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ABSTRACT

Job Satisfaction among Young Workers in Eastern and Southern Africa: A Comparative Analysis[1]

The creation of job opportunities for the increasingly educated youth population is a major current policy challenge in sub-Saharan Africa, even though very little is known about the extent to which young workers in the region are satisfied with the employment they currently have. This paper aims to help to fill this latter gap by presenting an analysis of job satisfaction of youth aged 15-29 in four countries from Eastern and Southern Africa: Madagascar, Malawi, Uganda and Zambia. We estimate ordered probit models of the degree of satisfaction in a respondent's main job, using data from the School-to-work Transition Survey (SWTS). It turns out that while a majority of workers are satisfied with their work, a large minority are not. We find that being over-educated or under-educated for the current job is strongly and negatively correlated with job satisfaction in all four countries. With respect to employment status, we find that those who report having chosen to be self-employed are substantially most satisfied in all four countries compared to formal sector wage employees, after controlling for many other factors. Formal wage employees are more satisfied than informal employees in only two of the four countries. These results reinforce the case made by Fields (2014) for not assuming that all self-employment is a 'last resort'. They also raise questions about the quality of available wage jobs for young people.

JEL Classification: I31, J28, O55

Keywords: job satisfaction, young workers, Eastern and Southern Africa

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I. Introduction

Youth employment is a serious concern almost everywhere in the world. It is a very important priority in the Sustainable Development Goals and a major focus of the International Labour Organisation (ILO), the World Bank and many other important development agencies. The concern is that the supply of young workers seems to outstrip demand for their services in many countries. The issue is especially pressing in sub-Saharan Africa, the only world region where the youth population continues to grow (and is projected to continue for much of the century), and where the record of job creation has often been poorest.

In sub-Saharan Africa, as in much of the developing world, the main youth employment issue is the low quality of many of the available jobs more than open unemployment. The large majority of young people in sub-Saharan Africa, male and female, work in self-employment activities or in household based work, much of which may have quite low returns. Such work is regarded by the ILO as vulnerable employment and thus not within their categorisation of "decent work". At the same time though, it is important to recognise that many of those who are in wage work, especially young people, are employed in the informal sector, with the uncertainties and low wages that this frequently implies.

The particular focus on young people with respect to employment derives from a number of concerns. Most obviously, there is the issue of path-dependency. Experience of low-quality work or enforced idleness may lower a person's expectations with respect to work, or even simply depreciate their human capital. The younger a worker is, the more dangerous such effects are. Additionally there is a common perception that young workers, young men especially, are more likely to turn to crime if work is scarce or unrewarding (e.g. Chioda (2017) in relation to Latin America and Idris (2016) on this in relation to unemployment in developing countries). Equally dangerous is the possibility that scarce or bad jobs create an environment in which civil unrest can be more easily fomented, see again Idris (2016) on the case of Zimbabwe. In light of all of this, it is very important for policy purposes to know the extent to which young people are satisfied with the work they currently do, as well as to know what types of work provide more or less satisfaction.

Andrew Clark (2015) argues that the distribution of job quality among workers can be largely captured by responses to questions about job satisfaction. It follows that knowledge of the aspects of workers and jobs that determine job satisfaction are very important for policy. But almost nothing is known in sub-Saharan Africa about the extent to which young people are satisfied with the work they do, nor about which types of people are more satisfied or types of work which provide more satisfaction. Existing contributions are limited: Mulinge and Mueller (1998) study the issue among agricultural personnel in Kenya, while Hinks (2009) studies South African data and Razafindrakoto and Roubaud (2013) focus in eight Sub-Saharan Africa capital cities. More recently, two studies focus on Ghana: Abugre, (2014) and Falco, Maloney, Rijkers, and Sarrias (2015).

This paper aims to start to fill some of the gaps by presenting a comparative analysis of job satisfaction of youth aged 15-29 in four countries from Eastern and Southern Africa: Madagascar, Malawi, Uganda and Zambia. This analysis is enabled by data from the School-to-work Transition Survey (SWTS), a comparable survey conducted across many developing countries by the ILO in partnership with the Mastercard Foundation.

The respondents of these surveys broadly reflect the picture of youth employment already described. The proportion of respondents working in self-employment activities or as unpaid family workers is high: 86% in Madagascar, 79% in Malawi, 73% in Uganda and 64% in Zambia. The very large majority of these are informal. And among the rest, who are mostly wage workers, 61% are employed in the informal sector in Madagascar, 75% in Malawi, 78% in Uganda, and 82% in Zambia. The dominant activity is agriculture, generally followed by elementary occupations and sales and services. Very few young people are employed as professional, managerial, technical or clerical workers, or in the formal sector.

We estimate ordered probit models of the level of satisfaction in the main job. One key result is that those workers who report having chosen to be self-employed have substantially higher levels of job satisfaction in all four countries, much more than formal sector employees. Informal employees are generally the least satisfied group; in three countries those forced to be self-employed due to the absence of other alternatives or unpaid family workers are significantly more satisfied. Formal sector wage workers are significantly more satisfied than informal wage workers in only two of the four countries, and in neither case are they significantly more satisfied than unpaid family workers or those who had no choice other than to be self-employed. Additionally we find that the quality of the match between a worker's education/skills and the skills required by the job is an important component of job satisfaction. Using the workers' self-assessment we find that being over-educated for the job has a strong, significant and negative impact on job satisfaction in all countries, although the results vary by magnitude and significance.

This paper is structured as follows. Section 2 discusses relevant literature in this area. The data used are discussed in section 3 and section 4 provides a detailed descriptive analysis. The empirical strategy is presented in section 5 after which section 6 presents and discusses the econometric results. Section 7 discusses the robustness of the results and section 8 then concludes.

2. Literature Review

The issues of youth employment have been addressed by many researchers over a long period of time, and we do not intend to review this comprehensively here. However, two important recent review articles by Pieters (2013) and Agence Française de Développement/World Bank (2014) offer useful entry points for this paper. Both recognise the important role played by the private sector, and the need for sustained, employment-intensive economic growth. That said, the World Bank study recognises the critical role of self-employment and own account work for young people. It identifies low productivity, in agriculture, non-farm enterprises and wage firms as being a major constraint to youth employment opportunities, and discusses policies intended to respond to obstacles faced by households and firms in raising their productivity. Pieters (2013) highlights the important fact that the relatively low rates of inactivity and unemployment in the labour

market of low income countries does not imply good labour market outcomes. Rather these statistics hide high levels of vulnerable employment (defined here, in line with the ILO's definition, as self-employment and unpaid family work), informality and working poverty, so that the issue is quality much more than quantity of jobs.

So while most young people may be employed in some activity, it is important also to consider how satisfied they are with the work they currently do. As already noted, this issue has not been widely studied in the developing world. In developed countries researchers and public policymakers have recognised that increasing individuals' subjective well-being is an important policy objective (see, for example Layard, 2011 and O'Donnell et al, 2014), with many studies having been conducted of subjective well-being more widely.[2] Job satisfaction is frequently identified to be an important dimension of this, and has been the subject of several studies in its own right, with a strand of the literature validating job satisfaction as a reliable measure of workers' real sentiments about their job (Clark, 2015).

Many studies examine the role that education can exert on job satisfaction, with Clark and Oswald (1996) pointing out the importance of expectations: more educated workers have higher expectations for the pecuniary and non-pecuniary returns from their jobs, and so that they are more easily disappointed and dissatisfied. Allen and Van Der Velden (2001), using data of graduate workers at the end of the 1990s for the Netherlands, show that skill mismatches exert a strong influence on job satisfaction, with in particular skill underutilisation having a strong negative effect on satisfaction. It has also been documented that job satisfaction can raise workplace performance (Oswald et al, 2015), resulting in productivity improvements and, ultimately, to economic growth (Bryson, Forth and Stokes, 2015). Georgellis and Yusuf (2016) using British longitudinal data, investigate patterns of job satisfaction by focusing on the self-employed, and find that job satisfaction follows a rising trajectory immediately upon transition into self-employment and a declining trajectory subsequently, suggesting that gains in job satisfaction are not necessarily permanent as expectations do not always materialize during self-employment.

