

# Unemployment in Algeria

Kamel LAHMAR

Dr. Kamel Lahmar is a senior lecturer at the Department of Sociology, Faculty of Social and Human Sciences, Dr. Lamine Debbaghine Univ. of Sétif 2, Sétif, Algeria. For email correspondances: [Lahmar\\_kamel@yahoo.co.uk](mailto:Lahmar_kamel@yahoo.co.uk)

**Abstract**— *This paper aims to clarify the social process of unemployment, in Algeria. Anchored in sociological methodology, it stands on the descriptive method which combines historical approach with the quantitative instrument majorly. Its tool is the documental research. The problematic question here is: What are the social strata affected by unemployment in Algeria? The hypothesis studied here is: (a) Unemployment in Algeria affected women. (b) All social strata are affected by unemployment in Algeria. Our findings suggest that this study has shown areas of excellence and areas that need from the government improvement and focus, because the government efforts have contributed little to reducing high rates of unemployment. Despite the enormous potential of Algeria, successive governments didn't adopt an economy relying on productivity which would benefit the population. The broad movements in unemployment across Algeria explain the shifts in labor market institutions which have a direct significant impact on unemployment because of their broad impact on real labor costs.*

**Keywords**— *unemployment, Algerian economy, social strata, economy of productivity, labor market, labor costs.*

## I. INTRODUCTION

By its size (2.381.741 sq km), Algeria is the 10<sup>th</sup> largest country in the world, the largest country in Africa (Hoare, 2002, p.11) and nearly 3.5 times the size of Texas.

Colonized by France in 1830, Algeria gained its independence in 1962. Its population reaches (39,542,166) people, with a population density of (16.6/ Km<sup>2</sup>), in 2016, according to the CIA Factbook. Since

1962, Algeria's primary political party, the National Liberation Front (FLN), has largely dominated politics, President Benbella imprisoned Sheikh M.B. Ibrahimy head of the Scholars of Islam in Algeria to adopt Socialism for the country, but other voices have arisen to proclaim the Islamic economy, such as the thinker Malek Bennabi in his book entitled "The Muslim in the world of economics". The multi-party system was instituted in 1988 in response to public unrest. Despite that, from 1992-98, the country saw an unleashed violence resulting in over 100,000 deaths because of the secular elite, supported by the foreign powers and the NATO has urged the army to begin a crackdown on the Islamic Salvation Front (FIS) who proclaimed Islam as way of life. In 1999, Abdul-Aziz Bouteflika, backed by the military, won the presidency election, and the subsequent elections in 2004, 2009, and 2014.

Driven by waves of economic protests, in February and March 2011, the government afforded more than \$ 23 billion in retroactive salary, public subsidies and benefit increases that continue to weigh on public finances. Since 2014, to fund the government and finance the large subsidies for the population, the Algerian government adopted a full reliance on hydrocarbon revenues, but the reliance fell under stress because of declining oil prices. Employment in Algeria became a crucial issue. Jobseekers cannot find opportunities in the economy; thousands of people are put out of work by the terminated public-sector businesses because of the economic reforms. The effectiveness of the introduced temporary unemployment system has been criticized. The unemployment rate in Algeria for 2008 is 14,1% and Algeria ranks 53<sup>rd</sup> over 196 countries of the world, according to the CIA World fact book website.

Table.1: Domestic Product and Debt. (From the Year 1999 to the Year 2011).

GDP, DPD, ED.	Gross Domestic Product (GDP) - Real growth rate (%)	Gross Domestic Product (GDP) per capita (US \$).	Domestic Public Debt; Measured as a percentage of GDP (GDP %)	External Debt, in Billions of US \$.
Year				
1999	3,9	4,700		
2000	5	5,500		30
2001	3,8	5,600		25
2002	3	5,300		24.7

2003	7,4	6,000		21.6
2004	6,1	6,600	37.4	22.71
2005	5,5	7,200	30.2	21.9
2006	3	7,600	18.6	19.45
2007	4,5	6,700	18	5
2008	3,5	6,900	9.9	3.96
2009	2,2	7,100	20	2.7
2010	3,3	7,300	25.7	5.41
2011				4.14

Source: CIA World Factbook (Index Munndi) - Version of January 1st, 2011

Table.2: Exchange, Gross Investment, Imports and Exports. 1980-2010.

Year	Gold and Foreign Exchange Reserves in Millions of (US \$)	Local Currency Exchange Rates in (US \$)	Gross Investment in Fixed Capital (%)	Imports in (\$ billions)	Exports (\$ billions)
1980		3.84			
1985		5.03			
1990		8.96			
1995		47.66			
1999					
2000		75.26			
2001					
2002				10.6	19.5
2003				10.6	19.5
2004	43,550		26.2	12.42	24.96
2005	56,580	73.28	22,6	15.25	32.16
2006	78,000		23,4	22.53	49.59
2007	110,600		24,5	27.6	55.6
2008	143,500		26,1	39.16	78.23
2009	149,300		28,4	39.1	43.69
2010	150,100	74.39	27,5	37.07	52.66

Source: CIA World Factbook (Index Munndi) - Version of January 1st, 2011.

Source: World Perspective (Perspective monde) - Version 7.6 July 2011

Table.3: Economic International Ranks of Algeria.

	Amount	Worldly Rank	Date of Information
GDP (Purchasing Power Parity, PPP)	609,400,000,000 (US\$)	35	2016 Est.
GDP- Real Growth Rate	3.60	73	2016 Est.
GDP - Per Capita (PPP)	15,000 (US\$)	111	2016 Est.
Gross National Saving	32.80 (% of GDP)	17	2016 Est.
Industrial Production Growth Rate	0.50 (%)	167	2016 Est.
Taxes and other Revenues	25.4 (% of GDP)	114	2016 Est.
Budget Surplus (+) or Deficit (-)	-14.10	211	2016 Est.

	(% of GDP)		
Public Debt	16.80 (% of GDP)	168	2016 Est.
Inflation Rate (Consumer Prices)	6.70 (%)	185	2016 Est.
Central Bank Discount Rate	4.00 (%)	98	31/12/2010
Commercial Bank Prime Lending Rate	8.00 (%)	109	31/12/2016 Est.
Stock of Narrow Money	91,410,000,000 (US\$)	38	31/12/2016 Est.
Stock of Broad Money	133,600,000,000 (US\$)	51	31/12/2016 Est.
Stock of Domestic Credit	100,100,000,000 (US\$)	56	31/12/2016 Est.
Market Value of Publicly Traded Shares	/	/	/
Current Account Balance	-25,340,000,000 (US\$)	189	2016 Est.
Exports	26,910,000,000 (US\$)	63	2016 Est.
Imports	44,600,000,000 (US\$)	51	2016 Est.
Reserves of Foreign Exchange and Gold	115,000,000,000 (US\$)	21	31/12/2016 Est.
External Debt	5,934,000,000 (US\$)	128	31/12/2016 Est.
Stock of Direct Foreign Investment - At Home	25,540,000,000 (US\$)	71	31/12/2016 Est.
Stock of Direct Foreign Investment - Abroad	2,025,000,000 (US\$)	80	31/12/2016 Est.

Source: CIA Factbook

<https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html>

Table.4: Worldly Social Ranks of Algeria.

	Amount	Worldly Rank	Date of Information
Population	40,263,711	34	July 2016 Est.
Median Age	27.8 (Years)	137	/
Population Growth Rate	1.77 (%)	64	2016 Est.
Birth Rate	23.00 (Births/ 1,000Population)	68	2016 Est.
Death Rate	4.30 (Deaths/ 1,000Population)	205	2016 Est.
Net Migration Rate	-0.90(Migrant(s)/ 1,000Population)	139	2016 Est.
Maternal Mortality Rate	97 (Deaths/ 100,000 Live Births)	75	2010
Infant Mortality Rate	20.30 (Deaths/ 1,000 Live Births)	83	2016 Est.
Life Expectancy at Birth	76.80 (Years)	81	2016 Est.
Total Fertility Rate	2.74 (Children Born/ Woman)	76	2016 Est.
Health Expenditures	5.20 (% of GDP)	135	2012
Hiv/Aids - Adult Prevalence Rate	0.04 (%)	125	2014 Est.

People Living With Hiv/Aids	10,500	92	2014 Est.
Hiv/Aids - Deaths	200	101	2014 Est.
Obesity - Adult Prevalence Rate	16.00 (%)	116	2008
Children Under the Age of 5 Years Underweight	3.70 (%)	102	2005
Education Expenditures	4.30 (% of GDP)	97	2008
Distribution of Family Income - Gini Index	35.3	92	1995
Labor Force	11,780,000	50	2016 Est.
Unemployment, Youth Ages 15-24	22.4 (%)	47	2011 Est.
Unemployment Rate	12.40 (%)	139	2016 Est.

Source: CIA Factbook

<https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html>

## II. LABOR MARKET OF ALGERIA

Beyond domestic reforms, Algeria ratified various international conventions and integrated those conventions into law, albeit in a way that maintains the integrity of domestic markets. This protection of domestic markets intend to ensure that the benefits of opening its economy are maximized for the country as well, rather than international investors only. This is a legitimate goal for a country with a small economy and high unemployment (Mohammedi, 2010, 376).

The employment programs were launched in 1988. Algeria tried many of them (Bonoua, 1993, p. 111).

The objective of these mechanisms is to mitigate the effects of unemployment among, in particular, the category of first-time temporary job seekers, by contributing to improving qualifications and cushioning side-effects of national economic reforms on social welfare (See: Algerian employment websites).

Table.5: The Algerian employment programs.

S.N.	Acronyms	Name of the Program in English	Name of the Program in French	Remarks
1	TUP-HIMO	Highly Workforce-Intensive Public Utility Works/ Labour-intensive community work.	Travaux d'Utilité Publique à Haute Intensité de Main-d'œuvre. (Country Sheet, 9 <sup>th</sup> /5/2009, 37)	TUP-HIMO program explained: Communication on the Algerian experience of Highly Workforce-Intensive Public Utility Works, September 1998. (viewed on November 20, 2016): <a href="http://www.worldbank.org/mdf/mdf2/papers/econdev/thaminy.pdf">www.worldbank.org/mdf/mdf2/papers/econdev/thaminy.pdf</a>
2	IAIG	General-interest activity allowance/ Compensation for General Interest Activity (G.I.A.A.)	Indemnité pour Activité d'Intérêt General/ Activité d'intérêt général. (Country Sheet, 9 <sup>th</sup> /5/2009, 37)	
3	ANGEM	National Agency for Microcredit Management) (N.A.M.M.)	ANGEM: Association Nationale de Gestion du Microcrédit. (Interview with the ANGEM, with Mr. AOUAIDJIA)	Decentralized on Dec. 2006. (Country Sheet, 9 <sup>th</sup> /5/2009, 37)
4	CNAC	National	Caisse Nationale d'Assurance	

		Unemployment Insurance Fund) (N.U.I.F.)	Chômage. (Country Review Report, /7/2007, 164)	
5	ANEM	National Agency for Employment (N.A.E)	Agence Nationale pour l'Emploi. (Country Sheet, 9 <sup>th</sup> /5/2009, 37)	
6	A.L.E.M.	Local Agency for Employment (L.A.E.)	Agence Locale de l'Emploi.	
7	CATI	Center for Independent Work Assistance) (C.I.W.A.)	Centre d'Aide au Travail Independent.	

