit L)

+

Employed persons seeking asylum

+

Swiss embassy and consulate personnel abroad

+

Swiss Navy personnel

+

Cross-border commuters of foreign nationality residing abroad and working in

+

Swiss nationals residing abroad and working in Switzerland

+

EU/EFTA nationals engaged in a gainful occupation (non-self-employed) for a Swiss employer for less than 90 days per calendar year

\_

Cross-border commuters residing in Switzerland and working abroad

=

Employed population according to domestic concept

Concepts and definitions for the Employment Statistics

Subject of the statistic: Persons engaged in a

productive activity as defined in the national accounts for at least

one hour per week

Survey method: Composite statistics

Reference population: Employed population according

to domestic concept

Reference period/

periodicity: Quarterly average, quarterly and

annual statistic

## Breakdown criteria

Employed persons

- Gender x nationality/residence permit
- Gender x sectors and economic sections according to NOGA08
- Gender x major regions
- Gender x nationality x employment status
- Gender x nationality x age groups
- Gender x nationality x economic sectors

Employment in full-time equivalents

- Gender
- Nationality

Seasonally adjusted series

- Total and total in full-time equivalents

x = crossed with

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## 1.4 Job Statistics (JOBSTAT)

The Job Statistics (JOBSTAT) are prepared on the basis of a quarterly survey of establishments in the secondary and tertiary sectors. JOBSTAT has existed as a quarterly survey since 1925. JOBSTAT was first realised for different industrial branches and published in the form of an index. However, it evolved gradually and now covers all of the economic branches in the second and tertiary sectors. JOBSTAT has been published in the form of headcounts since the third quarter of 1991.

## Concepts and definitions for the JOBSTAT

JOBSTAT is an economic survey whose purpose is to supply information about job trends in the different economic branches as well as about vacancies, recruitment challenges and the employment outlook. It considers enterprises in the secondary and tertiary sectors that are established on Swiss territory (domestic concept). The primary sector (agriculture, hunting, forestry, fishing and aquaculture) and the "Activities of households as employers" section are not taken into account.

#### JOBSTAT calculation method

The survey is based on a random sample of enterprises drawn from the Business and Enterprise Register (BER). It is stratified by economic divisions. In the case of enterprises with multiple establishments, all of the establishments in an enterprise in the sample are integrated into the latter. Then, the jobs are divided among the local units of each enterprise in order to produce results at the level of the establishments. Since 2001, cantons and major cities that so desire have had the opportunity to finance supplementary regional samples.

The corresponding data are gathered from enterprises on the basis of an online survey ("eSurvey") or via electronic data exchange or questionnaires printed on paper. In order to reduce the burden imposed on enterprises, data collection is coordinated with the other job-related surveys (BER update survey, profiling and profiling light). The questionnaire is mainly concerned with the number of jobs held in enterprises during the last month of the reference quarter. The other information gathered as part of the survey is concerned with vacancies as well as two qualitative variables, namely, the indicator on personnel recruitment challenges according to professional education level and the indicator on the employment outlook.

The current sample contains approx. 19 000 enterprises (65 000 establishments), i.e. 3.5% of the total number of enterprises in the secondary and tertiary sectors (11% of the establishments). It covers approximately 45% of jobs. A methodological annexe describing the main characteristics of the survey framework as well as the variance of the quarterly estimates is included with the result tables. The sample is regularly renewed every two years. The chronological series (two years) is revised between the current and the previous refresh of the sample

All of the JOBSTAT results are available on the FSO website along with the following methodology reports: "Statistique de l'emploi: Bases méthodologiques 2000" [Job Statistics: methodological bases 2000], FSO, 2002; "Statistique de l'emploi. Révision 2007: cadre de sondage et échantillonnage" [Job Statistics. Revision 2007: survey and sample framework], FSO, 2008; "Statistique de l'emploi: Révision 2007: méthodes d'estimation" [Job Statistics: Revision 2007: estimation methods], FSO, "Beschäftigungsstatistik BESTA: 2015: Revision Stichprobenrahmen, Stichprobenplan und Hochrechnung" [Job Statistics: Revision 2015: sampling frame, sampling plan and extrapolation], FSO 2019

#### Concepts and definitions for the Job Statistics

Subject of the statistics: Jobs in enterprises by work-time

percentage and in full-time equivalents, vacancies, indicators on personnel recruitment challenges according to professional education level and indicators on the employment

outlook.

Survey method: Survey of 19 000 enterprises (65

000 establishments)

Reference population: Jobs subject to OASI contri-

butions in enterprises in the secondary and tertiary sectors according to domestic concept. Not considered: jobs in the primary sector as well as those in the "Activities of households as

employers" section.

Reference period/

periodicity: Last month of each quarter,

quarterly statistic

#### Breakdown criteria

Jobs

- Gender x economic divisions according to NOGA08 x work-time percentage
- Gender x economic divisions according to NOGA08 *Full-time equivalents*
- Gender x major regions x economic sectors

Number of vacancies, indicators on personnel recruitment challenges according to professional education level and indicators on the employment outlook

- Economic divisions NOGA08
- Seasonally adjusted series
- Major regions

## 1.5 Comparison between the Employment Statistics and the Job Statistics

## Two different approaches to the labour market

The Employment Statistics (ES) and the Job Statistics (JOBSTAT) are two different economic statistics that look at the labour market from different angles. The ES considers the labour supply from the perspective of households (the ES is based primarily on the Swiss Labour Force Survey). The JOBSTAT considers labour demand from the perspective of establishments. Due to this difference, one or the other of these statistics may be more appropriate depending on the particular aspect of the labour market under study.

# Differences in the measurement of employment between the ES and the JOBSTAT

Discrepancies may be observed between the number of employed persons according to the ES and the number of jobs according to the JOBSTAT. The first difference is related to the measurement unit since a single employed person may have multiple jobs. The second is due to certain activities that are not covered by the JOBSTAT. This primarily involves activities of persons who are not subject to OASI contributions (young people who have not yet reached the year of their 18th birthday, employed persons who have reached the legal retirement age and earn less than CHF 16 800 per year, employed persons over 18 years of age who earn less than CHF 2 300 per year), as well as jobs in the primary sector and in private households (NOGA economic division "Activities of households as employers of domestic personnel"). It is also assumed that certain atypical work forms (e.g. persons working without remuneration for a family enterprise, contracts of a very limited duration or in the form of individual mandates that do not lead to payment of OASI contributions) partially escape the JOBSTAT. These two statistics also differ in terms of their reference period. Although both are realised on a guarterly basis, the ES references guarterly averages while the JOBSTAT produces results that reference the last month of the quarter. Finally, the results of the ES as well as the JOBSTAT are subject to a random error component (coefficient of variation of approx. 0.3% for the total number of employed persons; 0.4% for the total number of jobs).

