# The Effect of Labor Market Policies on the Labor Force Behavior in Algeria

# A Dynamic approach Ali Souag¹& Ragui Assaad² &Caroline Kraft

#### 1. Introduction

Labor market policies bring together measures to combat unemployment, support job creation and/or ensure the sustainability of existing jobs (L'Horty, 2013). There has been considerable debate as to the effects of these policies. For instance, increasing the flexibility of employment is presumed to lead to a lower level of unemployment (Nickell et al., 2005, Bassanini and Duval, 2009). Similarly, training provided to unemployed youth is presumed to have a positive impact on their long-term integration into employment. However, some of these policies have been criticized for their cost in view of their limited effectiveness (Bunel et al., 2012).

Following the application of the Structural Adjustment Program (SAP) in 1994, Algeria experienced dramatic changes in its labor market, including increasingly large cohorts of new entrants to its labor market, a rise in women labor force participation, and increased layoffs due to economic restructuring. Layoffs have been particularly notable in the public sector, where more than 413 thousand jobs were retrenched from 1990 to 2000 (Souag and Assaad 2018). These changes have triggered a significant increase in unemployment, which peaked in 2000, the spread of informality and growth in the share of non-permanent jobs. Growing youth unemployment and, in recent years, that of young graduates is a factor that has likely contributed to destabilization and political unrest. However, the reversal in the oil price decline and the concomitant increase in receipts from the export of hydrocarbon allowed the government to substantially increase its spending from 2000 to 2013.

Algeria opted for a series of ambitious programs to foster investment, growth and employment, starting with the Support Plan for Economic Recovery (2001-2004), followed by the Supplementary Support Plan for Growth (2005-2009) and the Five-year Development Plan (2010-2014). According to the OECD typology (2015), active labor market policies have emerged in Algeria in three forms: support for business creation or self-employment, insertion through fixed-term contracts jobs and improving the employability of the unemployed through training / retraining and help with job search.

Musette (2011) classifies these interventions into three generations. The first generation covers the period 1989-1997 and aims to cushion the negative effects of SAP in the labor market. It results in the creation, since 1994, of the National Unemployment Insurance Fund (CNAC), the Social Development Agency (ADS) and the National Youth Employment Support Agency (ANSEJ). The second generation (1998-2007) led to the establishment of the National Employment Agency (ANEM) and the National Agency for Microcredit Management (ANGEM) in addition to the ADS. The third generation starts in 2008 and corresponds to the implementation of Action Plan to Promote Employment and Fight Unemployment.

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The new program passed into law in April 2008 called the Dispositif d'Aide a l'Insertion Professionnelle (DAIP) <sup>3</sup> started in the end 2008. It was amended in 2010 by entrusting its management, monitoring, evaluation and control to the National Agency for Employment (ANEM) in relation with the Wilaya <sup>4</sup> Directorate of Employment (DEW).

The new program was designed to assist young new entrants to find jobs by proposing wage subsidie, as described in Table 1. To benefit from this program, people should be unemployed and registered in the employment agency (ANEM) and should not be more than 35 years old. The program is intended for three categories of people: - Young graduates of higher education and young technicians from vocational training institutions under the contract of insertion of graduates (CID): - Young people from secondary education, vocational training or having completed an apprenticeship under the professional integration contract (CIP): - Young people without training and without qualification under the contract training insertion (CFI). After having, one type of subsidy (CID, CIP or CFI), people can apply for CTA where the costs are shared between government and employers. Other subsidies can be offered by other interventions (such as social inclusion programs) managed by the ADS, which is designed to fight poverty.

Table 1: Device Helping Professional Inclusion (DAIP).

