Job Quality and Poverty in developing countries: evidence from Côte d'Ivoire

Franck MIGONE

INS
Institut National de la Statistique de Côte d'Ivoire

Economic Unit Analysis

Abstract

This study analyzes the influence of household members' job quality on the household poverty status in Côte d'Ivoire using data from the 2018 Harmonized Survey of Household Living Conditions. Using simple probit regressions, this study highlights the significant negative effect of a household head's job quality on household poverty risk. It also shows that improving the job quality of other household members reduces the risk of household poverty. In addition to promoting improved employment conditions for workers, policymakers should promote women's access to high-quality jobs. This could involve investing in social facilities to relieve the burden of caring for children in the household.

Introduction

Côte d'Ivoire has made major strides in economic development over the past ten years. Beyond the high growth rates recorded (8.1% average annual growth from 2012 to 2019), the pro-poor nature (Coulibaly, 2020) of this growth has enabled impressive progress in the fight against poverty. Thus, the poverty rate decreased over the period 2015-2018 from 44% to 39.45%. The downward trend in poverty over the period 2015–2018 was also seen along four dimensions of poverty: (i) monetary poverty fell from 42.1% to 39.45%, (ii) poverty in household living conditions fell from 48.2% to 43.6%, (iii) subjective poverty fell from 65% in 2015 to 41.3% in 2018, and (iv) multidimensional poverty fell from 0.271 to 0.229. These efforts were accompanied by an improvement in the redistribution of national wealth, with the Gini index reaching its lowest level, 0.365, in 2019.

Employment is a key tool to fight poverty (ILO, 2019), as it can be a key component of access to sustainable income. Income from work can be one of the driving forces of poverty reduction. At the national level, it can be considered a proxy for social progress (Brummund et al. (2018)).

Employment in Côte d'Ivoire has improved over the past decade. The unemployment rate has remained below 6% since 2014, reaching 3% in 2019 (ENE, 2019). In 2019, the wage employment rate was 40.02 percent. However, poor-quality jobs represent a major risk for the resurgence of poverty. Thus, an analysis of job quality is crucial. Job quality includes aspects related to minimum wage, job stability, employment benefits, leave opportunities, etc. (ILO, 2011). Growth, while pro-poor, has not improved some key aspects of people's employment situations. The proportion of employees earning less than the guaranteed interprofessional minimum wage was 44% in 2019 (ENE, 2019). Individuals with a low-wage status (earning less than two-thirds of the median monthly wage) accounted for nearly a quarter of the employed population (24.8%) in 2019. In 2019, more than half of the employed population in Côte d'Ivoire (55.1%) did not have a formal contract. Precarious employment accounts for 16% of the population. Moreover, the bulk of employment in Côte d'Ivoire (nine out of ten jobs) remains informal.

This study analyzed the relationship between poverty status and the quality of employment of household members. In this study, we measured the quality of wage employment. Indeed, job quality is assessed by indicators such as earning more than the poverty line, earning more than the Guaranteed Minimum Interprofessional Wage, receiving bonuses, receiving other benefits, receiving employer-provided food, receiving employer-provided health insurance, having contributed to the CNPS (Caisse Nationale de Prévoyance Sociale) or CGRAE in the job, having a pay slip, working less than 40 hours per week, having maternity/paternity leave, having sick leave, having paid leave, having a good relationship with management, having opportunities to advance in the company, and having opportunities to improve skills. These measures are sometimes irrelevant for self-employed workers, such as own-account workers and bosses (e.g., getting a pay slip, getting a bonus, getting health insurance provided by the employer, and quality of relationship with management).

This study analyzes (i) the relationship between the job quality of the household head, (ii) the job quality of other household members, and the household's poverty status. Household poverty status is defined as the annual per capita consumption expenditure of households below the national poverty line of 345,520 FCFA per year. Using probit regressions, we find that an improvement in the employment conditions of the household head reduces the poverty risk by 0.028 to 0.3 points.

1. Literature review

1.1. Overview of approaches to job quality

The notion of job quality has gained interest among policymakers and researchers over time owing to greater accessibility to international comparison data. The first attempts and work on quality of employment date back to the 1960s and the 1970s and were developed on the periphery of concepts related to quality of life presented as an alternative to the economic and quantitative measure of people's living conditions offered by gross domestic product, the unemployment rate, and so on. (Burchell et al., 2014).

In a historical dimension, the work of Burchell et al. (2014) makes it possible to trace the evolution of the notion of job quality and the changes in the understanding of this notion. Job quality was initially measured by employees' own assessment of their working conditions. This is essentially a measure of job satisfaction. Although this approach has an obvious subjectivity bias, it has been used by many authors to analyze job quality (Kalleberg and Vaisey, 2005; Krueger et al., 2002). However, job satisfaction is highly subjective and does not lend itself well to comparisons between groups of workers or public policy purposes. Moreover, Bustillo and Macias (2005) show that job satisfaction is not a good proxy for job quality, which is measured by pay, firm size, social class, and so on. These limitations have led to the rejection of the use of job satisfaction as a proxy for job quality and the inability to distinguish between these two concepts (Bustillo & Macias, 2005; Schokkaert et al., 2009; Clark, 2015). Psychological aspects were also incorporated into the concept of job quality. Hackman and Oldham (1975) analyzed job quality in the U.S. labor market using psychometric measures: knowledge of the expected outcome of the job, knowledge of the meaning of the job, and sense of responsibility for the job. They also reduce subjectivity bias by adding to the employees' self-assessments and assessments by their seniors, researchers, and external observers.

The International Labour Organization (ILO) has examined the quality of employment based on academic work (ILO, 1999). This is defined by the concept of decent work. Decent work « *sums up the aspirations of human beings for work. It encompasses access to productive and adequately remunerated work, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for individuals to express their demands, organizing and participating in decisions that affect their lives, and equality of opportunity and treatment for all men and women.* » (ILO). The ILO considers eleven (11) dimensions for the analysis of decent work: (i) employment opportunities, (ii) unacceptable work, (iii) adequacy between remuneration and work productivity, (iv) decent hours, (v) stability and security of work, (vi) balance between family and work life, (vii) fair treatment in employment, (viii) a safe working environment, (ix) social protection, (x) social dialogue and workplace relations, and (xi) the economic and social context for decent work (ILO, 2012). Building on this definition, we have attempted to operationalize this notion from a macroeconomic perspective (Bonnet et al., 2003; Ghai, 2006) and from a microeconomic perspective (Bonnet et al., 2003; Moussa, 2017; Huneeus et al., 2012). However, the concept of "Decent Work," considered confusing, has not received positive assent in the academic and institutional world (Deguilhem and Frontenaud, 2016). Some important aspects of the work environment are not covered, namely, work intensity, autonomy in work, and psychological risks (OECD, 2017). On the other hand, the European Union (EU), through the European Council, has also proposed an analytical framework focusing on the quality of employment and not its decent character. The concept of job quality is appealing to policymakers and academics (Burchell et al., 2014). This analysis framework is built on ten (10) dimensions segmented into two major groups: work characteristics, work environment on the one hand, and labor market characteristics. (European Commission 2001). Work characteristics relate to (i) the intrinsic quality of the job and (ii) opportunities for lifelong learning and career development. Work environment and labor market characteristics relate to (iii) gender equity, (iv) safety at work, (v) flexibility and job security, (vi) inclusion and access to the labor market, (vii) work organization, (viii) work-life balance, (ix) diversity and non-discrimination, and (x) overall economic performance and factor productivity. As a result, the European Employment Committee proposed a framework of analysis based on four dimensions: (i) socio-economic security provided by employment, (ii) learning and training, (iii) working conditions, and (iv) work-life balance and gender equality, segmented into ten (10) sub-dimensions (CEE, 2010). In order to focus only on employment and conditions directly related to employment, the UNECE abandons aspects that are quite distant from employment as considered by the ILO, such as children's schooling, the inflation rate, real per capita gross domestic product at purchasing power parity, and income inequality. It also abandons dimensions that are very specific to the labor markets of developing countries, such as the forms of work that should be abolished. Unlike the ILO, it has the advantage of integrating the psychological aspects of working

conditions, the intensity of work, and autonomy in employment. Unfortunately, it does not integrate employment-related social protection offered by the government or the employer, which is an important dimension in the measurement of the working environment. The Organization for Economic Cooperation and Development (OECD) has also developed a conceptual framework for analyzing job quality. The OECD considers three dimensions to measure job quality: (i) quality of remuneration, (ii) security in the labor market, and (iii) quality of the work environment. This framework, which is narrower than previous ones, focuses on a specific number of variables closely related to work and the labor market.

