QUALITY REPORT FOR STATISTICAL SURVEY

**Annual Report on Completed Buildings and Dwellings (GRAĐ-10)
For 2021**

Organisational unit: Construction Statistics Department

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0. Basic information

- Purpose, goal, and subject of the survey

The goal of the statistical survey is to obtain data on completed buildings by types of buildings, building size, location, type of investor, equipment with installations as well as on the number and floor area of completed dwellings.The subject of the survey is every building and dwelling completed during the reporting year.

- Reference period

Calendar year

- Legal acts and other agreements

Legal basis

- Official Statistics Act (NN, No 25/20)

- Programme of Statistical Activities of the Republic of Croatia

- Annual Implementation Plan of Statistical Activities of the Republic of Croatia

- Programme of Current Housing and Building Statistics for Countries in the UN/ECE Region

- Conference of European Statisticians Recommendations for the 2020 Censuses of Population and Housing, United Nations, New York and Geneva, 2015

The obligation of reporting units to submit data is based on Article 45 of the Official Statistics Act (NN, No 25/20).

Refusing to provide data, providing incomplete and inaccurate data, or failing to provide data within the prescribed deadline will be subject to the misdemeanour provisions laid down in Article 76 of the aforementioned Act.

- Classification system

National Classification of Types of Constructions

- Statistical concepts and definitions

Observed variables:

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

   Buildings are also constructions covered with roof but without (some of the) walls (e.g. porches), as well as partly or completely underground constructions (e.g. underground shelters, garages, shopping centres and other business spaces in subways, etc).

2) Residential buildings are constructions in which 50% or more of the useful floor area is intended for dwelling purposes (dwellings and other premises used jointly by owners, for example: halls and staircases, repositories, garages etc.)

3) Non-residential buildings are constructions without dwelling areas, or those in which less than 50% of the overall useful floor area is used for dwelling purposes.

4) Floor area of buildings is a sum total of area of all floors of the building placed inside the outer walls.

5) Dwelling is any structurally unified whole intended for residence, with one or more rooms, with or without appropriate auxiliary spaces (kitchen, pantry, hallway, bathroom, toilet, etc.) and with at least one separate entrance either from the staircase or directly from the street or yard.

A completed dwelling is a dwelling in which all planned construction works are done. Included are dwellings in new buildings and dwellings added to existing buildings if constructed as entirely new residential units and new dwellings created by the conversion of a non-residential into a residential area.

Dwellings under reconstruction due to war damages are considered new dwellings only in case they were rebuilt from the foundations.

Data on completed dwellings refer to dwellings that were completed in the course of the reporting period (year), irrespective of when the construction works had begun.

6) Useful floor area of a dwelling is a floor area of a dwelling, measured inside the walls of the dwelling.

- Statistical units

Reporting units are administration bodies in major cities, the City of Zagreb and counties, authorised for issuing documents by which construction is approved. Observation units are all completed buildings and dwellings.

- Statistical population

Completed buildings and dwellings; number and floor area of completed buildings by their purpose; number and useful floor area of completed dwellings.

In 2021, a total of 6 071 buildings and 12 514 dwellings were completed.

1. Relevance

1.1. Data users

Collected data are needed:

• by the Croatian Bureau of Statistics:

- as inputs in the Economy Statistics Directorate for indicators, in line with EU recommendations (for the estimate of investments and the regional GDP)

- data for the Rent Questionnaire – European Comparison Programme (ECP)

- for the calculation of the dwelling stock in the intercensal period

• for national users, as a basis for situation analysis and for undertaking measures in the area of residential construction, as a basis for planning of the production of construction material and ready-made components as well as other industrial products to be used in equipping buildings and dwellings, for making decisions on the development of the construction entrepreneurship and various housing-related services, etc.

• for fulfilling commitments towards international statistical and other organisations related to housing indicators (number, useful floor area and equipment of constructed dwellings and of the entire dwelling stock)

• for other users abroad: data on the construction of dwellings and other buildings and the total dwelling stock are the basis for the situation analysis and the estimation of the market size in the Republic of Croatia in relation to making investment and other business decisions.

1.1.1. User needs

Collected data are needed:

• by the Croatian Bureau of Statistics:

- as inputs in the Economy Statistics Directorate for indicators, in line with EU recommendations (for the estimate of investments and the regional GDP)

- data for the Rent Questionnaire – European Comparison Programme (ECP)

- for the calculation of the dwelling stock in the intercensal period

• for national users, as a basis for situation analysis and for undertaking measures in the area of residential construction, as a basis for planning of the production of construction material and ready-made components as well as other industrial products to be used in equipping buildings and dwellings, for making decisions on the development of the construction entrepreneurship and various housing-related services, etc.

• for fulfilling commitments towards international statistical and other organisations related to housing indicators (number, useful floor area and equipment of constructed dwellings and of the entire dwelling stock)

• for other users abroad: data on the construction of dwellings and other buildings and the total dwelling stock are the basis for the situation analysis and the estimation of the market size in the Republic of Croatia in relation to making investment and other business decisions.

1.1.2. User satisfaction

Not available.

