REPUBLIC OF CROATIA

CROATIAN BUREAU OF STATISTICS

QUALITY REPORT FOR STATISTICAL SURVEY
Labour Force Survey (LFS)
for 2018

Organisation 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 observing period of one week. The survey collects demographic and educational characteristics of household members by sex, characteristics of a main and secondary jobs as well as of a past job 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 of a year.

- Legal acts and other agreements

The Labour Force Survey is carried out in line and on the basis of the following national legal acts:

- Official Statistics Act (OG, Nos 103/03, 75/09, 59/12 and 12/13 – consolidated text)
- Programme of Statistical Activities of the Republic of Croatia 2018 – 2020 (OG, No. 31/18)
- Annual Implementation Plan of Statistical Activities of the Republic of Croatia.

Furthermore, the Labour Force Survey is carried out on the basis of the following regulations:

General regulations

- Regulation (EC) No 577/98 of 9 March 1998 on the organisation of a labour force sample survey in the Community
- Regulation (EC) No 545/2014 of the European Parliament and of the Council of 15 May 2014 amending Council Regulation (EC) No 577/98
- Regulation (EC) No 596/2009 of the European Parliament and of the Council of 18 June 2009 amending Council Regulation (EC) No 577/98
- Regulation (EC) No 1372/2007 of the European Parliament and of the Council of 23 October 2007 amending Council Regulation (EC) No 577/98
- Regulation (EC) No 2257/2003 of the European Parliament and of the Council of 25 November 2003 amending Council Regulation (EC) No 577/98
- Regulation (EC) No 1991/2002 of the European Parliament and of the Council of 8 October 2002 amending Council Regulation (EC) No 577/98

Implementing regulations

- Commission Regulation (EC) No 377/2008 of 25 April 2008 implementing Council Regulation (EC) No 577/98 as regards the codification to be used for data transmission from 2009 onwards, the use of a sub-sample for the collection of data on structural variables and the definition of the reference quarters
- Commission Regulation (EC) No 430/2005 of 15 March 2005 implementing Council Regulation (EC) No 577/98 concerning the codification to be used for data transmission from 2006 onwards and the use of a sub-sample for the collection of data on structural variables
- Commission Regulation (EC) No 1897/2000 of 7 September 2000 implementing Council Regulation (EC) No 577/98 concerning the operational definition of unemployment

- Commission Regulation (EC) No 1575/2000 of 19 July 2000 implementing Council Regulation (EC) No 577/98 concerning the codification to be used for data transmission from 2001 onwards
- Amendment to the Commission Regulation (EC) No 1575/2000
- Commission Regulation (EC) No 1571/98 of 20 July 1998 implementing Council Regulation (EC) No 577/98. Annex I of the Regulation defines the reference quarters to be applied in the case of a continuous survey, while Annex IV defines the codification to be used for data transmission for the years 1998 and 2000

Regulations on the use of classifications in the EU-LFS

- Commission Regulation (EU) No 317/2013 of 8 April 2013 amending Regulation (EC) No 1983/2003, Regulation (EC) No 1738/2005, Regulation (EC) No 698/2006, Regulation (EC) No 377/2008 and Regulation (EU) No 823/2010 concerning the international standard classification of education. This Regulation prescribes the use of ISCED 2011 in the Labour Force Survey from 2014 onwards
- Regulation (EC) No 1022/2009 of 29 October 2009 amending Regulation (EC) No 1738/2005, Regulation (EC) No 698/2006 and Regulation (EC) No 377/2008 concerning 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, Version 2007 − NKD 2007
International Standard Classification of Education
Code List of Countries
International Standard Classification of Occupations
Citizenship
Degree of Urbanisation
National Classification of Occupations, 2010 version
Common classification of territorial units for statistics (NUTS)

- 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 all persons aged 15 years and over.

