



REPUBLIC OF CROATIA



CROATIAN BUREAU OF STATISTICS

**QUALITY REPORT FOR STATISTICAL SURVEY**  
**Income and Living Conditions Survey (SILC)**  
**For 2017**

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 survey collects data on gross and net income of households and all household members, data on educational status of persons, activity status and employment, health care and childcare, data on financial and material status of households and data on other aspects of living standards of households. The survey is a reference data source for monitoring income, poverty and social exclusion statistics. Survey results: poverty and social exclusion indicators (monetary poverty, material deprivation indicators, distribution of income, housing conditions).

- Reference period

The survey is carried out annually and, therefore, the reference period is a calendar year, i.e. 2017

- Legal acts and other agreements

Official Statistics Act (OG, Nos 103/03, 75/09, 59/12 and 12/13 – consolidated text)

Annual Implementation Plan of Statistical Activities of the Republic of Croatia 2017

Regulation (EC) No 1177/2003 of the European Parliament and of the Council of 16 June 2003 concerning Community statistics on income and living conditions (EU-SILC)

Commission regulation (EC) No 1980/2003 of 21 October 2003 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards definitions and updated definitions

Commission regulation (EC) No 1981/2003 of 21 October 2003 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards the fieldwork aspects and imputation procedures

Commission regulation (EC) No 1982/2003 of 21 October 2003 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards the sampling and tracing rules

Commission regulation (EC) No 1983/2003 of 7 November 2003 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards the list of target primary variables

Commission regulation (EC) No 28/2004 of 5 January 2004 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards the detailed content of intermediate and final quality reports

Commission regulation (EC) No 676/2006 of 2 May 2006 implementing Regulation (EC) No 1177/2003 concerning EU-SILC as regards definitions and updated definitions

EU-SILC 065 Description of Target Variables 2017, Eurostat

International Standard Classification of Education – ISCED-2011, UNESCO, 2012, ISBN 978-92-9189-123-8

- Classification system

Decision on the National Classification of Activities, 2007 version (OG, Nos 58/07 and 72/07)

National Classification of Occupations, NKZ 10. (OG, No. 147/10)

National Classification of Education – NSKO (OG, No. 105/01)

International Standard Classification of Education ISCED-2011

Degree of Urbanisation (DEGURBA) 2011

Common classification of territorial units for statistics, 2013 version (NUTS)  
Alphabetical Code List of States and Countries – Letter Codes of Settlements of the Republic of Croatia, 2017

All mentioned classifications are available on the web site of the Croatian Bureau of Statistics in the KLASUS application:

<http://www.dzs.hr/Hrv/important/Nomen/nomenclatures.htm>

- Concepts and definitions

Basic definitions:

Household is every family or other community of individuals who live together and jointly spend their income in order to meet the basic existential needs (accommodation, food etc.).

Total disposable income of a household is the total net income received by a household and all its members during the defined reference period. Total income includes the income from paid employment, the income from self-employment, the property income, pensions, social transfers and other receipts from persons who are not household members.

Equivalised income is calculated by dividing the total household income by the equivalised household size calculated according to the modified OECD scale, in which the household head is given coefficient 1, every other adult aged 14 and over is given coefficient 0.5, and every child under 14 years of age is given coefficient 0.3. This procedure is applied in order to allot equal share to each member with respect to joint earnings.

Basic indicators:

At-risk-of-poverty rate means a percentage of persons with the equivalised disposable income below the at-risk-of-poverty threshold.

The at-risk-of-poverty threshold represents a borderline of the risk of poverty. It is determined by calculating the equivalised income per household member for all households. After that, the middle value (median) of the income distribution is determined and 60% of the median is determined as the risk-of-poverty threshold. It is presented in kuna.

Material deprivation rate shows the percentage of people living in households cannot afford, exclusively due to lack of financial resources, at least three of nine items of material deprivation.

The quintile share ratio (S80/S20) is an indicator of the income inequality and it measures the ratio in the top and bottom quintiles. It represents the ratio between the total equivalised income of the 20% of population with the highest income and the 20% of population with the lowest income.

Gini coefficient is a measure of income inequality distribution. If there were a perfect equality, that is, if each person received the same income, the Gini coefficient would be 0%. The closer to 100% the value is, the greater the income inequality is.

The relative at-risk-of-poverty gap is a difference between the at-risk-of-poverty threshold and the equivalised income median of persons below the at-risk-of-poverty threshold.