Program	Nature	Duration	Compensation	Comment
DAIP vocation	al inclusion assistance mechani	sm for young people, rui	n under the Ministry of Labor, consists in	n three categories:
Graduate inclusion contract (CID)	First-time jobseekers, graduates of tertiary education or senior technicians who receive support for their sustainable recruitment, priority within public and private economic sector	Economic enterprises: 1 year Administration: 1.5 year	University graduates: DZD 15,000* per month Senior technicians: DZD 10,000 per month The employer's contribution to social security is paid by the State.	This measure replaces the pre-employment contract for graduates (CPE).
Professional inclusion contract (CIP)	Young, first-time jobseekers leaving secondary education or vocational education and training (VET) centers (CFPA) (including apprentices)	Firms: 1 year, nonrenewable Public and administration: 1 year, renewable	In firms: DZD 8 000* per month In public and administration: DZD 6,000* per month The employer's share of contributions to Social security is covered by the State.	At the end of the CIP contract ANEM may propose a subsidized work contract (CTA) in firms. In case of refusal, the person loses the right to remain in the CIP.
Training inclusion contract (CFI)	Targets young Jobseekers without training or qualifications; they are placed in various work projects initiated by local authorities or by different sectors for the duration of the project	l year, non- renewable	DAIP vocational integration assistance mechanism for young people, run under the Ministry of Labor, Employment and Social Security, consists of three categories)	
Subsidized work contract (CTA)	Proposed when one of the above contracts comes to ar end (and sometimes earlier if the employer agrees)	3 years	Labor costs shared between government and employer:	

<sup>\*</sup>The National Guaranteed Minimum Wage in January 2008 was 12000 DA, 15000 DA in January 2010 and it is 18000 from January 2012. Source: Executive Decree No. 15-177 of July 6, 2015 supplementing Executive Decree No. 15-59 of February 8, 2015, setting out the constituent elements of the guaranteed minimum wage in Algeria.

<sup>&</sup>lt;sup>3</sup> Executive Decree No. 08-126 of April 19, 2008

<sup>&</sup>lt;sup>4</sup> Governorate

Since 2002, the unemployment rate in Algeria has exhibited a declining trend. In 2001, the unemployment rate was 27.3 percent, with 2.3 million unemployed individuals. It began declining in 2002, reaching 13.8 percent, with 1.4 million unemployed individuals by 2007. This decline remained insufficient in light of the government's target unemployment rate of 10 percent. The unemployment rate stalled at 10-11 percent between 2009 and 2014 (See Figure 1).

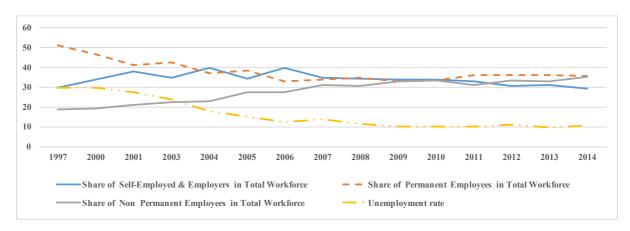


Figure 1. Trends and structure of the employed population (1997-2014) (percentage)

Source: Author from the ONS databases.

Certainly, the introduction of active labor market policies in Algeria been responsible for the observed reduction in unemployment at the macro level (Souag and Adair 2018). However, we don't know any thing about the impact at the micro level. It has contributed to reduce the unemployment by making more easy the insertion of the unemployed people? Or it's has a positive effect on the unemployment by pushing people to participate more to the labor force by offering public and secured jobs?

If we look at the the labor supply in Algeria so until the end of the 1990s it was characterized by low participation in the labor market, especially for women. In 1966, the active population was estimated at 2.4 million people with 0.10 million active women and 2.56 million active men. In 2017 and after almost 50 years, the active population is close to 12.27 million people with 9.57 million males and 2.52 million active women.

In Algeria for some periods and in terms of evolution, the active population is changing slower than working age population which has translated in some periods with low labor market participation rates (Figures 2 and 3). For the first three decades, participation rates were low for both sexes. starting in the 2000s, there is a very significant increase in participation rates. In 2010, the participation rate stood at 41.7% overall (+14.94 over 1998), with 69% for men (+22.67% over 1998) and 14.20% for women (either + 7.34% compared to 1998). In 2017, participation rates are close to 66% for men and 17.4% for women, or 42% for all.

