



Quality Report for CONSTRUCTION WORKS AT CONSTRUCTIONS, 2013

Republika Srpska Institute of Statistics,
Banja Luka, 2015

Table of Contents

1. Introduction into the statistical survey and its output – Survey methodology.....	5
1.1. Purpose and periodicity of survey implementation.....	5
1.2. Legal basis and responsibility of statistical institutions.....	5
1.3. Observation unit.....	5
1.4. Data collection.....	5
1.5. Coverage.....	5
1.6. Definitions.....	5
1.7. Data processing.....	7
1.8. Data publishing.....	7
1.9. Key variables.....	7
1.10. Key statistics.....	7
1.11. Questionnaire.....	7
1.13. Contact information.....	8
2. Relevance.....	8
2.1. Quality and performance indicator – Rate of available ESS statistics (R1).....	8
3. Accuracy.....	8
3.1. Sampling errors.....	8
3.2. Non-sampling errors.....	8
3.2.1. Coverage errors.....	8
3.2.1.1. Quality and performance indicator – Overcoverage rate (A2).....	8
3.2.1.2. Undercoverage rate.....	8
3.2.1.3. Measures to reduce coverage errors.....	9
3.2.2. Measurement errors.....	9
3.2.2.1. Controls to detect measurement errors.....	9
3.2.2.2. Reasons for the occurrence of measurement errors.....	9
3.2.2.3. Procedures in cases of measurement errors.....	9
3.2.2.4. Quality and performance indicator – Data editing rate (A3).....	9
3.2.2.5. Measures to reduce measurement errors.....	9
3.2.3. Non-response errors.....	9
3.2.3.1. Quality and performance indicator – Non-response rate (A4).....	9
3.2.3.2. Quality and performance indicator – Non-response rate of variable (A5).....	9
3.2.3.3. Procedures in cases of non-response.....	10
3.2.3.4. Procedures to reduce non-response rates.....	10
3.2.3.5. Quality and performance indicator – Number of errors, by type (A7).....	10
3.2.3.6. Quality and performance indicator – Average size of revision (A8).....	10
4. Timeliness and punctuality.....	10
4.1. Timeliness of release.....	10
4.1.1. Quality and performance indicator – Timeliness of preliminary results (T1).....	10
4.1.2. Quality and performance indicator – Timeliness of final results (T2).....	10
4.2. Punctuality of release.....	10
4.2.1. Quality and performance indicator – Punctuality of release (T3).....	11
5. Accessibility and clarity.....	11
5.1. Accessibility.....	11
5.1.1. Dissemination channels.....	11
5.1.2. Quality and performance indicator – Rate of used dissemination channels (AC1).....	11
5.1.3. Methods of dissemination.....	11
5.1.4. Quality and performance indicator – Rate of used dissemination methods (AC2).....	12
5.1.5. Quality and performance indicator – Number of accesses to the online database (AC3).....	12
5.2. Clarity.....	12
5.2.1. Printed publications and Internet publication.....	12
5.2.1.1. Disseminated results.....	12

5.2.1.2. Level (level of detail) of dissemination	12
5.2.1.3. Metadata	12
5.2.1.4. Measures to improve clarity of disseminated results	12
5.2.2. <i>Quality and performance indicator – Rate of metadata completeness (AC4)</i>	12
6. Comparability and coherence	13
6.1. Comparability over time	13
6.1.1. <i>Quality and performance indicator – Length of comparable time series (CC1)</i>	13
6.1.2. <i>Breaks in time series</i>	13
6.1.3. <i>Other factors affecting comparability over time</i>	13
6.2. Geographical comparability	13
6.2.1. <i>Comparability with the European Statistical System members</i>	13
6.3. Seasonal adjustment	13
6.4. Coherence between preliminary and final data	13
6.5. <i>Coherence with results of the reference survey</i>	13
7. Concessions – compromises between output quality components	13
8. Assessment of users' needs and perceptions	13
8.1. Classifying and understanding users	13
8.2. Measuring users' perceptions and user satisfaction	14
8.2.1. <i>Quality and performance indicator – User satisfaction index (US1)</i>	14
8.2.2. <i>Quality and performance indicator – Time elapsed since the last user satisfaction survey (US2)</i>	14
9. Costs and burden on respondents/reporting units	14
9.1. Costs of the Republika Srpska Institute of Statistics	14
9.1.1. <i>Quality and performance indicator – Annual operating costs, average by main cost components (PCR1)</i>	14
9.2. Burden and costs of respondents/reporting units	14
9.2.1. <i>Quality and performance indicator – Annual burden on respondents in hours and/or financial indicators (PCR2)</i>	14
9.3. Measures to reduce costs and burden	14
10. Confidentiality, transparency and protection	14
10.1. Confidentiality	14
10.2. Transparency	14
10.3. Protection	15
11. Conclusion	15