The dispersion around the at-risk-of-poverty threshold indicates a percentage of persons at the risk of poverty in case when the at-risk-of-poverty threshold is set at 40%, 50% and 70% of the median equivalised income.

- **Statistical units**

The survey is carried out on the sample of private households. Statistical units are all selected private households and all household members. Household members aged 16 and over (age as on 31 December 2016) are included in a detailed individual interview according to the prescribed methodology.

- **Statistical population**

The survey is carried out on the sample of private households. A private household is every family or other community of individuals who live together and jointly spend their income in order to meet the basic existential needs (accommodation, food etc.).

According to the methodology, institutional households (boarding homes, prisons, hospitals providing permanent accommodation to persons, etc.) are not included.

## **1. Relevance**

### **1.1. Data users**

Data obtained in the SILC are used for creating social policies, in various scientific analyses and international comparisons and, in general, for informing the broad public on the social development status.

External users – national:

- scientific and research institutes (Institute for Public Finance, the Institute of Economics, etc.)
- ministries and agencies (Ministry of Social Policy, Croatian Employment Service etc.)

External users – international:

scientific and research institutes, World Bank, UN, ILO, UNICEF

#### **1.1.1 User needs**

Scientific and research institutes as well as individual researchers use data for national and international scientific and research projects and papers aimed at developing recommendations for relevant institutions in order to improve the socio-economic status of the population in risk of poverty or social exclusion. Ministries and other policy-makers use survey data for determining necessary improvements in their scope of work, e.g. in the area of social policy.

International users: Eurostat use survey data for systematic and user-oriented review of internationally comparable indicators on income and living conditions of the population (for all EU Member States). UNICEF use indicators of poverty and living conditions of children to focus its activities and aid on the most vulnerable groups of children.

#### **1.1.2 User satisfaction**

The User Satisfaction Survey was first conducted in 2013 and then again in 2015 on the operation of the Croatian Bureau of Statistics in general, which also included the domain of population income. At the time being, a particular user satisfaction survey on the population income is not conducted.

## 1.2. Completeness

Data collected in this survey are set in the methodology as defined in EU regulations and Eurostat's methodology standards prescribed for the EU-SILC survey (Statistics on Income and Living Conditions). The conduct of that survey, data processing and data releasing are entirely harmonised with the defined methodology, which ensured full comparability of national data with other EU Member States' data.

### 1.2.1 Data completeness rate

The contents of the survey, processing method and data accessibility are entirely harmonised with EU regulations and Eurostat's methodological standards. Data ensure full comparability with other EU Member States' data. A part of data is available to users through regular publications of the Croatian Bureau of Statistics. Other data are available on users' request. Data completeness rate is: 100%

## 2. Accuracy and reliability

### 2.1. Sampling error

The sampling error shows the precision of sample-based estimates of population parameters. Sampling errors were calculated applying the linearization method or the Woodruff method (SAS SURVEYFREQ and SURVEYMEANS procedures). The calculation was done by fixing the at-risk-of-poverty threshold.

The following formula was used in the precision calculation:

$$se < \text{sqrt} [(p \times (1-p))/X]$$

Where se = standard error; sqrt = square root; p = proportion (of the at-risk-of-poverty rate); X = minimum effective sample size

#### 2.1.1 Sampling error indicators

Sampling error indicators:

Table 1. Sampling error indicators for particular indicators, SILC 2016

	Indicator	Standard error	95% reliability interval		Coefficient of variation (%)
			Lower limit	Upper limit	
<b>At-risk-of-poverty threshold</b>					
One-person household	28 070	325.63	27 432	28 708	1.16
Household consisting of two adults and two children	58 946	683.82	57 606	60 286	1.16
<b>People at risk of poverty and social exclusion</b>					
Total	26.4	0.72	25.0	27.8	2.73
Men	25.5	0.77	24.0	27.0	3.02
Women	27.2	0.76	25.7	28.7	2.79
0 – 17	25.8	1.53	22.8	28.8	5.93
18 – 64	24.6	0.74	23.1	26.0	3.01
65+	32.7	1.01	30.7	34.7	3.09
Adriatic Croatia	24.5	1.25	22.1	27.0	5.11
Continental Croatia	27.3	0.88	25.6	29.0	3.22

(continued)

