



# QUALITY REPORT FOR STATISTICAL SURVEY Subnational Statistics For 2018

Organisational unit: Geoinformation System Development Unit Prepared by: Branko Crkvenčić and Petar Fijačko

November 2020

### 0. Basic information

• Purpose, goal, and subject of the survey

Subnational statistics is a project of the European Commission in which the Republic of Croatia participates with seven cities: Zagreb, Rijeka, Split, Zadar, Pula, Osijek and Slavonski Brod. There is a growing demand for an assessment of the quality of life in European cities, where a significant proportion of European Union citizens live. The subnational statistics data collection is a joint effort by the DG REGIO, the National Statistical Institutes and Eurostat to provide reliable and comparable information on selected urban areas in Member States of the European Union.

### Reference period

Calendar year

• Legal acts and other agreements

Commission Regulation (EC) No 1205/2008 of 3 December 2008 establishing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata (OJ L 326, 4.12.2008)

Commission Regulation (EC) No 976/2009 of 19 October 2009 implementing Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community as regards network services (OJ L 274, 20.10.2009.)

Commission Regulation (EU) No 268/2010 of 29 March 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council on access to the spatial data sets and services of the Member States by Community institutions and bodies under harmonized conditions (OJ L 83, 30.3.2010)

Commission Regulation (EU) No 102/2011 of 4 February 2011 amending Regulation (EU) No 1089/2010 implementing Directive 2007/2/EC of the European Parliament and of the Council on the interoperability of spatial data sets and services (OJ L 31, 5.2.2011)

Commission Regulation (EU) No 1089/2010 on the implementation of Directive 2007/2/EC of the European Parliament and of the Council on the interoperability of spatial data sets and services (OJ L 323, 8.12.2010)

Classification system

Degree of Urbanisation – DEGURBA

• Concepts and definitions

Variables: demography, social aspects, economy, training and education, environment, travel and transport, culture and recreation.

Statistical units

City

Definition of the city is based on the presence of an "urban centre", that is, a new spatial concept based on high-density population grid cells.

Step 1: All grid cells with a density of more than 1 500 inhabitants per sq. km are selected.

- Step 2: The contiguous high-density cells are then clustered, gaps are filled and only the clusters with a minimum population of 50 000 inhabitants are kept as an "urban centre".
- Step 3: All the municipalities (local administrative unit level 2 LAU 2) with at least half their population inside the urban centre are selected as candidates to become part of the city.

Step 4: The city is defined ensuring that:

- a) there is a link at the political level
- b) at least 50% of the city population lives in the urban centre
- c) at least 75% of the population of the urban centre lives in the city.

Functional urban area (FUA)

Functional urban area consists of a city and its commuting zone. Once all cities have been defined, the commuting zone can be identified based on commuting patterns using the following steps:

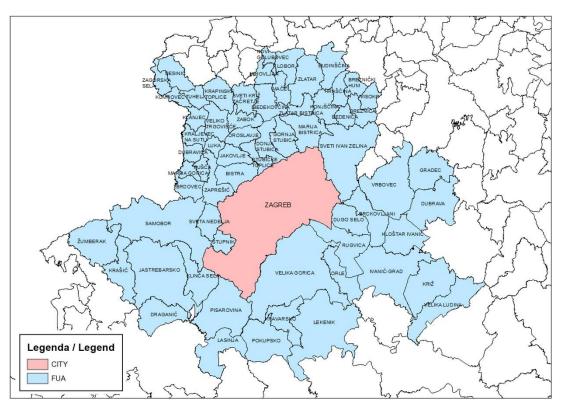
Step 1: If 15% of employed persons living in one city work in another city, these cities are treated as connected cities. In this case, the first city is a part of the functional urban area of the second city and does not have its own FUA.

Step 2: All municipalities with at least 15% of their employed residents working in a city are identified.

Step 3: Municipalities surrounded by a single functional area are included and non-contiguous municipalities are excluded.

Below are cartographically presented functional urban areas of the cities of Zagreb, Split, Rijeka, Osijek, Zadar, Slavonski Brod and Pula.

