



The Effectiveness of Legal Regulation of the Vocational Training and Education Sector in Addressing Youth Unemployment

Hila Hanane*¹

University - Adrar, "Algeria"
hila.hanane@univ-adrar.edu.dz
Laboratory: Law and Society

Ali Mohammed*²

University - Adrar, "Algeria"
ali.mohammed@univ-adrar.edu.dz
Laboratory: Law and Society

Received: 05/09/2025;

Accepted: 02/05/2026;

Published: 28/06/2026

ABSTRACT:

With the worsening phenomenon of unemployment in Algeria, despite multiple governmental efforts to reduce it, the importance of supporting existing programs has emerged through activating the roles of the concerned institutions, foremost among them the vocational training and education sector. The importance of this study lies in shedding light on the extent of the effectiveness of the intervention of the Algerian legislator in supporting youth employment from the perspective of the vocational training and education sector, and revealing the strengths and deficiencies in the legal framework regulating it.

This article reviews the legal framework governing the sector and analyzes its role in supporting youth employment. It also seeks to evaluate the policies adopted by the training sector aimed at providing youth with the skills and competencies required in the labor market, with a focus on current challenges and future prospects. It further sheds light on the importance of compatibility between training outputs and the needs of the labor market.

Finally, it reaches several results and proposes practical recommendations to enhance the contribution of the sector to reducing unemployment, especially among youth. Among these recommendations is the provision of a flexible and clear regulatory environment to support employment policy as a basic step toward achieving sustainable development in Algeria.

INTRODUCTION

The problem of youth employment is considered one of the most prominent economic and social challenges facing the Algerian state because of its direct repercussions on social stability and sustainable development. Despite the multiplicity of governmental programs and policies directed toward employment, unemployment rates remain high in Algeria, especially among the youth category, according to data from the National Office of Statistics. This raises questions about the effectiveness of the existing programs and the extent of their contribution to the professional integration of youth, especially those who do not possess educational certificates. In light of this



reality, the vocational training and education sector stands out as a vital tool to direct youth toward the labor market and integrate them by granting them the required skills and competencies.

In fact, the importance of studying this subject lies in shedding light on the extent of the effectiveness of the intervention of the Algerian legislator in supporting youth employment, while addressing a current social and economic problem, represented by unemployment, from the perspective of the vocational training and education sector, and revealing the strengths and deficiencies in the legal framework regulating it.

From the scientific side, this study contributes to enriching legal research related to employment policies from the perspective of vocational training and education through analyzing the legal framework regulating this sector and the extent of its harmony with the goals of youth employment. It also contributes by encouraging researchers to direct legal research to this field, which witnesses a scarcity of legal studies related to the legislative and regulatory frameworks of this sector, in order to identify legal problems and propose solutions for them. The study also seeks to make youth aware of the programs provided by the sector and aimed at equipping them with the skills required in the labor market and supporting their integration into it.

Starting from that, this research aims to study and analyze the extent of the effectiveness of the legal framework governing the vocational training and education sector in Algeria, in light of the efforts exerted to employ youth, in addition to analyzing the relationship between training outputs and the needs of the labor market. It also seeks to evaluate the policies adopted by the training sector and aimed at providing youth with the skills and competencies required in the labor market, and to highlight the strengths and deficiencies. It further sheds light on entrepreneurship development centers and the legal problems related to them.

Accordingly, to what extent did the Algerian legislator, through the legal framework of the vocational training and education sector, contribute to supporting youth employment? And what are the most important legal problems that limit the effectiveness of this role?

The descriptive analytical method was relied upon to answer this problem, through analyzing legislative and regulatory texts and drawing guidance from official reports and related academic studies.

Accordingly, this study was divided into two main sections and several subsections, as follows:

1. Unemployment as a legal justification for adopting vocational training in the youth employment policy:

The vocational training and education sector is one of the strategic sectors to which the state has given special care, considering its vital role in preparing qualified human resources and adapting educational outputs to the requirements of the labor market. The latter is based, in its traditional conception and in economic literature, on a hypothesis according to which labor is treated as a commodity within a competitive market governed by the mechanisms of supply and demand. By virtue of this conception, the wage level and employment rate are determined as a result of the objective interaction between labor supply and demand, such that the intersection of their two curves leads to establishing an equilibrium wage corresponding to an equilibrium employment level, reflecting the assumed state of stability in the market(Afifi, 1996, p. 98).



In this section, the vocational training and education sector and its types are defined, followed by a study of the reality of unemployment among youth and its relation to training, as a prelude to studying the extent of providing practical training that guarantees employability and enhances professional integration.

1.1 The vocational training and education sector as a legislative tool for treating unemployment:

For the purpose of understanding the role played by the vocational training and education sector in reducing unemployment and being able to analyze the public policies regulating it, as well as evaluating the extent of its effectiveness in achieving the economic and social objectives set for it, it is necessary first to shed light on the concept of this sector.

1.1.1 Introducing the sector of vocational training and education:

Introducing the sector of vocational training and education is considered an essential step to understanding its legal nature and its social and economic function. Through this section, the definition of the sector of vocational training and education will be addressed, with highlighting the organization of vocational training and education.

1.1.1.1 Its definition:

It is a public facility (Article 2 Law No 08-07, 2008) that forms a basic pillar for the development of human resources in Algeria. It contributes, in its capacity as one of the components of the national system of education and training, to the development of human resources by training qualified manpower in all fields of economic activity, in addition to the social and professional promotion of workers, thereby meeting the needs of the labor market. It includes initial vocational training (including apprenticeship), continuing vocational training, and finally vocational education (Article 3 Law No 08-07, 2008). This will be detailed in the following section.

1.1.1.2 Organization of vocational training and education:

This term includes the various patterns and organization of vocational training and education, as well as the conditions and modalities of registration in the institutions of the sector. It is represented in the various institutions provided for by law (Article 14-16 of Law No 08-07, 2008), in addition to the programs of initial vocational training and the programs of vocational education determined by the minister in charge of the sector. In the end, the training sessions are crowned with certificates granted by the latter (Article 17-19 of Law No 08-07, 2008).

With regard to the programs of continuing training and education, they can be organized through special programs and are thus crowned with a training certificate or a qualification certificate, according to what was stipulated by Article 20 of Law No. 08-07.

1.1.2 Types of training:

By referring to Article 2 of Law No. 08-07 dated 23 February 2008 containing the guiding law for vocational training and education, we find that it organizes this public facility into two categories. The first is represented in initial vocational training, including apprenticeship and continuing training, while the second is represented in vocational education. For the purpose of studying each type separately, this section was divided into three elements, detailed as follows:



1.1.2.1 Initial vocational training (including apprenticeship):

What is meant by it is the acquisition of applied qualifications and special knowledge necessary for practicing the profession, and it aims to guarantee a basic qualification for every applicant for training (Article 06-07 of Law No 08-07, 2008).

1.1.2.2 Continuous vocational training:

What is meant by it is updating workers' knowledge and improving their level. This training can be provided in workplaces and in the institution. The aim behind its existence is to encourage integration, reintegration, and professional mobility of workers, in addition to adapting workers' capacities to technological development (Article 08-09 of Law No 08-07, 2008).