	Indicator	Standard error	95% reliability interval		Coefficient of variation (%)
			Lower limit	Upper limit	
<b>At-risk-of-poverty rate</b>					
Total	20.0	0.66	18.7	21.2	3.30
Men	18.9	0.70	17.5	20.3	3.70
Women	20.9	0.70	19.6	22.3	3.35
0 – 17	21.4	1.48	18.5	24.3	6.92
18 – 64	16.9	0.63	15.7	18.1	3.73
65+	28.6	0.97	26.7	30.5	3.39
<b>At-risk-of-poverty rate, by regions</b>					
Adriatic Croatia	18.5	1.16	16.2	20.8	6.27
Continental Croatia	20.7	0.79	19.1	22.3	3.82
<b>People severely materially deprived</b>					
Total	10.3	0.51	9.3	11.3	4.95
Men	10.2	0.53	9.1	11.2	5.20
Women	10.4	0.54	9.3	11.5	5.19
0 – 17	8.8	0.97	6.9	10.7	11.02
18 – 64	9.7	0.53	8.7	10.8	5.46
65+	13.6	0.76	12.1	15.1	5.59
<b>People living in households with very low work intensity</b>					
Total	12.2	0.62	11.0	13.4	5.08
Men	12.3	0.65	11.0	13.5	5.28
Women	12.1	0.69	10.7	13.4	5.70
0 – 17	10.7	1.27	8.2	13.2	11.87
18 – 59	12.6	0.54	11.6	13.7	4.29

### 2.1.2 Bias due to sample selection process

Bias due to sample selection process indicator is not computed since the survey is conducted on the sample of randomly selected units. The sample is representative for the whole population because not a single part of the population is omitted.

## 2.2. Non-sampling error

Non-sampling errors are linked to all errors that are not related to sample selection, such as coverage errors, measurement errors, processing errors and non-response errors. Non-response errors are caused by the non-response of the whole survey unit (household or reference person – unit non-response) and by the non-response to a single item, i.e. question in the questionnaire (item non-response).

### 2.2.1 Coverage error

The sampling frame for a new rotation group for the Income and Living Conditions Survey in 2017 was based on data of the Census of Population, Households and Dwellings in 2011. The eligibility rate for a part of the sample that was included in the Survey for the first time (the part selected in 2017) was 89.74%.

Table 2. Eligibility rate by statistical regions for a new rotation group

Statistical region (NUTS 2)	Selected addresses	Valid addresses	Valid address rate (%)
Republic of Croatia	5 516	4 950	89.74
Adriatic Croatia	2 296	2 050	89.29
Continental Croatia	3 220	2 900	90.06

### 2.2.2 Over-coverage rate

An over-coverage rate represents a share of sample units that do not belong to the target population. In the case of SILC, it represents a share of addresses selected into the sample, for which it was determined after the fieldwork (interviewing) that they did not exist, or that they were not occupied, or that the dwelling existed but it was not intended for permanent dwelling (business premises, cottages, summer houses etc.). It is calculated only for a new rotation group.

The unweighted over-coverage rate is: 10.19%

### 2.2.3 Measurement errors

Measurement errors are all errors that may occur during the collection or entry of data into questionnaires. Those errors can be minimised by correctly defining of the questionnaire, a detailed training of interviewers, implementing an adequate data collection method as well as by checking of questionnaires during and after the field work. The data collection method implemented in the SILC 2017 was CAPI (Computer-Assisted Personal Interview). This method ensures a standardised interviewing. The questionnaire has been designed in the Blaise application. Questions have been defined in a way that they contain all information sufficient for an answer. If there is a need for additional explanations regarding questions, the interviewer can at any time offer explanations that can be found under almost every question, or put down additional explanations regarding answers. A methodological unit in charge of the survey conducts a detailed testing of the questionnaire before the beginning of the survey. The questionnaire contains an integrated logical sequence of questions as well as logical checks of answers (checks of minimal and maximal values, logical connection between particular questions, checks of impossible values, categories of answers that are automatically adjusted to other answers etc.).

Data collection for SILC 2017 data was carried out by 119 interviewers (68 external and 51 internal ones). Most of them already had some experience with conducting that kind of surveys from previous years. Interviewers who had been included in the 2017 EU-SILC data collection for the first time attended a one-day training focused on the usage of the data management and transmission application (CMS – Case Management System), general functioning of the questionnaire in the Blaise application, interviewing skills and detailed methodological explanations and guidelines related to each individual question in the questionnaire.

Methodological guidelines for interviewers, which contain detailed instructions for each question in the questionnaire, were printed before data collection for training purposes and fieldwork preparation, and were given to each interviewer, supervisor and research/supporting/management staff included in the SILC survey.

