QUALITY REPORT FOR STATISTICAL SURVEY

STRUCTURAL BUSINESS STATISTICS (Annexes I-IV)

FOR 2017

BHAS
Agency for Statistics of
Bosnia and Herzegovina

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1 STATISTICAL PROCESS AND STATISTICAL OUTPUTS

1.1 The purpose of the survey

The purpose of structural business statistics (SBS) is to monitor the operations of market producers, and providing the data according to European standards. Structural business statistics data are used for analysis of business entities' structure by activities (production value, value added, employment, etc.), analysis of factors used in production process (number of persons employed, compensation of employees, investments etc.), analysis of national and regional development. Also, Structural Business Statistics data represent significant inputs for calculation of aggregates in national accounts and calculation of weights for index calculation in short-term statistics.

1.2 Legal basis and responsibility of statistical institutions

Legal basis for Structural business statistics implementation are: Five-year Program of statistical activities of Bosnia and Herzegovina, Annual Work Plan of the Agency for statistics which are adopted based on the Law on statistics in BiH ("Official Gazette of BiH" no. 26/04 and 42/04), law on statistics of entity institutes, their plans and programs. In the European Union, Structural business statistics are regulated by the elementary EU Regulation no. 295/08 and regulations for the implementation no. 250/2009, 251/2009 and 275/2010.

1.3 Classifications used

Structural business statistics indicators are shown according to the Classification of Activities - KD BiH 2010, which is completely harmonized with EU classification of Economic Activities NACE Rev.2.

1.4 Reporting unit

Reporting unit for the survey which is conducted for enterprises with 20 and more persons employed is an enterprise (legal person), while for the entrepreneurs (natural persons) the variables are estimated.

1.5 Statistical observation unit

Observation units are active enterprises and entrepreneurs from non-financial business economy.

1.6 Coverage

Active market enterprises as well as entrepreneurs from Statistical business register (SBR) are covered that are, according to their main activities, categorized into the following sections of activities: B – Mining and quarrying, C – Manufacturing, D – Electricity, gas, steam and air conditioning supply, E – Water supply; sewerage, waste management and remediation activities, F – Construction, G – Wholesale and retail trade; repair of motor vehicles and motorcycles, H –

Transportation and storage, I – Accommodation and food service activities (Hotels and restaurants), J – Information and communication, L – Real estate activities, M – Professional, scientific and technical activities, N – Administrative and support service activities, P – Education (private sector), Q – Human health and social work activities (private sector), R – Arts, entertainment and recreation (private sector), S – Other service activities, except 94 – Activities of membership organizations.

1.7 Statistical concepts and definitions

Concepts and definitions used in structural business statistics are completely harmonized with concepts and definitions applied in EU, Regulation no. 295/08 and Regulations for the implementation of no. 250/2009, 251/2009 and 275/2010.

Numbers of enterprises include market enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Only active units which either had turnover or employment at any time during the reference period should be included. Dormant (temporarily inactive) and inactive units are excluded.
Number of entrepreneurs include market entrepreneurs registered to the population concerned in the business register i.e. entrepreneurs that had employment data from Unique System of Registration, Control and Collection of Contributions.
The number of persons employed is defined as the total number of persons who work in the observation unit (including working proprietors, partners working regularly in the unit and unpaid family workers working regularly in the unit), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams).
Turnover comprises revenues calculated from sales of products, goods and services by the reporting unit to third parties during the reference period. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the value added type taxes (VAT).
Value added at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.
Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period.

2 RELEVANCE

2.1 Users of statistical survey data

2.1.1 Key users of statistical survey data

Key data users of structural business statistics are:
Internal users: Statistical business register, Short-term business statistics.
External users: Eurostat, ministries and authorities, researchers, journalists, business entities and international institutions.

2.1.2 Assessment of users' needs

Structural business statistics data are used for analysis of business operations of enterprises and entrepreneurs, analysis of factors used in production process as well as the analysis of competitiveness and development.

