



Analysis of the Variation in Salaries of Employees of Government Ministries in Iraq by Using of The Lorenz Curve and The Gini Coefficient*H.

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Received: 20th July 2024

Accepted: 15th September 2024

Published: 5th October 2024

ABSTRACT

The disparity in the distribution of income is one of the main reasons for the failure to achieve social justice among members of society, which creates an unhealthy environment for workers in government sectors and institutions and also works to reduce the quality of work and lower the level of productivity. Conversely, reducing disparity leads to increased productivity and creates a suitable environment. It contributes to increasing productivity rates and improving the quality of institutional performance. The research discussed an important topic related to the extent of the discrepancy between the salaries of employees in Iraqi government institutions using the Lorenz curve and the Gini coefficient through a presentation of the research problem, which is the extent of the discrepancy in the salaries of state employees according to the approved salary scale, and what impact this has on social justice in the distribution of income, assuming that the adoption of A salary scale set by the authorities is based on reducing financial disparities between state employees with equal qualifications, such as educational attainment and work tasks, and reduces disparities of discrimination between workers in various government sectors and achieves social justice in income distribution. The research concluded that the actual distribution curve was very close to the symmetry line curve, in addition to the presence of a very small gap between the two lines, which indicates fairness in the distribution of monthly salaries among workers in government ministries who are in the fourth degree/first stage of the approved salary scale. The value of the Gini coefficient complementary to the work of the Lorenz curve was about (0.4), which means that the value of the Gini coefficient is close to zero. This indicates that the distribution of salaries of employees of government ministries is close to equitable distribution.

Keywords: salaries, employees, ministries, Lorenz curve

INTRODUCTION

Despite the differences in economic and political intellectual orientations, the fair distribution of income is one of the important issues that the various ruling regimes seek to implement, as it is one of the foundations of achieving social justice and raising the standard of living for members of society. In their pursuit of achieving that goal, these systems have taken several forms in distributing income, some of which are based on the nature of the effort exerted by individual workers and their intellectual and physical differences, where the wage is determined according to the individual's intellectual qualifications capable of generating renewable innovations that increase productivity, or energies (Anzelini, 2022).

Physically capable of completing the work requirements according to the specified times. As for those who are unable to work, their affairs are organized according to social welfare requirements. To determine the extent to which justice has been achieved in the distribution of income among workers in state institutions, some economic statistical indicators are used to indicate the level of variation in workers wages (Liebig, 2016). Among these indicators is the Lorenz curve, which is one of the most widely used graphical forms to express the extent of variation in income distribution and to analyze family income data, and is linked to the curve. Gini coefficient, which gives the degree of inequality in income distribution. These two indicators were used in this research to analyze the level of variation in the salaries of employees of Iraqi government ministries and to know the mechanism by which income is distributed and the extent to which social justice is achieved among workers in state institutions and its impact on the level of well-being of members of society (Bilan et al.,2020).

The research is concerned with understanding the mechanism of income distribution using economic statistical indicators is essential in formulating economic policies in the country, as distributing income according to sound foundations that take into account the requirements of social life and the effort exerted by working individuals would provide a politically and economically stable environment and be a priority. To increase economic growth rates.

The research problem revolves around clarification the extent of variation in the salaries of state employees according to the approved salary scale, and what impact this has on social justice in income distribution.

The research assumes that adoption of a salary scale by the authorities is based on reducing financial disparities between state employees with equal qualifications, such as educational

attainment and work tasks, reduces discrimination differences between workers in various government sectors and achieves social justice in income distribution.

The research aims to measure the degree of disparity in the distribution of income among individuals working in state institutions, and to give a clear picture of the extent to which social justice has been achieved in that distribution, especially with regard to the salary scale for employees, and thus to help the relevant authorities in formulating an economic policy based on reducing financial disparities between working individuals according to available qualifications.

The research relied on the inductive approach using descriptive statistical methods in analyzing data on workers in state institutions.

