

DOCUMENT DE TRAVAIL

DT/2011-14

Job satisfaction: a measurement of employment quality compared with aspirations in eight African capitals

Mireille RAZAFINDRAKOTO
François ROUBAUD

UMR DIAL 225

Place du Maréchal de Lattre de Tassigny 75775 • Paris Cedex 16 • Tél. (33) 01 44 05 45 42 • Fax (33) 01 44 05 45 45
• 4, rue d'Enghien • 75010 Paris • Tél. (33) 01 53 24 14 50 • Fax (33) 01 53 24 14 51

E-mail : dial@dial.prd.fr • Site : www.dial.prd.fr

JOB SATISFACTION: A MEASUREMENT OF EMPLOYMENT QUALITY COMPARED WITH ASPIRATIONS IN EIGHT AFRICAN CAPITALS

Mireille Razafindrakoto
IRD, UMR DIAL, 75010 Paris
PSL, Université Paris-Dauphine, LEDa,
UMR DIAL, 75016 Paris, France
razafindrakoto@dial.prd.fr

François Roubaud
IRD, UMR DIAL, 75010 Paris
PSL, Université Paris-Dauphine, LEDa,
UMR DIAL, 75016 Paris, France
roubaud@dial.prd.fr

Document de travail UMR DIAL

Décembre 2011

Abstract

This paper analyzes the level of job satisfaction expressed by individuals in Sub-Saharan Africa. The approach is original in three respects. no in-depth economic study has ever been produced on the determinants of job satisfaction on this continent; the approach aims at isolating the influence of aspirations on satisfaction and identify the specific effects of different job characteristics; the empirical part is based on a set of representative *1-2-3 surveys*, perfectly comparables and conducted simultaneously in eight African countries with the participation of the authors. Contrary to the conclusions of many pieces of work, our results confirm that job satisfaction is a good indicator of job quality. Job satisfaction provides a sound assessment of job adequacy with individual aspirations and allows to measure the fit between expectations and the effective insertion of individuals on the labour market. Controlling for aspirations, job satisfaction is associated with various job characteristics. Evidence suggests that, even in the poorest countries, earnings play an important role, but many other factors are at play. The differences by countries underline the great heterogeneity in labour conditions. The value of a job or a labour status may differ drastically according to local contexts and circumstances. Policies should be customized consequently.

Keywords: Job Satisfaction, Labour Market, Informal Sector, Aspirations, Sub-Saharan Africa

Résumé

Cet article vise à analyser la satisfaction exprimée par les individus concernant leur travail en Afrique sub-saharienne. La démarche est novatrice dans la mesure où, d'une part, aucune étude de ce type n'a été menée à ce jour dans ces pays ; d'autre part, l'approche adoptée se propose d'isoler l'influence des aspirations et d'identifier les effets spécifiques de différentes caractéristiques objectives de l'emploi sur la satisfaction. L'étude mobilise un jeu d'*enquêtes 1-2-3* représentatives, parfaitement comparables et conduites simultanément avec la participation des auteurs dans huit pays africains. Contrairement aux conclusions avancées dans un certain nombre d'études, nos résultats confirment que la satisfaction constitue un bon indicateur pour évaluer la qualité de l'emploi. En effet, la satisfaction donne une évaluation de l'adéquation de l'emploi relativement aux aspirations individuelles et permet ainsi de mesurer le désajustement entre les attentes et les réalisations dans l'insertion des individus sur le marché du travail. Par ailleurs, en contrôlant l'effet des aspirations, la satisfaction est corrélée avec les différentes caractéristiques de l'emploi. Nous montrons que même dans les pays pauvres, le revenu joue mais n'explique qu'en partie la satisfaction. Les résultats différenciés selon les pays mettent en évidence la variabilité des conditions sur le marché du travail (et des caractéristiques qui permettent de les saisir). Ainsi, un emploi ou un statut donné peut être valorisé différemment selon le contexte en vigueur.

Mots Clés : Satisfaction dans l'emploi, marché du travail, secteur informel, aspirations, Afrique subsaharienne

JEL Codes : J28, J31, O12, 017, 055.

Introduction

Researchers from all walks have turned their attention to job satisfaction for distinctly different reasons, although a common thread does run through them:

- Psychologists and sociologists, first of all, have explored this subject in their analyses of the individual's mental balance;
- In the same vein, but taking a broader, multidisciplinary approach, the subject has been studied for the analysis of individual well-being;
- Last but not least, economists have looked into this question with a view to improving their understanding of the labour supply and demand match, since job dissatisfaction triggers high resignation rates and poor performance (productivity) in the world of work.

In the above three cases, studies have focused mainly on the developed countries. Recent interest in this issue in developing countries stems largely from concerns about the quality of working conditions, as seen from discussions at the ILO, among others, on the concept of decent work.

Our analysis belongs to this recent move and is driven by the concern to improve our understanding of labour market conditions in Sub-Saharan African countries. To our knowledge, no in-depth economic study has ever been produced on the determinants of job satisfaction on this continent.¹ Our aim, therefore, is to draw and build on previous research conducted in developed and transition countries to analyse the level of job satisfaction expressed by individuals in eight African capitals.

A perusal of the existing studies turns up a profusion of literature on how individuals evaluate their satisfaction with their job. Although this subject long interested mainly psychologists and sociologists, a growing number of economists are showing an interest in it today, especially since pioneering work by Hamermesh (1977), Freeman (1978) and, more recently, Clark and Oswald (1996).

¹ The only studies on job satisfaction in the African countries are ad-hoc analyses for human resources management in specific sectors (on nurses in the hospital sector, surveyors in the construction sector, teachers, etc.). This observation regarding the scarcity of analyses at macroeconomic level could be extended to all the developing countries. Since the first writing of this paper in 2009, two working papers have addressed the job satisfaction issue in SSA (Falco, Maloney and Rijkers 2011; Rakotomanana 2011).

Psychologists and sociologists are interested mainly in the factors relating to the individual's personality, the job match and the impact of the working environment on health and self-esteem. Many analyses have been produced on specific sectors (medical fields, services and trade, etc.), designed primarily for employers and trade associations.

Job satisfaction was long largely overlooked by economic literature on the labour market. Economists really started to get interested in the subject when the link was pointed up between an individual's work performance and his or her job satisfaction. Economists were long rather sceptical about using subjective data on perceptions (level of satisfaction). Their reluctance was said to be due to the fact that it is hard to compare feelings and personal perceptions and draw pertinent economic conclusions from them. They maintained that individuals each have their own ways of evaluating (gauging) their satisfaction and that, among other things, psychological traits (personality, attitudes, etc.) influence feelings. Although these arguments cannot be completely negated, empirical analyses have confirmed the existence of negative links between job satisfaction and objective facts such as the decision to quit a job (Freeman, 1978; Lévy-Garboua, Montmarquette and Simonnet, 1999; Clark, 2001). More generally, studies have shown that job satisfaction is correlated with on-the-job behaviour: absenteeism, productivity, etc. (Judge *et al.*, 2001). These different findings contradict the idea that individuals' assessments of their satisfaction are purely idiosyncratic and economically irrelevant (pure "noise").

Yet job satisfaction really came to the fore with the rise in analyses on subjective well-being (SWB) and especially research by Easterlin (2001 and 2003) and Frey and Stutzer (2002). The importance of work in an individual's life, both for the income it provides and its intrinsic value, makes job satisfaction a key component of well-being. Judge and Watanabe (1993), in particular, study the link between job satisfaction and subjective well-being (overall). Although the causal link can run in both directions, empirical results find mainly that job satisfaction impacts on well-being (Warr, 1999).

Interest in this field is growing in the developed countries. Likewise, analyses on the subject are on the increase in transition countries. Yet studies on this theme are still rare, if not non-existent, in developing countries and especially in Africa. This is especially surprising since employment is the main source of income in these countries, where working conditions are frequently harsh. Work is therefore all the more important in an individual's life. Knowledge of how individuals assess their work – in view of their earnings, working conditions and intrinsic values placed on

different types of employment (fulfilment, social recognition, participation/exclusion, etc.) – is vital to be able to evaluate the labour market situation.

