



FSO Quality Report

06 Industry and services



Neuchâtel, June 2020

STS Indicators: Jobs (JOBSTAT) Quality Report 2018

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

Data description

Jobs (=occupied posts)

The source is the quarterly enquiry on employment (BESTA/STATEM/STATIMP/JOBSTAT). The main purpose of the survey is to provide early indicators of short-term changes on the labour demand.

Classification system

NACE Rev. 2.

Sector coverage

The survey covers Sections B to E (Industry), Section F (Construction), Division 47 (Retail Trade) and Divisions 45 and 46 and Sections H to N and P to S (Services) of the NACE Rev. 2.

No employment threshold is applied: all units with at least one job in the Swiss Business Register are included in the sampling frame.

Statistical concepts and definitions

According to the definition of employment valid for the Swiss Business Register, a job is defined as a post occupied by one person in an enterprise for which a contribution is paid to the Swiss social security system (AHV/AVS). This also covers self-employed persons.

In the survey, the number of persons employed are recorded by sex and by 4 levels of employment (full time: 90-100%; part-time I: 50-89%; part-time II: 15-49%; part time III: <15% of the ordinary number of weekly working hours) as well as in full time equivalent jobs.

Number of job vacancies for a given selection on NOGA economic divisions and main regions.

Difficulties encountered by enterprises in recruiting workforce by level of education (compulsory education, apprenticeship, higher

professional education, university degree).

Provisions of employment for the next quarter, the enterprise indicates if they want to maintain, increase or decrease the number of jobs in the next quarter (qualitative question).

Accounting conventions: Last month of the reference quarter (March, June, September, December).

Statistical unit

The enterprise is the reporting unit.

The establishment (local unit) is the observation unit.

Statistical population

All enterprises with at least one job in Industry, Construction, Retail trade and Services (NACE Rev. 2). There are around (sampling frame 2018):

- 41,000 industrial enterprises
- 47,000 construction enterprises
- 36,000 retail trade enterprises
- 423,000 other services enterprises

in the reference population.

Reference area

The geographical area covered is Switzerland (broken down by the seven NUTS2 regions).

Activities outside the geographical territory are not included in the data.

Time coverage

The present survey dates from 1992 although the statistics has existed since 1925.

Base period

Not relevant: data are provided in absolute figures.

Unit of measure

Definition

The unit in which the data values are measured.

Number of jobs

Reference period

Definition

The period of time or point in time to which the measured observation is intended to refer.

Quarter

Institutional mandate

Definition

Set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.

Legal acts and other agreements

Switzerland

- Federal Law on Statistics of 9 October 1992
- Ordinance of 30 June 1993 on the Implementation of Statistical Surveys

Eurostat

- STS Council Regulation (EC) No 1165/98
- STS Council Regulation (EC) No 1158/2005

The survey is compulsory: fines can be given.

Data sharing

Aggregated results are publicly disseminated on the FSO website. Regional data are transmitted to regional statistical offices that co-finance regional samples.

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 - policy

The compilation and publication of the data are governed by the Federal Law on Statistics (10/9/92), the Ordinance on the Execution of Statistical Surveys (06/30/93) and the Federal Law on Data Protection (06/19/92). The Federal Law on Data Protection specifies that the Swiss Federal Statistical Office cannot publish, or otherwise make available to any individual or organisation, statistics that would enable the identification of data for any individual person or entity.

The Laws and Ordinance are published in German, French and Italian and copies can be obtained, for a fee, or downloaded for free from BBL, CH-3003 Bern, Switzerland, Internet: [https://www.bundespublikationen.admin.ch/cshop_bbl/app/displayApp/\(layout=7.01-13_131_69_77_6_133&care=%24ROOT&rdb=0&cpnum=1&cquery=&uiarea=1\)/.do?rf=y](https://www.bundespublikationen.admin.ch/cshop_bbl/app/displayApp/(layout=7.01-13_131_69_77_6_133&care=%24ROOT&rdb=0&cpnum=1&cquery=&uiarea=1)/.do?rf=y)

Confidentiality - data treatment

Data are only published down to an activity level at which it is not confidential.

Release policy

Definition

Rules for disseminating statistical data to interested parties.

