



Statistical Analysis of Romania's Income during the Period 2019-2021

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Abstract: *The evolution of income is a crucial factor in understanding economic growth and social well-being. This study analyses the income dynamics of the Romanian population between 2019 and 2021, highlighting structural and nominal changes. The findings indicate a continuous increase in household and individual income levels, albeit at varying rates across different professional and regional categories. The study also explores the disparities between urban and rural income, as well as differences in income sources such as wages, social benefits, and self-consumption. The data suggest that while monetary income remains the primary source of earnings for most households, its growth has been relatively slow. The research emphasises the impact of economic factors, taxation policies, and regional disparities on wage trends. Additionally, it highlights the challenges faced by lower-income sectors such as agriculture and hospitality. Understanding these trends is essential for policymakers to develop strategies aimed at economic stability and improved living standards.*

Keywords: *income evolution; household income; salary dynamics; economic disparity; social benefits; Romania; wage growth; economic policy; labour market; purchasing power.*

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1. Introduction

Income distribution plays a fundamental role in economic development, influencing both consumption and investment patterns within a society. The period between 2019 and 2021 was marked by significant economic shifts, with wage growth and structural income changes impacting the financial well-being of Romanian households. Income trends reflect broader macroeconomic conditions, labour market transformations, and social policies that shape economic stability (Anuarul statistic al României, 2023).

The study of income evolution in Romania reveals key insights into the composition of earnings, the role of social benefits, and regional disparities in wage distribution. While salary income remains the predominant source of earnings, other components, such as social transfers and self-consumption, contribute to overall household income (Opariuc-Dan, 2009). Despite steady increases in nominal wages, the real purchasing power of income has been affected by inflationary pressures and sectorial imbalances (Caragea & Alexandru, 2018).

This paper aims to provide a detailed analysis of income trends in Romania from 2019 to 2021, examining:

- The general growth of total and individual income levels (Anuarul statistic al României, 2023).
- The structural composition of household earnings.
- The impact of regional disparities on income distribution (Mnerie et al., 2012).
- Wage evolution across various economic sectors.
- The role of taxation and government policies in shaping income trends (Cărbunaru-Băcescu, 2009).

By analysing these factors, the study seeks to offer a comprehensive understanding of income dynamics and provide recommendations for enhancing economic stability and social welfare in Romania.

2. Evolution of Population Income in the Period 2019-2021

The income of the population is the main determinant of consumption and the acquisition of economic goods.

During the period 2019-2021, population income increased significantly. Changes in this segment were reflected in all quantitative and structural parameters of income, along with corresponding adjustments in other components of population income. As a result, real values expressed in purchasing power were illustrated alongside the share of total income within society. (Anuarul statistic al României, 2023)

Year	2019	2020	2021
Total Monthly Household Income	4790	5216	5683

Figure 1. Evolution of Total Monthly Household Income

A year-over-year increase in total monthly household income is evident, with income levels rising by 1.186 times (893 RON) from 4,790 RON in 2019 to 5,683 RON in 2021.

The year 2020 was marked by the pandemic, which affected numerous economic sectors and had a direct impact on the general population.

To better understand the evolution of income in terms of both value and structure, a separate analysis of household income and individual income is necessary.

Year	2019	2020	2021
Individual Income	1853	2031	2243

Figure 2. Evolution of Individual Income

An annual increase in individual income is observed, with income levels rising by 1.21 times (390 RON) from 1,853 RON in 2019 to 2,043 RON in 2021.

From the tables in Figures 1 and 2, we can conclude that income steadily increased each year during the period 2019-2021.

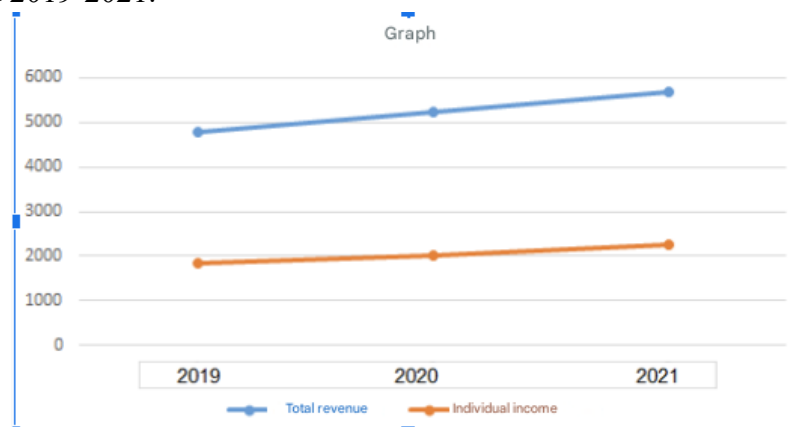


Figure 3. Graph of Total and Individual Income

The graph highlights the evolution of total and individual income, illustrating their upward trend.