The first part of this paper reviews the economic literature on this subject: the main findings and the key questions driving the debates. The second part presents the data used and the approach adopted. Part three contains a preliminary descriptive analysis of the job satisfaction findings in the eight African capitals studied. Part four presents and analyses the results of the econometric estimations. Our purpose is first to study how far the stylised facts drawn mainly from analyses of developed countries apply to the African countries considered. The approach adopted then sets out to isolate the influence of aspirations on satisfaction and identify the specific effects of different job characteristics. By way of conclusion, the last part sums up the main findings and proposes avenues for further development.

1.1.A review of the literature on the subject

1.1.1. Different approaches to analyse the determinants of job satisfaction

The literature contains different approaches to explain individuals' self-reported level of job satisfaction. Warr (1999) makes a distinction between two types of factors:

- Factors that can generate intrinsic job satisfaction (opportunity to manage and supervise, autonomy, use of capacities and skills, variety of tasks, absence of physical danger and clarity of information on the professional environment, work relations, social position, etc.);
- Factors that generate “extrinsic” satisfaction: remuneration, working conditions, job security, etc.

Sousa-Poza and Sousa-Poza (2000) take up a classification already used by Judge and Watanabe (1993) to compare job satisfaction in some twenty countries. These authors adopt what is known as a “bottom-up” approach in psychology (as opposed to the “top-down approach”, a theory that assigns a central role to the individual's personality). The bottom-up approach considers that job satisfaction is influenced by different external factors (situations, socio-demographic characteristics, etc.). Job satisfaction is hence determined by the balance between work-role inputs (hours worked, effort, education, etc.) and work-role outputs (remuneration, non-wage

benefits, status, opportunities for advancement, independence and self-direction, job security, job interest, social recognition, relations with colleagues, etc.). This approach explains the differences between countries in terms of the weight and relative importance of these two types of factors.

D'Addio, Ericsson and Frijters (2003) look at the many criteria that come into play when assessing the quality of a job. In so doing, they identify another way of understanding satisfaction by differentiating between the economic contract (where the focus is on the relationship between effort and reward) and the psychological contract (where the interest is in working conditions).

1.1.2. Some stylised facts and current debates

The debates in the literature generally concern how to interpret a certain number of key findings:

- The first is the relationship between income level and satisfaction, an issue addressed by the vast majority of the studies (Clark and Oswald, 1996; Lévy-Garboua and Montmarquette, 1997). On the whole, they conclude that the link between income and satisfaction is not evident;
- The second point looks more broadly at the other objective job characteristics (working hours and work pace, leave, job security and job type). Studies have sought to identify how these characteristics impact on individuals' job satisfaction levels (D'Addio, Eriksson and Frijters, 2003; Llorente and Macias, 2005). Here again, the general observation is that there is a weak correlation between these variables and job satisfaction;
- Likewise, some findings seem hard to interpret at first glance when looking at individuals' socio-demographic characteristics: women and the least educated are more inclined to say they are satisfied (Clark, 1997; Clark and Oswald, 1996), even though they generally have poorer quality jobs. The gender variation in the influence of working conditions on satisfaction is also observed by D'Addio, Eriksson and Frijters (2003). Age plays a role too, other things being equal (Clark, Oswald and Warr, 1996; Lévy-Garboua and Montmarquette, 1997), from the point of view that job satisfaction is U-shaped with the lowest point being around 40 years old.

In a move to explain the weak correlation between job satisfaction level and income or the other objective variables generally used to evaluate job quality (working hours and wages, etc.), as well as the variations by individuals' socio-demographic characteristics, the analyses propose interpretations that can be summed up by two types of arguments. First of all, job quality cannot

be captured solely by classic economic variables (such as wages and working hours, etc.). Other factors need to be taken into account, such as strain and autonomy. Secondly, the level of self-reported satisfaction also depends on the individual's aspirations, which are themselves determined by different types of factors (social background and comparison group). The closeness of the match between expectations and outcomes plays a decisive role in individual satisfaction levels.

These two types of arguments place the emphasis on different factors. The first concerns absolute job quality (measured by objective variables), regardless of the individual's characteristics. The second concerns specific individual characteristics that influence the individual's evaluation. Moreover, the weight of these latter characteristics (which make for a subjective judgement) leads some authors to conclude that job satisfaction cannot be a good indicator of job quality (Llorente and Macías, 2005).

1.1.3. The many facets of job quality

Job quality cannot be encapsulated by classic economic variables (such as wages and working hours). A wide range of other job characteristics are involved (related to the intrinsic value of the job), which are rarely measured by the surveys.

Clark (2004) draws on an analysis of 19 OECD countries and observes that workers feel that wages and working time are the least important factors in summing up their jobs. However, factors such as promotion opportunities are considered to be very important. Other authors put forward factors such as job type, content and interest and work relations (Sousa-Poza and Sousa-Poza, 2000; D'Addio, Eriksson and Frijters, 2003). Idson (1990) and Garcia-Serrano (2008) stress the importance of the work environment and find less flexibility and autonomy in large businesses. These authors posit that this observation explains the lower level of satisfaction (given equivalent remuneration) in these companies.

The many factors involved in job quality evaluation are also behind the satisfaction level differences found by socioeconomic group, industrial sector and institutional sector in some studies (Clark and Oswald, 1996; D'Addio, Eriksson and Frijters, 2003; Beuran and Kalugina, 2005).

This interpretation solves the paradoxes observed for certain types of work and certain sectors. For example, Beuran and Kalugina (2005) observe paradoxically that working in the informal sector in Russia increases well-being despite poor working conditions, job insecurity and exclusion from the social security system, in addition to much lower average earnings. This same finding holds true for the African countries (Razafindrakoto and Roubaud, 2006). Likewise, own-account workers – who may be more exposed to income instability – prove to be more satisfied than wage earners (Blanchflower and Oswald, 2004). These findings show the importance of factors such as: self-direction and independence, flexibility, employment status, the quality of work relations, etc.

Lastly, some analyses find that union members express less satisfaction (Freeman, 1978; Clark, 2004). This result may seem paradoxical in that union members are supposed to have more means to defend their interests. Yet Bryson *et al.* (2005) reveal the existence of an endogeneity effect: those able to join the unions also have the highest expectations in terms of working conditions and are therefore harder to satisfy. These expectations may stem from a better knowledge of their rights (labour law), which strengthens the importance of the link between satisfaction and many aspects of job quality. Yet they could also stem from individual aspirations, whose link with job satisfaction is discussed in the following section.

1.1.4. The influence of aspirations on job satisfaction

The literature interprets the results for gender, age and level of education in terms of the effect of these individual characteristics on aspirations. Women, the least educated, and the youngest and oldest workers have lower (or downward revised) aspirations and are therefore more inclined to say they are satisfied with their job. The importance of individual, and especially psychological, characteristics is also raised by studies on the link between overall subjective well-being and job satisfaction, where causality runs in both directions (Warr, 1999; Judge and Watanabe, 1993).

More specifically, different interpretations are given in the literature to explain the weak correlation between income and job satisfaction. First of all, cross-sectional analyses of subjective well-being (SWB) show that, once vital needs have been satisfied, the link between well-being and income is not as strong (Easterlin, 2001; Frey and Stutzer, 2002). A large number of sociologists and psychologists have also looked at the role of culture and collective, but also individual, values (placed on work in general or on certain types of work), since these factors affect aspirations and

diminish or amplify the effect of income on job satisfaction (Malka and Chatman, 2002; Gelade *et al.*, 2008). Lastly, various authors have emphasised the importance of social interaction effects (“social comparison”). Clark and Oswald (1996) show the negative effect of the reference group’s income (estimated from the predicted income value based on the characteristics of the job and the individual). Relative income (subjective perception of an individual’s income level compared with his or her entourage) has a greater effect on satisfaction than the actual income amount (Clark, 2004). Pichler and Wallace (2008) come to the same conclusion in an analysis of 27 European countries. These authors show that, job and individual characteristics aside, the average level of earnings in the countries influences the level of satisfaction.