The fieldwork was organised and controlled by 35 supervisors. Supervisors are experienced statisticians working in branch offices of the Croatian Bureau of Statistics. Supervisors in each of 20 branch offices provided needed support to interviewers involved in the fieldwork as well as necessary methodological explanations according to the guidelines of the central office of the Croatian Bureau of Statistics.

The data editing included approximately 20 error and inconsistency warnings, which are very important to be detected during the fieldwork in order to check the answers with the interviewers or with respondents themselves. Methodological guidelines with explanations and detailed instructions for warnings or errors were developed for supervisors. Also, supervisors attended one-day training, where they were given methodological guidelines and explanations regarding the usage of the CMS application.

The data collection was followed by detailed verification of all responses (such as the checks of minimum and maximum values, verification of all income items, check of impossible values etc.).

#### 2.2.4 Non-response errors

The non-response error shows how many statistical units did not fill in the questionnaire.

There are two types of non-response:

- non-response of the entire observation unit (household/referent person selected into the sample)
- non-response to individual questions – the selected observation unit is successfully interviewed, but answers regarding individual question/variable are not collected.

According to the Eurostat's recommendation, the unweighted non-response rate of households is calculated for households sampled for the first time, and, in 2017, the household non-response rate (Nrh) was 53.34%. The individual non-response rate (\*Nrp) in 2017 was 53.48%.

#### 2.2.5 Unit non-response rate

The unit non-response rate is divided to the non-response rate at household level and the non-response rate at individual level.

The non-response rate at household level is calculated according to the following formula:

$$NRh = (1 - (Ra \times Rh)) \times 100$$

Where:

Ra – means a number of successfully contacted addresses/a number of valid addresses

Rh – means a number of households successfully interviewed/number of valid households living at contacted addresses.

The non-response rate at individual level is calculated according to the following formula:

$$Nrp = (1 - (Rp)) \times 100$$

Where:

Rp – means a number of completed individual interviews/number of valid persons in successfully interviewed households



Table 3. Non-response rate

Rate of contacted addresses (Ra)		Rate of successfully interviewed households (Rh)		Rate of successfully completed individual interviews (Rp)		Non-response rate at household level (NRh)		Non-response rate at individual level (NRp)		Total non-response rate at individual level (NRp)	
A	B	A	B	A	B	A	B	A	B	A	B
91.13	82.87	74.10	56.30	99.67	99.71	32.47	53.34	0.33	0.29	32.69	53.48

A = Total sample

B = New rotation group selected into the 2017 sample

Table 4. Distribution of contacted households by rotation groups

Rotation group	Interview accepted for database (DB135 = 1)		Interview rejected* (DB135 = 2)	
	Number	%	Number	%
1	1 149	14.7	-	-
2	2 055	26.2	1	33.3
3	2 291	29.2	1	33.3
4	2 347	29.9	1	33.3
Total	7 842	100.0	3	100.0

Table 5. Distribution of households by successfully contacted address

Rotation group	Total		Address contacted (DB120 = 11)		Address non-contacted (DB120 = 21 + 22 + 23)		Address cannot be located (DB120 = 21)		Address unable to access (DB120 = 22)		Address does not exist or in unoccupied (DB120 = 23)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1	1 339	10.9	1 288	12.2	51	3.0	26	2.5	-	-	25	3.6
2	2 509	20.4	2 398	22.7	111	6.4	57	5.6	-	-	54	7.7
3	2 870	23.3	2 731	25.8	139	8.0	91	8.9	-	-	48	6.9
4	5 597	45.5	4 169	39.4	1 428	82.6	852	83.0	4	100.0	572	81.8
Total	12 315	100.0	10 586	100.0	1 729	100.0	1 026	100.0	4	100.0	699	100.0

Table 6. Distribution of contacted addresses by outcome per interviewed household

Rotation group	Total		Interview successfully completed (DB130 = 11)		Interview not completed (DB130 = 21 + 22 + 23 + 24)		Interview rejected (DB130 = 21)		Entire household temporarily away for duration of fieldwork (DB130 = 22)		Household unable to respond (DB130 = 23)		Other reasons (DB130 = 24)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1	1 288	12.2	1 149	14.7	139	5.1	103	4.7	18	7.0	18	6.0	-	-
2	2 395	22.6	2 056	26.2	339	12.4	226	10.4	76	29.5	37	12.4	-	-
3	2 731	25.8	2 292	29.2	439	16.0	319	14.6	78	30.2	42	14.1	-	-
4	4 169	39.4	2 348	29.9	1 821	66.5	1 534	70.3	86	33.3	201	67.5	-	-
Total	10 583	100.0	7 845	100.0	2 738	100.0	2 182	100.0	258	100.0	298	100.0	-	-

## 2.2.6 Item non-response-rate

Item non-response rate is calculated only for aggregated income variables according to the Eurostat's methodology.