But studies of job satisfaction in developing countries are scarce and often based on non-representative samples. The existing limited evidence includes, for example, the study of Mulinge and Mueller (1998), who analyse the determinants of job satisfaction in Kenya in 1991 and 1992 by focusing on technically trained agricultural personnel. They find that a perceived higher participation in organizational intrinsic reward, workplace conditions[3] and social rewards derived from interacting with others increase job satisfaction. Focusing on South Africa, Hinks (2009) analyses the determinants of job satisfaction by studying the impact of earnings, racial group and the presence of an employment equity plan on job satisfaction. Using Mesebetsi labour data for 1999 for workers aged 18 to 65 he finds that affirmative action in the workplace enhances black workers' job satisfaction but significantly diminishes job satisfaction of coloured workers.

[2] See for instance Layard et al, 2014; Gardner and Oswald, 2007; Clark and Georgellis, 2013; Clark, 2014; Powdthavee, 2012; Frijters et al, 2014; Dorsett et al, 2015.

[3]Organizational intrinsic reward refers to participating in decision-making, autonomy, upward communication, task significance, distributive justice and career growth. While workplace conditions refer to pay, fringe benefits, promotional opportunity and job security.

Razafindrakoto and Roubaud (2013) analyse job satisfaction in eight Sub-Saharan Africa capitals and find significant links between objective job characteristics such as possibility of promotion, training, autonomy, work relations as well as remuneration and working hours and the satisfaction individuals express with their jobs. Abugre (2014) analyses job satisfaction for public administration workers in Ghana and highlights a very low level of job satisfaction, though with significant variations by educational levels. The more recent contribution of Falco, Maloney, Rijkers and Sarrias (2015) exploits the Ghana Urban Household Panel Survey to study job satisfaction across sectors in Ghana. The authors adopt a mixed (stochastic parameter) ordered probit estimators to characterize the distribution of subjective wellbeing across employment sectors. Their findings show that being self-employed with employees is by far the most desirable type of employment. By contrast, workers appear indifferent between formal salaried employment, self-employment without employees, and civil service/public sector employment.

Aside from these studies, the issue of job satisfaction in Sub-Saharan countries has received little attention, in part due to a lack of data.

3. Data

The School to Work Transition Survey (SWTS) is a programme of surveys of young people aged 15-29 conducted in 36 countries[4], 8 of which are in Sub-Saharan Africa, between 2012 and 2015 by the International Labour Organisation (ILO) in partnership with the Mastercard Foundation. These surveys aimed to collect in-depth information regarding the labour force situation of youth, and seek to study the ease of entry of young people into the labour market as they exit school (Elder, 2009). Young people aged 15-29 were interviewed. As well as personal, family and household information, the survey collects data on formal education/training, activity history and aspirations of the young people, as well as collecting information on non-working youth and those not in the labour force.

The survey is generally carried out at national level, using a multistage cluster sampling technique. Two rounds of the survey have now been conducted in most countries. We choose here to focus on four of the five countries from Eastern and Southern Africa, Madagascar, Malawi, Uganda and Zambia.[5] The total sample sizes in each case were 3,300 (2013) and 5,000 (2015) in Madagascar; 3,102 (2012) and 3,097 (2014) in Malawi; 3,811 (2013) and 3,049 (2015) in Uganda; 3,206 (2012) and 3,225 (2014) in Zambia. The current analysis is conducted at the country level, pooling the two waves available.

The sample used here is based on employed men and women who report not being currently enrolled in education and who are either employees, self-employed, or unpaid family workers. The final samples amount to 4,905 for Madagascar, 2,882 for Malawi, 3,453 for Uganda, and 2,262 for Zambia.

In the current paper the main outcome measure is job satisfaction. Respondents were asked "*to what extent are you satisfied with your main job?*", and chose one of four responses: 1. 'very satisfied', 2.

[4]The surveys are part of the Work4Youth project conducted in partnership between the ILO Youth Employment Programme and The MasterCard Foundation to support the SWTS in 36 target countries. Data from the first round of surveys were made available throughout 2013.

[5] A survey was also conducted in Tanzania, but the data was not judged to be reliable enough for use in this study.

'somewhat satisfied', 3. 'somewhat unsatisfied', 4. 'very unsatisfied'. The question on job satisfaction is asked to those currently working and refers to the main job. For analytic purposes we transformed this variable by reversing its order to range from 0 (very unsatisfied) to 3 (very satisfied).

In terms of explanatory variables, the surveys collect extensive information on individual background, including age, gender, relationship to the head of household (which may capture some aspects of social norms, such as family/carer responsibilities[6] that might be associated with differences in job satisfaction), the highest level of education completed and whether people have ever worked at the same time as going to school (the latter a common issue in developing countries, Parent, 2006, Kruger *et. al*., 2010).

In addition, the SWTS collects extensive information on the nature of current employment. Job variables are potentially important determinants of job satisfaction, as they capture working conditions. The survey records information on the employment status (employee; employer; own account worker; working as an unpaid family worker; member of a producers' cooperative). We define as self-employed anyone who reports being an employer, own account worker, or member of a producers' cooperative. Given sample size, we classify the information on sector of employment into four categories: agriculture, forestry and fishing; mining and manufacturing, wholesale and retail trade, and other sectors[7]. The sector of employment may reflect the quality of working conditions, where in some countries many workers may be employed under poor health, safety and environmental conditions (ILO, 2015). For the current job, the surveys record information on the actual number of hours worked per week[8][9], how many months the individual has been employed in the current job, as well as the number of workers in the current employer/business. Previous studies (Tansel and Gazioglu, 2014) shows that job satisfaction and firm size are inversely related, due to the higher (lower) satisfaction in the management-employees relationship in small (large) firms. In addition, the survey also contains information on the formality status of the workplace, that we define to be equal to 1 if the business/farm/activity is registered for VAT or income Tax.

For the selected sample of employees only, we also consider a series of variables that capture characteristics of the workplace, features which could be correlated with job satisfaction. We use the survey responses to estimate the weekly average wage/salary in local currencies, but for comparability we convert this into US Dollar values[10]. We use an indicator for whether the worker is employed on the basis of a contract, another for whether this is a written contract and a third for whether it is for an unlimited time period, and also compute two dummy variables for having pay related benefits and having any other benefit. A question is asked to the self-employed to identify whether the individual has chosen to be self-

[6] Details of variables are provided in Appendix A1.
[7] Rest of industry includes: Electricity, Gas, steam; Water supply, sewerage, waste management; Construction; Transportation and storage; Accommodation and food service activities; Information and communication; Financial service and real estate activities; Professional, scientific and technical; Administrative and support service activities; Public administration and defence; Education; Human health and social work activities; Arts, entertainment and recreation and other services.
[8] Less than 0.01% of the sample report working more than 105 hours per week. To reduce the effect of outliers on the average weekly hours, weekly hours worked has been top-coded to 105.
[9] Less than 0.01% of the sample report working more than 105 hours per week. To reduce the effect of outliers on the average weekly hours, weekly hours worked has been top-coded to 105.
[10]The conversion rate has been based on the exchange rate of the 3rd January available on Yahoo converter https://finance.yahoo.com/currency-converter/#from=GBP;to=USD;amt=1
$1 corresponds to 3,224.45 Malagasy Ariary; 669.67 Malawian kwacha,3,372.00 Uganda Shilling, and 9,444.57 Zambian Kwacha.

employed or had no other option[11] because they individual could not find a wage or salary job, or because they were required by the family to do this work (Fields, 2014).

