# Labour indicators in industry

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# **3** Statistical presentation

### 3.1 Data description

The variables collected in monthly survey Priem 1-12 are:

- Average number of employees (persons)
- Wages and compensation of wages of employees (Eur)
- · Number of hours worked by employees

On the base of above mentioned information the estimation of number of persons employed is realised.

### 3.2 Classification system

Štatistická klasifikácia ekonomických cinností (SK NACE Rev. 2) - Statistical classification of economic activities – NACE rev.2.

Klasifikácia štatistických územných jednotiek- Nomenclature of Territorial Units for Statistics– NUTS 2016.

### 3.3 Sector coverage

Industry includes activities connected with mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply, sewerage, waste management and remediation activities

Enterprises with principal activity in Divisions 05-39 of NACE Rev. 2.

### 3.4 Statistical concepts and definitions

**The number of persons employed** variable includes: Paid employees, e.g. those persons who have a contract of employment and who are on the payroll of the enterprise. Paid working

proprietors, paid students and homeworkers, part-time workers, seasonal workers persons on short-term leave are included in the variable. It is measured as an average number

**Wages and salaries** include the total remuneration of employees counted on the payroll in return for their work, before deduction of their share of social security charges. It includes gratuities and bonuses paid from the profit of the enterprise, payments for emergency work. The particular items are based on the company accounting headings.

Average gross nominal monthly wage consists of basic (tariff) wages set by wage rules including basic components of contracted wage and salaries for working overtime, compensation of wage for hours not worked, monthly and long-term bonuses paid according to performance and evaluation criteria, extra payments for working overtime, night work, work during Saturdays and Sundays, holidays, for environment damaging health, noise, risky and hard work, in-kind wages expressed in financial terms and other wages in the form of wage advantages whose level and periodicity are set in advance regardless of the situation in an enterprise.

**Hours worked** include all hours which have actually been worked during the current period (basic or normal hours, overtime hours, hours worked during nights, Sundays or public holidays, short periods of rest at the place of work including tea and coffee breaks, time spent on business trips). The variable excludes hours which are paid but not worked such as paid annual holidays, public holidays, sick leave, or due to accidents, strikes, lock-outs or slack time.

Estimates of this variable are realised for population of small enterprises based on quarterly sample surveys and for self-employed performing their business activity on the base of issued trade licences according to Act no. 455/1991 [Digest] (the data source is the number of issued trade licences).

The Business register is the frame for identifying units for the population. The Business register is updated in daily frequency from: the business register, the trades register, the professional chambers, and from other ministries. The Business register is updated with information from the tax register, the social insurance company register and from statistical surveys.

### 3.5 Statistical unit

Enterprise and kind of activity unit is the reporting as well as observation unit, where relevant.

#### 3.6 Statistical population

The reporting units are residents at the territory of the Slovak Republic and provide data on their domestic activities and activities outside, if the activities carried out are of a subject of the tax and other duties in relation to Slovak legislation.

Statistical survey PRIEM 1-12 addresses reporting units (enterprises) registered in the Commercial Register and kept in the register of organizations of the Statistical Office of the Slovak Republic with 20 or more employees, whose main activity is classified in divisions 05-39 of the Statistical Classification of Economic Activities NACE Rev.2 and selected significant reporting units whose main activity is other than industrial activity (approx. 14 reporting units) or those whose revenues exceeded EUR 5 million.

For the population of reporting units with the number of employees up to 19 persons (inclusive), registered in the Commercial Register and kept in the register of organizations of the Statistical Office of the Slovak Republic and for natural persons doing business on the basis of a trade license

according to Act no. 455/1991 Coll. on Trade Licensing, as amended, the number of which is determined on the basis of the number of issued trade licenses, an estimate is made by a combination of data from the annual statistical survey.

Register of organizations kept by the Statistical Office of the Slovak Republic according to the Act of the National Council of the Slovak Republic no. 540/2001 Coll. on state statistics, as amended, is a source of information on the subjects of the population addressed by the statistical survey. Legal entities and natural persons - entrepreneurs are entered in the register of organizations on the basis of data obtained by the Statistical Office of the Slovak Republic pursuant to the Act on State Statistics and other special acts. The register is used for statistical purposes and the data registered in it are updated daily from various sources, e.g. with information from statistical surveys, data from the Commercial Register, social insurance, etc.

### 3.7 Reference area

All regions of the Slovak Republic are covered by the survey.