Table 7. Item non-response rate

Income variables Total number of households = 7 567 Total number of persons = 16 957		No income		Income		Full data on income amount		Partial or missing data on income amount	
		number	%	number	%	number	%	number	%
HY010	Total household gross income	33	0.42	7 809	99.58	5 670	72.61	2 139	27.39
HY020	Total disposable household income	28	0.36	7 814	99.64	3 654	46.76	4 160	53.24
HY022	Total disposable household income before social transfers other than old-age and survivors' benefits	243	3.10	7 599	96.90	5 507	72.47	2 092	27.53
HY023	Total disposable household income before social transfers including old-age and survivors' benefits	2 164	27.60	5 678	72.40	3 834	67.52	1 844	32.48
HY040G	Income from rental of a property or land	7 386	94.19	456	5.81	275	60.31	181	39.69
HY090G	Interest, dividends, profit from capital investments in unincorporated business	7 329	93.46	513	6.54	393	76.61	120	23.39
HY050G	Family/children related allowances	6 998	89.24	844	10.76	762	90.28	82	9.72
HY060G	Social exclusion not elsewhere classified	7 548	96.25	294	3.75	288	97.96	6	2.04
HY070G	Housing allowances	7 662	97.70	180	2.30	164	91.11	16	8.89
HY080G	Regular inter-household cash transfer received	7 355	93.79	487	6.21	284	58.32	203	41.68
HY081G	Alimonies received (compulsory + voluntary)	7 761	98.97	81	1.03	70	86.42	11	13.58
HY100G	Interest repayments on mortgage	7 511	95.78	331	4.22	331	100.00	-	-
HY110G	Income received by people aged under 16	7 431	94.76	411	5.24	309	75.18	102	24.82
HY130G	Regular inter-household cash transfer paid	7 463	94.66	379	4.83	326	86.02	53	13.98
HY131G	Alimonies paid (compulsory + voluntary)	7 771	99.09	71	0.91	58	81.69	13	18.31
HY140G	Tax on income and social contributions	3 089	99.09	4 753	60.61	4 753	100.00	-	-
HY170G	Value of goods produced for own consumption	4 533	39.39	3 309	42.20	2 929	88.52	380	11.48
PY010G	Employee cash or near cash income	10 852	57.80	6 524	37.55	4 910	75.26	1614	24.74
PY020G	Non-cash employee income	16 615	62.45	761	4.38	464	60.97	297	39.03
PY021G	Income from using company car for private purposes	17 296	95.62	80	0.46	80	100.00	-	-
PY030G	Employer's social insurance contribution	10 777	99.54	6 599	37.98	6 599	100.00	-	-
PY031G	Optional employer's social insurance contributions	17 273	62.02	103	0.59	103	100.00	-	-
PY035G	Contributions to individual private pension plans	17 165	99.41	211	1.21	135	63.98	76	36.02
PY050G	Cash profits or losses from self-employment	15 463	98.79	1 913	11.01	1 501	78.46	412	21.54
PY080G	Pensions received from individual private plans	17 360	88.99	16	0.09	13	81.25	3	18.75
PY090G	Unemployment benefits	17 144	99.91	232	1.34	206	88.79	26	11.21
PY100G	Old-age benefits	12 556	98.66	4 810	27.68	4 409	91.66	401	8.34
PY110G	Survivor's benefits	16 254	72.32	1 122	6.46	1 032	91.98	90	8.02
PY120G	Sickness benefits	17 248	93.54	128	0.74	95	74.22	33	25.78
PY130G	Disability benefits	16 278	99.26	1 098	6.32	1 017	92.62	81	7.38
PY140G	Education-related allowances	17 252	93.68	124	0.71	106	85.48	18	14.52

### 2.2.7 Processing errors

During the data processing, a detailed verification of all responses is done, such as checks of input values by ranges, checks of possible answers, verification of all income items, logical data checks on economic activity and activity and occupation codes, educational status etc. The data processing is done on a microdata set at the questionnaire level. An error in the microdata base may occur during final data processing and preparation of data for calculation of indicators.

