

QUALITY REPORT FOR STATISTICAL SURVEY
Labour Force Survey (LFS)
For 2021

Organisational unit: Living Conditions and Economic Activity
of Population Statistics Department

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0. Basic information

- Purpose, goal, and subject of the survey

The Labour Force Survey measures the economic activity of population in a short survey period of one week. The survey collects demographic and educational characteristics of household members by sex, characteristics of the main and secondary jobs as well as of past jobs a person did, employment status, hours of work, working time, activity, occupation, characteristics of unemployed and inactive persons.

- Reference period

Data are collected and published for each quarter in a year.

- Legal acts and other agreements

The Labour Force Survey is carried out in line with the following national legal acts:

- Official Statistics Act (NN, No. 25/20)
- Programme of Statistical Activities of the Republic of Croatia 2021 – 2027 (NN, No. 29/22)
- Annual Implementation Plan of Statistical Activities of the Republic of Croatia.

The Labour Force Survey is carried out in line with the following regulations:

The General Regulation

- Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019 establishing a common framework for European statistics relating to persons and households, based on data at individual level collected from samples, amending Regulations (EC) No 808/2004, (EC) No 452/2008 and (EC) No 1338/2008 of the European Parliament and of the Council, and repealing Regulation (EC) No 1177/2003 of the European Parliament and of the Council and Council Regulation (EC) No 577/98

Implementing Regulations

- Commission Implementing Regulation (EU) 2019/2240 of 16 December 2019 specifying the technical items of the data set, establishing the technical formats for transmission of information and specifying the detailed arrangements and content of the quality reports on the organisation of a sample survey in the labour force domain in accordance with Regulation (EU) 2019/1700 of the European Parliament and of the Council
- Commission Delegated Regulation (EU) 2020/256 of 16 December 2019 supplementing Regulation (EU) 2019/1700 of the European Parliament and of the Council by establishing a multiannual rolling planning
- Commission Delegated Regulation (EU) 2020/257 of 16 December 2019 supplementing Regulation (EU) 2019/1700 of the European Parliament and of the Council by specifying the number and the title of the variables for the labour force domain
- Commission Implementing Regulation (EU) 2019/2180 of 16 December 2019 specifying the detailed arrangements and content for the quality reports pursuant to Regulation (EU) 2019/1700 of the European Parliament and of the Council
- Commission Implementing Regulation (EU) 2019/2181 of 16 December 2019 specifying technical characteristics as regards items common to several datasets pursuant to Regulation (EU) 2019/1700 of the European Parliament and of the Council

- Commission Implementing Regulation (EU) 2019/2241 of 16 December 2019 describing the variables and the length, quality requirements and level of detail of the time series for the transmission of monthly unemployment data pursuant to Regulation (EU) 2019/1700 of the European Parliament and of the Council.

Regulations on the use of classifications in the EU-LFS

- Commission Regulation (EU) No 317/2013 of 8 April 2013 amending the Annexes to Regulations (EC) No 1983/2003, (EC) No 1738/2005, (EC) No 698/2006, (EC) No 377/2008 and (EU) No 823/2010 as regards the International Standard Classification of Education. This Regulation prescribes the use of ISCED 2011 in the Labour Force Survey from 2014 onwards.
- Commission Regulation (EC) No 1022/2009 of 29 October 2009 amending Regulations (EC) No 1738/2005, (EC) No 698/2006 and (EC) No 377/2008 as regards the International Standard Classification of Occupations (ISCO). This Regulation prescribes the use of ISCO-08 in the Labour Force Survey from 2011 onwards.
- Commission Regulation (EC) No 973/2007 of 20 August 2007 amending certain EC Regulations on specific statistical domains implementing the statistical classification of economic activities NACE Revision 2; Article 9 prescribes the use of NACE Revision 2 in the Labour Force Survey from 2008 onwards.