#### Particularities of the ES

The ES provide data on all persons working in Switzerland as well as changes in the employed population. In particular, they supply information about the distribution of the employed population among the different economic sections. The ES can also be used for studies on the topic of foreign nationals working in Switzerland. Thanks to the breakdown by residence permit categories, for example, it is possible to study the trend in the share of foreigners holding a residence permit among the entire foreign employed population. Moreover, the ES make it possible to look at questions related to the sociodemographic structure of the working world (young people, women, self-employed persons, employed persons in full-time equivalents). The series is also available in a seasonally adjusted form (for the total) and in full-time equivalents (by gender and by nationality).

## Details of the JOBSTAT

The JOBSTAT provides results according to economic divisions that are also broken down by work-time percentage. Accordingly, it is possible to determine, for example, the share of persons employed part-time in hotels and restaurants. The jobs series are also available in a seasonally adjusted form and in full-time equivalents.

## 1.6 Cross-border Commuter Statistics (CCS)

The Cross-border Commuter Statistics (CCS) supply information on the total number as well as the main characteristics of foreign workers employed in Switzerland and residing abroad. The CCS are composite statistics based on data from the Central Migration Information System (ZEMIS) and the Old Age and Survivors' Insurance (OASI) as well as on the vocational education database (SFPI). For series prior to the 4th quarter of 2010, it is also based on data from the Job Statistics (JOBSTAT). The CCS was created in 2004. Global figures have been calculated retrospectively to 1996.

## Concepts and definitions for the CCS

The Cross-border Commuter Statistics take into account all cross-border commuters of foreign nationality holding a cross-border commuter permit (permit G) and employed in Switzerland. The total number supplied by the Cross-border Commuter Statistics is less than the number of permits according to ZEMIS because termination of employment is not systematically reported to the authorities.

#### Calculation method for the CCS

Since 2010, the CCS has been based primarily on administrative registers. The methodology is divided into four steps:

1) Production of reference micro-data by matching the OASI and ZEMIS data

Based on matching of the OASI and ZEMIS data, it is possible to determine for each quarter (at the level of the micro-data but with a delay of two years) whether or not the holder of a cross-border commuter permit received income that was subject to contributions.

2) Adjustment of reference micro-data to the entire population under consideration

Certain cross-border commuters are not taken into account or only partially taken into account in the OASI data. This involves cross-border commuters who have not yet reached the year of their 18th birthday, who have already reached the OASI legal retirement age (64/65 years) or who are self-employed. In the first case, it is possible to determine whether these persons are in an apprenticeship and thus employed based on matching with the vocational education statistics. For the other two groups, the share of employed persons is estimated on the basis of other statistics (social protection and labour market, SESAM).

3) Retropolation of micro-data for the quarters prior to the 4th quarter of 2010

Only since 2010 have we had an attribution rate for the OASI figures corresponding to holders of a cross-border commuter permit registered in ZEMIS that is sufficiently large to match the data in a reliable manner. The series prior to the 4th quarter of 2010 are calculated by retropolating the CCS micro-data. For this purpose, we use the total number of cross-border commuters (according to the CCS series calculated on the basis of the JOBSTAT) for the entire period from the 1st quarter of 1996 to the 3rd quarter of 2010. We ensure that the most is made of the available data:

- Weighting of micro-data for the first quarter for which we have OASI data (4th quarter of 2010)
- ZEMIS micro-data for all quarters from 1st quarter of 1996 to 3rd quarter of 2010.
- 4) Extrapolation of quarterly micro-data beyond the last available OASI data

The OASI data used for matching purposes are only available after a delay of about two years. Extrapolation beyond the last available OASI data is realised (like the 1996–2010 retropolation) at the level of ZEMIS micro-data. The provisional total number of cross-border commuters is obtained by extrapolating from the last definitive total in the OASI data based on the percentage change according to ZEMIS. Moreover, the following data are used:

- Weighting of micro-data for the last quarter for which we have OASI data
- ZEMIS micro-data for all quarters from the first quarter without OASI data to the last quarter of the CCS.

In this manner, we are able to obtain individual weighted microdata for the period from the 1st quarter of 1996 to the last quarter of the statistics. These data allow calculation of the total number of cross-border commuters for the CCS and for all of the breakdowns of ZEMIS. For further details on the CCS, see the methodological report "Statistique des frontaliers (STAF) – Bases méthodologiques" [Cross-border Commuter Statistics (CCS) - methodological bases], FSO, 2022.

## Concepts and definitions for the Cross-border Commuter Statistics

Subject of the statistic: Foreign cross-border workers
Survey method: Composite statistic Reference
Population: All workers of foreign

nationality holding a crossborder commuter permit (permit G), domiciled abroad and gainfully employed in

Switzerland.

Reference period/

periodicity: End of each quarter, quarterly

statistic

#### Breakdown criteria

- Gender x work canton x work commune
- Gender x work canton x country of residence
- Gender x work canton x "Landkreis" of residence (DE)
- Gender x work canton x "département" of residence (FR)
- Gender x work canton x sectors, sections and economic divisions according to NOGA08
- Employment status x sectors, sections and economic divisions according to NOGA08
- Gender x work canton x employment status x duration of work permit
- Gender x work canton x age groups

## 1.7 Work Volume Statistics (WV)

Until the 1950s, a large majority of workers were employed full-time. At that time, it was enough to just count the employed population in order to obtain a reliable indicator for the level of employment. With the emergence of part-time work in the 1960s along with the development of flexible formulas for organising working hours, this indicator was no longer adequate. Accordingly, it became necessary to create new statistics to cover the duration and volume of work. Although statistics on the workweek were first seen in the 1940s, the Work Volume Statistics (WV) were not created until the start of the 1990s.

#### Concepts and definitions for the WV

Development of the WV was inspired by various efforts in this domain by the International Labour Office (ILO). Nevertheless, these elements needed to be adapted to the data available in Switzerland. The concepts and definitions were determined by taking into account the rules applicable in the National Accounts System. The WV have undergone a methodological revision for the years since 2010, mainly in order to take into account the change of periodicity in its principal source (the SLFS).

#### Calculation method for the WV

The method for calculating the WV varies depending on whether the permanent resident population is under consideration or other population groups working in Switzerland.

