The Impact of the Increase in Nominal Wages on the Real Wages of Public Sector Employees in Algeria During the Period 2018-2024 - A Tentative Standard Model -

Mourad MOKHTARI[1,*]

[1] University of Algiers 3 (Algeria), (Mouradmokhtari84@gmail.com)

Summary: This study aims to clarify the importance of wages and salaries and their impact on the economy. It will explore the factors influencing wages and salaries, such as education, experience, and the dynamics of supply and demand in the labor market. Furthermore, it will examine the salary structures within the public sector, specifically focusing on common grade scales. The study will also analyze how wages and salaries affect purchasing power and living standards, and it will assess the effects of nominal wage increases on real wages. Additionally, it will evaluate the consequences of wage increases authorized by the Algerian government, following the President's directives. These measures include tax exemptions, reductions, and nominal wage adjustments for Algerian workers in general, with a particular focus on public sector employees. The aim of these measures is to either maintain or improve purchasing power.

Keywords: Employment; Wages; Salary Level and Structure; Function; Income Tax; Public Administration.

Jel Classification Codes : E24 ; J31; M52 ; H24 ; H83.

---

* Corresponding author.

I-Introduction:

After independence, the first management authority for Algeria in 1963 provisionally determined salaries. In 1974, a national committee was established to coordinate basic laws and wages applied to employees in the public and semi-public sectors. After the enactment of Law 90-11 concerning labor relations, it affirmed the worker's right to wages for work performed, to be paid regularly without discrimination.

Within the framework of the state's public policy, it monitors the purchasing power development for different categories. To protect workers' purchasing power, the state revised basic laws and compensatory systems for various sectors in 2008, increasing wages across different sectors.

Algeria has attached great importance to social policy in the past five years to raise the standard of living and improve purchasing power. It enacted a series of increases in employee salaries according to commitments made by President Abdelmadjid Tebboune. After his election as president, he made several commitments, including commitment number 29, which focuses on raising and supporting citizens' purchasing power and ensuring a decent income through reviewing the minimum wage and full tax exemption for low incomes.

President Tebboune emphasized that the decision to increase salaries by up to 47 percent by 2024, raise retirement benefits, and reduce income taxes is unprecedented and aimed primarily at improving citizens' purchasing power. There has been no wage increase in Algeria since 2008, and the gradual wage increase will certainly impact the standard of living, pending the final increase next year.

To understand the standard of living of public sector employees and real wages in Algeria after the nominal wage increase, the following problem is posed:

What is the impact of the increase in nominal wages on the real wages of public sector employees in Algeria during the period 2018-2024?

As an answer to the sub-questions, a set of hypotheses was proposed:
- The increase in nominal wages leads to an improvement in purchasing power.
- Real wages are only affected by nominal wages.
- Tax exemption policy significantly affects the increase in nominal wages for employees.

Study Methodology:

The descriptive and analytical methodology was adopted for the theoretical aspect of wage structure in Algeria, required qualification levels for each category, various nominal wage increases, their relationship, and the standard of living, described then analyzed using tables and percentages.

The standard methodology was also used in the study of the applied case, attempting to estimate a model for the relationship between nominal and real wages.

Study Divisions:

The study was divided into three axes:
- First Axis: Salaries, Wages, and Purchasing Power in Algerian Law.
- Second Axis: Wage Increase Phases in Algeria During the Period 2018-2024.
- Third Axis: Analysis of Nominal and Real Wages for the Years 2018 and 2024.

I.1. Wages and Salaries and Purchasing Power

I.1. 1.Definition of Nominal and Real Wages:

Wages: It is the remuneration for work performed within an employment contract for the benefit of another person called the employer or employer (Franck Bazureau, Sage Bosc, jean pierre cendrom and others, 2009, p. 881) .

There are two types of wages: nominal or cash wages, which are the wages received by employees, representing the amount of money the worker receives for their work.

The first type, nominal wages: are wages determined in contracts and agreements between employees and employers, expressing the apparent value of wages without considering other external influences. They are provided in exchange for work performance. Algerian legislation has clarified that employees have the right, after performing service, to a salary (Order No. 06-03, 2006, p. 6).

Nominal wages represent the amount of money received by the worker and are sometimes referred to as cash or nominal wages.

It is observed in real life that what is determined in the labor market is cash wages; labor supply and demand are balanced based on cash wages prevailing in the labor market (Khali Sami, 1994, p. 190).

The second type: real wages, defined by the International Labour Organization as follows: it is the set of goods and services that can be obtained with the wages paid to them by the employer. It is the quantity of goods that the worker can acquire with their cash wages (Al-Badawi, Ismail Ibrahim, 2004, p. 76).

Real wages represent the actual amount of goods and services that can be purchased with nominal income (Samuelson Paul, Nordhaus William, 2006, p. 91).

In Algerian legislation, wages are the amount received by the employee monthly in exchange for performing their duties. The employee's right is not limited to it alone; they also receive a percentage of bonuses and compensation to incentivize them to perform their job duties. Workers have the right to a wage for the work performed, for which they receive a salary or income commensurate with the results of their work (Law No 90-11, 1990, p. 569).

I.1. 2.The Relationship Between Wages and Purchasing Power:

Purchasing power is the ability of an individual or society to purchase goods and services within a certain period. Purchasing power depends on the income of the individual or society and the prices available in the market.

An increase in nominal or cash wages while consumer goods prices remain constant in the market leads to an increase in real wages, allowing for the acquisition of a larger quantity of goods and services due to the increase in nominal wages while prices remain stable in the market. However, if nominal wages increase at rates lower than inflation rates, this means a decline in the individual's real income despite the increase in their cash income. Hence, the importance of economic policies in controlling prices and achieving their stability to maintain the purchasing power of money and individuals within the community, thereby preserving their real income. When cash income remains stable and prices rise, real income decreases, and vice versa when cash income remains stable and prices fall, real income increases (Samuelson Paul, Nordhaus William, 2006, p. 91).

- **Factors Determining Purchasing Power:**

Purchasing power depends on several factors. The most important of these factors is the income of individuals or communities, as purchasing power increases with income growth. Prices available in the market also affect it , In addition, other economic factors such as inflation rates and unemployment levels can affect purchasing power. The increase in the general level of prices and the cost of living are among the most common considerations in wage adjustments, as inflation erodes the real value of wages over time. The Consumer Price Index is one of the indicators used to measure price changes. This index tracks the evolution of prices for the basket of goods and services that consumers buy over time (International Labour Organization, p. 44) .

- **The Importance of Purchasing Power**

Purchasing power is important for both individuals and societies alike. Purchasing power helps meet the needs of individuals and improve their quality of life. With an increase in wages, purchasing power increases, allowing individuals to purchase more goods and services and better meet their needs (Al-Badawi, Ismail Ibrahim, 2004, p. 84). From an economic standpoint, high purchasing power contributes to increased demand for goods and services, leading to economic stimulation and increased economic activity.