### 2.2.8 Imputation rate

The imputation is a process applied to supplement uncollected, invalid or inconsistent data that were impossible to edit. Regarding the SILC, all income variables for which a respondent claimed to receive but did not offer an answer to the question on their amount are imputed. All missing or inconsistent values are imputed by using one of the imputation methods, which means that the imputation rate equals the item non-response rate given in Table 7. Item non-response rate.

### 2.2.9 Editing rate

The editing rate is defined for particular key variables as a number of units for which source values have been corrected after data verification in relation to the total number of units. In other words, it is a ratio of a number of corrected data (either by repeating CAPI or by logical corrections) to the total number of available data, i.e. data that have been checked.

That indicator was not computed for the SILC 2017 due to the fact that data verification is done in multiple phases, which involves multiple executors. An additional phase was introduced into the data verification in 2016 in the course of the fieldwork done by supervisors in branch offices.

### 2.2.10 Hit rate

This indicator is not computed for the Income and Living Conditions Survey.

### 2.2.11 Model assumption error

This indicator is not computed for SILC. All implemented data weighting models and imputation models for the missing data are accurate and harmonised with the Eurostat's recommendations and, therefore, there is no occurrence of any assumption error of a model used in the statistical processing.

## **2.3. Data revision**

### 2.3.1 Data revision – policy

In the Calendar of Statistical Data Issues in 2018 it is determined for the SILC data for 2017 to be released as provisional data and final data. Provisional data are issued in the Statistics in Line after all phases of processing but Eurostat's final checks and verification. Final data are issued in the First Release after Eurostat's final checks and verification. In final checks and before the verification there is a possibility for certain changes in data to occur, which have only a minimum impact on the outcome.

### 2.3.2 Data revision – practice

If there is a need to correct some of the already published data (except previous data), a correction is published along with a notice about the correction.

Also, if there is a need to revise already published data, e.g. in the First Release, a new version of the First Release containing the revised data is published.

### 2.3.3 Data revision – average size

It is not recommended for this quality indicator to be computed for annual surveys.

## 2.4. Seasonal adjustment

This indicator cannot be applied in SILC.

## 3. Timeliness and Punctuality

### 3.1. Timeliness

#### 3.1.1 Time lag – first results

According to the Calendar of Statistical Data Issues for 2018, first results of the SILC 2017 survey are to be issued six months after the reference period. The first results were issued in June 2017 (T + 6).

#### 3.1.2 Time lag – final results

According to the Calendar of Statistical Data Issues for 2018, the final SILC 2017 data were planned to be issued on 28 September 2018. Instead, they were issued on 22 October 2018 (T + 10).

### 3.2. Punctuality

#### 3.2.1 Punctuality – delivery and publication

Punctuality is a period between the actual date of data issue and targeted date of data issue according to the Calendar of Statistical Data Issues for 2018. Concerning SILC 2017, all publications were issued according to the deadlines defined in the Calendar, except the First Release (final results), which was issued on 22 October 2018 instead on 28 September 2018 as determined in the Calendar (23 days after the planned deadline as determined in the Calendar of Statistical Data Issues for 2018). Therefore, the punctuality is 75%.

## 4. Accessibility and clarity

Survey results are available in electronic and paper form as well as on the web site of the Croatian Bureau of Statistics: [www.dzs.hr](http://www.dzs.hr)

All additional information regarding the results and the survey can be found at e-mail: [stat.info@dzs.hr](mailto:stat.info@dzs.hr)

#### **4.1. News release**

Indicators of Poverty and Social Exclusion, 2017 – Preliminary Data (Statistics in Line)

Indicators of Poverty and Social Exclusion, 2017 (First Release)

Income and Living Conditions Survey Results, 2017 (Statistical Reports)

#### **4.2. Other publications**

The SILC results are also issued in the following publications of the Croatian Bureau of Statistics: Statistical Yearbook, Statistical Information, Women and Men in Croatia, Croatia in Figures.

#### **4.3. On-line database**

The results of the 2017 SILC results are currently available in the form of online databases only on the Eurostat website

<http://ec.europa.eu/eurostat/web/income-and-living-conditions/data>

#### **4.4. Micro-data access**

Access to micro-data is regulated by provisions of the Ordinance on the Conditions and Terms of Using Confidential Data for Scientific Purposes (OG, No. 137/13). Micro-data are available at the level of variables defined in the EU methodology and not at the level of the questionnaire.