CTA and (The Hundred Premises per Commune Program), for professional use, is a five year program (2005–2009) that authorizes the opening of 150.000 premises countrywide (on average, 100 per commune) to house projects initiated within the framework of the ANSEJ, ANGEM and CNAC systems (Country Review Report, July 2007, p.285).

The reforms aimed at improving labor market flexibility may have important effects in reducing unemployment both in the short and in the medium term. In this context, reforms aimed at reducing search and hiring costs are particularly important to integrate young workers into the labor market. According to a Canadian work paper *ENP Package* (2012); unemployment, in Algeria, has actually decreased despite the global recession, from 11% in 2008 to 10% in 2010. This is largely as a result of government-created jobs in the construction sector.

The IMF (2012) expected a slight decline in macroeconomic indicators in Algeria in 2012. Economic

growth will be around 3%. Inflation should go up slightly to 4.3%. Unemployment would continue to decline, reaching 9.5% for 2012 (10% in 2010). According to Agri-Food (2011) Algeria's unemployment rate is projected to continue on its decreasing path, reaching under 9% by 2014. Algeria's macroeconomic situation is stable due to high global oil and gas prices, but the pressures of unemployment, high food prices, and housing shortages weigh on many families. In the past decade, high oil prices boosted foreign monetary reserves and economic growth, fueled a construction boom, eased unemployment somewhat, and enabled early repayment of foreign debt.

In 2011, the total labour force, in Algeria, was: 11.04 million (CIA World Factbook Algeria). The Algerian labor market efficiency, the 7<sup>th</sup> pillar, in the Global Competitiveness Index, shows many details. (Lahmar, 2015, pp. 261-274)

Table.6: Algerian labor market efficiency, in the Global Competitiveness Index (2011-2012)

Indicator	Value	Rank/142
Cooperation in labor-employer relations	3.6	127
Flexibility of wage determination	3.9	125
Rigidity of employment index, 0–100 (worst)	41.0	108
Hiring and firing practices	3.8	79
Redundancy costs, weeks of salary	17	29
Pay and productivity	2.8	136
Reliance on professional management	2.8	139
Brain drain	1.7	141
Women in labor force, ratio to men	0.47	127

Klaus Schwab and Professor Xavier Sala-i-Martin, *The Global Competitiveness Report 2011-2012*, World Economic Forum, Geneva, Switzerland 2011.

Partner Institute: Centre de Recherche en Economie Appliquée pour le Développement (CREAD) (Youcef Benabdallah, Assistant Professor and Yassine Ferfera, Director).

Table.7: Some key indicators of the labor market (In %), year 2013

	Male	Female	Total
Participation rate in the labor force (activity rate)			
15 years and over	69.5	16.6	43.2
15-24	45.3	10.0	27.9
25-54	92.0	23.4	57.7
25-34	91.8	28.9	61.3
Employment population ratio			
15 +	63.7	13.9	39.0
15-24 years	35.5	6.0	21.0
25 years and over	73.8	16.6	45.4
Unemployment rate			
All	8.3	16.3	9.8
Youth (16-24 years)	21.6	39.7	24.8
Adults (25 + years)	5.5	6.8	12.0
Relationship between youth unemployment rates and adult unemployment rates	3.9	3.3	3.7
Proportion of unemployed youth in the total unemployed	44.9	38.2	42.7
Proportion of unemployed youth in the total Youth (15-24 years)	9.8	4.0	6.9
Long-Term Unemployment rate	5.2	9.3	6.0
Impact of long-term unemployment	62.6	56.7	60.7
% Of young people aged 15-24 not in the labor force or School	8.8	34.6	21.5

Source: National Bureau of Statistics, 2013

[http://www.ons.dz/IMG/pdf/Donnees\\_Stat\\_Emploi\\_2013.pdf](http://www.ons.dz/IMG/pdf/Donnees_Stat_Emploi_2013.pdf)

### III. DEFINITIONS OF UNEMPLOYMENT:

#### 3.1 Sociological Definition:

There is an ambiguity in the social reality of unemployment which is at the origin of the difficulty of elaborating a sociological definition of unemployment (Schnapper, 1982). In the 19th century the notion of unemployment did not exist. In 1930 the self-employed and women are excluded from the concept of unemployment. (Salais, Baverez, Marpsat, 1986). The administrative definitions of unemployment are only a reflection of the conception of unemployment at a given moment. (Boudon, Besnard, Cherkaoui, Lécuyer, 2005, pp. 29-30).

#### 3.2 Definition of the 30th International Conference of Labour Statisticians (October 1982)

On October 1982, the 30th International Conference of Labour Statisticians gave its definition of the "unemployed" based on six criteria as it follows:

(a) The "unemployed" comprise all persons above a specified age who during the reference period were: (a) "without work", i.e. were not in paid employment or self-employment as defined in paragraph 9; (b) "currently available for work", i.e. were available for paid employment or self-employment during the reference period; and (c) "seeking work", i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment. The specific steps may include registration at a public or private employment exchange; application to employers; checking at worksites, farms, factory gates, market or other assembly places; placing or answering newspaper advertisements; seeking assistance of friends or relatives; looking for land, building, machinery or equipment to establish own

enterprise; arranging for financial resources; applying for permits and licences, etc.

(b) In situations where the conventional means of seeking work are of limited relevance, where the labour market is largely unorganized or of limited scope, where labour absorption is, at the time, inadequate or where the labour force is largely self-employed, the standard definition of unemployment given in subparagraph (1) above may be applied by relaxing the criterion of seeking work.

(c) In the application of the criterion of current availability for work, especially in situations covered by subparagraph (b) above, appropriate tests should be developed to suit national circumstances. Such tests may be based on notions such as present desire for work and previous work experience, willingness to take up work for wage or salary on locally prevailing terms, or readiness to undertake self-employment activity given the necessary resources and facilities.

(d) Notwithstanding the criterion of seeking work embodied in the standard definition of unemployment, persons

without work and currently available for work who had made arrangements to take up paid employment or undertake self employment activity at a date subsequent to the reference period should be considered as unemployed.

(e) Persons temporarily absent from their jobs with no formal job attachment who were currently available for work and seeking work should be regarded as unemployed in accordance with the standard definition of unemployment. Countries may, however, depending on national circumstances and policies, prefer to relax the seeking work criterion in the case of persons temporarily laid off. In such cases, persons temporarily laid off who were not seeking work but classified as unemployed should be identified as a separate subcategory.

(f) Students, homemakers and others mainly engaged in non-economic activities during the reference period who satisfy the criteria laid down in subparagraphs (a) and (b) above should be regarded as unemployed on the same basis as other categories of unemployed persons and be identified separately, where possible (ONS, 4th Quarter of 2013, p.9).

### 3.3 Definition of the French (National Institute of Statistics and Economic Studies):

Unemployment represents all people aged 15 and older who do not have a job and are looking for one. Its measurement is complex. The borders between employment, unemployment and inactivity are not always easy to define, what often brings to speak about a "halo" around the unemployment. ([www.insee.fr](http://www.insee.fr)).

There is another Definition: "Unemployment is a situation where a person had no job and was willing and able to take a job if offered. Persons studying or in labor market programs were not considered to be unemployed".

### 3.4 Definition of unemployed in the sense of the ILO (Geneva, on October 1982):

The definition of the unemployed according to the ILO: "The unemployed person is any person, aged 15 years or more, who meets the following criteria (ONS, 18<sup>th</sup>/3/2017):

"Being out of work", i.e. not having any activity, even minimal, during the reference week.

"Be available for work", that is, be able to accept any employment opportunity that occurs within 15 days, without a third party being a hindrance to returning to the activity.

"Actively seeking employment, or having found one, which begins later".

Unemployment rate = unemployed in the sense of the ILO

active population

### 3.5 Regional or national standards:

According to the European Statistical System Eurostat: To be unemployed, one must have been without work during the reference week (ie less than one hour per week of activity) and have taken specific steps to find a job, without necessarily Be declared unemployed to the administration.

In the United States, according to the Bureau of Labor Statistics: the unemployed are; Persons who were not employed, having actively sought out during the past 4 weeks, and available to work

### 3.6 Definition given by "The World Factbook":

Unemployment rate (Factbook, 17/3/2017, 2129):

This entry contains the percent of the labor force that is without jobs. Substantial underemployment might be noted.

Unemployment, youth ages 15-24:

This entry gives the percent of the total labor force ages 15-24 unemployed during a specified year.

### 3.7 Definition in the sense of the Algerian (NSO) on (January 12th, 2014):

On the interpretation of some survey results (Employment 2013), the National Statistics Office recently published the first results of the survey (Employment 2013). These include key labor market indicators: current labor force, current occupied population, unemployed population, and their characteristics; As well as related indicators (participation rate, employment rate, unemployment rate, etc.) (ONS, Emploi, 2013).



However, some media have misinterpreted some figures.

Indeed, according to the typology recommended by the International Labor Office (ILO), the NSO had indicated that among the different approaches taken by the unemployed population to seek employment: 73.8% resorted to research through personal relationships, 55% registered with employment agencies, 55.4% have made representations to companies, etc.

These approaches concern the population who is always looking for work and not the occupied population, as was wrongly presented by these same press organs.

Indeed, the latter indicated that 74% of recruitments are made through interventions and not on the basis of merit (diploma), which is statistically totally unfounded.

#### IV. UNEMPLOYMENT THEORIES

##### I.1 Sociological Theories:

Sociologists, who have long distinguished (crisis unemployment), from (Underemployment unemployment), from (Structural unemployment) and from (unemployment of the reserve) (Ledrut, 1966), have abandoned the elaboration of general theories and are now devoted to the analysis of the lived experiences of the unemployed and their possibility of social and political mobilization (Jahoda, 1933) (Schnapper, 1981)

##### I.2 Economic Theories:

###### I.2.1 The Classical Economic Theory:

As analyzed by Pigou (1933) and Solow (1981), the classical theory argues that the labor market consists of demand and supply of labor. The demand curve is a negative function of real wage in that if wages increase the quantity demand for labor will decline and the opposite is correct. Sweezy (1940: 807) explains Pigou's Theory of Unemployment "apart from frictional obstructions...would be nonexistent 100 Journal of Applied Business and Economics vol. 12(5) 2011 if it were not for the fact that wage-earners habitually stipulate for a rate of wages higher than the 'equilibrium' level".

Wicksell argues that if wages are sufficiently flexible downward, then this decline can maintain full employment (Jonung, 1989, pp. 28-35), but after 1921, Wicksell turns to Malthus.