- **Policies to Increase Purchasing Power:**

Policies aimed at enhancing purchasing power are among the most important economic policies that contribute to enhancing a country's economic growth and improving the standard of living for citizens. This type of policy aims to increase consumption and spending in the economy, thereby stimulating production and employment. Policies to enhance purchasing power include various measures such as increasing personal income, reducing taxes, and providing employment opportunities.

I.1. 3.Analysis of the salaries of employees and public servants

Includes the index grid of employee salaries, which comprises groups, categories, and sub-divisions beyond the class, accompanied by minimum numbers and numbers for grades corresponding to the employee's promotion in their rank, the index grid of salaries (Presidential Decree No. 7-304, 2007, p. 11).

Factors Influencing Salary Determination:

Several factors influence the level of salary and wages. Among these factors are the type of work performed, the level of experience and skills required for the job, the demand for similar jobs in the market, the location of work and the industry sector, and the size and nature of the company where the individual works. Additionally, the individual's education and academic qualifications may also impact the level of salary and wages received. All of these factors are taken into account when determining the appropriate amount and percentage of salaries and wages for individuals in the work environment.

In Algerian law, employees' positions are classified according to the level of required qualification (Order No. 06-03, 2006, p. 4). specifies the classification of ranks into various groups, categories, and sub-divisions outside the category according to the levels of required qualification and the prescribed method of recruitment for joining the job, as per the following table:

Table (01): Qualification level gridand the Prescribed Recruitment Method for Joining the Job, and Various Grants and Benefits Granted for the Benefit of Employees and Public Servants affiliated to Work for Public Institutions and Administrations.

category	Required Qualification Levels	Exceptional compensatory grants	Joint administrative service compensation grant	Activity upport allowance of administration
1	- Sixth year of primary education or less	7700	%25	%10
2	- Seventh year of primary education - Eighth year of primary education	7400	%25	%10
3	- Vocational Training Certificate (seventh or eighth year of primary education + 12 months of training) - Ninth year of primary education	6900	%25	%10
4	- Primary education certificate or middle education certificate	6400	%25	%10
5	- Professional Proficiency Certificate (ninth year of primary education + 12 to 18 months of training) - First year of secondary education	5700	%25	%10
6	- Professional Control Certificate - Second year of secondary education	5000	%25	%10
7	- Third year of secondary education - Second year of secondary education + 12 months of training - First year of secondary education + 24 months of training	3800	%25	%10
8	- Baccalaureate - Technical certificate	3800	%25	%10
9	- Baccalaureate + 24 months of training	3100	%25	%10
10	Technical deploma Certificate - Baccalaureate + 36 months of training	3100	%25	%10
11	- AUSC (Applied University Studies Certificate) (Baccalaureate + 3 years) - Baccalaureate + 3 years of higher education training	1500	%40	%10
12	- Bachelor's degree - LMD Bachelor's degree - Higher Studies Certificate (HSC) - National School of Administration Certificate(old system)	1500	%40	%10
13	- Baccalaureate + 5 years of higher education training - LMD Master's degree - Bachelor's degree + post-specialization training	1500	%40	%10
14	- Magister degree	1500	%40	%10

	- National School of Administration Certificate (new system)			
15	- Category for promotion ranks	1500	%40	%10
16	General Medicine Doctorate	1500	%40	%10
17	- Category for promotion ranks	1500	%40	%10

The Source: Prepared by the researcher based on Presidential Decree No. 7-304, Presidential Decree No. 14-266, Executive Decree No. 08-07, and Executive Decree No. 15-176, Executive Decree No. 10-134.

The salary of an employee after performing service includes the following:
- Basic salary
- Allowances and compensations

The basic salary compensates for the employee's basic legal obligations and compensates for special activities and work conditions (Presidential Decree No. 7-304, 2007, p. 11)

The basic salary is the result of multiplying the minimum index number of the rank category by the corresponding index number of the occupied grade by the value of the index point, while the basic salary results from multiplying the minimum index number by the value of the index point.

The value of the index point is determined at forty-five Algerian dinars (45 DZD) (Presidential Decree No. 7-304, 2007, p. 8.9) .

The salary also includes grants and compensations, such as:
- Exceptional compensatory grants for some public employees Its value is shown in the table above (Executive Decree No. 15-176, 2015, p. 17).
- Joint administrative service compensation grant Its rate is shown in the table above (Executive Decree No 10-134, 2010, p. 9).
- Monthly administrative activity support compensation of 10% of the basic salary for mentioned employees (Executive Decree No. 13-188, 2013, p. 15).

Experience is also valued in grade promotion, with promotions allowing advancement to higher grades based on a continuous scale within a range of 12 grades over 30 to 42 years. The required seniority for promotion in each grade is determined by three promotion periods: minimum, average, and maximum.

Employees holding high-ranking positions or senior positions in the state are exempt from promotion within the grade by the force of law according to the minimum duration (Presidential Decree No. 7-304, 2007, pp. 8-12).

Employees benefit from promotion if they meet the required seniority within the promotion periods, with promotion opportunities varying based on the ratio of 4, 4, and 2 out of ten (10) employees.

For high-level functional positions and structural senior positions in central, non-central, and decentralized state agencies, an additional indexation increase is granted according to the Presidential Decree No. 7-307 (Presidential Decree No. 7-307, 2007)

Finally, a deduction of social security contributions is made at a rate of 09% (Executive Decree 99-121, 1999, p. 6) . and tax on gross income is deducted according to the following table:

Table (02): Progressive Tax Table on Total Income

Total Income Subject to Tax	Tax Rate on gross Income
From 01 DZD to 10,000 DZD	% 0
From 10,001 DZD to 30,000 DZD	% 20
From 30,001 DZD to 120,000 DZD	% 30
Above 120,000 DZD	% 35

The Source: Law No. 07-12 dated December 30, 2007, including the Finance Law for the year 2008. Article 05 amends Article 104 of the Direct Taxation Law and Similar Fees, December 31, 2007, Official Gazette of the People's Democratic Republic of Algeria / No. 82 p 5.

I.2. stages of the increase in salaries in Algeria during the period

This process was carried out through six stages.

I.2.1.First Stage: Raising the National Minimum Wage

States must intervene in the labor market to protect workers, enacting legislation that specifies working hours and the minimum wage that workers are entitled to (Al-Badawi, Ismail Ibrahim, 2004, p. 75).

The minimum wage has been defined as "the minimum compensation that an employer must pay to workers for work performed during a certain period, which cannot be reduced by collective agreement or contract (International Labour Organization, 2016, p. 3).

The National Minimum Guaranteed Wage established by Decree No. 74-2 dated January 16, 1974, was referred to in 1963 as the "Minimum Guaranteed Wage between Professions." It has undergone consecutive revaluations according to the table below.