- Classification system

National Classification of Activities, 2007 version – NKD 2007

International Standard Classification of Education

Code List of Countries

International Standard Classification of Occupations

Citizenship

Degree of Urbanisation

National Classification of Activities, 2010 version

National Classification of Spatial Units for Statistics 2021 – statistical regions at level 2

- Statistical concepts and definitions

The most important variables observed in the Labour Force Survey are the following: household, working-age population, persons in employment, employees, self-employed persons, unpaid family workers, unemployed persons, labour force, inactive population, activity rate, employment rate and unemployment rate.

A household is a small economic group of persons that is usually, although not always, a group of relatives living together and sharing costs of living (housing, food, etc.).

Working-age population comprises persons aged 15 years and over.

Persons in employment are those aged 15 – 89 years who did any work for payment in cash or in kind during the reference week. They include all employees, self-employed persons and family members helping in a business entity owned by a member of their family or in some other kind of a gainful activity, as well as persons who worked on contract basis of any kind for direct payment in cash or in kind. Therefore, the Survey covers all persons who worked at least one hour in the reference period no matter what their formal status or payment arrangements. Accordingly, a retired person, a student or a housewife can also be classified as a person in employment in the Labour Force Survey.

Employed persons also include all employees or the self-employed who were temporarily absent from work in the reference week but intend to return to work for the same employer or in the same activity after the reasons for absence cease to exist.

Persons in paid employment (employees) are those who work for an employer in the government or private sector and are paid for their work in cash or in kind.

Self-employed persons are employers who run an enterprise and employ one or more employees, as well as own-account workers who have no employees.

Unpaid family workers are those who are not in paid employment or self-employed but work in an enterprise owned by a family member and do not receive any payment for their work. These can also be relatives not sharing the same household as the owner of the family enterprise.

Unemployed persons are those aged 15 – 74 meeting the following criteria:

- a) in the reference period did not work for payment in cash or in kind
- b) were actively seeking work during four weeks prior to the Census
- c) were currently available for work within the next two weeks.

Persons who have found a job starting in the future are also included in this group.

The currently active population or the labour force refers to employed and unemployed persons classified by economic activity in the reference week.

The inactive population includes persons up to 15 years of age, as well as persons within the working-age population who are neither in paid employment nor unemployed.

Activity rate represents the labour force as a percentage of the working-age population.

Employment rate represents employed persons as a percentage of the working-age population.

Unemployment rate represents unemployed persons as a percentage of labour force.

- Statistical units

Private households, working-age population – persons aged 15 and over.

- Statistical population

The target population covered by the Survey is determined by the presence of interviewed household members. The definition of presence is based on the "de facto principle", which excludes household members living at some other address where they work or go to school for more than 12 months, as well as temporarily present members of another household. The Survey does not cover collective households, such as homes, convents, etc.

1. Relevance

1.1. Data users

Internal users – National Accounts Department

National users – Government of the Republic of Croatia; ministries; Institute of Economics; faculties; the media; scientists; labour market analysts

International users – UN, ILO, IMF, World Bank

1.1.1. User needs

The standard prescribed by Eurostat meets the needs of national and international users. Scientific and research institutes use survey results for national and international scientific and research projects and works in order to develop recommendations to relevant institutions aimed at improving the status of the labour force, especially of unemployed persons on the territory of the Republic of Croatia. The Croatian Employment Service uses survey results to determine the necessary improvements in their field of work, for example, in the area of labour market. Eurostat uses the survey data for a systematic and user-oriented presentation of internationally comparable indicators of the Labour Force Survey (for all EU Member States).

1.1.2. User satisfaction

The first user satisfaction survey was carried out in 2013, and the second one in 2015. The survey results can be found on the website of the Croatian Bureau of Statistics.

1.2. Completeness

The survey covers all variables prescribed by Eurostat's regulations and guidelines. Data are collected and published in line with Eurostat regulation.

1.2.1. Data completeness rate

100%

2. Accuracy and reliability

2.1. Sampling error

It refers to a random sample selection as well as to precision measures of the most important indicators of the economic activity of population, such as standard estimation error, variation coefficient and confidence interval.