As already noted, the quality of the match between a worker's education/skills and the skills required by the job has been found to be an important component of job satisfaction (Allen and Van Der Velden, 2001). Different approaches can be taken to measuring this (Chiswick and Miller, 2009). Approaches include a realized matches (RM) technique, reflecting the outcome of the labour market matching process, based on the actual educational attainments of workers in each occupation compared to the mean or modal attainments within each occupation (see Verdugo and Verdugo, 1989; Cohn and Khan, 1995 respectively); a Worker Self-Assessment (WSA) based on self-rating (see, for example, Allen and Van der Velden, 2001); and a Job Analyst (JA) technique based on "objective" evaluations of experts (see, for example, guidelines of the International Standard Classification of Occupation 2008 (ISCO-08). Here we use a subjective measure of educational mismatch based on workers' self-reported answer to a question about whether they believed their education/training was relevant for their current job, allowing identification of situations allowing identification of being matched, overqualified or underqualified.[12]

We also derive a second indicator to capture the mismatch between a worker's skills, measured by education, and the skills required by the job based on current occupation by constructing what we consider an "objective" measure of mismatch looking at the difference in the educational attainment of a worker and the usual or required level of education of those working in the same occupation. We define the "usual" level of education required in the current task/job following guidelines of the International Standard Classification of Occupation 2008 (ISCO-08) provided by the ILO (ILO, 2012), based on 9 1-digit-major groups of occupations[13], though making some adjustments[14]. We consider secondary education or above to be the usual level of education required for the highest skilled occupations, such as managers; professionals; technicians and associate professionals; no schooling or less than primary as sufficient for the lowest skill occupations (elementary occupations); and primary and lower secondary level of education to the middle skilled occupations. For both subjective and objective mismatch measures we derive three categories: matched, overqualified and under qualified.

The next section presents an initial descriptive analysis of the results.

[11] Those identified as being self-employed by choice are those reporting being self-employed for greater independence, more flexible hours and higher income. Those who report being self-employed by default are those who could not find a wage or salary job or required by family. These two categories together represents about 25% in Madagascar, 46% in Malawi, 53% in Uganda, and 52% in Zambia.

[12] This was based on the following question: based on the following question: *"Do you feel your education/training qualifications are relevant in performing your present job?".* Individuals can select one of the following answers: 1) Yes, they are relevant. 2) No, I feel overqualified. 3) No, I experience gaps in my knowledge and skills need additional training. 4) The question is not relevant as I am still studying.

[13] The occupations were mangers; professionals; technicians and associate professionals; clerical support workers; services and sales workers; skilled agricultural, forestry and fishery workers; craft and related trades workers; plant and machine operators and assemblers; elementary occupations)

[14] See appendix A2 for details on the ILO classification and a comparison of the classification adopted.

4. Descriptive analysis of data[15]

Figure 1 plots the distribution of the main outcome variable, job satisfaction, for the four countries analysed. This shows that over sixty percent of young workers are either somewhat satisfied or very satisfied with their current jobs. For Malawi, Uganda and Zambia the satisfied workers and roughly equally split between being 'somewhat' or 'very' satisfied, while the balance is more toward 'somewhat' for Madagascar.

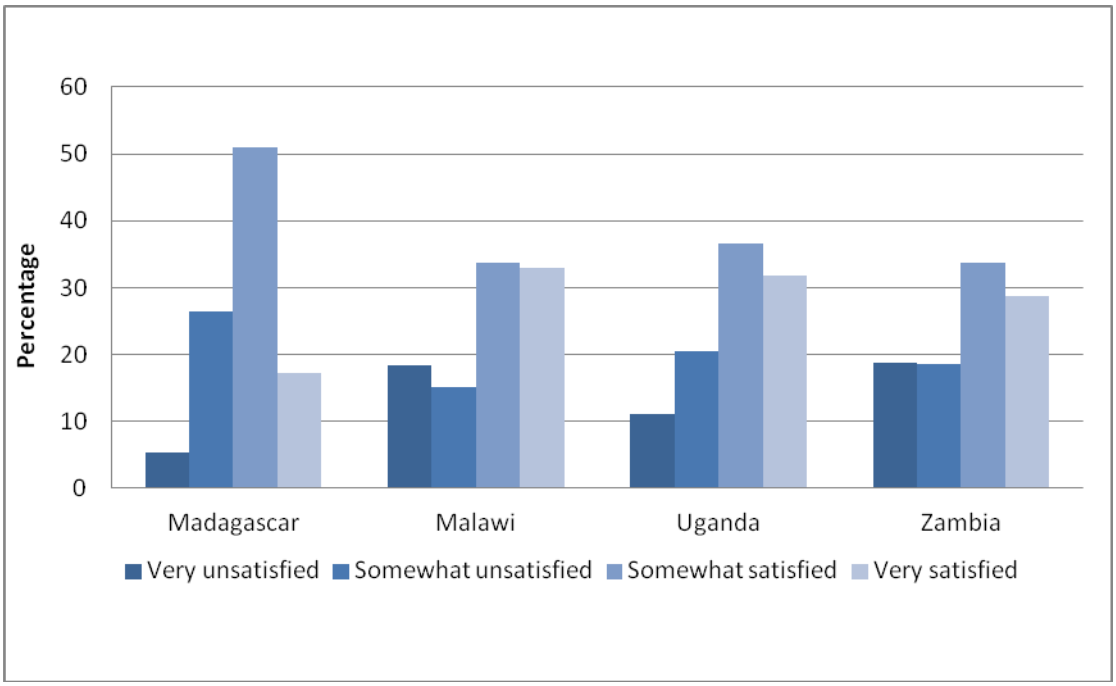
The message of young people being on average satisfied with their current job may be striking but not totally surprising. This high level of job satisfaction for youth could be explained by different factors. Firstly, as suggested by Clark *et. al.* (1996) it can be interpreted in terms of young people entering the labour market and feeling positively about their new situation and their transition into adulthood. Young people are likely to have different expectations and perceptions that might change (diminish) with increasing age; indeed existing evidence for developed countries shows that overall job satisfaction is indeed U-shaped in relation to age, with the youngest being on average highly satisfied with their job (Clark *et. al.* 1996). Secondly, in the context of sub-Saharan Africa, job satisfaction of young people is also likely to be shaped by the awareness of the limited or lack of other (better) employment opportunities, as well as by the recognition that the current employment situation is perhaps the best alternative to what would have been instead possible. Therefore, in a context strongly constrained by a "*no-choice",* the gap between actual and ideal work shrinks, making the assessment of the current job situation more positive than in fact it may really be.

Job satisfaction data are not straightforward to compare across countries, but the statistics for these countries sit within the lower part of the European distribution of job satisfaction. A similar question on work satisfaction was included in the 1995, 2000 and 2005 Working Conditions Surveys conducted across 31 countries in Europe. The top two responses on a four-point scale averaged 84.8 for the EU15 and ranged from 93.4 and 92.7 for Denmark and UK respectively. The responses were much lower among New Member and nom-member states, at 58.8 and 52.2 for Romania and Turkey respectively. These latter figures are closer to the results here for sub-Saharan Africa.

The validity of the job satisfaction measure is strengthened by its relationship to responses to questions capturing whether individuals would like to change their current employment situation. While job satisfaction and the willingness to change job are statistically significantly negatively associated in all countries, not surprisingly, those who appear to be less satisfied are also those more likely to respond that they would like to change their current employment situation. Moreover, employees are more likely to want to change their current job, while self-employed, are less likely to do so. The main reasons behind this trend lie in the low pay, bad working conditions, and insecure jobs.

[15] All descriptive statistics are obtained using weights available.

Figure 1: Job satisfaction by country



In the upper part of Table 1 we report the percentage of young workers who are either somewhat satisfied or very satisfied with their job, by employment status, education level. A striking finding here is that the level of job satisfaction is especially higher among those who are self-employed in Malawi, Uganda and Zambia compared to employees. This correlation could be for a number of reasons, but it is an enduring finding in these data.

In the lower part of Table 1 we give percentages satisfied by whether self-employed workers report that they chose this kind of work or felt they had no choice. As expected, those who felt they made a positive choice are more satisfied. Job satisfaction by level of education shows no clear pattern. Lastly, when looking at job satisfaction by formal and informal sector[16], we note that in all countries those working as employees in the formal sector are on average more satisfied than employees in the informal sector, possibly reflecting better working conditions. We investigate this below, and we find there is less consistent difference in satisfaction between the formal and informal sector once self-employment and unpaid family work are also included.

[16] The variable is based on the question asking all workers whether the business/farm/activity he/she works or where worked is either registered or becoming registered. In all four countries analysed the vast majority of workers are engaged in informal sector, specifically 93% in Madagascar, 92% in both Malawi and Uganda and 91% in Zambia.

Table 1: Job satisfaction by employment status; choice/non choice; educational level and formal sector.