Composition of Population Income

Population income is structured as follows:

- Monetary income
- Equivalent value of benefits and services received
- Equivalent value of self-consumption, including both food and non-food products from personal resources.

Years	2019	2020	2021
Salary income	3285.94	3559.84	3919.11
Income from agriculture	87.44	87.27	91.57
Income from non-agricultural self-employment	95.61	95.98	101.62
Income from social benefits	882.00	992.11	1087.46
Income from ownership and sale of assets	50.46	58.25	59.81
Income in kind	336.85	376.21	369.86
Other income	51.53	46.72	53.54

Figure 4. Table of the evolution of the structure of monthly income

Years	2019	2020	2021
Total Monthly Household Income	100	100	100
Salary income	68.6	68.2	69.0
Income from agriculture	1.8	1.7	1.6
Income from non-agricultural self-employment	2.0	1.8	1.8
Income from social benefits	18.4	19.0	19.1
Income from ownership and sale of assets	1.1	1.1	1.1
Income in kind	7.0	7.2	6.5
Other income	1.1	1.0	0.9

Figure 5. Percentage table of the evolution of the structure of monthly income

From the tables illustrated in Figures 4 and 5, we can conclude that the main source of income for the population is salary-based income (monetary income), accounting for over 68%. However, the increase in wages in 2021 compared to 2019 was only 0.74%, representing a minimal growth.

The population experienced a continuous increase in total income during the period selected for this case study (2019-2021).

After salaries, the second-largest source of income for the population is social benefits, contributing over 18% of total income. This category has seen a slight increase, rising by 0.7% in 2021 compared to 2019, which indicates that a significant portion of the population either lacks stable employment or faces social challenges.

Moreover, since Romanians are known for their resourcefulness, the third-largest source of income comes from in-kind earnings. These account for over 6.5% of total income, but this share is gradually decreasing.

This decline suggests that more people are moving into apartment buildings or no longer engage in home gardening and self-sustenance farming.

Residence type and social status directly influence income structure differences. Therefore, Figure 6 below presents income distribution between urban and rural areas, as well as the types of income according to household categories (salaried workers, farmers, unemployed individuals, and pensioners).

According to the data in Figure 6, a continuous increase in household income was observed during the 2019-2021 period for households where the head of the family is employed. Therefore, from 2019 to 2021, all categories experienced income growth ranging between 0.08% and 25%.

Unemployed individuals had the smallest income growth in 2021 compared to 2020, with an increase of only 0.08%. However, when comparing 2021 to 2019, their income grew by 9.16%.