1. Introduction into the statistical survey and its output – Survey methodology

1.1. Purpose and periodicity of survey implementation

Annual report on construction works at constructions (Annual report GRADJ-11) has been carried out since 2007. The activity is implemented annually.

The purpose of the Annual report GRADJ-11 is to provide annual data on constructions, buildings and dwellings.

1.2. Legal basis and responsibility of statistical institutions

Annual report GRADJ-11 is carried out in accordance with the Law on Statistics of Republika Srpska (“Official Gazette of Republika Srpska”, No. 85/03) and pursuant to the Statistical programme of Republika Srpska for the period 2013 – 2017 and the current annual Work Plan of the Republika Srpska Institute of Statistics.

1.3. Observation unit

Observation units are business entities that perform construction works at constructions.

1.4. Data collection

Data are collected annually, using the reporting method, through the questionnaire “Annual report on construction works at constructions” GRADJ-11. Reporting units, which are also observation units, submit completed questionnaires to the Republika Srpska Institute of Statistics until 30th March of the current year, for the previous year.

1.5. Coverage

Annual report GRADJ-11 is based on full coverage of business entities registered on the territory of Republika Srpska, whose main (prevailing) activity, pursuant to the Classification of Economic Activities KD BiH 2010, which is based on the EU Statistical Classification of Economic Activities NACE Rev.2, is classified into the section F – Construction, as well as construction units in composition of non-construction business entities, except group 41.1. – Development of building projects. The number of observation units covered by the survey in 2013 was 533.

1.6. Definitions

Methodological postulates based on which the Annual report GRADJ-11 is carried out are adapted to the domestic statistical practice. Major definitions are given below.

Value of performed works covers all built in construction materials and labour force. It excludes costs of land purchase, architects or consultants’ fees and VAT. Data on value of performed works refer to works performed during the year on completed and non-completed constructions. Value of works is presented on the basis of annual account statements;

Constructions refer to structures attached to the ground, all underground and aboveground constructions and water works, for which construction works are performed and which are made using construction materials, finished products and parts for installation;

Construction of new buildings refers to building of new structures on land where no structures were present previously, or where existing structures were removed. This category also covers rebuilding of buildings which were completely destroyed due to war destruction or which were damaged to the extent of having to be levelled. New construction of roads or railway tracks refers to a completely built substructure or superstructure, cutting through entirely new alignment, or partly using the old one while changing the substructure completely.

Upgrade and extension of buildings refer to construction works performed to create new usable units along the existing structures or on them, e.g. completely new dwellings or business premises, or extension of the existing roads, water supply pipelines, sewerage and other pipelines, and communication lines, etc. This category does not include expansion of the existing structures, e.g. building of additional rooms or business premises, expansion of roads and other extensions usually serving to increase capacity of the existing structures;

Renewal of old, ruinous or abandoned buildings refers to construction works through which at least one dwelling or any other space in a building is completely renewed by using important parts of the existing construction, such as preserved outer façade of the building and similar, even though its inner attic and wall partitions were completely destroyed (due to the building being old, war destruction, etc.);

Conversion of a non-residential building into new dwellings refers to construction works performed in order to convert an existing space in a building (e.g. attic or cellar space that has never been arranged as a living space, garage, a space where production or service activities are performed) into one or more dwellings;