2.1.1. Sampling error indicators

Estimations and precision measures of the most important indicators of economic activity of the population, first quarter of 2021.

%

	Estimation	Standard estimation error	Confidence interval (95%)	Coefficient of variation
Activity rate	51.5	0.7	[50.1; 53.0]	1.4
Employment rate	46.4	0.8	[44.9; 48.0]	1.7
Unemployment rate	9.9	0.7	[8.6; 11.2]	6.7

Estimations and precision measures of the most important indicators of economic activity of the population, second quarter of 2021.

%

	Estimation	Standard estimation error	Confidence interval (95%)	Coefficient of variation
Activity rate	52.2	0.8	[50.7; 53.7]	1.4
Employment rate	48.1	0.8	[46.6; 49.6]	1.6
Unemployment rate	8.0	0.6	[6.8; 9.1]	7.5

Estimations and precision measures of the most important indicators of economic activity of the population, third quarter of 2021.

%

	Estimation	Standard estimation error	Confidence interval (95%)	Coefficient of variation
Activity rate	51.8	0.8	[50.3; 53.4]	1.5
Employment rate	48.6	0.8	[47.1; 50.1]	1.6
Unemployment rate	6.2	0.5	[5.3; 7.2]	7.7

Estimations and precision measures of the most important indicators of economic activity of the population, fourth quarter of 2021.

%

	Estimation	Standard estimation error	Confidence interval (95%)	Coefficient of variation
Activity rate	51.5	0.7	[50.1; 53.0]	1.4
Employment rate	48.3	0.7	[46.9; 49.7]	1.5
Unemployment rate	6.4	0.5	[5.5; 7.3]	7.1

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.

2.2.1. Coverage error

Data from the Census of Population, Households and Dwellings in 2011 were used as a sample frame. Deviation from the sample selection frame causes coverage errors to occur, namely the over-coverage error and the under-coverage error.

2.2.2. Over-coverage rate

Over-coverage rate:

							%
Domain	Domain value	Comment	Q1	Q2	Q3	Q4	Average
Croatia	Croatia		12.45	11.34	9.95	9.81	10.89
County	Zagreb		4.72	5.58	6.11	3.91	5.08
County	Krapina-Zagorje		14.78	12.5	7.95	6.57	10.45
County	Sisak-Moslavina		6.57	8.26	10.16	6.1	7.77
County	Karlovac		13.13	6.03	6.31	16.81	10.57
County	Varaždin		9.29	9.74	7.23	4.4	7.67
County	Koprivnica-Križevci		6.02	9.87	6.44	1.98	6.08
County	Bjelovar-Bilogora		7.8	10.0	11.26	8.23	9.32
County	Primorje-Gorski kotar		20.03	21.19	18.84	17.44	19.38
County	Lika-Senj		6.52	7.89	3.51	2.13	5.01
County	Virovitica-Podravina		10.34	10.06	8.16	5.15	8.43
County	Požega-Slavonia		13.0	12.41	11.59	14.49	12.87
County	Slavonski Brod-Posavina		8.94	8.71	9.85	8.76	9.07
County	Zadar		19.12	17.73	16.39	12.6	16.46
County	Osijek-Baranja		14.95	9.84	8.06	12.72	11.39
County	Šibenik-Knin		18.03	13.24	11.42	13.1	13.95
County	Vukovar-Srijem		17.32	17.41	14.79	11.59	15.28
County	Split-Dalmatia		14.63	10.99	10.8	13.23	12.41
County	Istria		11.08	13.62	9.59	11.83	11.53
County	Dubrovnik-Neretva		2.44	4.35	4.11	5.22	4.03
County	Međimurje		10.67	9.91	5.19	6.44	8.05
County	City of Zagreb		11.8	10.32	8.78	7.94	9.71

2.2.3. Measurement error

Errors made by interviewers (e.g. at data entry) are possible, but they have been minimised by providing regular trainings, pilot tests, etc. In addition, data verification is integrated into the Blaise entry programme (checks of minimum and maximum values, logical correlation between particular questions etc.). During data processing, a detailed data verification of all answers is done, e.g. verification of entered values by ranges, checks of possible answers, logical and computational checks of activities and occupations, logical checks of data on economic activity, status in employment, educational attainment etc.