## Work volume for the permanent resident population

For the permanent resident population, the work volume is calculated according to the results from the Swiss Labour Force Survey (SLFS). The SLFS makes it possible to calculate the normal annual work duration for each job (any possible ancillary activities of employed persons are taken into account). For salaried jobs, the normal workweek is considered that which is specified in the employment contract. For the work of self-employed persons, the usual working hours are taken into account. Annual absences are subtracted for each job from the normal annual working hours. Because the SLFS does not provide sufficiently reliable information about all of the absence types, reference is made for absences to the statistics of the State Secretariat for Economic Affairs (SECO). In order to obtain the actual annual hours worked, it is necessary to take into account for each job any supplemental annual hours (provided by the SLFS); they are counted only if they are not compensated by leave or by subsequent reductions in work time in connection with flexible working hours. The actual working hours thus correspond to the number of hours that were actually dedicated to completing a task or specific work during the course of the period under consideration.

Work volume for other groups

In order to estimate the work volume in accordance with the domestic concept, it is also necessary to take into consideration several population groups working in Switzerland that are not interviewed as part of the SLFS. These groups are short-term residence permit holders, asylum seekers, Swiss Navy personnel, Swiss embassy and consulate personnel abroad, cross-border commuters and workers from the EU/EFTA who are hired by a Swiss employee for 90 days or less. Although we have access to the number of jobs held by these groups of persons via administrative sources (mainly the Central Migration Information System, ZEMIS), their working hours are obtained from average values estimated on the basis of the SLFS. A study carried out using the Federal Population Census (RFP) has shown that the working hours of these groups of foreigners broken down by gender, work-time percentage and economic section do not differ significantly from the working hours of the remainder of the population.

## Concepts and definitions for the Work Volume Statistics

Subject of the statistic: Actual hours worked, normal

hours, contractual working hours, usual working hours, hours of absence and overtime for all persons who worked at least one hour per week for payment in the year as defined for the national

accounts.

Survey method: Composite statistic Reference population: Domestic concept

Reference

period/periodicity: Calendar year, annual statistic

## Breakdown criteria

- Gender x nationality x economic sections NOGA08
- Gender x nationality x employment status
- Gender x nationality x work-time percentage
- Gender x nationality x major regions

## 1.8 Statistics on Normal Workweek in Companies (NW)

Although official statistics have provided data on the duration of the workweek since 1942, the methods and basic concepts have evolved significantly over the years. Since 1973, the Statistics on Normal Workweek in Companies (NW) have been realised on the basis of accident declarations for employees that are provided to the Accident Insurance Central Statistic Services (SSAA). The entry into force of the Law on Accident Insurance (LAA) on 1 January 1984 requiring coverage for all salaried employees made it possible to broaden the scope of the statistics to cover all economic activities in the secondary and tertiary sectors as well as the primary sector. Prior to the transfer of the NW to the Federal Statistical Office (FSO) on 1 March 1995, these statistics were carried out within the Federal Office for Industry, Trade and Labour (now the State Secretariat for Economic Affairs). The results are available by economic branch according to the General Classification of Economic Activities (NOGA) starting from 1990.

## Concepts and definitions for the NW

The normal workweek is defined as the length in hours of the workweek as practised within companies and applicable over an interval of several months or years. These hours apply to the company and corresponds in principle to the individual working hours of full-time salaried employees who do not work any overtime and are not affected by short-time working.

## Calculation method for the NW

The normal workweek is calculated using a weighting scheme that was based until 2012 on the latest Business Census (BC). Since 2013, the scheme has been based on the Structural Business Statistics (STATENT). Each economic division is assigned a weighting coefficient for each canton. This procedure makes it possible to calculate aggregate values depending on the job structures specific to each canton and region. For the period during which the weighting scheme is constant, variations in the normal workweek resulting from a change in the relative importance of economic branches (e.g. the effects of transferring salaried employees to a division in which the normal workweek is generally lower than elsewhere) are not taken into account. The difference between the normal workweek at the cantonal level versus the normal workweek at the national level can be interpreted as the combination of two effects:

- A difference in the job structure between Switzerland and the canton under consideration (structural effect)
- A difference in the normal workweek within one or several economic divisions between Switzerland and the canton under review (residual effect).

For each canton and economic section, it is possible to calculate the value of this structural effect. To do this, we weight the data for employees who suffered an accident in the canton under review at the level of the economic divisions with the weighting coefficients relative to the Swiss job structure. The difference (obtained at the level of the total of the divisions or of an economic section) between the actual cantonal hours and the hypothetical cantonal workweek reflects the difference due to the structural effect. In 2015, for example, the normal workweek for the canton of Geneva was equal to 40.9 h versus 41.6 h at the Swiss level (excluding the primary sector). There is a difference of 0.7 h that can be broken down into a variation of 0.1 h due to the iob structure in the canton of Geneva and a variation of 0.6 h due to the residual effect. The latter can be explained by the fact that in the canton of Geneva, one or several economic divisions have normal workweeks that are shorter than the Swiss average.

For further details on the methodology of the NW, see the publication "Durée normale du travail dans les entreprises en 1997, Résultats commentés et tableaux" [Normal workweek in enterprises in 1997, annotated results and tables], FSO, 1998.

# Concepts and definitions for the Statistics on Normal Workweek in Companies

Subject of the statistic: Normal workweek for full-time

salaried employees in

companies

Survey method: Usage of approx. 290,000

administrative data units

Reference population: Employees in the primary,

secondary and tertiary sectors according to domestic

concept

Reference period/

periodicity: Calendar year, annual statistic

## Breakdown criteria

- Sections and economic divisions NOGA08
- Economic sections NOGA08 x major regions
- Economic sections NOGA08 x cantons

# 1.9 Comparison between the Work Volume Statistics and the Statistics on Normal Workweek in Companies

The Work Volume Statistics (WV) primarily supply macroeconomic data concerning the annual actual volume for the entire Swiss economy. This makes it possible to obtain a basis for calculating productivity per hour of work. However, the WV also supplies detailed data on the components of the actual hours worked per job (normal hours, hours of absence and overtime). Thanks to the breakdown by employment status and work-time percentage, it is possible, for example, to study the development of the annual actual hours worked of full-time salaried employees and to understand to what extent this result is dependent on the change in the annual contractual hours, absences or overtime. Other indicators such as the absence rate and the overtime rate are also calculated in the context of the WV.

However, if we are interested in practices relating to the workweek as stipulated in the contracts of full-time salaried employees, it is better to consult the Statistics on Normal Workweek in Companies (NW). The NW is also useful for studying the normal workweek in the different economic divisions and in the different cantons.

