

## First Release

Year: LX.

Zagreb, 20 February 2024

RAD-2023-1-1/12

ISSN 1334-0557



# AVERAGE MONTHLY NET AND GROSS EARNINGS OF PERSONS IN PAID EMPLOYMENT FOR DECEMBER 2023

The average monthly paid net earnings per person in paid employment in legal entities in the Republic of Croatia for December 2023 amounted to 1 191 euro, which represented a nominal decrease of 1.4% and a real decrease of 0.9% as compared to November 2023.

The average monthly gross earnings per person in paid employment in legal entities in the Republic of Croatia for December 2023 amounted to 1 620 euro, which represented a nominal decrease of 3.5% and a real decrease of 3.0% as compared to November 2023.

The highest average monthly paid net earnings per person in paid employment in legal entities for December 2023 were paid in the activity Manufacture of coke and refined petroleum products and amounted to 1 795 euro, while the lowest earnings were paid in the activity Manufacture of wearing apparel and amounted to 739 euro.

The highest average monthly gross earnings per person in paid employment in legal entities for December 2023 were paid in the activity Manufacture of coke and refined petroleum products and amounted to 2 662 euro, while the lowest earnings were paid in the activity Manufacture of wearing apparel and amounted to 920 euro.

The average monthly paid net earnings per person in paid employment in legal entities in the Republic of Croatia for December 2023 were 13.9% higher in nominal terms and 9.0% higher in real terms as compared to the same month last year.

The average monthly gross earnings per person in paid employment in legal entities in the Republic of Croatia for December 2023 were 13.5% higher in nominal terms and 8.6% higher in real terms as compared to the same month last year.

In the period from January to December 2023, the average monthly paid net earnings per person in paid employment in legal entities in the Republic of Croatia amounted to 1 148 euro, which represented a nominal increase of 13.0% and a real increase of 4.6% as compared to the same period of 2022.

In the period from January to December 2023, the average monthly gross earnings per person in paid employment in legal entities in the Republic of Croatia amounted to 1 584 euro, which represented a nominal increase of 14.8% and a real increase of 6.3% as compared to the same period of 2022.

In December 2023, there were 166 paid hours on average, which was a decrease of 4.6%, as compared to November 2023. The highest number of paid hours was recorded in the activity Water transport (179) and the lowest one in Social work activities without accommodation (144).

The average monthly paid net earnings per hour for December 2023 amounted to 6.96 euro, which was 2.7% higher than in November 2023. As compared to the same month last year, they increased by 18.8%.

The average monthly gross earnings per hour for December 2023 amounted to 9.47 euro, which was 0.5% higher than in November 2023. As compared to the same month last year, they increased by 18.5%.

Median net earnings for December 2023 amounted to 1 005 euro, while median gross earnings amounted to 1 334 euro.

Detailed data can be downloaded from the link [Statistics in Line](#).

## 1 AVERAGE MONTHLY NET AND GROSS EARNINGS FOR DECEMBER 2023

	XII 2023	I – XII 2023	Indices		
			XII 2023 XI 2023	XII 2023 XII 2022	I – XII 2023 I – XII 2022
<b>Net earnings</b>					
Average monthly paid net earnings per employee, euro	1 191	1 148	98,6	113,9	113,0
Real net earnings per employee			99,1	109,0	104,6
<b>Gross earnings</b>					
Average monthly gross earnings per employee, euro	1 620	1 584	96,5	113,5	114,8
Real gross earnings per employee			97,0	108,6	106,3
<b>Net earnings per hour</b>					
Average paid net earnings per hour, euro	6,96	6,53	102,7	118,8	113,2
Real net earnings per hour			103,2	113,7	104,8
<b>Gross earnings per hour</b>					
Average monthly gross earnings per hour, euro	9,47	9,00	100,5	118,5	114,6
Real gross earnings per hour			101,0	113,4	106,1

## 2 DISTRIBUTION OF NET AND GROSS EARNINGS, BY QUARTILES, FOR DECEMBER 2023

	XII 2023	
	Net earnings, euro	Gross earnings, euro
First (lower) quartile	769	958
Second quartile (median)	1 005	1 334
Third (upper) quartile	1 375	1 885
Fourth quartile	z	z