1.1.2.3 Vocational education:

What is meant by it is every academic and qualifying education granted by vocational education institutions after the compulsory stage in national education institutions. It aims at preparation for practicing a profession or a group of professions. It can also qualify for training of a vocational character that is an extension of the followed branch.

It includes scientific, technological, and qualifying education, as well as periods of training in the professional environment. Scientific and technological education aims at acquiring the scientific and technological culture that allows the development of professional competencies. As for qualifying education, it aims at acquiring the professional competencies necessary for practicing a profession. As for training sessions in the professional environment, they mainly aim at acquiring competencies that cannot be obtained except in the professional environment (Article 10-12 Law No 08-07, 2008).

1.2 The relation of the vocational training and education sector with the policy of combating unemployment and employing youth:

Since unemployment is among the most prominent social and economic challenges facing youth in Algeria, and since the rise in its rates among the youth category reflects the limitation of available job opportunities, it also points to the gap between graduates' skills and labor market requirements. It was therefore necessary to shed light on the relation of the sector with the policy of combating unemployment and employing youth.

Especially since vocational training and education is considered a mechanism for treating this phenomenon through providing youth with the practical and cognitive competencies required for the labor market, it is necessary to study the connection of unemployment with youth and training programs. This is done through studying the concepts related to unemployment, while observing the concepts stipulated legally, whether implicit or explicit, on the one hand, and studying the connection of training with it on the other hand, as follows:

1.2.1 The Concept of Unemployment:

Researchers usually tend to link the concept of unemployment with the economic side, but studies have confirmed that the concept of unemployment is not limited to this dimension, and it does not merely express a state of being without work. Rather, it goes beyond that to being a phenomenon that threatens the cohesion of society, in addition to showing the failure of employment policies and the legal frameworks regulating them.



This concept became, at the beginning of the twentieth century, linked in a permanent way to third world countries, especially oil countries, and more specifically those that depend on one source of income.

It is not hidden that some studies indicate that the phenomenon of unemployment has become a feature characterizing Arab countries in general and North African countries in particular, where unemployment rates, especially among the youth category, show a noticeable rise (Zahraoui, 2019, p. 100).

Internationally, unemployment is defined according to the International Labour Organization (OIT / ILO) as the condition of all persons of working age who were not working, participated in job search activities during a recently specified period, and are currently available for work if a job opportunity exists (International Labour Organization (ILO), 2023, p. 14).

As for the national level, when returning to the legal texts related to employment, such as Presidential Decree 22-42 related to supporting youth employment (Presidential Decree No 22-42, 2022), we do not find a clear definition of unemployment, but only functional definitions for the category of unemployed youth benefiting from the programs mentioned in these legal texts. These definitions clearly depend on the standards adopted by the ILO. The same applies to the reports prepared by the National Office of Statistics (ONS).

It is also possible to infer legal concepts for some types of unemployment, as follows:

- **Registered unemployment:** It is unemployment legally recognized by the National Employment Agency (ANEM) or other support bodies. Thus, any person who is of working age and able to work, yet does not occupy a job position while actively searching for one, and has registered with the competent employment services with commitment to renew this registration periodically according to the applicable regulation, belongs to the state of registered unemployment. It should be noted that there is no explicit definition of registered unemployment, but it can be deduced from the legal texts related to employment and unemployment (Article 5 of Executive Decree No 06-77, 2006; Articles 02-04 Executive Decree No 22-70, 2022).
- **Compensatory unemployment:** It is unemployment that entitles its holder to obtain financial compensation from the National Unemployment Insurance Fund (CNAC), where the legal conditions are fulfilled. Algerian legislation establishes the unemployment insurance system for the benefit of wage workers who lose their work involuntarily for economic reasons, usually because of a reduction in the number of workers or termination of the employer's activity (Legislative Decree No 94-11, 1994).
- **Unemployment of youth seeking work for the first time:** It is the category specifically targeted by state programs such as the National Agency for Support and Development of Entrepreneurship (ANADE/NESDA) and the National Unemployment Insurance Fund (CNAC).

Recognized as unemployed for the first time, they can create micro-enterprises or join temporary integration contracts (Executive Decree No 19-336, 2019).

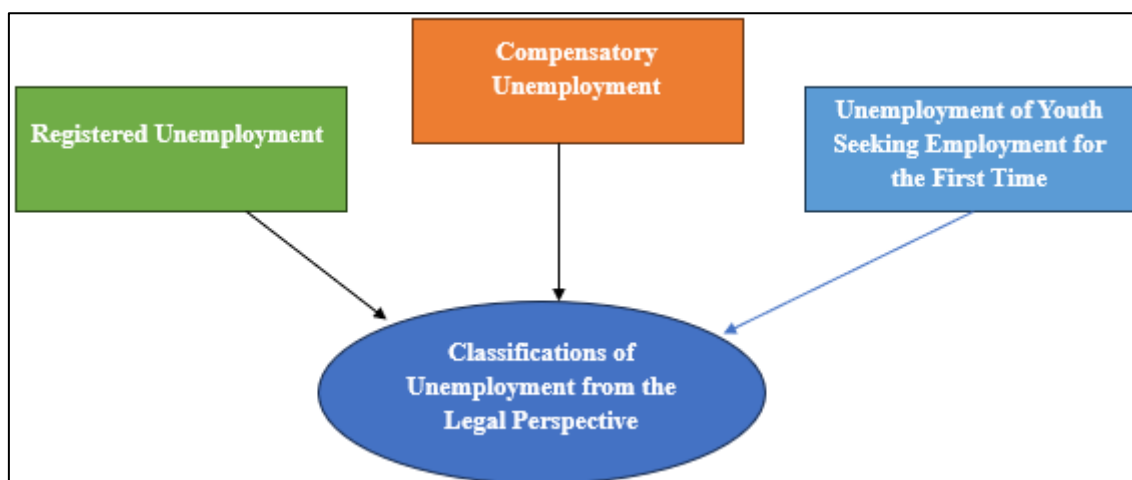
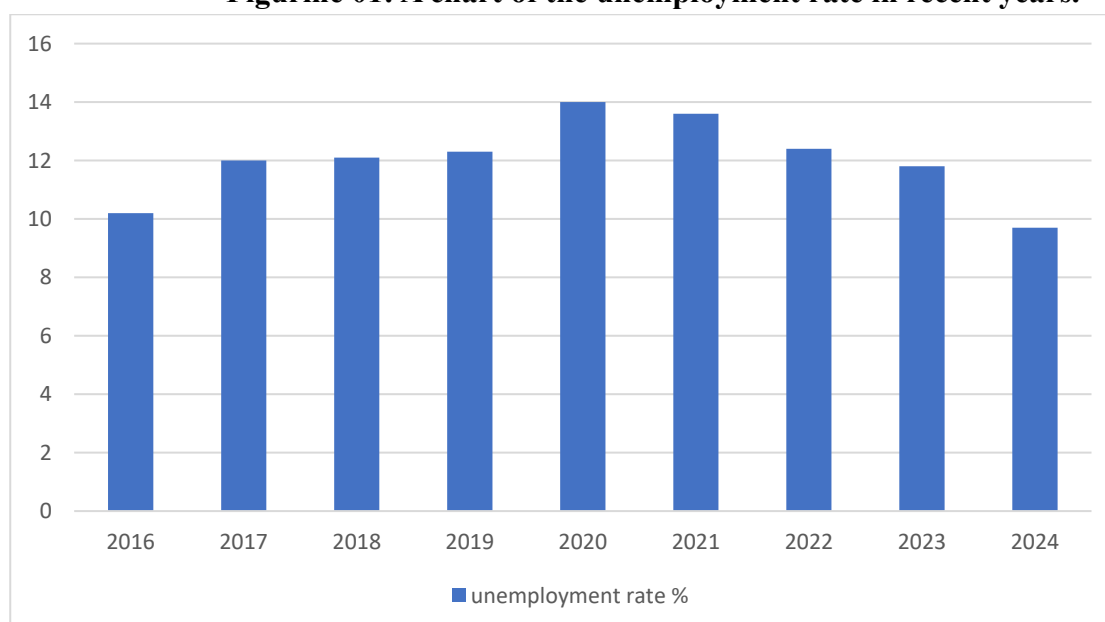