Although the WV and the NW both provide data on the normal workweek, for several reasons it is not possible to make a direct comparison between these two sources. First, the normal workweek in the WV takes all employed persons into account, including self-employed, while the NW bases its estimates on the information provided by full-time salaried employees. Next, the WV covers all groups of economic activities while the NW does not include the activities of households as employers. The box below compares the normal workweek estimated according to the WV with the normal workweek in companies based on the NW (see Graphic G1.3).

#### Relationships between data on normal workweek from the WV and NW, 2021

G 1.3

			Theoretical number of weeks of work per year (365/7)	Calendar 52.1 wks.				
			Number of weeks of leave of employees working full time	SLFS 4.2 wks.		Normal workweek in companies	NW 41.7	
			_			+		
			Number of holidays	Swiss Employment Act 1.3 wks.		Difference due to methods	0.1 h	
			=			=		
Normal annual working hours of salaried employees with full-time workload*	wv 1950 h	/	Normal number of workweeks per year	46.6 wks.	=	Normal workweek of salaried employees with full-time workload	wv 41.8	

<sup>\*</sup> Full-time salaried employees are employees with a 100% workload. Salaried employees working in their own enterprise as well as those in the "domestic activities" section are excluded.

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## 1.10 Unemployment Statistics (ILO-based) (ELS-ILO)

Since 1991, the Federal Statistical Office (FSO) has determined the number of unemployed persons in the context of the Swiss Labour Force Survey (SLFS) according to the recommendations of the International Labour Office (ILO) and the OECD. The Unemployment Statistics (as defined by ILO) were introduced in 1995 in order to provide more frequent results than the annual results of the SLFS. While the SLFS began providing quarterly results in 2010, the Unemployment Statistics (ILO-based) have stood out by continuing to provide monthly results.

## Concepts and definitions

The unemployment statistics published by the FSO are based on the ILO unemployment definitions. Unlike the Unemployment Statistics of the State Secretariat for Economic Affairs (SECO, see chapter 1.11) which only consider registered unemployed persons, the Unemployment Statistics (as defined by ILO) take into account all persons without work and seeking employment who are immediately able to begin a new job. Regardless of whether they are still registered or not, unemployed persons who are no longer entitled to receive unemployment benefits are thus included in the data for the Unemployment Statistics (as defined by ILO) as well as persons seeking to resume employment after focusing on their family for a few years.

#### Calculation method

The number of unemployed as defined by the ILO is calculated in two steps: First, the quarterly reference values are determined from the SLFS. Then, these values are converted to a monthly basis using the SECO data. Annual averages are also calculated based on the four quarters of the year along with an unemployment rate based on ILO definition for each of the breakdown criteria.

## 1) Calculation of quarterly reference values

The Unemployment Statistics (as defined by ILO) rely on the SLFS, which itself references the average of the quarterly situation. The first step involves determining the number of unemployed persons among the permanent resident population for the quarter under consideration. This is handled separately for each of the five age groups (by gender and by nationality) and for each of the seven major regions (by gender). These values are identical to the values from the SLFS.

## 2) Conversion of quarterly values to a monthly basis

The second step involves calculating monthly values based on the quarterly values. This conversion is carried out by applying the change in the number of job seekers registered over the course of the months in the quarter, as furnished by SECO, to the latter values. The monthly values for the three months in the quarter are estimated in two phases: The first is provisional and occurs during the quarter under consideration. The second happens during the following quarter when new reference values are calculated.

## 3) Calculation of unemployment rate as defined by ILO

The unemployment rate based on ILO definition is calculated for each of the breakdown criteria and for each periodicity (monthly, quarterly, and annually). The employed population (in the denominator of the formula used to calculate the unemployment rate as defined by ILO) is taken directly from the SLFS. Conversion of this number to a monthly basis is carried out through linear interpolation between two quarterly values.

## 4) Seasonal adjustment

The number of unemployed persons and the unemployment rate are seasonally adjusted for the main aggregates. The parameters for the seasonal ARIMA models are kept stable over four quarters and re-evaluated once per year.

For further details on the Unemployment Statistics (ILO-based), see the methodological report "La statistique du chômage au sens du BIT, Bases méthodologiques 2010" [Unemployment Statistics (ILO-based), methodological bases 2010], FSO, 2017.

## Concepts and definitions for the Unemployment Statistics (ILO-based)

Subject of the statistic: Number of unemployed

according to international

definitions

Survey method: Composite statistic Reference Population: Permanent resident population

Reference period/

periodicity: Monthly, quarterly and annual averages, monthly, quarterly and

annual statistics

#### Breakdown criteria

- Gender x nationality x age groups
- Gender x major regions
   Seasonally adjusted series
- Gender, nationality and age groups

## 1.11 Unemployment Statistics of the State Secretariat for Economic Affairs (SECO)

Unemployment statistics have existed in Switzerland since 1936. They are currently maintained by the State Secretariat for Economic Affairs (SECO). These statistics record the total number of persons registered as unemployed at a regional placement office at the end of the month along with the number of persons entering and leaving unemployment over the whole month. Since autumn 1997, the unemployment statistics have been supplemented by publishing the number of registered job seekers.

Concepts and definitions for the SECO Unemployment **Statistics** 

Data for the SECO Unemployment Statistics are gathered as part of a comprehensive survey based on the regional placement office records. In this context, all registered persons are considered as job seekers regardless of whether they are receiving daily allowances or not. Job seekers are divided into two categories: unemployed job seekers and non-unemployed job seekers.

Non-unemployed job seekers are registered with a regional placement office, but unlike registered unemployed persons, they are not immediately available for placement (i.e. within 30 days) and/or they have a job. SECO makes a distinction between the following categories of non-unemployed job seekers: persons employed on an interim basis, persons in a temporary employment programme, a retraining programme or a development programme as well as other non-unemployed job seekers (basic military training, illness or accident, maternity, persons still holding a job, and persons serving a sentence).

## Calculation method for the SECO Unemployment Statistics

Data on job seekers, whether unemployed or non-unemployed, are collected from the regional placement offices. The cantonal data are then grouped at the national level by the information system for placement and labour market statistics (AVAM). Since 2004, it has been possible to access these statistics according to various breakdown criteria only a few days after the reference day.

Detailed information concerning the concept and foundations of the unemployment statistics are provided in the publication "Le chômage en Suisse 2016" [Unemployment in Switzerland 2016], State Secretariat for Economic Affairs, Neuchâtel, 2017.

