

Impact of the internship policy on access to decent employment for graduates in Côte d'Ivoire

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Abstract :

This study assesses the impact of public internship policy on graduates' access to decent employment in Côte d'Ivoire, using data from the Survey on the Improvement of Employment Policies in Francophone African Countries (APEAF). Based on a selection probit model and propensity score matching, the findings indicate that young people are more likely to obtain decent employment, although this probability remains very limited. Employment in the non-agricultural private sector, international organizations, non-governmental organizations (NGOs), and cooperatives also reduces the likelihood of decent employment. By contrast, holding a higher education degree increases the probability of accessing such employment. The results further show that public internship policy has a positive effect on access to decent employment, estimated at 6.65%. Internships therefore provide graduates with a positive signal to employers. Consequently, the government should allocate more resources to public employment policies that support, train, and provide internships for first-time job seekers.

Keywords : Decent work, public policies, internship, graduates.

JEL Codes : J24, J46, J48

1. Introduction

The crisis of the 1980s profoundly transformed the composition of the labor market in developing countries. Characterized since then by the expansion of informal employment, the labor market is considered a dual market in which a virtually nonexistent formal sector coexists with a growing informal sector (Kede et al., 2019). The extent of informal employment is primarily seen as the result of overly strict labor market regulations in developing countries. Despite the fact that the application of labor regulations by companies ensures worker well-being and greater safety, it is associated with a decrease in employment (Gallagher et al., 2013).

Labor market figures in Africa show that a large majority of the population is employed, but these workers lack decent wages, social protection, and some are deprived of labor rights. Various financial, economic, and social crises (COVID-19, the Russo-Ukrainian War, the war in the Middle East) have exacerbated these problems. Some sectors have experienced production disruptions and the closure of factories and businesses. These crises have led to increased socioeconomic vulnerability for certain employment categories (Côté et al., 2020).

The Ivorian context is marked by a paradox: robust economic growth (averaging 7% to 8% over the last decade) struggles to absorb a significant number of new graduates into the formal sector. Each year, approximately 300,000 to 400,000 young people enter the Ivorian labor market. According to the ENE (National Employment Survey, 2019), over 90% of jobs in Côte d'Ivoire are in the informal sector, often characterized by a lack of social protection and precarious incomes. Adding to these shortcomings is the persistent mismatch between education and employment. To address these labor market deficiencies, the Ivorian government, with support from the World Bank, implemented the "internship program" for young graduates in 2012. This program is part of a broader initiative, the "Youth Employment and Skills Development Project (PEJEDEC)." The Ivorian government's objective is to promote better matching in the labor market by granting beneficiaries initial professional experience in order to improve the employability of young people and their access to decent jobs.

Internships are an effective springboard to stable, long-term employment (O'Higgins and Pinedo, 2018). An internship is defined as a time-limited professional experience with an employer, generally lasting from a few weeks to a year, which is neither a traditional employment relationship nor formal training. There are three types of internships: qualification internships undertaken as part of an active labor market program, open company internships (personal initiative), and internships linked to school or university curricula. The internship placement policy is one of the key public policies of the Ivorian labor market. Its aim is to find internships for first-time job seekers in companies, enabling them to acquire the skills and knowledge that will facilitate their immediate or future hiring in quality positions. It covers the entire Ivorian territory and costs 602,741,350 FCFA annually. The internship lasts six months and is renewable once. Host companies have no financial obligation during the first six months. If the internship is satisfactory, the company can renew it in agreement with the Youth Employment Agency.

According to the ^{87th} session of the International Labour Conference (1999), decent work is defined as productive work carried out under conditions of freedom, equity, security, and

human dignity. Ankers et al. (2003) reveal that decent work encompasses several dimensions: employment opportunities, adequate income, decent working hours, job stability and security, equal opportunities, a safe working environment, social protection, and social dialogue. Social security and income security are two essential elements of decent work. Therefore, employment that promotes adequate income, access to healthcare, and a safe and inclusive working environment meets the minimum conditions for decent work (Duffy et al., 2017). To encourage the creation of these types of jobs, the Ivorian government has ratified several conventions of the International Labour Organization (ILO). As of 2015, six (6) international conventions had been ratified. That same year, a new labor code was adopted. This code establishes, on the one hand, vocational training or professional experience placements, work-study programs, training sites, and a quota of jobs for people with disabilities, and on the other hand, it guarantees a social security system for employees and those in similar categories and ensures social coverage for workers in the formal private sector. Regarding social protection, the Ivorian government established Universal Health Coverage (CMU) through Law No. 2014-131 of March 24, 2014, and created the National Health Insurance Fund (CNAM) through Decree No. 2014-395 of June 25, 2014.