LITERATURE REVIEW

The concept and uses of the Lorenz curve and the Gini coefficient

The American economist Max Lorenz (1905) developed the Lorenz curve to serve as a graphical representation of inequality in the distribution of income or wealth. This curve is often accompanied by a straight diagonal line with a slope of (1) (Ribeiro, 2020). It represents complete equality in the distribution of income and wealth. (The Lorenz curve is located below it, explaining the actual distribution (Dagum, 2008). For income. The further the Lorenz curve is from the baseline, the higher the inequality. The Lorenz curve is important because it represents one of the best and simplest ways to clarify the level of economic inequality in society, and it is usually used by government institutions in determining net worth and income distribution to inform them of how public policy works (or lack thereof) (Zagorski, 2014). It is also an indicator of determining the segments charged with paying taxes based on income distribution. The Lorenz curve is calculated by collecting data from a relatively large sample. The curve is then formed to better show the distribution of the data set, and the positives of the Lorenz curve can be summarized as follows (Radermacher, 2015).

1. Visually depicts inequality between populations in an easy-to-understand and analyse manner.
2. It helps governments make changes in public policy or influence tax brackets through income distribution.
3. Maintains the confidentiality of the identity of the individuals included in the survey.

4. It shows the path or trend of income distribution over time by collecting several curves at different stages.

As for the Gini coefficient or Gini index, it is the most widely used measure of inequality. It was developed by the Italian statistician Coardo Gini (1884-1965) and named after him. It is commonly used as a measure of inequality in income or wealth. It represents the gap between the equality line and the Lorenz curve, and its degree ranges between (0-1). Where higher values indicate higher inequality, the value (0) indicates complete equality, where every person has the same income, and the value (1) indicates complete inequality, where one person gets all the income (Dworkin, 2018; Kalb and Creedy, 2006).

Despite the importance of the Lorenz curve and the Gini coefficient in economic analysis, there are some drawbacks facing their use in this analysis, including (Burkhead, 2007) :

1. Sample data do not reflect the total population and therefore may be presented incorrectly.
2. Requires extensive data to fill the entire curve appropriately.
3. Analysts may be misled by the different shapes and sizes of the Gini coefficient region. Different regions may be equal in size but different in appearance.

Distribution of the workforce in government sectors

The employment policy in the public sector in Iraq had multiple goals, such as economic and social goals, and even political goals. Given the public sector's specialization in large strategic projects with high added value, it therefore accommodates large numbers of manpower and therefore has great weight in employment policy and directly affects every sector (Mahapatro, 2021). From population policies, education and training policies, investment and wages, In addition, the state's control over the main economic resources and activities in the country made it the main employer of the workforce, regardless of the actual need for work (Ribeiro, 2020; Sabti, et al.,2024).

This contributed to the emergence of what is known as disguised unemployment in the various state agencies. As for the private sector, despite its striving to achieve the maximum possible degree of profits, its expansion depends on the state's economic policy and is mostly characterized by the smallness of its economic units and the multiplicity of their spread in various activities and regions, in addition to facing multiple difficulties represented by high production costs and the flooding of the local market with imported goods, in addition to the

flight Capital was sent outside the country in search of stable profits (Khan et al;2020; Al-Saedi, 2023).

All of these factors led to weak competition for private sector products compared to foreign products with low prices and relatively high quality. Therefore, most of the activities operating in the private sector became directed towards fields with quick profit returns, and its activity in diversification sectors became weak. Economics such as agriculture and industry. These problems and difficulties faced by the private sector called for successive governments after 2003 to develop a comprehensive, long-term development vision to advance this sector, such as the National Development Plan (2010-2014) and the Strategy for Development of the Private Sector in Iraq (2013-2030), which includes the following (Abdullah, & Awad, 2022):

1. Activating the leadership role of the private sector in all economic and social activities and developing a program for economic reform.
2. Encouraging the private sector by moving towards high-quality commodity investment and participating in service, tourism and export activities.
3. Reforming the tax and customs system and easing restrictions on investors.
4. Working to increase the employment rate in the private sector with a target rate of up to (60-70%) of full employment.
5. Restructuring or privatizing state-owned companies and integrating them into the market economy.
6. Raising the levels of the private sector's contribution to the gross domestic product to constitute (45-50%) of the total GDP.

