



QUALITY REPORT FOR STATISTICAL SURVEY

The Statistics on Income and Living Conditions (SILC) for 2023

Organisational unit: Living Conditions Statistics Unit

Prepared by: Dražen Ferić

April 2024

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, education 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 source of data for monitoring income, poverty and social exclusion statistics.

Survey results consist of poverty and social exclusion indicators (monetary poverty, indicators of material and social deprivation, income distribution and living conditions).

• Reference period

Calendar year

• Legal acts and other agreements

Official Statistics Act (OG, No. 25/20)

Annual Implementation Plan of Statistical Activities of the Republic of Croatia 2023

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

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) 2020/258 of 16 December 2019 supplementing Regulation (EU) 2019/1700 of the European Parliament and of the Council by specifying the number and the titles of the variables for the income and living conditions 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) 2019/2242 of 16 December 2019 specifying the technical items of data sets, establishing the technical formats and specifying the detailed arrangements and content of the quality reports on the organisation of a sample survey in the income and living conditions domain pursuant to Regulation (EU) 2019/1700 of the European Parliament and of the Council

EU-SILC 065 Description of target variables for 2023, 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 – NKD 2007 (OG, Nos 58/07 and 72/07)

National Classification of Occupations 2010 – NKZ 10 (OG, No. 147/10)

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

International Standard Classification of Education (ISCED 2011)

Degree of Urbanisation (DEGURBA) 2011

National Classification of Statistical Regions 2021 (HR_NUTS 2021)

Alphabetical list of countries and their codes - letter codes

Settlements of the Republic of Croatia, 2018

All listed classifications are published on the website of the Croatian Bureau of Statistics in the application KLASUS <u>https://web.dzs.hr/App/klasus/default.aspx?lang=hr</u>

• Concepts and definitions

General 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. It includes the income from paid employment, the income from self-employment, the property income, pension, social transfers and other receipts from persons who are not household members.

Equivalised income is calculated in a way that the total household income is divided by 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.

Key indicators:

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

The at-risk-of-poverty threshold represents the limit of poverty risk. 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. The at-risk-of-poverty threshold is presented in euro.

The material and social deprivation rate presents the percentage of persons who live in households that cannot afford, exclusively due to lack of financial resources, at least five of thirteen deprivation items. 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 the 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 equivalised income medians.

• Statistical units

The survey is conducted on a sample of private households. Survey units are all selected private households and all household members. A detailed personal interview is conducted with household members aged 16 and over (age as on 31 December 2023) according to the given methodology.

• Statistical population

The survey is conducted on a sample of private households. Private household is any family or other community of people 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 (homes, prisons, hospitals for permanent accommodation of persons, etc.) are not included in the survey.

1. Relevance

1.1. Data users

Data obtained by EU-SILC survey are used in the area of social policy creation, in various scientific analyses and international comparisons, and, in general, to inform the overall public about the state of social progress.

National users: scientific and research institutes (the Institute of Public Finance, the Institute of Economics, etc.), ministries and institutions (the Ministry of Labour and Pension System, Family and Social Policy, the Croatian Employment Service, etc.).

International users: scientific and research institutes, the World Bank, UN, ILO, UNICEF

1.1.1. User needs

Scientific and research institutes and independent researchers 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 socio-economic status of the population at risk of poverty or social exclusion. The Ministry of Labour and Pension System, Family and Social Policy and the Croatian Employment Service use survey results to determine the necessary improvements in their field of work, for example, in the area of social policy. International users: Eurostat use survey data for a systematic and user-oriented presentation of internationally comparable indicators on income and living conditions of the population (for all EU Member States). UNICEF uses indicators of poverty and living conditions in regard to children in order to direct their activities and their help to the most vulnerable groups of children.

1.1.2. User satisfaction

The User Satisfaction Survey was conducted in 2013 and again in 2015 on the operation of the Croatian Bureau of Statistics in general. The Customer Satisfaction Survey generally covers the area of income of the population statistics as well. There is currently no a separate customer satisfaction survey that covers only the income and living conditions statistics area.