1.2. Measures of job quality

The measurement of job quality has evolved considerably over time in line with the conceptual changes presented above. The conceptual frameworks presented in the previous section mention the multidimensional character of job quality, which is now a consensus in academic and institutional circles. It is, therefore, necessary to appropriately define the theoretical dimensions to be integrated, and second, the statistical indicators that serve to operationalize these dimensions. This procedure gives rise to a panel of dimensions and indicators. These dimensions and indicators must be considered simultaneously to understand the quality of employment. Therefore, two approaches are possible: the analysis of the dimensions and therefore of the indicators individually or the design of an indicator whose objective is to summarize all the dimensions. Cloutier-Villeneuve and Saint-Frard (2015) justify the choice of a multidimensional indicator by the possibility of obtaining « *a more global picture of the situation in which the worker finds himself, both personally and professionally* ». A synthetic indicator is more relevant because it makes it possible to trace the combination of different factors made by each employee to determine their situation in an individual's job (Cloutier-Villeneuve and Saint-Frard, 2015).

Beyond the identification of the appropriate conceptual framework, the question of aggregation of dimensions arises. The United Nations Economic Commission for Europe (UNECE) analyzes the quality of employment by examining each of the seven (7) dimensions considered, separated into twelve (12) sub-dimensions and 60 indicators. Kolev (2005), on the Bulgarian labor market, analyzes the quality of employment through three (3) dimensions taken separately: working conditions, the perception of well-being at work, the precarious nature of the job.

The aggregation of the indicators into a final indicator allows for a direct and simple comparison of the quality of employment between socio-professional categories and nations. There are different methods for aggregating indicators: simple average aggregation, principal component analysis, factor analysis, entropy aggregation, and score aggregation. Simple average aggregation involves calculating the arithmetic mean of the values of the indicators considered in the analysis framework (Hackman and Oldham, 1975). Aggregation by principal component analysis, which is specific to quantitative indicators, makes it possible to determine the weight of each indicator. It consists of constructing one or more new variables (factorial axes) that retain the maximum amount of common information (inertia) contained in the cloud formed by the indicators. The contributions of each initial indicator to the formation of these new variables are used as weights for each initial indicator.

Thus, the final indicator was the weighted average of the initial indicators. Moussa (2017) thus constructs an indicator of decent work by taking up the framework of decent work proposed by the ILO. He associates with his indicator a classification of workers that allows him to determine the threshold defining the decent character of the work. Finally, he obtained a binary measure of decent work for each worker: decent work/indecent work. Aggregation by factor analysis, specific to qualitative indicators, is also based on the derivation of new variables that retain the maximum common information (inertia) contained by the indicators. The contributions of the initial indicators are used as weights for each initial indicator. Thus, the final indicator is the weighted average of the initial indicators (Moussa 2017). Aggregation by entropy involves weighting each indicator by its proportion of entropy in the total entropy contained in the initial indicators. The last three aggregation approaches, while statistically very strong, produce indicators that are not comparable either over time or internationally because the weights used are highly dependent on current data (Wang et al., 2020). Aggregation by scoring determines a score, which is the final indicator, based on the sum of the values of each initial indicator. Building on the Multidimensional Poverty Index (MPI) and the multiple capability analysis of Alkire and Foster (2011) and Huneeus et al. (2012), we propose a multidimensional measure of job quality based on employment deprivation. They identify four (4) dimensions of job quality: (i) income, (ii) type of contract and social protection offered by the job, (iii) job

stability, and (iv) training. They then construct four (4) binary variables for each dimension. Each initial indicator was dichotomized to obtain binary variables. The binary variables are aggregated by summation into a final indicator. This approach is finding increasing traction in the academic world for the analysis of job quality (Brummund et al., 2018; Sehnbruch et al., 2020). It allows for the measurement of the absolute level of an individual's job quality, whereas aggregations by principal component analysis, factor analysis, or entropy provide more comparative measures between individuals.

1.3. Job quality and Poverty

Employment is considered the best way to provide people with access to stable incomes to lift them out of poverty (Inchauste, 2013; Brummund et al., 2018). Poverty state transitions are sometimes linked to losing or gaining employment. Nielsen et al (2004) show, using Chilean labor market data, that 93% of individuals out of poverty got there by obtaining a job. Furthermore, using the methods of Bane and Ellwood (1986) and Jenkins and Schluter (2003), it was possible to show that for more than 15 countries, changes in labor market conditions, including getting a job or increasing labor income, contributed at least 50% of households' exit from poverty (Inchauste, 2013). Thévenot (2017) analyzed the dynamics of poverty in Europe in relation to employment. Using the Survey on Living Conditions of Households in Europe (2012), she show that 40% of the employed poor move out of poverty the following year, compared to 32% for the unemployed poor. In addition, 50% of the jobless poor moved out of poverty between 2010 and 2011.

However, getting a job is not always sufficient to escape poverty. Machado and Ribas (2010) show that the sector of activity of the household is also essential in the exit from poverty. They show that in Brazil, the shift in workers from the industrial sector to the service sector has led to a considerable reduction in the number of poor households over time. In contrast, the relationship between the agricultural sector and exit from poverty remains relatively ambiguous (Inchauste, 2013). In several countries, this sector is concentrated in the majority of the working poor. Sen (2003) shows that the transition from the agricultural sector to the non-agricultural sector was among the factors that led to a reduction in poverty among the populations of 21 Bangladeshi villages between 1997 and 2003. However, the ability to move out of poverty depends on the characteristics of this employment, with getting a full-time job and earning above the low-wage level being the factors most correlated with moving out of poverty from one year to another. Thus, it appears that it is getting a "good" job that leads to a sustainable change in social status (Thévenot, 2017). Brummund et al. (2018) also provide insights into the characteristics of a job associated with a change in a worker's poverty status. They showed that social protection has the greatest impact on individuals' poverty status. Indeed, health insurance and retirement benefits are the factors most strongly associated with the non-poverty status of workers. Moreover, having a job contract, permanent or not, is also an excellent predictor of the non-poverty status of individuals. In short, according to the authors, although employment remains the best way out of poverty, it is above all a job that provides sufficient remuneration, social protection for employees, and stability in employment that makes it possible to escape poverty in a sustainable manner.

However, the impact of even a "good" job may be limited by the individual's family load. An individual with a good job may remain in poverty if he or she supports many individuals in the household. Household composition also influences whether individuals move out of poverty through employment. Adults with children in their household have more difficulty exiting poverty through employment, and their chances diminish if they are single parents or widowed (Thevenot, 2017).