## Concepts and definitions for the Unemployment Statistics of the State Secretariat for Economic **Affairs**

Subject of the statistic:

Persons registered with a regional placement office Mining of administrative data

Survey method: Reference population: Reference period

Permanent resident

/periodicity:

Last business day of month,

monthly statistic

#### Breakdown criteria

The following criteria are taken into account in the unemployment statistics: domicile gender, age, (region/canton), nationality, unemployment status (partial/full unemployment), length of unemployment, prior professional situation, economic branch according to NOGA, group of professions, and last position held.

As the survey is an exhaustive one, it is possible to link all of the available characteristics with the unemployment statistics. Due to space limitations, only a selection of the combinations is published. Personalised queries can be conducted by the SECO web portal (www.amstat.ch).

# 1.12 Comparison between the Unemployment Statistics (ILO-based) and the SECO Unemployment Statistics

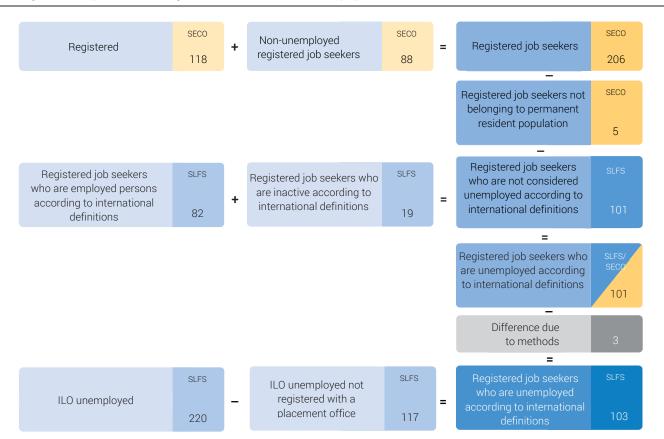
The Unemployment Statistics (as defined by ILO) conducted by the Federal Statistical Office (FSO) are based on international recommendations. Unlike the Unemployment Statistics of the State Secretariat for Economic Affairs (SECO), these figures are only very slightly influenced by changes to laws in the domain of unemployment insurance. They are thus preferable for the purpose of international comparisons. Because the Unemployment Statistics (as defined by ILO) consider by definition all persons who are without work and seeking a job as long as they are immediately available for work, these statistics are better at defining the unused labour supply than the SECO Unemployment Statistics.

The SECO Unemployment Statistics are a very good tool for monitoring the economic situation. The results are generally published five business days after the end of the month. No other economic statistics provide data so quickly with respect to their reference day. As it is an exhaustive survey, the unemployment statistics also make it possible to monitor changes in the economy at a very detailed regional level. Moreover, the SECO indicators are the best source for studying the conditions related to unemployment insurance.

Graphic G 1.4 compares the SECO figures with the number of ILO unemployed. The different groups of persons considered in the two statistics do not have the same relevance in quantitative terms and it is not possible to fully account for the differences between the two. There is a difference that is linked to the survey methods: The SECO Unemployment Statistics is an exhaustive survey based on data obtained from the registers with the last business day of the month as the reference day. The Unemployment Statistics (as defined by ILO) rely on the SLFS, which is a sample survey with data referencing a whole quarter. These divergent approaches can result in differences besides those linked to the definitions and which nevertheless cannot be precisely quantified. This is all the more true since certain persons might not provide the same information about their professional situation to the interviewers for the SLFS that they supply to the regional placement offices.

# Links between data for the Unemployment Statistics (ILO-based and SECO), average for 4th guarter 2021, figures in thousands, resident population

G 1.4



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## 1.13 Labour Market Accounts (LMA)

The Labour Market Accounts (LMA) provide insight into the dynamics of the labour market. These statistics highlight individual transitions between employment, ILO unemployment and non-activity. In this regard, it supplements the data from the Employment Statistics (ES) and the Unemployment Statistics (ILO-based). The LMA also captures migratory and natural movements (births and deaths). In this manner, it provides a link between labour market statistics and demographic statistics. The LMA was introduced in 1998 with data going back to 1991.

## Concepts and definitions for the LMA

The LMA relies on the same definitions as the ES in terms of identifying employed persons. Unemployed persons are taken from the Unemployment Statistics (ILO-based); registered unemployed persons holding a non-permanent residence permit as surveyed by SECO are added to this value. The reference period is the calendar year. Transitions are determined by comparing the status of persons (employed, ILO unemployed or economically inactive) at the start of the year with the status at the end of the year. Migrations are considered only if they are not compensated by an opposite migratory movement over the course of the same year.

#### Calculation method for the LMA

The LMA is constructed in five main steps.

## 1) Calculation of totals for the start and end of year

The total number of Swiss nationals and settled foreign nationals as well as those holding a residence permit or a short-term residence permit is taken from the Population and Households Statistics (STATPOP). The State Secretariat for Migration (SEM) provides the number of persons seeking asylum (from the Central Migration Information System [ZEMIS]). The number of cross-border commuters is obtained from the Cross-border Commuter Statistics (CCS). The breakdown according to labour-market status is determined from the ES and the Unemployment Statistics (as defined by ILO).

## 2) Calculation of entries (immigrations and births)

Figures for immigration by Swiss nationals are supplied by STATPOP. The distinction according to labour-market status is realised based on the hypothesis that the "persons entering" exhibit (at end of year) the same proportions of employed persons and ILO unemployed as the corresponding totals for Swiss nationals by gender and age groups. Figures for immigration by other groups are determined from the STATPOP and SEM data. The SLFS is used to determine the share of employed persons among new holders of a settlement permit or a residence permit. Further subdivision of economically active persons into employed persons and ILO unemployed is realised according to the same principle as for Swiss nationals. The number of births recorded among the permanent resident population is supplied by STATPOP. Births among persons seeking asylum are supplied by SEM.

## 3) Calculation of departures (emigrations and deaths)

Figures for emigration by Swiss nationals are supplied by STATPOP. The distinction according to labour-market status is realised based on the hypothesis that the "persons leaving" exhibit (at start of year) the same proportions of employed persons and ILO unemployed as the corresponding totals for Swiss nationals by gender and age groups. Figures for emigration by other groups are determined from the STATPOP and SEM data. The distinction between economically active and inactive persons is based on the SLFS.

Further subdivision of economically active persons into employed persons and ILO unemployed is realised according to the same principle as for Swiss nationals. Deaths are determined from STATPOP. The distinction according to labour-market status is realised based on the same hypothesis that is used for emigration by Swiss nationals.

# 4) Calculation of gross transitions between employment, unemployment (ILO-based) and inactivity

Transitions concern the present persons in terms of the initial totals as well as the final totals. Transitions among the permanent resident population are determined based on data from the SLFS panel. Transitions among other groups are determined primarily on the basis of STATPOP.

