

QUALITY REPORT FOR STATISTICAL SURVEY
Development of the Geographical information system (GIS)
for 2024

Organisation unit: Geoinformation System Development Unit
Prepared by: Branko Crkvenčić

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0. Basic information

- Purpose, goal, and subject of the survey

The objective of this activity was to georeference statistical data compiled during Census of Population, Households and Dwellings in 2021 (population by educational attainment, population by activity) into a system of grid cells using Cartesian coordinates. Population grids are a powerful tool to describe our society and to study the interrelationships between human activities and the environment. They are particularly useful for analysing phenomena, and their causes, which are independent of administrative boundaries, such as flooding, commuting and urban sprawl.

- Reference period

Several calendar years

- Legal acts and other agreements

The Census was carried out on the basis of the Act on the Census of Population, Households and Dwellings in the Republic of Croatia in 2021 (OG 25/20, 34/21). In order to achieve the international comparability of data, the methodology used in the 2021 Census is in line with the Conference of European Statisticians Recommendations for the 2020 Censuses of Population and Housing as well as with the Regulations EU [2017/712](#), EC [763/2008](#) and [1201/2009](#) of the European Parliament and the Council, which regulate censuses of population and housing in the European Union.

- Classification system

There was no need to use any classification for producing population grid.

- Statistical concepts and definitions

Population by educational attainment: basic education or less, upper secondary education, tertiary education

Population by activity: labour force, inactive population

- Statistical units

The basic statistical observation unit is the population living at a certain address.

- Statistical population

The target refers to the population within a single 1 x 1 km² grid cell.

1. Relevance

1.1 Data users

External users of data are: DG Regio (The Directorate-General for Regional and Urban Policy), Ministry of regional development and EU funds, as well as GeoSTAT portal users.

Internal users: Demography Statistics.

1.1.1 User needs

It is expected that DG Regio and the Ministry of regional development and EU funds will be the most common users of the prepared data.

1.1.2 User satisfaction

The first user satisfaction survey of the Croatian Bureau of Statistics was conducted in 2013, the second one in 2015, and the last one at the end of 2022. The results of the survey are available on the website of the Croatian Bureau of Statistics - [User satisfaction surveys](#).

1.2. Completeness

The data are published in accordance with the EU legislation.

1.2.1 Data completeness rate

The data completeness rate is: 100%

2. Accuracy and reliability

2.1. Sampling error

Although the Census 2021 was not carried out as a sample survey in sense of producing population grids it can be stated as follows: the Census 2021 did not cover diplomatic personnel of foreign diplomatic and consular missions in the Republic of Croatia. Also representatives of international organisations nor members of their families who lives with them in the Republic of Croatia and dwellings owned by foreign diplomatic or military personnel were not covered in Census.

2.1.1 Sampling error indicators

Indicator for this survey is not applicable.

2.2. Non-sampling error

Not applicable.

2.2.1. Coverage error

All units are in the frame, because the target are the all addresses of the Republic of Croatia and all spatial units levels.

2.2.2. Over-coverage rate

Indicator for this survey is not applicable.

2.2.3. Measurement error

Not applicable.

2.2.4. Non-response error

Not applicable.

2.2.5. Unit non-response rate

Indicator for this survey is not applicable.

2.2.6. Item non-response rate

Indicator for this survey is not applicable.

2.2.7. Processing error

Once the data are collected in a sample survey they go through a series of processes before the final results are calculated: coding, linking, editing, weighting, etc.

In case of merging statistics with the geospatial information the errors that occur in data processing are as follows:

- addresses with wrong house numbers
- technical documentation for Census 2021 not applicable in all situations registered during the Census.

2.2.8. Imputation rate

Indicator for this survey is not applicable.

2.2.9. Model assumption error

Not applicable.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions on the [website of the Croatian Bureau of Statistics](#).

2.3.2. Data revision – practice

No revision of the 2021 census data is planned.

2.3.3. Data revision – average size

Indicator for this survey is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and Punctuality

3.1. Timeliness

Data were published on [GeoSTAT portal](#) 26 months after the Census ending.

3.1.1. Time lag – first results

Indicator for this survey is not applicable.

3.1.2. Time lag – final results

Time lag - final results is: T + 1

3.2. Punctuality

The data were published in accordance with Commission Implementing Regulation (EU) [2018/1799](#) of 21 November 2018 on the establishment of a temporary direct statistical action for the dissemination of selected topics of the 2021 population and housing census geocoded to a 1 km² grid.

3.2.1. Punctuality – delivery and publication

Delivery and publication is: 1

4. Accessibility and clarity

Results of this activity are published on the [GeoSTAT portal](#) of the Croatian Bureau of Statistics.

4.1. News release

Not applicable

4.2. On-line database

Not applicable

4.3. Micro-data access

The conditions under which certain users can have access to microdata are regulated by [The Ordinance on the conditions and manner of access and use of confidential statistical data of the Croatian Bureau of Statistics for scientific purposes](#) (OG, No. 5/23).

4.4. Documentation on methodology

Methodological guidelines [Merging of statistical data of the Census of Population, Households and Dwellings in the Republic of Croatia in 2021 with the population grid of 1 000 m](#) are published on the website of the Croatian Bureau of Statistics.

Regarding the Census itself, for the purpose of its implementation an internal document was prepared: Methodology Instructions 'Census of population, households and dwellings 2021', CBS, Zagreb, 2021.

5. Comparability over time

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability - over time

2021 Census data on population by educational attainment and population by activity are comparable with previously published data from the 2011 Census.

5.2.1. Length of comparable time series

Indicator for this survey is not applicable.

5.2.2. Reasons for break in time series

Not applicable.

5.3. Coherence – subannual and annual statistics

Indicator for this survey is not applicable.

5.4. Coherence – national accounts

Indicator for this survey is not applicable.

5.5. Coherence – administrative sources

Indicator for this survey is not applicable.

6. Cost and burden

6.1. Cost

The total census budget was approx. 23 million euros. The Census Budget was set by the Census Law and covered the years 2020, 2021 and 2022.

6.2. Burden

Not applicable.