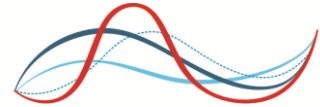




REPUBLIC OF CROATIA



CROATIAN BUREAU OF STATISTICS

**QUALITY REPORT FOR STATISTICAL SURVEY**  
**Annual Report on Completed Buildings and Dwellings**  
**(GRAD-10)**  
**For 2016**

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## 0. Basic information

- Purpose, goal, and subject of the survey

The aim of the statistical survey is to obtain data on completed buildings by types of buildings, building size and location, type of investor, as well as on the number and floor area of completed dwellings.

The topic of the survey is every building and dwelling completed during the reporting year.

- Reference period

Calendar year

- Legal acts and other agreements

The legal basis are the following:

- Official Statistics Act (OG, Nos 103/03, 75/09 and 59/12)
- 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 2010 Censuses of Population and Housing, UNECE/Eurostat, UN, New York and Geneva, 2006.

The obligation of units to submit the report is based on Article 38 of the Official Statistics Act (OG, Nos 103/03, 75/09 and 59/12).

In case of the refusal to provide data, the provision of incomplete or incorrect data or the provision of data out of the time schedule, penalty provisions defined in Articles 69 and 70 of the Act shall apply.

- Classification system

National Classification of Types of Constructions

- Concepts and definitions

The observed variables are the following:

- 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 (e.g. in subways), etc.
- 2) Residential buildings are constructions in which 50% or more of the total useful floor area is used for dwelling purposes (dwellings and other premises designed for common use by all flat owners, for example: corridors, wood-sheds, depositories for garbage, garages etc.).
- 3) Non-residential buildings are constructions without dwelling areas, or 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 a residential construction unit consisting of one or more rooms with accessory spaces, such as kitchen, pantry, bathroom, toilet, etc., or without accessory spaces and with one or more separate entrances from the staircase or directly from the street or yard.

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

Dwellings reconstructed due to the 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 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 competent for construction affairs in major cities, the City of Zagreb and counties, authorised for issuing documents based on which the 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 purpose; number and useful floor area of completed dwellings.

In 2016, there were 4 824 buildings completed and 7 809 dwellings.

## 1. Relevance

### 1.1. Data users

Data are necessary:

- In the Croatian Bureau of Statistics:
  - As inputs in the Economy Statistics Directorate for indicators in line with the EU recommendations (for the estimation of investments, the estimation of the regional GDP)
  - Data for the Rent Questionnaire – European Comparison Programme (ECP)
  - For calculating the dwelling stock in the intercensus period
- For national users, as a basis for situation analysis and for undertaking measures in the area of residential construction, as a basis for the 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 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 constructions 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

Data are necessary:

- In the Croatian Bureau of Statistics:
  - As inputs in the Economy Statistics Directorate for indicators in line with the EU recommendations (for the estimation of investments, the estimation of the regional GDP),
  - Data for the Rent Questionnaire - European Comparison Programme (ECP)
  - For calculating the dwelling stock in the intercensus period
- For national users, as a basis for situation analysis and for undertaking measures in the area of residential construction, as a basis for the 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 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 constructions 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 consistent 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 2010 Censuses of Population and Housing, UNECE/Eurostat, UN, New York and Geneva, 2006.

#### 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 census as a data collection method (not sampling).

#### 2.1.1 Sampling error indicators

The indicator for this survey is not applicable.

### 2.1.2 Bias due to sample selection process

The indicator for this survey is not applicable.

## 2.2. Non-sampling error

Non-sampling errors are 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 error is 0.

### 2.2.2 Over-coverage rate

The indicator for this survey is not applicable.

### 2.2.3 Measurement errors

Errors in measurements while collecting data 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 data availability 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 and the Administrative Body of the City of Zagreb competent for official statistics issues (which provide help to the reporting units in filling in reports and control the completeness and accuracy of data before they are submitted to the Croatian Bureau of Statistics) or directly the Croatian Bureau of Statistics, in case they need information or help in resolving ambiguities.

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 through default computerised logical and calculation control during data processing. When such illogicalities or errors are spotted, 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. Response rate is 100%. All data are available according to deadlines. For late or missing data, the reporting units are contacted by phone and asked to provide the missing data.

#### Item non-response

There is no case of item non-response in the survey since in the data processing phase, the reporting units that have not fully completed the questionnaire are contacted by telephone and asked to provide corrected or missing data. The item response rate of 100% is achieved.

### 2.2.5 Unit non-response rate

Unweighted non-response rate: 0%

Weighted non-response rate: -

### 2.2.6 Item non-response-rate

Unweighted item non-response rate:

Variable	Domain	Domain value	Value
Non-response rate for all variables	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. Data, at the raw data level, are verified by logical/calculation control before and after they are entered in the data processing system. The incorrect, incomplete and missing data are corrected.