## 5) Equalisation of the LMA matrix

Since the LMA draws upon diverse sources, imbalances are found initially. In order to eliminate these differences, a mathematical procedure is applied in which the totals for the start and end of year function as reference values.

#### Comparison between data from the LMA and other statistics

There are links that exist between the LMA and other statistics. The total numbers for employed persons are taken from figures in the ES, the CCS and the ZEMIS. The total numbers for unemployed persons are taken from the Unemployment Statistics (as defined by ILO and SECO). Moreover, the reference population for the LMA corresponds to the permanent resident population according to STATPOP with the addition of crossborder commuters, holders of a short-term residence permit, persons from the EU/EFTA who are engaged in a gainful occupation (non-self-employed) for a Swiss employer during a maximum of 90 days per calendar year, asylum seekers, Swiss embassy and consulate personnel, and Swiss Navy personnel.

In the area of migration data, the LMA and STATPOP mainly differ in terms of their population concept: In the LMA, migrations encompass the permanent resident population as well as the non-permanent resident population, including cross-border commuters who are new to the labour market in Switzerland (immigrations) and cross-border commuters who have stopped working in Switzerland (emigrations).

For further details on the Labour Market Accounts, see the publication "Methodische Grundlagen – Arbeitsmarktgesamtrechnung (AMG)" [Methodological principles – Labour Market Accounts (LMA)], FSO, 2021.

## Concepts and definitions for the Labour Market Accounts

Subject of the statistic: Movements within the labour

market (transitions between employment, unemployment (as defined by ILO) and inactivity, migrations and natural

movements)

Survey method: Composite statistic

Reference Population: – Employed persons:

domestic concept

ILO unemployed and economically inactive persons:

cally inactive persons: resident population

Reference period/

periodicity: Calendar year, annual statistic

#### Breakdown criteria

- Gender x nationality x labour-market status

## 1.14 Swiss Earnings Structure Survey (ESS)

Since 1994, the Swiss Earnings Structure Survey (ESS) has been carried out every two years in the month of October on the basis of a questionnaire that is sent to enterprises. The survey allows regular description of the structure of salaries in all of the economic branches in the secondary and tertiary sectors in Switzerland on the basis of representative data. Besides the economic branch and the size of the enterprise, it also considers individual characteristics of salaried employees and jobs such as educational background, professional position and years of service. Since 1994, data has also been collected on salaries in the administration and in federal enterprises. Since 1998, the survey has provided data on salaries in the cantonal public sector, since 2006 on communal salaries and since 2012 on salaries in churches. In 2020, the sample covered by the ESS represented approx. 47 000 private and public enterprises (respectively administrations). Nearly 35 000 enterprises responded and data were thus gathered and utilised for approx. 2.1 million salaried employees. The gross response rate, i.e. the number of enterprises that responded divided by the total number of enterprises defined in the survey plan, has reached 74%.

## Concepts and definitions for the ESS

The main indicator of the ESS is the standardised gross salary in the form of a central value (median). It is calculated from the gross amount on the basis of a full-time equivalent of 4  $^{1}/_{3}$  weeks with 40 work hours. This conversion allows comparisons to be made between persons working full time and those working part time. The median value means that for one half of salaried employees, the standardised salary is higher than their own salary while for the other half, it is lower. This estimator is naturally less sensitive to extreme values than is the case for the arithmetic mean.

## Calculation method for the ESS

The Swiss Earnings Structure Survey is based on a random sampling at two levels: the enterprise and the salaried employee. Enterprises are stratified by three criteria: size (3 classes), economic branch (39 divisions from NOGA 2008) and geographical entity (7 major regions, 7 cantons and 1 city). The sample for ESS 2020 includes approximately 47 000 enterprises (enterprises with more than 50 jobs are drawn exhaustively). In the public sector for the Confederation and the cantons, the survey is exhaustive at the level of the administrations. In the communal public sector, the survey is also based on a random sampling at two levels: the commune and the salaried employee. Communes are stratified by size (4 classes) and geographical entity (7 major regions). The gross communal sample includes approximately 300 communes. The number of salaries to be submitted depends on the size of the enterprise (or the administration or commune). Companies with fewer than 20 persons employed it supply all of their salaries. For companies with between 20 and 49 persons employed, one out of two salaries is drawn. For over 49 persons, one out of three salaries is sufficient.

All of the results as well as publications for the Swiss Earnings Structure Survey (ESS) are available on the website of the Federal Statistical Office (FSO).

## Concepts and definitions for the Swiss Earnings Structure Survey

Subject of the statistic:

Standardised gross monthly

salary

Survey method: Sample survey of enterprises

(written survey). ESS 2020: survey of approx. 47 000 enterprises with a gross response rate of 74%. Data were collected for approx. 2.1 million salaried employees.

Reference population: Salaried persons (who

received a salary for the month of October) in secondary and tertiary sectors according to domestic concept. Persons employed in companies with fewer than three salaried employees are not counted.

Reference period

and periodicity: Month of October, statistic

realised every two years.

## Breakdown criteria

Standardised gross monthly salary

- Economic divisions NOGA / economic branches NOGA x gender x professional positions / competence level / education level / type of residence permit / size of company / years of service / major regions
- Profession groups ISCO x age classes x gender

x = crossed with

# COVID-19 pandemic and allowances related to short-time working

Data for the Swiss Earnings Structure Survey 2020 were gathered during the period of the COVID-19 pandemic. The salaries collected as part of the ESS survey correspond by definition to the contractual salary for the month of October. Due to the COVID-19 crisis, salaries in branches that were heavily affected by the reduction of working hours (restaurants, lodging, air transport, and culture, etc.) may have been partially impacted. From the perspective of the applied methods, it is not possible to quantify this effect for the corresponding salaries.

## 1.15 Comparison of salary data between the ESS and SLFS

The ESS is not the only statistical source that can provide data on salaries. Within the context of labour market statistics, the Swiss Labour Force Survey (SLFS) also gathers data on remuneration<sup>2</sup>. However, the methods that are applied vary widely between the two surveys: While the ESS involves a written questionnaire targeting companies that specifically deals with questions on salaries and allows different salary components to be identified and measured, the SLFS data are based on a series of guestions in the context of a multimode survey technique (online survey/telephone survey) that also covers numerous other topics (see chapter 1.2). In the ESS, the concept of the standardised gross salary measured on the basis of salary components taken directly from the company's accounting includes the gross salary for the month of October, allowances for shift work as well as work on Sundays or at night,  $\frac{1}{12}$  of the 13<sup>th</sup> salary and  $\frac{1}{12}$  of any special annual payments (bonus payments or earnings bonus units, etc.). In the SLFS, the gross monthly salary is calculated using salary information provided by the interviewed person. To this, we add  $^{1}/_{12}$  of the salary in case of a 13<sup>th</sup> salary, another  $^{1}/_{12}$ in case of a 14th salary and 1/24 in case of a bonus or incentive payment.