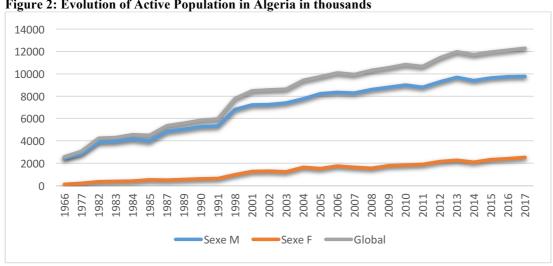


Figure 2: Evolution of Active Population in Algeria in thousands

Source: Authors from ONS dada bases.

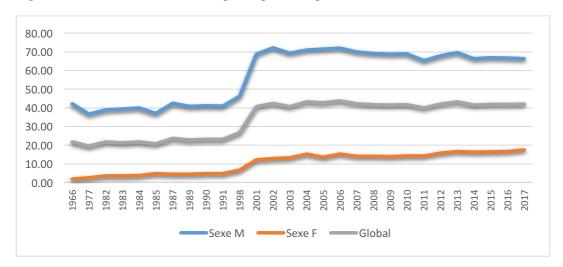


Figure 3: Evolution of Active Labor participation in percent

Source: Authors from ONS dada bases.

The question we seek to answer in this paper is the extent to which the DAIP by offering public and private formal jobs been responsible changing insertion and labor market participation and for men and women?

In this paper we focus on the behavioral effects of moving from an inactive status to unemployed or employed status. Under the new programs eligibility, people are required to make registration in employment agency (ANEM) of their residence area to benefit from the placement programs. People who do not register will not receive ANEM assistance and have to find jobs by other ways (social network, etct.) Basically, the action plan is supposed push

more people to be unemployed by getting the chance to be placed y the employment agency in the future.

# 2. Intermediation in labor market in Algeria

Just after the the independence, the Algeria government had established the The National Labor Office <sup>5</sup> to take over job intermediation and framework of the policy of promoting employment and combating unemployment. The National Labor Office was a public institution of an administrative nature since 1971 by Decree No. 42-71 of 17 June 1971, which includes the organization of the National Labor Office to change its name in 1990 and become the National Employment Agency under Executive Decree No. 259-90 of 8 September 1990.

In 2004, the ANEM reinstated its monopoly on job intermediation: integrating private placement services, incorporating municipalities, requiring companies to contact ANEM if they have any vacancies or are creating new jobs. ANEM continues to modernize and improve its public services. Between 1990 and 2004, it was compulsory for all employers to inform ANEM about all their vacancies. But employers were not penalized or fined if they failed to do so. Since 2004, however, employers have been penalized if they do not comply. The public service is exempt from this requirement. Vacancies for civil servants are published on the website of the Public Service Directorate.

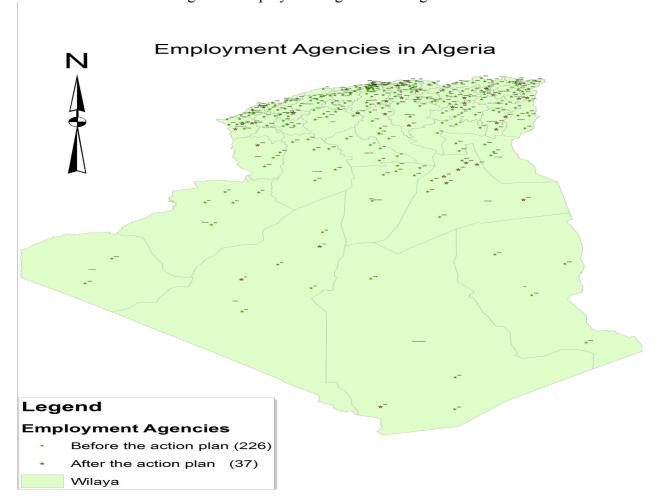
In 2006, the ANEM acquired a new legal status. Its legal character was changed from a public institution of an administrative nature to a public institution with special management. The decree that was enacted specified its mission and the way in which the agency was organized. It is under the supervision of the Ministry of Labor, Employment and Social Security. The decree also defined the agency's functions with regard to the regulation of the labour market.

At the end of 2006, the ANEM benefited from the rehabilitation program for the development of its network (various operating agencies, whether state or local), as well as the strengthening of management skills for its frameworks, particularly the development of management and service delivery. The number of its local agency doesn't not stop increasing to improve its national representation.