Table (03): Evolution of the Monthly National Minimum Guaranteed Wage from (NMGW) 1976 to 2020   DZD

Year of amendment	Value of NMGW	Year of amendment	Value of NMGW
1976	460	01/01/1998	5.400
01/01/1990	1.000	01/09/1998	6.000
01/01/1991	1.800	01/01/2001	8.000
01/07/1991	2.000	01/01/2004	10.000
01/04/1992	2.500	01/01/2007	12.000
01/01/1994	4.000	01/01/2010	15.000
01/03/1997	4.000	01/01/2012	18.000
01/05/1997	4.800	14/04/2021	20.000

The Source: Compiled by the researcher based on the official website of the Ministry of Labour, Employment, and Social Security
[https://www.mtess.gov.dz/ar/%D8%AA%D8%B4%D8%B1%D9%8A%D8%B9-%D8%A7%D9%84%D8%B9%D9%85%D9%84] Accessed on 2/12/2023 at 15:30.

The minimum guaranteed basic wage was raised from 18,000 DZD to 20,000 DZD (Presidential Decree No 137-21, 2021, p. 4), the determination of the national minimum guaranteed wage equivalent to a legal weekly working period of forty hours, which is equivalent to 173.3 hours per month at 20,000 DZD per month, or 115.38 DZD per hour of work.

I.2.2.Second Stage: Partial Exemption from Gross income tax

- Incomes not exceeding 30,000 DZD benefit from a complete exemption from the Gross income tax
- Incomes exceeding 30,000 DZD but less than 35,000 DZD receive an additional reduction. The tax on the total income for this income category is determined using the following formula:
Total Income Tax = Total Income Tax according to the first reduction × (8/3) - (20,000/3).
- Additionally, incomes exceeding 30,000 DZD but less than 40,000 DZD, received by physically or mentally disabled workers, as well as retirees under the general system, qualify for an extra reduction on the total income tax. This reduction does not accumulate with the second reduction mentioned above. The tax for this income category is calculated using the formula:
Total Income Tax = Total Income Tax (according to the first reduction) × (58/3) - (12,500/3). This reduction applies from January 1, 2020.
- Therefore, the received amount benefits from a reduction rate of 40%, but it cannot be less than 1,000 DZD or exceed 1,500 DZD per month. (Law No.20-07, 2020, p. 5)

I.2.3.Third Stage: Reduction of the from Gross income tax

The progressive scale for the from Gross income tax specified in Article 104 of the Direct Tax Law and Similar Charges has been reduced, allowing for a reduction in this tax, which evolves according to the taxable salary. The tax on the eligible Gross income tax for this income category is calculated according to the table referenced below

Table (04): Income Tax Rates for the Year 2022

Monthly Taxable Income	Tax Rate on Gross income
Not exceeding 20.000 DZD	0 %
From 20,001 DZD to 40.000 DZD	23 %
From 40,001 DZD to 80.000 DZD	27 %
From 80,001 DZD to 160.000 DZD	30 %
From 160,001 DZD to 320.000 DZD	33 %
More than 320,000 DZD	35 %

The Source: Law No. 21-16 dated December 30, 2021, Financial Law for the year 2022, which includes the amendment of the Financial Law for the year 2022, Official Gazette People's Democratic Republic of Algeria No. 100 issued on Jumada December 30, 2021, page 12.

Maintain the exemptions stipulated in Article 104 mentioned previously and amend the reduction formulas for (Law No. 21-16, 2021) :

1- Incomes exceeding 30.000 DZD and less than 35.000 DZD: The income tax due for this category benefits from an additional second reduction using the following formula:

Income Tax = Income Tax (according to the first reduction) x (137/51) - (27.925/8).

2- For incomes exceeding 35.000 DZD and less than 42,500 DZD, for disabled workers (physical or mental), blind or deaf-mute, as well as retired workers under the general system, they benefit from an additional reduction on the amount of income tax, not cumulative with the second reduction mentioned above. The income tax due for this income category is determined according to the following formula: Income Tax = Income Tax (according to the first reduction) x (93/61) - (81.213/41).

I.2.4.Fourth Stage: Salary Increase by 50 Index Points in The reference salary scale 2022

The index salary scale for salaries stipulated in Article 2 of Presidential Decree No. 7-304 has been amended. This amendment includes an increase in salaries by 50 Index points across all categories (Presidential Decree No 22-138, 2022, p. 4).

I.2.4.fifth Stage: Salary Increase by 75 Index Points in The reference salary scale 2023

The standard salary scale for salaries stipulated in Article 2 of Presidential Decree No. 7-304 was amended, which was also amended by Presidential Decree 22-138. This amendment includes an increase in salaries by 75 Index points across all categories, (Presidential Decree No 23-54, 2023, p. 5)

Furthermore, an increase in the Index points associated with senior functional positions and high-level structural positions under central, non-central, and decentralized bodies in the state has been approved. This increase is detailed in Next table.

Table (05): Reference Point Increase Associated with Senior Functional Positions and High-Level Structural Positions Under Central, Non-Central, and Decentralized Bodies in the State for the Year 2023.   **Unite points**

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14.
Index Point Increases for the Year 2023	80	90	100	110	130	160	200	250	310	380	460	550	650	760

The Source: Presidential Decree No. 23-55 dated J January 16, 2023, amending Presidential Decree No. 07-307 dated September 29, 2007, which determines the procedures for granting the index point increase to holders of senior positions in public institutions and administrations, Article 1, , Official Gazette of the People's Democratic Republic of Algeria, No. 03 dated January 17, 2023. page 7

I.2.5.sixth Stage: Salary Increase by 75 Reference Points in The reference salary scale 2024

An increase of the same value, 75 index points, approved for the year 2023 according to Article 2 of the aforementioned Presidential Decree No. 23-54, has been endorsed.

Article 3 stipulates that the minimum index point provided for under this decree replaces the minimum index point corresponding to the ranks specified in the basic laws starting from the effective date of the two scales provided for in the first and second articles respectively.

Another increase in the index points associated with senior functional positions and high-level structural positions under central, non-central, and decentralized bodies in the state has been approved. This amendment includes an increase by 35 reference points in the index points associated with senior functional positions and high-level structural positions under central, non-central, and decentralized bodies in the state has been approved(Presidential Decree No. 23-55, 2023).

I.3. Analysis of nominal and real wages for the years 2018-2024

In this part of the study, the nominal wages for the year 2018 will be presented, then the nominal and real wages for the year 2024 for the employees in the study sample, after adding the various increases that were discussed in the above stages.

I.3.1.Analysis of Nominal and Real Wages from 2018 to 2024

This section of the study will first present the nominal wages for the year 2018. Subsequently, it will provide an analysis of the nominal and real wages for the year 2024 for the employees within the study sample. This analysis will consider the various increases discussed in earlier stages.