Hayek (Nishhiyama and Leube, 1984, p. 7) argues that unemployment is due "to a discrepancy between the distribution of labor...between industries...and the distribution of demand among their producers. This discrepancy is caused by a distortion of the system of relative prices and wages".

Trehan (2001) took the same line as Hayek.

###### I.2.2 Unemployment in the Theory of Innovations:

Developed by the German economist Von Mangoldt (Ekelund and Hebert 2007) in 1855. He proposed to entrepreneur many ways of profit (a) finding particular markets, (b) acquisition of productive agents, (c) combination of production factors skillfully, (d) successful sales policy, and (e) innovations. And that increases employment (Mouhammed, 2010).

Schumpeter (1934, p. 83) in his book about theory of the business cycle demonstrates clearly how unemployment can be reduced. As he (1934: 83) puts it, "the changes in economic life as are not forced upon it from without but arise by its own initiative, from within. Should it turn out that there are no such changes arising in the economic sphere itself, and that the phenomenon that we call economic development is in practice simply founded upon the fact that the data change and that the economy continuously adapts itself to them, then we should say that there is no economic development". He (1934, pp. 64,68,65) means: "Development ...is spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing (...) Development consists primarily in employing existing resources in a different way, in doing new things with them, irrespective of whether those resources increase or not (...) the producer [not consumer] who as a rule initiates economic change, and consumers are educated by him if necessary".

Innovation creates more jobs (Vecchi 1995), and increasing wages will decline unemployment (Mortensen and Pissarides 1998, Manuelli 2000).

###### I.2.3 Theory of Effective Demand:

Veblen (1904, p. 195) explains it: "In part by actual increase of demand and in part through a lively anticipation of an advanced demand, aggressive business enterprise extends its venture".

Keynes (1936) argues that unemployment is an involuntary phenomenon, because employment is generated by the deficiency of aggregate demand, so it is cyclical.

The representative of Post Keynesian economics, Davidson (1998) argues that involuntary unemployment is explained by international mobility of finances which create uncertainty that weakens entrepreneurial confidence to make investments to reduce unemployment, instability of exchange rates and insufficiency of effective demand.

###### I.2.4 Real Business Cycle Theory:

In this theory (Chatterjee 1995 and 1999) it is argued that the main source of employment and unemployment is the growth of productivity of input which revolutionizes technology.



For Gali and Rabanal (2004), Gali (1999) non technology shocks generated positive comovement between hours and productivity. His results were not consistent with the real business cycle theory.

### 1.2.5 The Standard Microeconomic Theory:

Arthur Lewis (1954) adopted an analysis for this theory which argues that the multiplication of (MR: marginal revenue) by the ( $MP_L$ : marginal product of labor), or productivity gives the (MRP: marginal revenue product).

Mathematically,  $MRP_L = (MR) (MP_L)$ .

(W: is the given wage rate).

Hiring workers by the profit-maximizing firm is until;  $MRP_L = W$ ,

The production function is assumed of the form where;

The (Q: output) depends on two resources (L: Labor) and (O: all other resources combined), and it is subject to a constant return to scale, where;

The sum of the exponents of L and O is equal to one.

The production function is also assumed as affected by (A: the technological level) such as;

$$Q = AL^a O^b \dots 1$$

Differentiate the production function partially with respect to labor yields

$$\partial Q / \partial L = aAL^{a-1}O^b \dots 2$$

Use the marginal product of labor in the MRPL equation to obtain

$$MRP_L = MR \times MP = MR \times (aAL^{a-1}O^b) \dots 3$$

Because,

$$MP_L = (aAL^{a-1}O^b)$$

The  $MRP_L$  should equal to (W/P: the real wage rate), where (P: is the price of the product).

The  $MRP_L$  is equal to the value of the marginal product of labor,  $MR = P$ , if it is under perfect competition.

The  $MRP_L$  is smaller than the value of the marginal product, if it is under imperfect competition, and that indicates the existence of labor exploitation.

In any event, solving for L, we obtain the employment level

$$L = aPQ/W \dots 4$$

Where (PQ represents GDP or the gross domestic product).

If the numerator and the denominator of the above equation are divided by L, one can obtain

$$L = aPQ/L/W/L = a (\text{average product of labor}) / (\text{average wage})$$

### 1.2.6 Microeconomic theory:

John B Clark (1894, p. 8) points out a special monopoly, when;

Up to the point where the (value of marginal product) ( $VMP_L = MP_L \times P$ ) is equal to the wage rate, employers will hire workers. Let us call this employment level ( $E_c$ ).

Under imperfect market conditions the outcomes are different.

The demand for labor reflects the marginal revenue product

( $MRP_L = MP_L \times MRX$ ), where (MRX: is the marginal revenue).

MRX is lower than (P: the market price), under this condition.

It follows that the  $MRP_L$  is lower than  $VMP_L$ .

That is the exploitation of the labor force by employers.

Under the imperfect market condition, lays the second important outcome which is that the marginal labor cost will be above the labor supply.

The employment of labor ( $E_m$ ) is determined when the  $MRP_L$  intersects the marginal factor cost, but this employment level is lower than the level of employment determined under perfect market condition ( $E_c$ ).

That means when large corporations dominate an economy that will engender lower level of employment and a higher rate of unemployment.

### 1.2.7 Conclusion of The Unemployment Theories:

Unemployment theories suggest that there are multiple valuable variables for reducing the unemployment rate and increasing the employment level, such as: improving skills of workers, reducing taxes, provisioning population with job information, provisioning of cheap loans to business enterprises, reducing financial and economic uncertainty such as higher health, labor costs and regulations, transitioning toward competitive market economy, reducing prices of physical inputs such as oil, increasing domestic real public and private investments, increasing productivity, improving technological progress and innovations, making available competitive entrepreneurs and credits, expecting high demand/ sales and growth. (Mouhammed, 2011, p. 108)

## V. LITERATURE REVIEW

Unemployment was studied in the western social sciences earlier and especially in sociology, economics and politics in the 19<sup>th</sup> century; Malthus (1803, 1821), McCulloch (1825), Mill (1864), Senior (1872), Cairnes (1874), Bilgram (1889), Ricardo (1881), Brooks (1894), Dudley (1894), Drage (1894), Hobson (1896), Mackay (1889), Nicholson (1893), Gladden (1899).

Unemployment was studied also in the 20<sup>th</sup> century; Mackay (1901), Kellor (1905), Alden (1905),

Kelly (1907), Schloss (1909), Nearing (1909), Webb (1909), Jackson (1910), Whetham (1910), Leiserson (1911), Rowntree and Lasker (1911), Hamilton (1911), Gibbon (1911), Money (1912), Beveridge (1912), Pigou (1913), Rubinow (1913), Wood (1914), Spargo (1915), Spargo (1915), Leiserson (1916), Mills (1917), Pigou (1933), Sweezy (1934), Morgenstern (1941), Jonung (1989), Davidson (1998),

It is studied also in the 2<sup>nd</sup> millennium, this is a sample of that; Manuelli (2000), Trehan (2001), Julkunen (2002), Janlert and Hammarström (2009), Mouhammed (2010).

Many studies highlight the relationship between youth and employment.

Al-Habees (2012) applies main social science oncomings in the aim to analyze late developments in the Arab world and scrutinizes the empirical outcomes of political variegation in the region. A two-by-two model of political rule that distinguishes conferring to the rule type and the stability degree is presented and discussed.

Although the analysis sketches slowly on rent theory, it also stratifies feedback from transition theory and revolution theory.

K. Kpodar (2007) examines the determinants of labor market rendering in Algeria. The model is estimated with panel data on a pattern of MENA and transitional countries for 1995-2005. Although late positive conditions of trade conflicts have assisted Algeria in reducing the social difference, the findings suggest that lower growth in job productivity in Algeria is linked to higher unemployment than the sample average. Labor market stiffness ... do not appear to clarify why unemployment is higher in Algeria than in other countries.

## VI. TRENDS IN UNEMPLOYMENT

Unemployment implies a substantial loss of human capital to the economy. As mentioned earlier, Algeria made considerable progress over the last decades in increasing access to basic education. But at the time when human capital achievements should be having their greatest pay-off, in terms of economic growth, an important share of these resources were left idle, by being unemployed.

*The country sheet* (2009) states that; as economic growth and labor demand since the mid-1980s have been insufficient to absorb the large number of new entrants in the labor force, unemployment grew-up from 10% in 1985 to 26.4% in 1997 despite a relatively low labor force participation rate in Algeria.

Unemployment reflects to a large extent the high population growth at a time when the increasing macroeconomic imbalances of the 1980s rendered

unsustainable the strategy of public sector employment generation. As a result, open unemployment jumped from 0.4 to 2 million between 1985 and 1997.

Between 1990 and 1997, the rate of unemployment in Algeria doubled reaching more than 20% of the working population.

Recent data confirms that unemployment has increased since 1997 to reach the rate of 30%.

Although unemployment among older workers emerge with the progress of enterprise restructuring and privatization (until 1997, public enterprise restructuring led to about 0.45 million layoffs). As noted, this problem will be intensified with the continued rise in female participation rate to labor market.

## VII. OVERALL UNEMPLOYMENT

Metz (1993) states that in 1968 the Algerian and French governments set a quota on migrants of 35,000 per year, which was reduced to 25,000 in 1971.

In the aftermath of the oil embargo of 1973, France enforced migration control more vigorously.

The decline in world oil prices in the 1980s in addition to an inefficient industrial structure dominated by the public sector led to economic stagnation and high unemployment.

The cumulative impact of these effects has considerably aggravated the country's social crisis. In the late 1980s, the government implemented initial reforms to liberalize the system on both political and economic fronts.

As result of this macroeconomic situation, unemployment rate increased from 17% in 1985 to 27% in 1994.

Martin (2000) points to the changed policies during the cohabitation régime (1986-88). Not only was there a "drastic reduction in the delivery of entry visas in France," but also there were "multiplication of administrative obstacles and extreme bureaucratization of the visa issuance process [as well as] forced expulsion on charter planes of 'illegal' immigrants...".

Chemingui and Ayadi (2003) claim that however, due to structural rigidities, uncompetitive business practices ingrained during 25 years of centralized planning and lack of sufficient changes, institutional reforms failed to reverse the economic decline during the period 1989-94 and the level of unemployment continues to increase. The main causes of this increase were the lack of economic growth.

World Bank (1994) mentions that three economic stabilization programs of the International Monetary Fund, which enabled the rescheduling of external debt, were implemented in 1989, 1991 and 1994.

Benachhou (1993) points that however, reforms implemented within the framework of structural adjustment programs had a negative impact on the economy. This gave rise to negative economic growth, with the recording of an annual average of -0.5% between 1987 and 1994.

Further, per capita income dropped by -2.4% per annum during the same period.

Inflation greatly increased during this time, recording an annual average of 19.6% due to the liberalization of prices and the devaluation of the dinar.