Despite the recent trends followed by successive Iraqi governments of supporting the private sector and correcting structural imbalances in the Iraqi economy, the public sector is still the main and most important future for the workforce due to its attractive and stable wages and salaries compared to private sector units with fluctuating returns, and it can be noted that This is done through Table No. (1), which shows the number and distribution of the workforce in various state institutions:

Table 1: *Total number of employees in state institutions for the year 2023*

Governmental entity	Number of employees	Governmental entity
Ministry of Education	963949	23.6

Ministry of Interior	701446	17.2
Ministry of Health	488550	11.9
Ministry of Defense	453951	11.1
Popular Mobilization Authority	238075	5.8
Ministry of Higher Education and Scientific Research	150212	3.6
Provincial offices	83133	2
Ministry of Justice	33548	0.8
Ministry of Water Resources	26240	0.64
Supreme Judicial Council	20047	0.49
Ministry Of Agriculture	19992	0.49
Departments not linked to a ministry	18272	0.44
Ministry of Finance	17619	0.43
The Ministry of Construction and Housing	14975	0.36
Ministry of Culture	14887	0.36
The Ministry of Labour and Social Affairs	8386	0.20
The Ministry of Planning	5824	0.14
The Ministry of Electricity	5390	0.13
Ministry of Youth and Sports	5101	0.12
Ministry of Foreign Affairs	3778	0.09
Ministry of Commerce	3367	0.08
The Ministry of Environment	3308	0.08
The Ministry of Industry	3178	0.07
Ministry of Transportation	2930	0.07
Council of Ministers	2600	0.08
Parliament	2216	0.05
Oil Ministry	2025	0.04
Ministry of Immigration and Displacement	1951	0.04
The ministry of communications	1616	0.03
Presidency	1117	0.02
Other government agencies	118825	2.9
Kurdistan region	658189	16.1
Total	4074697	%100

Source: Prepared by the researcher based on the Iraqi waqayie, Issue (4726), 2023.

Through Table No. (1), we note that the number of workers in the centrally funded sectors reached about (4074) thousand workers in 2023 after it was (3.26) million workers in 2021, an

increase of about (25%), which represents (37%) of the total The labor force in the country, which means that there is a government employee for every (10) citizens, While these ratios vary from one country to another, as the government employee in Germany serves 150 citizens, and in Egypt there is one employee for every 25 people, and Iraq is the highest in the world in these ratios, as international standards for public employment for all societies require the presence One employee for every 100 people. According to the table above, the number of workers in the Ministry of Education reached about (963,949) workers, which is considered the highest employment at the level of government ministries at a rate of about (23.6%) due to the increase in the number of government schools as well as the installation of thousands of what are known as free lecturers from teachers and teachers on the staff of those Schools.

As for the Ministry of Interior, the number of employees reached about (701,446) workers, with a percentage of about (17.2%), which made it ranked second after the Ministry of Education in the number of employees due to its importance in providing security and stability in various regions. As for the third place in the number of workers in the Ministry of Health, it reached about (488,550) workers, at a rate of about (11.9%) of the total number of workers, which indicates an increase in the number of those appointed from the medical and administrative staff in this ministry and an increase in the number of hospitals and health centers necessary to provide Health care for community members. As for the Ministry of Defense, which is of great importance in maintaining and stabilizing the country's security, the number of employees reached about (453,951) workers, with a percentage of (11.1%) of the total number of employees. As for the Popular Mobilization Forces, which was established in light of the fatwa of competent jihad and which had a prominent and pivotal role in eliminating terrorist groups after 2014 and actively contributing with other security forces to the return of security and stability in all areas that were subjected to terrorist acts, the number of members working in this body reached About (238,075) workers, with a rate of (5.8%). As for the Ministry of Higher Education and Scientific Research, the number of employees there has increased to about (150,212) workers after increasing the number of those appointed with higher degrees and outstanding students by about (30) thousand job grades, which made it occupy sixth place with a percentage of about (3.6%) of the total number of employees. . As for workers in the offices of the governorates, except for the Kurdistan region, their number reached about (83,133) workers, at a rate of (2%). While the workers were distributed among the ministries and government agencies mentioned in the table, whose numbers did not reach (1%) of the total number of workers, with the exception of workers in the Kurdistan region,

who were distributed among the various ministries operating in the region, and whose number reached about (658,189), with a percentage of about (16.1%). As for the other entities section, which was distributed among employees of the Financial Supervision Bureau, the Integrity Commission, the Anti-Terrorism Service, National Security personnel, the Sunni and Shiite Endowments Office, and other government agencies, the number of employees reached (118,825) workers, representing (2.6%) of the total number of employees.