Analysis of Nominal Wages for the Study Sample in 2018
The table below will display the nominal wages of employees in the study sample for the year 2018, followed by a detailed analysis.

In this section of the study, the nominal wages for the year 2018 will be presented alongside the nominal and real wages for the year 2024 for the employees in the study sample. This sample comprises employees belonging to common grades in public institutions and administrations, as well as those in positions such as professional workers, car drivers, and institution guards. Specifically, it includes individuals belonging to classes 01 to 14.

Following the incorporation of the various discussed increases, the nominal wages for the study sample in 2018 will undergo thorough analysis

Table (06): Nominal Salaries for Employees Affiliated with Common Scales in Institutions and Public Administrations for the Year 2018, according to Presidential Decree No. 7-304 dated September 29, 2007, which specifies the index salary scale for employees and their payment system. **Unit: DZD**

category	grade0	grade1	grade2	grade3	grade4	grade5	grade6	grade7	grade8	grade9	grade10	grade11	grade12
1	17 451	17 893	18 335	18 778	19 220	19 662	20 104	20 547	20 989	21 631	22 073	22 516	22 958
2	18 073	18 559	19 046	19 532	20 019	20 505	20 992	21 678	22 165	22 651	23 138	23 580	24 066
3	18 637	19 168	19 699	20 230	20 760	21 491	22 022	22 552	23 083	23 614	24 145	24 675	25 206
4	19 291	19 866	20 441	21 215	21 835	22 410	22 984	23 559	24 134	24 709	25 328	25 903	26 778
5	19 887	20 506	21 369	21 988	22 652	23 271	23 890	24 554	25 173	25 836	26 755	27 374	27 971
6	20 571	21 685	22 599	23 469	24 383	25 297	26 511	27 381	28 195	28 995	29 795	30 556	31 356
7	21 357	22 109	22 905	23 657	24 453	25 205	25 957	27 053	27 766	28 463	29 121	29 779	30 475
8	22 728	23 568	24 409	25 249	26 089	27 230	27 999	28 734	29 469	30 204	30 940	31 636	32 294
9	23 943	24 872	25 801	27 030	27 901	28 714	29 488	30 300	31 113	31 926	32 738	33 551	34 363

category	grade0	grade1	grade2	grade3	grade4	grade5	grade6	grade7	grade8	grade9	grade10	grade11	grade12
10	25 491	26 808	27 746	28 636	29 526	30 378	31 268	32 158	33 009	33 899	34 789	35 641	36 531
11	28 868	29 943	31 018	32 093	33 168	34 243	35 275	36 350	37 425	38 500	39 575	40 650	41 725
12	30 545	32 014	33 483	34 952	36 377	37 846	39 315	40 784	42 253	43 721	45 190	46 616	48 085
13	32 308	33 555	34 802	36 049	37 296	38 543	39 747	40 994	42 240	43 487	44 734	45 981	47 228
14	34 157	35 490	36 823	38 156	39 489	40 822	42 154	43 487	44 820	46 153	47 529	48 862	50 195

The Source: Prepared by the researcher based on Presidential Decree No. 7–304 dated Ramadan 17, 1428 corresponding to September 29, 2007, which determines the reference salary scale for employees and their payment system.

The above table consists of a set of salaries for employees belonging to the common scales in institutions and public administrations, based on Presidential Decree No. 7-304 dated September 29.2007, which establishes the index salary scale for employees and their payment system. This table also includes a range of categories ranked from Category 1 to Category 14, each divided into 12 grades (from Grade 0 to Grade 12), where classification is based on wage levels granted to employees according to their educational levels, supplemented by other values that increase according to seniority levels.

Additionally, the employee's nominal wage is calculated based on the corresponding index points for the category they occupy, plus the grade they hold multiplied by 45 DZD, and adding allowances, compensations, deductions for social security contributions, and income tax on total income.

From the nominal wage table for the year 2018, it is noted that the lowest wage received by an employee in Category 1, Grade 0, is 17.451 DZD, while the employee classified as Category 14, Grade 0, receives 34.157 DZD. The highest possible salary that an employee in Category 1, Grade 12, can receive is 22.958 DZD, while the employee classified as Category 14, Grade 12, can receive 50.195 DZD.

I.3.2. Analysis of nominal wages for the study sample for the year 2024

And after the President's approval of the aforementioned six increases, the nominal salary at the beginning of the year 2024 remains as indicated in the table below.

Table (07): Nominal Salaries for the Year 2024 based on Presidential Decree No. 23-54 dated January 16, 2023, amending Presidential Decree No. 7-304 September 29, 2007, which establishes the index salary scale for employees and their payment system.   Unit: DZD

category	grade0	grade1	grade2	grade3	grade4	grade5	grade6	grade7	grade8	grade9	grade10	grade11	grade12
1	29 120	30 088	30 622	31 320	32 014	32 712	33 580	34 484	35 334	36 185	37 031	37 837	38 645
2	29 897	30 453	31 184	31 911	32 642	33 535	34 485	35 379	36 273	37 154	38 002	38 808	39 655
3	30 231	30 932	31 696	32 460	33 335	34 348	35 284	36 222	37 144	38 033	38 920	39 807	40 697
4	30 681	31 478	32 278	33 133	34 252	35 232	36 211	37 176	38 104	39 033	40 001	40 929	41 858
5	31 148	31 981	32 852	33 965	35 039	36 062	37 074	38 083	39 051	40 061	41 028	41 996	43 005
6	31 684	32 592	33 702	34 805	35 911	37 011	38 063	39 069	40 121	41 169	42 218	43 227	44 276
7	32 146	33 142	34 432	35 582	36 773	37 870	38 960	40 090	41 180	42 310	43 397	44 488	45 617
8	33 333	34 646	35 879	37 103	38 274	39 443	40 614	41 785	42 954	44 125	45 296	46 426	47 597

9	34 580	35 901	37 202	38 454	39 704	40 956	42 166	43 418	44 668	45 920	47 172	48 421	49 673
10	36 069	37 445	38 736	40 069	41 399	42 690	44 023	45 354	46 647	47 978	49 311	50 602	51 932
11	39 998	41 567	43 136	44 706	46 275	47 844	49 369	50 938	52 507	54 077	55 646	57 215	58 785
12	41 745	43 844	45 945	48 044	50 100	52 199	54 298	56 399	58 498	60 597	62 698	64 751	66 822
13	43 583	45 333	47 081	48 829	50 579	52 326	54 031	55 779	57 529	59 277	61 027	62 775	64 525
14	45 512	47 350	49 188	51 026	52 866	54 704	56 542	58 381	60 219	62 057	63 940	65 781	67 556

The Source: Prepared by the researcher based on Presidential Decree No. 23-54 dated January 16, 2023, amending Presidential Decree No. 7-304 dated September 29, 2007, which establishes the index salary scale for employees and their payment system.