1.2. Completeness

Data are complete and in line with:

- Programme of Current Housing and Building Statistics for Countries in the UN/ECE Region (No. 43, ISBN 92-1-116584-9)

- Conference of European Statisticians Recommendations for the 2020 Censuses of Population and Housing, United Nations, New York and Geneva, 2015

1.2.1. Data completeness rate
Data completeness rate is 100%.

2. Accuracy and reliability

2.1. Sampling error

Not applicable. The Croatian Bureau of Statistics uses a census as a data collection method and not a sampling method.

2.1.1. Sampling error indicators

The indicator for this survey is not applicable.

2.2. Non-sampling error

Non-sampling errors are all other errors that are not connected with the sample selection – coverage, measurement, processing, non-response. They are regularly calculated and controlled.

2.2.1. Coverage error

The coverage of completed buildings and dwellings is determined by the National Classification of Types of Constructions (NKVG) and covers section 1 (Buildings). In this particular statistical survey, constructions are broken down at the lowest level, which means that a five-digit code number (subclass) from the National Classification of Types of Constructions is entered into the corresponding fields in the GRAĐ-10 form. No subclass (unit) is excluded from the coverage, so the coverage errors is 0.

2.2.2. Over-coverage rate

The indicator for this survey is not applicable.

2.2.3. Measurement error

Measurement errors during data collection occur due to ignorance, negligence, lack of appreciation of importance of statistics, not knowing how to respond and conscious/unconscious presenting of inaccurate data by respondents. Problems arising from unclear questions in the questionnaire, measurement units or ambiguous instructions for filling in the forms are minor due to the fact that the availability of data was taken into consideration while defining their content.

In addition, the reporting units are welcome to contact regional offices of the Croatian Bureau of Statistics (which provide assistance to the reporting units in filling in reports and check the completeness and accuracy of data before they are submitted to the Croatian Bureau of Statistics), or directly the Croatian Bureau of Statistics.

These measurement errors do not represent a major issue, since they are revealed during the visual and calculation control of data before they are entered in the computer as well as by the default computerised data editing during data processing. When such illogicalities or errors are observed, the reporting units are contacted for the check-up of inaccurate and incomplete data and for the correction of inaccurate data.

2.2.4. Non-response errors

Unit non-response

The survey is exhaustive. The response rate is 100%. All data are available within the set deadline. For late or missing data, reporting units are contacted by phone or via urging letters and asked to provide the missing data.

Item non-response

There were no non-responses for variables. In the data processing phase, the reporting units that have not fully completed the questionnaire are contacted by phone and asked to provide corrected or missing data. The response rate is 100%.

2.2.5. Unit non-response rate

The unweighted non-response rate is 0%.

Unweighted non-response rate is -.

2.2.6. Item non-response rate

Unweighted non-response rate for certain variables:

Variable	Domain	Domain value	Comment	Value
Non-response rate for all variables	Croatia	Croatia		0

2.2.7. Processing errors

The Croatian Bureau of Statistics controls whether data are accurate, fully covered and logical, codes identification and other data, enters data and performs computer processing. Source data validation is performed before and after they are entered into the data processing system. The incorrect, incomplete and missing data are corrected.

Statisticians enter and code the data manually. Data validation is performed according to the specified conditions.

Respondents' errors, coding errors and data entry errors are corrected manually and electronically as follows:

- source data validation is performed before and after they are entered into the data processing system. The reporting units that have not fully completed the questionnaire (incorrect, incomplete or missing data) are contacted by telephone and asked to provide corrected and complete data.

- electronic data validation is performed after entering data into the computer. Reports that fail to meet the quality standards are subject to verification and corrections as required. The correction procedures are implemented by priority: severe errors are generally corrected manually and more effort is spent on these, while less attention is paid to minor errors that are mostly corrected automatically through computerised input.

2.2.8. Imputation rate
Unweighted imputation rate for certain variables:

%

Variable	Domain	Domain value	Comment	Value
All variables	Croatia	Croatia		0

2.2.9. Model assumption error

Not available.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions (provisional, final data) on the website of the Croatian Bureau of Statistics. Revisions are done for correcting errors or major changes in classifications or methodology.

Routine revisions are not carried out since all data are available according to deadlines.

Notices about minor changes are announced in First Releases at the time the change has been introduced.

The data publishing revision policy of the Croatian Bureau of Statistics includes the following:

1) updating of the Calendar of Statistical Data Issues

The data publishing revision policy of the Croatian Bureau of Statistics is conducted, according to the deadlines announced in advance, by updating the Calendar of Statistical Data Issues. According to the Official Statistics Act, changes in publishing deadlines for publications/data are announced in advance. The Croatian Bureau of Statistics is obliged to announce each change in publishing deadlines (updating of the Calendar of Statistical Data Issues) at least three days prior to the date originally announced in the Calendar of Statistical Data Issues on their website.

The update of publishing deadlines for data or publications (update of the Calendar of Statistical Data Issues) is announced without delay on the website of the Croatian Bureau of Statistics by changing the date in the Calendar of Statistical Data Issues to the new one and putting a notice next to the Calendar of Statistical Data Issues, which says: "updated", and specifying the accurate new date.