This period was also characterized by a sharp increase in unemployment as a result of slowed economic activity and the restructuring of public companies.

Unemployment rates increased from 17% to 25% between 1986 and 1994, reaching a record 28% in 1995.

The deterioration of the economic situation therefore continued and contributed to political instability and social upheavals.

The third phase in Algeria's economic development began in the mid-1990s and was characterized by a marked improvement in the economic situation.

*Africa Research Bulletin* (2000) states that there was significant revival in economic growth, which recorded an average of 3.1% between 1995 and 2000. Per capita income improved notably, increasing by 0.9% on an annual basis. The rising trend of inflation also dropped, registering an annual average slightly above 6% for the same period.

Although the restructuring of companies continued, unemployment rates stabilized following an increase in the government's capital account and public investments.

After a serious economic crisis in the 1980s and early 1990s, Algeria was back on track in terms of growth and development. This facilitated support for political reforms and strengthened the democratization process and multi-partism.

Despite several years of sustained growth, the unemployment rate in Algeria remains high compared to other emerging economies.

Unemployment is particularly high and an important factor in continued levels of low human well-being and slow growth.

Between 1995 and 2000, more than 200,000 public service workers lost their jobs.

United Nations (2004) reveals that according to the 1998 census, the total unemployment rate is 29% and around 2.1 million people are unemployed, 80% of those are aged under 30.

Mohamedi (2003) remarks that since entering office in 1999, President Abdelaziz Bouteflika has championed economic diversity by steering the country away from an overreliance on oil production and by attracting foreign trade and investment. While growth remains slow and unemployment continues to be a national concern, Algeria's efforts appear to be moving the country in the right direction.

Fearon and Laitin (2006) point that; as European countries follow suit (in the 2000's) in forestalling the free movement of labor, they may well be creating the conditions for refugee flows that their policies were designed to stop!

This growth consolidated in the fourth phase beginning in 2000, benefiting from public investment programs that were made feasible by the marked increase in oil prices on international markets. These periods of Algeria's recent economic history are proof of the strong correlation between economic performance and the evolution in international oil prices. Although it is not the only factor behind economic growth, the oil sector made a positive impact on performance when prices were high. This influence is felt as a result of the direct contribution of the sector to the gross national product, but also because of the revenue it provides to the state and its direct contribution to economic recovery and public investment programs.

Table.7: Unemployment over the years (1966-2016)

Year	Population /000	Unemployment /000	Unemployment (%)
1966		No official data	32,9
1978		No official data	22
1982		No official data	16,3
1983		No official data	13,1
1984		No official data	8,7
1985		No official data	9,7
1987		No official data	21,4
1989		No official data	18,1

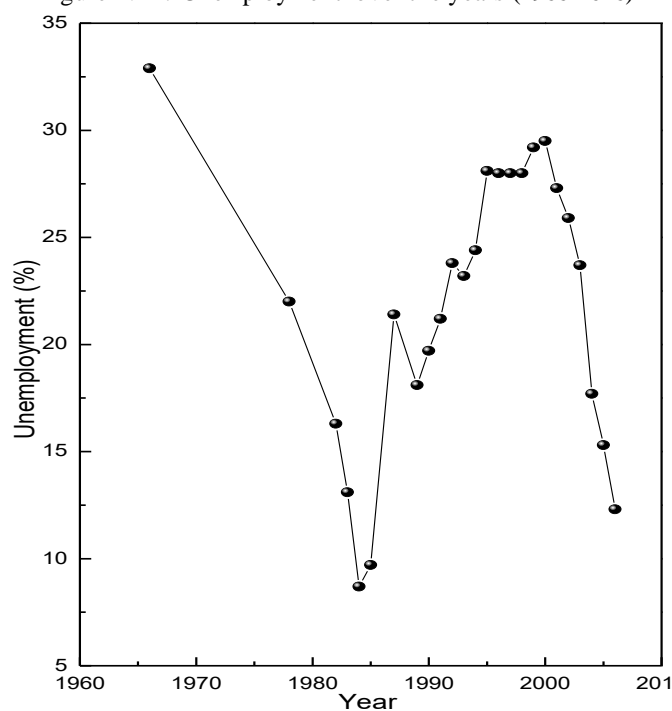
1990	25.022	No official data	19,7
1991		No official data	21,2
1992		No official data	23,8
1993		No official data	23,2
1994		No official data	24,4
1995		No official data	28,1
1996		2186	28,0
1997		2257	28,0
1998		2324	28,0
1999		2577	29,2
2000	30.416	No official data	29,5
2001	30.836	No official data	27,3
2002	31.357	No official data	25,9
2003	31.848	No official data	23,7
2004	32.364	No official data	17,7
2005	32.906	No official data	15,3
2006		No official data	12,3
2008	34.591	No official data	
2009	35.268	No official data	
2010	35.978	No official data	
2011	36.717	No official data	
2012	37.495	No official data	
2013	38.297	No official data	
2014	39.114	No official data	
2015	39.963	No official data	
2016	40.100	No official data	

Sources: RGPH and MOD many years

Bureau of National Statistics (ONS), 2013

Delegate for Planning, Ministry of Finance, Central Bank of Algeria.

Figure N° 1: Unemployment over the years (1966-2016)



Kouaouci (2004) examines the impact of demographic factors to Algeria's surroundings of violence. By analyzing Algeria's situation with reference to Geoffrey McNicoll's analytical framework for estimating the effects of fast population increase on family, economic and political systems. Kouaouci used survey data, the essay tests McNicoll's proposition that systemic tendencies are reflected in individual behavior, which influences posterior population growth. Kouaouci examined with aggregate data the interactive relationships between the youth cohort size, domestic structure and family systems, population increase, constructional adjustment policies, and employment. The outcomes show that habitation and employment deficiencies have left Algeria's flourishing population of marriage-age young people feeling discontented and socially secluded, making them vulnerable to political doers search for recruits to further destabilize the country. He suggests that, if the government reacts with convenient policies, these youths may yet be switched from Algeria's period of violence.

MDPPI (n. d.) shows that there was an impact of the growth rate on the rate of unemployment:

The negative consequence of the STEP is the increase in the rate of unemployment.

It reached some 29% into 2000. With the arrival on the labour market of more than 200.000 people per year, the growth rate made it possible to reabsorb them and start the fall of former unemployment which is estimated by the persons in charge to 7 at 8% the year.

Thus, the revival of the growth in 2000, especially the good growth rate realized into 2003 (6.8%) made it possible to bring back the rate of unemployment of 27.3% into 2001 to 23.7% in 2003, that is to say a reduction the rate of 3,6 points.

The unemployment rate, which dropped from 30.7% (1999) to 15.3% (2005) and subsequently to 13.8% (2006), reflects the efforts that have been made in this regard. Similarly, the weighted poverty index has been halved, dropping from 12.8% in 1999 to 5.7% in 2006. (*Country Review Report, 2007*)

ONS (2007) shows that according to the International Labour Organization (ILO), in October 2007, the unemployed active population or the persons in search for employment was estimated at 1.374.000 persons, which set the unemployment rate at 13,8% (61% of the unemployed live in urban areas and 39% in rural areas). This is an integration unemployment as 72% of the unemployed are aged under 30 and 85,6% are under 35. The women represent 22% of the unemployed active population.

L'Expression (17/5/2008) shows that the salary re-adjustments which started in January 2008 for civil servants did not bring anything positive as the cost of living keeps increasing. Therefore there were 90 strikes and 82 riots (regarding hunger, housing tender lists or even soccer games) between January and June 2008.

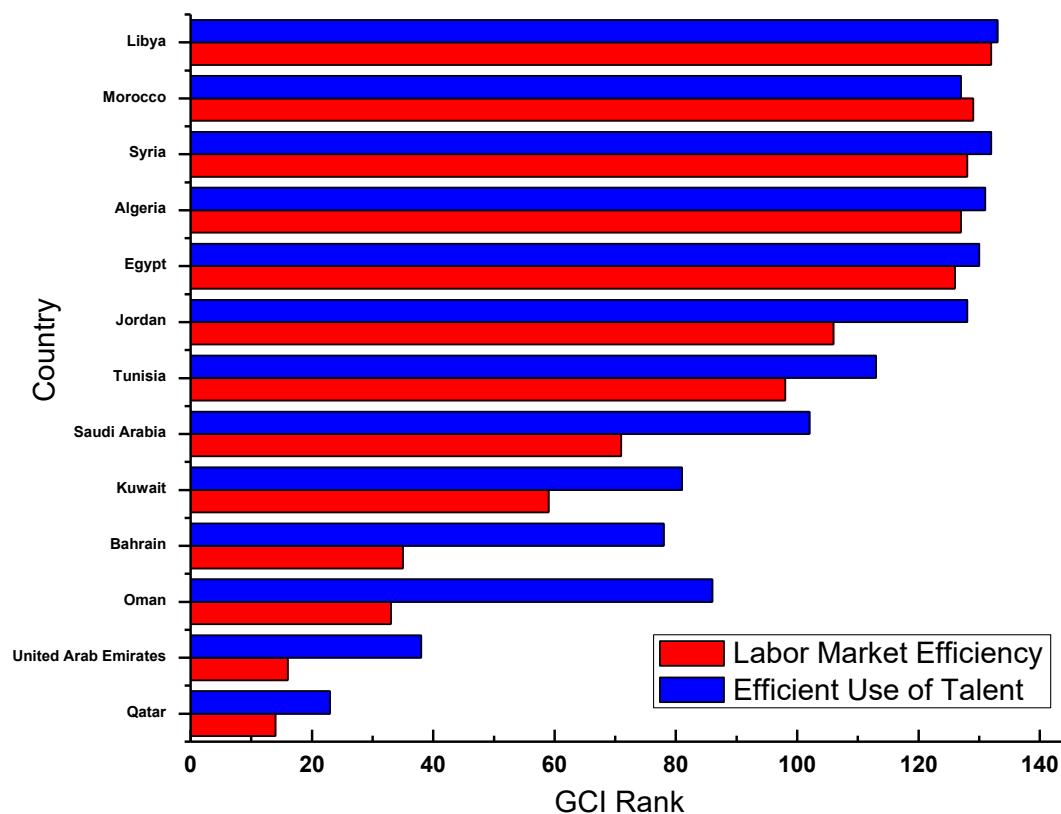
In this table drawn for the years (2009-2010), we can see the place of Algeria in a comparative overview labor market and use of talent efficiency (global competitiveness report 2016-2017-1).

Table.8: Labor Market and Use of Talent Efficiency (MENA Global Competitiveness)

Country	GCI Rank Labor Market Efficiency	GCI Rank Efficient Use of Talent
Qatar	14	23
United Arab Emirates	16	38
Oman	33	86
Bahrain	35	78
Kuwait	59	81
Saudi Arabia	71	102
Tunisia	98	113
Jordan	106	128
Egypt	126	130
<b>Algeria</b>	<b>127</b>	<b>131</b>
Syria	128	132
Morocco	129	127
Libya	132	133

Source: Global Competitiveness Reports 2009-2010. (The MENA region: Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Territory, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, the United Arab Emirates, and Yemen).