LEVEL AND STRUCTURE OF TOTAL INCOME										
		Total income	% of total							
			Monetary income	of which:				Income in kind	of which:	
	Years	Monthly average per person -lei-		Gross wages and other non-agricultural income	Income from non-agricultural activities	Income from non-agricultural self-employment	Income from social benefits		Countervalue of income in kind consumption obtained by employees and recipients of social benefits	Countervalue consumption of agri-food products from own resources
TOTAL	2019	1852.73	93.0	68.6	1.8	2.0	18.4	7.0	1.2	5.8
	2020	2030.50	92.8	68.2	1.7	1.8	19.0	7.2	1.1	6.1
	2021	2243.43	93.5	69.0	1.6	1.8	19.1	6.5	1.1	5.4
Occupational status of the head of the household										
of which:									1.2	3.2
Employee	2019	2436.49	95.6	90.1	0.3	4.2	4.4	1.0	3.5	95.5
	2020	2625.66	95.9	59	90.0	0.2	4.4	4.5	1.0	3.1
	2021	2886.04	95.9	90.0	0.2	0.2	4.7	4.1	0.8	29.8
Farmer	2019	884.15	69.4	16.0	31.7	3.5	9.7	30.6	0.5	28.8
	2020	994.81	70.7	17.6	32.3	3.4	9.2	29.3	0.5	26.0
	2021	1090.98	73.5	17.1	32.7	2.7	10.1	26.5	1.4	8.5
Unemployed	2019	828.47	90.1	49.2	0.8	3.3	16.2	9.9	1.1	9.2
	2020	911.34	89.7	45.7	0.9	2.2	18.4	10.3	1.6	9.7
	2021	912.08	88.7	39.6	1.2	3.8	22.5	11.3	1.6	8.2
Retired	2019	1452.27	90.20	29.6	1.1	0.9	58.4	9.8	1.5	8.9
	2020	1624.27	89.6	27.6	1.3	0.8	58.6	10.4	1.5	8.1
	2021	1747.04	90.4	26.8	1.2	0.6	60.5	9.6	1.3	2.7
URBAN	2019	2246.96	96.0	75.9	0.3	1.3	16.9	4.0	1.3	2.9
	2020	2426.89	95.8	75.3	0.2	1.2	17.6	4.2	1.2	2.6
	2021	2688.40	96.2	75.6	0.2	1.2	17.6	3.8	1.1	11.6
RURAL	2019	1393.14	87.3	55.0	4.8	3.4	21.2	12.7	0.8	11.9
	2020	1567.72	87.3	55.5	4.3	3.0	21.6	12.7	0.9	10.5
	2021	1724.57	88.6	56.8	4.2	2.9	21.9	11.4	0.9	10.5

Figure 6. Urban Income vs Rural Income

Unfortunately, farmers also recorded relatively small income growth, with an increase of 23.39% in 2021 compared to 2019. While this percentage might seem significant, in absolute terms, income increased from 884.15 RON in 2019 to 1,090.98 RON in 2021, which remains a very modest increase considering the demanding nature of agricultural work.

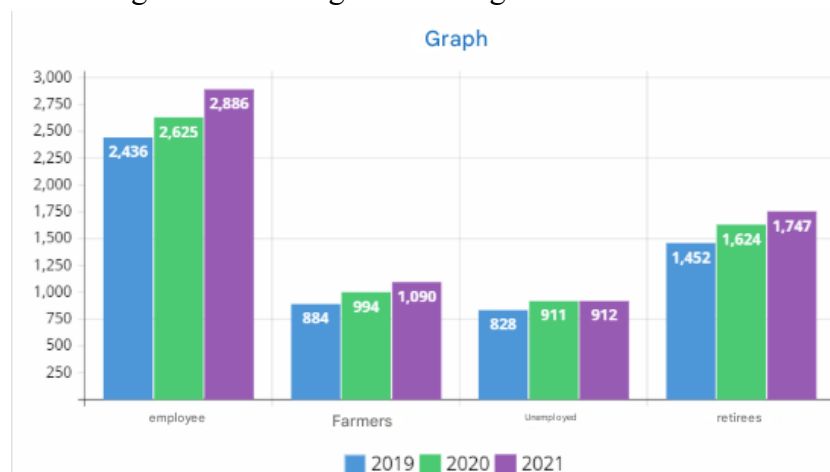


Figure 7. Household Category Income Graph

The graph above illustrates the statements made in this subsection, depicting the year-over-year increase in income for all household categories from 2019 to 2021. Throughout the study period, a consistent rise in income was observed across all groups.

The largest contribution to total income is represented by monetary income. This category increased from 2019 to 2021 for the following groups:

- Salaried workers: from 95.6% to 95.9%
- Farmers: from 69.4% to 73.5%
- Pensioners: from 90.2% to 90.4%

However, it decreased for the following category:

- Unemployed individuals: from 90.1% to 88.7%

All household categories have recorded income growth. Monetary income represents the largest share of total earnings derived from benefits. The value of self-consumed agricultural products has been steadily declining from 2019 to 2021.

3. Salaried Income – A Key Component of Population Income

Monetary income is the main source of income for Romanian citizens and holds the largest share. Therefore, the dynamics of the average salary for the period 2019-2021 will be presented, focusing on January of each year.

January 2019 – January 2021:

- The gross average salary in January 2021 was 5,549 RON, while the net average salary was 3,395 RON.
- The highest net average salary was recorded in the IT services sector, reaching 8,107 RON, compared to the hotel and restaurant sector, which had the lowest at 1,732 RON.