Other conversion of spaces in buildings refers to construction works performed in order to convert an existing space in a building (e.g. dwelling, attic or cellar space that has never been arranged as business premises, garage, etc.) into business premises, as well as construction work performed in order to adapt existing business premises for other business purposes;

Improvement of existing structures refers to construction works performed in order to significantly increase the value of structure (e.g. capacity), or to extend or at least renew its existence. This type of work covers the following:

- **expansion** refers to construction works performed in order to expand existing structures, that is, building of additional rooms or extra spaces in the existing dwellings or business premises, expanding of roads with the aim of achieving increased capacity, replacing the existing pipelines and lines with those that have greater capacities, etc;
- **alterations, refurbishment and modernisation** refer to construction works through which quality, functioning and capacity of the existing structure are significantly improved;
- **replacement of essential dilapidated parts** of a structure refers to construction works performed in order to totally replace significant parts of a structure that are dilapidated or which were destroyed due to various disasters;

Regular maintenance and repair refer to construction works performed occasionally in order to maintain a structure in a usable state;

Buildings are permanent structures covered with roof and closed with outer walls, built as separate useful units that protect from weather and other conditions, intended for dwelling, performing a certain activity or for placing and upkeeping of animals, goods, and equipment used in various industrial activities and services etc;

Residential buildings are constructions in which 50% or more of the useful floor area is intended for dwelling purposes;

Non-residential buildings are constructions without dwelling area or those in which less than 50% of the overall useful floor area is intended for dwelling purposes;

Floor area of a building is the sum of total floor areas of all floors of the building placed inside the outer walls;

Volume of a building is the sum of total volumes of all roofed-over spaces of the building, including outer walls;

Civil engineering works are all structures not classified under buildings, e.g. highways, roads and streets, railways, airport runways, bridges, tunnels, harbours, dams, long-distance and local pipelines, electricity and communication lines, complex structures on industrial sites, structures intended for sport and recreation, etc.

Dwelling is any construction unit intended for dwelling purposes, consisting of one or more rooms with adequate auxiliary spaces (kitchen, bathroom, lobby, pantry, toilet, etc.) or without auxiliary spaces and with one or more separate entrances;

Room is a space intended for dwelling purposes, separated from the rest of the dwelling by permanent walls, having direct daylight and at least 4 square metres of floor area;

One-room dwelling may consist of one room with kitchen and other auxiliary spaces, or one room without kitchen, but with other auxiliary spaces.

Two, three, four or more rooms dwelling consists of two, three, four or more rooms with auxiliary spaces or without them. In such a dwelling, the kitchen is not required.

Floor area of a dwelling represents useful area of the dwelling, measured inside the dwelling walls.

1.7. Data processing

Data on construction works at constructions are collected and controlled at the regional offices of the Republika Srpska Institute of Statistics.

Data entry and processing are organised at the headquarters of the Republika Srpska Institute of Statistics, at the Production Statistics Division.

Any major discrepancy between data and missing data are controlled and verified through telephone contact with reporting units. The application used for data entry contains control which prevent an entry of computationally or logically incorrect data. Such data entry results in a database which contains logically and computationally correct data.

1.8. Data publishing

Results of the Annual report GRADJ-11 are published as final data (without preliminary data) at the Republika Srpska level. Data are published regularly on 17th November of the current year for the previous year, in the annual statistical release "Construction activity". These data are also published in the Statistical Yearbook of Republika Srpska.

Some of the data are published in the annual publication "This is Republika Srpska".

All the abovementioned publications are available in printed and electronic form, at the official website of the Institute.

1.9. Key variables

Key variables are:

- Type of works;
- Types of constructions in accordance with the CC BiH;
- Value of performed works;
- Completed buildings;
- Completed dwellings.

1.10. Key statistics

Key statistics obtained through the Annual report GRADJ-11 are:

- Value of performed works by type of works;
- Value of performed works by type of constructions in accordance with the CC BiH¹⁾;
- Number, floor area and volume of completed buildings;
- Number and floor area of completed dwellings, by number of rooms.