The table above consists of a set of nominal salaries for employees belonging to the common ranks in public institutions and administrations, prepared on the basis of Presidential Decree No. 23-54 dated January 16, 2023, which amends Presidential Decree No. 7-304 dated Ramadan 17, 1428 corresponding to September 29, 2007. This decree specifies the index point for employees' salaries and their payment system. This table also includes a range of grades and categories, where classification is based on the wage levels granted to employees according to their educational levels, along with other values that increase according to seniority levels.

After the approval to raise the guaranteed minimum wage to 20.000 DZD, the salaries of categories 1, 2, 3, 4, 5, which did not exceed 20,000 DZD, increased to range between 29.120 DZD for category 1 grade 0 and 31.148 DZD for category 5 grade 0. The nominal increase for category 1 grade 0 was estimated at 11,669 DZD, while for category 5 grade 0, it was 11.261 DZD. This is attributed to the tax exemption for incomes less than 30.000 DZD, with the value of the increase estimated at 2.500 DZD as the maximum exemption amount. Also, the tax reduction benefited categories less than 10 compared to categories greater than 10.

As for the nominal increase for category 13 grade 0, it is 11.275 DZD, and for grade 12 of the same category, it is 17.297 DZD. As for category 14 grade 0, it was estimated at 11.355 DZD, while grade 12 of category 14 is 17.361 DZD.

The nominal increase table reveals a notable observation: the attained increase remained consistent in terms of amount for categories 1, 2, 3, 4, and 5. Similarly, categories 12, 13, and 14 exhibited proximity in increases due to the uniform IRG deduction rate. Specifically, the nominal increase rate for category 1 ranged from 67% for grade 03 to 68% for grade 12. In category 6, the nominal increase rate hovered around 50%, varying slightly depending on the grades. Meanwhile, category 14 witnessed the lowest nominal percentage, with grade 0 experiencing a 33% increase.

I.3.3. Analysis of real wages for the study sample for the year 2024

Observing these achieved rates, it becomes apparent that the increases diminish as income rises. This trend is compared against the escalation in global prices for goods and services following the COVID-19 pandemic, along with the uptick in the general price rate (after adjusting for inflation). The Consumer Price Index for 2024 was calculated concerning the base year 2018, as demonstrated in the following table.

Table (08): Development of the consumer price index during the period (2018-2024)

Years	2018	2019	2020	2021	2022	2023	2024
Consumer Price Index(CPI) base year 2001	202,25	206,2	211,18	226,44	247,42	267,69	267,69
Consumer Price Index (CPI) 2024 base year 2018	**267.6 / 202.25 = 1.32**						

The Source: Prepared by the researcher based on statistics from the Bank of Algeria via the website https://www.bank-of-algeria.dz/ar/%D9%85%D8%A4%D8%B4%D8%B1-%D8%A3%D8%B3%D8%B9%D8%A7%D8%B1-%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D9%87%D9%84%D8%A7%D9%83-%D9%88%D8%A7%D9%84%D8%AA%D8%B6%D8%AE%D9%85/ Accessed on 22/01/2024 at 14:20.

Regarding the Consumer Price Index for the year 2024, based on the completion period of this study at the end of 2023 and the beginning of 2024, the Consumer Price Index for the year 2023 was used as equivalent to the Consumer Price Index for the year 2024 (Fatiha Koun, 2014, p. 85).

To convert nominal wages for the year 2024 into real wages, nominal wages were divided by the Consumer Price Index for the year 2024, with a base year of 2018, which equals 1.32. This was done by dividing the Consumer Price Index for the year 2024 by the Consumer Price Index for the year 2018, to standardize 2018 as the base year, as shown in the following table:

Table (09) : Real Salaries for the Year 2024

category	grade0	grade1	grade2	grade3	grade4	grade5	grade6	grade7	grade8	grade9	grade10	grade11	grade12
1	22 061	22 794	23 198	23 727	24 253	24 782	25 440	26 124	26 768	27 413	28 053	28 664	29 277
2	22 650	23 070	23 624	24 175	24 729	25 406	26 125	26 802	27 480	28 147	28 789	29 400	30 042
3	22 902	23 433	24 012	24 591	25 254	26 021	26 730	27 441	28 139	28 813	29 485	30 157	30 831
4	23 243	23 847	24 453	25 100	25 949	26 691	27 433	28 163	28 867	29 570	30 303	31 007	31 710
5	23 597	24 228	24 888	25 731	26 545	27 320	28 086	28 851	29 584	30 349	31 082	31 815	32 580
6	24 003	24 691	25 532	26 368	27 206	28 039	28 835	29 598	30 394	31 189	31 983	32 748	33 542
7	24 353	25 108	26 085	26 956	27 858	28 689	29 515	30 371	31 197	32 053	32 877	33 703	34 558
8	25 252	26 247	27 181	28 109	28 996	29 881	30 768	31 656	32 541	33 428	34 315	35 171	36 058
9	26 197	27 197	28 184	29 132	30 079	31 027	31 944	32 893	33 839	34 788	35 736	36 683	37 631
10	27 325	28 367	29 346	30 355	31 363	32 341	33 351	34 359	35 339	36 347	37 356	38 335	39 342
11	30 301	31 490	32 679	33 868	35 057	36 246	37 400	38 589	39 778	40 967	42 156	43 345	44 534
12	31 625	33 215	34 807	36 397	37 955	39 545	41 135	42 727	44 317	45 906	47 498	49 054	50 623
13	33 018	34 344	35 667	36 991	38 317	39 641	40 933	42 257	43 583	44 907	46 233	47 557	48 883
14	34 479	35 871	37 263	38 656	40 050	41 443	42 835	44 228	45 620	47 013	48 439	49 834	51 179

The source: The Source: Compiled by the researcher based on the previous two tables.

The table above consists of a set of real salaries for employees belonging to the common ranks in public institutions and administrations, calculated based on removing the inflation effect from the nominal salaries for the year 2024. This is done by considering the price index for the year 2018, which is the base year for this study. The Consumer Price Index for 2024 with the base year 2018 is 1.32.

After removing the inflation effect from Table No. 12, which includes nominal salaries for employees belonging to the common ranks in institutions and public administrations based on Presidential Decree No. 23-54 dated January 16, 2023, we observe from the table above that the actual salary for the year 2024 is lower compared to the nominal salary for the same year. For example, the salary of an employee classified as grade 1 level 0 is 22,061 DZD, while the salary of an employee classified as grade 14 level 0 is 34.479 DZD, a difference of 12.418 DZD. However, the employee classified as grade 14 level 12, representing the highest salary for an employee in the public sector before retirement, is 51.179 DZD, a difference of 16.700 DZD.

As a result of the above, we notice that the actual wage differs from the nominal wage as the classification and number of grades increase.