	Madagascar	Malawi	Uganda	Zambia
All	68	67	69	63
Employed	69	55	63	60
Self-Employed	66	69	75	68
Unpaid Family Workers	70	73	57	58
Nature of self employment				
Choice	71	77	83	75
Non choice	67	61	64	60
Educational Level				
Incomplete Primary	66	70	66	62
Primary Completed	70	65	70	63
Secondary completed	66	60	74	63
Formal sector	71	66	75	73
Informal sector	69	67	68	62
Employee in formal sector	75	66	71	72
Employee in informal sector	69	52	61	59

Notes: The table presents the percentage of individuals reporting being either somewhat satisfied or satisfied with their current job.

We turn now to the baseline characteristics of individuals in the sample, reported in Table 2. The sample is relatively evenly balanced by gender, and rural residents significantly outnumber urban residents in all countries. Respondents are on average 23 years old, with those in Madagascar being slightly younger (21.8 years old). Around one third of the youth aged 15-29 in Malawi and Uganda are heads of household in Malawi and Uganda, with the proportions being lower in in Madagascar (18.2%) and in Zambia (23.5%). The numbers that are spouse/partner are also fairly large, reflecting the relatively early age of engagement in family responsibilities of young people in the countries analysed. Others are sons of daughters of the household head, these shares being 21.8% and 25.1% of respondents in Malawi and Uganda respectively, but 45.2% in Madagascar and only 12.5% in Zambia. Table 2 also confirms a trend, well-known in sub-Saharan countries, that it is common for individuals to do some work while studying although variation occurs among countries. This is the case for nearly half of the youth in Madagascar (49.1%), with smaller proportions in the other countries.

Table 2 also presents summary information on the main characteristics of the current job. In Madagascar around one third of young individuals are self-employed, while in Zambia this proportion is nearly 40%. But in Malawi and Uganda the vast majority of young people are in self-employment activities. Many work as unpaid family workers in Madagascar, but the proportions are lower in other countries. In all countries a minority of the young people work as employees, the share being highest in Zambia (36.4%), followed by Uganda (26.8%), Malawi (21.3%) and Madagascar (13.9%).

Reflecting the characteristics of the economies, not surprisingly half or more of young workers work in the agriculture, forestry and fishing sector in all countries except Zambia. The distribution across the other sectors differs a bit by country. Young people work on average 30.5 hours per week in Madagascar,

23.5 in Malawi, 37.1 in Uganda, and 17.2 in Zambia. Across the countries the average tenures (in months) are quite large, varying between 57 and 64 months, but lower in Zambia (39.2). The vast majority of individuals work in small firms, defined as firms with less than 5 workers. In all countries analysed only less than 10% work in the formal sector, suggesting that working in the informal sector still prevails. In fact, the prevalence of small and informal firms remains a distinct feature of the distribution of firms in low-income countries (McCaig and Pavcnik, 2015). This is particularly the case for young workers. Evidence for Vietnam (McCaig and Pavcnik, 2015) documents that a high share of workers continues to work in the informal sector; with young workers being more likely to work in the informal sector and stay there permanently.

Table 2: Baseline characteristics

	Madagascar	Malawi	Uganda	Zambia
Female (%)	52.9	51.6	54.2	47.4
Age	21.8	23.4	23.1	22.7
Relation to the Head of Household (%)				
Head	18.2	33.5	29.2	23.5
Spouse/Partner	24.2	31.2	32.0	14.1
Son/Daughter	45.2	21.8	25.1	12.5
Brother/Sister	1.3	1.8	2.0	10.4
Other relative/Not related	11.1	11.7	11.7	39.4
Working while studying (%)	49.1	27.9	35.8	20.8
Urban (%)	17.2	12.2	25.2	38.3
Employment Status Current Job (%)				
Employee	13.9	21.3	26.8	36.4
Self-employed	33.7	69.1	56.6	39.7
Unpaid family worker	52.4	9.6	16.5	24.0
Sector (%)				
Agriculture, forestry and fishing	73.9	51.7	55.8	27.7
Mining and Manufacturing	8.7	10.5	6.5	5.0
Wholesale and retail trade	7.5	19.4	16.4	19.5
Rest	9.9	18.5	21.3	47.8
Actual weekly Hours	30.5	23.5	37.1	17.2
Tenure in months	64	57	61	39.2
Share working in small firms	85.1	90.6	80.9	81.1
Formal Sector	7.4	8.4	8.4	9.0
Total N	**5,905**	**2,882**	**3,453**	**2,262**

Table 3 analyses the working characteristics of those working as employees (Panel A) and self-employed (Panel B). On average, the majority of young people working as employees are male and their average age is around 22 and 23 years old. The majority of employees in fact work in the informal sector.

Almost all employees have a contract, however only about a third (or fewer) has a written contract, reflecting the informal nature of much of this work. Madagascar is the country with a higher percentage of young workers with a written contract (31.7%), while only about 20.7% in Uganda have a written contract. Even more variation occurs looking at contracts that have unlimited time. The vast majority of contracts in Uganda (75.8%) are of unlimited time; while in Madagascar, Malawi and Zambia around half to just below 60% of them are of unlimited time.

In most of the cases employees enjoy some benefits at their workplace. On average, the incidence of pay benefits in the four countries is around a third in most countries and even more in Zambia (49.5%), while the number of employees enjoying other benefits, rather than monetary ones, is much higher for all countries, highest Madagascar (82.1%), and lowest in Malawi (44.4%). As already observed in Table 2, variation occurs in hours worked per week across the countries are also observed for those who are employees, although on average employees work longer hours than those who are either self-employed or unpaid family workers. Uganda reports the highest average number of hours worked per week (47.6) while Zambia reports the lowest average (21.0). The average weekly wage varies across the countries, reflecting the economy and level of poverty. More variation is observed in the size of firms across the countries. In all cases at least half of employees work in small firms, with the highest percentage being for Malawi where 70% of employees work in small firms.

Considering the average characteristics of those working as self-employed (Panel B), unlike the employees a higher percentage of young female workers are self-employed: nearly half in Madagascar, and above half in Malawi, Uganda and Zambia. Self-employed workers are also slightly older and a smaller proportion of them are located in urban area, probably reflecting the informal aspect and more agricultural oriented activities located in rural areas. The self-employed are almost all informal, and between 91 and 97% of them report working in small firms. This is likely to reflect the family nature of the business, as well as a prevailing trend in low-income countries where transitions of individuals in and out of informality is uncommon. Moreover, the vast majority of young self-employed workers in Madagascar reporting doing this activity by their own choice, while in Malawi, Uganda and Zambia this proportion is less than half with the majority instead reporting being self-employed due to lack of wage/salary opportunities or due to family choice.

Table 3: Characteristics and working conditions for employee and self-employed

	Madagascar	Malawi	Uganda	Zambia
A: Employee				
Female (%)	37.8	31.7	38.3	41.3
Age	22.1	23.2	22.9	22.9
Urban (%)	32.6	23.3	43.6	44.7
Contract (%)	99.2	91.4	98.4	98.6
Written contract (%)	31.7	25.5	20.7	30.4
Unlimited contract (%)	56.4	49.6	75.8	58.0
Pay benefits (%)	34.7	27.6	32.2	49.5
Other benefits (%)	82.1	44.4	62.8	62.9
Actual weekly Hours	38.5	30.7	47.6	21.0
Weekly wage (in USD)	9.7	9.3	15.3	34.7
Small firm	58.0	70.4	55.6	62.3
Formal sector	39.0	25.1	21.5	18.4
Total	**782**	**688**	**905**	**826**
B: Self-employed				
Female (%)	45.6	56.2	58.9	51.9
Age	23.5	23.7	23.7	23.5
Urban (%)	19.0	9.1	20.4	38.0
Actual weekly Hours	32.7	21.8	34.7	16.9
Small firm	96.6	96.4	90.8	93.3
Formal Sector	3.4	4.2	4.7	3.7
Choice (%)	73.5	49.6	44.7	39.3
Non Choice(%)	26.5	50.4	55.3	60.7
Total	**1,986**	**1,923**	**1,988**	**879**

To have a better picture of the level of education/skills available and the level of education/skills required in the existing jobs, Table 4 reports the distribution of the level of education (Panel A), the level of education required in the current tasks (Panel B), the subjective measure of educational mismatch for the job (Panel C), and the objective measure of mismatch between the level of education available and that required in the current job (Panel D). Considering the level of education, variation across the countries is noted. Uganda appears to be the country with the lowest level of education, with those reporting having completed a secondary level of education being only 10.2%. In the same country, just above half of young individuals reports having only incomplete primary education. In Malawi trends are pretty similar to those of Uganda except for showing a slightly higher level of those who have completed a secondary level of education (16.2%). Zambian youth have the highest level of education, with in fact 55.8% having completed secondary education. Madagascar has the second highest level of education.