## 3 DISTRIBUTION OF NET AND GROSS EARNINGS, BY DECILES, FOR DECEMBER 2023

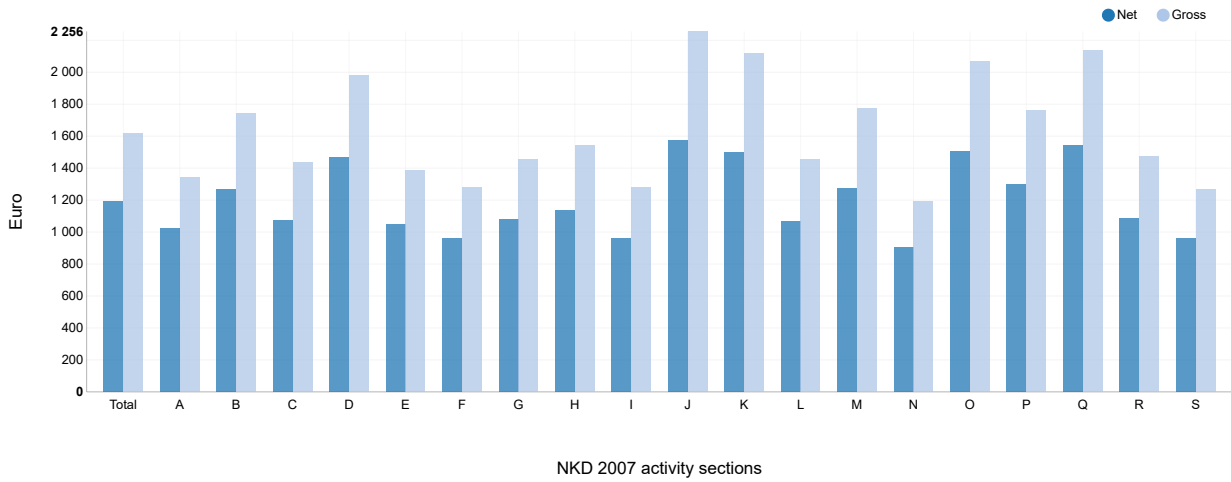
	XII 2023	
	Net earnings, euro	Gross earnings, euro
First decile	666	800
Second decile	730	895
Third decile	814	1 024
Fourth decile	903	1 172
Fifth decile (median)	1 005	1 334
Sixth decile	1 126	1 518
Seventh decile	1 285	1 754
Eighth decile	1 481	2 037
Ninth decile	1 828	2 574
Tenth decile	z	z

## 4 PAID OFF NON-TAXABLE INCOMES, ACCORDING TO NKD 2007<sup>1)</sup>, DECEMBER 2023

	XII 2023	
	Average non-taxable income by number of receivers, euro	Average non-taxable income by number of persons in employment who received earnings, euro
Total	162	3
A Agriculture, forestry and fishing	77	2
B Mining and quarrying	221	11
C Manufacturing	146	3
D Electricity, gas, steam and air conditioning supply	87	1
E Water supply; sewerage, waste management and remediation activities	118	3
F Construction	193	3
G Wholesale and retail trade; repair of motor vehicles and motorcycles	100	2
H Transportation and storage	136	2
I Accommodation and food service activities	173	1
J Information and communication	209	1
K Financial and insurance activities	95	1
L Real estate activities	264	2
M Professional, scientific and technical activities	172	2
N Administrative and support service activities	112	2
O Public administration and defence; compulsory social security	134	1
P Education	130	1
Q Human health and social work activities	251	13
R Arts, entertainment and recreation	92	2
S Other service activities	211	3