Finally, the lack of consensus on the terminology related to job quality remains a major obstacle when considering the phenomenon and calibrating adequate public policies. As previously mentioned, this concept has evolved considerably among researchers and institutions. The terminology referring to it has varied in terms of the quality of employment, quality of work, decent work, and quality of the work environment. Many fields of research have tried to approach this phenomenon, including economics, psychology, and sociology; this de facto confirms the difficulty of reaching a consensus. Multilateral organizations, in turn, differ in the dimensions to be considered in the analysis of job quality. However, in the West African context, partnerships between the International Labor Office and national statistical institutes have made it possible to introduce the concept of decent work into the tools and procedures of West African employment statisticians and practitioners. In addition, the decent work framework is the only one we know that offers a micro-level analysis. Therefore, we analyzed the quality of employment from the

perspective of "decent work" while integrating key variables to capture some of the aspects related to the notions of quality of employment and work.

2. Data

The data represent a subset of data from the Harmonized Household Living Standard Survey (in French Enquête Harmonisée des Conditions de Vie des Ménages, EHCVM) conducted in 2018 by the National Institute of Statistics (in French Institut National de la Statistique) in collaboration with the West African Economic and Monetary Union (WAEMU) and the World Bank. The EHCVM is a cross-sectional survey and the main tool to analyze poverty in Côte d'Ivoire as a living standard measurement survey in many low-middle income countries. This is a nationally and regionally representative survey. The sample units were households. In each household, information is collected from the household as well as from individuals within the household.

The universe is all the households in Côte d'Ivoire. The sample frame is a subset of data from the General Census of Population and Housing (in French Recensement Général de la Population et de l'Habitat) conducted in 2014. The sample was drawn using two-stage stratified random sampling:

- (i) In the first stage, the enumeration area is drawn in each region in proportion to the number of households.
- (ii) In the second stage,12 households were selected in each enumeration area.

The sample was stratified to have statistical significance as follows:

- Abidjan, economic capital of Côte d'Ivoire;
- Region and place of residence (urban/rural) within
- The national territory of Côte d'Ivoire and each place of residence (urban/rural) within.

In 2018, 12,992 households and 61,116 people were interviewed. The 2018 EHCVM collected data on household characteristics, health, education, employment, nonemployment income, consumption expenditures, nonfood expenditures, and household-owned farms.

The main focus of this study is the relationship between job quality and poverty. Thus, on one hand we used three employment-related sections of the EHCVM questionnaire: (i) activity status, (ii) main job in the last 12 months, and (iii) secondary job in the last 12 months. On the other hand, we used annual consumption expenditures to identify households and individuals living in poverty. The annual consumption expenditure was calculated based on 12 consumption posts: (1) education; (2) transport; (3) health; (4) housing, water, gas, electricity, and other fuels; (5) clothing and footwear; (6) hotels, cafes, and restaurants; (7) communication; (8) alcoholic drinks and tobacco; (9) food and non-alcoholic drinks; (10) furnishings, household equipment, and routine maintenance of the house; (11) leisure and culture; and (12) other goods and services. From these calculations, a household is considered poor if the annual consumption expenditure per capita is less than a defined threshold. In 2018, this threshold also called as « poverty line » was 345 520 Francs CFA. Therefore, an individual is considered poor if his or her household is considered poor. These calculations are very important for this study because they define the dependent variable **poverty status of the household**.

3. Methods

3.1. Job Quality Indicator

As a poverty-focused survey, the EHCVM contains a limited number of variables to measure job quality. However, few variables relevant to measuring job quality along different dimensions have been identified. Based on these variables, we try to identify the job quality dimensions that may be identified by EHCVM. Regarding the indicators used by the ILO, OECD and EU conceptual frameworks, i selected, among the variables available through the EHCVM 2018, those that allow us to measure job quality, presented in Table 1.

We propose four dimensions. The **Remuneration** dimension measures the quality of the compensation provided to household heads. Wages are analyzed on two sides. Salary is the most important factor affecting job quality (Brummund et al. 2018). First, we analyzed wages above the 2018 poverty line of 345520 F CFA.

Second, we analyze wages that exceed the Guaranteed Interprofessional Minimum Wage. Côte d'Ivoire has set it at 60,000 FCFA per month, or 720,000 FCFA per year. We also included bonuses, other benefits, and the provision of food by the employer as in-kind remuneration. The **Social Security dimension** is measured only by contributions to Caisse Nationale de Prévoyance Sociale (CNPS) for private sector jobs, Caisse Générale de Retraite des Agents de l'Etat (CGRAE) for public sector jobs, and employer-provided insurance. These are the only measures of social security in employment captured by the 2018 EHCVM questionnaires. The **Job Security and Stability** dimensions are measured by the possession of a payslip. The possession of a payslip can be equated with the formality of the individual's employment. The variable for full-time or part-time jobs has not been added because it is poorly measured. **The Decency of Working Time** dimension contains five (5) variables, all of which address the excessiveness of time in employment. Measurement of working time (hours) It is customary to associate this measure with employees' willingness to work more than necessary. The EHCVM data do not capture this willingness. The measure of job quality also considers a **Psychological** dimension. Following Brummund et al. (2018), possession of a secondary job can be added. This is possible through the hypothesis that owning a secondary job expresses the inadequacy of the primary job in supporting the household. However, this secondary job reduces leisure time, rest time, and time spent in building personal relationships with colleagues. However, I am doubtful about the relevance of the **Psychological** dimension in Côte d'Ivoire. In fact, being able to manage two or more jobs is seen as a privilege rather than a burden. We decided not to include this dimension.

Table 1 : Description of variables used to measure job quality

Variables	**Dimensions**
Salary	Remuneration
Bonus	
Other benefits	
Obtaining food offered by the employer	
Contribution to CNPS or CGRAE Health insurance offered by the employer	Social Security
Salary slip	Job security and stability
Working hours per week	Decency of working hours
Number of working days per week	
Maternity/paternity leave	
Sick leave	
Paid leave	
Annual leave	

Following Huneeus et al. (2012), Brummund et al. (2018), and Sehnbruh et al. (2020), we constructed the job quality indicator following the framework of Alkire and Foster's (2011) multidimensional poverty index. In this sense, each variable was treated as a success or failure (cf. **Erreur ! Source du renvoi introuvable.**).

The considered variables were recoded into binary variables. For example, an employed head of household with a salary above the poverty line will have a value of "1" for the variable in question, while an employed head of household with a salary below the poverty line will have a value of "0." The possession of a characteristic reflected by a variable is thus associated with the value "1," and the non-possession with the value "0."

Table 2 : Operationalization of variables: conversion of variables into "success" variables

Variables	**1 for success – 0 for failure**
Salary Above Poverty Line	1 if the wage of the individua is above the poverty line, 0 otherwise
Bonus	1 if the individual gets a bonus, 0 otherwise
Other benefits	1 if the individual gets other benefits, 0 otherwise
Employer sponsored food	1 if the individual gets employer-provided food, 0 otherwise
Employer-provided health insurance	1 if the individual has employer-provided health insurance, 0 otherwise
Pension Contribution to CNPS or CGRAE	1 if the individual Have contributed to CNPS or CGRAE in the job
Salary slip	1 if the individual has a pay slip, 0 otherwise
More than 40 hours per week	1 if the individual works less than 40 hours per week, 0 otherwise
Maternity/paternity leave	1 if the individual has a maternity / paternity leave in his/her job, 0 otherwise
Sick leave	1 if the individual has a sick leave, 0 otherwise
Paid leave	1 if the individual has paid vacations, 0 otherwise

Let QE_i, be the measure of job quality for an individual i. Job quality QE_i is defined, at dimension level, as follows:

$$QE_i = \frac{1}{4} * \text{ Remuneration} + \frac{1}{4} * \text{Social Security} + \frac{1}{4} * \text{ Job Security and Stability} + \frac{1}{4} * \text{Decency of working hours}$$

At variable level, the job quality QE_i is defined as follows:

$$QE_i = \frac{1}{4} * \left(\frac{1}{4} * \text{Salary Above Poverty Line} + \frac{1}{4} * \text{Bonus} + \frac{1}{4} * \text{Other benefits} + \frac{1}{4} * \text{Employer sponsored food}\right) + \frac{1}{4} * \left(\frac{1}{2} * \text{Employer provided health insurance} + \frac{1}{2} * \text{Contribution to CNPS or CGRAE}\right) + \frac{1}{4} * (\text{Salary slip}) + \frac{1}{4} * \left(\frac{1}{4} * \text{ More than 40 hours per week} + \frac{1}{4} * \text{Maternity or Paternity leave} + \frac{1}{4} * \text{Sick leave} + \frac{1}{4} * \text{Paid leave}\right)$$

A household head not in wage employment receives zero (0) by default as the value of QE_i.