Table 01: showing the unemployment rate in Algeria (2016–2024)

Year	Unemployment Rate (%)
2016	10.2
2017	12
2018	12.1
2019	12.3
2020	14
2021	13.6
2022	12.4
2023	11.8
2024	9.7

Source:(Macrotrends LLC, 2021; National Office of Statistics Algeria, 2016-2024; World Bank Group, 2024).

Figurine 01: A chart of the unemployment rate in recent years.





1.2.2 The reality of unemployment among youth and its relation to training:

Some may ask why unemployment may be linked to training.

Through presenting the reality of unemployment in Algeria, it can be said that unemployment, in its essence, is a problem of “skills matching” and not only a lack of job positions. Sometimes the job is available, yet most youth do not find work. This may mainly be due to the fact that their skills do not match the requirements of the labor market (Jabr, pp. 17-18). The skill may also be available but needs updating in order to acquire the missing practical skills so that it keeps pace with the trends of the required professions.

Accordingly, it is self-evident that training is linked to employment and professional integration, and this is what the legal organization in Algeria confirms.

By referring to the last paragraph of Article 74 of Ordinance 06-03, the general basic law of public function, we find that it confirms the necessity of possessing the qualifications and competencies required for employment (Ordinance No 06-03, 2006).

Also, Articles 3 and 4 of Law 08-07 confirm that the goal of training is responding to the needs of economic and social development, in addition to facilitating the integration of youth into the labor market.

According to what the employment policy in Algeria requires, and what is meant by the latter is “the method adopted by society in providing work opportunities for the available labor force, preparing and training its individuals, and organizing the relations between workers and employers, whether they are individuals, companies, or public or private institutions, through instructions, rules, and laws. The employment policy reflects the ideology of the existing economic and social system, and its view toward work and the right of the citizen to it (Slatnia, 1996).”

The employment policy in Algeria means the totality of programs and mechanisms established for the purpose of integrating the unemployed into the labor market, through enabling them to engage in an organized activity that provides them with social and financial status, under the umbrella of various mechanisms and programs.¹

It is not hidden that some programs and mechanisms for employing youth link the support directed to first-time unemployed persons with the necessity of undergoing training before participating in integration programs (Executive Decree No 94-188, 1994).

From the above, it can be said that Algerian legislation considers training a basic condition for integrating youth into the labor market. Training institutions, such as universities and centers of vocational training and education, including institutes, have an important role when working on adapting their training programs to the needs of the labor market. Perhaps this matter requires creating synergy between training institutions, companies, and youth themselves, for the purpose of

1- Among these agencies and programmes may be mentioned, without limitation, the former National Agency for Support to Youth Employment (ANSEJ), the National Agency for Management of Microcredit (ANGEM), the National Unemployment Insurance Fund (CNAC), the National Agricultural Development Programme (PNDA), pre-employment contract programmes, and labour-intensive public utility works programmes.



developing training programs specially designed to meet the needs of the labor market and preparing youth for successful professional integration(Hamza, Djamane, & Chachoua, 2023, p. 39).

Although the concept of vocational training in developing countries has traditionally been narrow, due to its connectionas one researcher pointed outwith systems of upbringing and education, it was historically linked to the education sector as a framework for those dropping out of general education on the one hand, and to the production sector on the other. However, reality has shown that achieving the professional qualification of individuals seeking training has reduced the severity of unemployment and has been able to provide qualified individuals capable of meeting the needs of the economic sector(Zahraoui, 2019, pp. 22-23).

2. Efforts of the Vocational Training and Education Sector in Supporting Employment:

With the aim of strengthening youth employment, the vocational training and education sector adopted a policy based on activating a set of measures. The latter worked on highlighting the transition of the vocational training and education sector from the mechanism of "traditional instruction" to achieving the mechanism of "directed qualification" according to market needs, which makes it one of the most important engines of employment in Algeria, especially for the youth category. In what follows, the various reform measures aimed at strengthening youth employment are studied.

2.1 The Periodic Review of the Legal and Regulatory Framework with the Aim of Adapting It to Labor Market Developments:

The accelerated transformations witnessed by the labor market due to technological development led to the emergence of new professions, matched in return by the decline of some traditional professions. This produced real challenges for the vocational training and education system. In this context, the legal framework regulating vocational training no longer remains valid by itself unless it is subjected to periodic review that allows it to keep pace with these transformations and respond to the requirements of the national economy and the needs of institutions. This is what is studied in what follows.

The periodic review of the legal framework of vocational training acquires great importance, since it constitutes a basic mechanism for adapting the training system to the labor market, whether through updating the legal code regulating the sector, through creating flexible training formulas that respond to the principle of employability, or through approving legal reductions and facilities that would encourage economic institutions to engage effectively in the training path.

2.1.1 Updating the Specializations Catalogue:

In pursuit of the aim of strengthening the effectiveness of vocational training and linking its outputs with the professional and economic reality, an updated national catalogue of specializations was launched in 2018, in line with economic transformations. This catalogue is considered a legal and regulatory reference for planning training and ensuring its adaptation to the labor market(Ministry of Vocational Training and Education Algeria, 2025).

The catalogue of branches and specializations for vocational training, in its new 2018 edition, is considered the fruit of the different evaluation operations of the 2012 specializations catalogue and the modifications introduced to it during 2014 and 2015. The evaluation process takes place on the basis of the different needs for qualified manpower expressed by various ministries, such as housing,



urbanism and the city, transport and public works, agriculture and rural development, fishing, post and information and communication technologies, energy and mines, and culture(Rezzaki, 2025).

All that was said is considered positive and serves the interest of linking the catalogue of specializations with the needs of the labor market. However, this does not mean the absence of legal problems related to it. The catalogue represents an important regulatory tool, but on the other hand it raises several legal problems related to its suitability to economic reality and its binding legal force.