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<sup>&</sup>lt;sup>5</sup> Decree No. 62-99 of November 29, 1962.

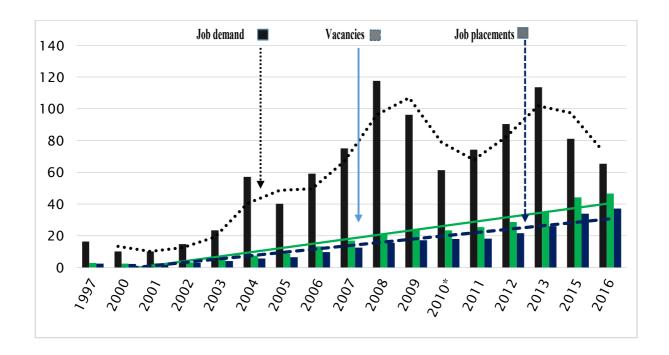
Figure 4: Employment Agencies in Algeria



The ANEM is in charge of supply and demand adjustment on the labour market. The trend in placements follows that of job vacancies, with a widening gap since 2004 (See Figure). According to the private sector absorbed three out of four placements in 2016, 90 percent being fixed term contracts (ANEM, 2017).

Beginning in 2008 and peaking in 2011, the DAIP (including its three components CID, CIP and CFI) supplied an annual average of 245,000 fixed-term contracts to young people between 2008 and 2016. Over 2009-2016, the CTA provided an annual average of 33,000 permanent contracts .

Figure 5. Job demand, vacancies and job placements, 1997-2016 (in 1000)



# 3. Conceptual framework and research methodology

The main contribution of this study is to provide an evaluation of the effects of active LM programs on the Labor Force Behavior in Algeria. We evaluate its impact on the probability of moving an individual from being outside labor force to being unemployed or being employed, using retrospective data about the individual's employment status in the previous and contemporaneous data on their current status. The individual statuses for each of the two time periods include between inactive, unemployed or employed. Because we are interested here on the impact on moving across these three states, we start by first providing a diagnosis on the dynamics of labor market flows in Algeria across the three distinct labor market states: unemployment, employment and inactivity. Using the current and the previous individual situations we design the mobility process of individuals between three states on the labor market as a homogeneous Markov chain in discrete time. Using Markov chain estimation, we estimate all the annual transitions between the three states from 2001 to 2014.

For the impact evaluation DAIP on the Labor Force Behavior, we use a reduced form . because in the dataset we don't observe the treatment variable for those are out side the labor market. We have a question whether if the employed person is placed by the ANEM or not, and anther question if the unemployed is registered in the ANEM or not but we don't know for those are outside the labor market. For employed people, by educational achievement we can identify what type of subsidy (CID, CIP or CFI) he or she has benefited from. The treatment variable for this categories of population can be obtained from the interaction of the two variables (placed by the ANEM or not and educational attainment) but we are missing for other categories of population (outside labor force).

To do for this, we plan to estimate the reduced form and use the distances between the residence and employment agencies as instruments<sup>6</sup>. The idea here that people living in

<sup>6</sup> Distance to college was used as an instrument for schooling by Card (1995), Kane and Cecilia Elena Rouse (1995), Jeffrey R. Kling (2001), Janet Currie and Enrico Moretti (2003), and Camero and Taber (2004).

provinces with a higher number of employment agency have a higher propensity to be treated. To correct heterogeneity between areas, we add some control variables like population, ....

#### 3.1 Transition

Let  $Y_t$  be a heterogeneous Markov process defined on a three—space of discrete states mutually exclusive and exhaustive  $E = \{1, ..., ..., 3\}$ , where the three state are to be employed, unemployment and outside of labor force. The fundamental characteristic of the Markov chain is that the conditional probability of each  $Y_t$  at time t depends only on the previous value  $Y_{t-1}$ , that is to say:

$$P(Y_t = j/Y_{t-1}, Y_{t-2}, ..., X_1) = P(Y_t = j/Y_{t-1})$$
 where  $j = \{1, 2, 3\}$  (1)

Let  $P_{ij}(t)$  be the probability of observing the individual in state j at time t while he/she was in state i at time t-1. In a formal way, the transition probabilities are defined with the following equations:

$$P_{ji}(t) = P(Y_t = j/Y_{t-1} = i)$$
(2)

For 
$$j, i = (1, ..., 3)$$
 and  $(t = 1, ..., t)$ ; where:  $\sum_{j=1}^{3} P_{ji} = 1$ .