Release calendar

Aggregated Results are disseminated in four quarterly press releases within less than 60 days after the reference date. All available results are publicly published on the FSO website.

Release calendar access

<https://www.bfs.admin.ch/bfs/en/home/news/agenda.html>

User access

The data are released simultaneously to all interested parties by issuing the press release "Employment barometer in the xth quarter yyyy".

Internal government access to the data prior to their release to the public is limited to the Ministry of Economy and the Swiss National Bank.

Data are transmitted to Eurostat at the time of national publication.

Frequency of dissemination

Definition

The time interval at which the statistics are disseminated over a given time period.

Quarterly

Accessibility and clarity

Definition

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

News release

Press release: "Employment Barometer in the xth quarter yyyy" is available free of charge, in French, German, Italian and English. Electronic copies are available on line: <http://www.statistik.admin.ch>.

The press release contains a short analysis of results for the reference quarter compared to the same quarter of the previous year as well as the previous quarter (seasonally adjusted results). Full length time series are provided online as an annex to the press release.

The following indicators are disseminated:

- a) the numbers of jobs broken down by economic activities (NACE 2-digit), sex, large region (=NUTS2 regions) and level of employment (full-time, part-time and full-time equivalents)
- b) the numbers of job vacancies and the rate of job vacancies for a selection of economic activities and regions
- c) results for the qualitative questions addressing the difficulties encountered by enterprises in recruiting workforce broken down by regions and a selection of economic activities.
- d) previsions of employment for the next quarter broken down by regions and a selection of economic activities.

Results are presented either in absolute figures (numbers of employees, job vacancies) or in index form (job vacancies and qualitative variables). Seasonally adjusted data (analysed by economic activities and regions) are also disseminated. Growth rates are calculated with respect either to the same period of the previous year (non seasonally adjusted data) or to the previous quarter (seasonally adjusted data).

The commentary attached to the data is only provided by the FSO.

Publications

Press release: "Employment barometre in the xth quarter yyyy" is available free of charge, in French, German, Italian and English.

On-line database

<https://www.bfs.admin.ch/bfs/en/home/statistics/industry-services/businesses-employment/jobs-statistics.html>

Micro-data access

No access to microdata in conformity with the Federal Law on Data Protection (06/19/92).

Other

Only aggregated data are transmitted to Eurostat.

Documentation on methodology

Methods are described in reports which are available free of charge on the Internet:

https://www.bfs.admin.ch/bfs/fr/home/statistiques/catalogues-banques-donnees/publications.html?dyn_prodim=900092&dyn_inquiry=14&dyn_publishingyearend=2019

Quality documentation

Documentation is produced according to internal rules, as well as Eurostat regulations, and is available on request.

Quality management

Definition

Systems and frameworks in place within an organisation to manage the quality of statistical products and processes.

Quality assurance

<https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.343078.html>

<https://www.bfs.admin.ch/bfs/en/home/fso/quality-commitment.html>

Quality assessment

Fullfilled according to international regulations.

Relevance

Definition

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

User needs

The data are used by the Swiss National Bank, Eurostat, the State Secretariat for Economic Affairs and many other users.

User satisfaction

No satisfaction survey

Completeness

Data on jobs corresponds to Eurostat's STS requirements.

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.

Overall accuracy

Precision of estimates in terms of coefficient of variation (CV) of the sampling error drive the sampling process with the following goals:

Total number of jobs : CV <0.5%

Total number of jobs per NACE2 and NUTS2 regions: CV <2%

Total number of jobs per NUTS2 regions and economic sector: CV <3%

Sampling error

Precision of estimates in terms of coefficient of variation (cv) is calculated and published online.

https://www.bfs.admin.ch/asset/de/do-d-06-besta-annexemeth-2018_02

Non-sampling error

Email, postal and phone reminders are sent to speed up or increase the rate of response.

The response rate at the time that the survey closes exceeds 90% for employment and 85% for other variables, respectively.

Timeliness and punctuality

Timeliness

Press release: within 60 days after the end of the reference period.

The questionnaires are sent out during the first week of the last month of the reference quarter. The deadline for replies is within 7 days after the last day of the reference month. A reminder is sent during the 2nd week after the reference month with a deadline for the following week. The survey is closed during the 5th week after the end of the reference quarter.