2.1.3 Assessment of the perception and user satisfaction

There is no user satisfaction survey dedicated to presented results of SBS.
Agency for statistics conducted Users' satisfaction survey of all statistics. Survey results showed that 21% respondents uses Structural business statistics data. The quality of presented data was rated with 4.13 points, on a scale from 1 to 5.

2.2 Completeness of data

2.2.1 Data completeness rate (R1)

The rate of structural business statistics data completeness is 100%. Data obtained by structural business statistics enable calculation of all variables which are required by EU Regulation no. 295/2008 for Annexes I to IV.

3 THE ACCURACY AND CLARITY

3.1 Sampling errors

Data for compilation of Structural business variables and indicators are collected through statistical survey "Annual structural business statistical survey for enterprises" with 20 and more persons employed and for other active enterprises the data are obtained from administrative and other data sources of the entities and Brcko District. Variables for entrepreneurs are estimated based on entrepreneurs' employment data, which are taken from Statistical business register and data for enterprises which are obtained from the SBS survey and administrative and other data sources.

3.1.1 Sampling error (A1)

It is not possible to calculate sampling errors, because the production of structural business statistics is not based on random sample.

3.1.2 Activities to reduce the sampling errors

The whole population of active enterprises and entrepreneurs is covered by structural business statistics. Therefore, this indicator is not applicable.

3.2 Non-sampling errors

3.2.1 Non-sampling errors - Coverage errors

Coverage error (or frame error) appears due to differences between the population covered by frame and the target population.

3.2.1.1 Over- coverage rate (A2)

Over-coverage rate appears in a situation when the frame includes enterprises which are not subject of structural business statistics observing, according to methodology. Since the structural business statistics frame is based on Statistical business register which contains the data on main activity for the reference year, this case is not possible. From the aspect of enterprise activity, over-coverage rate occurs if the survey includes enterprises that are subsequently found not to be active. Therefore, there have not been cases that dormant, inactive, bankrupt or liquidated enterprises were included in the frame for structural business statistics.

3.2.1.2 Joint units share (A3)

Data from three sources are combined for production of structural business statistics: survey for enterprises with 20 and more persons employed, administrative and other data for other enterprises and estimation for entrepreneurs. Data for each unit are obtained from one source only, i.e. there are no joint units which are included in more sources.

3.2.1.3 Errors of under-coverage

Under-coverage is present in cases when the unit is not included in the frame, although it belongs to the structural business statistics frame, according to the methodology. It is rarely the case that the enterprise was active in the reference year without submitting its annual financial statements.

3.2.1.4 Measures to reduce coverage errors

Basic measures to reduce coverage errors include regular updates of Statistical business register.

3.2.2 Non-sampling errors - Errors of measurement

A set of control has been included in IT application for data entry from the survey for enterprises with 20 and more persons employed, which is used to check completeness, accuracy and logic of data on the level of basic subject. Data obtained from administrative and other sources are also controlled by logical and computing controls.

3.2.2.1 The reasons for the occurrence of errors of measurement

The most common reasons for the occurrence of measurement errors are:

- Lack of skills of person who fills the questionnaire;
- Person filling the questionnaire has not read the instructions carefully;
- Accidental mistakes in filling the data.

3.2.2.2 Measures to reduce the number of errors of measurement

If applying computing and logical controls leads to detection of mistakes on data obtained from both sources, i.e. survey and from administrative and other sources, the errors are corrected through contact with reporting unit or by using the other statistical surveys. After that, the statistical analysis of variables and indicators is performed, which results in determining extreme values (outliers), which are listed and checked.

The most important instrument for reducing errors on data which comes from the surveys are precise and understandable methodological explanations. Due to that reason, Instructions for filling the questionnaire are sent to each reporting unit which describes in detail the way of filling the questionnaire. In case that additional explanation is required, the letter to reporting units contains the contact data of person in charge for the survey, which can be contacted by every reporting unit.