A broader view is that aspirations are not formed solely on the basis of the individual’s immediate environment (his or her reference group), but are also based on the past and present context. For example, Hamermesh (2001) points up the influence of changes in the socioeconomic context. Llorente and Macías (2005) draw on an analysis of some twenty countries and posit the phenomenon of aspiration adjustment with time and actual conditions as an interpretation of the weak correlation between objective variables and the level of satisfaction. Aspirations are revised downwards or upwards depending on the how the situation develops in the country.

Similarly, many analyses have studied the weight of the past as a determinant of satisfaction (Lévy-Garboua and Montmarquette, 1997; Clark and Oswald, 1996; Hamermesh, 2001). The individual’s employment history (mobility and experience) influences the formation of his or her aspirations. In longitudinal analyses, the relationship is studied between individuals’ employment trajectories and their level of satisfaction. Satisfaction is found to be a good predictor of professional mobility, in particular of quitting or changing jobs (Freeman, 1978; Lévy-Garboua *et al.*, 1999; Clark, 2001; Kristensen and Westergård-Nielsen, 2004).

Note that the different abovementioned factors are interdependent. As with the majority of analyses of perceptions (especially subjective well-being), uncertainty remains as to the direction of the causality of the links between the variables. It is hard to deal with problems of endogeneity, especially when psychological factors simultaneously affect the variables studied.

1.2. The data used and the approach taken

1.2.1. *The data*

For our analysis, we have used data from Phase 1 of the PARSTAT regional programme's *1-2-3 Surveys* of seven West African commercial capitals: Niamey, Ouagadougou, Dakar, Bamako, Cotonou, Lomé and Abidjan. Data from the *1-2-3 Surveys* in Antananarivo have been added to this information. These surveys were conducted in 2001-2002 using exactly the same methodology (Brilleau, Ouedraogo and Roubaud, 2005), which makes them entirely comparable despite the diversity of socioeconomic contexts.

This gives us an extremely rich database to study the vast majority of the factors that could explain job satisfaction, since information is provided on both the individuals' individual characteristics (including trajectory elements) and the different objective characteristics of the jobs held by the individuals.

The question used to capture satisfaction differs from the one usually put to address this subject, which is generally "How satisfied are you with your main job?" The question here, put to all individuals aged 15 years and over in all the surveys, was the following:

What are your employment plans for the future?

1. Find a first job
2. Find a new job in the same firm (job promotion)
3. Find a new job in another firm
4. Keep the job you currently have, or continue not to work

Given that it is hard to rank these categories using an ordinal scale, we have basically made a distinction between:

- Those who want to keep their job/employment status (category 4: those presumably satisfied);
- And those who want to change their job (categories 1, 2 and 3: those who are unsatisfied).²

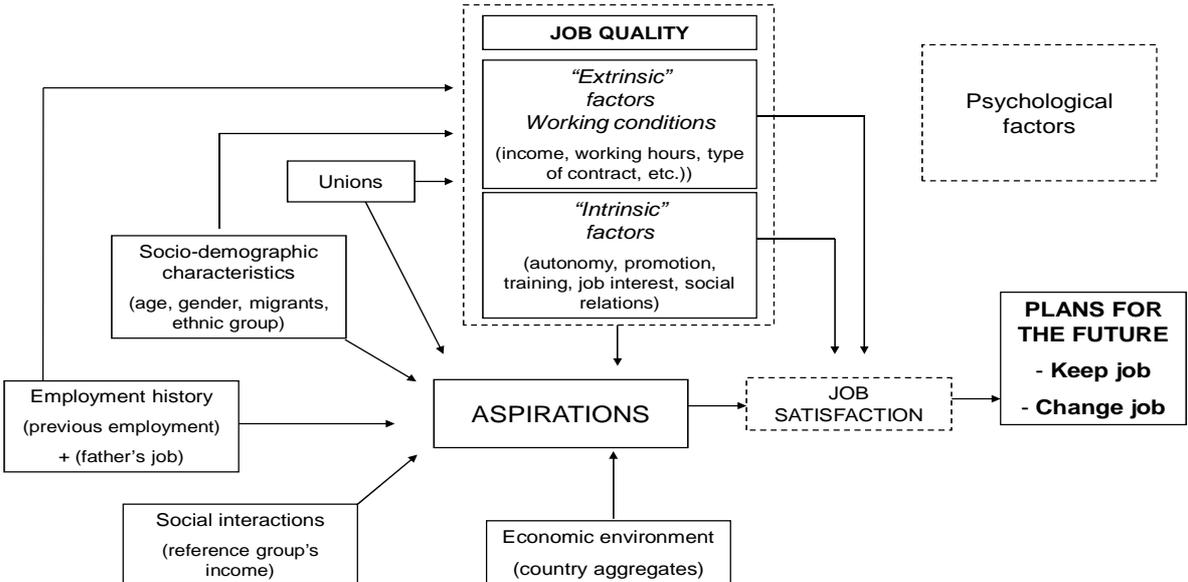
² Note that for unemployed and inactive individuals in category 1 (find a first job), satisfaction concerns their situation in general (rather than job satisfaction). These categories are not included in the econometric analyses on job satisfaction, where we only consider the employed labour force.

The drawback to using a different question than usual is that the results are not entirely comparable with the findings presented in the literature. Nevertheless, there are certain advantages to this approach. Firstly, the link between satisfaction and aspirations, which is totally explicit in our data, makes for a clearer study of how aspirations are formed. In a way, we make a direct study of the match between the individual's occupational status and his or her aspirations. In addition, we have the possibility of including the unoccupied, discouraged workers and jobseekers in the analysis and hence assessing the extent to which these statuses are voluntary or involuntary.

1.2.2. Methodological approach and model tested

We set out to identify the determinants of job satisfaction by combining the two approaches focusing on: a) the importance of aspirations; and b) the importance of (generally unobserved) intrinsic work value factors (possibility of promotion, training, autonomy, work relations, etc.) and the classic objective working conditions variables (remuneration, working hours, etc.), which procure extrinsic satisfaction. We take up the classification used by Warr (1999) to capture job quality. Our hypothesis is that satisfaction is the result of a comparison of the individual's aspirations with the job's different characteristics.

Outline of the model tested



The model we set out to test is as follows:

$S_{ik} = f(X1_{ik}, X2_{ik}, A_i)$ where S_{ik} is the satisfaction of individual i with his/her job k

$X1_{ik}$ is the job's extrinsic characteristics vector,

$X2_{ik}$ is the job's intrinsic characteristics vector,

A_i is the individual's aspirations vector.

$X1_{ik}$ covers income, fringe benefits, the number of hours, and job security variables such as a written contract, wage-earner status and steady work.

For $X2_{ik}$, given that we have no accurate information on the majority of the factors relating to the intrinsic value of the job, we use proxies. So $X2_{ik}$ is measured using variables on socioeconomic group (which typifies job content), institutional sector (public, formal private and informal sector), firm size, and whether or not there is a union.

Taking the results obtained in the literature as a starting point, we consider that aspirations (A_i) are determined by the individual characteristics of individual i (gender, age, level of education, marital status, migratory path and social background: father's level of education and employment), but also by the characteristics of the individual's reference group (reference group income y^*) as well as the socioeconomic context in the country (country dummy).

Note here that the individual factors also influence the quality of the job held by the individual. Nevertheless, for equal job characteristics, the significance of an individual factor in determining the level of satisfaction essentially reflects the effect of aspirations. More generally, we endeavour to relax part of the endogeneity biases by introducing fixed effects (countries and households; see below).