The reporting units are residents at the territory of the Slovak Republic and provide data on their domestic activities and activities outside, if the activities carried out are of a subject of the tax and other duties in relation to Slovak legislation.

### 3.8 Time coverage

In the Datacube database, data are available from the reference year 2008. Data are available from 2000 year for all type of data presented (gross, calendar and seasonally adjusted data) sending to Eurostat.

### 3.9 Base period

The base year 2015=100 is implemented since January 2018. Indices are calculated on the basis of data reported in current year prices after conversion by price deflators to constant prices (December 2015 = 100).

### 4 Unit of measure

Data are presented in absolute values, in euros and also as indices.

# **5** Reference period

The monitored period is a month.

# **6** Institutional mandate

### 6.1 Legal acts and other agreements

The reporting obligation to submit statistical questionnaires is laid down in Act no. 540/2001 Coll. on state statistics as amended (§ 18, paragraph 3) and cannot be refused (§ 18, paragraph 8), from <u>Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November</u> <u>2019</u> on European business statistics, repealing 10 legal acts in the field of business statistics and <u>Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020</u> laying down technical specifications and details under Regulation (EU) 2019/2152 of the European Parliament and of the Council on European business statistics, which repeals 10 legal acts in the field of business statistics.

The Statistical Office of the Slovak Republic is responsible for the protection of confidential data obtained and guarantees their use exclusively for statistical purposes. The statistical surveys are part of the <u>Program of State Statistical Surveys</u> issued for a three-year period in the Collection of Laws of the Slovak Republic.

### 6.2 Data sharing

Statistical information from SOSR's surveys is a source for fulfilling the obligations of the Slovak Republic resulting from the requirements of the European statistical system, the requirements of international institutions, to ensure the needs of the information system of the Statistical Office of the Slovak Republic. Statistical information are regularly provided to international and national organizations (Eurostat, National Bank of SR) or irregularly to other users.

# 7 Confidentiality

### 7.1 Confidentiality - policy

The Statistical Office of the Slovak Republic is responsible for the protection of confidential data obtained and guarantees their use exclusively for statistical purposes. In accordance with the Act on State Statistics No. 540/2001 Coll. §2g and §30, the SOSR may not publish confidential statistical data, but only information resulting from the aggregation of confidential statistical data, which does not allow direct or indirect identification of the reporting unit.

The Statistical Office of the Slovak Republic has introduced principles and procedures for the protection of confidential data in internal directives and instructions. The directive on the protection of confidential statistical data regulates the method of management and implementation of activities related to ensuring the protection of confidential statistical data in the Statistical Office of the Slovak Republic. The internal methodological instruction of the Statistical Office of the Slovak Republic regulates specific methods and parameter values used in the protection of confidential statistical data of individual statistical surveys and data sets.

### 7.2 Confidentiality - data treatment

SOSR ensures the protection of confidential statistical data in disseminated data. SOSR applies in all cases the rule of minimum frequency for n = 3 and dominance of 90%. Values in sensitive cells and also values in other cells, that are not sensitive, are marked with a flag ("D") in order to prevent a sufficiently accurate primary and secondary confidentiality treatment.

# 8 Release policy

### 8.1 Release calendar

The First Release Calendar contains the timetable for the first publication of selected indicators in the next 4 months. The calendar is updated monthly. The Catalogue of Publications contains basic information about published publications, publication dates and language versions. All publications are available on the Internet portal of the Statistical Office of the Slovak Republic. The edition program is available on the website of the SOSR.

#### 8.2 Release calendar access

The First Release Calendar is available on the website of the SOSR here: <u>First Release Calendar</u>

The SOSR's web portal and the online database Datacube of the SOSR are updated in accordance with the Principles of the policy of publication and provision of statistical information.

#### 8.3 User access

The First release Calendar contains timetable of the first release of selected indicators. Data will be published in the given day at 9 o'clock on the Internet website of the SO SR (<u>www.statistics.sk</u>) in the part Information reports Catalogue of the SO SR and there will be also at the disposal at the spokesperson of the SO SR (phone number: +421 2 5023 6553). You will also find notice for amendments of dates on the Internet website of the SO SR.

Information reports Catalogue

DATAcube

### 9 Frequency of dissemination

Monthly

### **10** Accessibility and clarity

#### **10.1 News release**

Published monthly in electronic form: Informative news.

Published quarterly in electronic publications: Statistical report on the economy of the Slovak Republic

The data are published in the terms of the First Release Calendar of the web portal of the SOSR.