In the four countries based on our assessment the vast majority of jobs require a level of education below secondary with in fact less than 9% or less of current tasks requiring a secondary level of education

or above. In all countries around 80% of jobs requires primary and lower secondary, with the percentage being lower in Zambia (63%). These low education requirements are not surprising considering the higher concentration of jobs in low skill sector, e.g. agriculture, forestry and fishing.

We adopt the definition of educational mismatch based on the worker's self-assessment. Hereafter, we will refer to this as the subjective measure of educational mismatch. Although this is perhaps not a perfect measure, it can be considered as a good approximation since it captures the perception and value of personal skills in the current job.

Panel C in Table 4 presents the distribution of the subjective measure of educational mismatch. Between 48.1 and 58.3% of young workers feel their level of education is appropriate for what they are doing. Zambia experiences the highest percentage of matched workers (58.3%) according to this criterion and Madagascar the lowest (48.1%), but all are quite high. The subjective measure suggests that the overqualified are the smallest group, this now being the case for Zambia too. This is particularly the case for Uganda (8.8%), followed by Madagascar (13.4%), with the percentage being slightly higher for Malawi (18.6%) and Zambia (15.4%). Still, under-qualification, hence the perception of experiencing gaps in the knowledge and skills and the need of additional training, appears to be quite relevant for young workers in the Sub-Saharan countries analysed.

We consider an alternative definition of educational mismatch based on the our assessment of the mismatch between the level of education available and that required in the current (Panel D). We refer to this alternative measure as to the objective measure. Analysing the objective measure in panel D, we note that a larger percentage of Ugandans (45.5%) and Malawians (47.6%) are considered underqualified according to the objective criterion, with the percentage dropping to 19.7% in Madagascar, while Zambia shows the lowest percentage of underqualified (8.8%). Panel D demonstrates that less than half of young workers in the Sub-Saharan countries analysed have a level of education that matches with that required in their current tasks, with the lower percentage being in Zambia (30.2%) where large numbers are overqualified. This is not surprising having noted before that Zambia shows the highest level of education, but the available jobs do not often match this. In Uganda only about 10% of young people appear to be overqualified for their current job, while 16.4% of Malawians and 33.4% of Malagasy are over-qualified in the current tasks. This table suggests that under-education appears to be the bigger issue for youth in at two of the four countries analysed. Results for 8 Sub-Saharan African countries using the STWS survey documents that on average 53.3% of working youth in sub-Saharan Africa are undereducated for the job they do (Elder and Siaka Koné, 2014). These authors point out that under-education of workers can have a negative impact on worker productivity and thus on the output of the enterprise but also, more personally, on the sense of security of the young worker. The high level of under-education is likely to be linked to several aspects, connected to the social aspects and labour market characteristics. For example, the high level of under-education is likely to be connected to the high school dropouts, as well as to the lack of good employment perspective.

A comparison of the distributions of the subjective and objective measures shows that although the general trend of underqualified and overqualified is pretty similar, the distribution is not exactly the same.

This is however not surprising given that the subjective measure is based on the individual perception rather than on an objective criteria[17].

Table 4: Education, Education required in current task, and educational mismatch measures.

	Madagascar	Malawi	Uganda	Zambia
A. Distribution of Education				
No schooling or less than primary	21.6	49.9	52.5	11.3
Primary and lower secondary	49.6	34.0	37.3	32.9
Secondary or above completed	28.8	16.2	10.2	55.8
Total	**100**	**100**	**100**	**100**
B. Education required by current task				
No schooling or less than primary	15.0	9.7	12.3	29.1
Primary and lower secondary	80.3	81.6	82.4	63.0
Secondary or above completed	4.7	8.7	5.3	8.0
Total	**100**	**100**	**100**	**100**
C. Subjective Educational Measure				
Matched	48.1	51.7	58.0	58.3
Over qualified	13.4	18.6	8.8	15.4
Under qualified	38.6	29.6	33.2	26.3
Total	**100**	**100**	**100**	**100**
Total N	**5,862**	**2,864**	**3,006**	**2,168**
D. Objective Educational Mismatch				
Matched	46.9	36.1	44.7	30.2
Over qualified	33.4	16.4	9.9	61.0
Under qualified	19.7	47.6	45.5	8.8
Total	**100**	**100**	**100**	**100**
Total N	**5,905**	**2,881**	**3,419**	**2,262**

5. Empirical strategy

The dependent variable used in our analysis is the individuals' job satisfaction, which is a latent variable, observed with an ordinal metric. To analyse correlates of job satisfaction of youth in Sub-Saharan countries we adopt an ordered probit model, a standard approach in this literature (see, for example, Clark and Oswald (1996), and Chongvilaivan and. Powdthavee (2014)).

The baseline model can then be written as follows:

$$\Pr(JS_{it} = j \mid \mathrm{X}_{it}) = \Phi(\omega_j - \mathrm{X}_{it}\theta) - \Phi(\omega_{j-1} - \mathrm{X}_{it}\theta) \qquad j = 0,..3 \qquad (1)$$

[17] To exploit further the relationship between the two measures, an analysis of the correlation of each category of the two measures adopted of educational mismatch showed that although the magnitude of the correlation varies across the countries, in general the correlation of those matched, overqualified and underqualified of the objective and subjective measures is positive and statistically significant, with the only exception of those matched in Malawi. The correlation appears to be higher for the overqualified, as well as for the underqualified especially in Uganda and Madagascar.

where i = 1,…n. The dependent variable $JS_i \in \{0,.3\}$ is the self-reported response to an overall job satisfaction question; X is a vector of explanatory variables; $\Phi(\bullet)$ represents the cumulative density function; ω_i represents the threshold values and $\boldsymbol{\theta}$ is a vector of parameter estimates.

We model job satisfaction as a function of individual, household and geographical characteristics. Specifically, the variables are: age group (15-19, 20-24, 25-29); age squared gender; dummies for relationship to the head of household (head; spouse/partner; son/daughter; brother/sister; other relative/not related); a dummy for secondary education completed; a dummy for living in an urban area; tenure in work (in months); tenure squared; dummy variables for employment status (employee; self-employed; working as unpaid family member; formal sector employee); actual weekly hours worked; a dummy for small firms; a dummy for working while studying; an interaction term between working while studying and female; dummy variables for the subjective measure of educational mismatch (matched, over qualified, under qualified); the sector of employment (agriculture, forestry and fishing; mining and manufacturing; wholesale; rest of the industry); year controls and regional controls.

We also estimate models specifically for employees and non-employees. In the employees model, in addition to the variables described above we also include a dummy for written contract; a dummy for unlimited contract; a dummy for pay benefits and other benefits, log weekly wage, and a dummy for formal sector. Estimates for the self-employed also include a dummy capturing whether the individual is self-employed by choice or non-choice and a dummy for formal sector.

Additional estimates also use the objective measure of educational mismatch. The cross-sectional nature of the data does not allow to us control for unobserved heterogeneity, and we recognise that the assumed direction of causality is questionable for many of the explanatory variables. Reflecting this, we interpret the results with due caution.

6. Estimation results

We now turn to present the results of the ordered probit model for the job satisfaction of individuals, classified according the four point scale discussed above. The same two specifications are presented for each country in Table 5, and are estimated based on pooling two wave data sets, with year and region fixed effects included. Other factors were included in the model besides those reported, but they were generally not significant and are not reported here.

Table 5: Ordered probit estimates of job satisfaction: all workers.