Persons in employment are those who were engaged in any work for payment in cash or 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 kind. Therefore, the survey covers all persons who worked for at least one hour in the reference week, irrespective of their formal status or means of payment. In this way, a retired person, a student or a housewife can also be classified as employed. Employed persons also include all employees or self-employed persons who were temporarily absent from work in the reference week, but who intend to return to work for the same employer or in the same activity after the reasons for the absence discontinued.

Employees are those who work for an employer in the state or private sector and are paid for their work in cash or kind.

Self-employed persons are employers who run a business entity 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-employment, but work in a business entity owned by a family member and do not receive payment for their work.

Unemployed persons are those who meet the following three criteria:

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

Those who have found a job to start in the future are also included in this group.

Currently active population or the labour force consists of persons whose activity status in the reference week is either employed or unemployed.

Inactive population consists of persons under the age of 15 as well as those of working age who are neither employed nor unemployed.

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

Employment rate represents persons in employment as a percentage of working-age population.

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

- Statistical units

Consist of private households and working-age population – persons aged 15 years or over.

- Statistical population

The target population covered by the survey is determined by the presence of interviewed household members in the household. The definition of presence is based on the "de facto" principle, which excludes household members living at some other address where they live during their work or education for more than 12 months and do not include temporarily present members of another household. The survey does not cover collective households such as student 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; media; scientists; labour market analysts
International users – UN, ILO, IMF, World Bank

1.1.1 User needs

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 use survey results to determine the necessary improvements in their field of work, for example, in the area of labour market.
Eurostat use survey data for a systematic and user-oriented presentation of internationally comparable indicators on the Labour Force Survey (for all EU Member States).

1.1.2 User satisfaction

The first survey on user satisfaction was conducted in 2013, and the second one in 2015. The results of this survey can be consulted on the website of the Croatian Bureau of Statistics www.dzs.hr

1.2. Completeness

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

1.2.1 Data completeness rate

Data completeness rate is 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 2018

%

	Estimation	Standard estimation error	Confidence interval (95%)	Variation coefficient
Activity rate	51.0	0.7	[49.5; 52.4]	1.5
Employment rate	45.7	0.8	[44.1; 47.3]	1.7
Unemployment rate	10.3	0.7	[9.0; 11.7]	6.5

Estimations and precision measures of the most important indicators of economic activity of the population, second quarter of 2018

%

	Estimation	Standard estimation error	Confidence interval (95%)	Variation coefficient
Activity rate	51.2	0.7	[49.8; 52.5]	1.3
Employment rate	47.3	0.7	[45.9; 48.7]	1.5
Unemployment rate	7.5	0.5	[6.6; 8.5]	6.7

Estimations and precision measures of the most important indicators of economic activity of the population, third quarter of 2018

%

	Estimation	Standard estimation error	Confidence interval (95%)	Variation coefficient
Activity rate	51.6	0.7	[50.3; 53.0]	1.3
Employment rate	47.9	0.7	[46.5; 49.2]	1.5
Unemployment rate	7.3	0.5	[6.4; 8.3]	6.6

Estimations and precision measures of the most important indicators of economic activity of the population, fourth quarter of 2018

%

	Estimation	Standard estimation error	Confidence interval (95%)	Variation coefficient
Activity rate	51.0	0.7	[49.7; 52.3]	1.3
Employment rate	46.6	0.7	[45.2; 48.0]	1.5
Unemployment rate	8.6	0.6	[7.5; 9.6]	6.5

2.1.2   Bias due to sample selection process

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.

2.2.1   Coverage error

Data from the Census of Population, Households and Dwellings in 2011 were used as a sample frame. Deviations from the sample selection frame lead to coverage errors, specifically to over-coverage errors and under-coverage errors.