This institution is responsible for providing health insurance coverage to all residents of Côte d'Ivoire. Furthermore, the Guaranteed Minimum Interprofessional Wage (SMIG), the Guaranteed Minimum Agricultural Wage (SMAG), and the minimum wages for specific job categories have been increased. The SMIG rose from 36,607 FCFA to 60,000 FCFA in November 2013 and then to 75,000 FCFA in January 2023. The National Council for Social Dialogue (CNDS) was created by decree no. 2007-608 of November 8, 2007 to ensure mediation, social dialogue and ongoing reflection between the Ivorian government, employers and workers.

Despite all these initiatives, 9 out of 10 jobs in the Ivorian economy are informal (IOM, 2023). 75.87% of graduates hold inadequate jobs (CREMIDE, 2018) and 76.4% of workers are vulnerable (ERI-ESI, 2017). It is therefore important to examine the impact of public policies on graduates' access to quality and productive employment. This study aims to evaluate the impact of the public policy of internships on graduates' access to decent employment in Côte d'Ivoire, based on the hypothesis that the internship policy positively influences access to decent work. Specifically, the aim is twofold: first, to identify the determinants of access to decent employment (level of education, gender, income, age, social capital), and second, to assess the impact of the internship policy on access to decent employment. The definition of decent employment adopted here is based on the work of Ankers et al. (2003). Thus, decent employment encompasses the employment situation of an individual who performs productive work for at least 40 hours per week, is adequately remunerated (a salary above the minimum wage), and has an employment contract, social security, health insurance, and overtime pay.

This study is justified by the need to assess the effectiveness of government interventions in addressing persistent youth unemployment and underemployment. Firstly, from a social and political perspective, access to decent employment is a lever for social stability. The aim is to understand whether the internship policy fosters the accumulation of skills among graduates necessary to access quality jobs. Secondly, from economic considerations, the diagnostic report

of the National Development Plan (PND 2025-2030) reveals that Côte d'Ivoire is failing to capitalize on the economic potential of its growing youth population. An unemployed graduate represents a loss of investment for the government in its education system. Finally, from the perspective of the scientific literature, There are few impact studies on Active Labour Market Programs (ALMPs) regarding access to decent jobs. Existing studies generally focus on the impact of ALMPs on employment prospects and wages.

This study is divided into several sections. Following the 'introduction on, the first seconde section focuses on the theoretical and empirical developments related to the link between internship policies and access to decent employment. The second troisième section addresses the analytical method, and the third section suivante examines and discusses the results, followed by their implications.

2. Literature review on the determinants and importance of public policies in access to decent employment

2.1. Access to decent employment in theoretical literature

The concept of decent work is an ILO (International Labour Organization) standard based on four pillars: job creation, labor rights, social protection, and social dialogue (ILO, 2022). The theoretical analysis of access to decent employment is rooted in Gary Becker's Human Capital Theory (1964), which defends the ckey idea that education is an investment. According to Becker, if a graduate does not have a decent job, it is because their "marginal productivity" is deemed insufficient by the market. Spence (1973) indicates that the most productive workers send a credible signal. For this signaling theory, the degree is simply a signal sent to the employer, just like an internship. Access to an internship constitutes a signal for young graduates to employers. Completing an internship reveals seriousness, motivation, and the ability to hold a job. In a market where the supply of labor exceeds the demand, such as that of Ivory Coast, a diploma alone loses its informative value.

Akerlof's (1970) information asymmetry theory models the uncertainty surrounding information about worker quality based on educational attainment. Younger, less experienced workers may be excluded from quality (decent) jobs in favor of older workers, regardless of their actual skills. Public internship programs help mitigate this labor market failure.

Contrary to the postulates of information and signal asymmetry theory, Stiglitz's filter theory (1975) shows that education and public policies supporting graduates' entry into the workforce only serve as a filter, separating the "most capable" graduates from the "least capable." Through these policies, employers can observe the productivity of graduates leaving the education system each year. This is why the Ivorian government encourages companies to offer more internships to graduates in order to identify productive workers after their internships, thereby reducing the time between vacanciesjob openings and the rate of precarious and vulnerable employment among graduates.