3.2. Econometrics Framework

To analyze the effect of job quality on household poverty, I regressed the household head's poverty status on the job quality of the household head. However, it is natural to expect that the quality of a household head's job will influence his or her poverty status. To control for this endogeneity, we estimate a system of equations with (i) poverty status and (ii) job quality as dependent variables.

The econometric model can be expressed as follows:

$$\begin{cases} Pauv = \alpha_0 + \alpha_1 QE + Z\theta + \varepsilon_1 \\ QE = \beta_0 + \beta_1 Pauv + Z'\gamma + \varepsilon_2 \end{cases} \quad (2)$$

With ***Pauv*** the poverty status of the household head which is 1 if poor and 0 otherwise. QE the quality of the job held by the household head Z and Z' represent the vectors of exogenous variables for poverty and job quality respectively. Model (2) is not estimable and only makes sense if α_1 or β_1 is equal to 0. It was chosen to remove the poverty variable $Pauv$ in the job quality equation QE, this is to constrain β_1 to 0 to ensure the logical consistency of the model (Maddala, 1983 p120). Model (2) becomes

$$\begin{cases} Pauv = \alpha_0 + \alpha_1 QE + Z\theta + \varepsilon_1 \ (3.1) \\ QE = \beta_0 + Z'\gamma + \varepsilon_2 \ (3.2) \end{cases} \quad (3)$$

Model (3) is identified if (i) ε_1 and ε_2 are independent or (ii) there is at least one variable in Z that is not included in Z' (Maddala, 1983 p120). The poverty equation of Model (3) can be estimated by ordinary least squares if and are independent. if ε_1 and ε_2 are independent. If ε_1 and ε_2 are correlated, model (3) can be estimated by maximum likelihood in two steps.

If ϵ_1, ϵ_2 are independant, the estimation of likelihood in revient à estimer l'équation de pauvreté $Pauv$ de (3.1) par probit simple et l'équation de qualité de l'emploi QE de (3.2) par moindre carré ordinaire.

It is also possible to estimate model (2) directly by means of a Full Information Maximum Likelihood (FIML) estimation. The maximum likelihood estimation of model (2) is full information when the data generation process is truly recursive and fully modelled (Rodman 2011). To specify model (2) in a fully recursive manner and present it in a complete manner, it is important to take into account the constraints in the measurement of job quality. As explained above, the variables available for the measurement of job quality are mainly relevant for dependent employment. In doing so, the complete and recursive expression of model (2) is :

$$\begin{cases} Pauv = \alpha_0 + \alpha_1 QE + Z\theta + \varepsilon_1 \\ ES = \eta_0 + \eta_1 QE + Z''\eta + \varepsilon_3 \\ QE = \beta_0 + Z'\gamma + \varepsilon_2 \ , si \ ES = 1 \end{cases} \quad (4)$$

Beyond specification (4), we felt it was important to consider the household aspect of our analysis of the relationship between job quality and poverty. Indeed, an improvement in the quality of employment of a member of the household other than the head of the household would be likely to lift the household out of poverty, by increasing its level of consumption expenditure. It is legitimate to think that an increase in the salary of the wife of the head of the household would contribute to lifting the household out of poverty to some extent. This consideration led us to analyze the ways in which the quality of employment of other household members can be integrated into (4). Model (4) becomes:

$$\begin{cases} Pauv = \alpha_0 + \alpha_1 EmpCM + \alpha_2 EmpCM * QE + \alpha_3 QEmin + Z\theta + \varepsilon_1 \\ QE = \beta_0 + Z'\gamma + \varepsilon_2 \end{cases} \quad (5)$$

$EmpCM$: *the household head i is in employment*;

$QEmin$: *Minimum job quality of the household*;

Finally, the effect of the job quality of the spouse of the head of household was also considered. Thus, model (5) becomes:

$$\begin{cases} Pauv = \alpha_0 + \alpha_1 EmpCM + \alpha_2 EmpCM * QE + \alpha_3 QEmin + \alpha_4 EmpConjoint + \alpha_5 EmpConjoint * \\ QE\_conjoint + Z\theta + \varepsilon_1 \\ EmpCM = \eta_0 + \eta_1 QE + Z''\eta + \varepsilon_3 \\ QE = \beta_0 + Z'\gamma + \varepsilon_2 \ , si \ ES = 1 \end{cases} \quad (6)$$

Under the assumption of no endogeneity, the estimation of the probit model is chosen. The equations of the probit models in place of systems (4) and (5) respectively are :

$$Pauv = \alpha_0 + \alpha_1 EmpCM + \alpha_2 EmpCM * QE + \alpha_3 QEmin + Z\theta + \epsilon \quad (7)$$

$$Pauv = \alpha_0 + \alpha_1 EmpCM + \alpha_2 EmpCM * QE + \alpha_3 QEmin + \alpha_4 EmpConjoint + \alpha_5 EmpConjoint * QE\_conjoint + Z\theta + \epsilon \quad (8)$$

The control variables Z in equations (7) and (8) are selected as gender, age, region, marital status, industry, education, housing type, nationality, area of residence, access to banking services and household size. These variables are considered determinants of a household's poverty status (Haughton and Khandker, 2009) except access to banking service. I add this to control since I tested as a relevant determinant of poverty status.

4. Descriptive Analysis

Table 7 (in the appendix) presents the quality of employment of heads of household according to their socio-economic characteristics. There is a gender disparity in the job quality of the head of household. The quality of employment of male heads of household (0.71) is almost double the quality of employment of female heads of household (0.44). The job quality of heads of households residing in Abidjan (0.184) is more than three times the job quality of heads of households residing outside Abidjan. Apartments, villas, are home to the heads of households with the highest quality jobs, at 0.142, 0.125 respectively. Huts and detached houses are home to the heads of households with the lowest quality jobs, at 0.25 and 0.35 respectively. The tertiary sector branches offer the best quality jobs, followed by the secondary sector branches and, finally, the agricultural sector branches. Thus, the Education/Health and Other Services branches have the highest job quality, at 0.409, 0.235 respectively. This is followed by the extractive industries (0.166), construction and public works (0.123) and other industries (0.101). Analysis at the regional level confirms the trend observed in the area of residence. The Autonomous District of ABIDJAN records the highest average job quality (0.179), followed by the YAMOUSSOURKO district (0.108) and the SUD COMOE region (0.100). The lowest levels of job quality are located in the IFFOU (0.26), Folon (0.27) and HAMBOL (0.27) regions.

On the other hand, it is important to qualify these conclusions because of the very high values of the standard deviations compared to the means. An analysis of the median was performed but dropped. Because of the high presence of non-employed household heads, the job quality variable has many zero values. The calculation of the median almost systematically resulted in zero.