Rather than introducing individuals' income levels, on the basis of the idea that relative income (compared with the reference group's income) has a stronger effect, we use a variable that ranks individuals by the income centile to which they belong in their country (y/y^* : income/average income in the country). This option has been adopted first of all to overcome the problem of income comparability across countries. Secondly, it directly incorporates the comparative income

effect and therefore one of the channels through which aspirations are determined. Note that the two measurements are equivalent for the country models.

Our approach provides a way to identify the nature and influence of the different factors: the “intrinsic” job value factors, the more classic objective variables (“extrinsic”), and the factors likely to influence aspirations. We do not seek to isolate the effect of psychological factors (which affect aspirations in particular), about which we have no information. However, psychological factors could be assumed to be correlated with individual socio-demographic variables, which means that they can at least partially be taken into account. At the same time, we can check the extent to which the stylised facts obtained in the developed countries apply to the African countries considered.

1.3. Preliminary descriptive findings on satisfaction levels

A descriptive analysis of individuals’ levels of satisfaction in their jobs (or more broadly with their labour force status) outlines the situation in the eight capitals studied. Our prime purpose is to observe satisfaction level differences by individual socio-demographic characteristics and by type of job held, with the focus solely on employed workers. Nevertheless, a prior analysis of the entire working-age population provides a broader overview of labour market functioning.

1.3.1. Level of satisfaction by labour force status

The analysis of the perceptions of the entire working-age population (15 years and over) finds relatively similar satisfaction rates. Overall, less than half of the population report satisfaction with their situation (with the exception of Cotonou where the rate just touches on 50%). Abidjan and Antananarivo differ from the other capitals for their very low percentage of satisfied individuals out of the labour force. As labour force participation rates are not particularly low in these two cities (Abidjan even has a higher than average rate), this finding reflects labour market entry constraints with many inactive individuals actually nurturing the desire to work. Jobseekers systematically emerge as the least satisfied with their status, with a satisfaction rate of close on zero. This finding may look like a truism, since jobseekers are by definition looking for a job. However, it contradicts the theories about the voluntary nature of unemployment. It bears out the conclusions of recent studies on the monetary and social integration deficit and the

psychological costs of unemployment (Frey and Stutzer, 2002; Alesino and Glaeser, 2004). The grass is no greener for discouraged workers (who decide to withdraw from the labour market due to poor employment prospects and are therefore classically classed as “inactive”). On average, over 90% of them say they are not satisfied. This points to the huge growth that could be expected in labour force participation rates in the event of an economic upturn.

Table 1
Level of satisfaction by labour force status

	Cotonou	Ouaga- dougou	Abidjan	Bamako	Niamey	Dakar	Lome	Antana- narivo
- Employed workers	56.7	53.1	46.9	54.9	49.1	45.0	46.8	61.1
- Unemployed	4.0	1.0	2.3	6.7	2.6	5.5	3.8	0.4
- Discouraged workers	8.2	3.7	2.6	10.1	3.4	7.8	13.2	16.5
- Inactive	44.9	54.5	28.5	50.1	50.6	50.7	45.6	28.4
Total	50.4	44.8	36.8	49.2	42.4	41.7	42.9	42.6

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

The population considered here covers all individuals aged 15 years and over.

When the analysis is narrowed to employed workers, the inhabitants of Dakar, Abidjan and Lomé are the most dissatisfied (with rates of around 45%) while a larger number of Antananarivo and Cotonou residents say they are satisfied with their work (approximately 60%). As we have already mentioned, it is hard to compare these figures with other findings on an international scale since the question was not put in the same way. Nonetheless, satisfaction rates look to be much lower than in the developed countries and similar to those found in the transition countries.³

1.3.2. Level of satisfaction by socio-demographic characteristics

The rest of the analysis focuses on the employed working-age population. When we look at the level of satisfaction by individuals' characteristics (tables 2a and 2b), different observations come to light:

³ We refer here, in particular, to the figures provided by Sousa-Poza and Sousa-Poza (2000), since the satisfaction rate is calculated considering all those who say they are more or less satisfied.

- In keeping with the findings in the literature, women are more often satisfied with their job. However, an analysis is subsequently required of the extent to which this phenomenon is borne out when controlling for (other things being equal) and handling any selection bias problem;
- The other household members (who are neither the head nor the spouse) express job satisfaction much less often;
- Single people report job satisfaction less often. This observation may come as something of a surprise given that single people are supposed to have fewer constraints (especially financially speaking) and greater leeway when looking for a job;
- The two above mentioned observations can be partially explained by the age of the individuals, since the satisfaction rate increases with age. Note, however, the very low level of satisfaction among young people (less than one-quarter for the under-20s). This is a reflection of the labour market entry problems they encounter combined with aspirations that the conditions on the labour market cannot satisfy;
- The analysis of the link between the individuals' rates of satisfaction and levels of education reveals a U-shaped curve: the categories at the two tails of the distribution (the least educated and the most educated) post high rates of satisfaction. This result may come across as paradoxical given that the least educated have less opportunity to find a quality job. Bear in mind, however, the existence of an erosion-of-aspirations phenomenon (the least educated self-limit their aspirations). The labour market employment condition for the few graduates there are is more positive.
- Lastly, migrants report satisfaction with their jobs more often. Different interpretations can be put forward to explain this observation. Either a selection effect is at work, or migrants adapt their aspirations, or they are driven by an integration goal and actually manage to find better quality jobs.

Table 2a
Level of satisfaction by individual characteristics

<i>By gender</i>	Cotonou	Ouaga-dougou	Abidjan	Bamako	Niamey	Dakar	Lomé	Antananarivo	Total
- Male	54.5	50.1***	43.9***	52.2*	45.6***	36.8***	44.4***	60.9	47.3***
	[2.0]	[2.0]	[1.2]	[1.8]	[1.6]	[1.0]	[1.8]	[2.2]	[0.7]
- Female	60.1	62.9***	57.2***	61.1*	57.5***	63.6***	60.3***	63.6	60.3***
	[6.6]	[2.8]	[2.8]	[4.7]	[4.0]	[5.3]	[4.6]	[4.7]	[1.7]
<i>By status in the household</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antan	Total
- Household head	63.0***	57.8***	54.1***	62.4***	54.1***	49.2***	52.8***	68.9***	57.4***
	[2.0]	[2.7]	[1.6]	[2.0]	[1.8]	[1.6]	[1.9]	[2.1]	[0.9]
- Spouse	67.4***	59.5***	53.3***	57.3***	55.0***	46.5***	55.3***	69.3***	58.2***
	[2.5]	[2.5]	[1.9]	[2.7]	[2.3]	[2.1]	[2.5]	[1.7]	[0.9]
- Others	34.5***	39.5***	31.2***	34.8***	31.9***	33.1***	28.0***	41.3***	33.5***
	[2.8]	[2.7]	[1.5]	[2.2]	[1.9]	[1.1]	[1.9]	[3.9]	[0.8]
<i>By marital status</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antan	Total
- Married	65.1***	59.4***	55.2***	60.7***	55.2***	47.6***	55.1***	60.6**	57.1***
	[2.0]	[2.4]	[1.4]	[2.1]	[1.8]	[1.2]	[2.0]	[2.1]	[0.7]
- Single	33.0***	36.1***	32.1***	34.3***	29.0***	29.5***	27.7***	53.9*	31.9***
	[2.7]	[2.8]	[1.6]	[2.0]	[1.9]	[1.3]	[1.8]	[3.4]	[0.8]
- Separated, divorced or widowed	64.3**	69.6***	56.5***	61.1*	59.6***	46.0**	52.4***	80.5***	58.6***
	[4.5]	[4.3]	[3.3]	[5.1]	[3.2]	[3.1]	[3.1]	[2.7]	[1.5]
<i>By age</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antan	Total
Under 20 years	24.3***	30.3***	22.3***	23.3***	22.6***	25.8***	20.0***	26.6***	24.1***
	[3.3]	[2.4]	[1.9]	[2.3]	[2.2]	[1.9]	[2.1]	[6.6]	[1.0]
20-29 years	44.6***	41.9***	37.3***	45.3***	37.1***	32.0***	39.3***	43.4***	38.9***
	[2.6]	[3.2]	[1.6]	[2.6]	[2.3]	[1.5]	[2.2]	[2.3]	[0.8]
30-39 years	59.6***	52.2	47.9**	52.0	45.4	37.5	47.1	62.7	49.9***
	[2.4]	[2.4]	[1.7]	[2.5]	[1.9]	[1.9]	[2.3]	[3.0]	[0.9]
40-49 years	68.6***	63.9***	61.4***	67.3***	60.7***	48.4***	59.7***	73.0***	62.4***
	[2.8]	[2.6]	[2.1]	[2.6]	[2.3]	[1.8]	[2.5]	[2.6]	[1.1]
Over 50 years	82.1***	81.9***	72.2***	76.4***	69.3***	60.4***	73.0***	84.9***	74.4***
	[2.2]	[3.1]	[2.2]	[2.6]	[2.2]	[1.9]	[2.7]	[2.0]	[1.0]

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

The population considered is all employed workers.