	Madagascar		Malawi		Uganda		Zambia	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	-0.080**	-0.126**	0.038	0.042	-0.019	0.114*	0.046	0.107*
	[0.041]	[0.057]	[0.055]	[0.063]	[0.052]	[0.068]	[0.053]	[0.062]
Relationship (Omitted Head of H)								
Spouse/Partner	0.076	0.082	0.047	0.064	0.034	0.031	0.012	0.008
	[0.067]	[0.075]	[0.066]	[0.069]	[0.066]	[0.076]	[0.089]	[0.099]
Son/Daughter	-0.205***	-0.219***	0.013	0.005	-0.083	-0.087	-0.106	-0.134
	[0.059]	[0.067]	[0.069]	[0.072]	[0.063]	[0.069]	[0.086]	[0.094]
Brother/Sister	-0.439**	-0.514***	-0.168	-0.113	-0.14	-0.145	-0.069	-0.083
	[0.173]	[0.183]	[0.142]	[0.150]	[0.157]	[0.182]	[0.093]	[0.098]
Other relative/ not related	-0.06	0.011	-0.138*	-0.041	-0.112	-0.103	-0.147**	-0.109
	[0.073]	[0.081]	[0.079]	[0.080]	[0.077]	[0.086]	[0.067]	[0.073]
Secondary Education	0.02	0.027	-0.109*	-0.022	0.039	-0.088	-0.015	-0.068
	[0.038]	[0.042]	[0.059]	[0.062]	[0.074]	[0.081]	[0.053]	[0.058]
Urban	-0.082**	-0.121***	-0.036	-0.08	-0.105**	-0.083	-0.01	0.036
	[0.042]	[0.045]	[0.058]	[0.060]	[0.051]	[0.056]	[0.053]	[0.068]
Tenure	0.001	0	0.002	0.003	0.001	0.002*	0.001	0.001
	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]	[0.001]	[0.001]	[0.002]
Actual Weekly Hours	0.004***	0.003***	0.002**	0.001	0.005***	0.005***	-0.003***	-0.003**
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
Current job (Omitted employed)								
Self-employed	-0.029		0.272***		0.430***		0.225***	
	[0.060]		[0.059]		[0.057]		[0.056]	
Unpaid Family Member	0.016		0.349***		0.164**		0.089	
	[0.062]		[0.088]		[0.076]		[0.070]	
Current job (Omitted informally employed)								
Self-employed -forced		-0.152*		0.224***		0.203***		0.208***
		[0.087]		[0.073]		[0.074]		[0.075]
Self-employed -by choice		0.273***		0.666***		0.556***		0.572***
		[0.079]		[0.074]		[0.073]		[0.085]
Unpaid Family Member `		0.163**		0.438***		0.074		0.214***
		[0.075]		[0.094]		[0.087]		[0.079]
Formal Employees		0.133		0.274**		-0.031		0.376***
		[0.099]		[0.117]		[0.104]		[0.125]
Small firm		-0.058		-0.189**		-0.157**		-0.134*
		[0.054]		[0.094]		[0.061]		[0.071]
Working while studying		-0.120**		-0.012		0.152**		0.246***
		[0.056]		[0.070]		[0.065]		[0.080]
Subjective Measure(omitted Matched)								
Over-qualified		-0.596***		-0.530***		-0.506***		-0.393***
		[0.057]		[0.060]		[0.079]		[0.080]
Underqualified		-0.242***		-0.301***		-0.430***		-0.243***
		[0.044]		[0.053]		[0.049]		[0.063]

Sector (Omitted Agriculture, forestry and fishing)								
Mining and Manufacturing	-0.027	-0.028	-0.137*	-0.134*	0.316***	0.162	-0.01	-0.01
	[0.061]	[0.066]	[0.070]	[0.073]	[0.089]	[0.101]	[0.126]	[0.141]
Wholesale and retail trade	-0.083	-0.106	-0.063	-0.031	0.231***	0.190***	-0.212***	-0.188**
	[0.063]	[0.070]	[0.058]	[0.061]	[0.065]	[0.073]	[0.075]	[0.082]
Rest of industry	-0.09	-0.07	-0.026	-0.024	0.246***	0.155**	-0.142**	-0.091
	[0.067]	[0.072]	[0.065]	[0.071]	[0.066]	[0.074]	[0.064]	[0.071]
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	**4,102**	**3,556**	**2,616**	**2,475**	**3,106**	**2,557**	**2,017**	**1,799**

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0. Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; tenure squared; interaction term working while studying and female; year and region controls. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.

Considering first the initial specification in each case, being self-employed and an unpaid family worker are each positively associated with higher job satisfaction in Malawi and Uganda and being self-employed with higher job satisfaction in Zambia. Only in Madagascar are there no significant effects by type of work. Being an employee is not associated with higher job satisfaction anywhere, and with lower job satisfaction in Malawi, Uganda and Zambia. These findings are in fact consistent with other findings for both developing (e.g. Falco et al, 2015) and developed countries (Georgellis and Yusuf, 2016, for the UK). Existing studies explain this "paradox" by claiming that the self-employed enjoy the autonomy, the flexibility in working schedules, doing interesting work, and other nonpecuniary benefits (Georgellis and Yusuf, 2016). However, as pointed out by Georgellis and Yusuf (2016) job satisfaction gains are not necessarily permanent, suggesting that self-employment is not always a panacea for job satisfaction. In addition those whose self-employment was not a free choice are still more satisfied than employees in Uganda, and unpaid family workers in Malawi, though these results are not observed in other cases.

The same models show that working in agriculture, as opposed to any other sector, is substantially negatively associated with job satisfaction in Uganda, but not in Malawi, Madagascar and Zambia. This may reflect the more agricultural nature of the Madagascar and Malawi economies. In Madagascar there are no significant sectoral effects in the base model; while in Malawi working in mining and manufacturing has a negative association with job satisfaction relative to working in agriculture. In Zambia working in both wholesale and retail trade, as well as the miscellaneous sector has a negative association with job satisfaction relative to working in agriculture.

Interestingly hours of work are positively associated with job satisfaction in all data sets, except in Zambia. This suggests that underemployment may be associated with lower job satisfaction, even if the magnitude of this effect is quite small. Having completed a secondary level of education does not have a significant effect on job satisfaction. Job satisfaction is lower in urban areas in all four countries, though this is not significant in Malawi and Zambia. Females have lower levels of job satisfaction in Madagascar, though there are no significant effects in the other countries. Where significant, each of these effects are

quite large. Household heads generally enjoy higher levels of job satisfaction, in comparison with sons or daughters in the case of Madagascar, and compared to more distant relatives in Zambia.

The second model in each case in Table 5 adds additional variables including a variable for whether self-employment was freely chosen by the respondent (as opposed to being required due to the absence of alternatives), an indicator of having a formal sector wage job and the subjective measure of educational mismatch. The model also includes variables for working while studying, an interaction between working while studying and female, and a dummy for working in a small firm.

The inclusion of these variables mostly does not affect the sign or significance of most of the effects included in the first model. However, the results for job type change to some extent as the omitted case is now informal wage worker and because of the disaggregation of the self-employed. There is a strongly significant positive association of being self-employed as a result of free choice in all four countries. The magnitude of this effect is large everywhere, even now in Madagascar. The coefficients on being self-employed due to the absence of other alternatives are smaller everywhere, but are still significant and positive in Malawi, Uganda and Zambia; the coefficient on this variable is though significant and negative in Madagascar. Being an unpaid family worker now has a positive association with job satisfaction everywhere except Uganda, where it is insignificant. The size of these coefficients though are much lower than those for freely chosen self-employment.

Having a formal sector wage job has a significant positive association with job satisfaction in Malawi and Zambia, but not in the other countries. It is also important to note that the coefficients on being a formal employee are substantially below the coefficient indicating a worker is self-employed by choice, and smaller than the coefficient for being an unpaid family worker in Malawi. Despite the existing evidence showing that young workers make a key contribution toward the aggregate decline in informality, with the reductions in informality being largest for the youngest cohorts and declining with age (McCaig and Pavcnik, 2015), the small or insignificant impact of being a formal sector employee may suggest that formalization is not necessarily accompanied by changes in working conditions, hence with higher wellbeing of workers.

Being over-qualified for the job has a strong, significant and negative impact on job satisfaction in all countries, although the magnitude varies, with the effect being larger for Madagascar and smaller for Zambia. These effects suggest that despite the variation across countries, the poor quality of the jobs is likely to generate increased frustration especially for workers who find it difficult to find jobs that match their current level of education. In similar vein, results also show that being under-qualified is associated with a decrease in job satisfaction. The magnitude of this effect is somewhat less than that of over-qualified, but it is still large and still strongly significant.