1.2. Completeness

Data collected through the EU-SILC survey are determined by the survey methodology defined by EU regulations and Eurostat's methodological standards related to the EU-SILC (Statistics on Income and Living Conditions) survey. The implementation of this survey, data processing and publication of the results are fully aligned with the defined methodology, thus ensuring a complete comparability of national results with the results of other EU Member States.

1.2.1. Data completeness rate

Data completeness rate is: 100%

2. Accuracy and reliability

2.1. Sampling error

The sampling error shows the precision of estimates of sample-based population parameters. The sampling error has been calculated applying the linearization technique or the Woodruff method (SAS SURVEYFREQ and SURVEYMEANS procedures). The calculation has been done with the fixed poverty limit.

The following formula is applied in the calculation of accuracy:

se < sqrt [(p x (1-p))/X],

where:

```
se = standard error
```

sqrt = root

p = proportion (risk of poverty rate)

X = minimum effective sample size

2.1.1. Sampling error indicators

Table 1 Sample error indicators for particular indicators, the Survey on Income and Living Conditions	
י דמטוב ד סמוווטוב בודטו ווועונימנטוס וטו טמונוניטומו ווועונימנטוס. נווב סעו עבע טו וווניטווב מווע בועוווע כטוועונטומ	2023

Table 1 Sample error indicators for particular indicators, the Survey on Income and Living Conditions, 2023												
Indicator	Field name	Domain	Value	Standard error	95% confide	nce interval	CV (%)					
1	2	3	4	5	Lower limit	Upper limit	8					
At-risk-of-poverty threshold	One-person household		5923.798	38.782	5847.785	5999.812	0.655					
At-risk-of-poverty threshold	Household consisting of two adults and two children		12439.976	81.443	12280.348	12599.604	0.655					
People living in households with very low work intensity	Total	Total	0.055	0.004	0.046	0.063	7.635					
People living in households with very low work intensity	Sex	Men	0.054	0.005	0.045	0.064	8.865					
People living in households with very low work intensity	Sex	Women	0.055	0.005	0.046	0.064	8.307					
People living in households with very low work intensity	Age groups	0 — 17, total	0.043	0.007	0.028	0.057	17.262					
People living in households with very low work intensity	Age groups	18 — 64, total	0.058	0.004	0.051	0.066	6.580					
People at risk of poverty or social exclusion	Total	Total	0.207	0.006	0.194	0.220	3.121					
People at risk of poverty or social exclusion	Sex	Men	0.185	0.007	0.172	0.199	3.780					
People at risk of poverty or social exclusion	Sex	Women	0.227	0.007	0.214	0.241	3.056					
People at risk of poverty or social exclusion	Age groups	0 — 17, total	0.173	0.014	0.145	0.201	8.160					
People at risk of poverty or social exclusion	Age groups	18 — 64, total	0.162	0.006	0.149	0.174	4.024					
People at risk of poverty or social exclusion	Age groups	65+, total	0.358	0.009	0.341	0.376	2.448					

Table 1 Sample error indicators for particular indicators, the Survey on Income and Living Conditions, 2023	
(continued)	