The size of public spending

Public spending constitutes one of the main indicators for determining the extent of state intervention in economic activity as part of the state's financial policy, whether through consumer spending and the expenses it includes for paying salaries, wages, and other allocations such as grants, social subsidies, and other commodity services for the public sector, (Golden, 2008). Or through investment spending allocated to capital formation and national wealth development, including fixed capital formation and inward capital transfers. Public investment programs in developing countries often aim to maximize the net present value of projects, which is linked to the availability of economic resources, and determine the priority of these projects according to structural reform programs, taking into account the impact of the balance of payments in terms of financing projects and the burden of external debt and the impact of this on financial policies. And cash (Mohamme, 2021). Despite the political transformations that took place in Iraq after 2003 and the government's trends towards shifting towards a market economy, what is noticeable is that public expenditures have taken an upward path due to the continuity and continuity of the state in trying to improve the living conditions of citizens by spending on multiple aspects of expenditure, such as providing ration card items. 7), spending on social welfare networks, and providing job opportunities for citizens in various state institutions, and this is noted in Table No. (2) as follows:

Table 2: The Volume of Public Spending for Multiple Years

Year	Operating expenses (billion dinars)	Investment expenses (billion dinars)	Total expenses (billion dinars)	Growth rate
2005	28400	7500	35900	-
2010	60980	23676	84657	135%
2015	78000	41000	119000	40%

2020	113313	35295	148608	24%
2023	133221	49350	182571	22%

Source: Prepared by the researcher based on, 1. Central Bank of Iraq, General Directorate of Statistics and Research Economic Report Annual, different years. 2. Iraqi waqayie, Issue (4726), 2023.

Through Table No. (2), we note that the volume of public spending amounted to about (35,900) billion dinars in 2005, distributed between operational expenses of about (28,400) billion dinars and investment expenses of (7,500) billion dinars, and most of the public spending focused on military spending for the non-security situation. stability and the government's desire to extend security and stability in various Iraqi regions. In 2010, the volume of public spending increased to reach about (84,657) billion dinars, as the government benefited from the rise in oil prices in increasing the rates of public spending, both operational and investment, as operating expenses amounted to about (60,970) billion dinars, while investment expenditures amounted to about (23,676). One billion dinars. This increase resulted from increasing employment rates and providing requirements for managing various state security and social institutions. The increase in public spending rates continued, reaching about (119,000) billion dinars in 2015. This period witnessed an increase in the activity of terrorist groups, accompanied by a decrease in oil prices, which required an increase in internal and external borrowing to finance spending, which was distributed among operating expenses by about (78,000) billion dinars and expenditures. Investment amounting to approximately (41,000) billion dinars. As for the year 2020, the volume of public spending amounted to about (148,608) billion dinars, the share of operational expenses was about (113,313) billion dinars, while the share of investment expenses was (35,295) billion dinars. This year is referred to the emergence of what is known as the double crisis, represented by the spread of the Corona pandemic with a decrease in oil prices. This required increasing the volume of public spending, especially in health aspects, and supporting social classes affected by the recession that struck the economic sectors as a result of the partial or total closure. As for the year 2023, it witnessed a significant increase in the volume of public spending, and it is considered the highest in the history of Iraq, as it amounted to about (182,571) billion dinars. The volume of operating expenses reached about (133,221) billion dinars, while investment expenditures reached (49,350) billion dinars. Spending is distributed among the salaries of workers in units. Various state projects, road construction projects, the housing sector, schools and hospitals, in addition to the costs of importing gas and oil licensing rounds, as well as the creation of more than (500) thousand job grades.

Compensation of workers in the government sector

Salaries represent the wages that working people receive from the entity they work for, whether working in the government sector or the private sector. Salaries vary from one country to another, as the strength of the economy plays an important role in the strength and weakness of salaries (David & Dorn, 2013; Abbas, 2023). The salary is usually paid after thirty days, and the number of salaries paid to workers changes from year to year depending on the nature of living conditions, as it can be increased annually or the employee may be promoted to a rank higher than his own. current. Factors such as imposed taxes and high prices often affect the decrease in the purchasing power of the individual. An increase in these factors leads to a decrease in the real income obtained by working individuals. Conversely, a decrease in these factors leads to an increase in real incomes, which increases with them an increase in demand for goods and services, which encourages the development of activities. economy in different sectors (Jorgensen ,2005). It is noted from Table No. (3) that the volume of amounts paid as monthly salaries to workers in Iraqi state institutions increased in 2023 to reach about (59,477) billion dinars, at a rate of (37%) from what it was five years ago, when it amounted to about (43,404) billion dinars. . The following table shows the amounts paid to these institutions:

Table 3: *The Value of Salaries of Workers in State Institutions*

Ministry	salary value (1) 2019 (billion dinars)	Value of salaries (2) 2023 (billion dinars)	Growth rate (1:2) %	Percentage of total (2:2) %
Ministry of Interior	10441	12594	20	21.17
Ministry of Education	1712	10919	537	18.35
Ministry of Defense	6646	7680	15	12.91
Ministry of Health	1049	5550	429	9.33
Popular Mobilization Authority	2073	3468	67	5.83
Ministry of Higher Education and Scientific Research	2571	2735	6	4.59
Provincial offices	8873	772	-91	1.29
Ministry of Finance	544	632	16	1.06

Supreme Judicial Council	327	584	78	0.98
Ministry of Justice	444	441	-0.6	0.74
Parliament	228	338	48	0.56
Ministry of Foreign Affairs	180	306	70	0.43
Ministry of Water Resources	191	256	7	0.43
Departments not linked to a ministry	287	274	-4	0.46
Ministry Of Agriculture	165	199	20	0.33
The Ministry of Construction and Housing	90	175	94	0.29
The Ministry of Electricity	46	125	171	0.21
The Ministry of Labour and Social Affairs	43	115	167	0,19
Ministry of Culture	111	114	2	0.19
Council of Ministers	101	96	-4	0.16
The Ministry of Planning	39	61	56	0.10
Ministry of Youth and Sports	51	50	-1	0.08
Presidency	38	45	18	0.075
The Ministry of Industry	38	42	10	0.070
Ministry of Commerce	27	40	48	0.067
The Ministry of Environment	-	37	-	0.062
Ministry of Transportation	22	29	31	0.058
Oil Ministry	32	28	-12	0.047

Ministry of Immigration and Displacement	11	18	63	0.03
The ministry of communications	11	16	45	0.02
Other government agencies	1550	2439	57	4.1
Kurdistan region	5448	9299	70	15.63
Total	43404	59477	37	100%

Source: Prepared by the researcher with credit:- Republic of Iraq, Iraqi waqayie, Issue (4726), 2023. - Republic of Iraq, Iraqi waqayie, Issue (4529), 2019.

It is noted from Table No. (3) that the total salaries of employees in the Ministry of Interior constituted the largest percentage of the total salaries, as they amounted to about (21.17%), with a value of about (12,594) billion dinars, and a growth rate of about (20%) in 2023. This increase resulted About increasing the requirements for providing internal security by increasing the number of volunteers in the various security categories. The Ministry of Education came in second place with a value of salaries amounting to about (10,919) billion dinars, with a growth rate equivalent to the highest among state institutions, amounting to about (537%) for the year 2019. The reason for this increase is attributed to the appointment of workers in that ministry, including teachers, teachers, and administrators, on the ministry's staff, which led to To increase the size of salaries allocated to them, a percentage of approximately (18.35%). As for the Ministry of Defense, the volume of amounts paid reached (7680) billion dinars, representing (12.91%) of the total, with a growth rate of about (15%) over the year 2019, which indicates the importance of that ministry in receiving volunteers and the government's tendency towards relying on self-effort to provide Internal security and stability and repelling cross-border terrorist attacks. As for the Ministry of Health, it came in fourth place with a total of salaries amounting to about (5550) billion dinars, representing (9.33%) of the total and with a growth rate of (429%). This increase indicates an increase in the number of employees with medical professions in various health institutions. As for workers in the Popular Mobilization Forces, the total salaries amounted to about (3468) billion dinars, at a rate of (5.83%), with a growth rate of about (67%), which had a prominent role in coordination with other security forces in extending security and stability in various Iraqi regions, so the number increased Its employees reached about (238,075) in 2023. As for the total salaries of employees in the Ministry of Higher Education and Scientific Research, it amounted to about (2,735) billion dinars in 2023, an increase of (6%) over the year 2019, after