Regarding the actual increase in wages for 2024 compared to 2018, it amounted to 7.059 DZD for an employee classified as grade 1 level 0, rising to 8.081 DZD for an employee classified as grade 8 level 0, and reaching 11.033 DZD for an employee in grade 14 level 0.

As for grade 12, we notice that the increase for an employee classified as grade 1 is 9.369 DZD, while for an employee classified as grade 14, it is 16.377 DZD, indicating that the increase in grades is higher compared to the increase in categories (ranks).

Table (10): Percentage Increase in Nominal and Real Salaries for Employees for the Year 2024 Compared to the Base Year 2018   **Unit percentage**

Category	statement	grade 0	grade 1	grade 2	grade 3	grade 4	grade 5	grade 6	grade 7	grade 8	grade 9	grade 10	grade 11	grade 12
1	Nominal	67	68	67	67	67	66	67	68	68	67	68	68	68
	Real	26	27	27	26	26	26	27	27	28	27	27	27	28
2	Nominal	65	64	64	63	63	64	64	63	64	64	64	65	65
	Real	25	24	24	24	24	24	24	24	24	24	24	25	25
3	Nominal	62	61	61	60	61	60	60	61	61	61	61	61	61
	Real	23	22	22	22	22	21	21	22	22	22	22	22	22
4	Nominal	59	58	58	56	57	57	58	58	58	58	58	58	56
	Real	20	20	20	18	19	19	19	20	20	20	20	20	18
5	Nominal	57	56	54	54	55	55	55	55	55	55	53	53	54
	Real	19	18	16	17	17	17	18	18	18	17	16	16	16
6	Nominal	54	50	49	48	47	46	44	43	42	42	42	41	41
	Real	17	14	13	12	12	11	9	8	8	8	7	7	7
7	Nominal	51	50	50	50	50	50	50	48	48	49	49	49	50
	Real	14	14	14	14	14	14	14	12	12	13	13	13	13
8	Nominal	47	47	47	47	47	45	45	45	46	46	46	47	47
	Real	11	11	11	11	11	10	10	10	10	11	11	11	12
9	Nominal	44	44	44	42	42	43	43	43	44	44	44	44	45
	Real	9	9	9	8	8	8	8	9	9	9	9	9	10
10	Nominal	41	40	40	40	40	41	41	41	41	42	42	42	42
	Real	7	6	6	6	6	6	7	7	7	7	7	8	8
11	Nominal	39	39	39	39	40	40	40	40	40	40	41	41	41
	Real	5	5	5	6	6	6	6	6	6	6	7	7	7
12	Nominal	37	37	37	37	38	38	38	38	38	39	39	39	39
	Real	4	4	4	4	4	4	5	5	5	5	5	5	5
13	Nominal	35	35	35	35	36	36	36	36	36	36	36	37	37
	Real	2	2	2	3	3	3	3	3	3	3	3	3	4
14	Nominal	33	33	34	34	34	34	34	34	34	34	35	35	35
	Real	1	1	1	1	1	2	2	2	2	2	2	2	2

The Source: Compiled by the researcher based on the previous two tables.

The table above represents the percentage increase in nominal and real salaries of employees belonging to common ranks in public institutions and administrations compared to the nominal salary for the year 2018, the base year.

It can be observed from the table that the nominal increase was high compared to 2018 due to the decrease in nominal salary for the year 2018. The nominal increase reaches its maximum at 68% and gradually decreases to a minimum of 33% at Grade 14. Categories 01 to 10 benefited from the increase, ranging from 68% to 40%, due to these categories benefiting from all planned increases, including raising the minimum guaranteed wage, tax exemptions, and tax-free increases in 2023 and 2024.

As for categories 10 to 14, the nominal increase ranged from 42% to 33% because their salaries were higher than grades below 10, resulting in a lower percentage increase. However, if we compare the cash increase, it is approximately similar. For example, comparing category 01, grade 0 salary of 17.451 DZD in 2024 with the nominal salary estimated at 29.120 DZD yields an increase of 11.669 DZD, or 67%. Similarly, category 14, grade 0 with a salary of 34.157 DZD in 2024 compared to the nominal salary estimated at 45.512 DZD results in an increase of 11.355 DZD, or 33%. Thus, the nominal increase values are close, while the percentage increase values are relatively divergent.

When comparing the same salaries with the real salaries for 2024, category 01, grade 0 with a salary of 17.451 DZD in 2018 compared to the real salary of 22.061 DZD for 2024 yields an increase of 4.610 DZD, or 26%. On the other hand, category 14, grade 0 with a salary of 34.157 DZD in 2018 compared to the real salary of 34.479 DZD for 2024 results in an increase of 322 DZD, or 1%. Thus, while nominal increases are close, real increases are divergent.

The benefit of the increase includes reducing income tax and increasing consecutive referral points with tax deduction. On the other hand, real increase rates are also contradictory, ranging from a maximum of 28% for category 1, grade 8 to a minimum of 1% for category 14, grades 01, 02, and 03. These rates can be divided into three levels:

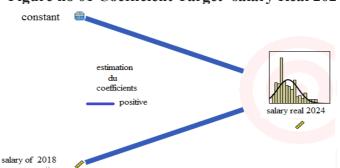Level 1: More than 20%, concerning categories 01, 02, 03, and 04.
Level 2: Ranging between 10% and 20% for categoris 05, 06, 07, and 08.
Level 3: Less than 10% for categoris 09 to 14.

These percentages reflect the categories that experienced the highest increase in their living standards. Generally, as the salary increases, the percentage increase decreases. Overall, the increases have raised the living standards for employees with low or moderate salaries. According to the study sample, it reaches up to 28%. As for categories with relatively average or higher incomes, some have increased while others maintained their purchasing power without decreasing.

I.3.4. Estimation of the model using automatic linear regression:

Among the popular tools offering automatic linear regression is the "Auto analysis of models" available in statistical software such as IBM SPSS Statistics, which was utilized to estimate our model. The estimation outputs were as follows:

Figure no 01 Coefficient Target=salary Real 2024

The source : output of the model using automatic linear regression software spss

The following figure illustrates the linear approximation relationship between study variables, where the real wage for the year 2018 represents the independent variable, and the real wage for the year 2024 represents the dependent variable in addition to the intercept.

Table (11): Coefficient Target=salary Real 2024

Model term	Coefficient ▼	standar error	T	sig
Constat	7 223.014	291.644	24.767	.000
Transformed salary -2018	0.862	0.010	89.056	.000

The source: output of the model using automatic linear regression software spss

Results analysis requires understanding both the intercept and the coefficient of the independent variable (slope) in the context of the estimated model.

- **Intercept:** The intercept represents the value of the dependent variable when all independent variables are zero. In this context, if the real wage equals the intercept (7223) when all

independent variables are zero, it indicates that a portion of the real wage depends on factors other than the independent variables used in the model.