Table 1 Sa	ample error indicators	for particular indicato	rs, the Survey	on Income ar	nd Living Cond	ditions, 2023	
Indicator	Field name	Domain	Value	Standard error	95% confide	nce interval	CV (%)
1	2	3	4	5	Lower limit	Upper limit	8
People at risk of poverty or social exclusion	NUTS 2 regions	HR02	0.313	0.014	0.286	0.339	4.324
People at risk of poverty or social exclusion	NUTS 2 regions	HR03	0.189	0.011	0.167	0.211	5.858
People at risk of poverty or social exclusion	NUTS 2 regions	HR05	0.119	0.013	0.093	0.145	11.047
People at risk of poverty and social exclusion	NUTS 2 regions	HR06	0.173	0.013	0.148	0.197	7.273
People at risk of poverty or social exclusion	NUTS 2 regions	HR06	0.186	0.013	0.160	0.212	7.170
People severely materially deprived	Total	Total	0.028	0.002	0.024	0.033	8.222
People severely materially deprived	Age groups	0 — 17, total	0.018	0.005	0.008	0.027	26.718
People severely materially deprived	Age groups	18 — 64, total	0.022	0.002	0.018	0.027	10.588
People severely materially deprived	Age groups	65+, total	0.052	0.004	0.044	0.061	7.959
People severely materially deprived	Sex	Men	0.027	0.003	0.021	0.032	9.743
People severely materially deprived	Sex	Women	0.030	0.003	0.025	0.035	8.447
At-risk-of-poverty rate	Total	Total	0.193	0.006	0.180	0.205	3.288
At-risk-of-poverty rate	Sex	Men	0.172	0.007	0.158	0.185	3.974
At-risk-of-poverty rate	Sex	Women	0.212	0.007	0.199	0.226	3.215
At-risk-of-poverty rate	Age groups	0 — 17, total	0.161	0.014	0.134	0.188	8.501
At-risk-of-poverty rate	Age groups	18 — 64, total	0.145	0.006	0.132	0.157	4.357
At-risk-of-poverty rate	Age groups	65+, total	0.348	0.009	0.331	0.365	2.487
At-risk-of-poverty rate	NUTS 2 regions	HR02	0.294	0.014	0.268	0.321	4.628
At-risk-of-poverty rate	NUTS 2 regions	HR03	0.175	0.011	0.154	0.196	6.183
At-risk-of-poverty rate	NUTS 2 regions	HR05	0.105	0.012	0.080	0.129	11.776
At-risk-of-poverty rate	NUTS 2 regions	HR06	0.177	0.013	0.150	0.203	7.528

2.2. Non-sampling error

Non-sampling errors include all other errors, which are not related to a sample selection, such as coverage errors, measurement errors, processing errors and non-response errors. Non-response errors result from the non-response of the entire survey unit (household or referent person – unit non-response) and the non-response to a particular variable, i.e. question in the questionnaire (item non-response).

2.2.1. Coverage error

The sample frame for a new rotation group for the Survey on Income and Living Conditions in 2023 was based on the Census of Population, Households and Dwellings in the Republic of Croatia in 2021 data. The rate of eligible units (dwellings) for the part of the sample included in the survey for the first time (the part selected in the sample in 2023) is 96.56%.

Table 2 Rate of eligible units by	v statistical regions	for new rotation group
	y olaliolioal rogiono	ion nom rotation group

Tab	Table 2 Rate of eligible units by statistical regions for new rotation group											
Statistical region (NUTS 2)	Selected addresses	Eligible addresses	Eligibility rate (%)									
1	2	3	4									
Republic of Croatia	5 516	5 326	96.56									
HR02	1 477	1 410	95.46									
HR03	1 617	1 541	95.30									
HR05	1 246	1 215	97.51									
HR06	1 176	1 160	98.64									

2.2.2. Over-coverage rate

The over-coverage rate is a share of sample units that are not a part of the target population. Within the Statistics of Income and Living Conditions survey, it is a share of addresses selected in the sample, but for which the fieldwork (interviewing) showed that either they did not exist anymore, or that they were generally unoccupied or that the dwelling found at that address was not intended for permanent residence (such as business premises, cottages, summer houses etc.). It is computed only for the new rotation group.

Over-coverage rate is: 3.44% Computed using the variable DB120 = 23

2.2.3. Measurement errors

Measurement errors are considered all errors that can emerge during the collection or entering data into survey forms. There is a tendency to minimize such errors by correctly defining the survey form – questionnaire, by comprehensive training of interviewers, by applying adequate data collection method and by checking survey data during and after fieldwork.