3.2.3 Non-sampling errors – Non-response errors

3.2.3.1 Units non-response rate (A4)

Non-response rate of reporting units which come from the surveys for enterprises with 20 and more persons employed is 8%. During data processing, this rate is corrected by taking data from administrative and other sources for enterprises that were in the survey but did not respond.

3.2.3.2 Item non-response rate (A5)

The information which enables the calculation of this rate is not available.

3.2.3.3 Procedures in the case of non-response

If the responses on certain questions are missing for the reporting units included in the survey, contact with the reporting unit will be established again, and if necessary, the missing values will be supplemented. If the contact with the reporting unit is not established, data are corrected based on data from the annual financial statements, data for the previous year or from other statistical surveys. In case a complete report is missing, the data are taken from administrative and other sources. Data which originate from administrative and other sources are edited.

3.2.3.4 Methods for reducing the rate of non-response

In order to decrease the non-response rate for part of enterprises which originate from survey, the enterprises are contacted by telephone, and the questionnaires are sent again via e-mail.

3.2.4 Imputation

3.2.4.1 Imputation rate (A7)

Information which enables calculation of this rate is not available.

3.2.5 Revisions

3.2.5.1 Average size of data revisions (A6)

Structural business statistics data are published two times per year, as preliminary and final data. The revision of final data has not been done.

4 TIMELINESS AND PUNCTUALITY OF PUBLISHING

4.1 Timeliness

4.1.1 Time lag of first results (TP1)

Reference period	**01.01-31.12.2017.**
Date of publishing of the first results	20.11.2018.
Time gap (number of months)	T+11

Timeliness of publishing of preliminary results is T + 11 months.

4.1.2 Time lag of final results (TP2)

Reference period	**01.01-31.12.2017.**
Date of publishing of the final results	20.06.2019.
Time gap (number of months)	T+18

Timeliness of publishing of preliminary results is T + 18 months.

4.2 Publishing punctuality

4.2.1 Publishing punctuality (TP3)

This indicator is calculated and shown in two ways – from aspect of application for producers of statistics or the users of statistics).

Indicator for producers of statistics

Reference period	**01.01-31.12.2017**
Expected date of publishing	20.06.2019.
Actual date of publishing	30.07.2019.
Time gap (number of days)	T+40

Punctuality of publishing is T + 40 days.

Indicator for statistics users

Punctuality rate of publishing the data for the structural business statistics is 100%.

4.3 The reasons for the major delays and measures to improve the timeliness and punctuality

Final results are published with a delay of 40 days in comparison to announced publication date. The main reason for delay is the lack of human resources.

5 COHERENCE AND COMPARABILITY

5.1 Coherence

5.1.1 Coherence between different sources, coeff.(CH1)

Structural business statistics data are compared to data from other statistics, such as national accounts data, PRODCOM statistics, employment statistics etc.

5.1.2 The reasons for the major delays

Full comparability is not possible because of different definitions of certain variables, value added at factor costs in SBS and in the national accounts at basic prices, different coverage of sector (SBS covers market producers), including the non-observed economy and adjusting it for national accounts needs, sources of data.

5.2 Comparability

5.2.1 Asymmetry for mirror flows statistics, coeff. (CC1)

This indicator is not applicable in structural business statistics.

5.2.2 Length of comparable time series (CC2)

Production of structural business statistics for Bosnia and Herzegovina has been regularly produced since 2010. In 2012, the scope was expanded to all sections of non-financial economy. Since 2014 reference year, data for entrepreneurs have been included in structural variables and indicators. Production method for SBS has been changed for reference year 2017, and coverage was expanded to private enterprises and entrepreneurs from section R „Arts, entertainment and recreation“. The length of comparable time series is 3 years.