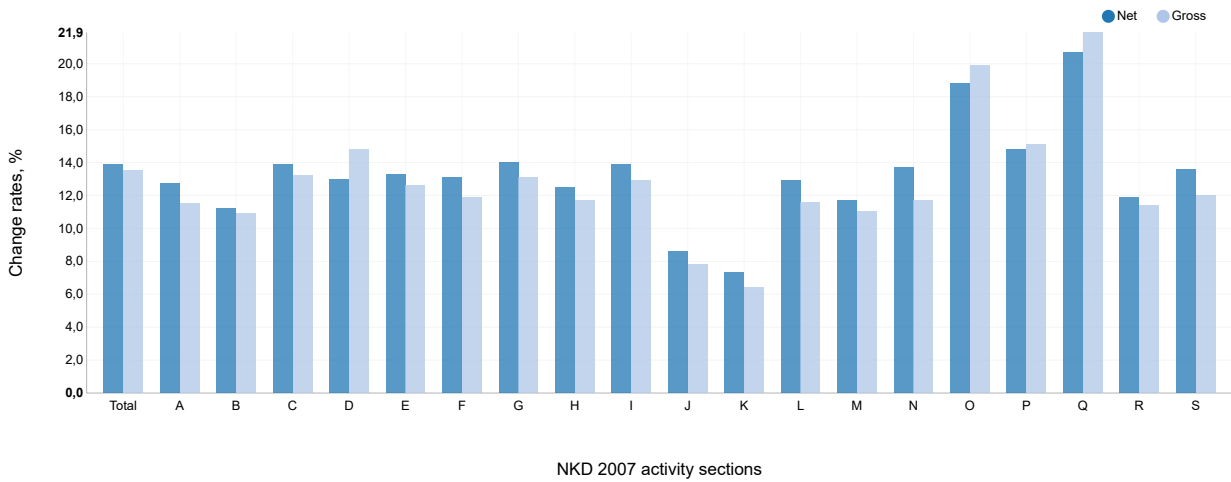
1) Activity sections T (Activities of households as employers; undifferentiated goods – and services – producing activities of households for own use) and U (Activities of extraterritorial organisations and bodies) as well as their divisions are not presented in this First Release since they were not covered by the survey.