The CAPI method (computer-assisted personal interviewing) was applied in the Survey on Income and Living Conditions in 2023 (SILC 2023). It ensures the standardised data collection. The survey form was designed in the Blaise programme application. Questions are defined in a way that they contain all information necessary for providing the answer. If the respondent needs additional explanations, most questions are accompanied with additional explanations beneath the questions that can be offered by the interviewer at any time. For each question, the interviewer can enter additional remarks that further explain a particular answer. Prior to the survey, the survey form is tested in detail by the methodological unit in charge of carrying out the survey. An automated logical sequence of questions and logical checks of the answers (the check of minimal and maximal values, logical correlation between particular questions, check of improbable outcomes, categories of answers are automatically adjusted to other answers, etc.) are incorporated into the survey.

A total of 158 interviewers (123 outsourced and 35 in-house ones) were engaged in data collection for the SILC 2023 survey. Most of them had experience in carrying out the survey from previous years. For interviewers who were included in the SILC 2023 data collection for the first time, a one-day training programme was organised, focused on using the application for data management and transmission (CMS – Case Management System), basic operation of the questionnaire in the Blaise application, interviewing skills as well as notes on methodology and detailed instruction concerning the SILC 2023 questionnaire.

Notes on methodology for interviewers, which contain methodological explanations and detailed instructions related to every question in the questionnaire, were printed before data collection for training purposes and preparation of fieldwork, and they were handed to every interviewer, supervisor and employee/head involved in the SILC survey. The fieldwork of interviewers was organised and supervised by 44 supervisors, who are expert statisticians located in branch offices of the Croatian Bureau of Statistics.

In each of the 20 regional offices, a supervisor provided necessary support to field interviewers as well as essential methodological explanations in line with the guidelines of the Croatian Bureau of Statistics.

Data checks performed by supervisors include approximately 15 error and inconsistency warnings for which it is extremely important that they are spotted during the fieldwork, in order to request additional explanations from interviewers, i.e., in order to enable the interviewer to check information with respondents. For that purpose, the notes on methodology and detailed instructions concerning warnings or errors were developed. Supervisors attended the one-day training programme and were handed the notes on methodology and explanations concerning checks they were about to perform in the CMS application.

After data collection, a detailed data verification of the survey material is conducted (checks of minimal and maximal values, logical correlation between particular questions, check of improbable outcomes).

2.2.4. Non-response errors

A non-response error is a result of an unsuccessful attempt to get an answer from a selected statistical unit. There two types of non-responses:

- non-response of the entire observation unit (household/reference person selected in the sample)

 non-response to a particular question – a selected observation unit was successfully interviewed, but particular questions/variables remained unanswered.

Pursuant to the Eurostat's recommendations, the unweighted non-response rate is calculated for households that have been selected in the sample for the first time and in 2023 the household non-response rate (Nrh) was 49.30%. In 2023, the personal non-response rate (*Nrp) was 49.72%.

2.2.5. Unit non-response rate

The unit non-response rate is broken down to the household non-response rate and the personal non-response rate.

The household non-response rate is calculated by using the following formula:

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

where:

Ra - number of successfully contacted addresses/number of eligible addresses

Rh – number of successfully interviewed households/number of eligible households at contacted addresses.

The personal non-response rate is calculated by using the following formula:

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

where:

Rp – number of completed personal interviews/number of eligible persons in successfully interviewed households.

The unweighted non-response rate is 49.30%. Pursuant to the Eurostat's recommendations, the unweighted non-response rate is calculated for households that have been selected in the sample for the first time.