Unlike the SLFS (which only considers the permanent resident population), the ESS achieves more complete coverage of the working population in Switzerland by including persons who reside abroad (e.g. cross-border commuters) as well as holders of a short-term residence permit of less than 12 months. Moreover, the ESS has the advantage of being based on a large sample of salaried employees. This allows studies to be performed with a high level of disaggregation (e.g. by NOGA economic divisions or by major region). For its part, the SLFS takes into account certain categories of salaried employees not considered in the ESS, e.g. workers in the primary sector and employees of private households. Furthermore, the SLFS collects data about the income of self-employed persons and provides multiple breakdown possibilities according to a variety sociodemographic criteria.

Due to these differences, the results provided by one or the other statistics will be more appropriate depending on the questions being asked and the selected analysis units.

Graphic G 1.5 was created to illustrate the need to harmonise the data between the ESS and the SLFS prior to any comparison attempt. For reasons related to statistical representativeness, comparison of the harmonised data from the ESS and the SLFS should only be carried out at high levels of aggregation.

## Harmonisation of salary data from the SLFS and the ESS, 2020

G 1.5

# Standardised gross monthly salary\* median, permanent resident population\*\*

SLFS Total CHF 6500 Men CHF 6933 Women CHF 5984

\_

## Salaried persons not covered by the ESS:

Persons working in the primary sector or in a private household and salaried persons in an enterprise with less than 3 individuals

## Standardised gross monthly salary\* median after harmonisation

SLFS Total CHF 6603 Men CHF 7016 Women CHF 6118

## Difference due to methods\*\*\*

Total CHF 126 Men CHF 69 Women CHF 124

# Standardised gross monthly salary\* median, domestic concept\*\*

ESS Total CHF 6665 Men CHF 6963 Women CHF 6211

## Salaried persons not covered by the SLFS:

Persons residing abroad but working in Switzerland (e.g. cross-border commuters) and foreign nationals holding a short-term residence permit (< 12 months)

Standardised gross monthly salary\* median after harmonisation

ESS Total CHF 6729 Men CHF 7085 Women CHF 6242

\*\* Without apprentices and trainees.

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Full-time equivalent based on 4 <sup>1</sup>/<sub>3</sub> weeks with 40 work hours.

<sup>\*\*\*</sup> The difference linked to the methods can be greater depending on the level of disaggregation of the results.

The Household Budget Survey (HBS) as well as the OASI administrative data also include data on remuneration. However, since the primary objective of these two statistical sources is not related to characterising the labour market, we will not consider them in further detail in this publication.

## 1.16 Statistics on salary trends (SWI)

From 1942 to 1993, the statistics on salary trends were calculated based on the results of the October survey of wages and salaries (LOK) carried out by BIGA (now the State Secretariat for Economic Affairs). The entry into force of the Law on Accident Insurance on 1 January 1984 provided a new administrative source for calculating a wage index. In 1994, the accident reports supplied by the Accident Insurance Central Statistic Services (SSUV) thus became the official data source for calculating the trend in salaries. The main subject of the statistics on salary trends is the Swiss Wage Index (SWI) which is intended to measure the annual trend in salaries. The SWI is one of the economic indicators that is taken into account when analysing the state of the economy. It constitutes a reference value during the process of salary negotiations and serves as a basis for the application of certain legislation in the domain of social insurance (e.g. indexing of OASI pensions).

We distinguish between the nominal wage index which measures the evolution of the full-time standardised gross contractual wage and the real wage index which tracks the evolution of the purchasing power of this wage. The real wage index is obtained by deflating the nominal wage index using the Swiss Consumer Price Index.

#### Concepts and definitions for the SWI

The SWI measures the evolution of wages in relation to work of a consistent nature. The SWI is thus calculated to eliminate the impact of the structural evolution of salaried employees on the evolution of wages in order to concentrate on the evolution of labour costs. To this end, for example, salary variations due to an increasing share of qualified persons or displacement of salaried employees to economic branches with higher salaries are not taken into account.

The definition of the contractual wage used to calculate the annual wage index includes the base salary and the 13th wage (plus the 14th and any further wages), cost-of-living adjustments, holiday pay and pay for legal holidays. The salary is considered prior to deduction of contributions for social insurance (OASI/IV, LEC, AC, AANP) and contributions (ordinary and buy-back) for the LPP occupational pension plan (second pillar), prior to tax levies and excluding any family allowances and payments in kind. Salary components of an irregular nature (e.g. gratuities, bonuses and commissions paid in an irregular manner), the share of lump-sum payments or pension contributions paid by the employer as well as overtime pay are excluded.

## Calculation method for the SWI

The SWI is a Laspeyres price index: A Laspeyres index with fixed weighting allows comparison between the selected year, the year prior to the selected year and the base year for which the weighting (or structure of the salaried employees) was fixed. The Laspeyres price index has become widespread and can be considered as an extension of a post-stratification. The weighting of the SWI is based on six criteria: the economic branch, gender, age classes, work-time percentage, hierarchical function and nationality. The weighting also takes interactions between some of these variables into account.

The interactions often include the gender in order to take account of the segregation between

women and men in the labour market. In certain years such as during the COVID-19 pandemic, the weighting can also include specific economic branches such as those that were highly impacted by the pandemic. This makes it possible to reduce the potential risk associated with major changes in the number of salaried employees present in the data supplied by the Accident Insurance Central Statistic Services (SSUV). The last revision of the SWI made it possible to set the base to 2020. The new weighting of the SWI is based, in terms of the totals, on data from the 2020 Swiss Earnings Structure Survey that was carried out by the Federal Statistical Office (FSO).

## Concepts and definitions for the Salary Trend Statistics

Subject of the statistic: Swiss wage index

Survey method: Processing of administrative data

(accident declarations furnished by the Accident Insurance Central

Statistic Services, SSUV

Reference population: Salaried employees, full-time and

part-time, secondary and tertiary sectors according to domestic

concept

Reference period/

periodicity: calendar year, quarterly and

annual statistic

## Breakdown criteria

Nominal and real index, percent variation with respect to preceding year

- Economic divisions NOGA08
- Economic branches NOGA08 x gender
- Series bases 2020, 2015, 2010, 2005, 1993 and 1939

## 1.17 Wage Agreements Survey (WAS)

The Wage Agreements Survey (WAS) focuses on the results of wage negotiations carried out each year between the social partners (associations of employers or companies and trade unions or workers' associations) in the context of selected collective labour agreements (CLA). In 2021, it took into account 103 CLAs covering more than 1.6 million persons.