Among them:

- Weakness of the legal force of the catalogue, as the catalogue was issued in the form of a regulatory ministerial decision and is considered only an administrative reference document. This matter makes some training institutions not fully commit to applying it, or work on opening specializations outside it without explicit violation. This results in the non-commitment of training centers to the periodic updating of specializations according to the catalogue because of the absence of a legal mechanism that obliges this. In return, it is not possible to sue violating training institutions before the competent judicial authorities. Consequently, this leads to weakening legal and pedagogical control over the content of training.
- The absence of legal obligation leads to delay in updating specializations compared with economic transformations. Although the catalogue was prepared based on the approach of “training according to competencies,” the law did not expressly link the catalogue with employment. The result is the continuation of teaching non-required specializations (such as some office specializations), against the absence of emerging specializations (such as artificial intelligence, for example).
- Keeping pace with technological developments, by returning to Law 08-07, we find that it does not expressly provide for its periodic review, and there is no legal text that determines the review period (for example, every 3 or 5 years). This results in slowness in integrating modern specializations in the different centers. Meanwhile, trainings are still provided in specializations that are no longer required or not compatible with the modern labor market (such as traditional mechanics).
- Absence of an official legal basis for adopting electronic or digital training in the vocational training sector. By returning to the text of Article 16 of Law No. 08-07, we find that it provides for the possibility of organizing distance training through creating a national virtual center, and this is considered legal recognition of it. However, this recognition was not followed by the issuance of any regulatory text determining how to apply distance training.

2.1.2 Flexible training formulas in response to economic transformations:

Flexible training formulas are among the components of organizing the policy of vocational training and education in Algeria, and aim to integrate vulnerable or special categories, if the expression is correct, into the labor market through different patterns such as:

- Qualifying literacy eradication,
- Training of women staying at home,
- Training in the rural environment,



- Evening lessons,
- Training of beneficiaries of the unemployment allowance,
- Support of special categories (persons with special needs and prisoners)(Ministry of Vocational Training and Education Algeria, 2025).

However, the application of these formulas faces several legal and organizational problems resulting from the absence or ambiguity of the legislative and regulatory frameworks specific to them, such as the absence of detailed regulatory texts framing all these formulas (rural training, women's training, evening training, etc.). This may result in an expansion of the discretionary power of the administration, which may lead to weakness in the legal value of the organizing texts (decisions and instructions), in addition to variation in application between the wilayas and even between institutions.

It is also clear that the multiplicity of the intervening bodies in the different trainings of the flexible formulas, such as the Ministry of Agriculture, Solidarity, and Labor, for example, without the existence of unified legal coordination, weakens them. Lastly, we should not omit the weakness of follow-up and integration mechanisms after training. This matter makes the flexible formulas tools of professional integration that are ineffective to some extent.

Despite all these legal problems, reality does not deny the advantages of the flexible training formulas, such as expanding the base of beneficiaries of training by attracting categories that were excluded from training, such as inhabitants of remote areas. It is also clear that these formulas succeeded in adapting programs and timing to the needs of the local market and the needs of economic institutions, which raised employability for professional integration.

2.1.3 Legal incentives as a mechanism to encourage joining vocational training and education:

The law grants a set of legal incentives through which it aims to encourage joining the vocational training sector, in addition to supporting the employment of youth, among them:

2.1.3.1 Tax and financial incentives:

By referring to the Finance Law for the year 2022 and the joint ministerial decision issued on 21 December 2022 clarifying how to apply the tax and organize declaration and payment to the tax service, we find that it approves provisions for the employer benefiting from tax incentives. So, instead of the institution paying 100 percent of training and apprenticeship fees, it will be allowed to deduct what it actually spent from these fees. This forms an incentive to make the institution invest in training its staff instead of only paying the fees(Article 56 of Law No 21-16, 2021; Code of Direct Taxes and Similar Duties Article 196 bis et seq; Ministry of Finance Algeria ; Ministry of Vocational Training and Education Algeria, 2022).

In addition to tax incentives, there are financial incentives related to employing apprenticed youth after completing their training. Although there is no regulatory text that determines precisely the nature of these incentives, their rate, and their duration, according to the national employment policy in Algeria, Law No. 06-21 dated 11 December 2006 relating to incentive measures for supporting and promoting employment provides for reducing the employer's contribution to social subscriptions when employing job seekers for a period of not less than twelve months, for a duration reaching three (3) years, with greater benefit when employing youth for the first time(Articles 04-06 of Law No 06-21, 2006). In addition, there is the possibility of the employer benefiting from a



monthly grant when concluding a permanent work contract (Articles 11 of Law No 06-21, 2006), and exemptions from the total contribution when implementing training programs for the benefit of these workers (Articles 12 of Law No 06-21, 2006).

Accordingly, the employer who integrates the apprentice after the end of his training may benefit from tax and financial incentives. This is a positive matter that goes toward supporting the employment of youth.

2.1.3.2 Allowing the employment of apprentices without passing through placement agencies:

The employment of the apprentice without passing through placement agencies is considered among the incentives aimed at supporting the employment of youth. By referring to Article 67 of (Law No 18-10, 2018), we find that it stipulates the possibility of employing the apprentice directly in the institution in which he was trained without passing through placement agencies. This is considered an incentive of a legal nature supporting the employment of youth.

2.2 Coordination between the economic sector and the training sector for the success of the professional integration process:

The strengthening of partnerships with the economic sector (productive and service institutions) guarantees actual applied training inside workshops and work sites, which raises the chances of direct professional integration.

Recent years have witnessed a clear dynamic in the strategy of the Ministry of Vocational Training and Education with the aim of strengthening youth employment opportunities and keeping pace with economic and technological transformations. Perhaps among the most important objectives of this partnership is participation in national economic development by providing qualified manpower that responds to the requirements of the labor market, in addition to improving the performance of economic institutions through the permanent adaptation of workers to the development of professions, and the promotion of workers socially and professionally through qualifying training (Ministry of Vocational Training and Education Algeria, 2025).

The sector concluded, from the year 2021 until the year 2024, forty-three (43) agreements with various ministerial departments, governmental institutions, public and private institutions, and associations.

Table 02: showing the partner parties (from year 2021–2024)

Year	Number of Agreements Concluded with Partners
2021	10
2022	27
2023	2
2024	4

Source: (Ministry of Vocational Training and Education Algeria, 2025).

It is also clear that the sector, out of a desire to strengthen awareness of the importance of partnership with economic operators, worked on organizing forums and study days. The goal behind them was to shed light on the importance of partnership and its objectives. Among the examples of these activities:

- Organizing the national forum on the relationship between the sector of vocational training and education and the economic partner titled “Vocational Training and Economic Partnership



- Promising Horizons,” dated 30-01-2024, at the level of the National Army Club, Beni Messous, Algiers(Ministry of Vocational Training and Education Algeria, 2025).
- Organizing a study day at the level of all states of the country on 30/01/2024, under the slogan: “Vocational Training and Economic Partnership – Promising Horizons(Ministry of Vocational Training and Education Algeria, 2025).”