**G-1 AVERAGE MONTHLY NET AND GROSS EARNINGS FOR DECEMBER 2023, ACCORDING TO NKD 2007**



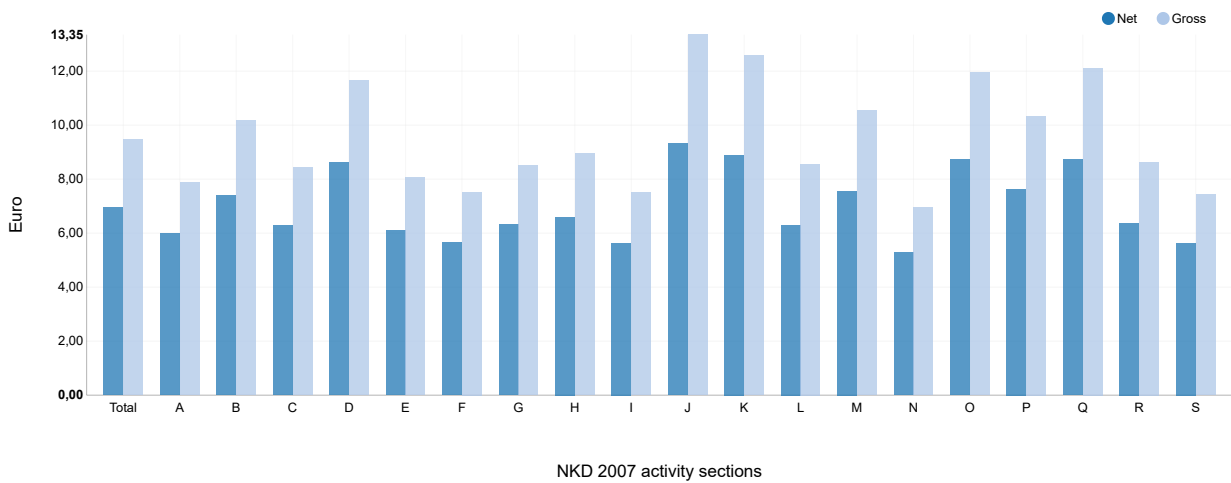
NKD 2007 activity sections

**G-2 ANNUAL CHANGE RATES OF AVERAGE NET AND GROSS EARNINGS FOR DECEMBER 2023, ACCORDING TO NKD 2007**



NKD 2007 activity sections

**G-3 AVERAGE MONTHLY NET AND GROSS EARNINGS PER PAID HOUR FOR DECEMBER 2023, ACCORDING TO NKD 2007**



NKD 2007 activity sections

NKD 2007 activity sections

- A Agriculture, forestry and fishing
- B Mining and quarrying
- C Manufacturing
- D Electricity, gas, steam and air conditioning supply
- E Water supply; sewerage, waste management and remediation activities
- F Construction
- G Wholesale and retail trade; repair of motor vehicles and motorcycles
- H Transportation and storage
- I Accommodation and food service activities
- J Information and communication
- K Financial and insurance activities
- L Real estate activities
- M Professional, scientific and technical activities
- N Administrative and support service activities
- O Public administration and defence; compulsory social security
- P Education
- Q Human health and social work activities
- R Arts, entertainment and recreation
- S Other service activities

5 AVERAGE MONTHLY PAID OFF NET EARNINGS OF PERSONS IN EMPLOYMENT IN 2023<sup>1)</sup>, ACCORDING TO NKD 2007

		Average paid net earnings per person in employment, euro				Indices of change in average monthly paid net earnings according to pays for month					
		For month				Nominal			Real		
		X	XI	XII	I – XII	<u>XII 2023</u> XI 2023	<u>XII 2023</u> XII 2022	<u>I – XII 2023</u> I – XII 2022	<u>XII 2023</u> XI 2023	<u>XII 2023</u> XII 2022	<u>I – XII 2023</u> I – XII 2022
O	Public administration and defence; compulsory social security	1 444	1 458	1 507	1 361	103,4	118,8	114,8	103,9	113,7	106,3
84	Public administration and defence; compulsory social security	1 444	1 458	1 507	1 361	103,4	118,8	114,8	103,9	113,7	106,3
84.1	Administration of the State and the economic and social policy of the community	1 412	1 424	1 456	1 347	102,2	116,5	112,9	102,7	111,5	104,5
84.2	Provision of services to the community as a whole	1 494	1 509	1 577	1 395	104,5	121,1	116,1	105,0	115,9	107,5
84.3	Compulsory social security activities	1 220	1 221	1 226	1 147	100,4	115,0	114,5	100,9	110,0	106,0
P	Education	1 282	1 287	1 299	1 217	100,9	114,8	112,0	101,4	109,9	103,7
85	Education	1 282	1 287	1 299	1 217	100,9	114,8	112,0	101,4	109,9	103,7
85.1	Pre-primary education	958	965	986	941	102,2	113,6	110,6	102,7	108,7	102,4
85.2	Primary education	1 290	1 291	1 308	1 208	101,3	116,5	112,9	101,8	111,5	104,5
85.3	Secondary education	1 313	1 314	1 332	1 232	101,4	116,2	112,9	101,9	111,2	104,5
85.4	Higher education	1 762	1 768	1 767	1 669	99,9	113,0	111,3	100,4	108,1	103,1
85.5	Other education	942	966	940	912	97,3	112,3	114,4	97,8	107,5	105,9
85.6	Educational support activities	1 265	1 254	1 251	1 223	99,8	110,7	115,6	100,3	105,9	107,0
Q	Human health and social work activities	1 480	1 498	1 540	1 410	102,8	120,7	114,5	103,3	115,5	106,0
86	Human health activities	1 587	1 604	1 655	1 511	103,2	120,3	114,0	103,7	115,1	105,6
86.1	Hospital activities	1 660	1 679	1 750	1 583	104,2	121,3	113,9	104,7	116,1	105,5
86.2	Medical and dental practice activities	1 444	1 458	1 457	1 367	99,9	117,4	114,6	100,4	112,3	106,1
86.9	Other human health activities	1 467	1 483	1 532	1 395	103,3	120,9	115,2	103,8	115,7	106,7
87	Residential care activities	1 041	1 063	1 082	996	101,8	119,0	114,9	102,3	113,9	106,4
87.1	Residential nursing care activities	988	998	1 039	937	104,1	122,5	115,5	104,6	117,2	106,9
87.2	Residential care activities for mental retardation, mental health and substance abuse	1 133	1 153	1 175	1 076	101,9	118,3	114,0	102,4	113,2	105,6
87.3	Residential care activities for the elderly and disabled	969	996	1 011	933	101,5	118,8	115,0	102,0	113,7	106,5
87.9	Other residential care activities	1 219	1 228	1 257	1 163	102,4	118,6	113,7	102,9	113,5	105,3
88	Social work activities without accommodation	955	958	969	908	101,1	128,5	102,3	101,6	123,0	94,7
88.1	Social work activities without accommodation for the elderly and disabled	1 239	1 239	1 155	1 080	93,2	155,0	145,6	93,7	148,3	134,8
88.9	Other social work activities without accommodation	919	921	940	888	102,1	124,5	98,8	102,6	119,1	91,5