Figure No. 2: Labor Market and Use of Talent Efficiency  
To clarify the (MENA Global Competitiveness)



The areas (rural vs. urban) by gender unemployment can show many other data.

Table.9: Unemployment Rate by Areas, (Rural vs. Urban) and Gender (2010)

	Overall	Male	Female
Rural	8.7	7.2	20.1
Urban	10.6	8.6	18.8
Total	10.0	8.1	19.1

Source: ONS, Unemployment Statistics, 2010. Davide Furceri, Unemployment and Labor Market Issues in Algeria, IMF Working Paper, International Monetary Fund, 2012, Wp/12/99.

The duration of unemployment (in one, two and three years), by gender gives many new information.

Table.10: Unemployment Rate by Duration (as % of unemployment) and Gender

	Overall	Male	Female
Less than one year	35.6	33.8	35.6
12–23 Months	19.3	18.4	19.3
24 Month and more	45.1	47.8	45.1
Total	100	100	100

Source: ONS, Unemployment Statistics, 2010. Davide Furceri, Unemployment and Labor Market Issues in Algeria, IMF Working Paper, International Monetary Fund, 2012, Wp/12/99.

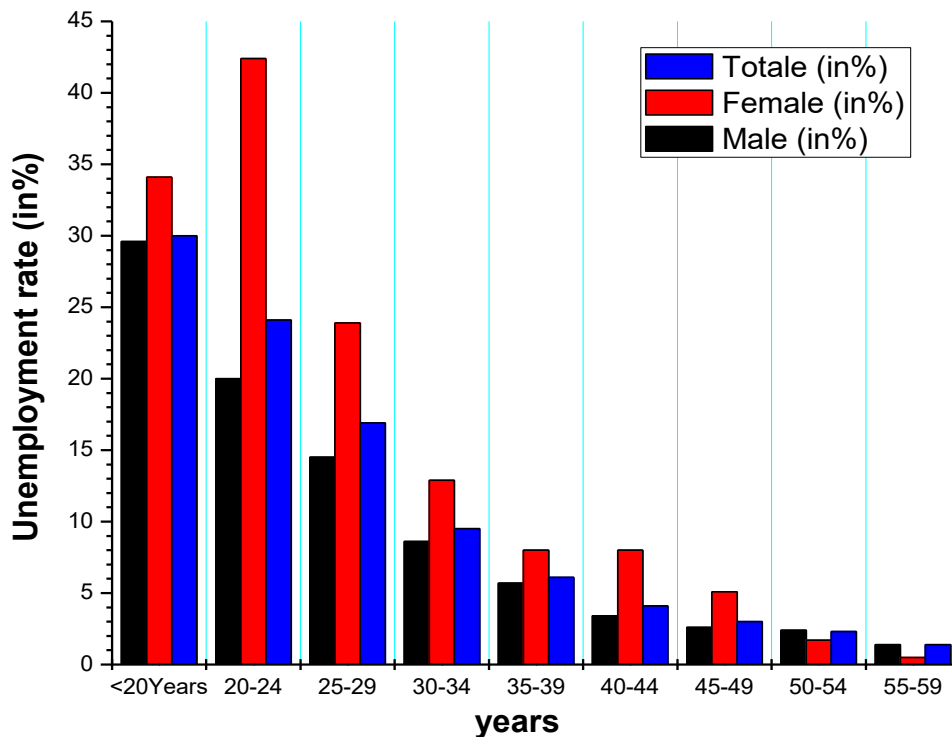


Table.11: (Unemployment rate) by age group and sex (in thousands) with (Unemployment rate) (in%), in 2014

	Male	(in%)	Female	(in%)	Total	(in%)
<20Years	103	29,6	11	34,1	114	30,0
20-24	249	20,0	116	42,4	365	24,1
25-29	228	14,5	126	23,9	355	16,9
30-34	127	8,6	51	12,9	178	9,5
35-39	65	5,7	23	8,0	88	6,1
40-44	36	3,4	17	8,0	54	4,1
45-49	25	2,6	8	5,1	34	3,0
50-54	18	2,4	2	1,7	20	2,3
55-59	7	1,4	0	0,5	8	1,4
Total	859	9,2	355	17,1	1214	10,6

Source: ONS, National Office of Statistics, September 2014

Figure No. 3: (Unemployment rate) by age group and sex (in thousands) with (Unemployment rate) (in%), in 2014



M. Madoui (2015) states that the unemployment average of young university graduates is greater than 22% in Algeria but the official tables for 2014 shows 10%, so the problem of unemployment is at the center of social movements. The public authorities do not look upon a whole generation of youth whose only anticipation is honorable work. Unemployed graduates have thence begun planning, particularly by forming associations to inform public authorities and public opinion about the insecure nature of the actual condition and about the persistent danger to social coalescence. The author gave

an overview of the Algerian labor market to highlight the attributes of the working population and the issue of unemployment among young graduates. Madoui examined the collective action and forms of mobilization among the unemployed. The outcomes were that oil income is used to buy social harmony, and the instrumentalization, and that the authorities defuse the collective struggle of unemployed graduates with use of force, and discountenancing of corroboration organizations for the unemployed.

Table.12: Structure of unemployment by age group and sex (%), on September 2014.

	Male (%)	Female(%)	Total (%)	Cumulative Frequencies (%)
<20Years	12,0	3,1	9,4	9,4
20-24	28,9	32,8	30,1	39,4
25-29	26,6	35,5	29,2	68,6
30-34	14,8	14,3	14,6	83,3
35-39	7,6	6,5	7,3	90,5
40-44	4,2	4,9	4,4	95,0
45-49	2,9	2,4	2,8	97,7
50-54	2,1	0,5	1,6	99,4
55-59	0,9	0,1	0,6	100
<b>Total</b>	100	100	100	/

Source: ONS, National Office of Statistics, September 2014

Table.13: Unemployment rate by educational level, diploma obtained and sex (%), 2014

	Male (%)	Female (%)	Total (%)
Level of education			
Uneducated	2,6	3,7	2,7
Primary	6,9	8,2	7,0
Middle	11,6	16,1	12,0
Secondary	8,3	15,0	9,7
Superior	9,9	21,8	15,4
Degree obtained			
No diploma	8,4	10,6	8,6
Graduate of vocational training	11,4	17,4	12,7
Graduate of higher education	10,9	22,1	16,4
<b>Total</b>	9,2	17,1	10,6

Source: ONS, National Office of Statistics, September 2014

Table.14: Workforce and relative share of unemployed according to the steps taken to look for a job by sex and diploma (%), on September 2014.

	Male		Female		Total	
	Nmbr	%	Nmbr	%	Nmbr	%
No diploma						
Registration at a labor office	266	46,8	45	59,9	310	48,3
Approaches to enterprises	250	44,0	34	46,3	284	44,3
Through personal relationships	473	83,4	58	78,3	531	82,8
Looking for ways to set up a business	167	29,4	11	15,0	178	27,7
Other steps	80	14,2	5	7,3	86	13,4
Diploma of vocational training						
Registration at a labor office	130	67,3	68	78,5	198	70,8
Approaches to	117	60,5	53	61,5	170	60,8

enterprises							
Through personal relationships	162	83,9	69	79,8	231	82,6	
Looking for ways to set up a business	74	38,1	18	20,3	91	32,6	
Other steps	19	10,0	6	7,5	26	9,2	
Diploma of Higher Education							
Registration at a labor office	80	81,6	171	88,2	252	86,0	
Approaches to enterprises	84	85,3	168	86,5	252	86,1	
Through personal relationships	79	80,5	157	80,7	236	80,6	
Looking for ways to set up a business	26	26,7	24	12,4	50	17,2	
Other steps	14	14,2	16	8,1	30	10,2	
Together							
Registration at a labor office	476	55,4	284	79,9	760	62,6	
Approaches to enterprises	450	52,4	256	72,0	706	58,2	
Through personal relationships	714	83,1	284	80,0	998	82,2	
Looking for ways to set up a business	267	31,1	53	14,9	320	26,3	
Other steps	114	13,2	28	7,8	141	11,6	

Source: ONS, National Office of Statistics, September 2014

Table.15: Relative share of unemployed persons accepting jobs under different working conditions by sex (%), in 2014.

	Male (%)	Female (%)	Total (%)
Employment Below Professional Skills	82,7	65,3	77,6
Employment not matching its profile	83,1	63,6	77,4
Low paying job	77,5	69,8	75,2
Employment away from home	83,4	40,7	70,9
Employment in another Wilaya	72,7	14,9	55,8
Tough or unhealthy employment	34,0	13,2	28,0
Employment in any sector of activity	86,5	73,4	82,7

Source: ONS, National Office of Statistics, September 2014

Table.16: Distribution of the unemployed who have already worked according to the economic characteristics of the last job, in thousands, in 2014.

	Male		Female		Total	
	Nmbr	%	Nmbr	%	Nmbr	%
Employment status last employment						
Employers - self-employed	65	14,9	5	4,4	70	12,7
Permanent Employee	25	5,8	7	6,6	33	6,0
Non-permanent employee	338	77,5	100	88,1	438	79,7

Apprentices family help	-	8	1,8	1	0,9	9	1,6
Industry last job							
Agriculture		29	6,6	2	1,8	31	5,6
Industry		49	11,3	8	6,7	57	10,3
Building		115	26,4	5	4,2	120	21,8
Services		243	55,7	99	87,3	342	62,2
Legal sector last employment							
Public		82	18,8	59	52,1	141	25,7
Private		354	81,2	54	47,9	408	74,3
Reason for leaving this job							
End of contract		125	28,7	61	54,1	187	33,9
Dismissal		36	8,3	3	2,9	40	7,2
Cessation of business		85	19,6	6	5,3	91	16,6
Resignation		59	13,5	13	11,5	72	13,1
Health Reasons		28	6,5	3	2,2	31	5,6
Transportation problem		5	1,0	1	1,3	6	1,1
Family obligations		6	1,4	12	10,4	18	3,2
To follow the study		3	0,6	1	1,1	4	0,7
Other		89	20,4	13	11,2	102	18,5
Duration since loss of last job							
Less than 1 year		248	57,0	58	50,9	306	55,8
12-23 months		63	14,4	17	14,5	79	14,5
24 months or more		124	28,5	39	34,5	163	29,8
Total		436	100	113	100	549	100

Source: ONS, National Office of Statistics, September 2014

Table.17: Distribution of unemployed by job search duration and gender, in thousands, in 2014.