2.2.2   Over-coverage rate

Over-coverage rate is:

%

Domain	Domain value	Q1	Q2	Q3	Q4	On average
Croatia		11.52	10.68	12.91	14.55	12.42
County	Bjelovar-Bilogora	8.43	8.82	10	13.53	10.20
County	Slavonski Brod-Posavina	19.36	20.39	18.4	18.08	19.06
County	Dubrovnik-Neretva	5.47	3.6	4.8	7.69	5.39
County	City of Zagreb	5.12	5.64	7.8	7.98	6.64
County	Istria	8.1	7.5	9.79	11.74	9.28
County	Karlovac	20.7	11	11	15.5	14.55
County	Koprivnica-Križevci	10.9	10	10	12.94	10.96
County	Krapina-Zagorje	6.12	13.8	9.52	5.5	8.74
County	Lika-Senj	12.29	9.09	11.82	13.33	11.63
County	Međimurje	17.04	8.23	11.88	16.47	13.41
County	Osijek-Baranja	15.48	14.8	14.79	16.96	15.51
County	Požega-Slavonia	14.91	7	14.44	17	13.34
County	Primorje-Gorski kotar	13.87	13.48	15.07	19.26	15.42
County	Sisak-Moslavina	10.92	9.62	18.52	19.62	14.67
County	Split-Dalmatia	13.2	14.33	17.36	19.57	16.12
County	Šibenik-Knin	17.33	16.16	17.6	20	17.77
County	Varaždin	11.77	7.09	16.4	16.15	12.85
County	Virovitica-Podravina	11.4	17.86	21.33	19.29	17.47
County	Vukovar-Sirmium	13.7	14.64	19.31	16.55	16.05
County	Zadar	15.62	10.77	13.5	18.72	14.65
County	Zagreb	6.19	4.19	4.76	5.35	5.12

2.2.3   Measurement errors

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 minimal 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 to the questions in the questionnaire. In 2018, the non-response rate was 42.5%.

2.2.5 Unit non-response rate

Unweighted non-response rate is:

%

Domain	Domain value	Q1	Q2	Q3	Q4	On average
Croatia		44.18	42.24	42.38	40.81	42.50
County	Bjelovar-Bilogora	31.58	27.74	16.34	14.97	22.66
County	Slavonski Brod-Posavina	32.5	30.92	31.86	26.29	30.39
County	Dubrovnik-Neretva	70.67	67.22	65.13	60.83	65.96
County	City of Zagreb	52.6	53.88	54.13	48.55	52.29
County	Istria	46.57	43.69	48.11	43.84	45.55
County	Karlovac	43.95	49.44	58.43	50.89	50.68
County	Koprivnica-Križevci	28.78	24.18	28.1	27.03	27.02
County	Krapina-Zagorje	28.26	13.81	16.32	25.93	21.08
County	Lika-Senj	17	12	12.37	2.88	11.06
County	Međimurje	53.42	54.49	34.75	34.51	44.29
County	Osijek-Baranja	38.2	30.56	34.23	35.6	34.65
County	Požega-Slavonia	40.21	37.63	32.47	28.92	34.81
County	Primorje-Gorski kotar	50.27	44.22	47.1	49.91	47.88
County	Sisak-Moslavina	37.74	34.43	36.36	44.02	38.14
County	Split-Dalmatia	55.71	53.96	51.2	47.84	52.18
County	Šibenik-Knin	53.66	53.67	57.28	60.5	56.28
County	Varaždin	22.86	26.46	22.49	18.35	22.54
County	Virovitica-Podravina	26.73	27.83	34.75	32.74	30.51
County	Vukovar-Sirmium	37.34	34.73	30.34	35.12	34.38
County	Zadar	42.42	38.22	33.53	35.96	37.53
County	Zagreb	29.02	33.98	39	35.87	34.47

2.2.6 Item non-response-rate

Unweighted item non-response rate:

%

Variable	Domain	Domain value	Q1	Q2	Q3	Q4	On average
HWOVERP	Croatia		97.4	97.3	97.7	98.7	97.78
HWWISH	Croatia		94.2	94.7	94.9	95.3	94.78

2.2.7 Processing errors

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

Indicator for this survey is not applicable.