#### **4.5. Documentation on methodology**

Notes on methodology are published in First Release and in the publication entitled the Income and Living Conditions Survey Results (Statistical Reports), while other methodological documents on the survey are available on the Eurostat's web site: [http://epp.eurostat.ec.europa.eu/portal/page/portal/income\\_social\\_inclusion\\_living\\_conditions/methodology](http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/methodology).

The detailed description of the methodology applied can be found in Quality Reports issued on the web site of the Croatian Bureau of Statistics related to quality.

### **5. Comparability**

#### **5.1. Asymmetry for mirror flows statistics**

This indicator is not applicable to the 2017 SILC Survey.

#### **5.2. Comparability over time**

The comparability over time, as one of the basic dimensions of the quality, is related to the need for obtained data and information to be comparable over time.

Table 8. Comparison of individual statistics for income variables at household level, 2014 – 2017

SILC	2014			2015 <sup>1)</sup>			2016 <sup>2)</sup>			2017		
	Income variables at household level	Sum of weights	Number of observations	Median	Sum of weights	Number of observations	Median	Sum of weights	Number of observations	Median	Sum of weights	Number of observations
HY010	1 514 264	5 423	77 186.83	1 488 466.05	6 521	84 265.44	1 485 489.75	7 539	85 930.92	1 481 583.40	7 809	90 966.54
HY020	1 514 442	5 424	66 100.00	1 489 264.08	6 525	71 600.00	1 485 938.68	7 542	73 800.00	1 482 338.97	7 814	78 000.00
HY022	1 450 553	5 162	60 100.00	1 425 310.26	6 182	65 320.00	1 448 356.46	7 304	68 784.00	1 449 335.94	7 599	72 912.00
HY023	1 195 042	4 006	58 320.00	1 167 051.17	4 833	63 660.00	1 149 517.81	5 483	67 160.00	1 149 110.90	5 678	72 800.00
HY030G	1 486 211	5 356	1 500.00	1 464 568.65	6 467	1 500.00	1 463 637.44	7 461	1 500.00	1 461 776.21	7 744	1 500.00
HY040G	73 064	287	15 600.00	79 095.96	397	14 600.00	82 637.25	480	13 500.00	77 921.86	456	16 500.00
HY050G	245 956	651	6 652.00	229 636.88	812	7 184.00	211 658.58	911	7 200.00	191 678.68	844	7 100.00
HY060G	4 5176	160	7 200.00	73 176.59	330	8 400.00	47 365.60	263	9 600.00	51 172.52	294	9 600.00
HY080G	120 013	410	8 000.00	91 674.72	393	10 000.00	101 970.99	499	9 600.00	92 527.01	487	8 000.00
HY090G	81 516	291	1 500.00	101 838.28	469	1 000.00	106 842.38	538	1 164.96	92 139.83	513	1 152.07
HY100G	48 696	146	12 019.70	63 155.19	249	1 103.13	71 618.51	293	1 280.61	82 408.09	331	924.21
HY110G	120 783	305	850.00	104 451.73	370	800.00	105 480.13	435	1 000.00	95 922.53	411	1 000.00
HY120G	388 363	1 234	350.00	388 676.91	1 584	400.00	355 290.59	1 716	400.00	349 844.89	1 681	400.00
HY130G	65 548	233	6 000.00	81 554.93	332	5 000.00	85 182.97	404	6 000.00	70 068.2	379	5 000.00
HY140G	1 039 093	3 360	19 620.22	1 033 562.11	4 163	21 726.43	1 001 619.89	4 620	22 056.90	1 001 158.92	4 753	24 831.83
HY170G	589 074	2 260	2 400.00	642 877.98	2 999	2 400.00	597 569.80	3 261	3 000.00	568 618.01	3 309	2 640.00

1) Data are not fully comparable to data from previous years due to the fact that particular income components were classified in more detail in the questionnaire for 2015.

2) Data for 2016 on variables related to disability pensions are not fully comparable to data from previous years due to the changes in the methodology of disability pensions. In the 2016 survey, disability pensions of persons who turned the age for old-age pensions were recorded as old-age pensions and are not included in the social transfers like it was the case in previous years.