	Male		Female		Total	
	Nmbr.	%	Nmbr.	%	Nmbr.	%
<b>No Diploma</b>						
Less than 1 year	209	36,8	21	27,8	229	35,7
12-23 months	119	21,0	18	23,9	137	21,4
24 months or more	226	39,8	33	44,7	259	40,4
Not Declared (ND)	14	2,4	3	3,7	16	2,5
<b>Total</b>	<b>568</b>	<b>100</b>	<b>74</b>	<b>100</b>	<b>642</b>	<b>100</b>
<b>Diploma of vocational training</b>						
Less than 1 year	72	37,2	26	30,4	98	35,1
12-23 months	33	17,3	23	26,4	56	20,1
24 months or more	84	43,5	37	42,6	121	43,2
Not Declared (ND)	4	1,9	1	0,6	4	1,5
<b>Total</b>	<b>193</b>	<b>100</b>	<b>87</b>	<b>100</b>	<b>280</b>	<b>100</b>
<b>Diploma of Higher Education</b>						
Less than 1 year	45	45,5	75	38,3	119	40,7
12-23 months	19	19,5	47	24,0	66	22,5
24 months or more	33	33,6	71	36,7	104	35,6
Not Declared (ND)	1	1,4	2	1,0	3	1,1
<b>Total</b>	<b>98</b>	<b>100</b>	<b>194</b>	<b>100</b>	<b>293</b>	<b>100</b>

<b>Together</b>						
<b>Less than 1 year</b>	325	37,9	121	34,2	447	36,8
<b>12-23 months</b>	172	20,0	87	24,6	259	21,4
<b>24 months or more</b>	343	39,9	141	39,8	484	39,9
<b>Not Declared (ND)</b>	19	2,2	5	1,5	24	2,0
<b>Total</b>	859	100	355	100	1214	100

Source: ONS, National Office of Statistics, September 2014

## VI. UNEMPLOYMENT INSURANCE

Algeria provides almost full coverage for workers and their dependents. Social welfare covers risks associated with retirement, disease, maternity, disability, death, occupational accidents, professional diseases, and unemployment. In 1994, two schemes were created to help laid off workers for economic reasons: unemployment insurance and early retirements. They are theoretically available to both public and private sectors; in practice, they were essentially used in the context of public enterprise restructuring. The unemployment insurance's revenues are derived from payroll taxes paid by both employers and employees.

As regards with social protection, a system set up by the National Unemployment Insurance Agency deals with unemployed entrepreneurs between the ages of 35 and 50 years and, at the same time, manages a micro-enterprise system. Financial resources allocated by the state to the various programs amounted to DA17.3 billion in 2004, compared with DA9.3 billion in 1999. All these programs and systems are supported by precise mechanisms that facilitate access to their resources. According to the statistic note dated on 9 December 2006 and data base from October the same year, the CNAS gives the following numbers regarding social insurance:

Table.18: Numbers regarding social insurance, in 2006

Active employee paying contributions	4.173.297
Retired	1.261.040
Disability pensioners and pension	277.636
Unemployment pensioners	26.378
Students	1.332.004
Moudjahidines (veterans)	94.706
Social (AFS/IAIG)	660.943
Other particular categories	1.369
Other socially insured (military and gendarmes)	614.800
Total (socially insured)	8.442.173

CNAS, Statistic Note, (9/12/2006); CNAS, Data base (10/2006).

Ali Boussaidi (2003), examining the system's legislation and the system's objectives targeting jobs, put a major question for his research about the number of jobs which are actually covered by Algeria's unemployment insurance system, and on what terms? Boussaidi studied the financial and economic obstacles. The unemployment insurance system is traditionally accused of choking off the process of employment and banning a regain of a competitive labor market. It is accused of helping to boost optional unemployment and reinforces people to rest.

Chemingui and Ayadi (2003) state that social security contributions account for 34% of the gross wage, 9% of which is paid by the employee. The 1% payroll tax was abolished in 2006. Currently the tax wedge for a single person with average earnings accounts for 41% of total labor costs in Algeria, relatively close to the levels in

transition economies. Estimates of the family tax wedge in fact suggest that labor taxation tends to be lower in Algeria than in transition countries, so unemployment may not be a taxation issue.

The unemployment insurance's revenues are derived from payroll taxes paid by both employers (2.5 percentages points of taxable wage) and employees (1.5 percentage point). Besides, every time they fire an employee, the employers are required to pay an initiation fee to the insurance company amounting to up to one year's salary (depending on seniority); moreover, the employee will receive a severance package equal to 3 months salary. Unemployment benefits start after three months on the dole, with a replacement rate of 80 percent, and are phased out over time. At the level of enterprises, staff training was practiced in mass during the seventies

and eighties; this is not the case starting from the beginning of the nineties in the public companies. According to ISSA (8/2009); Unemployment allocations, indemnities and services rendered, in any form are paid by the State, local administrations and public entities, in conformity with assistance and insurance laws and decrees. The Algerian government commissioned a study with the World Bank to explore areas in which it could expand or improve social assistance programs. The report was released in June 2008.

## VII. FINDINGS

This study has shown areas of excellence and areas that need improvement and focus from the government. Through all of the above it is clear that the problem of unemployment in Algeria dating back to a number of reasons, which could be summarized in two groups;

The first group concerns the external causes, as the government claims it is beyond its control; the drop in fuel prices, economic stagnation in developed countries, low exchange rate compared to a decline of the US dollar against other currencies, the deterioration of trade terms, and high population growth rate.

The second group concerns the internal reasons, which fall within the scope of government control; the weakness of the special work legislation, the lack of workforce planning, the lack of government commitment to appoint graduates of universities and colleges, the inadequate educational and vocational training system to the requirements of the market, the lack of interest in scientific research, the lower expenses investment, productivity, the use of intensive arts capital, and the poor distribution of the population.

Some reasons affect the work request, while other causes affect the job offers, and some other affects the two sides together. Although economic reforms have helped to restore monetary and fiscal balances, they contributed to the increased social value bill increasing rates of unemployment. At the behest of international financial institutions, after a wave of criticism addressed to the government, the latter has worked to implement some measures to mitigate the effects of these reforms. The mission of the facing the unemployment remained, under the application of the economic reform program, very modest, and it is not sufficient, as it did not provide repair devices. Since its inception, the economic reform program provided only (23,000 annually jobs), or approximately (245.000 permanent position) of which about (60% permanent jobs), and (40% of temporary jobs). If we consider only the permanent jobs, which are the most accurate wage, this ratio is (2.7%) only, which is a very limited number of jobs sustained, compared to the

interim with the job in the activities as (job in Social Network) and (Solidarity jobs) based on (the subsidy of public interest activities, and complementary development, unemployment insurance, training, etc.).

## VIII. RECOMMENDATIONS

Key elements for a strategy to reduce unemployment and increase the efficiency of human capital utilisation could include the following actions to improve employment in Algeria:

- a) According World Bank (2004); the government should pursue growth-enhancing policies that will create conditions for enough long-term employment to absorb the growing work force and reduce unemployment.
- b) Structural reforms to increase productivity are critical to ensure a durable reduction in unemployment.
- c) Promoting financial development, trade liberalization, private investment, and human capital accumulation would contribute to productivity growth.
- d) Private sector-led growth and investment should be the main engine of job creation, but this is unlikely to occur where labor productivity is low.
- e) Productivity improvements and moderate wage increases would stimulate employment growth.
- f) According to Musette and All (2003) and according to Kpodar (2007); Though labor market regulations seem not to be a major issue, easing restrictions on hiring and firing would make the Algerian labor market more flexible and help reduce unemployment.
- g) Specifically, shortening the notification period and the length of the procedure for dismissal, lowering employer contributions intended to allow laid-off workers to receive unemployment benefits, removing the obligation to maintain the employment and activity of privatized firms, and allowing the employer to choose which workers to lay off without constraints could make the labor market more flexible and make it easier to create jobs.
- h) Broadening unemployment insurance coverage would help lessen the social impact of these measures.
- i) According to (Nickell, 2003); Similarly, though the tax burden on labor in Algeria does not seem to be a key factor in explaining unemployment, given Algeria's high unemployment rate, the fiscal space provided by higher oil revenues could be used to lessen the tax<sup>1</sup> burden on labor intensive activities to stimulate job creation.

<sup>1</sup> A common measure of the tax burden on labor is the tax wedge, which is defined as the difference between workers' take-home pay and the costs of employing them, including income taxes and social security contributions<sup>1</sup>. It is calculated as follows:

$$\begin{aligned} & (\text{Central government income tax} \\ & + \text{Employee's social security contributions} \end{aligned}$$



- j) Improve the educational system, especially vocational education to suit the needs of the labor market as well as to coordinate education and training outputs and labor market requirements.
- k) Investing in human capital is imperative for sustainable growth and ensures that the population has the necessary skills to benefit from the jobs created as a result of structural reforms.
- l) Opening doors for work abroad, especially in the Gulf countries by investing Algerian-Arabic diplomatic relations.
- m) Revival of the Islamic economy in the country, because it is the originality of the nation, and open the way for Islamic banks, which are absent in the country, and reduce administrative bureaucracy to obtain interest-free loans from private Islamic banks.
- n) Providing a database with accurate statistics on the labor market to analysis scientifically data of each sector, and reduce the distortions in the labor market, using constantly updated deployment tools.
- o) Sustaining job-creating growth in Algeria requires continued changes in the domestic political economy.
- p) Restoring and maintaining macroeconomic balances.
- q) Enhancing labor-intensive growth.
- r) Speeding up privatization and public enterprise reform.
- s) Continuing agricultural reforms.
- t) Investigating reforms needed in the labor market to promote growth and emphasizing human capital development.
- u) Building human capital and the skills of the population is increasingly important for countries such as Algeria, which face the double challenge of unemployment and the relative scarcity of skilled manpower. (Lamiri, 2000, pp.159-162)
- v) Practicing remunerating production factors according to their productivity allows the efficient compensation of labor. It remains the premier source of wealth creation and, hence, of economic and social development.
- w) Encouraging competition, promoting the private sector, and disengaging the state from involvement in production and trade are the three main measures needed to increase economic growth.
- x) Algeria's challenge should be to build the future on accelerated development and shared growth through reduced unemployment, higher living standards, less

poverty and deprivation, and a redistribution of wealth and income in favor of the poor.

y) Worldly experiences show that increases in the minimum wage should be kept below the rate of labor productivity growth.

z) However, further research is needed to understand: (a) the link between labor market policies and expansion of employment. (b) the costs of labor (wage and non-wage). (c) the cost of retrenchments during enterprise restructuring; and (d) the obstacles to obtaining productive employment for women, and alternatives to increasing women's access to the labor market.