The theory of Labor Market Segmentation posits that The market is divided into two sectors: a primary sector (characterized by decent, stable, and protected jobs) and a secondary sector (precarious and vulnerable jobs). Public labor market policies aim to shift graduates from the

secondary to the primary sector (Doeringer and Piore, 1971). Explanations inherent in the segmented market challenge the neoclassical theory of the unity or homogeneity of the labor market under perfect competition (Mincer, 1974; Becker, 1964). This theory is a response to the existence of inequalities in the labor market. These inequalities exist in terms of wages, job security, promotion, training, and different working conditions that are not explained by theories of a single or integrated labor market (Kede et al., 2019).

2.2. Empirical analysis of the determinants of decent employment

There is a persistent regional disparity in research on decent work (Batsios et al., 2026). Research is concentrated in North America and Western Europe. Empirical studies on Eastern Europe, Central Asia, and sub-Saharan Africa remain scarce. Most of the studies reviewed show that gender, age, education level, sector of activity, employment status, firm size, and industry are the main determinants of decent work. However, these results vary depending on the geographical area of study. In Europe, for example, women are more likely to have decent work (Crespo et al., 2017). This is not the case in Morocco, where men are more likely to have decent work (El Azhari et al., 2024). In Côte d'Ivoire, there is no significant difference between the sexes in the chances of obtaining decent employment (Moussa, 2017). Some studies (Crespo et al., 2017; Ariusni et al., 2024; Moussa, 2017) show that a high level of education increases the likelihood of accessing decent employment. However, the work of El Azhari et al. (2024) finds no link between the level of education and access to decent employment. This scientific paradox guides the focus of this empirical review.

In Europe, research by Crespo et al. (2017) reveals that women, on average, hold higher-quality jobs than men despite lower overall employment levels. Younger workers are disadvantaged in terms of job quality, as they accumulate lower net salaries than older workers. Furthermore, university education has a strong positive impact on job quality. Each additional level of education in Europe improves salary, autonomy, career advancement, and learning opportunities. The public sector and the self-employed offer the best jobs (less labor-intensive, more stable, and with greater learning opportunities). Medium-sized companies offer the lowest-quality jobs, while small businesses, despite their size, are distinguished by better working conditions, a better work-life balance, and greater autonomy. The agricultural sector offers lower-quality jobs, while the finance and energy sectors offer higher-quality jobs.

The work of Ariusni et al. (2024) in Indonesia confirms that of Crespo et al. (2013) in Europe. Based on the effect of education level, they show that vocational training has a greater positive effect on decent employment than general education. They also find that continuing vocational training promotes access to decent employment for workers with low levels of basic education. In Africa subsaharienne, the literature review conducted by Amankwaa et al. (2026) on decent work reveals that Africa is failing to transform its economic growth into an environment conducive to the creation of decent jobs. Available jobs (over 80%) are generally characterized by low wages, precarious working conditions, a lack of social protection, and limited mobility (Barford et al., 2021). Contrary to the work of Crespo et al. (2017), El Azhari et al. (2024) find a positive relationship between being male and access to decent work in Moroccan

cooperatives. This study also reveals that there is no link between education level and access to decent work.

In Côte d'Ivoire, the most recent study on decent work is that of Moussa (2017). In his analysis of the determinants of decent work, he shows that only 5% of workers in Côte d'Ivoire have decent jobs. This rate is higher among men than women. Professional experience and education level have a positive and significant effect on access to decent employment. This is why workers with decent jobs are older (over 39 years old) and have at least a high school diploma (45%) or a university degree (37%). The public sector provides more decent jobs than the private sector (formal and informal). People who migrate in search of employment have a higher probability of finding decent work.

Research on decent work typically employs content analysis, tobit and logit models, and multiple linear regressions as methodological approaches. Based on recent work on decent work in Sub-Saharan Africa (Moussa, 2017; Barford et al., 2021; Amankwaa et al., 2026), which has shown that precarious employment is an involuntary situation due to constraints¹ that limit access to decent jobs, we adopt a probit model with selection. This model corrects for selection biases related to the exclusion of some individuals from the sample of decent jobs due to certain decisions made during the job search.