Despite that Article 24 of Law 08-07 provides for preparing the national map of vocational training and education, in consultation with the economic and social sectors(Executive Decree No 09-170, 2009), the practical reality proves weakness of application. Among its most important manifestations is the absence of mechanisms of monitoring and evaluation for applying the recommendations resulting from the work of the Partnership Council, and this may negatively affect improving the quality of training and achieving the professional integration of trainees. Consequently, the council needs to include within the legal regulation specific to it clear indicators to evaluate the results of the partnership.

2.3 New Reforms, Promising Possibilities to Strengthen the Effectiveness of Training in Supporting Youth Employment:

The digital transformation in education has led to reshaping labor markets due to globalization and technological innovation, and this has made it necessary to adapt vocational education to the requirements of current developments. This adaptation includes the necessity of integrating digital technologies to strengthen the quality of vocational education, its efficiency, and its suitability. Many countries, including China, Australia, Japan, Germany, and the United Kingdom, have applied policies aiming to strengthen this integration, despite the presence of noticeable differences in applying policies of the global trend toward digitalization(Diao, Tang, & Ding, 2025, p. 19804). In what follows, there will be a presentation of the new reforms strengthening the effectiveness of training.

2.3.1 The path of comprehensive digitalization:

Despite the challenges related to the digital infrastructure of the state, which greatly affect the ability of institutions to apply effective digital education practices, this inevitably leads to inequality of opportunities for access to resources and technologies between vocational education institutions, and creates obstacles for students, especially in areas of limited resources. In addition, the difference in levels of digital knowledge between teachers and students complicates the application of digital learning tools(Diao, Tang, & Ding, 2025, p. 19825). Yet the state nevertheless entered the battle.

A path of comprehensive digitalization of the sector was launched, with the aim of achieving the goal of developing the public facility and improving governance in all fields, such as the governance of training institutions and their modernization.

To modernize the system of qualifying youth and strengthen the opportunities of their professional integration, it was necessary to move digitally in the vocational training and education sector, considering it a basic pillar.

It is known that the Algerian legislator has consecrated this orientation through a set of legal texts, most notably Law No. 15-04 dated 01 February 2015 related to electronic signature and certification(Law No 15-04, 2018), which grants digital procedures the same legal authority as

traditional documents, in a way that allows the digitalization of registration operations, follow-up, and issuing training documents.

In addition to Law No. 18-04 dated 10 May 2018 (Law No 18-04, 2018), which strengthened the legislative framework for developing electronic communications as a prelude to digitalizing public services, it is also clear that (Law No 18-05, 2018) worked on establishing the legal basis for electronic transactions, in a way that supports the shift toward digital training and guidance services.

Law No. 18-07 relating to the protection of personal data (Law No 18-07, 2018) also approved the obligatory nature of protecting the files of trainees and provided a safe legal environment for digital transactions through vocational training platforms.

By referring to the legal system related to the training sector, we find that the guiding law for vocational training and education, No. 08-07, confirmed under Article 26 the necessity of adapting training to the requirements of the economy, which makes digitalization an effective tool in linking training offers with the labor market. The same law also included provisions determining the authority in charge of determining training patterns, its programs, and the conditions and modalities of registration, which must align with technological developments (Articles 16-18 of Law No 08-07, 2008).

By referring to the website of the Ministry of Vocational Training and Education, and when pressing the digital space icon, we find that it includes a set of icons created in order to cover the various aspects related to the digitalization of the sector. It also provides the Takwin platform, offering an opportunity for distance learning (Takwin Platform, 2025).²

Media and Communication
Network <

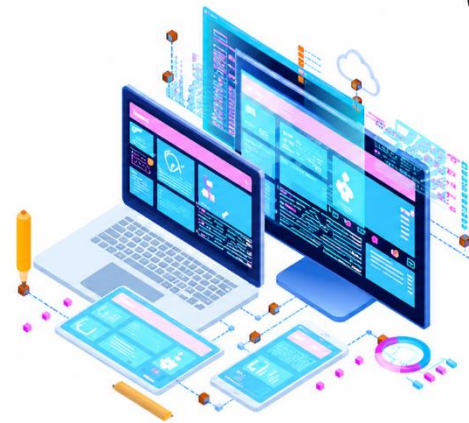
Publications <

Podcast Broadcasting <

Computer Equipment <

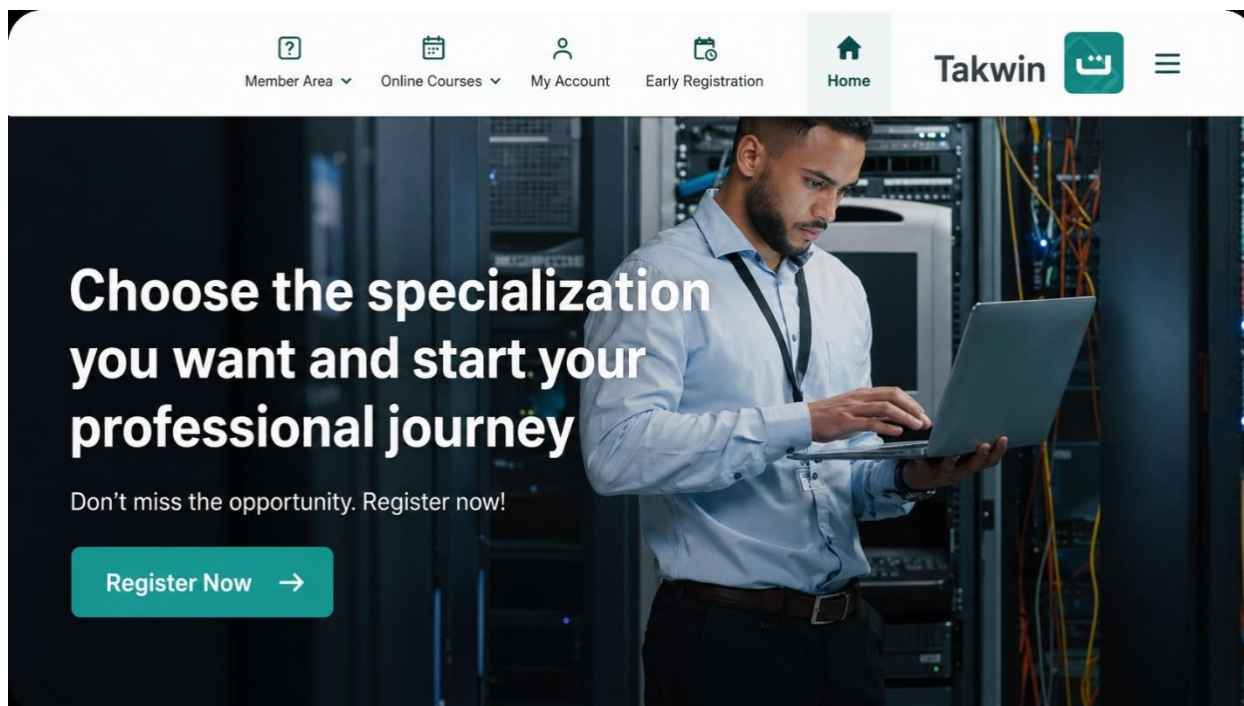
Software Platform <

TV Platform <



Source: Ministry of Vocational Training and Education.