1) On the basis of user requirements, we are publishing a supplement to the regular First Release issued once in three months. Data are presented at the group level (three digits) for NKD 2007 sections O, P and Q.

## 6 AVERAGE MONTHLY GROSS EARNINGS OF PERSONS IN EMPLOYMENT IN 2023<sup>1)</sup>, ACCORDING TO NKD 2007

		Average gross earnings per person in employment, euro				Indices of change in average monthly gross earnings according to pays for month					
		For month				Nominal			Real		
		X	XI	XII	I – XII	$\frac{XII\ 2023}{XI\ 2023}$	$\frac{XII\ 2023}{XII\ 2022}$	$\frac{I - XII\ 2023}{I - XII\ 2022}$	$\frac{XII\ 2023}{XI\ 2023}$	$\frac{XII\ 2023}{XII\ 2022}$	$\frac{I - XII\ 2023}{I - XII\ 2022}$
O	Public administration and defence; compulsory social security	1 984	2 010	2 066	1 862	102,8	119,9	116,6	103,3	114,7	108,0
84	Public administration and defence; compulsory social security	1 984	2 010	2 066	1 862	102,8	119,9	116,6	103,3	114,7	108,0
84.1	Administration of the State and the economic and social policy of the community	1 963	1 983	2 012	1 864	101,5	117,0	114,3	102,0	112,0	105,8
84.2	Provision of services to the community as a whole	2 033	2 065	2 150	1 893	104,1	122,5	118,3	104,6	117,2	109,5
84.3	Compulsory social security activities	1 696	1 698	1 682	1 582	99,1	115,7	116,8	99,6	110,7	108,1
P	Education	1 761	1 768	1 760	1 663	99,5	115,1	113,5	100,0	110,1	105,1
85	Education	1 761	1 768	1 760	1 663	99,5	115,1	113,5	100,0	110,1	105,1
85.1	Pre-primary education	1 291	1 300	1 305	1 263	100,4	113,3	112,1	100,9	108,4	103,8
85.2	Primary education	1 721	1 723	1 730	1 606	100,4	117,8	115,0	100,9	112,7	106,5
85.3	Secondary education	1 859	1 860	1 856	1 728	99,8	116,4	114,5	100,3	111,4	106,0
85.4	Higher education	2 524	2 536	2 503	2 383	98,7	112,9	112,4	99,2	108,0	104,1
85.5	Other education	1 288	1 325	1 246	1 236	94,0	111,1	116,2	94,5	106,3	107,6
85.6	Educational support activities	1 731	1 723	1 705	1 677	99,0	111,1	116,9	99,5	106,3	108,2
Q	Human health and social work activities	2 074	2 104	2 139	1 966	101,7	121,9	116,7	102,2	116,7	108,1
86	Human health activities	2 240	2 268	2 320	2 122	102,3	121,5	116,0	102,8	116,3	107,4
86.1	Hospital activities	2 352	2 382	2 464	2 232	103,4	122,5	115,7	103,9	117,2	107,1
86.2	Medical and dental practice activities	2 027	2 052	2 025	1 907	98,7	118,7	116,6	99,2	113,6	108,0
86.9	Other human health activities	2 043	2 071	2 120	1 932	102,4	122,1	117,5	102,9	116,8	108,8
87	Residential care activities	1 383	1 425	1 422	1 316	99,8	120,6	117,7	100,3	115,4	109,0
87.1	Residential nursing care activities	1 309	1 340	1 363	1 232	101,7	124,8	118,7	102,2	119,4	109,9
87.2	Residential care activities for mental retardation, mental health and substance abuse	1 497	1 533	1 545	1 417	100,8	120,4	116,8	101,3	115,2	108,1
87.3	Residential care activities for the elderly and disabled	1 281	1 328	1 320	1 225	99,4	120,5	118,0	99,9	115,3	109,3
87.9	Other residential care activities	1 663	1 682	1 693	1 578	100,7	119,4	115,9	101,2	114,3	107,3
88	Social work activities without accommodation	1 280	1 289	1 254	1 205	97,3	128,0	103,3	97,8	122,5	95,6
88.1	Social work activities without accommodation for the elderly and disabled	1 743	1 747	1 568	1 490	89,8	160,2	153,1	90,3	153,3	141,8
88.9	Other social work activities without accommodation	1 221	1 228	1 205	1 172	98,1	123,0	99,3	98,6	117,7	91,9