2.3. Public policies and access to decent employment

Empirical literature shows that public policies have a significant impact on the dimensions of decent work (Gallagher et al., 2013; Nguyen et al., 2021). In Vietnam, the 2012 reform of the Labor Code had a positive impact on the frequency of formal employment contracts (fixed-term and permanent), monthly income, social protection indicators, and benefits (Nguyen et al., 2021). Previous research in China (Gallagher et al., 2013) had shown that the implementation of the new Labor Contract Law in 2008 had a significant impact on the well-being of Chinese workers, offering greater freedom and better job security. Impact studies of active labor market policies were analyzed by Kouadio (2011). The author demonstrates that employment assistance programs were successful in urban areas before economic indicators deteriorated as a result of political instability. Neither the employment assistance program nor the program aimed at integrating out-of-school youth contributed to improving the employability of urban youth.

3. Methodology

¹ The rise of the informal economy and the gig economy, African economic policy, development planning, and frequent political, social, and climate crises (terrorism, the COVID-19 pandemic, the Ebola crisis, droughts, floods, and wildfires), and economic crises are the constraints driving the “decent work deficit” in Sub-Saharan Africa (Amankwaa et al., 2026; Appiah-Otoo et al., 2025). These crises contribute to economic decline, rising poverty, unemployment, and food insecurity (Oleribe et al., 2024). Other empirical studies (Salem and Bensidoun, 2011; Radencho, 2014; Gimkeu et al., 2017) show that the deterioration of the labor market has led to the creation of precarious jobs (lacking employment contracts, social security coverage, safety, health insurance, sick leave, etc.) and lower-paying jobs (with low and uncertain incomes).

The analytical methodology relies on two econometric tools. First, the determinants of access to decent employment (education level, gender, income, age, social capital) are identified using Heckman's (1976; 1979) two-stage selection model, improved by Zaoujal and Outtaj (2020). This model was chosen because some individuals may be excluded from decent jobs due to unobservable variables. This model corrects for biases related to the selection of these individuals. Second, the impact of the internship policy on access to decent employment is measured using propensity score matching.

3.1 Selection Bias Correction Model

Let the latent variable be Y_i^* the probability for an individual to hold a job and Y_i the variable reflecting the individual's employment situation i . This variable depends on the characteristics X_i . $Y_i = 1$ if the individual i is employed, $Y_i = 0$ otherwise. The basic model is written as follows: $Y_i^* = X_i' \beta + \varepsilon_i$ (1)

The situation of "decent employment" is observed only if individuals hold jobs. Let be y_i^* the variable that measures the probability of having decent employment. y_i^* depends on observable characteristics Z_i .

$$y_i^* = Z_i' \gamma + \mu_i \quad (2)$$

y_i is observed only if $Y_i = 1$: conditional on holding a job, the individual i is in a *decent employment situation or not*, depending on the quality of the job held. Decent employment summarizes the employment situation of an individual who performs productive work of at least 40 hours/week, is adequately paid (salary above the minimum wage), and has an employment contract, social security, health insurance, and overtime pay. There may be a correlation between the error terms of equations (1) and (2), which follow a normal distribution $N(0,1)$. $\rho = \text{corr}(\varepsilon_i, \mu_i)$

For résoudre this problem, in a first step, we estimate the probability of having a job based on the characteristics of the individuals, and then we calculate the Mills ratio for each individual. In a second step, the Mills ratios are introduced into the model using the Heckprobit estimator (Heckman, 1979). Maximizing the following log-likelihood function allows us to obtain an unbiased estimate of the parameters β , γ and ρ :

$$\max_{\beta, \gamma, \rho} \sum_{i=1}^{n_{11}} \ln \Phi_2(X_i' \beta, Z_i' \gamma, \rho) + \sum_{i=1}^{n_{10}} \ln \Phi_2(X_i' \beta, -Z_i' \gamma, -\rho) + \sum_{i=1}^{n_0} \ln \Phi(-X_i' \beta) \quad (3)$$

$Y_i=1, y_i=1$ $Y_i=1, y_i=0$ $Y_i=0$

Φ_2 is the bivariate distribution function and Φ , the univariate distribution function. n_{11} is the number of individuals in decent employment. n_{10} is the number of individuals in precarious employment. n_0 is the number of unemployed or inactive individuals.