Table 3 Non-response rate

addr	contacted esses: Ra)	interv house	iccessfully iewed sholds (h)	Rate of successfully completed personal interviews (Rp)		Non-response rate at the household level (NRh)			ldual level	Total non-response rate at the individual level (UNRp)	
А	В	А	В	А	В	A	В	А	В	А	В
90.07	78.43	81.81	64.63	99.12	99.20	26.32	49.30	0.88	0.80	26.96	49.72

Table 4 Distribution of contacted addresses by household interview acceptance										
Rotation group	Interview acce	pted (DB135=1)								
1	2	3(%)								
1	1 692	19.62								
2	2 050	23.77								
3	2 172	25.19								
4	2 709	31.42								
Total	8 623	100.00								

Table 4 Distribution of contacted households by rotation groups

Table 5 Distribution of households by successfully contacted address

	Table 5 Distribution of selected units by address status													
Rotation group	То	Total Address con (DB120=			Address not contacted (DB120=21+22+23)		Address not found (DB120=21)		Address inaccessible (DB120=22)		Address non- existent or unoccupied (DB120=23)			
1	2	3 (%)	4	5 (%)	6	7 (%)	8	9 (%)	10	11 (%)	12	13 (%)		
1	1 825	15.07	1 781	16.89	44	2.80	16	1.24	0	0.00	26	9.42		
2	2 311	19.08	2 219	21.05	92	5.86	62	4.82	2	33.33	28	10.14		
3	2 443	20.17	2 352	22.31	91	5.80	59	4.58	2	33.33	32	11.59		
4	5 533	45.68	4 191	39.75	1 342	85.53	1 150	89.36	2	33.33	190	68.84		
Total	12 112	100.00	10 543	100.00	1 569	100.00	1 287	100.00	6	100.00	276	100.00		

Table 6 Distribution of contacted addresses by interview outcome per household

	Table 6 Distribution of contacted addresses by interview outcome per household													
Rotation group	Total Interview (DB130=11		leted	Interview not completed (DB130=21+22+23)		Interview declined (DB130=21)		Whole household has been temporarily absent during fieldwork (DB130=22)		Household unable to respond to the interview (DB130=23)				
1	2	3 (%)	4	5 (%)	6	7 (%)	8	9 (%)	10	11 (%)	12	13 (%)		
1	1 781	16.89	1 693	19.63	88	4.59	64	4.06	8	7.02	16	7.02		
2	2 219	21.05	2 052	23.79	167	8.71	107	6.79	20	17.54	40	17.54		
3	2 352	22.31	2 172	25.18	180	9.39	145	9.21	6	5.26	29	12.72		
4	4 191	39.75	2 709	31.41	1 482	77.31	1 259	79.94	80	70.18	143	62.72		
Total	10 543	100.00	8 626	100.00	1 917	100.00	1 575	100.00	114	100.00	228	100.00		

2.2.6. Item non-response rate

Item non-response rates are calculated only for aggregated income variables in line with the Eurostat's methodology.