January 2021 vs. January 2020:

- The nominal net average salary recorded a 6.5% increase compared to January of the previous year.
- Adjusted for price evolution, wage earnings changed as follows:
 - o In January 2021, the real wage index was 103.4% compared to the same period the previous year.
 - o In January 2021, the real wage was 92.6% compared to December 2020.

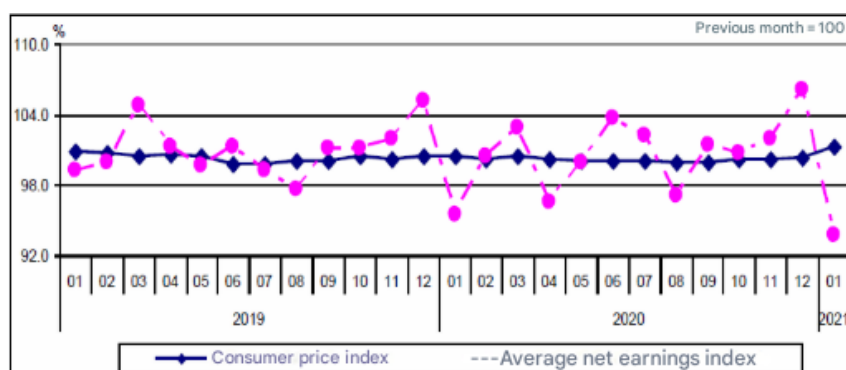


Figure 8. Evolution of Consumer Price Indices and Net Average Earnings (January 2019 – January 2021)

January 2021 vs. December 2020:

In January 2021, most economic sectors recorded a decrease in net average salary compared to the previous month. This decline was due to:

- Year-end bonuses granted in December 2020
- In-kind benefits and cash allowances
- Sums derived from net profit and other funds (including vouchers and financial incentives)

The size and mobility of wage earnings are directly influenced by the distribution of employees across economic sectors, as salaries vary significantly depending on the industry.

As a first observation, both net and gross salaries increased in 2021 compared to 2019 by 682 RON (gross) and 430 RON (net).

The highest gross average salary, both in 2019 and 2021, was in the information and technology sector (9,012 RON in 2019 and 10,809 RON in 2021). This increase was driven by rapid developments in the IT field. It was followed by the financial intermediation and insurance sector (8,269 RON in 2019 and 9,240 RON in 2021), which is also a key sector for Romania's economy, playing both an economic and social role.

This economic sector has been continuously growing since 1989, due to factors such as:

- An increase in the number of vehicles
- The expansion of insurance coverage to new risks
- The growing need for loans, particularly mortgages and government-backed housing programs like "A New Home" (or similar schemes).

The lowest gross average salary, both in 2019 and 2021, was recorded in the hotel and restaurant sector (2,840 RON in 2019 and 3,111 RON in 2021). This sector, despite its steady growth since 1989 due to tourism development and increased investments, remains the lowest-paid industry.

A possible explanation for the low wages in the hotel and restaurant sector is the phenomenon of tax evasion. Many business owners hire young employees at the minimum wage, while the untaxed portion is paid informally in cash. In seasonal areas, many workers are not officially employed, meaning they work without an employment contract.

To combat this issue, labour inspection authorities conduct prevention, awareness, and periodic inspections in high-risk areas. Additionally, the Romanian government has introduced new measures to reduce tax evasion and improve tax collection. Recently, besides increasing inspections of hotels and restaurants, the state has introduced a mandatory tax on tips, which is now fiscalised and included on the receipt.

During the 2019-2021 period, all other industries showed a steady trend of growth, meaning that all sectors experienced only salary increases without any significant declines.

In 2021, compared to 2019, the largest salary increases were recorded in the information and technology sector, with a growth of approximately 1.19 times, followed by the production and supply of electricity, heat, gas, hot water, and air conditioning, which also grew by 1.19 times.

In this study, it is essential to consider the territorial disparity in salaries. The salary level may vary depending on several factors:

- Sources of income
- Household categories
- National economic activity
- Territorial disparity

Regarding territorial disparity, the counties of Romania are organised into development regions.