1.11. Questionnaire

The questionnaire "Annual report on construction works at constructions" GRADJ-11 is used for the collection of data on construction works at constructions. The questionnaire is available at the official website of the Institute:

<http://www2.rzs.rs.ba/static/uploads/obrasci/gradjevinarstvo/GRADJ-11.pdf>

¹⁾ "Classification of Types of Constructions in BiH" (CC BiH) complies with The EU Classification of Types of Constructions – CC, final version, Eurostat 1997

1.13. Contact information

Želimir Radišić

E - mail: zelimir.radisic@rzs.rs.ba

Telephone: 051 332 772

2. Relevance

Data for the Republika Srpska level are sent to the Agency for Statistics of Bosnia and Herzegovina, which is the institution responsible for the aggregation of data to the BiH level.

Data are used for the needs of the Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Finances of Republika Srpska, local self-government bodies, Chamber of Commerce of Republika Srpska, Central Bank of BiH, Council of Ministers of BiH, Economics Institute Banja Luka, as well as for the needs of other research institutions, the media, physical entities, etc.

2.1. Quality and performance indicator – Rate of available ESS statistics (R1)

The rate of available statistics represents the ratio between available statistics and statistics required (prescribed) by ordinances and regulations of the European Commission and other relevant international organisations.

Since the production of indicators for construction works at constructions is not regulated by a specific regulation or ordinance, the rate of available statistics is not calculated.

3. Accuracy

3.1. Sampling errors

Since the Annual report GRADJ-11 is based on full coverage of active observation units, sampling errors are not relevant.

3.2. Non-sampling errors

3.2.1. Coverage errors

Coverage errors mainly refer to overcoverage due to inactivity of observation units (they did not start working or they ceased their operations during the observation period) or because of a change in their main (prevailing) activity.

3.2.1.1. Quality and performance indicator – Overcoverage rate (A2)

Total number of observation units, 2013	Number of observation units that did not work, 2013	Number of observation units engaged in non-construction activity, 2013	Overcoverage rate, 2013
533	85	29	21.4%

3.2.1.2. Undercoverage rate

Undercoverage errors are rare, but nevertheless possible if the address book of observation units is not timely updated at the annual level. In 2013, there were no undercoverage errors.

3.2.1.3. Measures to reduce coverage errors

Measures taken to reduce coverage errors are timely and regular updating of the address book of observation units, based on the Register of Business Entities and information obtained through other statistical activities.

3.2.2. Measurement errors

3.2.2.1. Controls to detect measurement errors

When data processing is carried out, measurement errors are controlled. Measurement errors mainly refer to incorrect size order or wrong units of measure for presented values.

Measurement errors are also detected through computational and logical controls built into the application for data entry.

3.2.2.2. Reasons for the occurrence of measurement errors

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

- Reporting units do not understand the methodology properly;
- Random errors occurring while data are entered in the report;
- Lack of interest of reporting units.

3.2.2.3. Procedures in cases of measurement errors

In cases of measurement errors, depending on the type of errors, they are corrected by the methodologist, based on other data provided in the questionnaire, through contact with the reporting unit or based on data obtained through other statistical activities.

3.2.2.4. Quality and performance indicator – Data editing rate (A3)

Currently, there are no accurate records of the number of corrections made in the data editing phase.

3.2.2.5. Measures to reduce measurement errors

In order to reduce the number of measurement errors, instructions for completing the questionnaire are modified. These instructions are sent to reporting units each year and they are available in the questionnaire itself, describing in detail how to complete the questionnaire. Contacts between the methodologist and reporting units are also crucial, as they serve to explain the methodological explanations directly and to point out the most common errors that occur while completing the questionnaire.

3.2.3. Non-response errors

3.2.3.1. Quality and performance indicator – Non-response rate (A4)

Reports which have not been submitted are treated as non-response.

Year	2013
Number of observation units	533
Non-response cases	60
Non-response rate	11.3%

3.2.3.2. Quality and performance indicator – Non-response rate of variable (A5)

Currently, there are no accurate records of non-response per specific variable.

3.2.3.3. Procedures in cases of non-response

In case an entire report or certain data are missing, reporting units are contacted to help complete the entire report or missing values.