2- This platform is “one of the digital services provided by the Ministry of Vocational Training and Education with the aim of facilitating the registration process for applicants seeking training. The platform enables the trainee to create a personal account through which he or she may continuously follow his or her vocational pathway until obtaining the final certificate.



Source: Ministry of Vocational Training and Education.

Through what preceded, it can be said that this legal framework contributes to facilitating access to vocational training, activates guidance and follow-up mechanisms, and works on developing mechanisms of matching between emerging digital specializations and the needs of economic institutions. This would work on supporting their integration into the labor market and reducing unemployment among them.

But all this does not deny the existence of legal problems related to digitalization in the sector of vocational training and education and its relation to employing youth, and it is necessary to shed light on them.

Despite the existence of an arsenal of legal texts supporting digitalization and mentioned previously, this does not deny the need of the training sector for executive regulatory decrees specific to the digitalization of vocational training. This creates the problem of relying on ministerial decisions and internal instructions instead of clear and binding legal texts. Consequently, this leads to disparity in application between wilayas and centers, and weakness in the legal authority of some digital documents.

An important point that had to be highlighted is the absence of explicit regulation for the digital files of trainees and information security rules. Although Law 18-07 protects personal data, no specific text was issued by the Ministry of Training that determines how the data of trainees is collected and stored, and the duration of keeping it, etc.

This may result in risks related to the confidentiality of candidates' files or misuse of data.

By referring to Law 08-07, we find that it did not set conditions for accrediting electronic training platforms and standards of remote evaluation.

This led to the problem of the existence of a legislative vacuum in digital training and, consequently, weak recognition of electronic vocational training as an official path.



After research, no text was found linking the database of graduates from vocational training with the database of the National Employment Agency (ANEM), and this created the problem of the weakness of the legal relation between the systems of digitization of training and employment, in light of the absence of legal obligations for exchanging data. It may have a negative effect on the opportunities of integration for youth.

Some may ask about the forgery of electronic training certificates, and this pushes us to search for the criminalization of forgery linked to electronic certificates (Law No 09-04, 2009; 18-07, 2018; Presidential Decree No 19-172, 2019; Law No 24-02, 2024).

By referring to the legal regulation specific to combating cybercrimes, no specific text is found criminalizing the forgery of digital training certificates, and no article in Algerian legislation bears the explicit title “forgery of electronic certificates” separately by itself. Yet, it is treated within the general crimes of documents and certificates in the case that it has a legal effect. If the electronic certificate is used to prove a legal status (such as professional certificates accredited through an electronic system), then its forgery is considered basically among the crimes of forgery criminalized in Law No. 24-02, just like the forgery of a paper document.

With all these existing legal problems, reality does not deny the positive results of the Takwin platform, where the number of those registered electronically exceeded 555.352 thousand trainees in the October 2025 session, in a step aiming to achieve paperless training (Algerian Public Television Establishment, 2025).

2.3.2 National centers of excellence for vocational training: toward providing high-quality training:

They are institutions or units within the vocational training system dedicated to high-quality training in specializations of national priority, in which advanced equipment, strong partnerships with the economic sector, and advanced pedagogical components are available (Ministry of Industry Algeria, 2025).

These centers are a fertile field for linking training directly with the needs of the labor market. Therefore, they accelerate the process of integrating youth.

With that, their existence is accompanied by a number of legal problems that weaken the role of centers of excellence in supporting youth employment, and it is necessary to shed light on them. These problems are mainly related to the legal basis of centers of excellence as a general principle under the guiding Law No. 08-07 on vocational training and education, in addition to ministerial instructions and sectoral partnership agreements. Therefore, until now, no independent text has been issued that regulates centers of excellence specifically.

Thus, although centers of excellence represent a promising strategic tool to strengthen vocational training and link it with the labor market, the weakness of their legal foundation and framework reflects negatively on legal transparency, especially with regard to partnerships, financing, and follow-up. This results in weakening their ability to achieve the goal of youth employment.

Internationally, the recently amended Vocational Education Law of the People's Republic of China is considered the cornerstone of reforming and developing vocational education in China, as it defines vocational education clearly as a distinct form of education for the first time from a legal



perspective. This law also provides a strong legal guarantee for strengthening the quality of vocational education (Zhuolin, Qi, & Niancai, 2025, p. 411).

With that, a center of excellence is established in different regions of the country, such as centers of excellence for textiles, industry, leather, and petrochemical industries.

Therefore, it can be said that the legal regulation did not limit their establishment or their work, despite its effect on the extent of their official recognition.

2.3.3 Entrepreneurship Development Centers "CDE" (National Agency for Support and Development of Entrepreneurship, 2025) the new actor in the policy of supporting youth employment:

Entrepreneurship Development Centers are structures created within vocational training centers and institutes in Algeria as part of the governmental program to strengthen the culture of entrepreneurship. They aim to train more than fifty thousand male and female students every year. They also provide a favorable environment for trainees to transform their ideas into real projects, with support for developing their skills in the field of entrepreneurship through offering innovative and diverse educational programs that meet the needs of the labor market.³ This process is carried out with the help of more than seven hundred guides, trainers, and mentors.

These centers were established based on Executive Decree No. 23-410 dated 27 November 2023, relating to the creation of the "National Agency for Support and Development of Entrepreneurship" (ANADE),⁴ under the supervision of the Ministry of Knowledge Economy and Start-up Enterprises. It is considered the body legally authorized to create and manage Entrepreneurship Development Centers across different sectors, among them the sector of vocational training and education.

It is not hidden that there is cooperation between the National Agency for Support and Development of Entrepreneurship and the Ministry of Vocational Training and Education. This cooperation is founded on several joint framework agreements, and even if obtaining the texts of these agreements was not possible, according to what is circulated in the media, 190 Entrepreneurship Development Centers were launched, which indicates that the partnership exists effectively.

3- The National Agency for Support to Youth Employment (ANSEJ) was established pursuant to Executive Decree No. 96-296 of 8 September 1996 and was placed under the supervision of the Ministry of Labour, Employment and Social Security. In 2020, the agency was renamed the National Agency for Support and Development of Entrepreneurship (ANADE) pursuant to Executive Decree No. 20-254 of 15 September 2020, and its supervisory authority was transferred to the Ministry of Micro-enterprises, Start-ups and the Knowledge Economy. Pursuant to Executive Decree No. 23-410 of 27 November 2023, the agency was reorganised once again, its scope of intervention was expanded, and it became internationally known as the National Entrepreneurship Support and Development Agency (NESDA). The evolution of these names reflects the transition from a youth-employment logic (ANSEJ) to an entrepreneurship-development logic (ANADE/NESDA).

4- It should be noted that the names ANADE and NESDA have the same meaning; ANADE is the acronym derived from the French designation, whereas NESDA is the acronym derived from the English designation.