32. Model for evaluating the impact of public policies on access to decent employment

The basic model is based on the work of Rosenbaum and Rubin (1983). Our aim is to compare the situation of workers benefiting from the public policy of providing internships with that of non-beneficiaries with similar characteristics, using propensity score matching. The choice of the public policy of providing internships stems from the fact that through internships, workers gain experience, thereby increasing their professional mobility towards decent jobs.

The propensity score matching method involves matching treated (beneficiaries) and untreated (non-beneficiaries) workers based on a score calculated from their observable characteristics. The underlying assumption is that the difference in outcome between two individuals (treated and untreated) with similar propensity scores is attributable to the treatment. In this case, the treatment refers to the public policy of providing internships. This method uses statistical techniques to construct a comparison group, an "artificial group," by searching for an observation (or series of observations) in the untreated group for each treated individual that exhibits similar characteristics (Gertler et al., 2011). Since the propensity score is a probability, it predicts each individual's chances of participating in the program using logit -type econometric models . The propensity score can be written as follows:

$$\Pr(T = 1|X) = F(X\theta) = e(X) \quad (4)$$

Where $e(X)$ is the probability of being treated conditionally on the observables and $0 < e(X) < 1$.

Rosenbaum and Rubin (1983) showed that the distribution of X propensity score is the same regardless of an individual's treatment status. Treated individuals and controls with the same propensity score will have similar distributions of observed covariates (Austin and Stuart, 2015). The effect of treatment (Average) Treatment effect on Treated (ATT) is calculated as follows:

$$ATT = E(Y^1|T = 1, X) - E(Y^0|T = 1, X) \quad (5)$$

Where $E(Y^1|T = 1, X)$ is the average value of the result Y for the treated individuals and $E(Y^0|T = 1, X)$, the value that this average would take if these same individuals had not been treated.

The estimation method used in this study is the kernel function method, which is considered more accurate even for small samples (Frölich, 2004). Using the kernel estimator, the treatment effect is given by the formula :

$$ATT = \frac{1}{N_T} \sum_{i=1}^{N_T} [Y_i^1 - \sum_{j \in I_0} w(j) Y_j^0] \quad (6)$$

$$w(j) = \frac{\frac{K[P(X_j) - P(X_i)]}{h}}{\sum_{j=1}^{N_0} \frac{K[P(X_j) - P(X_i)]}{h}} \quad (7)$$

With $I_0 = \{i|T_i = 0\}$, the set of untreated individuals; Y_i^1 , the type of employment held by individuals benefiting from the public policy of placing in internships (precarious employment,

decent employment); $w(j)$, the weighting given to the observation Y_j^0 of untreated individuals j ; Y_j^0 the type of employment held by individuals not benefiting from the public policy of placing in internships (*precarious employment, decent employment*); N_T and N_0 , respectively the number of treated and untreated individuals; k , a kernel function and h , the estimation window.

To ensure the robustness of the results, we compare them to the results obtained by other methods, in this case those of nearest neighbor, radius and stratification.

3.3. Data and description of study variables

The data for this study comes from the Survey on Improving Employment Policies in Francophone African Countries (APEAF), conducted by CREMIDE between October 5, 2017, and March 30, 2018. This survey aims to generate evidence on the absolute or relative effectiveness of public employment programs in relation to the labor market. It covered the major cities of Côte d'Ivoire (Abidjan, Bouaké, Korhogo, San-Pedro, and Yamoussoukro) and included 3,478 young graduates. Among them, 941 were beneficiaries of public employment policies, 1,040 young people had applied but were not selected, and 1,497 young people had not applied to employment policies at all but presented characteristics similar to those of beneficiaries and non-beneficiary applicants.

The survey was based on two groups of statistical units. The first group consisted of all individuals who were applying for a public employment program, and the second group comprised individuals who had never applied for such a program. The first group was drawn from the sample of applicants to public employment programs, and the second group was obtained from a household survey.

The samples of young beneficiaries and non-beneficiaries (those who unsuccessfully applied for internships) were compiled using administrative data from the Youth Employment Agency (AEJ). Initially, a list of 2,040 beneficiaries was obtained from the AEJ. Telephone calls were then made to locate these beneficiaries, with the goal of reaching at least 1,000 to whom the questionnaire would be administered. At the end of this first phase, 1,440 individuals benefiting from public employment programs were registered and located. A second phase of telephone calls was conducted to schedule appointments with the beneficiaries to administer the questionnaire. At the end of this second phase, only 941 individuals could be located, as the others had withdrawn or refused to answer the questionnaire. This phase took place between October 2017 and January 2018.