#### **10.2 Publications**

The data is published monthly in DATAcube.

Data are published quarterly in the publication: Statistical report on the economy of the Slovak Republic in the 1st. - 4th quarter of 2022.

#### 10.3 On-line database

Public databases:

STATdat

#### 10.4 Micro-data access

Users are provided with aggregated data, microdata are not published.

#### 10.5 Other

International and national organizations have also defined their own specific data requirements, which are provided mainly for the National Bank of Slovakia under the annually Framework agreement on mutual cooperation in the provision of statistical data and statistical information between the SOSR and the National Bank of Slovakia, ministries, associations and others.

### **10.6 Documentation on methodology**

Statistical questionnaires including methodological guidelines and explanations of variables and methodological explanations within the Glossary of the statistical terms are published on the web portal of the SOSR. Each publication contains methodical explanations and a contact for the information service of the SOSR.

### 10.7 Quality documentation

Following internal project documentation exists for the compilation of statistical outputs: • technical projects within the Integrated Statistical Information System called ISIS

- technical projects within the integrated Statistical information System called 1915
- methodological guidelines for applying mathematical-statistical methods for statistical surveys
  methodological guidelines for guality indicators of statistical outputs and statistical processes
- methodological guidelines for quality indicators of statistical outputs and statistical processes.

# **11 Quality management**

#### **11.1 Quality assurance**

The Quality policy is defined and publicly accessible in the Quality Declaration and Quality Policy documents. The Quality Declaration expresses the basic ideas and commitments of the President and top management of the SOSR for the Quality Policy as well as increasing efficiency and effectiveness of the integrated management system of the SOSR. Quality Declaration

Quality policy is based on the mission of the Statistical Office of the Slovak Republic: to provide high quality and objective statistical products and services by keeping confidentiality of statistical data and by minimising burden on interested parties using effectively existing resources with the aim to support improvement of the information and intellectual capital of our customers. In this way we want to contribute to reduce risks and improve effectiveness in their decision making processes and so to support the sustainable development of the Slovak Republic as the part of EU. Quality policy

The Quality manual describes the documented procedures of the quality system that are used for implementation and continuous improvement of the quality management system in SOSR. It contains a description of the quality management system and the fulfillment of requirements ISO 9001 standards. Application of the manual in practice ensures that all activities that have an impact on the quality of the products created are planned, managed, reviewed, evaluated and meet requirements.

Quality manual

The European Statistics Code of Practice is the basis of the common quality framework of the European Statistical System. It is a self-regulatory tool and it is based on 16 Principles covering the institutional environment, statistical processes and statistical outputs. A set of indicators of best practices and standards for each of the Principles provides guidelines and benchmarks for

reviewing the implementation of the Code of Practice, thus increasing transparency within the European Statistical System.

European Statistics Code of Practise

### 11.2 Quality assessment

Coverage, reference period, data collection, control and data processing are in line with the Eurostat methodological guidelines. The data collection process is conducted in the Integrated statistical information system called ISIS. SOSR creates technical projects of the statistical surveys describing data collection and its evaluation, including a description of statistical controls and algorithms within the integrated ISIS. The data collection process is ensured by the regional offices of the SOSR during the phase of electronic data collection, ensure using statistical controls and algorithms the data collection process itself. Data validation is done during the data collection, processing and validation of relevant data by the SOSR experts. A data comparison is done with previous periods. Statistics are available in the system to evaluate the quality of the completed questionnaires, the number of questionnaires with errors or outliers, the number of reminders etc. SOSR also performs internal methodical audits. Evaluation of statistical surveys and methodical audits including the analysis of the results are integrated into the existing quality management system.

# **12 Relevance**

### 12.1 User needs

The requirement to conduct consultations with users of statistical information is stipulated in the Act on State Statistics itself. Consultations during the preparation of state statistical surveys take place within the framework of the preparation of the Program of State Statistical Surveys (PSSZ). PSSZ is a generally binding legal regulation compiled by the SOSR in collaboration with ministries, other central authorities and state organizations and contains statistical surveys organized and carried out by the SOSR, ministries, other central authorities and state organizations. SOSR publishes the Program of state statistical surveys by decree in the Collection of Laws of the Slovak Republic. The Coordinating Council for State Statistics ensures the fulfilment of the tasks of the SOSR. Key users of specific statistical products are listed in the Marketing Plan, e.g. international organizations - Eurostat, OECD, UN and national institutions, e.g. National Bank of Slovakia, etc.