CC2 = (2016 year – 2014 year) + 1
CC2 = 3 years

5.2.3 Interruptions in the time series

Data on structural business statistics are not comparable over the years due to expansion of coverage of activities, inclusion of entrepreneurs and change of data production methods. Data for 2012 and 2013 are not comparable to data for 2010 and 2011 due to difference in scope of activity. There was a break in time series in 2014, when entrepreneurs were included, and in 2017, when the data production method was changes and coverage was expanded to section R.

5.3 Geographical comparability

5.3.1 Comparability with other members of the European Statistical System

Structural business statistics for Bosnia and Herzegovina are produced by application of the same methodology, variables definition and indicators which are harmonized with EU, which creates possibility of making the comparability of SBS data with other countries.

6 ACCESSIBILITY AND CLARITY, DISSEMINATION FORMAT

6.1 *Press releases with published data*

Preliminary results of structural business statistics are published in annual press release which is available on web page of Agency for statistics of Bosnia and Herzegovina www.bhas.gov.ba, under name "Structural business statistics – preliminary results for 2017."
(http://bhas.gov.ba/data/Publikacije/Saopstenja/2018/SBS_00_2017_Y1_0_BS.pdf).
The press release contains the basic results for enterprises and entrepreneurs, variables and indicators according to sections of activities of KD BiH 2010 (NACE Rev. 2), by enterprise and entrepreneur size. The results are published in tables and graphs, and they are shown in absolute values, rates and structures.

6.2 *Publications with published data*

Final results of structural business statistics are published in annual bulletin which is available on web page of Agency for statistics of Bosnia and Herzegovina www.bhas.gov.ba, under name "Structural business statistics – thematic bulletin".
(http://bhas.gov.ba/data/Publikacije/Bilteni/2019/SBS_00_2017_TB_0_EN.pdf)
The thematic bulletin contains the basic results for enterprises and entrepreneurs, variables and indicators according to sections and divisions of KD BiH 2010 (NACE Rev. 2), by enterprise and entrepreneur size. The results are published in tables and graphs, and they are shown in absolute values, rates and structures. Thematic bulletin also contains overview of structural business statistics results for the past three years.

The structural business statistics results are shown in the publication "Bosnia and Herzegovina in figures".

6.3 *On – line data base*

On-line data base is not available.

6.4 *Access to microdata*

No microdata is available.

6.5 *Accessibility of methodological documentation*

Methodological explanations, as well as definitions of variables and indicators are part of press release and thematic bulletin. Detailed information on structural business statistics can be found in methodological document which is available on web page of Agency for statistics BiH on following link: http://bhas.gov.ba/data/Publikacije/Metodologije/SBS_00_2017_MD_0_BS.pdf

6.6 *Measures to improve the user-friendliness*

Data are clearly shown.

6.7 *Data set consultations (AC1)*

Use (consulting) of data sets (AC1).

Information on number of user's consultation in 2017 is not available.

6.8 *Metadata consultations (AC2)*

Information on number of consultations of metadata in 2017 is not available.

6.9 *Metadata completeness rate (AC3)*

Metadata completeness rate is 100%.

7 COSTS AND BURDEN ON RESPONDENTS

7.1 Costs of statistical survey conduction

Number of labor hours	7.248h
Material costs (printing and sending the questionnaires to the field)	3.880 KM
The annual number of forms sent to the reporting units	3.558

7.2 Respondents burden

Number of respondents that completed form	3.275
The time required to complete a questionnaire (hours)	1,2 h
Total used time (hours)	3.930 h

7.3 Measures to reduce costs and burdens

For the purpose of rationalization of structural business statistics production, and reduce of response burden, available administrative and other data sources of entities and Brcko District are used since 2017 for enterprises with less than 20 persons employed. Change of production method has led to reduction of production costs as well as reporting unit's response burden.