Table 03: Indicators of support for entrepreneurship and business leadership in Algeria⁵

Indicator	Specified Value
Number of active Entrepreneurship Development Centers (CDE)	324 centers (134 existing + 190 newly established under vocational training centers)
Number of project holders trained through CDE	Approximately 10,000 across 117 centers
Number of approved projects during the first five months of 2025	Approximately 900 projects
Total domestic funded projects since 2020	More than 16,000 projects
Number of projects registered as small enterprises	More than 415,000 projects
University entrepreneurship activities in 2022	2,187 activities worldwide

Source:(La Patrie News, 2025; Info, 2025; Service, 2025).

The Entrepreneurship Development Centers affiliated with vocational training have become one of the legal mechanisms supporting youth employment. However, this does not mean the absence of legal problems that limit their role, as their practical application has revealed several legal gaps, among the most important of which are:

The absence of a special legal text that determines the legal nature of entrepreneurship centers within the training sector. By referring to Executive Decree No. 08-07 containing the guiding law for vocational training and education, we find that it does not contain any article stipulating the existence of entrepreneurship development centers within the structures of the sector. Accordingly, it can be said that entrepreneurship development centers were not expressly stipulated in the legislative and regulatory texts organizing the sector within its official organizational structure. This results in depriving these centers of sustainable funding and restricting their resources to temporary forms of funding related to their programs. This may negatively reflect on their legal status and may also limit the achievement of the goals for which they were established.

As for the joint ministerial decision containing the establishment of a joint service for research called the “Entrepreneurship Development Center”, it can be said that there is no explicit reference to the sector of vocational training and education, as it aims to establish a joint service for scientific research within universities and higher education institutions only(Articles 01-02 of Joint Ministerial , 2024).

The question raised is how this decision included the training sector.

Upon research, it was found that the Ministry of Vocational Training and Education signed, in November 2024(Yahia Maouchi, 2025), an agreement with the Ministry of Knowledge Economy aimed at expanding the model of Entrepreneurship Development Centers so that it includes vocational training institutions. This expansion came through ministerial instructions.

Here, another question is raised: why was this expansion not carried out through a legal amendment to the joint ministerial decision?

5- It should also be noted that the statistics contained in this table relate to most active Entrepreneurship Development Centres (CDE), whether affiliated with the higher education sector or with the vocational training and education sector.



In summary, with all these mentioned legal problems, and although their legal basis is built on a joint ministerial decision and framework agreements, it cannot be denied in practice that the entrepreneurship development centers complement the ANADE/NESDA apparatus, which provides financing and guidance for graduates. This strengthens their ability to transform the project idea into an effective institution with a legal basis.

CONCLUSION:

Through this study, the analysis of the legal and regulatory texts organizing the vocational training and education sector in Algeria showed that the legislator adopted a comprehensive approach aimed at making training a central tool in the strategy of supporting youth employment. He worked, through the guiding Law No. 08-07, Law No. 18-10, the national code of specializations of the year 2018, and the various reforms that included the sector, on developing and expanding the training offer, and diversifying qualification formulas in a way that suits the requirements of the national economy and its transformations. He also gave special importance to vulnerable groups and youth through the mechanisms of apprenticeship, rural training, training of women staying at home, and entrepreneurship development centers.

Despite these efforts, the study confirmed the existence of several problems that limit the effectiveness of the legal framework in achieving the desired professional integration for the youth category.

Consequently, it becomes clear that the contribution of the Algerian legislator in supporting youth employment through the vocational training and education sector is considerable. However, it needs further adaptation and improvement to enhance its effectiveness, especially in light of the digital and economic transformations that the world is witnessing.

Study recommendations:

As a recommendation, it has become necessary to amend the legal framework specific to training in order to fill the existing legal vacuum, in addition to providing a flexible and clear regulatory environment to support the employment policy. This matter constitutes a basic step toward making training a real lever for employment and sustainable development in Algeria.

References:

- 18-07, L. N. (2018, 06 10). Relating to the Protection of Natural Persons in the Processing of Personal Data. *Official Gazette No 34*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Afifi, A. F. (1996). *Studies in Contemporary Sociology*. Cairo: Dar Al Fikr Al Arabi.
- Algerian Public Television Establishment. (2025, 12 12). Launch of the October 2025 Session of Vocational Training and Education. *ENTV Algeria*. <https://www.entv.dz/fr/node/375>.
- Article 06-07 of Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 08-09 of Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.



- Article 10-12 Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education Article 2. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 14-16 Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 14-16 of Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 17-19 of Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. 02, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 3 Law No 08-07. (2008, 03 02). Containing the Framework Law on Vocational Training and Education. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 5 of Executive Decree No 06-77. (2006, 02 18). Concerning the Missions Organisation and Functioning of the National Employment Agency. *Official Gazette No 9*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Article 56 of Law No 21-16. (2021, 12 30). Containing the Finance Law for 2022. *Official Gazette No 100*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 01-02 of Joint Ministerial . (2024, 09 09). Establishing a Joint Research Service Entitled the Entrepreneurship Development Centre Decision 09 September 2024. *Official Gazette No 70*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 02-04 Executive Decree No 22-70. (2022, 02 10). Concerning the Conditions and Procedures for Benefiting from the Unemployment Allowance. *Official Gazette No 11*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 04-06 of Law No 06-21. (2006, 12 11). Concerning Incentive Measures to Support and Promote Employment. *Official Gazette No 80*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 11 of Law No 06-21. (2006, 12 11). Concerning Incentive Measures to Support and Promote Employment. *Official Gazette No 80*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 12 of Law No 06-21. (2006, 12 11). Concerning Incentive Measures to Support and Promote Employment. *Official Gazette No 80*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Articles 16-18 of Law No 08-07. (2008, 02 23). Framework Law on Vocational Training and Education. *Official Gazette*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Code of Direct Taxes and Similar Duties Article 196 bis et seq. (n.d.). *Code of Direct Taxes and Similar Duties*. Algiers, Algeria: Government of Algeria.