1) On the basis of user requirements, we are publishing a supplement to the regular First Release issued once in three months. Data are presented at the group level (three digits) for NKD 2007 sections O, P and Q.

## NOTES ON METHODOLOGY

### Data sources

Data on monthly net and gross earnings as well as data on paid hours were gathered by processing data from the Report on Income, Income Tax and Surtax as well as Contributions for Mandatory Insurances (JOPPD form), in effect since 1 January 2014.

All persons or entities that are the payers of income for which the income tax regulations prescribe the obligation of accounting and paying deduction tax are under the obligation to submit the JOPPD form.

### Coverage and comparability

Data comprise persons in employment in legal entities of all types of ownership, government bodies, and bodies of local and regional self-government units, on the territory of the Republic of Croatia.

Persons employed in crafts and trades and free lances and employed insured persons – private farmers are not covered, so data on their pays are not included in the data on average earnings.

Data on monthly net and gross earnings of persons employed in legal entities include net and gross earnings of persons in permanent employment, irrespective of the kind of employment and number of working-hours.

Persons in part-time employment who received earnings are expressed in full-time equivalent.

Data on monthly net and gross earnings are presented according to realised pays in the current month for the previous month, which is in line with pay dynamics in most legal entities, so the average earnings refer to the month for which the pay has been received. It does not apply to paid non-taxable incomes.

Non-taxable incomes received by person in employment are presented in table 4.

The following non-taxable incomes are covered, according to codes on the JOPPD form:

- Code 21 – gift for a child younger than 15 and benefit for a newborn, up to a prescribed amount
- Code 22 – occasional bonuses (Christmas bonus, annual leave bonus, etc.), up to a prescribed amount
- Code 24 – supplements for seafarers, up to a prescribed amount
- Code 25 – compensation for living separately from family, up to a prescribed amount
- Code 26 – severance, up to a prescribed amount
- Code 60 – jubilee payments to persons in employment depending on years of service, up to a prescribed amount
- Code 61 – occasional bonuses (Christmas bonus, annual leave bonus, etc.) for previous taxation periods (subsequent payments), up to a prescribed amount
- Code 62 – expenses for food and accommodation of seasonal workers, according to Article 7, Item 35, of the Income Tax Ordinance
- Code 63 – pecuniary awards for performance results and other types of additional awarding of persons in employment (supplemental earnings, supplements to monthly earnings, etc.)
- Code 64 – expenses for accommodation and food of persons engaged in occasional seasonal agricultural works, according to Article 6, Item 10, of the Income Tax Ordinance
- Code 65 – pecuniary lump-sum reimbursements for covering food costs of persons in employment, up to a prescribed amount
- Code 66 – food expenses for persons in employment emerged during employment with the employer based on authentic documentation, up to a prescribed amount
- Code 67 – accommodation expenses for persons in employment emerged during employment with the employer based on authentic documentation, paid through cashless transaction
- Code 68 – accommodation expenses for persons in employment emerged during employment with the employer based on authentic documentation, transmitted to worker's account
- Code 69 – reimbursements for expenses of hospitality, tourist and other services rendered during workers' vacation, pursuant to regulations determined by the ministry in charge for tourism
- Code 70 – reimbursements for expenses of regular care for workers' children in institutions of pre-school education as well as in other legal entities or natural persons (kindergartens etc.)
- Code 71 – premiums of supplemental and additional health insurance – in effect since 2020.