2.2.9 Editing rate

Indicator for this survey is not applicable.

2.2.10 Hit rate

Indicator for this survey is not applicable.

2.2.11 Model assumption error

Indicator for this survey 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 the web site of the Croatian Bureau of Statistics www.dzs.hr

2.3.2 Data revision – practice

Provisional figures are not published in this survey and therefore regular revisions are not planned.

2.3.3 Data revision – average size

Indicator for this survey is not applicable.

2.4. Seasonal adjustment

Seasonal adjustment is not available for this survey for the time being.

3. Timeliness and Punctuality

3.1. Timeliness

3.1.1 Timeliness – first results

Timeliness of first results is T + 12 weeks.

3.1.2 Time lag – final results:

Timeliness of final results is T + 15 weeks.

3.2. Punctuality

3.2.1   Punctuality – delivery and publication

Delivery and publication is: 1

4. Accessibility and clarity

Data are available on the internet and in printed form. In addition, data are also available in the Safe Room and on CD (on user's request).

4.1. News release

First Release 9.2.6/1.   "Labour Force of the Republic of Croatia"
First Release 9.2.6/2.   "Labour Force of the Republic of Croatia"
First Release 9.2.6/3.   "Labour Force of the Republic of Croatia"
First Release 9.2.6/4.   "Labour Force of the Republic of Croatia"
First Release 9.2.7.   "Labour Force of the Republic of Croatia – Annual Average"

4.2. Other publications

Women and Men in Croatia; Croatia in Figures; Statistical Information; Statistical Reports − Labour Force Survey Results, Croatia − Europe; Statistics in Line

4.3. On-line database

On-line databases can be found on the Eurostat's web pages
http://ec.europa.eu/eurostat/data/database

4.4. Micro-data 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 (OG, No. 137/13). Microdata are available on users' requests with the consent of the Statistical Confidence Committee and the Director General of the Croatian Bureau of Statistics, on CD, in the Safe Room since 2015 and through remote access since 2016.

4.5. Documentation on methodology

The notes on methodology for the Labour Force Survey are available within Released Data on the website of the Croatian Bureau of Statistics www.dzs.hr.hr.
In addition, methodological guidelines and the questionnaire for the Labour Force Survey are available on the Eurostat's web pages http://ec.europa.eu/eurostat/data/database.

5. Comparability

5.1. Asymmetry for mirror flows statistics

Indicator for this survey is not applicable.

5.2. Comparability over time

5.2.1   Length of comparable time series

Length of comparable time series is 48.

5.2.2   Reasons for break in time series

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

6. Coherence

6.1.   Coherence – short-term and structural data

Indicator for this survey is not applicable.

6.2.   Coherence – national accounts

Coherence – national accounts:

Statistic	Domain	Domain value	Q1	Q2	Q3	Q4	On average
Persons in employment, total	Croatia		1	1	1	1	1

6.3.   Coherence – administrative sources

Coherence – administrative sources:

Statistic	Domain	Domain value	Q1	Q2	Q3	Q4	On average
Labour force population	Croatia		0.144	0.144	0.144	0.144	0.144
Unemployed persons	Croatia		0.007	0.007	0.007	0.007	0.007
Population, total	Croatia		1	1	1	1	1
Persons in employment, total	Croatia		0.16	0.16	0.16	0.16	0.16

7. Cost and burden

7.1.   Cost

The total costs that include compensations for contractual agreements for external and CATI interviewers who participated in collection of data in 2018 amounted to 1 069 000 kuna. That amount does not include costs of interviewers who work for the Croatian Bureau of Statistics, and neither the costs of controllers, the preparation and processing of data.

7.2.   Burden

The interviewing of a single household took 15 minutes on average. In 2018, about 217 215 minutes were spent in interviewing households who gave their consent to be interviewed for the survey, which makes approximately 6.7 minutes per person.