the appointment of holders of advanced degrees and outstanding students in the Ministry's centers and various Iraqi universities, which contributed to increasing these allocations. As for workers in provincial offices, the value of salaries amounted to about (772) billion dinars, at a rate of (1.29%) of the total salaries allocated. While the value of the salaries of employees in the Ministry of Finance amounted to about (632) billion, at a rate of about (1.06%). The remaining amounts were distributed among other ministries, and their percentage did not reach (1%) of the total salaries, with the exception of the salaries of workers in the Kurdistan region, who were distributed among the various ministries operating in the region, and which amounted to about (9299) billion dinars, with a rate of about (15.63%), and a growth rate It amounted to about (70%) for the year 2019, while the other bodies' paragraph, which was distributed among employees of the Financial Supervision Bureau, the Integrity Commission, the Anti-Terrorism Service, employees of the National Security, the Sunni and Shiite Endowments Office, and other government agencies, amounted to about (2439) billion dinars, or a percentage of (4.1%) of Total salaries allocated.

THE PRACTICAL ASPECT

To conduct an analysis of the variance in the distribution of salaries among employees of government ministries, a sample of the employees of those ministries was selected, and for the purpose of accuracy of the analysis, the focus was on those in the fourth degree/first stage of the salary scale approved in all ministries and those who hold a bachelor's degree exclusively, and the average monthly salary was also taken. There are categories of employees whose monthly allocations vary at the level of one ministry depending on their professional and administrative specializations. The analysis of the Lorenz curve graph was based on the data of Table No. (4), which reflects the poor distribution of income the farther it is from the ideal line, and the more fair the distribution the closer it approaches or matches the ideal line. In order to give a clear and complete picture of distributive justice, it is necessary to use the Gini coefficient, as it is a numerical indicator that gives a specific score limited to between (0-1) through the following equation (Schechtman,2012):

$$G = 1 - \frac{1}{10000} \sum (s_i + s_{i-1}) W_i$$

where : G: Gini coefficient, S_i : Cumulative relative frequency of income for the current category, S_{i-1} : Cumulative relative frequency of income for the previous category, W_i : relative frequency of categories.

Table 4: Average Monthly Salary for Employees of Government Ministries for The Year 2023

Categories of individuals	Cumulative distribution of individuals	Average monthly salary per person (thousand dinars)	Monthly Salary (%)	Cumulative distribution of monthly (si) salary	$\sum_{i=1}^n (s_i + s_{i-1}) W_i$
Ministry of Interior	4.34	1402	5.626	5.626	129.398
Ministry of Education	8.69	904	3.627	9.253	342.217
Ministry of Defense	13.04	1402	5.626	14.879	555.036
Ministry of Health	17.39	1138	4.566	19.445	789.452
Ministry of Higher Education and Scientific Research	21.37	1182	4.743	24.188	1003.559
Ministry of Finance	26.08	927	3.720	27.908	1198.208
Ministry of Justice	30.43	1210	4.855	32.763	1395.433
Ministry of Foreign Affairs	34.78	1903	7.637	40.4	1682.749
Ministry of Water Resources	39.13	868	3.483	43.883	1938.509
Ministry Of Agriculture	43.47	961	3.856	47.739	2107.306
The Ministry of Construction and Housing	47.82	996	3.997	51.736	2287.925
The Ministry of Electricity	52.17	1448	5.811	57.547	2513.509
The Ministry of Labour and Social Affairs	56.52	908	3.643	61.19	2730.951
Ministry of Culture	60.86	927	3.720	64.91	2900.3
The Ministry of Planning	65.21	908	3.643	68.553	3069.649
Ministry of Youth and Sports	69.56	927	3.720	72.273	3238.998
The Ministry of Industry	73.91	868	3.483	75.756	3404.667
Ministry of Commerce	78.26	910	3.651	79.407	3568.749
The Ministry of Environment	82.60	1145	4.595	84.002	3758.407
Ministry of Transportation	86.95	868	3.482	87.484	3944.178
Oil Ministry	91.30	1152	4.623	92.107	4130.593
Ministry of Immigration and Displacement	95.65	927	3.720	95.827	4322.482

The ministry of communications	100	1037	4.161	100	4504.021
total		24918	100		55516.3

Source: Prepared by the researcher, column No. (3), based on account managers in the relevant departments.