Notes: Mean modified to allow for the sampling design; standard error of the mean in square brackets; mean test differences between the current category and the rest of the sample *** significant at 1%, ** significant at 5%, * significant at 10%.

On the whole, these results do not necessarily provide any information on direct links between satisfaction and individual characteristics (particularly status in the household and marital status), given the endogeneity issues. Yet these variables do take in some psychological unobservables that influence both satisfaction and employment.

Table 2b
Level of satisfaction by individual characteristics

<i>By level of</i>									
<i>education</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antan	Total
- No education	61.2*** [3.2]	58.0*** [2.8]	54.0*** [1.8]	57.3*** [2.2]	54.8*** [1.9]	42.6*** [1.4]	55.3*** [2.3]	65.2 [7.5]	53.3*** [0.9]
- Primary	49.6*** [2.3]	43.0*** [2.2]	38.1*** [1.5]	46.0*** [2.7]	34.8*** [2.1]	31.7*** [1.5]	39.9*** [2.3]	55.9** [3.1]	41.9*** [0.9]
- Middle	53.0 [2.8]	44.5*** [2.8]	39.0*** [2.1]	44.2*** [2.7]	43.1* [2.5]	38.6 [1.8]	43.1 [2.1]	58.4 [2.7]	45.5*** [1.0]
- Secondary	53.2 [3.6]	52.7 [3.8]	49.8* [2.8]	43.5*** [3.5]	41.8 [3.1]	37.7 [2.4]	44.2 [2.5]	67.5*** [2.3]	51.5*** [1.4]
- Higher	59.0 [3.9]	53.0 [3.5]	40.7 [3.5]	60.4*** [3.2]	45.3 [3.2]	48.5*** [3.1]	45.8 [3.3]	71.3*** [2.2]	51.8** [1.6]
<i>By migratory</i>									
<i>path</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antan	Total
- Native	50.2*** [2.3]	48.1*** [2.6]	39.6*** [1.8]	46.7*** [2.1]	37.5*** [1.7]	37.5** [1.2]	43.0* [1.9]	60.3** [1.9]	46.2*** [0.9]
- Migrants	58.6*** [2.1]	53.8*** [2.4]	47.6*** [1.3]	57.5*** [2.3]	52.6*** [1.7]	41.4** [1.5]	46.4* [2.0]	65.1** [2.6]	50.1*** [0.8]

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

The population considered is all employed workers.

Notes: Mean modified to allow for the sampling design; standard error of the mean in square brackets; mean test differences between the current category and the rest of the sample *** significant at 1%, ** significant at 5%, * significant at 10%.

1.3.3. Level of satisfaction by job characteristics

The analysis of the level of satisfaction by job characteristics (Table 3) gives rise to the following preliminary observations:

- Public sector workers most frequently want to keep their job, as expected given the different benefits these workers enjoy compared with the other sectors. However, it may come as a surprise to find that the satisfaction rate in the informal private sector is higher than in the

formal private sector (with the exception of Antananarivo, where there is a more positive opinion of formal private employment, and Dakar where the rates are similar). This calls for a subsequent check to find out whether this observation remains valid when controlling for the effects of other variables or aspirations;

- The results by industrial sector vary a great deal from one country to the next. Nevertheless, they do appear to directly reflect the ranking of the sectors by their level of development and buoyancy in each country. For example, the level of satisfaction is highest in trade in Cotonou and Lomé (and, to a lesser extent, in Niamey and Dakar). In Abidjan, the satisfaction rate is higher in the primary sector (the country's most buoyant sector);
- Wage-earner status does not, *a priori*, guarantee greater job satisfaction in the countries studied. Although this is the case in Antananarivo, Dakar and Bamako, just as many – if not more – non-wage earners in the other capitals say they are satisfied with their job;
- Lastly, the level of satisfaction tends to grow as employees climb the socioeconomic ladder, with the highest rates found among managers (although Niamey is an exception, with a very low rate of satisfaction among managers at 45% as opposed to 82% in Antananarivo, where the rate is the highest). Among non-wage earners, the status of employer or proprietor more often generates satisfaction than being self-employed. The ranking between family workers and apprentices is not clear-cut, however, although the two categories do stand out for their low levels of satisfaction (around 20% on average, with Antananarivo again forming an exception with a rate of 44% for family workers).

Table 3
Level of satisfaction by job characteristics

<i>By institutional sector</i>	Cotonou	Ouaga-dougou	Abidjan	Bamako	Niamey	Dakar	Lomé	Antananarivo	Total
- Public sector	64.4**	59.7***	58.3***	67.4***	48.7	58.1***	61.5***	79.5***	62.9***
	[5.0]	[2.9]	[3.6]	[3.0]	[2.4]	[2.7]	[3.3]	[2.1]	[1.4]
- Formal private sector	53.0	47.3*	44.1	48.6	42.1*	38.9	37.4***	62.9	47.9
	[3.3]	[2.6]	[2.3]	[2.8]	[2.5]	[1.9]	[2.4]	[2.8]	[1.3]
- Informal sector	53.9	50.8	44.3	51.1**	46.8	37.1***	44.5	56.7***	46.6***
	[2.2]	[2.5]	[1.3]	[2.0]	[1.8]	[1.1]	[1.9]	[2.0]	[0.7]
<i>By industrial sector</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antananarivo	Total
- Primary	59.3	50.9	56.6**	55.7	43.4	40.3	46.3	64.5	53.5***
	[8.1]	[4.1]	[4.8]	[5.0]	[3.6]	[3.6]	[4.6]	[5.1]	[2.0]
- Manufacturing	46.1***	52.4	42.5*	47.2***	43.7**	33.7***	42.3*	60.8	45.2***
	[3.0]	[2.8]	[2.0]	[2.7]	[2.2]	[1.6]	[2.3]	[2.8]	[1.1]
- Trade	61.8***	52.8	51.0***	54.3*	51.1***	43.0***	47.9***	62.3	52.3***
	[2.3]	[2.6]	[1.5]	[2.0]	[2.1]	[1.5]	[2.2]	[1.8]	[0.8]
- Services	51.8***	49.3*	41.3***	53.1	45.9	39.9	43.4	60.2	46.3***
	[2.1]	[2.3]	[1.5]	[2.0]	[1.9]	[1.3]	[2.0]	[2.1]	[0.8]
<i>By wage and non-wage status</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antananarivo	Total
- Non-wage earner	55.0	52.1	46.7**	51.1**	46.3	37.5**	46.1**	59.6**	48.3
	[2.2]	[2.3]	[1.4]	[2.0]	[1.8]	[1.1]	[1.9]	[1.9]	[0.7]
- Wage earner	53.8	49.9	42.9**	56.4**	46.6	41.6**	41.2**	62.9**	48.3
	[2.8]	[2.5]	[1.6]	[2.3]	[2.0]	[1.5]	[2.2]	[2.3]	[1.0]
<i>By socioeconomic group</i>	Cotonou	Ouaga	Abidjan	Bamako	Niamey	Dakar	Lomé	Antananarivo	Total
<i>Wage earner</i>									
- Senior manager, engineer, etc.	62.8	59.2	55.2*	71.3***	45.3	65.5***	58.3*	81.9***	61.4***
	[5.3]	[4.7]	[5.6]	[4.7]	[4.3]	[5.1]	[8.1]	[3.9]	[2.1]
- Middle manager, supervisor	59.6	57.8	53.5**	54.9	50.0	52.9***	53.6*	67.7*	55.6***
	[5.2]	[4.2]	[3.3]	[3.7]	[3.1]	[2.9]	[5.0]	[3.9]	[1.6]
- Skilled manual/non-manual	55.5	58.6**	44.2	60.8**	54.7**	48.6***	49.7*	69.1***	56.0***
	[3.0]	[3.6]	[3.5]	[4.1]	[3.9]	[2.2]	[3.0]	[2.2]	[1.5]
- Semi-skilled manual/non-man.	51.4	51.4	44.7	51.1	40.4*	35.1	34.2***	59.1	45.0**
	[4.1]	[7.1]	[2.5]	[4.6]	[3.5]	[2.9]	[3.3]	[4.0]	[1.5]
- Unskilled	36.2***	35.9***	32.2***	47.1	44.0	30.3***	26.6***	48.9***	35.9***
	[5.2]	[2.7]	[2.8]	[4.6]	[3.4]	[2.7]	[3.5]	[3.7]	[1.5]
<i>Non-wage earner</i>									
- Proprietor/employer (with wage-earning employees)	72.5***	66.0***	65.3***	65.8***	69.3***	50.0*	55.5***	84.5***	66.4***
	[3.9]	[4.5]	[2.5]	[4.3]	[4.5]	[6.1]	[3.9]	[4.6]	[1.6]
- Self-employed	63.0***	61.0***	52.9***	54.4**	54.7***	43.4***	52.0***	61.3	54.2***
	[2.2]	[3.3]	[1.6]	[2.1]	[2.0]	[1.4]	[2.1]	[2.5]	[0.8]
- Apprentice	23.7***	16.6***	18.6***	22.7***	15.1***	23.1***	21.6***	11.2***	20.6***
	[3.9]	[2.7]	[2.4]	[4.2]	[2.0]	[1.9]	[3.5]	[7.9]	[1.2]
- Family worker	27.1***	35.3***	22.1***	20.1***	28.2***	19.5***	20.9***	43.8***	28.4***
	[4.1]	[3.7]	[3.1]	[3.7]	[2.9]	[2.6]	[3.1]	[4.0]	[1.5]