Table 7 Item non-response rates

	Income variables I number of households = 8623	Does no inco		Has in	icome	Full info on an	rmation nount	Partial inf or no info on an	ormation
l Ota	al number of persons = 18 076	Number	%	Number	%	Number	%	Number	%
HY010	Total household gross income	712	8.26	7 911	91.74	7 591	95.95	320	4.05
HY020	Total disposable household income	1 543	17.89	7 080	82.11	6 760	95.48	320	4.5
HY022	Total disposable household income before social transfers other than old-age and survivor's benefits	1 400	16.24	7 223	83.76	7 015	97.12	208	2.8
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	1 872	21.71	6 751	78.29	6 513	96.47	238	3.5
HY040G	Income from rental of a property or land	8 205	95.15	418	4.85	229	54.78	189	45.2
HY090G	Interest, dividends, profit from capital investments in unincorporated business	8 275	95.96	348	4.04	118	33.91	230	66.0
HY050G	Family/children related allowances	7 794	90.39	829	9.61	819	98.79	10	1.2
HY060G	Social exclusion not elsewhere classified	8 305	96.31	318	3.69	318	100.00	0	0.0
HY070G	Housing allowances	8 183	94.90	440	5.10	440	100.00	0	0.0
HY080G	Regular inter-household cash transfer received	8 191	94.99	432	5.01	283	65.51	149	34.4
HY081G	Alimonies received (compulsory + voluntary)	8 521	98.82	102	1.18	76	74.51	26	25.4
HY100G	Interest repayments on mortgage	8 317	96.45	306	3.55	306	100.00	0	0.0
HY110G	Income received by people aged under 16	8 183	94.90	440	5.10	291	66.14	149	33.8
HY130G	Regular inter-household cash transfer paid	8 378	97.16	245	2.84	217	88.57	28	11.4
HY131G	Alimonies paid (compulsory + voluntary)	8 578	99.48	45	0.52	38	84.44	7	15.5
HY140G	Tax on income and social contributions	2 850	33.05	5 773	66.95	5 773	100.00	0	0.0
HY170G	Value of goods produced for own consumption	8 349	96.82	274	3.18	0	0.00	274	100.0
PY010G	Employee's cash or near cash income	10 922	60.42	7 154	39.58	6 557	91.66	597	8.3
PY020G	Non-cash employee's income	17 409	96.31	667	3.69	462	69.27	205	30.7
PY021G	Income from using company car for private purposes	17 941	99.25	135	0.75	135	100.00	0	0.0
PY030G	Employer's social insurance contribution	10 907	60.34	7 169	39.66	7 169	100.00	0	0.0
PY031G	Employer's voluntary contribution	0	0.00	18 076	100.00	18 076	100.00	0	0.0
PY035G	Contributions to individual private pension plans	18 076	100.00	0	0.00	0	0.00	0	0.0
PY050G	Income from self-employment	16 008	88.56	2 068	11.44	1 448	70.02	620	29.9
PY080G	Pension from individual private plans	18 034	99.77	42	0.23	28	66.67	14	33.3
PY090G	Unemployment benefits	17 923	99.15	153	0.85	110	71.90	43	28.1
PY100G	Old-age benefits	12 367	68.42	5 709	31.58	5 412	94.80	297	5.2
PY110G	Survivors' benefits	16 947	93.75	1 129	6.25	1 066	94.42	63	5.5
PY120G	Sickness benefits	17 817	98.57	259	1.43	259	100.00	0	0.0
PY130G	Disability benefits	16 822	93.06	1 254	6.94	1 204	96.01	50	3.9
PY140G	Education-related allowances	18 074	99.99	2	0.01	2	100.00	0	0.0

2.2.7. Processing errors

During data processing, detailed data verification of all responses is done, such as checking of input values according to ranges, checking of possible answers, logical and accounting checks of all income items, logical data checking of economic activity, educational status etc.

These checks are performed on the microdata set at the level of the survey questionnaire.

It is possible for an error to emerge in the microdata base during the final processing and preparation of data for the 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. It means that the imputation rate equals the item non-response rate given in Table 7. Item non-response rate.

The indicator is not computed.

2.2.9. Model assumption error

Not applicable. This indicator is not computed for the SILC survey. 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 2024 it is determined for the SILC data for 2023 to be released as final data. Final data are issued in the First Release after final checks and Eurostat's 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

The indicator is not computed.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

Timeliness shows the length of time, expressed in months, between data availability and reference period the phenomenon refers to.

3.1.1. Timeliness - first results

The indicator is not computed.

3.1.2. Timeliness – final results

Time lag of final results is: T + 3.

First Release "Indicators of Poverty and Social Exclusion, 2023"

3.2. Punctuality

Planned publishing of the Survey on Income and Living Conditions 2023 data were issued according to the Calendar of Statistical Data Issues 2024

3.2.1. Punctuality - delivery and publication

Punctuality is the period from the actual date of data issue and the targeted date of data issue according to the Calendar of Statistical Data Issues 2024. Concerning SILC 2023 data, all publications were issued according to the deadlines as defined in the Calendar of Statistical Data Issues 2024, so delivery and publication is 100%.

4. Accessibility and clarity

Publications presenting the survey results are available in electronic and printed form as well as on the website of the Croatian Bureau of Statistics <u>https://dzs.gov.hr</u>. All additional information regarding the results and the survey can be found at e-mail address: <u>stat.info@dzs.hr</u>.