The probabilities of occupation in the states j are unconditional (marginal). They correspond to the probabilities that the person r occupies the states j at time t:

$$\pi_{i}(t) = P(Y_{rt} = j) = \sum_{i=1}^{3} P_{ij}(t) P(Y_{t-1} = i)$$
(3)

For j = (1, ..., ..., k) where  $\sum_{j=1}^{3} \pi_{j}(t) = 1$ .

In a matrix form:

$$\pi(t) = P'(t) \ \pi(t-1) \tag{4}$$

Where:  $\pi(t)$  is a vector of 3 dimension and P'(t) is the transpose of the matrix of transition probabilities at time t of dimension 3\*3 such as:

$$\pi(t) = \begin{bmatrix} \pi_1(t) \\ \vdots \\ \pi_3(t) \end{bmatrix} \qquad P(t) = P(Y_t = j/Y_{t-1} = i) = \begin{bmatrix} P_{11} & \dots & P_{13} \\ \vdots & P_{ij} & \vdots \\ P_{31} & \dots & P_{33} \end{bmatrix}$$

Where:  $\pi_i(t) \ge 0$  for j = (1, ..., 3) and  $P_{ii} \ge 0$  for i, j = (1, ..., ..., 3)

After a series of t multiplications, we have:

$$\pi(t) = P'(t) P'(t-1) P'(t-2) \dots P(1) \pi(0)$$
(5)

Where:  $\pi(0)$  is the vector of initial probabilities.

Discrete time matrices are easily straight forward to compute as the maximum likelihood estimator for  $p_{ij}$  is  $\tilde{p}_{ij} = \frac{N_{ij}}{N_{i}}$  where  $N_{ij}$  is the total number of transitions from state i to state j and  $N_{i}$  is the total number of observations initially in state i.

## 3.2 Impact evaluation

We are interested in examining the effect of the DAIP on moving probability. We focus our test for two actions: probability of moving from outside the labor force to the three labor market status and moving from unemployed status to the three labor market status. The main

idea behind our identification strategy is that the Action Plan will likely affect the insertion of the unemployed person and will push more people to participate to the labor force by offering public and secured jobs. Given that the three labor market decisions of moving are jointly determined; we use simultaneous system to estimate the three equations.

Let  $Y_i$  be the outcome indicator for  $i = \{1,2,3\}$ .

Thus :  $Y_1 = j$  if individual has moved from state employed to state j where  $j = \{\text{employed, unemployment, outside of labor force}\}$ .

:  $Y_2 = j$  if individual has moved from state unemployment to state j where  $j = \{\text{employed, unemployment, outside of labor force}\}$ .

 $: Y_3 = j$  if individual has moved from state outside of labor force to state j where where  $j = \{\text{employed}, \text{unemployment}, \text{outside of labor force}\}.$ 

The treatment dummy variable  $T_i = 1$  if individual was placed by the ANEM,  $T_i = 0$ , otherwise.

Since we do not have information on the treatment for all individuals we use reduce form. We know if any employed if it we placed by the employment agency or not and we also know if any unemployed if he is registered or not in the agency but we don't know for individual who are outside the labor market. We assume that the treatment depends of the distances between the residence and employment agencies.

We also define a dummy variable  $D_{2008}$ , which takes on the value of 1 for the period after the implementation of the Action Plan, 2009 to 2014 (the last date for which we have data) and 0 for the period prior to its implementation: 1997-2007. It results:

 $Y_i^T$ : is the outcome indicator for the individual under the treatment.

 $Y_i^c$ : is the outcome indicator for the individual under the non-treatment.

The impact of the policies is given by:

$$G_i = \Pr(Y_i^T = 1) - \Pr(Y_i^c = 1)$$
 (6)

Where  $Pr(Y_i^T = 1)$  and  $Pr(Y_i^c = 1)$  are the probabilities under the treatment and the non-treatment.