### FIG. 1: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF ZAGREB



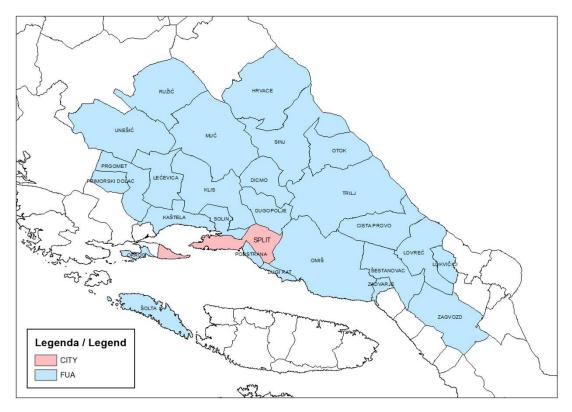
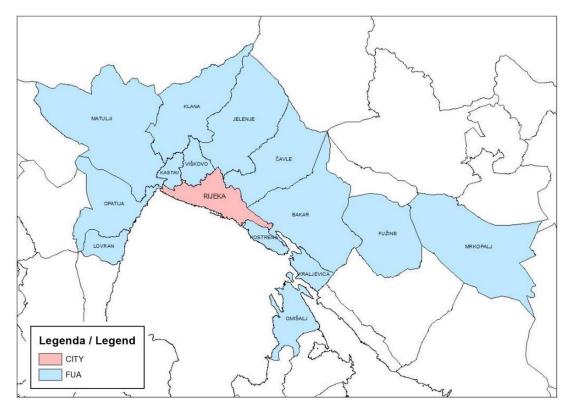


FIG. 2: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF SPLIT

FIG. 3: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF RIJEKA



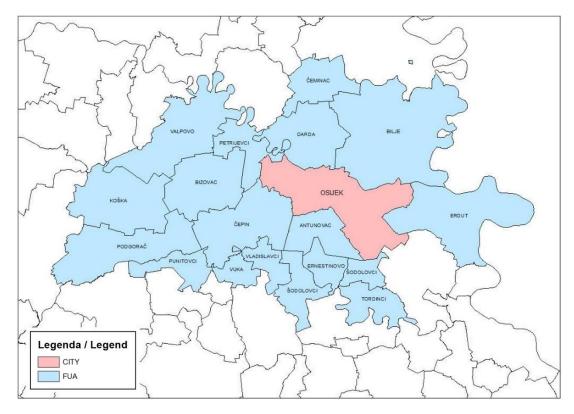
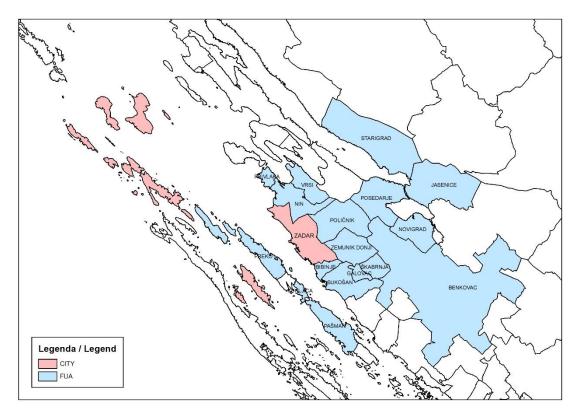


FIG. 4: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF OSIJEK

FIG. 5: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF ZADAR



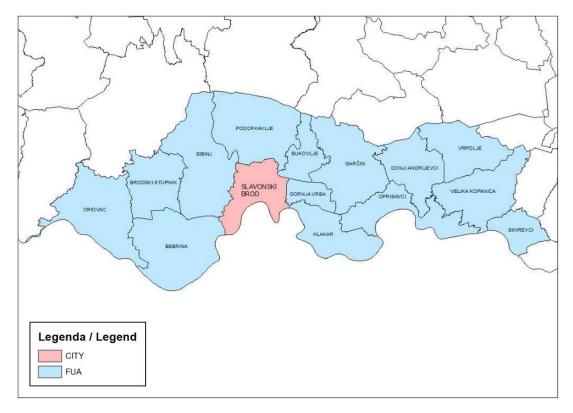
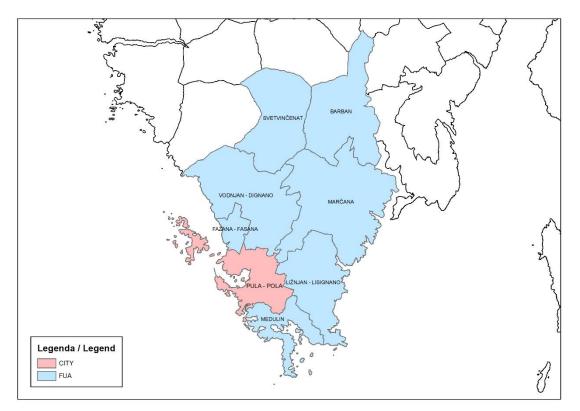


FIG. 6: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF SLAVONSKI BROD

## FIG. 7: FUNCTIONAL URBAN AREA (FUA) OF THE CITY OF PULA



Sub-city district (SCD)

For the definition of sub-city districts, certain guidelines were adopted:

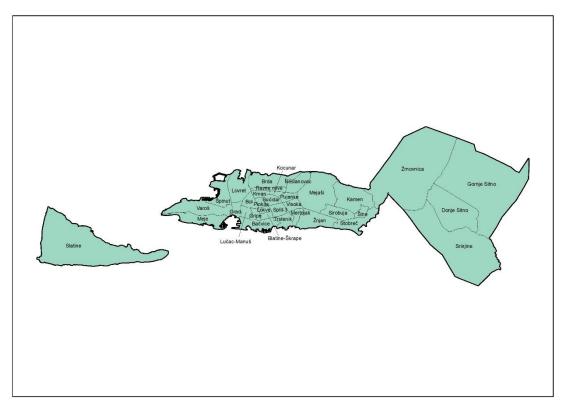
- Sub-city districts shall be defined for all capital cities and for non-capital cities with more than 250 000 inhabitants at the city level.
- The definition of sub-city districts for non-capital cities with less than 250 000 inhabitants at the city level is optional.
- Sub-city districts should have a population between 5 000 and 40 000.
- Sub-city districts shall be internally homogenous in terms of social structure and built environment as much as possible.
- In several large cities, a subdivision of cities already exists, but the units are larger than the above-mentioned thresholds in terms of the population. In that case, an additional sub-city district level can be defined, which corresponds to the established sub-city districts.
- Based on the above, sub-city districts can be defined at two levels. Sub-city district level 1 corresponds to the established sub-city districts and level 2 follows the population criterion.
- For most cities, only level 2 is defined, while for some other cities, both levels 1 and 2 are defined.
- If deemed necessary, it is possible to define a sub-city district without a territory (unknown sub-city district). This can be used for adjustments in calculating totals of all sub-city districts.
- The territory not covered by a city, but covered by a greater city can also be divided into sub-city districts. The same guidelines apply as above.

Below are cartographically presented sub-city districts of the cities of Zagreb, Split, Rijeka, Osijek, Zadar, Slavonski Brod and Pula.

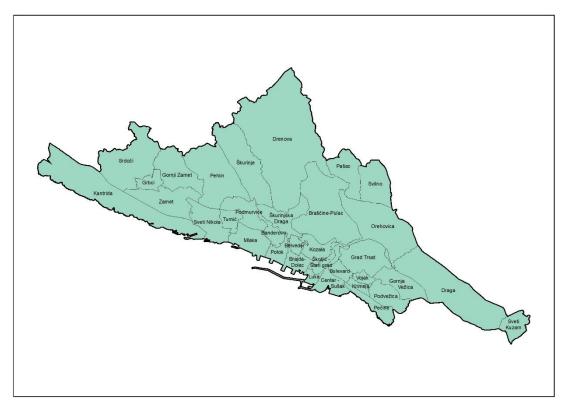
# HIG. 3. SOB-CHTEDISTRICTS (SCD) OF THE CITTOF ZAGREB

### FIG. 8: SUB-CITY DISTRICTS (SCD) OF THE CITY OF ZAGREB

# FIG. 9: SUB-CITY DISTRICTS (SCD) OF THE CITY OF SPLIT



# FIG. 10: SUB-CITY DISTRICTS (SCD) OF THE CITY OF RIJEKA



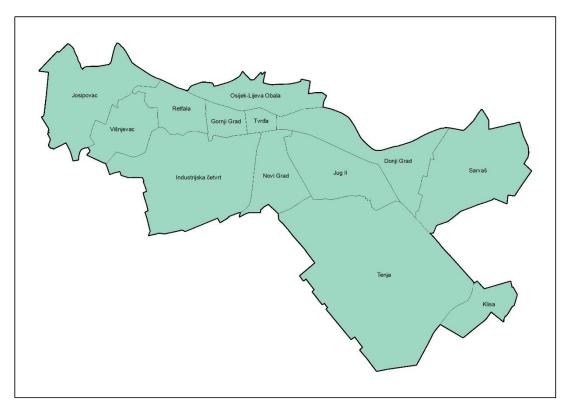
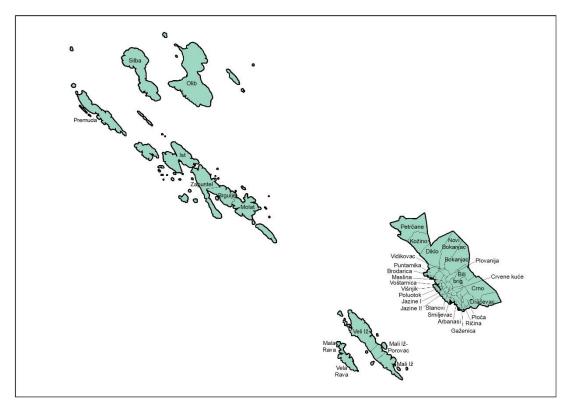