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations. The population considered is all employed workers.

Notes: Mean modified to allow for the sampling design; standard error of the mean in square brackets; mean test differences between the current category and the rest of the sample *** significant at 1%, ** significant at 5%, * significant at 10%.

1.4. The econometric analyses

1.4.1. The results of the estimations at aggregate level

Bear in mind that our aim is to single out the influence of three types of factors to explain job satisfaction:

- Variables affecting the formation of aspirations (the individual's characteristics and the characteristics of his or her environment, namely country and household);
- Classic objective job variables liable to generate "extrinsic" satisfaction: remuneration, working conditions and job security;
- And, lastly, variables able to capture the job's intrinsic value: socioeconomic group, institutional sector, firm size and existence of a union. These variables should be capable of typifying job quality in terms of the opportunity to manage and supervise, working on one's own initiative, using one's capacities and skills, variety of tasks, work relations, social position, etc.).

Controlling for the effect of aspirations clarifies the nature of the respective effects of the different job characteristics on satisfaction.

Different approaches were considered to at least partially allow for the endogeneity effects that we have already mentioned. Firstly, the introduction of country dummy variables controls for the unobserved factors relating to the national context, which influence both the individuals' satisfaction levels and access to quality jobs (employment contract, steady work, wage, etc.) and even the number of hours worked. Secondly, given that we had individual data on several members in the vast majority of households, we were able to conduct estimates purged of household fixed-effects. This approach controls for the unobserved factors related to household characteristics, which influence as much satisfaction as the individuals' type of labour market integration.

First of all, we turn up a certain number of stylised facts observed in the developed and transition countries. Women, the least educated or those from modest social backgrounds (father's education no higher than primary or self-employed in a small family business) and, to a certain extent, the oldest individuals are more inclined to express job satisfaction (Table 4). In keeping

with our hypothesis, these observations find an interpretation in the downward revision of these social categories' aspirations, which leads them, other things being equal, to be less demanding when it comes to their occupational status. At the same time, we find the previously observed convex effect of level of education, with the least educated and graduates proving more inclined to be satisfied with their jobs (the coefficient corresponding to the square of the number of years of education is positive). The negative correlation found with the level of satisfaction for widowed and divorced individuals and migrants may reflect the effect of psychological factors on the individual's general well-being (due, for example, to the break in family life or social integration problems), which rubs off on job satisfaction. The fact that the coefficients are no longer significant when we consider household fixed-effects moreover confirms that the link between these two variables and job satisfaction is not direct.

Secondly, the classic objective variables used to describe working conditions are all significantly correlated with job satisfaction. The link with income level (relative income here) is clearly significant and has the expected sign. The higher the income (compared with standard earnings in the country studied), the greater the individual's tendency to express job satisfaction. Yet income far from determines the level of satisfaction, since the variance explained by the univariate models of earned income only (models not reported) is no greater than a few percent. At the same time, steady work, a fixed wage and fringe benefits have a positive effect on satisfaction. The positive value ascribed the number of hours worked is due to the circumstances in the countries studied, since these countries present a high risk of underemployment (and the fear of suffering too intense a work pace is limited). Last but not least, the fact of being a wage earner does not appear to significantly influence (or negatively influence depending on the model used) the level of satisfaction, other things being equal.⁴ In countries where wage labour is far from the rule, employees probably perceive employer-employee relations as a form of dependence, prompting a feeling of subordination and vulnerability (since the employer can decide to terminate the employment at any time).

Lastly, the majority of the variables we have used to typify the intrinsic value of the job also influence satisfaction in the expected direction. For example, proprietors/employers, self-employed workers and senior managers can do interesting and rewarding work. Yet although the order of the socioeconomic ladder is respected, whereas the status of skilled/semi-skilled worker

⁴ Note, here, that certain wage-earner advantages are already taken into account, at least in part, in other variables (steady work, full-time work, fixed wage, etc.).

(as opposed to unskilled worker or apprentice) generates satisfaction, the status of middle manager proves an exception. This observation could be explained by the ambiguous situation in which middle managers find themselves (supposed to have a certain amount of autonomy, but probably burdened by hierarchical pressure put on them by senior managers). In keeping with the descriptive analysis' findings, the public sector (administration and public corporations) is the most highly valued. Given identical job characteristics, employed workers prefer to work in this sector. Job security elements not captured by our models and prestige probably play a decisive role in this. However, the formal private sector does not appear to be more coveted than the informal sector. This challenges the queuing theory put forward by many economic studies, which see it as a refuge sector.

Incidentally, those who work in large firms (over 50 people) appear more inclined to be satisfied. Advantages in terms of the community and social networks (events, canteen, the firm's repute, etc.) may well win out over the benefits that might be enjoyed in small structures (autonomy, flexibility, more family-type relations, etc.). However, as this link between firm size and satisfaction is no longer significant when we take household fixed-effects into account, it is probably due to an endogeneity effect. The existence of a union or union membership has no effect on satisfaction, which could be due to the weak bargaining power of unions in the countries studied.