Table 9. Comparison of individual statistics for income variables at individual level, 2013 – 2016

SILC	2014			2015 <sup>1)</sup>			2016 <sup>2)</sup>			2017		
	Income variables at household level	Sum of weights	Number of observations	Median	Sum of weights	Number of observations	Median	Sum of weights	Number of observations	Median	Sum of weights	Number of observations
PY010G	1 391 890	4 148	57 000.00	1 372 965.44	5 109	62 226.01	1 417 598.93	6 024	61 718.61	1 503 127.55	6524	63 464.12
PY020G	98 541	273	6 875.00	169 020.24	628	4 500.00	188 237.15	717	4 031.25	189 565.31	761	4 000.00
PY030G	1 331 890	4 148	21 120.00	1 376 002.34	5 120	25 186.09	1 425 502.73	6 059	23 532.95	1 519 643.82	6599	23 608.65
PY035G	33 410	104	2 400.00	64 367.07	212	1 810.00	35 955.24	163	2 000.00	5 0631.13	211	2 938.00
PY050G	418 791	1 391	15 333.33	413 422.29	1 698	12 973.75	389 993.11	1 910	15 000.00	386 527.89	1913	15 732.00
PY090G	87 601	291	7 200.00	60 567.74	251	6 000.00	58 932.51	264	6 400.00	50 319.30	232	6 700.00
PY100G	642 455	2 755	30 000.00	658 558.16	3 278	30 000.00	766 764.23 <sup>2)</sup>	4 454 <sup>2)</sup>	30 000.00 <sup>2)</sup>	795 584.77	4810	30 000.00
PY110G	203 229	858	22 200.00	202 691.10	971	22 800.00	203 694.87 <sup>2)</sup>	1 111 <sup>2)</sup>	23 268.00 <sup>2)</sup>	192 969.62	1122	22 800.00
PY130G	300 149	1 204	24 000.00	290 267.19	1 372	24 000.00	206 981.61	1 118	19 950.00	19 8034.86	1098	20 352.00
PY200G	1 386 600	4 133	5 150.00	1 365 560.08	5 085	5 371.16	1 412 150.03	6 002	5 426.07	1 447 149.33	6280	5 746.27

1) Data are not fully comparable to data from previous years due to the fact that particular income components were classified in more detail in the questionnaire for 2015.

2) Data for 2016 on variables related to disability pensions are not fully comparable to data from previous years due to the changes in the methodology of disability pensions. In the 2016 survey, disability pensions of persons who turned the age for old-age pensions were recorded as old-age pensions and are not included in the social transfers like it was the case in previous years.



### 5.2.1 Length of comparable time series

Length of comparable time series means the number of reporting periods within a time series since the last break, i.e., since the introduction of the survey into the statistical system. The Income and Living Conditions Survey was introduced into the statistical system of the Republic of Croatia in 2010, as a regular annual survey. The comparable eight-year data series for the period from 2010 to 2017 is available to users, with certain minor methodological changes concerning the compilation of some indicators. In 2015, particular income components were classified in more detail in the survey questionnaire, while in 2016 some changes were introduced in recording disability pensions. All that made certain indicators not fully comparable with the previous period.

### 5.2.2 Reasons for break in time series

The 2016 SILC data are not fully comparable to data from previous years due to the fact that particular income components were classified in more detail in the questionnaire for 2015.

As regards the 2016 SILC survey, a figure that refers to the at-risk-of poverty indicator before social transfers, when social transfers has not yet been included in the income, is not fully comparable to data from previous years due to the changes in recording disability pensions. In the 2016 survey, disability pensions of persons who turned the age for old-age pensions are recorded as old-age pensions and are not included in the social transfers like it was the case in previous years.

## 6. Coherence

### 6.1. Coherence – short-term and structural data

Indicator for this survey is not computed.

### 6.2. Coherence – national accounts

Indicator for this survey is not computed.

### 6.3. Coherence – administrative sources

Indicator for this survey is not computed.

## **7. Cost and burden**

### **7.1. Cost**

The fieldwork costs for the Income and Living Conditions Survey 2017 amounted to 1 339 900 kuna and included costs of interviewers. A part of the interviewers are CBS employees in branch office units, while others are external interviewers employed on contractual basis. Those costs included also the transportation costs for interviewers attending trainings.

### **7.2. Burden**

The burden on respondents implies the amount of time spent in responding to the survey questionnaire. An important factor affecting the burden on respondents is the number of questions in the questionnaire. The SILC survey has approximately 375 questions. Although each respondent does not answer every single question, the participation in the survey is a significant burden on respondents due to the built-in automatic jumps in the input data software. The average interview duration per household in the SILC 2017 survey was 155 minutes, and in the following period it is necessary to make efforts to reduce the burden on respondents (use of administrative data sources, etc.).