Through Table No. (4), the Lorenz curve was drawn as shown in the following figure:

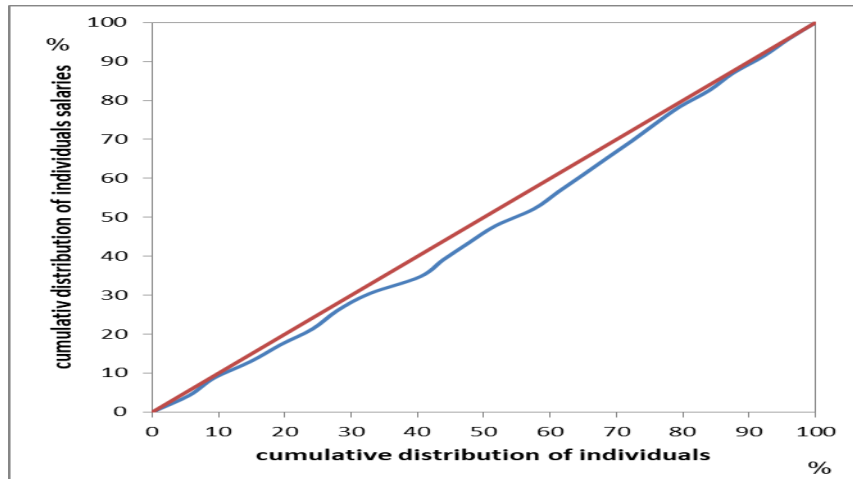


Figure 1: Fair Distribution of Monthly Salaries Among Employees of Government Ministries

Source: Prepared by the researcher based on Table No. (4).

Through Chart No. (1), we notice that the actual distribution curve is very close to the symmetry line curve, in addition to the presence of a very small empty area between the two lines, which indicates fairness in the distribution of monthly salaries among workers in government ministries in accordance with the fixed allocations and other allocations contained in the law. (22) of 2008, Most of the salaries of employees who were in the fourth degree and who held a bachelor’s degree were close, and there was a slight discrepancy in the allocations of some employees. By referring to the data in Table No. (4), we can determine the degree of this justice through the Gini coefficient equation as follows:

$$G = 1 - \frac{1}{10000} (5561.3) = 0.4$$

This means that the value of the Gini coefficient is close to zero. This indicates that the distribution of salaries for employees of government ministries is closer to a fair distribution. It must be noted that despite the results shown by the Lorenz curve as well as the Gini coefficient regarding distributional justice, what is observed according to the numerical data for the values of the table above is that in a few ministries there is a large disparity in the allocations granted salaries with other ministries, which did not appear in the practical analysis because

their percentage It constitutes a small portion of the total allocations in all government ministries.

CONCLUSION

It is possible to use the Lorenz curve and the Gini coefficient by government institutions in determining net worth and income distribution to inform them of how public policy is working (or not working). The number of workers in the public sector reached about (4074) thousand workers in 2023, which is considered the highest in the world in terms of employment rates, as there is one government employee for every (10) citizens, as international standards for public employment for all societies require the presence of one employee for every 100 individuals. . The volume of public spending reached a significant increase in the year 2023 and is considered the highest in the history of Iraq, reaching about (182,571) billion dinars. The volume of operating expenses reached about (133,221) billion dinars, while investment expenditures reached (49,350) billion dinars. The volume of amounts paid as monthly salaries to workers in Iraqi state institutions increased in 2023 to reach about (59,477) billion dinars, at a rate of (37%) compared to what it was five years ago, when it amounted to about (43,404) billion dinars. The actual distribution curve is very close to the symmetry line curve, in addition to the presence of a very small gap between the two lines, which indicates fairness in the distribution of monthly salaries among workers in government ministries who are in the fourth degree/first stage of the approved salary scale. The value of the Gini coefficient complementary to the work of the Lorenz curve was about (0.4), which means that the value of the Gini coefficient is close to zero. This indicates that the distribution of salaries of employees of government ministries is close to a fair distribution. Although the analysis showed little disparity in monthly salary allocations between government ministries, a few ministries whose employees suffer from low monthly allocations compared to their counterparts in other ministries, which makes it necessary to make some adjustments to them to reduce the size of the disparities and achieve social justice in income distribution.

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