Table 8 (in the appendix) presents the poverty status of heads of household according to their socio-economic characteristics. The average job quality of non-poor household heads (0.121) is significantly higher than the average job quality of poor household heads (0.028), which confirms the intuition of the impact of employment on poverty. Poor household heads are older (43.5) than non-poor household heads (45.2) and live in larger households than the latter (on average 5.3 among non-poor household heads versus 7.6 among poor household heads). Among poor household heads, less than 15% (14.2%) are in salaried employment, compared to more than a third (34.8%) among non-poor household heads. Among poor household heads, only 5.3% live in Abidjan, compared to 30.7% among non-poor household heads. Non-poor heads of households live mostly in villas (12.6%), apartments (10%), townhouses (22.3%) and common yards (36.8%). The heads of non-poor households live mainly in common yards (28.9%), huts, bancos (20.7%), detached houses (20.3%), and strip houses (20.2%). The heads of poor households are mainly engaged in agriculture (67.9%) and to a relatively marginal extent in commerce (8.8%). The non-poor heads of household are indeed mainly in agriculture, but to a lesser extent than the non-poor heads of household (30.2%). In addition, they are divided between the trade sector (14.5%), the other industries sector (8.6%), the other services sector (9.2%) and the education/health sector (7.6%).

Figure 1 (in the appendix) presents the relationship between job quality and the poverty rate analyzed at the regional level. At first glance, there appears to be a negative relationship between the poverty rate and job quality, with the poverty rate decreasing as job quality increases. We also see a structuring of the regions around three groups. The first group can be defined as the group of regions with both the lowest levels of job quality and the highest poverty rates. These include the regions of NZI, HAMBOL, BAGOUE, ME, TCHOLOGO, HAUT-SASSANDRA, etc. The second group can be defined as the median group. It

includes the regions of GRAND-PONTS, INDENIE-DJUABLIN, SAN-PEDRO, GBEKE, SUD-COMOE and the district of YAMOUSSOUKRO.

These regions have median levels of both poverty rate and job quality. Finally, the Autonomous District of Abidjan constitutes a group because of its singularity. It has the lowest poverty rate (10.2%) and the highest job quality (2.5). In addition, its values are very different from those of the other regions.

5. Results & Discussion

The results of the estimations of systems (4) and (5) revealed a lack of endogeneity between job quality and poverty status. Therefore, probit models were preferred. The table And Table 4 present the results of the estimations of equations (6) and (7) respectively. We are interested in the marginal effects. For each equation three specifications were used including or not the number of persons in employment or in wage employment : (i) for the first specification neither the number of persons in wage employment in the household nor the number of persons in employment in the household are included as a control variable., (ii) for the second specification, I control the regression by the number of persons in wage employment in the household, (iii) for the third, I control the regression by the number of persons in employment in the household.

An improvement of job quality of the household head has a negative effect on the probability of being poor in the household. A one-unit increase in the job quality of the household head reduces the probability of being poor by at least 0.028 points for all specifications presented in table. The quality of the job of the head of the household is therefore likely to lift the household out of poverty. These results are consistent with the results of Brummund et al. (2018) obtained in the Latin American labor market (Chile, Argentina, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, Guatemala, Costa Rica). Table 9 (in the appendix) confirms the effect of job quality on poverty risk. Thus, an improvement in the employment conditions of the head of the household reduces his or her probability of being poor by 0.0046 points.

The job quality of the household head's spouse has a negative effect on the probability of being poor in the household, although not significant, -0.002, -0.012 and -0.002 respectively for specifications (1), (2) and (3). However, the effect is still fragile. Even though our data fails to show significancy, this result shows the importance of the improvement in the working conditions of the household head's spouse, although this conclusion should be qualified because of situations in which the quality of the job of the household head's spouse has no effect on the household's exit from poverty.

The job quality of other household members also has a negative effect on the poverty status of the household. When this analysis is extended to the other household members, analyzing the effect of the household's minimum job quality, we find that an improvement in the job quality of all household members reduces the probability of being poor by more than 100% for all specifications. Thus, getting a job for all household members and improving the conditions offered by that job has a strong impact on the household's exit from poverty.

Table 3 : Relationship between income poverty and job quality of the household head (Marginal effects)

Dep: Monetary Poverty	(1)	(2)	(3)
	Probit	Probit	Probit
In Wage Employment	0,170*** (0,029)	0,193*** (0,029)	0,194*** (0,0281)
Job quality of the head of the household	-0,028** (0,013)	-0,028** (0,013)	-0,03** (0,00128)
Minimum job quality of household	-1,486*** (0,346)	-1,605*** (0,358)	-1,436*** (0,348)
Employer	-0,005 (0,0491)	0,006 (0,05)	0,0363 (0,051)
Own account worker	0,13*** (0,027)	0,12*** (0,027)	0,158*** (0,028)
Contributing family workers	0,099 (0,081)	0,092 (0,081)	0,127 (0,0795)
Trainee / Apprentice Unpaid	0,206*** (0,058)	0,2** (0,059)	0,237*** (0,057)
Number of persons in paid employment in the household		-0,0299 (0,06)	
Number of employed persons in the household			-0,019*** (0,005)

Dep: Monetary Poverty	(1)	(2)	(3)
	Probit	Probit	Probit
Main Controls	Yes	Yes	Yes
N	12992	12992	12992
Standard errors entre parentheses			
* p<0.05, ** p<0.01, *** p<0.001			

Table 4 : Relationship between income poverty and the quality of employment of the head of household and his/her spouse (Marginal effects)

Dep : Monetary Poverty	**(1)**	**(2)**	**(3)**
	Probit	Probit	Probit
In Wage Employment	0,17*** (0,0351)	0,195*** (0,029)	0,189*** (0,026)
Job quality of the head of the household	-0,026*** (0,013)	-0,027*** (0,014)	-0,028* (0,013)
Minimum job quality of household	-1,531*** (0,352)	-1,64*** (0,0395)	-1,486*** (0,352)
Employer	-0,005 (0,049)	-0,006** (0,0448)	0,029 (0,05)
Own account worker	0,128*** (0,026)	0,121*** (0,0266)	0,149** (0,028)
Contributing family workers	0,104 (0,083)	0,098 (0,083)	0,129 (0,082)
Trainee / Apprentice Unpaid	0,0218*** (0,057)	0,213*** (0,057)	0,242*** (0,056)
Presence of the Spouse	0,019(0,031)	0,012*** (0,031)	0,003 (0,031)
Spouse in paid employment	0,037 (0,031)	0,001** (0,039)	-0,018 (0,032)
Quality of the spouse's job	-0,002 (0,004)	-0,012 (0,031)	-0,002 (0,004)
Spouse Employer	-0,012 (0,105)	0,032 (0,107)	0,039 (0,105)
Spouse Self-employed	-0,056*** (0,015)	-0,058 ***(0,015)	-0,034* (0,017)
Spouse Contributing family workers	-0,009 (0,015)	0,011*** (0,033)	0,018* (0,018)
Spouse Trainee / Apprentice Unpaid	-0,098** (0,033)	-0,1* (0,033)	-0,079** (0,034)
Number of persons in paid employment in the household		-0,34 (0,018)	
Number of employed persons in the household			-0,018 (0,002)
N	12992	12992	12992
Main Controls	Yes	Yes	Yes
Standard errors in parenthesis			
* p<0.05, ** p<0.01, *** p<0.001			

Table 5 and Table 6 present the analysis by type of worker. I classified in wage employees in skilled workers : (a) Senior Manager, Manager, Skilled Employee, and (b) non skilled employee, hand worker, Paid Trainee / Apprentice. Table 5 shows that an increase in the job quality of heads of households with skilled workers reduces the probability of being poor by 0.099 percentage points. In contrast, an improvement in the job quality of unskilled worker heads of households has no influence on poverty status. Table 6 shows that specific job characteristics influence poverty status by type of worker. The result is that the probability of being poor for a skilled worker head of household is reduced when taking paternity/maternity leave by 0.059 percentage points. However, for unskilled workers, obtaining a bonus reduces the probability of being poor by 0.15 percentage points.