    - Coefficient of the Independent Variable (Slope): The coefficient of the independent variable represents the change in the dependent variable for a one-unit change in the independent variable.
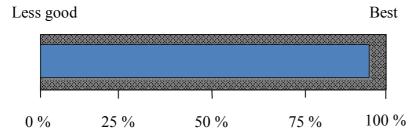
    In this context, the coefficient of the independent variable (slope) is 0.826. This means that for every one-unit increase in the independent variable, we expect an increase of approximately 0.826 in the real wage.

    - Statistical Significance: The presence of statistical significance on the intercept and coefficient of the independent variable indicates confidence in the validity of the results. This means that the values obtained for the intercept and the coefficient of the independent variable are unlikely to be merely due to chance.

    In summary, the results can be interpreted as follows: there is a fixed portion of the real wage that may be independent of the independent variables, and at the same time, we can expect an increase in the real wage by approximately 0.826 for each one-unit increase in the independent variable.

Table (12): Model Summary

Target	Salary real 2024
Automatic data preparation	Activated
Model choice method	Step by step ascending
Information criterion	2 527.579

    The information criterion is used for comparison to models. Models with smaller information criterion values are appropriate

The source: output of the model using automatic linear regression software spss

    The coefficient of determination is a measure of how well the model fits the data. It represents the percentage of variance in the dependent variable that can be explained by the independent variables in the model. In other words, the coefficient of determination gives us an idea of the percentage of variance in the dependent variable that can be explained by the independent variables in the model.

    In our case, the coefficient of determination is 0.978. This means that 97.8% of the variance in the dependent variable can be explained by the independent variable(s) included in the model. This indicates that the model explains the data very well and can accurately predict the dependent variable using the independent variables.

    Generally, the coefficient of determination serves as a strong indicator of model quality, and the closer it is to the maximum value of 1, the better the model is at explaining the data.

    As for the information criterion, it is typically used to assess the quality of a statistical model, helping to select the most suitable model from a set of different models. Most statistical software programs use the information criterion to compare different models. In this case, the value of the information criterion is 7525, which means that the model presented may be suitable for the data used in the analysis.

    In general, the lower the value of the information criterion, the better the model. However, the full context and details of the analysis must be considered to understand the appropriateness and strength of the model in predicting the data.

    Predicting the real wage for the year 2024 using the proposed model relies on the relationship identified between the wage and the independent variables, represented by the intercept (constant term) and the coefficient of the independent variable(s) in the model. If the

expected value of the real wage for the year 2024 aligns with the values estimated from the model, it may indicate an actual increase in the real wage for the year 2024.

However, other factors that may affect the real wage should also be considered, such as changes in the economy, labor market conditions, government policies, demographic factors, and so on.

II– Methods and Materials:

the nominal wages for the year 2018 will be presented, then the nominal and real wages for the year 2024 for the employees in the study sample, who are Employees covered include those in common scales in public institutions and administrations, as well as specific scales for professional workers, drivers, and security personnel, belonging to categories 01 to 14.. All employees and workers belonging to the public service who have the same rate of Allowances and compensations as the study sample . hose who belonging to categorys 01 to 14.

After adding the various increases discussed above, the nominal wages for the study sample for the year 2018 will be analyzed.

As a result of the achieved rates, we note that the increases decrease as income increases, and compared to the rise in global prices for goods and services after the COVID-19 pandemic, as well as the rise in the general price rate (after removing the effect of inflation), the Consumer Price Index 2024 was calculated for the base year 2018.

Regarding the Consumer Price Index for the year 2024, based on the completion period of this study at the end of 2023 and the beginning of 2024, the Consumer Price Index for the year 2023 was used as equivalent to the Consumer Price Index for the year 2024.

To convert nominal wages for the year 2024 into real wages, nominal wages were divided by the Consumer Price Index for the year 2024, with a base year of 2018, which equals 1.32. This was done by dividing the Consumer Price Index for the year 2024 by the Consumer Price Index for the year 2018, to standardize 2018 as the base year

Estimation of the model using automatic linear regression:Automatic linear regression is a type of regression analysis where computer programming is used to determine the relationships between a specific variable and a set of independent variables automatically. In this type of analysis, algorithms and statistical techniques are employed to select the independent variables that are most predictive of the dependent variable without direct intervention from the analyst.

Automatic linear regression is beneficial in large and complex datasets containing a multitude of independent variables, requiring advanced analysis to effectively identify the relationships between them and the dependent variable. Among the popular tools offering automatic linear regression is the "Auto analysis of models" available in statistical software such as IBM SPSS Statistics, which was utilized to estimate our model.

III- Results and discussion :

1. Real wage reflects the amount the nominal wage can purchase in terms of goods and services, representing the purchasing power of the employee.
2. The increases approved by the President of the Republic are divided into four types:
3. First type: Raising the guaranteed national minimum wage affecting the lowest category of employees, grades 1 and 2, as well as workers employed outside the public sector.
4. Second type: Tax exemptions affecting individuals with incomes less than 30,000 DZD, benefiting a large segment of employees in both the public and private sectors. However, after subsequent increases, The employees in the study sample do not benefit from the exemption after the beginning of 2024 and the application of the new increases. Increases, They only benefit from reductions between the nominal wage of 30,000 DZD and 35,000 DZD
5. Third type: Tax reductions affecting individuals with incomes exceeding 30.000 DZD in both the public and private sectors. The reduction rates are estimated at 23% in the range of 20.000 DZD and 27% in the range of 40.000 DZD instead of 30%, with a reduction in the range of 10.000 DZD. The total income tax value is estimated at 2.000 DZD.
6. Fourth type: Increase the salary by 50 points in 2022 and 75 for two consecutive years, 2023 and 2024 in **The reference salary scale**, with a total value of 200 points, affecting only the public sector, which represents the largest share of the increase in the nominal wage for the year 2024.
7. Nominal wages increased at a decreasing rate ranging from 68% for the lowest categories to a minimum rate of 33% for the highest categories.

8. The nominal wage increase for the year 2024 was significant, ranging from 17.361 DZD for grade 12 category 14 to 10.587 DZD for grade 10 category 0.

9. The real wage increase for the year 2024 was acceptable, ranging from 6.319 DZD for category 01 grade 12 to 332 DZD for category 14 grade 0.

10. Real wages increased at a decreasing rate ranging from 28% for category 01 grade 08 to a minimum of 1% for category 14.

11. It is evident that purchasing power increased for categories 1 to 9, ranging from approximately 10% to 28%. Categories 10 to 13 experienced an improvement in purchasing power, not exceeding a real increase of 10%. Category 14 maintained its purchasing power level, with a real increase ranging between 1 and 2%.

12. Through the standard model, it is evident that with each unit increase in real wage for the year 2018, an increase of approximately 0.826 in real wage for 2024 is expected.

13. Through the determination coefficient, it is evident that 97% of the changes in real wage for 2024 are caused by changes in real wage for 2018, while the remaining 3% represent other neglected factors such as changes in the economy, labor market, government policies, demographic factors, and so on.