8 CONFIDENTIALITY

8.1 Confidentiality - policy

Confidentiality of statistical data is regulated by law and the personnel conducting statistical surveys has the legal obligation to protect confidentiality. Law on Statistics of BiH (Off. Gazette of BiH 26/04 and 42/04 - Chapter XI - Article 23.-29.) establishes the principle of confidentiality as one of the main principles. Agency for statistics of BiH distributes statistics in line with statistical principles of the European Statistics Code of Practice and in particular with the principle of statistical confidentiality.

8.2 Confidentiality – Data treatment

Confidentiality of statistical data is regulated by Law on statistics of BiH (data are confidential if they cover less than 3 observation units or if one unit participates with 85%). Manual for structural business statistics defines primary and secondary confidentiality. Mark A is used if data cover less than three units, while mark B is mark for one enterprise with largest share. Secondary confidentiality (mark D) results from hierarchy structure of classifications used, as well as combination of data by various classifications.

9 STATISTICAL PROCESSING

9.1 Data source

Structural variables of enterprises and entrepreneurs operations are result of combinations of many data sources, such as: survey for enterprises with 20 and more persons employed, for other enterprises data are obtained from administrative and other data sources of entities and Brcko District. For RS and BD, data are obtained from annual financial statements, while for

Federation BiH data are obtained from Statistical annex of the annual financial statements. Data for entrepreneurs are estimated.

9.2 Frequency of data collection

Structural business statistics data are collected in annual periodicity.

9.3 Data collection

For enterprises with 20 and more persons employed, data are collected by questionnaire "Annual structural business statistical survey for enterprises". For each Annex (I-IV) of EU Regulation 295/2008, a detailed questionnaire is created for enterprises with 20 and more persons employed. In annual survey for structural business statistics, four main questionnaires are used. Besides the main questionnaires, the additional questionnaires were created for industry and construction, which are used for data collection for units by kind of activity. Administrative and other sources which are taken for the purpose of calculation of SBS variables are as follows:

- Financial statements in RS and BD (Balance sheet and Income statement)
- Statistical annex of annual financial statement in FBiH
- Annual investments report for SBS variables on investments.

9.4 Data validation

Entry, control and editing of data is performed by entities statistical institutions.
The application for data entry that is unique to all three statistical institutions has got (built inn) a set of controls for checking the completeness, accuracy and logics of the data at the level of primary subject. Errors are corrected through the contact with the reporting unit or by using some other source. After that, the statistical analysis of variables and indicators is performed, through which the extreme values are established (outliers) that are then listed and verified. To determine outliers, the following indicators are used: turnover per person employed, value added per person employed, labor costs per employee, share of gross operating surplus in turnover and share of value added in production value. Administrative and other data are controlled by logical and computing controls. After that, data editing is done. Also, data validation within the series, in time and between the series is done before data transmission to Eurostat, for the purpose of detection of inconsistent data using EDIT Tool program.

9.5 Data compilation

Variables for enterprises with 20 and more persons employed are calculated based on data collected by SBS survey, and for other enterprises, the variables are calculated based on data from administrative and other sources of entities and Brcko District. Special formulas are applied for the calculation of SBS variables, depending on the data source.

Investment variables for all enterprises are calculated based on data from survey "Annual investments report".

Variables for entrepreneurs are estimated based on employment data for entrepreneurs, which are obtained from Statistical business register, and enterprise data which are obtained based on SBS survey and administrative data.

Estimation of variables for entrepreneurs is done by regression method. Two coefficients are used: coefficient of number of persons employed and the other coefficient is the number of employees. Coefficients are calculated on the group level, and by classes of employees. Variables for entrepreneurs are calculated by multiplying the calculated coefficients with enterprise variables on the group level and by classes of employment. Coefficient of number of employees is used for estimation of personnel costs, while for other variables the coefficient of number of persons employed is used.

Variables for entrepreneurs are added to the variables of the enterprises. In that way the structural business statistics variables of enterprises and entrepreneurs are obtained.

9.6 Adjustments

9.6.1 Seasonal adjustment

Seasonal adjustment is not applied in structural business statistics.