Table 5 : Relationship between job quality and poverty status of the household head by type of worker (marginal effects)

Dep: Monetary Poverty	Household Head Skilled worker		Household Head Unskilled worker	
	(1)	(2)	(4)	(5)
	Probit	Probit	Probit	Probit
In paid employment	-0,033**	-0,035**	-0,001	-0,007
	(0,016)	(0,016)	(0,016)	(0,016)
Quality of employment of head of household	-0,099**	-0,106**	-0,007	-0,043
	(0,05)	(0,05)	(0,096)	(0,096)
Quality of minimum household employment			-1,746**	-1,463**
			(0,626)	(0,611)
Number of persons in paid employment in the household	-0,032		-0,071***	
	(0,022)		(0,026)	
Number of employed persons in the household		-0,001		-0,073
		(0,009)		(0,014)
Main Controls	Yes	Yes	Yes	Yes
N	945	945	1857	1857
Standard errors in parenthesis * p<0.05 ** p<0.01 *** p<0.001				

Table 6 : Relationship between job characteristics and poverty status of the household head by type of worker (marginal effects)

Dep: Monetary Poverty		Household Head Skilled worker			Household Head Unskilled worker	
	(1)	(2)	(3)	(4)	(5)	(6)
	Probit	Probit	Probit	Probit	Probit	Probit
Obtaining bonuses	0,00	0,002	-0,002	-0,153*	-0,152*	-0,152*
	(0,026)	(0,03)	(0,027)	(0,055)	(0,055)	(0,0520)
Working more than 40 hours				0,083*	0,083*	
				(0,034)	(0,033)	
Obtaining maternity leave	-0,059*	-0,059*	-0,058*	0,115	0,173*	0,120
	(0,026)	(0,026)	(0,026)	(0,0784)	(0,0763)	(0,0791)
Quality of minimum household employment	-0,047	-0,042	-0,082	-3,2***	-0,165***	-3,227***
	(0,208)	(0,2)	(0,236)	(0,666)	(0,0326)	(0,661)
Number of employed persons in the household		-0,006			-0,007	
		(0,009)			(0,014)	
Number of persons in paid employment in the household			-0,042*			-0,008
			(0,02)			(0,026)
N	945	945	945	1857	1857	1857
Standard errors in parenthesis						
* p<0.05 ** p<0.01 *** p<0.001						

I also tested the effect of job quality measure on another poverty measurement: the subjective poverty. The subjective poverty is defined as the self-declaration of the head of the household to be poor. The analysis through this last measurement confirmed the results of monetary poverty (Table 11 in appendix). An improvement in job quality also reduces subjective poverty risk by 0,05 points.

Concluding Remarks & Recommendations

This paper analyzed the influence of job quality, taken exclusively from the perspective of wage employment, on the poverty status of households using data from the EHCVM 2018. Job quality was analyzed by combining 13 dimensions of paid employment. The relationship between job quality and poverty was observed using probit models under the prism of the employment of the household head, spouse and other household members.

Beyond confirming the natural emphasis on employment in the fight against poverty, these results allow us to understand that (i) the structure of the household with respect to the labor market and (ii) the effect of an improvement in working conditions is different according to the type of worker**. An improvement in the working conditions of the head of the household, an employee, reduces the risk of poverty of the household by 0.028 to 0.03 points.** The employment status of other household members influences the poverty status of the household. An improvement in the working conditions of the spouse of the household head also reduces the risk of household poverty by 0.002 to 0.012 points. It should be noted, however, that this result remains fragile because the effect of the increase in the quality of the job of the household head's spouse is insignificant according to certain specifications. **An improvement in the employment conditions of all members of the household in paid employment has the highest impact on the poverty status of the household; it reduces the poverty risk 100% percentage points.** Furthermore, analysis by type of worker shows that the effect of an improvement in job quality reduces the poverty risk of households headed by skilled workers while it has no effect on the poverty risk of households headed by unskilled workers. However, the poverty risk of unskilled workers receiving a salary bonus is logically lower than the poverty risk of unskilled workers not receiving a premium. It is interesting to note that the poverty risk of skilled workers with the opportunity to take paternity/maternity leave is lower than that of skilled workers without this opportunity.

In view of our results, our main recommendation focuses on the effect of the job quality of the spouse of the household head. In our study population, most spouses of heads of households in paid employment are male (99%) and for all of them, the spouse is female. The effect of the quality of the spouse's employment on the risk of poverty in the household allows us to see that paid employment for women is an important factor in the fight against poverty. There are many reasons why women are not employed. Beyond the question of women's level of education, the care of children is often left to women in Ivorian couples, and it is legitimate that this reality inhibits women's aspirations to employment, or even to jobs that provide better conditions. The Ivorian state could invest in early childhood management structures so that they are (i) affordable for the least well-off households while offering (ii) a quality of service that guarantees the development of children. Although this measure will hardly solve all the concerns related to the care of children in the household, we believe that it can help empower women in the labor market.

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Appendix

Table 7 : Relationship between job quality and socio-economic characteristics of household heads

	Job Quality		
	In paid employment	In employment	**All**
	mean (sd)		
Gender			
Male	0.267 (0.226)	0.075 (0.170)	0.071 (0.166)
Female	0.327 (0.235)	0.053 (0.154)	0.044 (0.141)
Place of residence: Abidjan			
No	0.260 (0.221)	0.061 (0.154)	0.057 (0.149)
Yes	0.339 (0.249)	0.209 (0.256)	0.184 (0.249)
Type of accommodation			
Villa	0.458 (0.227)	0.150 (0.251)	0.125 (0.236)
Flat	0.399 (0.244)	0.156 (0.247)	0.142 (0.240)
Banded house	0.309 (0.240)	0.097 (0.197)	0.088 (0.190)
Common Courtyard	0.218 (0.195)	0.066 (0.147)	0.061 (0.142)
Detached House	0.240 (0.208)	0.037 (0.119)	0.035 (0.116)
Hut, Banco, Baraque and Other	0.162 (0.147)	0.026 (0.084)	0.025 (0.082)
Branch of activity in the main job			
Agriculture	0.186 (0.171)	0.018 (0.076)	0.018 (0.076)
Livestock/fishing	0.235 (0.216)	0.062 (0.152)	0.062 (0.152)
Extractive industries	0.295 (0.268)	0.166 (0.248)	0.166 (0.248)
Other industries	0.244 (0.205)	0.101 (0.178)	0.101 (0.178)
CONSTRUCTION	0.217 (0.181)	0.123 (0.174)	0.123 (0.174)
Trade	0.202 (0.183)	0.040 (0.114)	0.040 (0.114)
Restaurant/Hotel	0.252 (0.230)	0.058 (0.153)	0.058 (0.153)
Transport / Communication	0.164 (0.175)	0.133 (0.170)	0.133 (0.170)
Education/Health	0.467 (0.205)	0.409 (0.246)	0.409 (0.246)
Personal services	0.233 (0.230)	0.113 (0.198)	0.113 (0.198)
Other services	0.397 (0.236)	0.285 (0.268)	0.285 (0.268)
No Job	-	-	0.000 (0.000)
Region			
ABIDJAN	0.336 (0.248)	0.206 (0.254)	0.179 (0.247)
HAUT-SASSANDRA	0.303 (0.238)	0.056 (0.155)	0.053 (0.151)
PORO	0.231 (0.208)	0.059 (0.146)	0.055 (0.141)
GBEKE	0.266 (0.240)	0.084 (0.183)	0.076 (0.176)
INDENIE-DJUABLIN	0.234 (0.186)	0.085 (0.159)	0.079 (0.154)
TONKPI	0.229 (0.212)	0.044 (0.129)	0.040 (0.124)
YAMOUSSOUKRO	0.304 (0.251)	0.121 (0.218)	0.108 (0.209)
GONTOUGO	0.349 (0.239)	0.050 (0.152)	0.047 (0.148)
SAN-PEDRO	0.274 (0.231)	0.101 (0.192)	0.095 (0.188)
KABADOUGOU	0.358 (0.231)	0.048 (0.148)	0.045 (0.143)
N'ZI	0.230 (0.213)	0.037 (0.120)	0.031 (0.110)
MARAHOUE	0.272 (0.222)	0.048 (0.139)	0.044 (0.134)
SUD-COMOE	0.233 (0.216)	0.109 (0.188)	0.100 (0.182)
WORODOUGOU	0.233 (0.196)	0.048 (0.129)	0.044 (0.124)
LÔH-DJIBOUA	0.251 (0.221)	0.070 (0.162)	0.065 (0.157)