#### REFERENCES

- [1] Africa Research Bulletin, Vol. 37, No. 2, Year 2000.
- [2] Alden, Percy (1905), *The Unemployed*, London, pp.34, 66.
- [3] Al-Habees, Mohammed Abu Rumman Mahmoud A. (2012). *Unemployment and Labor Market Issues in Algeria*, World Applied Sciences Journal (2012), Volume: 18, Issue: 5, Pages: 673-80, ISSN: 0305750X, ISBN: 0301-4215, DOI: 10.5829/idosi.wasj.2012.18.05.16712, PubMed: 221395
- [4] Ali, R. A. and Clarke, W. M. (2000). "*Human Capital as a Determinant of Foreign Direct Investment: Egypt Case*", University of Ulster at Jordanstown, Mimeo;
- [5] Benachenhou, A. (1993). "*Inflation and Unemployment in Algeria: the chances of the democracy and the economic reforms*", in: *Maghreb-Macherek*, No. 139, pp-28-41.
- [6] Benderra O., (2002). *Économie algérienne 1986/1998: les réseaux aux commandes de l'État*, in : CESARI J. (dir.), *La Méditerranée des réseaux*. Paris: Maisonneuve & Larose, pp. 231-266.
- [7] Berthelemy, J.C., and Dessus, S. (2000), "*Why Doesn't Human Capital Accumulation Always Contribute to Growth?*", Working Paper.
- [8] Berthelemy, J.C., Pissarides, C.A. and Varoudakis, A. (1999), "*Human Capital and Growth: the Cost of Rent Seeking Activities*", in *Economic Growth and its Determinants*, edited by T. De Ruyter van Steveninck, Academic Publishers, Kluwer, Dordrecht;
- [9] Beveridge, W. H. (1912), *Unemployment: a Problem of Industry*, London, p. 191.
- [10] Bilgram, Hugo (1889), *Involuntary Idleness*, Philadelphia.
- [11] Boland, Tom and Griffin, Ray (eds), *The Sociology of Unemployment*. Manchester University Press, ISBN-9780719097904

---

+ *Employer's social security contributions*

$Tax\ wedge = 100 + \frac{Payroll\ tax}{Gross\ earnings}$

(*Gross earnings + Employer's social security contributions + Payroll tax*)

- [12] Boudon, (Raymond), Besnard, (Philippe), Cherkaoui, (Mohamed), Lécuyer, (Bernard-Pierre), (2005), Dictionnaire de Sociologie, Paris : Larousse.
- [13] Boussaïdi, Ali. (2003). *Unemployment Insurance in Algeria: Help or Hindrance?*, International Social Security Review (2003), Volume: 56, Issue: 3/4, Publisher: Wiley-Blackwell, Pages: 157,ISSN: 0020871X,DOI: 10.1111/1468-246X. 00175
- [14] Brooks, John Graham (1894). The Future Problem of Charity and the Unemployed, in: Annals, American Academy of Political and Social Science, July 1894.
- [15] Bulletin of the ONS, (2016), “*Activité, emploi, chômage au 4eme trimestre 2007*”, Algeria, n°489, p. 8
- [16] Cairnes, J. E. (1874), Political Economy, New York, p. 179.
- [17] Chapman, S. J. (w.d.). Wages and Employment, in: Brassey-Chapman, Work and Wages, vol. 2, pp. 349-350
- [18] Chat Chatterjee, S. (1995). “Productivity Growth and the American Business Cycle”. Business Review, Federal Reserve Bank of Philadelphia, (September/October), 13-23.
- [19] Chatterjee, S. (1999). “Real Business Cycles: A Legacy of Countercyclical Policies?”. Business Review, Federal Reserve Bank of Philadelphia, (January/February), 17-27.
- [20] Chemingui, Mohamed Abdelbasset and AYADI, Nassima. (2003). *Understanding the Poor Human Capital Contribution to Economic Growth in Algeria*, Paper Produced as part of the Global Development Project on explaining Growth in Developing Countries: the case of Algeria, Revised Version – November 2003, p. 2
- [21] Clark, John B. (1894). “The Modern Appeal to Legal Forces In Economic Life,” The Seventh Annual Meeting of the American Economic Association, Columbia College December.
- [22] Clark, John Bates. (1904). The Problem of Monopoly: A Study of A Grave Danger And of the Natural Mode of Averting It. New York: The Columbia University Press.
- [23] Country Review (2007). *Report of the People’s Democratic Republic of Algeria*, African Peer Review Mechanism, APRM Country Review Report Nr. 4, July 2007, p. 86, 165
- [24] Davidson, P. (1998). Post Keynesian Employment Analysis and the Macroeconomics of OECD Unemployment, in: The Economic Journal, Vol. 108, No. 448, pp. 817-831.
- [25] Drage, Geoffrey (1894), The Unemployed, London, pp. 127, 148-149.
- [26] Dudley, Helena S. (1894). Relief of Unemployed Women in Boston, in: American Academy of Political and Social Science, Annals. November 1894.
- [27] Ekelund, Jr., Robert and Robert F. Hebert. ( 2007). A History of Economic Theory and Method. Fifth edition, Long Grove, Illinois: The Waveland Press.
- [28] EUROMED, (2003). *La protection sociale dans les Pays du Sud et de l’Est de la Méditerranée*, État des lieux et perspectives, Forum Syndical, p. 7
- [29] Gali, Jordi and Rabanal, Pau. (2004). “Technology Shocks and Aggregate Fluctuations: How Well Does the Real Business Cycle Model Fit Postwar U.S. Data?,” NBER Macroeconomics Annual, 19, 225-288.
- [30] Gali, Jordi. (1999). “Technology, Employment, and the Business Cycle: Do Technology Explain Aggregate Fluctuations,” The American Economic Review, 1, 249-271.
- [31] Gibbon, T. G. (1911), Unemployment Insurance, London, pp. I4-I9.
- [32] Gladden, Washington (1899), What to Do with the Workless Man, in: Proceedings of the National Conference on Charities and Corrections, Twenty-six Annual Session, Proceedings,1899, pp. 141-152.
- [33] Hamilton, J. (1911), Unemployment in Relation to Age and Accident, in: Papers and Proceedings, National Conference on the Prevention of Destitution (1911), pp. 460-6.
- [34] Hoare, Ben (2002). *The Kingfisher A-Z Encyclopedia*, London: Kingfisher Publications, p. 11. (ISBN 978-0-7534-5569-2).
- [35] Hobson, J. A. (1896), The Problem of the Unemployed, London, pp. 38-44.
- [36] IMF Working Paper (African Department). (2007). *Why Has Unemployment in Algeria Been Higher than in MENA and Transition Countries?* Prepared by Kangni Kpodar, Authorized for distribution by Domenico Fanizza, August 2007, Pp.24-25.
- [37] Jackson, Cyril (1910). Unemployment and Trade Unions. London: Longmans.
- [38] Jahoda, (Marie), Lazarsfeld, (Paul), et Zeisel, (Hans) (1933), Les Chômeurs de Marienthal, Tr. Fr., Paris : Éditions Minit, 1960.
- [39] Jonung, Lars. (1989). Knut Wicksell on unemployment, in: History of Political Economy, Vol. 21, No. 1, pp. 27-42.
- [40] Julkunen, I. (2002), Social and material deprivation among unemployed youth in Northern Europe. In: Social Policy and Administration. Vol.

- 2002, No. 36, pp. 235–253. doi: 10.1111/1467-9515.00249.
- [41] Kellor, F. A. (1905), *Out of Work*, New York.
- [42] Kelly, Edmond (1907). *The Unemployables*. London: King.
- [43] Keynes, J. (1936). *The General Theory of Employment, Interest and Money*. London: Harcourt.
- [44] Kouaouci, Ali. (2004). *Population transitions, youth unemployment, postponement of marriage and violence in Algeria*, *The Journal of North African Studies* (2004), Volume: 9, Issue: 2, Pages: 28-45, ISSN: 1362-9387, ISBN: 1362-9387, DOI: 10.1080/1362938042000323329
- [45] Kpodar, K. (2007). “*Labor Market Issues and Unemployment in Algeria*”, in *Algeria: Selected Issues*, Chapter 2, IMF Country Report No. 07/61 (Washington: International Monetary Fund).
- [46] Kpodar, K. (2007). *Why has unemployment in Algeria been higher than in MENA and transition countries?*, IMF Working Papers (2007), Pages: 1-32
- [47] Lahmar, k. (2015), *Strategy for Youth Employment Creation in Algeria*, in: Algeria, Dr. Lamine Debbaghine University of Setif 2, *Roua Journal for Epistemic and Civilisational Studies*, Vol. 1, No. 1, Spring 2015, pp. 261-274
- [48] Lamiri, Abdelhak (2000). *Crise de l'Économie Algérienne; Causes, Mécanismes et Perspectives de Redressement*, Algiers: Les Pressses d'Alger, 320 p. (ISBN : 9961-850-01-7)
- [49] Ledrut, Raymond (1966), *Sociologie du Chômage*. Paris: Presses Universitaires de France.
- [50] Leiserson, W. M. (1911), *Unemployment in the State of New York*. New York.
- [51] Leiserson, W. M. (1916), *The Problem of Unemployment Today*, in: *Political Science Quarterly*, March 1916, Vol. 31, No. 1.
- [52] Lewis, A (1954). *Economic Development with Unlimited Supplies of Labor*. Manchester School, 22, 139-191
- [53] L'Expression, *La police se redéploie sur tout le territoire national*, Ali Tounsi prend son glaive, 17 May 2008.
- [54] Mackay, T. (1889), *English Poor*, London, pp. 112-116.
- [55] Mackay, T. (1901), *Public Relief of the Poor*, London.
- [56] Madoui, Mohamed. (2015). *Unemployment among Young Graduates in Algeria: A Sociological Reading*, *Open Journal of Social Sciences* (2015), Volume: 3, Issue: November, Pages: 35-44
- [57] Malthus, T. R. (1821), *Principles of Political Economy*, Boston, p. 371
- [58] Malthus, Thomas R. (1803), *An Essay on the Principles of Population*, London, p. 53.
- [59] Manuelli, R. (2000). *Technological Change, the Labor Market, and the Stock Market*, in: NBER Working Paper 8022 (November).
- [60] Martin, Guy (2000) “*France’s African Policy In Transition: Disengagement And Redeployment*” Paper prepared for presentation at the African Studies Interdisciplinary Seminar, Center for African Studies, University of Illinois at Urbana-Champaign, Champaign, Il (3 March)
- [61] McCulloch, J. R. (1825), *Principles of Political Economy*, Edinburgh, p. 355.
- [62] MDPPI. (N. D.). *Investing in Algeria*, Ministry Delegate for Participation and Investment Promotion, p. 31
- [63] Metz, Helen Chapan ed. (1993) *Algeria: A Country Study*, Federal Research Division, Library of Congress ([http://memory.loc.gov/cgi-bin/query2/r?frd/cstdy:@field\(DOCID+dz0000\)](http://memory.loc.gov/cgi-bin/query2/r?frd/cstdy:@field(DOCID+dz0000)))
- [64] Mill, J. S. (1864), *Principles of Political Economy*. New York and London, 5th edition, p. 206.
- [65] Mills, Fuederick C. (1917), *Theories of Unemployment and of Unemployment Relief*. New York: Columbia University, Faculty of Political Science.
- [66] Mohammedi, Omar T. (2010). *International Trade And Investment In Algeria: An Overview*, *Michigan State Journal of International Law*, Vol. 18, Issue 3, April 2010, p. 375-409. Available on May 31st, 2016, 10:54, at: <http://digitalcommons.law.msu.edu/ilr/vol18/iss3/6>
- [67] Money, L. G. (1912), *Chiozza Insurance versus Poverty*, London, pp. 314, 317.
- [68] Morgenstern, Oskar. (1941). *Unemployment: Analysis of Factors*, in: *The American Economic Review*, 30, 5, 273-293.
- [69] Mortensen, D. and Pissarides, C. (1994). “*Job Creation and Job Destruction in the Theory of Unemployment*,” *The Review of Economic Studies*, 61, 3, 397-415.
- [70] Mouhammed, Adil H. (2011). *Important Theories of Unemployment and Public Policies*, in: University of Illinois at Springfield, *Journal of Applied Business and Economics*, vol. 12, No. 5, year 2011, pp. 100-110.
- [71] Mouhammed, Adil. (2010). *Unemployment and the Entrepreneur*, in: *International Journal of Economics and Research*, Vol. 1, No. 1, pp. 1-14.
- [72] Musette, M., ISLI, M. and HAMMOUDA, N. (2003). “*Marché du travail et emploi en Algérie*,