Punctuality

National publication dates and delivery dates to Eurostat are respected.

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

The geographical area covered is Switzerland (broken down by the seven "NUTS2 regions").

Comparability - over time

Jobs per NACE2 divisions are available from 3rd quarter 1991

Time series for Large Regions are available from 3rd quarter 1995.

Coherence - cross domain

Data can be cross-checked with the results of the Statistics of the Structure of the Entreprises (STATENT) (yearly, from 2011).

Coherence - internal

Data are internally coherent, which means that all totals and subtotals sum up consistently across NACE2 and NUTS2 aggregates.

Cost and burden

Definition

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

Efforts are constantly made to keep costs and burden as low as possible, especially by using administrative data when available and sharing data with other surveys. Costs and burden on respondents are estimated once a year.

For 2018 cost for the FSO were estimated to CHF 2.6 millions.

For 2018, burden for respondents was estimated to CHF 236'000.

Data revision

Definition

Any change in a value of a statistic released to the public.

Data revision - policy

Time series are revised every time the sampling frame is adapted.

Data revision - practice

Major methodological changes and periodic revisions are announced in advance in the quarterly press-release "Employment barometer for the quarter xxx".

In order to ensure the long term consistency of the time series, a procedure of double estimates for both the old and the new sampling frames are conducted every time the sampling frame is renewed.

Changes are documented in methodological reports.

Statistical processing**Source data**

The sampling frame is drawn from the Swiss Business register of enterprises and establishments (REE). The survey is based on a sample of enterprises stratified by activities (NACE 2-digit), regions and enterprise size (total number of jobs).

Industry:

Threshold values and percentages: There are around 41,000 enterprises in the reference population. Approximately 3500 units, in other words 9%, are sampled each quarter. The thresholds of the size classes are determined individually for each economic division in order to minimise the variance of estimates of the total number of employees. Therefore, the number of size classes and their sample sizes may vary among Divisions. The largest size classes are exhaustively sampled. In addition, most large enterprises report exhaustive data for all their establishments.

Construction:

Threshold values and percentages: There are around 47,000 enterprises in the reference population. Approximately 1,800 units, in other words 4%, are sampled each quarter. The thresholds of the size classes are determined in order to minimise the variance of estimates of the total number of employees. The largest size classes are exhaustively sampled. In addition, most large enterprises report exhaustive data for all their establishments.

Retail trade:

There are around 36,000 enterprises in the reference population. Approximately 700 units, in other words 2%, are sampled each quarter. The thresholds of the size classes are determined individually for each economic division in order to minimise the variance of estimates of the total number of employees. The largest size classes are exhaustively sampled. In addition, most large enterprises report exhaustive data for all their establishments.

Services:

There are around 423,000 enterprises in the reference population. Approximately 12,000 units, in other words 3%, are sampled each quarter. The thresholds of the size classes are determined individually for each economic division in order to minimise the variance of estimates of the total number of employees. Therefore, the number of size classes and their sample sizes may vary among Divisions. The largest size classes are exhaustively sampled. In addition, most large enterprises report exhaustive data for all their establishments.

Frequency of updating the sample for all activities: Once a year.

Frequency of data collection

Quarterly

Data collection

A single questionnaire is used for all respondents regardless of size and activity.

Four channels of data collection are used: files, internet, paper questionnaires and phone calls (reminders and late delivery cases).

Data validation

Individual data are checked among quarters and against the sampling frame

Data compilation

Estimates for non-response: Non response is accounted for by adjusting the weighting factors. Missing data for influent cases are filled by imputations.

Estimates for grossing-up to population levels is done using weighting factors.

Results are published as absolute figures.

Method of weighting: On the basis of a stratified sample, the number of jobs is estimated using a weighting model with a unique individual weight computed for each observation. Using a bottom-up approach, the data are then aggregated over the strata (economic activities at 2-digit level of NACE, regions and size classes).

Adjustment

Seasonal adjustment is conducted using X13-ARIMA. Data are adjusted at the level of divisions (NACE 2-digit). The direct method is used for other aggregates.

Metadata update

Definition

The date on which the metadata element was inserted or modified in the database.

Metadata last certified

31/03/2019

Metadata last posted

31/03/2019

Metadata last update

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