	Job Quality		
	In paid employment	In employment	**All**
	mean (sd)		
AGNEBY-TIASSA	0.310 (0.235)	0.087 (0.187)	0.080 (0.180)
GÔH	0.188 (0.192)	0.056 (0.136)	0.052 (0.131)
CAVALLY	0.259 (0.206)	0.057 (0.144)	0.054 (0.141)
BAFING	0.407 (0.199)	0.096 (0.198)	0.092 (0.194)
BAGOUE	0.204 (0.201)	0.042 (0.122)	0.037 (0.115)
BELIER	0.325 (0.253)	0.071 (0.179)	0.066 (0.173)
BERE	0.224 (0.200)	0.043 (0.124)	0.041 (0.121)
BOUNKANI	0.313 (0.207)	0.043 (0.131)	0.040 (0.128)
FOLON	0.313 (0.245)	0.029 (0.116)	0.027 (0.113)
GBÔKLE	0.263 (0.224)	0.050 (0.142)	0.048 (0.139)
GRANDS-PONTS	0.302 (0.232)	0.100 (0.195)	0.091 (0.188)
GUEMON	0.240 (0.202)	0.043 (0.126)	0.041 (0.123)
HAMBOL	0.214 (0.195)	0.028 (0.101)	0.027 (0.099)
IFFOU	0.205 (0.173)	0.028 (0.094)	0.026 (0.091)
LA ME	0.212 (0.203)	0.064 (0.148)	0.058 (0.142)
NAWA	0.195 (0.179)	0.046 (0.120)	0.044 (0.117)
TCHOLOGO	0.322 (0.229)	0.061 (0.160)	0.058 (0.157)
MORONOU	0.293 (0.239)	0.038 (0.131)	0.036 (0.126)
All	0.273 (0.228)	0.072 (0.168)	0.066 (0.162)

Table 8 : Relationship between income poverty and socio-economic characteristics of the household head

	Monetary Poverty					
	No		Yes		Total	
Job quality [mean (sd)]	0.121	(0.221)	0.028	(0.099)	0.084	(0.189)
Age [mean (sd)]	43.5	(13.1)	45.2	(12.8)	44.2	(13.0)
Household size [mean (sd)]	5.3	(3.0)	7.6	(3.5)	6.2	(3.4)
In paid employment						
No	5 509	65.2%	3 899	85.8%	9 527	73.3%
Yes	2 936	34.8%	648	14.2%	3 465	26.7%
Employer						
No	8 193	97.0%	4 507	99.1%	12 712	97.8%
Yes	252	3.0%	40	0.9%	280	2.2%
Own account worker						
No	4 152	49.2%	1 004	22.1%	5 000	38.5%
Yes	4 293	50.8%	3 543	77.9%	7 992	61.5%
Home help						
No	8 407	99.5%	4 519	99.4%	12 925	99.5%
Yes	38	0.5%	28	0.6%	67	0.5%
Intern / Apprentice Unpaid						
No	8 418	99.7%	4 535	99.7%	12 954	99.7%
Yes	27	0.3%	12	0.3%	38	0.3%
Gender						
Male	6 933	82.1%	3 820	84.0%	10 764	82.8%
Female	1 512	17.9%	727	16.0%	2 228	17.2%
Location = Abidjan						
No	5 852	69.3%	4 304	94.7%	10 303	79.3%
Yes	2 593	30.7%	243	5.3%	2 689	20.7%
Nationality = Ivorian						
No	1 453	17.2%	1 026	22.6%	2 510	19.3%
Yes	6 992	82.8%	3 521	77.4%	10 482	80.7%
Type of accommodation						
Villa	1 067	12.6%	264	5.8%	1 292	9.9%
Flat	844	10.0%	182	4.0%	992	7.6%
Banded house	1 881	22.3%	919	20.2%	2 788	21.5%
Common Courtyard	3 104	36.8%	1 315	28.9%	4 374	33.7%
Detached House	815	9.6%	923	20.3%	1 800	13.9%
Hut, Banco, Baraque and Other	734	8.7%	943	20.7%	1 747	13.4%
Branch of activity in the main job						
Agriculture	2 553	30.2%	3 086	67.9%	5 857	45.1%
Livestock/fishing	116	1.4%	80	1.8%	198	1.5%
Extractive industry	54	0.6%	14	0.3%	66	0.5%
Other industries	730	8.6%	199	4.4%	904	7.0%
Construction	327	3.9%	71	1.6%	384	3.0%
Trade	1 227	14.5%	399	8.8%	1 593	12.3%
Restaurant/Hotel	231	2.7%	64	1.4%	287	2.2%
Transport/Communication	553	6.5%	120	2.6%	650	5.0%
Education/Health	638	7.6%	71	1.6%	675	5.2%
Personal services	340	4.0%	68	1.5%	394	3.0%
Other services	778	9.2%	99	2.2%	836	6.4%
No Job	899	10.6%	277	6.1%	1 149	8.8%

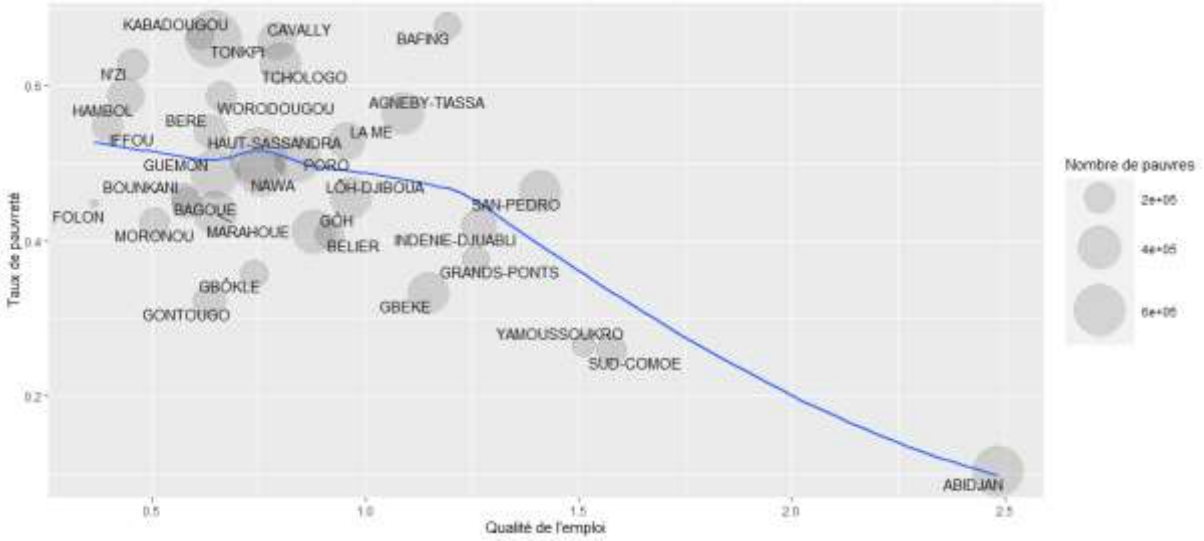
Table 9 : Relationship between income poverty and socio-economic characteristics of the household head in employment