2.2.4. Non-response errors

The non-response errors show how many statistical units did not answer the questions in the questionnaire. In 2021, the non-response rate amounted to 42.6%.

2.2.5. Unit non-response rate

Unweighted non-response rate:

							%
Domain	Domain value	Comment	Q1	Q2	Q3	Q4	Average
Croatia	Croatia		41.62	43.34	43.97	41.39	42.58
County	Zagreb		35.12	41.77	41.64	40.11	39.66
County	Krapina-Zagorje		28.76	32.9	33.33	35.55	32.64
County	Sisak-Moslavina		52.22	52.0	43.07	45.85	48.29
County	Karlovac		36.58	33.94	41.35	41.97	38.46
County	Varaždin		18.85	20.14	21.69	23.03	20.93
County	Koprivnica-Križevci		35.25	33.81	35.32	33.33	34.43
County	Bjelovar-Bilogora		24.86	20.56	20.81	18.83	21.27
County	Primorje-Gorski kotar		40.67	47.21	50.48	45.42	45.95
County	Lika-Senj		13.95	17.14	15.45	7.61	13.54
County	Virovitica-Podravina		56.15	49.65	51.11	60.47	54.35
County	Požega-Slavonia		53.27	54.17	49.18	44.07	50.17
County	Slavonski Brod-Posavina		35.89	31.95	31.09	32.8	32.93
County	Zadar		30.06	28.98	30.72	33.86	30.91
County	Osijek-Baranja		42.19	43.27	49.32	41.07	43.96
County	Šibenik-Knin		38.75	47.37	56.19	53.27	48.9
County	Vukovar-Srijem		28.82	28.35	23.61	20.0	25.2
County	Split-Dalmatia		50.06	53.52	59.73	52.17	53.87
County	Istria		40.04	42.12	35.66	28.35	36.54
County	Dubrovnik-Neretva		66.94	60.0	52.86	59.17	59.74
County	Međimurje		40.21	42.49	49.26	44.04	44.0
County	City of Zagreb		51.24	54.64	54.65	52.05	53.15

2.2.6. Item non-response rate

The indicator is not applicable for this survey.

2.2.7. Processing error

During data processing, a detailed data verification of all answers is done, e.g. checks of possible answers, logical and computational checks of the status in employment, logical checks of data on the status in economic activity and codes of activities and occupations, logical checks of data on educational attainment, working time, hours of work etc.

2.2.8. Imputation rate

Unweighted non-response rate for certain variables:

Variable	Domain	Domain value	Comment	Q1	Q2	Q3	Q4	Average
INCGROSS	Croatia	Croatia		29.0	29.0	29.0	29.0	29.0

%

2.2.9. Model assumption error

The indicator is not applicable for this survey.

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

Provisional data are not published in the survey and therefore there are no data revisions. Following the 2021 Census of Population, Households and Dwellings in the Republic of Croatia, the Labour Force Survey data are revised according to the results of the Census.

2.3.3. Data revision – average size

The indicator is not applicable for this survey.

2.4. Seasonal adjustment

The indicator is not applicable for this survey.

3. Timeliness and punctuality

3.1. Timeliness

Final data are published in July for the first quarter, in October for the second quarter, in December for the third quarter of the current year, and in March for the fourth quarter of the previous year, as specified in the Calendar of Statistical Data Issues.

3.1.1. Time lag – first results

The indicator is not applicable for this survey.