### 12.2 User satisfaction

Since the 2009, SOSR carries out satisfaction surveys of customers with their products and services at two-year intervals. The goal of surveys is to determine customer satisfaction with the products and services of the SOSR, to obtain information about users, their interest and opinion on provision and quality of statistical products and services. The facts obtained are a valuable resource for the direction of other activities of the SOSR. One of the main goals defined in the Development Strategy. The goal of the SOSR until 2022 is to systematically increase the value of the institution and its recognition

at the national and international level. The office also monitors the fulfilment of the stated goal with the help of indicators of the credibility of the SOSR and the rate of use of the information provided by the public.

SOSR conducts credibility surveys through an external independent organization once every 2 years, with the intention of ensuring the objectivity and indisputability of the results from public view.

#### 12.3 Completeness

Time series of indicators in accordance with the regulation are available from 2008 in Datacube, in database Eurostat and historical time series in SLOVSTAT.

# 13 Accuracy and reliability

### 13.1 Overall accuracy

The return on the exhaustive survey Priem 1-12 for enterprises with 20 or more employees, which have a significant share in the industry, is more than 97,3 %, so the overall accuracy of industry statistics is very good.

Overall accuracy is considered very good. SOSR makes great efforts to prevent the occurrence of errors in the data and performs data verification to detect the errors. Most errors are directly consulted at regional offices with the reporting units.

### 13.2 Sampling error

Sampling errors are monitored during data processing.

#### 13.3 Non-sampling error

The technical project of data processing is part of ISIS. This project includes a description of all logical data controls at the microdata level performed during electronic data collection. The electronic guestionnaire and information system ISIS itself provides many arithmetic and logical checks between variables, which we distinguish between serious and informative. Data collection is provided by the office of the SOSR in Banská Bystrica. After the deadline for submission of the statistical questionnaire, the reporting units that did not respond are contacted again to fulfil their legal obligation. In case of serious errors in the form, this form is not accepted and with the help of experts from the regional office its correctness is ensured so that it can enter into the data processing. Automatic validation checks during data collection and informative checks are incorporated with the aim to follow logical checks, reducing the rate of partial nonresponses, anomalies and outliers. The purpose of this process is to minimize errors already in the data collection itself and subsequently during data processing. The basic step in the process of calculating unit non-response is the analysis of the population with regard to the state of activity of the reporting units. For this purpose, we use a specific classification of responses and non-responses codes. Individual codes describe active and inactive units and are assigned to each reporting unit. Subsequently, we determine the population of active units entering the data processing.

Response rate for September 2022 is:

At the time data are provided to Eurostat:	97,3 %
At the time data are first published nationally:	97,3 %

# 14 Timeliness and punctuality

### 14.1 Timeliness

Data dissemination in the public database DATAcube is in accordance with the set up deadlines. For the indicator Number of persons employed, Wages and salaries and Working hours there are no differencies in timeliness between the different aggregation levels (Total, MIGs, special aggregates, NACE Sections, Divisions, Groups or Classes, if relevant). Data are disseminated on 42. day after the reference period.

### 14.2 Punctuality

Publication deadlines were met.

# 15 Coherence and comparability

### 15.1 Comparability - geographical

The statistical survey of Priem 1-12 is compiled for the entire territory of the Slovak Republic.

### 15.2 Comparability - over time

The time series are comparable from the reference year 2008.

#### 15.3 Coherence - cross domain

SOSR performs the following analytical data comparisons:

-comparing the results of monthly surveys with the results of quarterly surveys of production industries for the needs of national accounts (used for quick calculation of GDP) -comparison with data from the structural business survey on an annual basis -regular monthly analyzes and consultations of industry statistics experts with experts from national accounts to monitor the development of the economy -comparison of trends in the development of STS indicators with the results of conjunctural

-comparison of trends in the development of STS indicators with the results of conjunctural surveys

The results of the comparisons show a high level of data comparability for the population of reporting units addressed exhaustively t. j. by addressing all units above a certain level according to stratification criteria. In case of differences between the compared periods and the populations of the reporting units, these are the subject of further analyses.

#### 15.4 Coherence - internal

No differences are detected.

### 16 Cost and burden

SOSR regularly monitors the cost and burden of reporting units. As part of the optimization of statistical surveys, it takes measures aimed at reducing their burden.

The cost and burden measurement at the level of European Statistical Products is in competence of the Resources Directors Group within Eurostat.