## WAS concepts and definitions

The social partners generally negotiate salary adjustments in the autumn for the following year. At the moment the WAS are concluded, salary negotiations may have been completed, may have failed or may continue for a further period of time. Agreements may be concluded following the intervention of an arbitration body. Several CLAs do not provide for any salary negotiations or do not include any salary provisions. For each CLA that is selected for the year under review, the FSO interviews the two signatory parties (employer and workers) concerning the wage negotiations that were held as well as the results, the wage agreements or the salary adjustments ensuing from any contractual provisions. The interview covers the salary adjustment as actually received by workers subject to a CLA (real wages) and/or the adjustment of salaries stipulated in the CLA (minimum wages) as well as any possible changes in working hours. The adjustment of real wages is mostly expressed as a percentage with respect to the previous year, corresponding to a variation in the total payroll of companies. The adjustment of minimum wages corresponds to the average of the adjustments of the different minimum remuneration amounts specified in the CLA. Any variation in working hours has an impact on the final adjustment figure chosen for the CLA.

#### WAS calculation method

The CLAs surveyed by the FSO are CLAs with normative provisions and concerning at least 1500 persons. The CLAs are analysed in terms of their effects on salaries. The average values for the salary adjustments are calculated by sectors and by economic sections by weighting the percentage adjustment agreed in the context of each CLA by the number of salaried employees covered by the CLA. Any variation in the working hours in a CLA has an impact on the final adjustment figure chosen for the latter.

The results of the WAS are available on the website of the Federal Statistical Office.

## Concepts and definitions for the Wage Agreements Survey

Subject of the statistic: V

Wage adjustments in the context

of CLAs

Survey method:

Reference population:

Survey among social partners (signatories to selected CLAs) CLAs in primary, secondary,

tertiary sectors according to

domestic concept

Reference period/

periodicity:

Calendar year, annual statistic

## Breakdown criteria

- Grouping of economic divisions (FSO 50) NOGA 2008
- Number of covered workers

## 1.18 Survey on Collective Labour Agreements in Switzerland (SCLA)

The Survey on Collective Labour Agreements (SCLA) considers CLAs in Switzerland. It provides a representative database for studying the evolution of sectors covered by contracts as well as for performing various statistical evaluations in the area of salaries and working conditions. The CLA statistic considers the general structure of CLAs in Switzerland as well as their content. Standard employment contracts (STC) are also part of the survey.

All of the results as well as publications on the Survey on Collective Labour Agreements in Switzerland (SCLA) are available on the website of the Federal Statistical Office (FSO). More detailed (custom) data can also be provided upon request.

## Concepts and definitions for the SCLA

This survey considers collective labour agreements in the primary, secondary and tertiary sectors. The SCLA also supplies information concerning amendments to CLAs (supplementary agreements). The documents are indexed according to the General Classification of Economic Activities (NOGA). The SCLA collects data such as the name of the agreement, the CLA type (association or enterprise agreement), the signatory parties, the economic branch, the inception date, the territorial scope, the number of workers subject to the agreement, and the presence of minimum wages, etc. Based on this vast range of information, the results can be disseminated by various breakdown criteria.

#### Calculation method for the SCLA

The SCLA is a survey conducted every two years that takes stock of the situation on 1 March of the current year. The survey is realised on the basis of a written questionnaire provided to the parties to each CLA, i.e. the employers' associations or the employers and the trade unions or workers' associations.

The comparison between two surveys must take account of occasional fluctuations related to the field. Indeed, from one survey to the next, a slight variation in the number of CLAs, linked to specific structural changes (entry into force, contractual voids, termination of categories of CLAs or coverage of a large number of employers and workers subject to them, for example) may lead to an increase or, on the contrary, a significant decrease in the number of employers and workers subject to them.

# Concepts and definitions for the Survey on Collective Labour Agreements

Subject of the statistic: Method:

CLA, STC in Switzerland Survey Survey among social partners

(signatories to CLAs) Reference CLAs in primary, secondary and

tertiary sectors according to

domestic concept

Reference period/

Population:

periodicity: 1st March, biennial statistic

#### Breakdown criteria

- Economic sectors according to NOGA 2008
- Number of covered workers
- Number of CLAs

## 1.19 Survey on Collective Labour Disputes (KASE)

Collective labour disputes leading to work stoppages have been the subject of surveys since 1927. Previously realised by SECO, the Statistic on Collective Labour Disputes was taken over by the FSO in 2012.

The Survey on Collective Labour Disputes (KASE) considers actions ensuing from labour disputes that lead to a work stoppage. Work stoppages may be the result of strikes or lockouts depending on whether the responsibility is attributed to the workers or the employer.

The labour disputes considered by these statistics pertain to labour relations and are linked to the terms and conditions of employment either between the employers and the workers or between the workers themselves.

## Concepts and definitions for the KASE

The criterion used to identify an action is the labour dispute in question. Temporary or continuous work stoppages affecting some or all of the workers in an establishment (or enterprise) or multiple establishments simultaneously and occurring during the calendar year are considered as a single action. An action is counted if it lasts at least one day and if a trade union or workers' organisation is involved.

The statistics consider the number of actions, the number of establishments and workers involved, and the number of lost working days (or rather the working time not completed by the workers involved in the strikes or lockouts).

## Calculation method for the KASE

KASE is realised on a continuous basis. A press review is used to identify labour disputes. A questionnaire is sent out in parallel to the involved enterprise or establishment as well as the trade union or workers' organisation. If an action is occurring within multiple enterprises involved in the same economic activity, the representative employer organisation is interviewed.

The indicator for the number of lost working days is calculated by multiplying the number of involved workers by the duration of the action, the latter being measured in terms of the number of normal working days. The results of the Survey on Collective Labour Disputes (KASE) are available on the website of the Federal Statistical Office (FSO).

# Concepts and definitions for the Survey on Collective Labour Disputes

Subject of the statistic: Collective labour disputes in

Switzerland

Survey method: Survey of enterprises and social

partners involved in a strike or

lockout

Reference population: Enterprises (establishments) and

employed persons according to

domestic concept

Reference period/

periodicity: Calendar year / annual statistic

#### Breakdown criteria

- Number of involved establishments
- Number of involved workers
- Number of lost working days