Data from January 2016 and onwards are not comparable to previously published monthly data.

#### Definitions

**Average monthly paid net earnings** comprise income of a person in employment earned for work done during regular working hours as well as annual leave, paid leave, public holidays and day-offs as prescribed by law, sickness leave up to 42 days, absence for continuing professional education, during lay-off and job stop caused against person's will and of no fault of his own and net pays on the basis of compensations, allowances and rewards in sums which are subject to contributions, taxes and surtaxes.

**Average monthly gross earnings** include all kinds of net pays on the basis of employment and the following mandatory allocations: pension insurance contributions, income tax and surtax on income tax.

**Number of paid hours** is a number of hours for which persons in employment were paid. They include hours actually worked (hours done during regular working time and overtime hours) and hours not actually worked (annual leave, holidays, sick leave lasting less than 42 days and other paid hours not actually done). Paid hours do not include working hours not actually worked which are paid outside a legal entity (sick leave hours lasting over 42 days, maternity leave hours, hours of shorter working time done by parents, etc.).

**Average monthly net and gross earnings per person in employment** are calculated by dividing the total of pays with the number of persons in employment expressed in full-time equivalent.

**Average monthly net and gross earnings per paid hour** are calculated by dividing the total of pays with the total number of paid hours.

**Indices of nominal net and gross earnings** are calculated from the data on average monthly net and gross earnings for the respective months and year.

**Real indices** of net and gross earnings are calculated by dividing index of nominal net and gross earnings with a consumer price index for the respective month and year.

**Median monthly net and gross earnings** are calculated by determining a mean after earnings of persons in employment have been rank-ordered from the lowest to the highest one and show that 50% of persons in employment get earnings that are equal to or lower than that amount (median) and another 50% get earnings that are equal to or higher than that amount (median).

**Quartile monthly net and gross earnings** are calculated by dividing the earnings of persons in employment into four equal parts after they have been rank-ordered from the lowest to the highest one. Then the amount is selected below which 25%, 50%, 75% and 100% of the earnings of persons in employment are placed. They can be divided to first (lower) quartile, second quartile (median), third (upper) quartile and fourth quartile.

**The first (lower) quartile** indicates that 25% of persons in employment get earnings that are equal to or lower than the first quartile, while 75% of persons in employment get earnings that are equal to or higher than the first quartile.

**The third (upper) quartile** indicates that 75% of persons in employment get earnings that are equal to or lower than the third quartile, while 25% of persons in employment get earnings that are equal to or higher than the third quartile.

**Decile monthly net and gross earnings** are calculated by dividing earnings of persons in employment into ten equal parts after they have been rank-ordered from the lowest to the highest one. Then the amount is selected below which 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100% of earnings of persons in employment are placed.

**The first decile** includes persons in employment with the lowest monthly earnings and indicates that 10% of persons in employment get earnings that are equal to or lower than the first decile, while 90% of persons in employment get earnings that are equal to or higher than that amount. The second decile includes persons in employment who get earnings that are higher than those included in the first decile and lower than those included in the third decile, etc.

#### Abbreviations

NKD 2007 National Classification of Activities, 2007 version  
z data are not published for confidentiality reasons

Press corner: [press@dzs.hr](mailto:press@dzs.hr)

Persons responsible:

Dubravka Rogić Hadžalić, Director of Demographic and Social Statistics Directorate  
Lidija Brković, Director General

Prepared by:

Dean Maslovara, Marinka Radman Ćosić and Zdenka Mandarić

**USERS ARE KINDLY REQUESTED TO STATE THE SOURCE.**

Customer Relations and Data Protection Department

Information and user requests

Phone: (+385 1) 48 06 138, 48 06 154, 48 06 115

E-mail: [stat.info@dzs.hr](mailto:stat.info@dzs.hr)

Subscription

Phone: (+385 1) 21 00 455

E-mail: [prodaja@dzs.hr](mailto:prodaja@dzs.hr)