- éléments pour une politique nationale de l'emploi*" (Algiers: International Labor Organization).
- [73] National Unemployment Insurance Fund (<http://www.cnac.dz>) administers the program. Visited on August 22<sup>nd</sup>, 2016.
- [74] Nearing, Scott (1909), Extent of Unemployment in the United States, in: American Statistical Association, Quarterly Publications, September 1909 (New Series, No. 87)
- [75] Nicholson, J. S. (1893), Principles of Political Economy, London, pp. 371-81.
- [76] Nickell, S. (2003). "Employment and Taxes", CESifo Working Paper No.1109 (Munich: CESifo).
- [77] Nishiyama, C. and Leube, K. (1984). The Essence of Hayek. Hoover Institution: Stanford University, Stanford, CA.
- [78] Nunziata, Luca. (2002). "Unemployment, Labour Market Institutions and Shocks", Economics Papers 2002W16, Economics Group, Nuffield College (Oxford, UK: University of Oxford).
- [79] Pigou, A. C., (1933), The Theory of Unemployment, London: Macmillan
- [80] Pigou, C. (1913), Unemployment, N. Y.
- [81] Problem of Unemployment", pp. 441-455.
- [82] Ricardo, David (1881), Principles of Political Economy and Taxation, London, p. 58.
- [83] Rowntree and Lasker (1911), Unemployment: A Social Study, London, pp. 52-4.
- [84] Rubinow, I. M. (1913), Social Insurance, New York: ch. 26, "The
- [85] Salais, (Robert), Baverez, (Nicolas), Marpsat, (Maryse) (1986). L'invention du chômage. Paris: Presses Universitaires de France.
- [86] Schloss, D. F. (1909). Insurance Against Unemployment. London: King.
- [87] Schnapper, Dominique (1981). L'Épreuve du Chômage. Paris: Gallimard.
- [88] Schnapper, Dominique (1982). Chômage et politique, in: Revue Française de Science Politique, Vol. 32, pp. 679-691.
- [89] Schumpeter, J. (1934). Theory of Economic Development. Cambridge, MA.: Harvard University Press. [Originally published in 1912].
- [90] Schumpeter, J. (1947). "The Creative Response In Economic History," Journal of Economic History, 7, 2, (November), pp.149-159.
- [91] Senior, Nassau William (1872), Political Economy, London, p. 219.
- [92] Spargo, John (1915), Socialism as a Cure for Unemployment, in: American Academy of Political and Social Science, Annals, May 1915, Vol. 59.
- [93] Spargo, John (1915). Socialism as a Cure for Unemployment, in: Annals of the American Academy of Political and Social Science, May 1915, vol. 59, pp. 157-64
- [94] SSPTW: Africa, 2011, p. 31
- [95] Sweezy, P. (1934), Professor Pigou's Theory of Unemployment, in: The Journal of Political Economy, Vol. 42, No. 6, (December 1934), pp. 800-811.
- [96] The Country Sheet. (2009). *Algeria; The Country of Return*, Information Project, MAY 09, 2009, p.36
- [97] Trehan, B. (2001). Unemployment and Productivity, Economic Letter, Federal Reserve Bank of San Francisco, No. 28, October 12, p. 1-3.
- [98] United Nations (2004). *Youth & Employment In Post-Conflict Arab Countries*, Beirut, 28 – 30 January 2004, Report of the Meeting, United Nations Department of Economic and Social Affairs, Division for Social Policy and Development, Hosted by ESCWA, under the Patronage of H.E. Dr Assad Diab, Lebanese Minister of Social Affairs and the support of the Lebanese Family Planning, p. 7
- [99] Urban Janlert and Anne Hammarström (2009), Which theory is best? Explanatory models of the relationship between unemployment and health, in: BMC Public Health, Vol. 2009, No. 9, p. 235. doi:10.1186/1471-2458-9-235
- [100] Veblen, T. (1904). The Theory of Business Enterprise. New York: Kelley.
- [101] Veblen, T. (1921). The Engineers and the Price System. New York: B.W. Huebsch.
- [102] Vecchi, N. (1995). Entrepreneurs, Institutions and Economic Change: The economics thought of J.A. Schumpeter (1905-1925). London: Edward Elgar.
- [103] Webb, Sidney and Beatrice (1909), English Poor Law Policy, London, pp. 74-5.
- [104] Whetham, W. C. D. (1910). Eugenics and Unemployment, A Lecture Delivered in Trinity College, Cambridge, January 24, 1910. Cambridge: Bowes & Bowes.
- [105] Wood, Arthur E. (1914), A Study of the Unemployed, in: Reed College Record, December, 1914, No. 18.
- [106] World Bank (1994). "The Democratic and Popular Republic of Algeria: Country Economic Memorandum: The transition to a Market Economy", Volume I (main report).
- [107] World Bank (2004). *MENA Development Report: Unlocking the Employment Potential in the MENA*, Washington: World Bank.



- [108] Bounoua .C.1993 « Insertion professionnelle des jeunes et système de formation en Algérie» Cahiers du GRATICE N°5, Université de Paris XII , pp 111-123
- [109] ZZ: Algerian employment website: <http://www.emploitic.com>
- [110] ZZ: Algerian employment website: <http://www.sira-algerie.com>
- [111] ZZ: Algerian employment website of the International Recruitment Fair in Algeria (El-Jazā'ir) (organized each year in June in Algiers; you can post your resume on line): <http://www.algeriesite.com>
- [112] ZZ: Algerian employment website: <http://www.algerieemploi.com>
- [113] ZZ: Algerian employment website: <http://www.ibhat.net>
- [114] ZZ: Algerian employment website: <http://www.Dz-recrute.com>
- [115] ZZ: Paper that publish job advertisements: <http://www.lematin-dz.com>
- [116] ZZ: Paper that publish job advertisements: <http://www.liberte-algerie.com>
- [117] ZZ: Paper that publish job advertisements: <http://www.elmoudjahid.com>
- [118] ZZ: Paper that publish job advertisements: <http://www.elwatan.com>
- [119] ZZ: Paper that publish job advertisements: <http://www.lesoirdalgerie.com>
- [120] *The Country Sheet: Algeria*, The Country of Return Information Project, MAY 09, 2009, p.37
- [121] The TUP-HIMO program explained: Communication on the Algerian experience of Highly Workforce-Intensive Public Utility Works, September 1998. (viewed on November 20, 2016): [www.worldbank.org/mdf/mdf2/papers/econdev/thaminy.pdf](http://www.worldbank.org/mdf/mdf2/papers/econdev/thaminy.pdf)
- [122] Interview with the ANGEM, with Mr. AOUIDJIA (Director of studies and Information systems) and Mr. Djebnoute (Directing of the development of the Programs) on October 29, 2006. (viewed on November 21<sup>st</sup>, 2016): [https://www.ecoi.net/file.../1504\\_1236248099\\_cs-algeria-en.pdf](https://www.ecoi.net/file.../1504_1236248099_cs-algeria-en.pdf)
- [123] Country Review Report of the People's Democratic Republic of Algeria, African Peer Review Mechanism, APRM Country Review Report Nr. 4, July 2007, p.164
- [124] Country Review Report of the People's Democratic Republic of Algeria, African Peer Review Mechanism, APRM Country Review Report Nr. 4, July 2007, p. 285
- [125] O.N.S. (2013). Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians (October 1982), in: Sheet of: Activity, Employment & Unemployment For The 4th Quarter of 2013, Summary, p.9
- [126] ZZ: <http://www.ons.dz/Definitions-des-concepts-utilises,57.html>(Available on Saturday, March 18, 2017, at 19:33)
- [127] ZZ: <https://www.cia.gov/library/publications/the-world-factbook/docs/notesanddefs.html#2129> (Available on Friday, March 17, 2017, at 19:39)
- [128] ZZ: [http://www.ons.dz/IMG/pdf/Mise\\_au\\_point\\_Emloi2013.pdf](http://www.ons.dz/IMG/pdf/Mise_au_point_Emloi2013.pdf) (Available on Friday, March 17, 2017, at 20:28)
- [129] <https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1> (Available on February 11th, 2016, at 14:33)
- [130] Chemingui, Mohamed Abdelbasset & AYADI, Nassima. (Jan. 2003). *Labour Market and Economic Growth in Algeria*. P 22-28
- [131] Cerdi. (2008). *Études et Documents*, E 2008.03. *Études et Documents* E 2008.03. JEL Classification Numbers: J01, E24, 040.
- [132] ISSA. (2009, August). *Social Security Programs Throughout the World: Africa 2009*. (Program#4: social insurance. Program Name: Unemployment). Retrieved from International Social Security Administration:<http://www.socialsecurity.gov/policy/docs/progdesc/ssptw/2008-2009/africa/ssptw09africa.pdf>
- [133] Agri-Food, Algeria: Past, Present & Future Report, May 2011.
- [134] ENP Package (2012). *Algeria, MEMO/12/XXX*, Brussels, 15 May 2012, p.2
- [135] ZZ; Algerian National Office of Statistics: (March 11<sup>th</sup>, 2017, at 13:44): [www.ons.dz](http://www.ons.dz)
- [136] ZZ: Algerian employment website: (March 20<sup>th</sup>, 2017, at 15:44): <https://www.insee.fr/en/metadonnees/definition/c1303>
- [137] CIA World Factbook Algeria; CIA. Retrieved on March 24<sup>th</sup>, 2017, at: 11:46, from: <https://www.cia.gov/library/publications/the-world-factbook/geos/ag.html>
- [138] FEARON, James and LAITIN, David. (2006), *Algeria*, (AlgeriaRN2.4.doc), Stanford University, April 10, 2006, p.17-18