4.1. News release

First Release "Indicators of Poverty and Social Exclusion, 2023"

Statistical Reports "Income and Living Conditions Survey Results, 2023"

4.2. Online database

The results of the SILC 2023 are currently available in the form of an online database only on the Eurostat's website <u>https://op.europa.eu/en/web/general-publications/publications</u>.

4.3. Microdata access

Conditions under which certain users can have access to microdata are regulated by the Ordinance on the Conditions and Manner of Use of Statistical Data for Scientific Purposes (OG, No. 137/13). Microdata are available at the level of variables defined in the EU methodology and not at the level of the questionnaire.

4.4. Documentation on methodology

Notes on methodology are published in the First Release and in the Statistical Report Income and Living Conditions Survey Results, while other methodological documents on the survey are available on the Eurostat's website <u>http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/methodology</u>.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability over time

The survey was introduced in 2010 and, therefore, data for the period from 2010 to 2023 are available. The SILC 2015 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 SILC 2016 survey, a figure that refers to the at-risk-of-poverty indicator before social transfers, when social transfers have 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.

SILC		2020			2021			2022			2023			
Income variables at household level	Sum of weights	Number of obser- vations	Median	Sum of weights	Number of obser- vations	Median	Sum of weights	Number of obser- vations	Median	Sum of weights	Number of obser- vations	Median		
HY010	1 432 899.49	7 695	120 825.00	1 438 322.84	8 068	125 257.58	1 406 103.07	8 144	134 163.61	1 392 220.37	8 591	18 301.65		
HY020	1 433 204.94	7 698	97 066.00	1 438 322.84	8 068	100 598.00	1 406 228.05	8 147	107 700.00	1 392 220.37	8 591	15 544.10		
HY022	1 407 531.72	7 518	91 000.00	1 414 347.84	7 894	94 712.00	1 383 836.47	7 969	102 900.00	1 367 090.19	8 382	14 812.77		
HY023	1 140 385.39	5 545	90 600.00	1 136 872.13	5 742	94 618.00	1 034 600.36	5 274	112 109.00	1 028 772.63	5 637	16 609.47		
HY030G	1 411 824.39	7 631	2 000.00	*	*	*	*	*	*	*	*	*		
HY040G	80 277.08	469	23 500.00	80 409.64	450	20 000.00	73 355.31	404	24 833.00	70 497.05	418	3 797.33		
HY050G	177 264.66	681	9 600.00	164 408.48	608	9 978.00	142 954.13	491	10 856.00	192 882.47	829	1 324.31		
HY060G	43 423.46	264	9 600.00	49 252.62	271	7 200.00	40 385.08	290	8 100.00	41 291.92	318	464.53		
HY080G	77 720.32	418	10 800.00	82 257.78	473	9 493.00	73 487.83	422	10 000.00	66 276.41	432	1 327.23		
HY090G	69 602.53	370	1 152.07	60 145.49	323	675.83	47 272.53	275	907.03	54 737.68	347	136.26		
HY100G	90 994.85	305	10 792.15	89 085.59	289	10 288.60	74 924.17	257	8 503.57	73 570.05	306	1 227.42		
HY110G	99 762.56	370	1 000.00	99 761.41	370	1 000.00	105 001.74	347	1 000.00	111 860.28	440	171.35		
HY120G	324 412.26	1 431	450.00	348 658.88	1 610	475.00	321 815.97	1 558	500.00	315 984.21	1 641	66.36		
HY130G	64 328.71	304	7 000.00	66 283.34	323	7 500.00	47 245.78	273	10 000.00	42 894.51	245	1 327.23		
HY140G	1 045 636.56	4 904	33 716.85	1 043 640.84	5 061	34 499.67	1 023 142.12	5 162	36 840.31	1 050 506.93	5 773	4 173.98		
HY170G	512 267.09	3 170	3 600	497 196.26	3 191	3 600.00	475 535.10	3 136	3 600.00	444 480.32	3 117	477.80		

Table 8 Comparison of individual statistics for income variables at household level, 2020 - 2023