# 17 Data revision

### 17.1 Data revision - policy

The Revision policy regulates the general rules and procedures applied in revisions at the SOSR. The same revision policy applies to national and international users. In accordance with the Revision policy, the reason of the revision is always indicated.

The Revisions policy as well as the Revisions calendar is available to users on the web portal of the  $\check{S}\check{U}$  SR.

Policy and calendar of revisions of the SOSR

SOSR distinguishes the following revisions:

from the content point of view

-incorporation of better quality data based on a more complete source, including replacing imputations with collected data,

-correction of data as a result of updating seasonal factors and changing the base period,

- data modification based on more accurate methodology (in concepts, definitions and classifications) and changes in statistical methods,

- performing corrections in source data and calculations.

• In terms of time, SOSR divides the revisions into

- ordinary revisions are revisions without significant modifications of the methodologies. These are usually more significant data corrections, including large values obtained from new sources. They are carried out periodically on precisely set up dates, to update monthly and quarterly data, until the next publication of the data.

-annual revisions are revisions that are made when all monthly and quarterly data are available and more detailed results from annual surveys are already available.

- extraordinary and major revisions are revisions of definitive data due to significant methodological changes resulting from revision of methodologies, changes in procedures and statisticalmathematical calculation methods or data corrections. An extraordinary revision may result (e.g. by changing the definition) in break in time series data comparability.

### 17.2 Data revision - practice

The main source of information for routine revisions are new or revised data from reporting units. The publication of the revised data is done periodically in line with Calendar of revisions.

# **18 Statistical processing**

### 18.1 Source data

Monthly report in industry Priem 1-12

Statistical survey Priem 1-12 addresses reporting units (enterprises) registered in the bussiness register and kept in the register of organizations of the Slovak National Register of Statistics with the number of employees of 20 or more persons, whose main activity is included in section 05-39 of the Statistical Classification of Economic Activities NACE Rev. 2 and selected important reporting units whose main activity is other than industrial activity (approx. 14 reporting units) or those whose sales exceeded 5 million euros.

### Number of reporting units contacted (September 2022): 2 740

For the population of reporting units with the number of employees up to 19 persons (inclusive), registered in the bussiness register and maintained in the register of organizations of the SÚVZ and for natural persons conducting business on the basis of trade, a license pursuant to Act no. 455/1991 Coll. on trade entrepreneurship as amended, the number of which is determined on the basis of the number of trade licenses issued, the estimate is made by combining data from the annual statistical survey Year 2-01.

### **18.2 Frequency of data collection**

Monthly

### 18.3 Data collection

The regional office of the SOSR in Banská Bystrica is responsible for data collection. From January 1, 2016, reporting units (legal entities, natural persons - entrepreneurs) are required to electronically submit statistical reports in accordance with the amendment to Act No. 540/2001 Coll. on state statistics as amended by Act no. 326/2014 Coll. (hereinafter referred to as the law), which contains new rules for submitting statistical questionnaires.

The completed statistical questionnaire must be submitted electronically no later than the 25th day after the reference period on the website <u>www.statistics.sk</u>. In the event that the reporting unit has not submitted the electronic questionnaire, it is contacted by the relevant regional office of SOSR.

### 18.4 Data validation

The data entry, data completeness and statistical control are organised by specialised regional offices of the SO SR in Banská Bystrica.

SOSR distinguishes between two levels of data checks:

1 - Formal checks, which are realised in the process of data entry automatically; (compatible with Validation level 0 and 1)

2 - Informal checks aim of which is to control the complexity and relations among the variables ((compatible with Validation level from 2 to 5).

According to the importance there are classified 2 basic types of checks:

I – Informative checks- this check gives the additional information, which is important for the following process of corrections. It informs also about some inconsistencies in the state of fulfilment of the questionnaire, about item non-response, exceeding stated limits etc.

Z – Check of great importance - it is mostly check indicating the exact error and it must be always corrected or explained.

Most of the errors are directly consulted with the reporting units by our regional offices.

### 18.5 Data compilation

Non-responses for active reporting units are handled by data imputation. Imputations are made from the data of the intelligence unit from the previous period of max. 3 months after the monitored period or by finding a donor.

The results for the population of small businesses are estimated on the basis of data obtained from annual business surveys.

Administrative data and a model approach are used for estimates for self-employed persons.

### 18.6 Adjustment

Working day adjustment and seasonal adjustment procedures are carried out using JDEMETRA+ 2.2.2 and TRAMO-SEATS, which takes into account the number of working days, public holidays and fractions of working days in the month.

# **19 Comment**