IV- Conclusion:

The study addressed the definition of nominal and real wages and their impact on the purchasing power of employees. It also delved into the salary grid for public sector employees, identifying various categories and ranks specific to public sector employment in Algeria. Wages in the public sector are subject to a legally defined salary scale, along with legally established allowances. Moreover, recruitment in this sector is primarily based on the educational qualification required for the position, as indicated by the certificate. Therefore, wages in this category are determined based on the certificate.

Approving the review of the minimum wage, exempting low-income earners from total income tax, reducing the income tax scale, and increasing in The reference salary scale by 50 points in 2022 and 75 for two consecutive years, 2023 and 2024 for all public sector employees, contributed to the nominal wage increases for Algerian employees as a whole, especially those in the public sector, to align with the workers' living standards. However, these increases were accompanied by a rise in the consumer price index, leading to a decrease in real wages, affecting the purchasing power of employees and consequently their living standards.

Additionally, a standard model using automatic linear regression was proposed to determine the relationship between real wages for the year 2024 and wages for the base year 2018.

- **Hypothesis Testing:**

- The increase in nominal wages leads to an improvement in purchasing power, which was proven true. As nominal income increases, purchasing power increases, provided that the general price level remains constant.

- Real wages are affected only by nominal wages, which was proven false, as there are other factors influencing real income such as inflation, labor market conditions, government policies, and demographic factors.

- Tax exemption policies significantly affect nominal wage increases for employees, which was proven false. Only categories 01 and 02, grade 0 continue to benefit from tax exemptions. The rest of the employees in the study sample do not benefit from the exemption after the beginning of 2024 and the application of the new increases because their nominal wages exceeded 30,000 DZD, the exemption amount.

- **Suggestions:**

- Linking the national minimum wage to a specific weight of gold, a certain amount of hard currency, or a basket of goods.

- After nominal wages exceed 30.000 DZD, it is proposed to raise the tax exemption amount to 50.000 DZD.

- The wage increase process is typically periodic and regular, with a fixed amount – either annually or every two years.

- **Study prospects:**

- include the impact of wage increases on inflation rates in Algeria.

- The factors determining the minimum guaranteed national wage value in Algeria.

- Referrals and references:

1 International Labour Organization. (2016). **Minimum Wage Policy Guide**. Retrieved from International Labour Organization: https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/genericdocument/wcms_624760.pdf](https://www.ilo.org/wcmsp5/groups/publi, Accessed on 22/01/2024 at 14:20. p. 44.

2 Al-Badawi, Ismail Ibrahim. (2004). **Distribution and Money in the Islamic Economy**. Kuwait: Authorship, Arabization and Publishing Committee, Kuwait University, p. 76 (Written in Arabic).

3 Executive Decree 99-121. (1999, 06 22). **Which determines the distribution of the social security subscription rate**. the Official Gazette No. 41 dated 27/06/1999 p. 6.

4 Executive Decree No 10-134. (2010, 05 13). **A compensation system is established for employees belonging to common corps in public institutions and administrations**. the Official Gazette No. 32 date 16/05/2010 p. 9.

5 Executive Decree No. 13-188. (2013, 05 13). **Completing the finished floor no. 10-134 on June 28, 1431 correspondent on May 13, 2010 Establishment of the administrative system for functional functions of common companies, institutions and public administrations**. the Official Gazette No. 26 date 15/05/2013 p. 15.

6 Executive Decree No. 15-176. (2015, 07 06). **includes the establishment of a lump sum compensatory grant for the benefit of some employees and public agents affiliated with public institutions and administrations**. the Official Gazette No. 82 date 08/07/2015 p. 17.

7 Fatiha Koun. (2014). **The Impact of Wages on the Standard of Living for Employees of Higher Education Institutions in Algeria from 2008 to 2013 (Master's thesis).** Faculty of Economics, Commerce, and Management Sciences, medea: university of medea p. 85 (Written in Arabic).

8 Franck Bazureau, Sage Bosc,jean pierre cendrom and others. (2009). **Dictionary of Economics and Social Sciences**. algers: Berti editions p. 881.

9 International Labour Organization. (n.d.). **Minimum Wage Policy Guide**, Summary. Retrieved from https://www.ilo.org/global/topics/wages/minimum-wages/WCMS_624760/lang--en/index.htm,   Accessed on 22/01/2024 at 14:00. p. 3.

10 Khali, S. (1994). l, **Macroeconomic Theory, Volume One: Basic Theoretical Concepts**,. cairo: Al-Ahram Printing, p. 190 (Written in Arabic).

11 Law No 90-11. (1990, 04 21). **concerning labor relations**. the Official Gazette no 17 date 25/04/1990 p. 569.

12 Law No. 21-16. (2021, 12 30). **Financial Law for the year 2022**,. algeria: Official Gazette No. 100 date 30/12/2021 p. 13-14.

13 Law No.20-07. (2020, 06 04). **supplementary finance law**. Official Gazette no 33 date 04/06/2020 p. 5.

14 Order No. 06-03. (2006, 07 15). **includes the General Basic Law of Public Employment**. the Official Gazette no46 date 16/07/2006 p. 4.

15 Presidential Decree No 137-21. (2021, April 7). **which determines the national minimum guaranteed wage**. algeria: Official Gazette no 66 date 04/12/2011 p. 4.

16 Presidential Decree No 22-138. (2022, 03 31). **governing the salary scale for employees and their payment system, has been amended**. the Official Gazette No. 23 date 06/04/2022 p. 4.

17 Presidential Decree No 23-54,. (2023, 01 16). **governing the salary scale for employees and their payment system, has been amended**. . the Official Gazette No. 3 date 17/01/2023 p. 5.

18 Presidential Decree No. 23-55. (2023, 01 16). **which determines the procedures for granting the index poi**. the Official Gazette no 03 date 17/01/2023 p. 8.

19 Presidential Decree No. 7-304. (2007, 07 29). **specifies the index grid for employee salaries and their payroll system**. . the Official Gazette No. 61 dated 30/09/2007 p. 8-12.

20 Presidential Decree No. 7-307. (2007, 09 29). **specifies the methods for granting the evidentiary increase to occupants For high-level functional positions and structural senior positions in public institutions and administrations**. the Official Gazette No. 61 dated 30/09/2007 p. 16.

21 Samuelson Paul, Nordhaus William. (2006). **Economics**. beirut: Lebanon Library Publishers , p. 91 (Written in Arabic).

How to cite this article by the APA method:

Mourad MOKHTARI (2024), **The Impact of the Increase in Nominal Wages on the Real Wages of Public Sector Employees in Algeria During the Period 2018-2024 - A Tentative Standard Model -**, **Entreprise Review**, 13 (01), Algeria: Alger 3 University, PP. 55-72.