3.2.3.4. Procedures to reduce non-response rates

In order to reduce non-response rates, the following procedures are usually used:

- Multiple contacts with the reporting unit (in cases of unavailability);
- Flexible deadlines for the submission of reports (possibility of advancing the deadlines of data submission);
- Combining several different methods of data collection (telephone, email, fax);
- Revision of the questionnaire and instructions for completing the questionnaire, in order to simplify and facilitate its completion.

3.2.3.5. Quality and performance indicator – Number of errors, by type (A7)

There were no errors, which means that the current methodology was applied properly. Press release contained no incorrect data.

3.2.3.6. Quality and performance indicator – Average size of revision (A8)

Revision was not planned or implemented.

4. Timeliness and punctuality

4.1. Timeliness of release

Timeliness of release represents an interval between the end of the observation period the data refer to and the date of release.

4.1.1. Quality and performance indicator – Timeliness of preliminary results (T1)

Results of the Annual report GRADJ-11 are published as final data, while no preliminary data are published.

4.1.2. Quality and performance indicator – Timeliness of final results (T2)

Name of the activity	Annual report GRADJ-11
Observation period	2013
Date of release	17 November 2014
Number of days between the end of the observation period and release of final data	T+321

4.2. Punctuality of release

Punctuality of release represents an interval between the actual and planned dates of release, as specified in the Release Calendar.

4.2.1. Quality and performance indicator – Punctuality of release (T3)

The actual date of release of data from the Annual report GRADJ-11 did not differ from the planned date of release according to the Release Calendar.

5. Accessibility and clarity

5.1. Accessibility

Data from the Annual report GRADJ-11 are available to users at the Institute's website and in printed publications (Statistical release, Statistical Yearbook of Republika Srpska, "This is Republika Srpska"), while there are also replies to written users' requests for data that are not published in these publications.

5.1.1. Dissemination channels

The following dissemination channels were used to publish results of the Annual report GRADJ-11 in 2013:

Number	Dissemination channels	Used
1	Website	YES
2	Written requests of users according to their specification	YES
3	Data published via telephone	NO
4	Digital media (CD, floppy disk, etc.)	NO
5	Data presented at press conferences	NO
6	Thematic bulletin	NO
7	Special printed publications	YES
8	Databases available to external users	YES
9	Statistically protected microdata	NO

5.1.2. Quality and performance indicator – Rate of used dissemination channels (AC1)

The rate of used dissemination channels for results of the Annual report GRADJ-11 is 44.4% (4/9X100).

5.1.3. Methods of dissemination

The following methods of dissemination were used to publish results of the Annual report GRADJ-11 in 2013:

Number	Methods of dissemination	Used
1	Website of the Institute	YES
2	Websites of other institutions	NO
3	Websites of international institutions	NO
4	Written requests	YES
5	Telephone mediation	NO
6	Digital media (CD, floppy disk, etc.)	NO
7	Data presented at press conferences	NO
8	Statistical Yearbook	YES
9	This is Republika Srpska	YES
10	Release	YES
11	Thematic bulletin	NO
12	Special publications	NO
13	Eurostat's publications	NO
14	Publications of other international organisations (OECD, IMF)	NO
15	Databases for internal use	YES
16	Databases available to external users	YES

5.1.4. Quality and performance indicator – Rate of used dissemination methods (AC2)

The rate of used methods of dissemination is 43.8% (7/16X100).

5.1.5. Quality and performance indicator – Number of accesses to the online database (AC3)

There is no procedure to record the number of accesses to the online database.

5.2. Clarity

In addition to data, publications also provide methodological explanations and definitions of basic indicators and concepts.

5.2.1. Printed publications and Internet publication

- Annual release “Construction activity” – final results;
- Statistical Yearbook of Republika Srpska;
- “This is Republika Srpska”.

5.2.1.1. Disseminated results

Results of the Annual report GRADJ-11 for the observation year are presented in tables and graphs, as absolute values and indices.

5.2.1.2. Level (level of detail) of dissemination

Data obtained through the annual report GRADJ-11 are published at the Republika Srpska level.