3.1.2. Time lag – final results

Domain	Domain value	Comment	Q1	Q2	Q3	Q4
Croatia	Croatia		T + 14.5 weeks	T + 14.5 weeks	T + 12 weeks	T + 12 weeks

3.2. Punctuality

The publication date of the First Release for the first quarter of 2021 was postponed from 25 June 2021 to 14 July 2021 due to the implementation of the new Regulation (EU) 2019/1700; the time lag is 19 days.

The publication date of the First Release for the second quarter of 2021 was postponed from 24 September 2021 to 13 October 2021 due to the implementation of the new Regulation (EU) 2019/1700; the time lag is 19 days.

Other planned publications were published in a timely manner as specified in the Calendar of Statistical Data Issues.

3.2.1. Punctuality – delivery and publication

Delivery and publication: 0.5.

4. Accessibility and clarity

Data are available on the website of the Croatian Bureau of Statistics and in printed form. In addition, data are also available in a secure room and on CD (on user request).

4.1. News releases

First Release 9.2.6. "Labour Force in the Republic of Croatia"

4.2. Online database

The indicator is not applicable for this survey.

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. Microdata are available on user requests with the consent of the Committee on Statistical Confidentiality and the Director General of the Croatian Bureau of Statistics, on CD, in a secure room since 2015 and via remote access since 2016.

4.4. Documentation on methodology

Methodological guidelines for the Labour Force Survey are available on the website of the Croatian Bureau of Statistics, under section Statistical Data – Publications. In addition, methodological guidelines and the questionnaire for the Labour Force Survey are available on the Eurostat website.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

The indicator is not applicable for this survey.

5.2. Comparability over time

The Census of Population, Households and Dwellings 2001 was used as a sample frame for the implementation of the Labour Force Survey and the assessment of all categories of the population from 2007 to 2014. Since 2014, the Census of Population, Households and Dwellings 2011 has been used as a sample frame. Data from 2007 to 2014 were completely comparable. Due to the change of the sample frame in 2014, there was a kind of interruption in the series, but in 2014, the data for the period from 2007 up to 2014 were calibrated (based on the Census of Population, Households and Dwellings 2011). Therefore, the calibrated data for these previous years are still comparable and coherent.

5.2.1. Length of comparable time series

Length of comparable time series is:

Domain	Domain value	Comment	Q1	Q2	Q3	Q4
Croatia	Croatia		57	58	59	60

5.2.2. Reasons for break in time series

Use of the new sample frame from the Census of Population, Households and Dwellings 2011 since 2014.

5.3. Coherence – subannual and annual statistics

The indicator is not applicable for this survey.

5.4. Coherence – national accounts

Coherence – national accounts is:

Statistics	Domain	Domain value	Comment	Q1	Q2	Q3	Q4	Average
Persons in employment, total	Croatia	Croatia	National Accounts take over the total number of persons in employment from the Labour Force Survey.	1	1	1	1	

5.5. Coherence – administrative sources

Coherence – administrative sources is:

Statistics	Domain	Domain value	Comment	Q1	Q2	Q3	Q4	Average
Total population	Croatia	Croatia	Data are completely harmonised with data from the Population Statistics Department.	1	1	1	1	1
Persons in employment, total	Croatia	Croatia	Data are annual, for 2021. Comparison with administrative sources.	0.065	0.065	0.065	0.065	0.065
Unemployed	Croatia	Croatia	Data are annual, for 2021. Comparison with administrative sources.	0.01	0.01	0.01	0.01	0.01
Active population	Croatia	Croatia	Data are annual, for 2021. Comparison with administrative sources.	0.061	0.061	0.061	0.061	0.061

6. Cost and burden

6.1. Cost

The total costs that include compensations for service contracts for external and CATI interviewers who participated in the collection of data in 2021 amounted to 1 559 000 kuna. The above amount does not include the costs of interviewers who are employees of the Croatian Bureau of Statistics, and neither the costs of controllers, the preparation and processing of data.

6.2. Burden

The interviewing of a single household took 15 minutes on average. In 2021, about 240 990 minutes were spent on interviewing households that gave their consent to be interviewed for the survey, which makes approximately seven minutes per person.