Analysis of the country dummy variables shows that the Malagasy and Beninese are more inclined to say they are satisfied with their job, while the Senegalese and Ivoirians tend to be more critical. These findings reflect differences in labour market situations (not captured by our particular variables). The situation is more upbeat in Antananarivo and Cotonou, and less satisfactory in Dakar and Abidjan. Yet it is also worth mentioning the more general influence of the socio-political and economic environment at the time of the surveys. In 2002, Madagascar had just emerged from a major political crisis whose positive outcome raised high hopes (with the arrival of a man who embodied the new and successful as head of State). Likewise, Benin is one of the rare African countries to have seen real democratic progress (with changeovers of political power made possible by transparent elections) following a long period of instability and dictatorship (through to the late 1990s). The hope inspired by the directions these two countries have taken could have a psychological effect on job satisfaction. Conversely, the more unstable socio-political situation in Senegal and Côte d'Ivoire at the time of the survey probably had a negative impact on the inhabitants' subjective perceptions of their working conditions.

Table 4
Determinants of job satisfaction
(logit model)

	(1)	(2)	(3) Household fixed-effect	(4)	(5)	(6) Household fixed-effect
<i>Socio-demographic characteristics</i>						
Female	0.366 ***	0.365 ***	0.495 ***		0.291 ***	0.406 ***
Age	0.030 **	0.024 **	0.036 *		0.017 *	0.022
Age ²	0.000	0.000 *	0.000		0.000 ***	0.000
No. of years of education	-0.046 ***	-0.047 ***	-0.057 ***		-0.042 ***	-0.054 ***
No. of years of education ²	0.000 ***	0.001 ***	0.000 ***		0.000 ***	0.000 ***
Father self-employed	0.090 ***	0.099 **	0.098 *		0.080 **	0.092 *
Father's education > primary	-0.220 ***	-0.220 ***	-0.430 ***		-0.222 ***	-0.436 ***
Migrants		-0.121 ***	-0.101		-0.125 ***	-0.076
Single persons		-0.131 *	-0.093		-0.065	-0.017
Widowed or divorced		-0.219 **	-0.003		-0.207 **	-0.004
<i>Job characteristics</i>						
Income centile per country	0.015 ***	0.015 ***	0.018 ***	0.012 ***	0.012 ***	0.014 ***
No. of hours worked				0.004 ***	0.004 ***	0.005 ***
Wage earner				0.146	-0.241 ***	-0.097
Written contract				0.153 ***	0.125 ***	0.022
Steady work				0.401 ***	0.316 ***	0.292 ***
Fixed wage (ref. not fixed, no ben.)				0.245 ***	0.213 ***	0.235 ***
Benefits (ref. not fixed, no benef.)				0.222 **	0.171 *	0.142
Public sector (ref. formal private)				0.284 ***	0.188 **	0.326 **
Informal sector (ref. formal priv.)				0.053	0.016	-0.077
Senior manager (ref. unskilled/app.)				0.081	0.329 **	0.563 **
Middle manager (ref. unskilled/app.)				-0.022	0.140 *	0.216
Skilled/semi-skilled (ref. unsk/app.)				0.161 ***	0.230 ***	0.203 *
Proprietor/employer (ref. unsk/app.)				1.207 ***	0.704 ***	0.851 ***
Self-employed (ref. unskilled/app.)				1.085 ***	0.481 ***	0.595 **
Family worker (ref. unskilled/app.)				0.480 **	0.299 *	0.097
Own account (ref. size > 50)				-0.275 **	-0.236 *	-0.165
Size 2 to 5 (ref. size > 50)				-0.169 **	-0.129 *	-0.037
Size 6 to 50 (ref. size > 50)				-0.164 ***	-0.099	-0.093
Union in the firm				-0.016	0.017	-0.038
Union member				0.071	-0.031	-0.053
<i>Country dummy</i>						
Benin (ref. Togo)	0.399 ***	0.383 ***		0.474 ***	0.399 ***	
Burkina Faso (ref. Togo)	0.110 ***	0.101 ***		0.308 ***	0.145 ***	
Côte d'Ivoire (ref. Togo)	-0.029 *	-0.014		0.129 ***	0.036 *	
Madagascar (ref. Togo)	0.724 ***	0.629 ***		0.867 ***	0.718 ***	
Mali (ref. Togo)	0.202 ***	0.174 ***		0.317 ***	0.187 ***	
Niger (ref. Togo)	-0.077 ***	-0.083 ***		0.204 ***	0.002	
Senegal (ref. Togo)	-0.282 ***	-0.298 ***		-0.072 ***	-0.197 ***	
Constant	-1.981 ***	-1.736 ***		-2.184 ***	-2.264 ***	
Observations	38,532	38,532	17,029	38,270	38,264	16,841
Pseudo-R ²	0.105	0.106	0.237	0.08	0.117	0.254
Log (pseudo-likelihood)	-23895.7	-23868.9	-4941.6	-24369.2	-23409.4	-4776.1

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

* significant at 10%; ** significant at 5%; *** significant at 1%

1.4.2 The results of the estimations by country

An analysis of the results of the estimations for each country further develops the interpretations presented above, especially the influence of particular national circumstances on satisfaction reported by the populations. The purpose here is not so much to conduct a detailed analysis by country as to pinpoint the more striking differences that could reflect variability in the situations, behaviour and ways of evaluating job characteristics.

Note, first of all, that the signs of the coefficients are the same in the different capitals for the majority of the factors with a significant influence on satisfaction, and their magnitudes are extremely similar. This bears witness to the overall robustness of the approach and the results. However, the correlations are not systematically significant for each country. For example, the level of education has no effect on aspirations in Benin and Madagascar. Likewise, the influence of social background is not significant in Madagascar, whereas the fact of coming from a family where the father has no education affects satisfaction in the other countries. Senegal stands out for a significant positive relationship between satisfaction and the father's self-employment.

Turning to working conditions, some characteristics are found to be determinants of the level of satisfaction in certain cities only. For example, the written contract is really valued only in Niamey. Having a fixed wage is seen as positive, other things being equal, only in Bamako. Wage labour is perceived negatively in Abidjan (where wage earning appears to imply adverse working conditions).

Table 5a
Determinants of job satisfaction

(logit model, household fixed-effect)

Results by country

	BENIN	BURKINA	COTE D'IVOIRE	MADAG
<i>Socio-demographic characteristics</i>				
Female	0.693 ***	0.780 ***	0.283 *	0.649 ***
Age	0.044	-0.027	0.078 **	0.082 **
Age ²	0.000	0.001 **	0.000	0.000
No. of years of education	-0.001	-0.087 **	0.000	-0.102
No. of years of education ²	-0.002	0.001	-0.006 *	0.000
Father self-employed	-0.071	0.063	0.046	-0.006
Father's education > primary	-0.528 ***	-0.678 ***	-0.605 ***	-0.123
Migrants	-0.288 *	-0.016	-0.108	-0.049
<i>Job characteristics</i>				
Income centile per country	0.013 ***	0.018 ***	0.021 ***	0.021 ***
No. of hours worked	0.004	0.010 ***	0.001	0.010 **
Wage earner	0.341	0.069	-0.584 *	-0.371
Written contract	0.128	-0.185	0.112	-0.001
Steady work	0.262	0.215	0.345	0.772 ***
Fixed wage (ref. not fixed)	0.278	0.243	0.174	-0.059
Public sector (ref. formal private)	0.641 **	0.227	0.598 **	0.110
Informal sector (ref. formal priv.)	0.028	-0.484 **	0.156	-0.356
Senior manager (ref. middle man/skilled-semi-skill)	-0.165	0.822 **	1.129 **	0.486
Proprietor/employer (ref. mid. man/skill-semi-skill)	1.337 ***	1.146 ***	0.766 **	1.037 **
Self-employed (ref. middle man/skilled-semi-skill)	1.220 ***	0.981 ***	0.485 *	0.009
Union in the firm	0.170	0.192	-0.200	0.250
Union member	-0.015	-0.155	0.294	-0.362
Observations	2 086	2 171	2 035	1 789
Pseudo-R2	0.366	0.304	0.339	0.388
Log(likelihood)	-504.7	-573.3	-503.2	-401.3

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5b
Determinants of job satisfaction

(logit model, household fixed-effect)

Results by country (cont.)