5.2.1.3. Metadata

As part of Metadata at the official website of the Institute, basic concepts and definitions referring to this survey are available, as well as the Methodology in the part of the website which refers to Construction Statistics. In addition, brief metadata are provided in printed and electronic publications: Statistical Yearbook of Republika Srpska and annual release “Construction activity”.

Methodological explanations are available at the official website of the Institute: http://www2.rzs.rs.ba/static/uploads/metodologije/gradjevinarstvo/GradjevinskiRadoviNaObjektu_Metodologija.pdf, as well as in the release referring to construction activity, which is available at: http://www2.rzs.rs.ba/static/uploads/saopstenja/gradjevinarstvo/godisnja_saopstenja/2013/Gradjevinska_aktivnost_2013.pdf.

5.2.1.4. Measures to improve clarity of disseminated results

Data are presented clearly.

5.2.2. Quality and performance indicator – Rate of metadata completeness (AC4)

See item 5.2.1.3.

6. Comparability and coherence

6.1. Comparability over time

6.1.1. Quality and performance indicator – Length of comparable time series (CC1)

A comparable series of data has been available since the observation year 2007.

6.1.2. Breaks in time series

There were no breaks in time data series.

6.1.3. Other factors affecting comparability over time

There were no significant factors affecting the comparability of time series.

6.2. Geographical comparability

6.2.1. Comparability with the European Statistical System members

Available data from the Annual report GRADJ-11 are comparable with the data provided by the European Statistical System members, since constructions and works are classified pursuant to the Classification of Types of Constructions in BiH (CC BiH), which is in line with the Classification of Types of Constructions – CC, final version, Eurostat 1997.

6.3. Seasonal adjustment

Seasonal adjustments are not required, as the survey is carried out annually.

6.4. Coherence between preliminary and final data

Data obtained through the annual report GRADJ-11 are disseminated as final data only.

6.5. Coherence with results of the reference survey

Annual report GRADJ-11 is the only source of data on construction works at constructions and there is no reference survey with which data could be harmonised.

7. Concessions – compromises between output quality components

Compromises between output quality components are not subject to special analyses.

8. Assessment of users' needs and perceptions

8.1. Classifying and understanding users

Key users of data are government and local self-government bodies, research institutions, individual researchers, business entities, the media, etc.

8.2. Measuring users' perceptions and user satisfaction

8.2.1. Quality and performance indicator – User satisfaction index (US1)

A general User Satisfaction Survey has been conducted, but not specifically for this survey.

8.2.2. Quality and performance indicator – Time elapsed since the last user satisfaction survey (US2)

See item 8.2.1.

9. Costs and burden on respondents/reporting units

9.1. Costs of the Republika Srpska Institute of Statistics

9.1.1 Quality and performance indicator – Annual operating costs, average by main cost components (PCR1)

Not subject to special analyses.

9.2. Burden and costs of respondents/reporting units

Not subject to special analyses.

9.2.1. Quality and performance indicator – Annual burden on respondents in hours and/or financial indicators (PCR2)

See item 9.2.

9.3. Measures to reduce costs and burden

Introduction of an electronic questionnaire would be the most significant measure to reduce costs and burden on reporting units.

10. Confidentiality, transparency and protection

10.1. Confidentiality

The confidentiality of data and protection of personal information are guaranteed by Articles 25 and 27 of the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03) and the Rules of protection of confidential data of the Republika Srpska Institute of Statistics. The confidentiality of statistical data is also ensured through the Law on the protection of personal data ("Official Gazette of BiH", No. 49/06).

10.2. Transparency

Users are familiar with the method of use of Construction Statistics data. No errors were observed in published editions, therefore there was no need for corrections and their publishing.

10.3. Protection

See item 10.1.

11. Conclusion

In the future period, it is necessary to:

- Establish procedures for complete records of corrections in the phase of data editing for all variables;
- In cooperation with IT staff, develop a system to record the number of accesses to the online database and the number of accesses to electronic bulletins and releases for specific statistical fields (statistical surveys);
- Through a specific User Satisfaction Survey, obtain information about user satisfaction for particular statistical surveys.