Macroregion Development	Net	Net	+/-Δ lei
	2021	2019	
Total Economy	3416	2986	430
North-West	3203	2781	422
Centre	3153	2757	396
North-East	3014	2674	340
South-East	2883	2551	332
South-Muntenia	3024	2697	327
Bucharest-Ilfov	4576	3947	629
South-West Oltenia	2954	2630	324
West	3313	2879	434

Figure 9. Nominal and Real Monthly Average Earnings by Region (2021 vs. 2019)

Regarding average nominal earnings by region in 2021, the highest salaries were recorded in:

- Bucharest-Ilfov (4,576 RON net)
- Followed by the Western region (3,313 RON net)

The lowest average salary was recorded in the South-East region (2,957 RON net).

In 2019, the highest nominal average salary was also in the Bucharest-Ilfov region (3,947 RON net), followed by the Western region (2,879 RON net). The lowest salary was recorded in the South-East region (2,551 RON net).

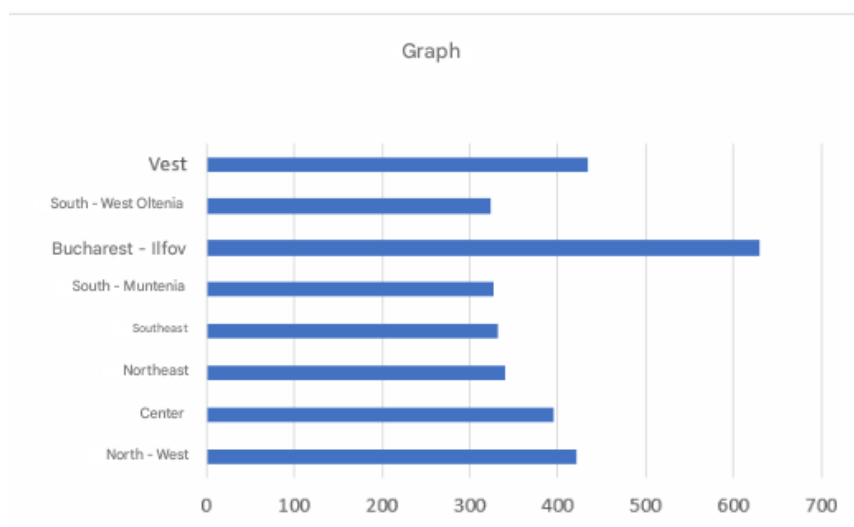


Figure 10. Graph of Regional Salary Growth Dynamics

From the graph above, we can observe that the highest salary increase in 2021 compared to 2019 occurred in:

- Bucharest-Ilfov (+629 RON net)
- Western region (+434 RON net)
- North-West region (+422 RON net)
- Central region (+396 RON net)

The other regions show minor differences between them.

Salary earnings represent the purchasing power expressed through the utility of net nominal wages. The real value of earnings is determined by eliminating market influences from the final wage value.

4. Conclusion

The monetary income of the Romanian population represents a significant part of the total household income, but it remains considerably lower compared to the income levels in more developed countries. This discrepancy largely reflects Romania's lower level of economic development and prosperity.

An important aspect to highlight is that a substantial portion of the population's income is allocated to covering basic needs, particularly food consumption. This suggests a lower standard of living, as daily food expenses make up a significant share of household budgets.

Several factors influence this situation:

- Wages and general income levels in Romania are lower than in developed countries, leading to reduced purchasing power and lower monetary income.
- The economic structure and labour market also play a crucial role in determining income levels. If the economy relies on low-wage sectors or the informal labour market, this can contribute to lower overall income levels.

Key Aspects of Population Income in Romania (2019-2021)

- The average household income increased to 5,683 RON in 2021, compared to 4,790 RON per month in 2019.
- Salary income remains the primary income component, accounting for 69% of total income in 2021.
- Individual household income increased from 1,853 RON in 2019 to 2,243 RON in 2021.
- In 2021, the gross nominal salary reached 2,886 RON, compared to 2,436 RON in 2019.
- Both in nominal and real terms, wages increased throughout the analysis period at different rates.

- Bucharest-Ilfov remained the most developed region in the period 2019-2021.
- The highest salaries were recorded in the information and communication technology (ICT) sector during 2019-2021.
- Despite the economic impact of the pandemic in 2020, Romania's economy continued to grow.
- The level of social protection remains relatively low, with income redistribution representing only a minor economic burden.

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