Working in a small firm is negatively associated with job satisfaction. This is in contrast with existing research for developed countries (Tansel and Gazioglu, 2014) which suggested that job satisfaction is higher in small firms, due to the higher (lower) satisfaction in the relationship between management and employees in small (large) firms. This difference can be explained by the different nature of small firm size in sub-Saharan African countries, characterised most of the time by informal organisation.

As characteristics of the workplace and the conditions of employment are likely to affect job satisfaction, we also controlled in another specification for whether the employee is a member of union[18]. Being unionised is expected to be associated with better working conditions, reflecting the role of unions in enhancing working conditions, and so this might be expected to be associated with better job satisfaction of workers. However, only a small fraction of workers in the sample report to be union members[19] (specifically 2.9% in Madagascar, 6.2% in Malawi, 5.2% in Uganda and 8.5% in Zambia). Nonetheless, as expected being a member of union has a positive and highly statistically significant effect on job satisfaction in all countries except Uganda. The effects are consistent with existing evidence showing a positive association with subjective wellbeing in low income countries, through better working conditions (Crawford and Owen, 2014). The variation across countries might reflect the different roles of unions in the four countries. In fact, as pointed out by Freeman (2010) among developing countries the role of labour institutions vary considerably, moreover union and collective bargaining are less important in developing countries than in advanced countries.

Table 6 reports similar specifications to the second models in Table 5 but using as an alternative measure of educational mismatch the objective measure. Results show that adopting a different measure of educational mismatch does not change the sign, magnitude and significance of the main variables of interest. Moreover, adopting this measure confirms the main trend observed when using the subjective measure of educational mismatch: being overqualified is statistically significantly associated with a decrease in job satisfaction. This is true for all countries expect Malawi where the coefficient is still negative but not significant. Effects of being underqualified are much less evident here.

Table 6: Ordered probit estimates of job satisfaction: all workers, using objective measure of educational mismatch.

	Madagascar	Malawi	Uganda	Zambia
	(1)	(2)	(3)	(4)
Female	-0.132**	0.052	0.062	0.117*
	[0.056]	[0.063]	[0.064]	[0.061]
Relationship (Omitted Head of H)				
Spouse/Partner	0.067	0.055	0.065	0.011
	[0.074]	[0.068]	[0.071]	[0.097]
Son/Daughter	-0.232***	0.002	-0.095	-0.097
	[0.066]	[0.072]	[0.066]	[0.092]
Brother/Sister	-0.605***	-0.174	-0.194	-0.103
	[0.181]	[0.145]	[0.169]	[0.098]
Other relative/not related	0.018	-0.079	-0.09	-0.133*
	[0.081]	[0.080]	[0.081]	[0.073]
Secondary Education	0.069	-0.024	0.170*	0.052
	[0.060]	[0.087]	[0.092]	[0.067]
Urban	-0.117***	-0.058	-0.065	0.046

[18] Results with union and formal sector for all workers are not reported here but available on request.

[19] Freeman (2010) has documented that developing countries have lower union density, in addition in most developing country unions are weak.

	[0.045]	[0.060]	[0.053]	[0.067]
Tenure	0.001	0.002	0.002*	0.001
	[0.001]	[0.002]	[0.001]	[0.001]
Current job (Omitted informally employed)				
Self-employed forced	-0.226**	0.201***	0.232***	0.201***
	[0.088]	[0.073]	[0.070]	[0.074]
Self employed by choice	0.229***	0.668***	0.657***	0.560***
	[0.080]	[0.074]	[0.070]	[0.083]
Unpaid family worker	0.12	0.461***	0.145*	0.208***
	[0.076]	[0.095]	[0.083]	[0.077]
Formal employed	0.082	0.326***	-0.081	0.343***
	[0.102]	[0.119]	[0.102]	[0.122]
Actual Weekly Hours	0.004***	0.001	0.005***	-0.003**
	[0.001]	[0.001]	[0.001]	[0.001]
Small firm	-0.041	-0.221**	-0.179***	-0.108
	[0.054]	[0.095]	[0.060]	[0.072]
Working while studying	-0.140**	-0.018	0.202***	0.227***
	[0.056]	[0.070]	[0.062]	[0.078]
Objective Measure: (Matched omitted)				
Over-qualified	-0.140**	-0.075	-0.272***	-0.215***
	[0.058]	[0.084]	[0.084]	[0.068]
Underqualified	-0.021	0.125**	0.018	0.057
	[0.101]	[0.051]	[0.045]	[0.221]
Sector (Omitted Agriculture, forestry and fishing)				
Mining and Manufacturing	-0.024	-0.141*	0.227**	-0.042
	[0.067]	[0.073]	[0.097]	[0.138]
Wholesale and retail trade	-0.099	-0.05	0.234***	-0.173**
	[0.069]	[0.061]	[0.068]	[0.080]
Rest of industry	-0.078	-0.032	0.181***	-0.089
	[0.071]	[0.071]	[0.070]	[0.069]
Year	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes
Observations	3,568	2,480	2,916	1,872

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0. Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; tenure squared; interaction term working while studying and female; year and region controls. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.

Given the importance of the self-employment/wage employment distinction, Table 7 reports separate estimates for the self-employed and wage employees. Over-qualification has a strong negative effect on both employees and the self-employed in all countries, confirming the results observed in Table 5, but the effects are bigger for employees everywhere except Uganda. Being underqualified also has smaller but still significant associations with job satisfaction of both employees and the self–employed, but again with larger effects for the employees. Hours worked has a positive and significant association with job satisfaction for the self-employed in Malawi and Uganda, but it has a significant negative effect for employees in Malawi and Zambia. This suggests one reason why job satisfaction is lower for employees is due to longer hours worked, at least in these countries. Working while studying is positively associated with greater job satisfaction among both groups in Zambia. The wage earned by employees has a positive

impact on job satisfaction in Madagascar and Zambia, though surprisingly not for the other countries. Having monetary benefits in a wage job has a strong positive association with satisfaction everywhere, but the form of the contract is only important in some cases.

Estimates for the self-employed again include the dummy variable capturing whether an individual is self-employed by choice or because he/she had no other choice, showing the same result as before. Working in a small firm appears to be negatively and statistically associated with job satisfaction for the self-employed in all countries except Zambia. For both employees and the self-employed working in the formal sector has no significant effect. The formal sector in employees and self-employed estimates might also capture different distributions of skills and sectors, in fact formal workers have notably higher shares of employment among higher-skilled occupations (McCaig and Pavcnik, 2015).

In sum, some of the most important and largest negative effects on job satisfaction are having a wage job, being overeducated for the job, and working in some specific sectors. The first factor may be associated with satisfaction more generally – not just job satisfaction – whereas the latter two would seem to be more strongly linked to job satisfaction. There are some differences in the factors affecting job satisfaction between employees and the self-employed.

Table 7: Ordered probit estimates: employees and self-employed.