The same technique was used to construct the sample of non-beneficiary youth. In the first phase, a database of over 40,000 non-beneficiary applicants was obtained from the AEJ (National Agency for Youth Employment). Pairs were selected from this database based on the variables of age, sex, date of last diploma completion, and neighborhood of residence to create a control sample corresponding to the beneficiary sample. Thus, for each beneficiary, a non-beneficiary pair was interviewed. At the end of this phase, 1,040 non-beneficiaries agreed to complete the questionnaire.

The sample of non-applicants was constructed based on the sample of beneficiaries and non-beneficiaries. This phase involved identifying matched profiles non-postulants for public employment programs based on the observable characteristics of beneficiary and non-beneficiary applicants. At the end of this phase, 1,497 non-postulants agreed to complete the questionnaires.

Table 1 : Description of study variables

Variables	Definition	Modality	Average (%)
Decent work	Decent employment summarizes the employment situation of an individual who performs productive work for at least 40 hours per week, is adequately remunerated (salary above the minimum wage), and is accompanied by an employment contract, social security, health coverage and payment of overtime.	Decent work	15.54
Share capital	Social capital refers to the resources an individual can mobilize through their network of relationships (friends, family, etc. collègues.) to access employment, change jobs, or advance professionally. Granovetter (1974; 1995) shows that social capital facilitates access to complete information about the labor market, and therefore to decent employment. However Cependant, social capital limited to family circles tends to confine individuals to lower-quality jobs (Yapo, 2022; Erdsiek , 2016).	Share capital	49.36
Sex	Sex of the individual at the time of the survey. 1 if male and 0 if female. According to Becker (1957), there is a difference in educational attainment between men and women.	Women	31.46
		Man	68.54
Age	Age of the individual at the time of the survey. Age has an indirect positive effect, through experience and seniority, on job quality (Crespo et al., 2017; Moussa, 2017).	Age	30
Marital status	Marital status of the individual at the time of the survey. 1 if the individual is married (customary, religious, civil, or common-law); 0 if the individual is not married (single, separated, widowed). Workers in decent jobs are predominantly married (Moussa, 2017).	Bachelor	67.38
		Married	32.62
Last diploma	This is the most recent diploma obtained by the individual. 1 for secondary school diplomas, 2 for BTS/DEUG/DUT (two-year vocational diplomas), 3 for a bachelor's degree, 4 for a master's degree, 5 for an engineering degree and above. The higher the level of education, the greater the probability that workers have a decent job (Crespo et al., 2017; Moussa, 2017).	Secondary school diploma	15.44
		BTS/DEUG/DUT	49.16
		License	9.08
		Mastery	9.35
		Engineer and more	16.97
Sectors	Summarizes the individual's educational path. 1 for humanities and social sciences, 2 for law and political science, 3 for economics and management, 4 for vocational programs, 5 for exact sciences and other fields. According to Ariusni et al. (2024), vocational training has a greater positive effect than general education on access to decent employment.	Exact sciences and others	15.66
		Professional pathways	42.62
		Arts and Humanities	5.35
		Law and Political Science	4.49
		Economics and Management	31.88
		Audience	14.52

Business sector	This variable captures the worker's sector of activity. 1 represents the public sector, 2 the non-agricultural private sector, 3 farming, and 4 other sectors (international organization, non-profit organization, NGO, etc.). Crespo et al. (2017) show that, compared to other sectors, the public sector provides stability and better-quality jobs.	Private	77.69
		farm	2.17
		Others	5.62

Source : APEAF survey, CREMIDE 2018

The study reveals that the rate of decent employment is only 15.54%, compared to 84.46% for precarious employment. This highlights the extent of job insecurity in Côte d'Ivoire. More than eight out of ten people hold precarious jobs. This can be explained by the low level of job creation in the formal sector of the economy (less than 10% of available jobs are created by formal businesses). The unemployment rate is also very high (22.73%) due to the study sample, which consists primarily of secondary and higher education graduates. The young graduates surveyed are on average 30 years old, 67.38% are single, and 50% have no children. Men outnumber women (68.54% versus 31.46%). However, the rate for women is in line with United Nations recommendations. The graduates are mostly from higher education (84.56%) with 49.16% holding a higher technician diploma (BTS) or a General University Studies Diploma (DEUG).