SILC	2020			2021			2022			2023		
Income variables at personal level	Sum of weights	Number of obser- vations	Median									
PY010G	1 531 533.9	6 303	79 310.00	1 505 971.48	6 408	85 500.00	1 472 489.86	6 552	92 862.24	1 494 051.45	7 154	12 467.95
PY020G	186 011.00	636	3 945.00	183 955.99	703	3 762.50	167 261.32	696	3 875.00	142 556.72	667	547.48
PY030G	1 542 214.1	6 354	27 288.55	1 519 246.34	6 478	29 473.69	1 487 248.29	6 621	32 320.19	1 496 383.70	7 169	592.87
PY035G	51 114.58	179	3 600.00	63 250.22	240	4 000.00	54 267.71	230	3 600.00	55 500.86	259	663.61
PY050G	408 675.57	1 979	22 837.00	369 849.49	1 851	26 250.00	394 919.33	2 032	22 733.33	377 240.80	2 068	3 479.59
PY090G	38 611.25	174	8 000.00	37 260.15	180	8 000.00	27 416.82	158	9 600.00	28 089.69	153	875.97
PY100G	803 763.18	5 253	33 600.00	843 362.98	5 755	34 160.00	859 732.99	5 896	36 400.00	769 549.25	5 730	5 261.93
PY110G	171 230.70	1 033	24 300.00	161 141.81	1 049	25 200.00	161 530.33	1 081	27 000.00	154 729.22	1 129	4 020.24
PY130G	173 360.94	1 009	19 704.00	159 578.72	985	19 200.00	155 672.98	968	18 000.00	184 996.34	1 254	2 389.01
PY200G	1 465 128.83	6 030	7 152.66	*	*	*	*	*	*	*	*	*

Table 9 Comparison of individual statistics for income variables at personal level, 2020 – 2023

(* As of 2021, the PY200G variable does not exist)

5.2.1. Length of comparable time series

The length of comparable time series is the number of reporting periods within 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. A comparable fourteen-year data series for the period from 2010 to 2023 is available to users, with certain minor methodological changes concerning the compilation of some indicators. In 2015, particular income components were broken down in more detail in the survey questionnaire, while in 2016, some changes were introduced in recording of disability pensions. As a result, data for some indicators are not fully comparable with previous periods.

Length of comparable time series is 14.

5.2.2. Reasons for break in time series

The SILC 2015 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 SILC 2016 survey, a figure that refers to the at-risk-of-poverty indicator before social transfers, when social transfers have 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.

In 2023, administrative sources were introduced as data sources for a part of collected data on income. As this caused changes in sources of collected data, certain data represent a break in time series in relation to previous years when data were collected exclusively by using interviewing method. Income data collected using administrative sources refer to income from paid employment, pension (old-age pension, survivors' pension, disability pension, early retirement) and social benefits. Major part of survey data were still collected by using CAPI and CATI methods.

5.3. Coherence – short-term and structural data

The indicator is not applicable.

5.4. Coherence - national accounts

The indicator is not computed.

5.5. Coherence – administrative sources

The indicator is not applicable.

6. Cost and burden

6.1. Cost

The fieldwork costs for the Income and Living Conditions Survey 2023 amounted to 227 441.79 kuna and included costs of interviewers. A part of the interviewers is employees of the Croatian Bureau of Statistics in branch office units, while others are external interviewers employed on contractual basis. Those costs included also the transportation costs for interviewers attending trainings.

6.2. Burden

The burden on respondents includes the time spent to answer the questions in the survey questionnaire. An important factor that impacts the respondents' burden is the number of questions in the questionnaire. The Statistics on Income and Living Conditions (SILC) Survey consists of around 300 questions. Although respondents do not provide answers to every single question, participation in the Survey represents a substantial burden to the respondent because of automated skips integrated in the entry programme. The interview duration per household for the SILC 2023 survey was 130.27 minutes on average. It is therefore essential to reduce the burden on respondents in the next period (by using administrative data sources, etc.).