

QUALITY REPORT FOR STATISTICAL SURVEY
Development of the Geographical Information System (GIS)
for 2022

Organisational unit: Geoinformation System Development Unit
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0. Basic information

- Purpose, goal, and subject of the survey

The objective of this project is to geographically reference statistical data collected in the Census of Population, Households and Dwellings 2021 (total population) to 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, to name but a few.

- Reference period

Multiple calendar years.

- Legal acts and other agreements

The Census has been carried out pursuant to the Act on the Census of Population, Households and Dwellings in the Republic of Croatia in 2021 (OG, Nos 25/20 and 34/21).

In order to achieve the international data comparability, the methodology applied 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 Regulations (EU) 2017/712, (EC) 763/2008 and 1201/2009 of the European Parliament and the Council, which regulate censuses of population and households in the European Union.

- Classification system

It was not necessary to apply classifications for the production of the population grid.

- Concepts and definitions

The total population refers to the population in its usual place of residence, which has been associated with a 1 km² grid cell, where the usual place of residence is located.

- Statistical units

The basic statistical observation unit is the population residing at a particular address.

- Statistical population

The statistical population refers to the total number of inhabitants at a given home address connected by a 1 x 1 km grid.

1. Relevance

1.1. Data users

External users are: DG Regio, Ministry of Regional Development and EU Funds

Internal users are: Demographic statistics.

1.1.1. User needs

DG Regio and the Ministry of Regional Development and EU Funds are expected to be the major users of prepared data.

1.1.2. User satisfaction

Not applicable.

1.2. Completeness

Data are published in accordance with the EU legislation.

1.2.1. Data completeness rate

Data completeness rate is: 100%

2. Accuracy and reliability

2.1. Sampling error

Although the 2021 Census was not carried out as a sample survey, the following can be said in terms of population grid production: The 2021 Census did not include diplomatic personnel of foreign diplomatic and consular missions in the Republic of Croatia. Likewise, neither representatives of international organisations nor members of their families residing with them in the Republic of Croatia in dwellings owned by diplomatic and military personnel were included by the Census.

2.1.1. Sampling error indicators

The indicator for this survey is not applicable.

2.2. Non-sampling error

Not applicable.

2.2.1. Coverage error

All units are included in the framework, because the aim of the observation is all addresses in the territory of the Republic of Croatia and all levels of spatial units.

2.2.2. Over-coverage rate

The indicator for this survey is not applicable.

2.2.3. Measurement errors

Not applicable.

2.2.4. Non-response errors

Not applicable.

2.2.5. Unit non-response rate

The indicator for this survey is not applicable.

2.2.6. Item non-response rate

The indicator for this survey is not applicable.

2.2.7. Processing errors

Once the data have been collected on the sample, and before the final results are calculated, a set of procedures are carried out: coding, linking, adding, weighting, etc.

In the case of linking statistical data with geospatial information, the following errors can occur during data processing:

- addresses with incorrect house numbers
- 2021 Census technical documentation is not applicable in all situations that were registered during the Census.

2.2.8. Imputation rate

The 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 revision (preliminary, final data) 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

The indicator for this survey is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

The total population for the Republic of Croatia linked to the grid was submitted to Eurostat on 27 December 2022, i.e. 13 months from the date of the Census completion.

3.1.1. Timeliness – first results

The indicator for this survey is not applicable.

3.1.2. Timeliness – final results

The indicator for this survey is not applicable.

3.2. Punctuality

Data were reported to Eurostat 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

The indicator for this survey is not applicable.

4. Accessibility and clarity

The results of this activity have been disseminated to Eurostat and are planned to be published on the GeoSTAT portal of the Croatian Bureau of Statistics.

4.1. News release

Not applicable.

4.2. Online database

Not applicable.

4.3. Microdata access

Conditions under which certain users can have access to microdata are regulated by the Ordinance on the Conditions and Manner of Use of Statistical Data for Scientific Purposes.

4.4. Documentation on methodology

The provisional web data file published on Eurostat's website (<https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography/geostat>) contains a document entitled CENSUS_INS21ES_A_HR_2021_0000 with metadata of this activity.

Concerning the Census itself, an in-house publication has been created for its carrying out, entitled Methodological Guidelines, the Census of Population, Households and Dwellings 2021, CBS, Zagreb, 2021.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability over time

Data on the total population from 2011 are linked to the grid within the project “Merging of statistical data of the Census of Population, Households and Housing in 2011 and geospatial information in the Republic of Croatia”, with which the newly-created population grid is completely comparable.

5.2.1. Length of comparable time series

The indicator for this survey is not applicable.

5.2.2. Reasons for break in time series

Not applicable.

5.3. Coherence – short-term and structural data

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 is not applicable.

6. Cost and burden

6.1. Cost

The total budget for the Census amounted to approximately 23 million euro. The budget for the population census is set out in the act of the Census and applies to 2020, 2021 and 2022. As the processing of the Census data is still ongoing, the final costs of the Census will be known at the end of 2023.

6.2. Burden

Not applicable.