We are seeking to estimate average impacts given some observable characteristics X, which include both individual characteristics, as well as some variables capturing macroeconomic trends.

The simplest method of introducing X, is assuming that an unobserved latent variable  $Y^*$  is a linear function of the X's and the error terms ( $u^T$  and  $u^C$ ), giving:

$$\begin{cases} Y_i^{T^*} = XB^T + \varepsilon^T & T = 1 \quad (i = 1, 2, 3) \\ Y_i^{c^*} = XB^c + u\varepsilon^c & T = 0 \quad (i = 1, 2, 3) \end{cases}$$
 (2)

We define the parameters  $B^T$  and  $B^c$  such that X is exogenous  $(E(u^T|X) = E(u^c|X = 0))$  but  $E(u^T|X, T = 1) \neq E(u^c|X, T = 0) \neq 0$  because of the selectivity of treatment. Then, the conditional mean impacts are given by:

$$\begin{cases} ATT(X) = ATE(X) + E(\varepsilon^{T} - \varepsilon^{C} | X, T = 1) \\ ATU(X) = ATE(X) + E(\varepsilon^{T} - \varepsilon^{C} | X, T = 0) \\ ATE = X(B^{T} - B^{C}) \end{cases}$$
(3)

To estimate the average treatment effects we have to compare samples of participants and non-participants before and after the intervention (as indicated by the variable  $D_{2008} = 0.1$ ). Because we are missing treatment variable for outside labor market individuals, we estimate the reduce form.

Lets  $Y_i^*$  the utility derived by the individual when he is moving from state i to state j. The individual must make a choice between the three state structuring labor market. This choice is made by comparing the utilities from the various possibilities, and it focuses on the option that corresponds to the maximum utility. By assuming that this unobserved latent variable  $Y_i^*$  is a linear function of some observable characteristics  $X_i$ , our instruments and the error terms:

$$Y_i^* = \alpha + \beta Instrument * D_{2008} + \gamma Instrument + \delta D_{2008} + \lambda X + \varepsilon_i \dots$$
 (6)  
(i = 1,2,3)

, we can use the multinomial logit to estimate parameters:

P 
$$(Y_i = j) = F(\alpha + \beta Instrument * D_{2008} + \gamma Instrument + \delta D_{2008} + \lambda X)..$$
 (7)  
 $(i = 1,2,3 : j = 1,2,3)$ 

Where: F is the logit cumulative function and  $\varepsilon$  is the error terms ( $\varepsilon_i \to logit(0, \sigma_i^2)$ ). The effect of the program on the outcome is captured by the coefficient ( $\beta$ ). The coefficient  $\gamma$  captures instrument effects. As mentioned below, it will present distance effect or the number of employment agencies effect. The coefficient  $\delta$  captures time effects, which are assumed to be independent of the treatment. X is a matrix of co-variates and  $\lambda$  is a vector of their coefficients.

### 4. Data sources and empirical specification

Souag and Assaad (2018) investigated the effects of active labor market policies, and in particular the introduction of the Action to Promote Employment and Fight Unemployment on formalizing employment in the Algerian economy. However, the question of whether the employment policy measures have actually had an effect on unemployment has not yet been addressed for Algeria (Musette, 2013, Benhabib 2017). Given that each program is targeting a different population, we aim in this paper to evaluate by level of education the effect of action plan implemented by the Algerian government in 2008 on insertion and labor market participation. We will use official data from a set of household employment surveys conducted by the National Statistical Office (ONS) during the period ranging from 1997 to 2014. For this survey the sample consists of a stratified random sample of households drawn from the population and housing census (RGPH) carried out every 10 years. The purpose of this survey is to provide statistics on employment and unemployment, but it contains no information on income (Table1).