FIG. 11: SUB-CITY DISTRICTS (SCD) OF THE CITY OF OSIJEK

# FIG. 12: SUB-CITY DISTRICTS (SCD) OF THE CITY OF ZADAR



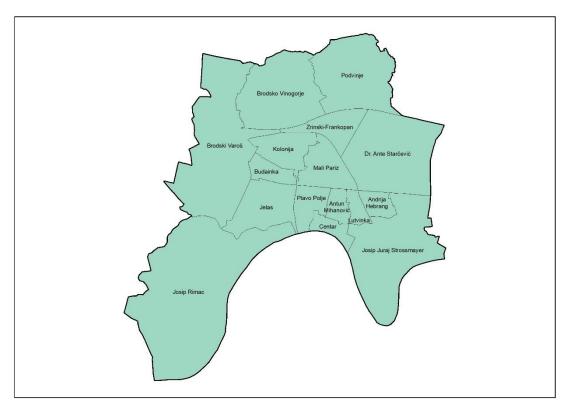
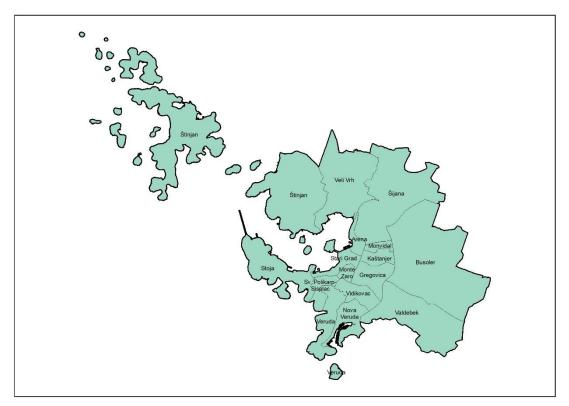


FIG. 13: SUB-CITY DISTRICTS (SCD) OF THE CITY OF SLAVONSKI BROD

FIG. 14: SUB-CITY DISTRICTS (SCD) OF THE CITY OF PULA



### • Statistical population

Population, households, enterprises, infrastructure, facilities, services

### 1. Relevance

### 1.1. Data users

Policy DGs of the European Commission

### 1.1.1 User needs

User needs for statistics are expressed in evidence-based decision making. In the context of sustainable urban development, subnational statistics aim to provide assistance and support to citizens and policy makers in creating assessments as a prerequisite for any improvement, development and future monitoring.

1.1.2 User satisfaction

Not applicable.

### 1.2. Completeness

Compared to the Eurostat guidelines, the completeness of data is not fulfilled.

1.2.1 Data completeness rate

Data completeness rate is 70%.

### 2. Accuracy and reliability

### 2.1. Sampling error

Not applicable.

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

The calculation of the non-sampling error is not applicable.

2.2.1 Coverage error

The coverage error is not applicable.

### 2.2.2 Over-coverage rate

The indicator for this survey is not applicable.

2.2.3 Measurement errors

The calculation of the measurement error is not applicable.

2.2.4 Non-response errors

The non-response error is 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

The processing error is not applicable.

2.2.8 Imputation rate

The indicator for this survey is not applicable.

2.2.9 Editing rate

The indicator for this survey is not applicable.

2.2.10 Hit rate

The indicator for this survey is not applicable.

2.2.11 Model assumption error

The model assumption error is not applicable.

### 2.3. Data revision

2.3.1 Data revision - policy

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

2.3.2 Data revision - practice

Preliminary results are not published in the survey; therefore, there are no data revisions.

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

3.1.1 Time lag – first results

The indicator for this survey is not applicable.

3.1.2 Time lag – final results

The indicator for this survey is not applicable.

### 3.2. Punctuality

3.2.1 Punctuality – delivery and publication

The indicator for this survey is not applicable.

### 4. Accessibility and clarity

Not applicable.

### 4.1. News release

The data are published on the website of the Croatian Bureau of Statistics under the title Statistical Databases at <a href="https://www.dzs.hr/Eng/system/stat\_databases.htm">https://www.dzs.hr/Eng/system/stat\_databases.htm</a>.

### 4.2. Other publications

Eurostat website: https://ec.europa.eu/eurostat/web/cities/publications.

### 4.3. On-line database

PC-AXIS database

### 4.4. 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.

### 4.5. Documentation on methodology

The Methodological Manual on City Statistics is available at <a href="https://ec.europa.eu/eurostat/documents/3859598/8012444/KS-GQ-17-006-EN">https://ec.europa.eu/eurostat/documents/3859598/8012444/KS-GQ-17-006-EN</a> <a href="https://www.n.gov/

### 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 is 6.

5.2.2 Reasons for break in time series

Not applicable.

### 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

The costs associated with data collection and production amount to 23 510 euros.

### 7.2. Burden

Not applicable.