	MALI	NIGER	SENEGAL	TOGO
<i>Socio-demographic characteristics</i>				
Female	0.517 ***	0.496 ***	0.041	0.294 **
Age	0.041 *	0.012	-0.027	0.034
Age ²	0.000	0.000	0.001 ***	0.000
No. of years of education	-0.120 ***	-0.090 *	-0.051 *	-0.085 **
No. of years of education ²	0.005	0.003	0.001	0.002
Father self-employed	0.061	-0.025	0.225 **	0.027
Father's education > primary	-0.547 ***	-0.868 ***	-0.176 *	-0.317 *
Migrants	0.231	-0.095	0.049	-0.183
<i>Job characteristics</i>				
Income centile per country	0.008 **	0.009 **	0.016 ***	0.019 ***
No. of hours worked	0.007 *	0.002	0.007 ***	-0.002
Wage earner	0.312	0.150	0.050	-0.544
Written contract	-0.502 *	0.475 *	0.133	0.099
Steady work	0.141	0.257	0.337 ***	0.076
Fixed wage (ref. not fixed)	0.893 **	0.369	0.061	0.098
Public sector (ref. formal private)	0.428	-0.349	0.672 ***	0.770 **
Informal sector (ref. formal priv.)	-0.302	0.003	0.159	-0.300
Senior manager (ref. middle man/skilled-semi-skill)	0.647	0.031	0.552	-0.382
Proprietor/employer (ref. mid. man/skill-semi-skill)	1.211 ***	1.109 **	0.091	0.688 **
Self-employed (ref. middle man/skilled-semi-skill)	0.798 ***	0.616 **	0.217	0.731 ***
Union in the firm	-0.183	-0.327	-0.423 **	0.280
Union member	0.395	-0.023	-0.094	-0.181
Observations	1 715	1 639	3 536	1 867
Pseudo-R2	0.264	0.267	0.150	0.289
Log(likelihood)	-472.9	-462.2	-1194.8	-486.8

Sources: 1-2-3 Surveys, Phase 1, 2001-2003, national statistics institutes, AFRISTAT, DIAL, authors' own calculations.

* significant at 10%; ** significant at 5%; *** significant at 1%

Looking at institutional sector, working in the public sector is likely to generate satisfaction in Lomé, Dakar, Cotonou and Abidjan. However, public sector status has no significant influence on satisfaction in Niamey, Bamako, Ouagadougou and Antananarivo. Informal sector

employment is seen in a positive light in Dakar, but in a negative light in Ouagadougou. In terms of socioeconomic group, self-employment gives rise to good levels of job satisfaction except in Dakar and Antananarivo where the link is not significant.

Lastly, having a union in the firm does not appear to guarantee better working conditions. Unexpectedly, the link is even negative in Dakar: individuals are more inclined to express dissatisfaction in firms with a union. Note, however, that an endogeneity effect comes into play in this case (the union may have been set up in the firm because of poor working conditions).

Conclusion

This paper presents an analysis of job satisfaction in eight sub-Saharan African countries. To our knowledge, no study of this type has been conducted before in these countries. Ours is hence an innovative approach presenting original findings to contribute to the analysis of the labour market in Africa.

Our analysis finds significant links between objective job characteristics and the satisfaction that individuals express with their jobs. These links prove to be stronger or weaker, depending on the case, when we control for the effect of individual aspirations. This effect is identified via the influence of individual characteristics and the circumstances in the country (reference group), factors which affect the formation of aspirations. We turn up a certain number of stylised facts put forward in the literature on developed and transition countries. Yet in view of the approach adopted, we consider that our results invalidate the idea that job satisfaction is not a suitable indicator to evaluate job quality. We show that:

- First, satisfaction provides a gauge of the match between jobs and individual aspirations. Given that a mismatch between expectations and outcomes in individuals' employment on the labour market could create economic and social tensions, this match needs to be able to be measured;
- Second, when controlling for the effect of aspirations, the correlations between satisfaction and the different objective job characteristics clearly show that they have been taken into consideration in the individuals' subjective evaluations of their working conditions.
- Third, the different national observations regarding the influence of job variables on satisfaction give an idea of the variability of labour market conditions (and of the characteristics that really capture those conditions). This indicates the extent to which a

different value can be placed on a given job or status depending on the circumstances in the country. The findings hence reflect the real intrinsic quality of a category of employment in the country studied.

However, the analysis shows that the explanatory power of the factors we have chosen is limited. We have also controlled for certain endogeneity effects, but have not completely dealt with any selection biases. A certain number of avenues can hence be proposed to further develop the analysis. The biases induced by the self-selection associated with labour market participation and sector choice could be solved by taking the entire labour force into account. Indeed, it could be said that those who work are those who can potentially derive the highest level of satisfaction from their job. Such a bias could, in particular, prove important in explaining why women report satisfaction more often than men. Closer attention should also be paid to the factors associated with the individual's employment history, in particular taking into account the characteristics of his or her previous job. Last but not least, the analysis of the impact of socioeconomic circumstances in the countries could be honed by introducing macroeconomic variables or by building economic indicators to typify the individual's reference group.

APPENDIX

**Descriptive table on population and employment characteristics
in the eight African capitals**

	Cotonou	Ouaga- dougou	Abidjan	Bamako	Niamey	Dakar	Lomé	Antana- narivo
Population (thousands)	809	856	3,046	1,143	675	1,906	784	1,285
Proportion of migrants	38	43	51	36	36.5	27.6	48.2	19
Net primary school enrolment rate	81.2	79.7	73.2	70.7	70.5	65.9	83.2	
Average household size	4.6	5.6	4.5	6	5.7	7.4	3.9	4.7
Number of workers	368,000	368,000	1,517,000	397,000	227,000	745,000	404,000	565,000
Lab. force participation rate (10+)	59.9	58	65.1	52.4	48.8	51.1	67.9	57.8
Lab. force participation rate (15 +)	68.9	68.1	72.9	62	56.8	59.1	76.6	68.7
Male participation rate	58.8	66.3	70.1	59.3	63.5	62.1	68.9	62.2
Female participation rate	60.9	49.6	60.3	45.6	35.2	41.1	66.9	53.3
Number of discouraged workers	96,000	112,000	310,000	112,000	94,000	161,000	90,000	166,000
Number of jobseekers (def. ILO)	20,400	56,500	205,400	28,000	29,900	87,000	33,300	43,000
Unemployment rate (def. ILO)	5.5	15.4	13.5	7.1	13.1	11.7	8.2	7.5
Number of employed workers	348,000	311,000	1,332,000	369,000	197,000	658,000	371,000	538,000
% jobs in the public sector	8.5	12.7	6.6	10	15.3	7.5	7.5	11.2
% jobs in the formal private sector	11.2	13.9	18.7	12.5	13.6	16.1	11.5	28.9
% jobs in the informal sector	80.3	73.4	74.7	77.5	71.1	76.4	81	59.9
Number of hours worked/week	46.5 h	50.7 h	47.9 h	45.6 h	47.5 h	45.4 h	49.7 h	42.9 h
Rate of wage employment	24.7	33	40.8	28	35	37.5	24	48
Rate of multiple job holding	9.2	6.2	4.9	7.2	7.7	4.3	6.1	10.7
Rate of visible underemployment	13.4	10.6	12.6	17.1	16	16.2	17.1	20.1
Rate of invisible underemployment	61.1	66.5	53.2	45.4	51.1	57.8	55.8	48.1
Total rate of underemployment	69.2	73	66.4	58.8	64.4	69.4	68.4	
Breakdown of employment/sector								
Primary	2.2	5	1.6	2.9	5.4	3.2	2.2	5.9
Manufacturing	18.4	23.5	20.3	20.9	26.5	28.7	21	29.3
Trade	37.7	37	35.2	43.5	26.6	27.1	39.1	24.8
Services	41.6	34.5	42.9	32.8	41.5	41	37.7	40.0

Sources: 1-2-3 *Surveys*, Phase 1, 2001-2002, national statistics institutes, AFRISTAT, DIAL.