	Monetary Poverty					
	No		Yes		Total	
Job quality [mean (sd)]	0.135	(0.230)	0.030	(0.102)	0.093	(0.196)
Age [mean (sd)]	42.2	(11.7)	44.6	(11.9)	43.2	(11.8)
Household size [mean (sd)]	5.2	(2.8)	7.6	(3.4)	6.2	(3.3)
In paid employment						
No						
Yes	4 728	61.1%	3 605	84.8%	8 480	70.7%
Employer	3 010	38.9%	644	15.2%	3 507	29.3%
No						
Yes	7 479	96.7%	4 209	99.1%	11 703	97.6%
Own account worker	259	3.3%	40	0.9%	284	2.4%
No						
Yes	3 336	43.1%	724	17.0%	3 898	32.5%
Home help	4 402	56.9%	3 525	83.0%	8 089	67.5%
No						
Yes	7 699	99.5%	4 221	99.3%	11 919	99.4%
Trainee Unpaid apprentice	39	0.5%	28	0.7%	68	0.6%
No						
Yes	7 710	99.6%	4 238	99.7%	11 948	99.7%
Gender	28	0.4%	11	0.3%	39	0.3%
Male						
Female	6 510	84.1%	3 623	85.3%	10 139	84.6%
Location = Abidjan	1 228	15.9%	626	14.7%	1 848	15.4%
No						
Yes	5 474	70.7%	4 042	95.1%	9 668	80.7%
Nationality = Ivorian	2 264	29.3%	207	4.9%	2 319	19.3%
No						
Yes	1 417	18.3%	982	23.1%	2 429	20.3%
Type of accommodation	6 321	81.7%	3 267	76.9%	9 558	79.7%
Villa						
Flat	870	11.2%	231	5.4%	1 066	8.9%
Banded house	785	10.1%	166	3.9%	912	7.6%
Common Courtyard	1 720	22.2%	862	20.3%	2 570	21.4%
Detached House	2 853	36.9%	1 200	28.2%	3 999	33.4%
Hut Banco Baraque and Other	790	10.2%	897	21.1%	1 755	14.6%
Branch of activity in the main job	720	9.3%	893	21.0%	1 685	14.1%
Agriculture						
Livestock/fishing	2 618	33.8%	3 071	72.3%	5 928	49.5%
Extractive industry	118	1.5%	80	1.9%	200	1.7%
Other industries	56	0.7%	13	0.3%	67	0.6%
Construction	748	9.7%	198	4.6%	915	7.6%
Trade	335	4.3%	71	1.7%	389	3.2%
Restaurant/Hotel	1 258	16.3%	397	9.3%	1 612	13.4%
Transport/Communication	237	3.1%	64	1.5%	291	2.4%
Education/Health	567	7.3%	119	2.8%	658	5.5%
Personal services	654	8.5%	71	1.7%	683	5.7%
Other services	349	4.5%	68	1.6%	398	3.3%
No Job	798	10.3%	98	2.3%	846	7.1%

Table 10 : Relationship between income poverty and socio-economic characteristics of the household head in paid employment

	Monetary Poverty					
	No		Yes		Total	
Job quality [mean (sd)]	0.349	(0.249)	0.198	(0.187)	0.317	(0.245)
Age [mean (sd)]	40.3	(10.0)	41.2	(10.0)	40.5	(10.0)
Household size [mean (sd)]	5.0	(2.7)	7.0	(3.5)	5.4	(3.0)
Gender						
Male	2 325	91.4%	574	94.5%	2 901	92.0%
Female	220	8.6%	34	5.5%	252	8.0%
Location = Abidjan						
No	1 332	52.3%	520	85.6%	1 871	59.3%
Yes	1 213	47.7%	88	14.4%	1 282	40.7%
Nationality = Ivorian						
No	312	12.3%	176	28.9%	497	15.8%
Yes	2 233	87.7%	432	71.1%	2 656	84.2%
Type of accommodation						
Villa	333	13.1%	37	6.1%	366	11.6%
Flat	394	15.5%	25	4.1%	412	13.1%
Banded house	627	24.6%	124	20.4%	748	23.7%
Common Courtyard	957	37.6%	237	39.0%	1 195	37.9%
Detached House	118	4.6%	86	14.1%	209	6.6%
Hut Banco Baraque and Other	117	4.6%	99	16.3%	222	7.1%
Branch of activity in the main job						
Agriculture	188	7.4%	196	32.3%	399	12.6%
Livestock/fishing	38	1.5%	18	3.0%	57	1.8%
Extractive industry	31	1.2%	10	1.6%	41	1.3%
Other industries	316	12.4%	47	7.8%	361	11.4%
Construction	155	6.1%	41	6.7%	196	6.2%
Trade	234	9.2%	40	6.6%	272	8.6%
Restaurant/Hotel	57	2.2%	9	1.4%	65	2.0%
Transport/Communication	390	15.3%	93	15.2%	483	15.3%
Education/Health	501	19.7%	49	8.0%	543	17.2%
Personal services	152	6.0%	40	6.7%	193	6.1%
Other services	485	19.0%	65	10.7%	545	17.3%

Figure 1 : Relationship between job quality and income poverty rate at regional level



Source: EHCVM 2018 Authors' calculations

Table 11 : Relationship between subjective poverty and job quality of the household head (Marginal effects)

Dep: Subjective Poverty	(1)	(2)	(3)
	Probit	Probit	Probit
In paid employment	0.136***	0.130***	0.134***
	(0.0340)	(0.0382)	(0.0354)
Quality of employment of head of household	-0.0522**	-0.0522**	-0.052**
	(0.0201)	(0.0201)	(0.0201)
Quality of minimum household employment	-0.228	-0.223	-0.230
	(0.135)	(0.134)	(0.135)
Employer	-0.0198	-0.0198	-0.0226
	(0.0701)	(0.0701)	(0.0697)
Own account worker	0.0328	0.0344	0.0303
	(0.0271)	(0.0268)	(0.0289)
Contributing Family Worker	-0.0839	-0.0824	-0.0866
	(0.0720)	(0.0721)	(0.0722)
Trainee / Apprentice Unpaid	0.137*	0.138*	0.134
	(0.0689)	(0.0688)	(0.0698)
Number of persons in paid employment in the household		0.00660	
		(0.0154)	
Number of persons in employment in the household			0.00176
			(0.00577)
Control			
Region	Yes	Yes	Yes
Marital status	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Degree	Yes	Yes	Yes
Type of accommodation	Yes	Yes	Yes
Nationality	Yes	Yes	Yes
Background	Yes	Yes	Yes
Household size	Yes	Yes	Yes
Financial inclusion	Yes	Yes	Yes
N	12992	12992	12992

Standard errors in parenthesis

* p<0.05 ** p<0.01 *** p<0.001