The non-agricultural private sector is the main source of employment (77.69%), followed by the public sector (14.52%). Among the channels used to find employment, social capital is heavily relied upon by individuals (49.36%). Furthermore, SMEs dominate the labor market in Côte d'Ivoire (85.42% of jobs created) compared to 14.58% for large companies. Table 2 compares the rate of decent employment for beneficiaries and non-beneficiaries of the public policy on internships in Côte d'Ivoire.

Table 2 : Type of employment of beneficiary and non-beneficiary workers

	Beneficiaries	Non-beneficiaries
Decent employment rate	21.44	16.60

Source : Authors based on the APEAF survey, CREMIDE (2018).

Overall, workers benefiting from the public policy of providing internships have a higher rate of decent jobs than those not benefiting from it (21.44% versus 16.60%). The public policy of providing internships therefore enables workers to access more decent jobs.

Table 3 presents the propensity score matching quality test using kernel function, nearest neighbor, and radius estimation methods. To demonstrate that the pretreatment characteristics of the treated and control individuals are well balanced, Rubin (2001) suggests a standardized mean difference threshold of less than 0.25. Regarding the use of the variance ratio to verify pretreatment balance, the author proposes using variance ratio values close to 1.00 as a measure of better balance. He indicates that variables are unbalanced if the variance ratio is greater than 2.0 or less than 0.5.

Table 3 : Matching Quality Test

Estimation methods	Standardized mean difference	Ratio of variances
Kernel Function Method	0.159	1.08
Nearest neighbor method	0.208	0.98

Method by radius	0.358	1.24
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Source: Authors based on the APEAF survey, CREMIDE (2018).

The kernel function and nearest neighbor methods show a standardized mean difference (0.159 and 0.208) less than 0.25 and a variance ratio (1.08 and 0.98) close to 1. The characteristics of the treated group (beneficiaries) and the control group (non-beneficiaries) are identical for these estimation methods.

4. Results and discussion

The determinants of decent employment in Côte d'Ivoire are age, social capital, education level, and sector of activity (Table 4). Contrary to the findings of Crespo et al. (2017) and Moussa (2017), age has a negative, albeit very small, effect on access to decent employment. This result reflects a higher probability of young people accessing decent employment. Furthermore, the use of social capital significantly reduces individuals' chances of accessing decent employment. This confirms the findings of Yapo (2022) and Erdsiek (2016), who demonstrated that social capital is not a reliable pathway to decent employment. In Côte d'Ivoire, social capital is generally limited to family circles, which tend to confine individuals to lower-quality jobs.

Analysis by education level reveals that having a higher education degree increases the likelihood of accessing decent employment. The higher the degree level, the greater this probability of accessing decent employment. This finding, reported in the literature by Crespo et al. (2017) and Moussa (2017), demonstrates the significant importance of qualifications for accessing decent work. Compared to the public sector, working in the non-agricultural private sector, international organizations, non-governmental organizations (NGOs), and cooperative enterprises reduces the likelihood of having decent employment. Unlike the public sector, which offers stable, less demanding jobs with greater career opportunities, the non-agricultural private sector and international organizations (NGOs, associations, etc.) do not provide a sufficient number of decent jobs.

Table 4 : Determinants of decent employment

Base=unemployment		Decent work		Participation in the labor market	
	Modality	Marginal effects	Coefficients	Marginal effects	Coefficients
Sex	Women	Ref	Ref	Ref	Ref
	Man	0.0025	0.006	---	---
Age	Age	-0.0065*	0.271***	0.0111***	-0.252***
	Age squared	---	-0.005***	---	0.005***
Marital status	Bachelor	Ref	Ref	Ref	Ref
	Married	-0.0326	-0.086	0.085***	0.267***
Social capital	Social capital	-0.1245***	-0.347***	---	---
Last diploma	Secondary school diploma	Ref	Ref	Ref	Ref
	BTS/DEUG/DUT	0.0683**	0.188**	-0.035	-0.103
	License	0.0819**	0.227*	-0.0099	-0.022
	Master	0.0346	0.096	-0.0279	-0.086
	Engineer and more	0.1499***	0.413***	0.0022	0.019
Sectors	Arts and Humanities	Ref	Ref	Ref	Ref
	Professional pathways	---	---	0.0073	0.0255
	Exact sciences	---	---	-0.0479	-0.152
	Law and Political Science	---	---	-0.0796*	-0.258**
	Economics and Management	---	---	-0.0062	-0.0215
Industries	Public	Ref	Ref	Ref	Ref
	Private non-agricultural	-0.0689***	-0.192***	---	---
	farm	-0.0636	-0.183	---	---
	Others	-0.2084***	-0.582***	---	---
rho	rho	---	-0.921*	---	---
athrho	athrho	---	-1.596**	---	---
Constant	Constant	---	-4,041***	---	3,937***

Source : APEAF Survey, CREMIDE 2018 *** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$; P -value (...)