Data entry and coding is done manually by statisticians in the Croatian Bureau of Statistics. Logical and calculation control of data is performed according to the set conditions. Respondent's errors, coding errors and data entry errors are corrected manually and electronically as follows:

- manual logical and calculation control of questionnaires is performed before entering raw data into the computer. 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 logical and calculation control 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:

Variable	Domain	Domain value	Value
All variables	Croatia		0%

### 2.2.9 Editing rate

The indicator for this survey is not calculated.

### 2.2.10 Hit rate

The indicator for this survey is not calculated.

#### 2.2.11 Model assumption error

Not available.

### 2.3. Data revision

#### 2.3.1 Data revision – policy

The users of statistical data are informed about revisions (preliminary, final data) on the website of the Croatian Bureau of Statistics.

Revisions are done in cases of correcting errors or major changes in classifications or methodology.

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

Notice about minor changes is announced in the First Release 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
- 2) Publishing of corrections of published data.

- 1) Updating of the Calendar of Statistical Data Issues

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

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

Therefore, the Calendar that contains the original publishing deadline for a particular publication/statistical information is replaced with the new Calendar, which includes the updated publishing deadline. The original Calendar is kept in the Publishing Department, which registers every change in publishing deadlines for publications in the Calendar Update Base.

- 2) Publishing of corrections of published data:

In cases when an error is observed in the published data, the Croatian Bureau of Statistics publishes the 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 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 are disseminated with a comment.

Major changes in the methodology are published in the First Release at the time the change is 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 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. There is no seasonal or working-day adjustment of statistical data, because data are presented only as absolute values.

## 3. Timeliness and Punctuality

### 3.1. Timeliness

#### 3.1.1 Time lag – first results

The indicator for this survey is not applicable.

#### 3.1.2 Time lag – final results

Time lag – final results is T+9 months.

### 3.2. Punctuality

#### 3.2.1 Punctuality – delivery and publication

Delivery and publication: 1

## 4. Accessibility and clarity

The results of the statistical survey are published in the following statistical publications: First Releases (annual), the Statistical Report "Construction", the Statistical Yearbook, 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 GeoSTATRH application, which enables the combination of selected spatial levels with selected statistical data.

All publications also contain brief 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 Croatian).

All publications are available to users in paper and electronic format on the website of the Croatian Bureau of Statistics <http://www.dzs.hr>, under the heading "Released Data". All statistical publications are released simultaneously to all users at the same time (11:00).

No users have access to the data in advance.



#### **4.1. News release**

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

The released data are available on the website [http://www.dzs.hr/default\\_e.htm](http://www.dzs.hr/default_e.htm).

#### **4.2. Other publications**

Data are published regularly in the following publications: the Statistical Report entitled "Construction", the Statistical Yearbook, 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 GeoSTATRH application, which enables the combination of selected spatial levels with selected statistical data.

#### **4.3. On-line database**

Not available.

#### **4.4. Micro-data access**

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

#### **4.5. Documentation on methodology**

Data are published regularly in the following publications: the First Release, the Statistical Report entitled "Construction", the Statistical Yearbook 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 brief methodological explanations.

All publications are available to users in paper and electronic format on the website of the Croatian Bureau of Statistics <http://www.dzs.hr> under the heading "Released Data".

National documents:

- Brief notes on methodology are available in annual publications on construction.
- Detailed notes have been 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. Comparability**

#### **5.1. Asymmetry for mirror flows statistics**

Not applicable.

#### **5.2. Comparability over time**

##### **5.2.1 Length of comparable time series**

Length of comparable time series: 15

### 5.2.2 Reasons for break in time series

Changes in the methodology of data collection and the methodology of breaking down constructions.

## 6. Coherence

### 6.1. Coherence – short-term and structural data

The indicator for this survey is not applicable.

### 6.2. Coherence – national accounts

The indicator for this survey is not applicable.

### 6.3. Coherence – administrative sources

The indicator for this survey is not applicable.

## 7. Cost and burden

### 7.1. Cost

Total costs of the Croatian Bureau of Statistics: 8 108 hours annually.

### 7.2. Burden

This survey is conducted by the census method. Data on building permits issued are a starting point of this research. According to the building permits issued (over the last few years and in the reporting year), enumerators visit precincts to establish which of these buildings have been completed during the reporting year and fill in the GRAD-10 forms for these buildings.

Indirect participants in this census are paid via a contractual agreement depending on the volume of the work done, that is, on accurately filled GRAD-10 forms.