Table 1: Comparison of labour force surveys methodologies from 1997 to 2014

Years	1997	2001(A)	2001( (B)	2002	2003	2004	2005	2006
Sample Size ( Households)	6457	6923	6360	6596	6457	14847	14939	14323
Base of survey	RGPH 87	RGPH 98	RGPH98	RGPH 98	RGPH98	RGPH 98	RGPH 98	RGPH 98
Reference period	Last week in Septemb er	Last week in September	Last week in December	Last week in March	Last week in September	Last week in September	Last week in September	Last week in September
Individual situation on T	15 year and more	15 year and more	15 year and more					
Individual situation on T-1	15 year and more	15 year and more						
Years	2007	2008	2009	2010	2011	2012	2013	2014
Sample Size ( Households)	14866	14000	14000	14592	14939	14323	14866	14000
Base of survey	RGPH 98	RGPH 2008	RGPH 2008	RGPH200 8	RGPH 2008	RGPH 2008	RGPH 2008	RGPH 2008
Reference period	Last week in Septemb er	Last week in September						
Individual situation on T	15 year and more	15 year and more						
Individual situation on T-1	15 year and more	15 year and more	15 year and more					

Source: authors

Given that the new programs are targeting by education different population people aged from 15 to 35 years, in this analysis we include only this age category of people. We conduct separate analyses for men and women and by level of education, we distinct three groups.

#### 5. Results

#### 5.1 Transition

From 2000 to 2003, it was difficult to find a job for Algerian worker during the first year of unemployment both for men and women. We observe that approximately 20 % of men and around 10 % of women who were initially unemployed moved to employment state. In 2004 the situation has been improved relatively but only for men: the transition rate has reached around 38 % just before the implementation of the action plan. This improvement is the consequence of the rising in oil prices fueled which increase both export earnings and public expenditure throughout development plans: 2001-2004, 2005-2009 and 2010-2014. After the public intervention, we notice a higher level of mobility from unemployment sate to employment state but only for men. More than 40 percent of those who were unemployed in previous year become employed in current year. For women, the change is noticed after the modification in 2010: a rise in unemployment-employment transition probability from 12 % percent to more than 20 %.

At the education level, before the implementation of the action plan the mobility scheme for men was the same for the three level of education: around 30 % of people who were looking for a job in the previous year find one. After the intervention, the ability of the Algerian

economy to absorb jobseeker has increased but only for people with primary or secondary level of education. The insertion problem persists for higher level of education people. For women, the situation is reversed: graduated university woman are more likely to get a job followed by graduated of the secondary level women. The plan and after it has been modified in 2010, has improved the insertion of women especially those who are graduated from the

university.



Figure 6: Moving from Unemployment to Employment status

Moving from outside labor market status to employment status in case of Algeria is very critical because it reflects the capacity of this economy to create new jobs such an economy based on public expenditure and public employment creation. In general, transition probabilities remain very low before and after the public intervention, especially for women. we notice mobility rate less than 5 %.

A separate analysis by education and gender show that men with low level of education are more likely to get job after just having leaved school. The implementation in 2018 of the action plan does not mark this probability but it has been market by the modification in 2010 where it reaches the peak around 50 %. However, the effect remains to be no permanent, one year after it returned to his initial level.

Graduated women are those who are more concerned by the mobility and affected by the

action plan. The period 2001-2004 was the catch-up period in term of participation in the labor market, women with high level of education have recorded 4 point of percentage more than other women in term of moving from outside labor force to employment status. After that and just before the implementation of the action plan, the transition probability for the three level of education remains weak and under 5 %. After the implementation, the probability of moving for highest educated women is going up to reach around 8%. The modification in 2010 does mark more this probability: it exceeds 10 % after the modification



Figure 7: Moving from Outside labor force to Employment status

The action plan does not really market the moving from outside labor market status to unemployment status for men. After many fluctuations and long trend down, the implementation in 2008 and the modification in 2010 of the plan have contributed to getting a small recovery then a stabilization of probability of transition around 10 %. By education, it s shows that after the interventions people those achieved the secondary level become the less likely to move from outside labor force to unemployment comparing with other people.

However, for women the impact is more significant and specialty for graduated from the university. After the interventions, the finding indicates a going up of the mobility for university graduated women comparing to the no graduated women passing from around 1 % to more than 7%. It s still remaining week indicating the low women participation to labor force in Algeria but it raises a behavioral change for this category of women.

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Figure 8 : Moving from Outside labor force to Unemployment status

**5.2** Econometric result: In progress

**6.** Conclusion In progress

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### 7. References

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