- Diao, J., Tang, X., & Ding, X. (2025). How Do Nations around the World Navigate the Digitalization of Vocational Education Policies. *Education and Information Technologies*. doi:10.1007/s10639-025-13567-9
- Executive Decree No 09-170. (2009, 05 02). Determining the Powers Composition Organisation and Functioning of the Partnership Council for Vocational Training and Education. *Official Gazette No 29*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Executive Decree No 19-336. (2019, 12 15). Determining the Conditions for Benefiting from Accompaniment and Support for First Time Unemployed Persons. *Official Gazette*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Executive Decree No 94-188. (1994, 07 06). Containing the Basic Statute of the National Unemployment Insurance Fund. *Official Gazette No 44*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Hamza, F., Djamane, F. M., & Chachoua, A. (2023). The Impact of Support Mechanisms on Socio Economic and Professional Integration in Algeria. *Advanced Research in Economics and Business Strategy Journal*.
- Info, I. (2025, 11 11). *National Agency for Support and Development of Entrepreneurship 900 Projects Approved During the Last Five Months*. Retrieved from Icil Info: <https://www.icilinfo.dz/agence-nationale-de-soutien-et-de-developpement-de-l'entrepreneuriat-anade-900-projets-approuves-au-cours-des-cinq-derniers-mois>
- International Labour Organization (ILO). (2023). Resolution II Resolution to Amend the Resolution concerning Statistics of Work Employment and Labour Underutilization. *21st International Conference of Labour Statisticians*. Geneva: International Labour Organization.
- Jabr, S. (n.d.). *Farewell to Unemployment*. Fullabookcom Publishing.
- La Patrie News. (2025, 11 11). *Entrepreneurship Launch of 190 Development Centres*. Retrieved from La Patrie News: <https://lapatrienews.dz/entrepreneuriat-lancement-de-190-centres-de-developpement>
- Law No 09-04. (2009, 08 05). Specific Rules for the Prevention and Combating of Crimes Related to Information and Communication Technologies. *Official Gazette No 47*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Law No 15-04. (2018, 02 01). Determining the General Rules Relating to Electronic Signature and Electronic Certification. *Official Gazette No 27*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Law No 18-04. (2018, 05 10). Determining the General Rules Relating to Post and Electronic Communications. *Official Gazette No 6*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Law No 18-05. (2018, 05 10). Relating to Electronic Commerce. *Official Gazette No 28*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Law No 18-07. (2018, 06 10). Relating to the Protection of Natural Persons in the Processing of Personal Data. *Official Gazette No 34*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.



- Law No 18-10. (2018, 06 10). Determining the Rules Applicable in the Field of Apprenticeship. *Official Gazette No 35*. Algiers, Algiers: Official Gazette of the People's Democratic Republic of Algeria.
- Law No 24-02. (2024, 02 26). Concerning the Combating of Forgery and the Use of Forged Instruments. *Official Gazette No 15*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Legislative Decree No 94-11. (1994, 05 26). Establishing Unemployment Insurance for Employees Who Involuntarily Lose Their Employment for Economic Reasons. *Official Gazette No 34*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Macrotrends LLC. (2021, 10 16). *Algeria Unemployment Rate*. Retrieved from Macrotrends: <https://www.macrotrends.net/global-metrics/countries/dza/algeria/unemployment-rate>
- Ministry of Finance Algeria ; Ministry of Vocational Training and Education Algeria. (2022, 12 21). Joint Ministerial Decision of 21 December 2022 Clarifying the Manner of Application of the Levy on Continuing Vocational Training and the Apprenticeship Levy. *Official Gazette No 5*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Ministry of Industry Algeria. (2025, 11 08). Industry Vocational Training Preparations for the Launch of National Centres of Excellence in Textiles Leather and Food Industries. *Ministry of Industry Algeria*. <https://www.industrie.gov.dz/industrie-formation-professionnelle-2/>.
- Ministry of Vocational Training and Education Algeria. (2025, 11 04). *Economic Partner*. Retrieved from Ministry of Vocational Training and Education Algeria: https://mvet.dz/?page_id=41513
- Ministry of Vocational Training and Education Algeria. (2025, 11 04). *National Seminar*. Retrieved from Ministry of Vocational Training and Education Algeria: <https://mvet.dz/?p=32390>
- Ministry of Vocational Training and Education Algeria. (2025, 09 19). *Nomenclature of Trades and Vocational Training Specialisations 2019 Edition Established Pursuant to Decision No 197 of 11 June 2019 As Amended and Supplemented*. Retrieved from Ministry of Vocational Training and Education Algeria: <https://mfp.gov.dz/wp-content/uploads/2024/10/Nomenclature-2019-en-LA.pdf>
- Ministry of Vocational Training and Education Algeria. (2025, 11 04). *Organisation of a Study Day with the Economic Partner*. Retrieved from Ministry of Vocational Training and Education Algeria: https://mvet.dz/?page_id=41513
- Ministry of Vocational Training and Education Algeria. (2025, 10 12). *Organisation of Training*. Retrieved from Ministry of Vocational Training and Education Algeria: https://mfp.gov.dz/?page_id=3983
- Ministry of Vocational Training and Education Algeria. (2025, 11 04). *Sector Strategy in the Field of Partnership*. Retrieved from Ministry of Vocational Training and Education Algeria: https://mvet.dz/?page_id=41214
- National Agency for Support and Development of Entrepreneurship. (2025, 11 11). *Entrepreneurship Development Centres*. Retrieved from Entrepreneurship Development Centres Platform: <https://fp.cde.dz/>
- National Office of Statistics Algeria. (2016-2024). *Employment Reports*. Algiers: National Office of Statistics.



- Ordinance No 06-03. (2006, 07 15). Containing the General Civil Service Statute As Amended and Supplemented. *Official Gazette No 46*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Presidential Decree No 19-172. (2019, 06 06). Determining the Composition of the National Authority for the Prevention and Combating of Crimes Related to Information and Communication Technologies. *Official Gazette No 37*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Presidential Decree No 22-42. (2022, 01 19). Amending and Supplementing Presidential Decree No 96-234 of 6 July 1996 Relating to Support for Youth Employment. *Official Gazette No 6*. Algiers, Algeria: Official Gazette of the People's Democratic Republic of Algeria.
- Rezzaki, D. (2025, 10 18). *Opening Certain Specialisations to Persons without Educational Qualifications*. Retrieved from El Djazair Online: <https://eldjazaironline.dz/Accueil/>
- Service, A. P. (2025, 11 11). *Entrepreneurship Algeria Ranked First Worldwide for the Number of Activities Organised in 2022*. Retrieved from APS Algeria Press Service: <https://www.aps.dz/economie/149069-entrepreneuriat-l-algerie-classee-premiere-a-l-echelle-mondiale-pour-le-nombre-d-activites-organisees-en-2022>
- Slatnia, B. (1996). Vocational Training and Employment Policy in Algeria. *Doctoral Thesis in Development Sociology University of Constantine*. Algeria: University of Constantine.
- Takwin Platform. (2025, 12 12). *Home Page*. Retrieved from Takwin Platform: <https://takwin.dz/>
- World Bank Group. (2024). *Employment Data Algeria*. Retrieved from World Bank Data: <https://data.worldbank.org/>
- Yahia Maouchi. (2025, 11 12). *Entrepreneurship Launch of 190 Development Centres*. Retrieved 10 12, 2025, from La Patrie News: <https://lapatrienews.dz/entrepreneuriat-lancement-de-190-centres-de-developpement/>
- Zahraoui, M. A. (2019). Vocational Training and the Labour Market in Algeria Tlemcen as a Model. *Doctoral Thesis Faculty of Humanities and Social Sciences Department of Sociology Specialisation in Social Statistics Abou Bekr Belkaid University of Tlemcen*. Tlemcen, Algeria: Abou Bekr Belkaid University of Tlemcen.
- Zhuolin, F., Qi, W., & Niancai, L. (2025). *Education in China and the World National Development and Global Benchmarking*. Shanghai: Shanghai Jiao Tong University Press.