Therefore, the Calendar of Statistical Data Issues that contains the original publishing deadline for a particular publication/statistical data is replaced with the new Calendar of Statistical Data Issues, which includes the updated publishing deadline. The original Calendar of Statistical Data Issues is kept in the Publishing Department, which registers every change in publishing deadlines for publications in the Calendar of Statistical Data Issues update base.

2) publishing corrections of the released data

In cases when an error is observed in the published data, the Croatian Bureau of Statistics publishes a correction as soon as possible and as simple as possible in order to help users to clearly see what has been changed in comparison to the originally published data. The correction is carried out by marking the incorrect data with an asterisk and creating the correction.

2.3.2. Data revision – practice

Data are disseminated as final and as such they are not subject to any revision. For this reason, numeric information on the size of typical revision and regular sources of revisions are not applicable.

However, if an error occurs, corrected data are published in the next issue of the First Release. Data changed in relation to the previously released ones are disseminated with a comment. Major changes in the methodology are published in the First Release at the time the change has been introduced. The general practice is to explain all changes in the methodology when the data based on the new methodology are published for the first time. Information on methodological changes are provided in the Notes on Methodology that are a part of all related paper or electronic publications.

2.3.3 Data revision – average size

The indicator for this survey is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

The final data are published with the time lag of nine months since the end of the reporting period.

3.1.1. Timeliness – first results

The indicator for this survey is not applicable.

3.1.2. Timeliness – final results

Time lag – final results is T + 9 months.

3.2. Punctuality

The First Release is published in accordance with the deadlines from the Calendar of Statistical Data Issues. The is no time lag between the actual data publishing date and the date announced in the Calendar of Statistical Data Issues.

3.2.1.   Punctuality – delivery and publication

Punctuality is 1.

4.   Accessibility and clarity

The results of the statistical survey are published in the following statistical publications: First Releases (annual), Statistical Report "Construction", in Excel tables on the website of the Croatian Bureau of Statistics under the link "Statistics in Line" (in Croatian and English) and in the GeoSTAT application, which enables the combination of selected spatial level with selected statistical data.

These publications also contain short methodological explanations. Detailed notes on methodology are published in the Methodological Guidelines No 65 entitled "Annual Report on Completed Buildings and Dwellings (2010 Revision)", Croatian Bureau of Statistics, Zagreb, 2011 (only in Croatia).

Publications are available to users in printed and electronic form on the website of the Croatian Bureau of Statistics https://podaci.dzs.hr/hr/podaci/gradevinarstvo/zavrsene-zgrade-i-stanovi/. All publications are released simultaneously to all users at 11 a.m. No one has advantage in accessing data.

4.1. News releases

Data for a particular reporting year are released regularly in the First Release entitled "Completed Buildings and Dwellings" at the end of September of the following year (in Croatian and English).

The released data are available on the website of the Croatian Bureau of Statistics at https://podaci.dzs.hr/hr/podaci/gradevinarstvo/zavrsene-zgrade-i-stanovi/.

4.2. Online database

Not available.

4.3. Micro-data access

The conditions under which certain users can access microdata are regulated by the Ordinance on the Conditions and Manner of Using Confidential Statistical Data for Scientific Purposes.

4.4. Documentation on methodology

Data are released regularly in the following publications: First Release, Statistical Report "Construction" and in Excel tables on the website of the Croatian Bureau of Statistics under the link "Statistics in Line" (in Croatian and English).

These publications also contain short methodological explanations.

Publications are available to users in printed and electronic form on the website of the Croatian Bureau of Statistics https://podaci.dzs.hr/hr/podaci/gradevinarstvo/zavrsene-zgrade-i-stanovi/.

National documents:

- Brief notes on methodology are available in annual publications.

- Detailed notes on methodology are published in the Methodological Guidelines No 65 entitled "Annual Report on Completed Buildings and Dwellings (2010 Revision)", Croatian Bureau of Statistics, Zagreb, 2011 (only in Croatian).

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability over time

The survey was first conducted in 1952. Since then, there have been several changes in the methodology of data collection and the methodology of classification of constructions. Since 2002, data have been collected using the same methodology.

5.2.1.   Length of comparable time series

Length of comparable time series is 20.

5.2.2.   Reasons for break in time series

Changes in the methodology of data collection and the methodology of classification of constructions.

5.3. Coherence – sub-annual and annual statistics

The indicator for this survey is not applicable.

5.4. Coherence – national accounts

The indicator for this survey is not applicable.

5.5. Coherence – administrative sources

The indicator for this survey is not applicable.

6. Cost and burden

6.1. Cost

Total costs of the Croatian Bureau of Statistics amount to 8 108 hours per year.

6.2. Burden

The survey is carried out using the census method. Data on building permits issued are a starting point of this survey. According to the building permits issued (in previous years and in the reporting year), enumerators find out, during their field visits, which of these buildings were completed during the reporting year and fill in the GRAĐ-10 forms for these buildings.

Direct participants in this census are paid on the basis of a contractual agreement depending on the volume of the work done, that is, on accurately completed GRAĐ-10 forms.