Table 5 focuses on the results of the impact of the public policy of internships on access to decent employment.

Table 5 : Impact of the public policy on internships on access to decent employment

		Average effect (Public policy on internship placement)
Decent work	ATT KERNEL FUNCTION	0.0593**
	NEAREST NEIGHBOR ATT	0.0665**
	ATT STRATIFICATION	0.065***
	ATE	0.0892***

Source : Authors based on the APEAF survey, CREMIDE (2018).

ATT: Average Treatment Effect on the Treated; *** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$

ATE : Average Treatment Effect

The results in Table 5 highlight a positive and statistically significant effect of the public internship policy on access to decent employment. Estimates of the average treatment effect (ATE) on beneficiaries range from 5.93 to 6.65 percentage points, depending on the matching method used. More specifically, the ATT is estimated at 5.93 percentage points using the kernel function method, at 6.65 points using the nearest-neighbor method, and at 6.50 points using the stratification method. These results, which are statistically significant at the 5% and 1% levels, are relatively close to one another, demonstrating the robustness of the estimated effect. The ATE, estimated at 8.92 percentage points and significant at the 1% level, indicates that the potential effect of the policy could be even greater when considered for the entire study population. Overall, these results suggest that the public internship policy is an effective tool for improving labor market integration and promoting access to decent work.

From an economic perspective, the results indicate that the work experience gained through internships is an important mechanism for labor market integration. Internships can, in particular, enable young people to gain their first professional experience, improve their practical skills and employability, facilitate the transition from education to employment, reduce the information asymmetry between employers and job seekers, and make it easier for companies to identify and recruit high-performing interns. The result is therefore consistent with the hypothesis that gaining work experience facilitates access to higher-quality jobs.

Conclusion and implications

Since the 1980s, successive crises have significantly reshaped labor markets in developing countries. Drawing on data from the 2018 Survey on the Improvement of Employment Policies in Francophone African Countries (APEAF), conducted by CREMIDE, this study uses Heckman's two-stage selection model and propensity score matching to identify the determinants of access to decent employment and assess the effect of public employment policies on such access. The descriptive and econometric results show that decent employment remains limited in Côte d'Ivoire, with a rate of 15.54%. Contrary to much of the empirical literature, age has a negative, although very small, effect on access to decent work, suggesting that younger people are slightly more likely to obtain such jobs. However, this probability remains low in the Ivorian labor market (0.0065). The restricted use of social capital also significantly lowers the chances of accessing decent employment, as networks largely confined to family circles tend to channel individuals toward lower-quality jobs.

The analysis by education level indicates that higher qualifications increase the likelihood of accessing decent employment, with this probability rising as the degree level increases. Qualifications therefore play a central role in access to decent work in Côte d'Ivoire. By contrast, compared with the public sector, employment in the non-agricultural private sector, international organizations, NGOs, and cooperatives reduces the probability of holding a decent job, as these organizations generate too few quality positions. The public internship policy also has a positive effect on access to decent employment, estimated at 6.65%, thereby confirming the initial hypothesis. This policy should therefore be expanded, particularly through stronger involvement of formal business umbrella organizations. Since private non-agricultural firms, NGOs, associations, and international organizations provide too few decent jobs, the Ivorian

government should also ensure the effective functioning of the Tripartite Advisory Committee on International Labour Standards (CCTNIT), established in 2019 to promote dialogue between employers' and workers' organizations and support the implementation of international labour conventions ratified by Côte d'Ivoire. To improve graduates' access to decent employment, the government should devote more resources to public employment policies that combine support services, vocational training, and internships for first-time job seekers. Internships send a positive signal to employers and can help overcome the exclusion of less experienced young workers from quality jobs, even when they possess the required skills. The findings therefore suggest that internship-oriented public policies can help reduce this labor market failure in Côte d'Ivoire.

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