	Employees				Self-employed			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Madagascar	Malawi	Uganda	Zambia	Madagascar	Malawi	Uganda	Zambia
Female	-0.257	-0.035	0.037	0.280**	0.001	0.074	0.107	-0.053
	[0.165]	[0.158]	[0.136]	[0.123]	[0.109]	[0.082]	[0.101]	[0.113]
Secondary Education	-0.109	0.070	-0.204	-0.057	0.054	-0.099	-0.159	-0.140
	[0.154]	[0.161]	[0.135]	[0.127]	[0.074]	[0.079]	[0.121]	[0.097]
Urban	-0.218*	-0.084	-0.190*	0.191	-0.065	-0.097	-0.083	-0.107
	[0.132]	[0.137]	[0.107]	[0.134]	[0.075]	[0.077]	[0.078]	[0.119]
Actual Weekly Hours	0.001	-0.005*	0.002	-0.007***	0.002	0.004**	0.005***	-0.004
	[0.003]	[0.003]	[0.002]	[0.003]	[0.002]	[0.001]	[0.001]	[0.003]
Formal Sector	0.015	-0.005	-0.088	0.025	0.055	-0.015	0.187	0.320
	[0.185]	[0.182]	[0.123]	[0.181]	[0.132]	[0.130]	[0.143]	[0.296]
Small firm	0.211	0.185	-0.006	-0.024	-0.259**	-0.311*	-0.199*	-0.283
	[0.153]	[0.149]	[0.110]	[0.136]	[0.102]	[0.174]	[0.106]	[0.176]
Working while studying	0.078	-0.265*	0.175	0.323**	-0.117	0.046	0.131	0.242*
	[0.172]	[0.143]	[0.122]	[0.161]	[0.095]	[0.096]	[0.093]	[0.134]
Subjective Measure: (Matched omitted)								
Over-qualified	-0.794***	-0.648***	-0.403***	-0.601***	-0.567***	-0.368***	-0.592***	-0.383***
	[0.160]	[0.163]	[0.147]	[0.166]	[0.096]	[0.076]	[0.110]	[0.139]

Underqualified	-0.387**	-0.474***	-0.518***	-0.244*	-0.246***	-0.218***	-0.470***	-0.071
	[0.172]	[0.139]	[0.112]	[0.128]	[0.079]	[0.066]	[0.067]	[0.111]
Self-Employment choice					0.449***	0.449***	0.368***	0.392***
					[0.075]	[0.057]	[0.067]	[0.093]
Log wage	0.208**	0.116	0.091	0.098**				
	[0.093]	[0.072]	[0.064]	[0.044]				
Written contract	-0.117	0.373**	0.111	0.208				
	[0.187]	[0.176]	[0.152]	[0.137]				
Unlimited Contract	0.511***	-0.105	0.069	-0.041				
	[0.141]	[0.137]	[0.123]	[0.118]				
Monetary benefits	0.419***	0.245*	0.241**	0.314**				
	[0.160]	[0.144]	[0.115]	[0.125]				
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	385	428	586	469	1,171	1,586	1,417	660

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0. Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; relationship with the head of household; tenure squared; interaction term working while studying and female; sector, year and region controls. Estimates for employees also include other benefits. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.

7. Robustness

This section examines several aspects that might be driving the results of job satisfaction[20]. We focus on the estimates including the our preferred measure of skill mismatch (the subjective measure). Exploiting the richness of the data we are able to test the sensitivity of our results against various factors, both individual and contextual. All the sensitivity experiments described below do not substantially change the magnitude, direction and significance of the main variables of interest.

7.1 Individual and contextual conditions

We start by running our preferred models (Table 5 and 7) by age group (15-19, 20-24, and 25-29) and by gender to check whether the existing results might be driven by one or more of these age or gender groups. This could be particularly the case for the second and third age group since job satisfaction of those who have just entered the labour market may reflect the different levels of expectations and experience. In addition, we also control for an age group and gender interaction. However, the main results do not substantially change and no particular trend is evident.

To account for family background, we derive dummy variable indicators for the level of education of the parents, specifically dummy variables for each of the mother and the father having completed secondary education. This variable is positively and significantly associated with job satisfaction only in the

[20] Unless otherwise indicated, additional estimates testing the robustness of our results are not reported but available upon request from authors.

Zambian data (Appendix Table A.3). Another potentially relevant aspect of family background is given by the distinction between poor and non-poor households, for which a self-reported response is available in the survey. We define poor the household that has been identified by its member as being fairly poor or poor; and define as non-poor the household that has been identified by its member as being well-off, fairly well-off or around average. Respondents from poor households are less satisfied with their work (Appendix Table A.4). This is highly significant in all countries. The other effects though remains as before.

To account for the potential better quality and quantity of jobs in urban areas, and the possibility that those better educated are more likely to get a better job that can then reflect on the job satisfaction we also include an urban and secondary education interaction. This was only positive and statistically significant for Malawi for all workers and for employees.

7.2 Employment history and characteristics

Given our focus on young workers, the extent to which the initial labour market experiences, particularly immediately after completing education, met the aspirations and expectations of young workers, may also affect the satisfaction of the current job as well as the choice of future occupations. Hence analysing factors related to employment history can perhaps contribute to the explanation of the current distribution of job satisfaction. To account for this, we created several variables capturing the employment history of the young workers in the four countries analysed. The SWTS data are particularly suitable for this kind of analysis since they collect detailed information on the month and year of completing full time education; as well as the month and year of starting work, enabling computation of the time it took to find a job after completing education. The SWTS also record every time the individual changed job. In particular, for each job the SWTS records information on: the type of work (employee, self-employed, unpaid family worker or not working); month and year of starting and finishing; type and length of contract; the reason why the activity stopped, as well as the job satisfaction for each job that either had a contract or an agreement of unlimited duration, or had no contract (self-employed; unpaid family worker). Based on this information, we were able to control for the following aspects: time to find a job after completing full time education; nature of first job (whether employee, self-employed, unpaid family worker or not working); nature of last job before the current one (employee, self-employed, unpaid family worker or not working); number of times the individual changed jobs since entering the labour market; and how many times the individual changed jobs in the past three years.

Results of this are presented in Appendix Table A.5. The time (expressed in months) employed to find a job after completing education does not seem to have any effect on satisfaction in the current job. This is not surprising as it is often common for young workers to wait some time before finding a job. The number of times an individual changed job, which should capture job stability, also does not have any significant and consistent effect across the countries. In fact having changed job three times during the last three years is negative and significantly (at 10%) associated with job satisfaction in Madagascar for all workers, and having changed jobs 4 or more times is positively and significantly (at 5%) associated with job satisfaction in Zambia for all workers. When looking at employees and self-employed separately, we find no

significant effect for the self-employed, and only for employees in Malawi is the number of times an individual changed job negatively and statistically associated with job satisfaction.

When considering the first type of job, in general there is no common pattern across the countries. Considering the nature of the previous job does show some significant effects For all countries except Madagascar, being unemployed before the current job is negatively and statistically significantly associated with job satisfaction of current job, but surprisingly this effect is positive in Madagascar. Moreover, if the last job was self-employed this has a positive and significant association with satisfaction the current job at the 5% significance level in Madagascar, 10% level in Uganda and the 1% level in Zambia. Job satisfaction in the previous job is negatively and statistically significantly associated with satisfaction of current job.

Because workers of different (higher) skills may have better chance to get better quality job and/or a job more in line with their own skills, we also carry out a robustness check by including a dummy variable for high skilled workers defined as managers, professionals, technicians and associate professional. Being a high skilled worker has the potential to be particularly relevant for the job satisfaction of the self-employed. For this reason we also control for high skilled for self-employed only but there is no significant results. In similar way, a variable indicator for major occupation (Manager and professional; clerical support workers; services and sales workers; skilled agriculture, forestry and fishing; craft and related trade workers; plant and machine operator and assembly workers; elementary occupation, and armed forces) does not produce significant and consistent pattern across the countries, with most of the variables being insignificant.

8. Conclusions

We analyse job satisfaction of workers aged 15-29 in Madagascar, Malawi, Uganda and Zambia, using School-to-Work Transition Survey. The levels of job satisfaction in these countries are quite high overall, but there is substantial variation.

One important result is the substantially lower level of job satisfaction across all countries among those who consider themselves under- or especially over-qualified in their current job. This is a particularly worrying form of discontent since those who feel it are young and educated and no society prospers by disappointing such people. It is also a result that stands liable to be misused by those who seek to denigrate the usefulness of education. If the aim is to improve the economies in question, then the lesson from this result is to reduce the barriers to job creation that stand in the way of the expansion of demand for educated young people.

A second important result is that in all countries those who choose self-employment or unpaid family work are more satisfied than employees. Indeed for three of the four countries (not Madagascar), the descriptive and econometric analysis shows that this group has the higher proportion of satisfied respondents, more so than employees in the formal sector. This is a relative result, so we cannot be clear if it reflects the poor quality of the available wage jobs, or, more positively, whether the greater flexibility and

independence of self-employment is highly valued. These results remain important after controlling for other factors, such as education level and rural location.

The takeaway picture these results suggest is that employment is highly valued among young workers, especially when they can exercise choice. But a very important result here is that it is not the case that wage work is always preferred. This potentially questions the common definitions used of vulnerable unemployment, as for example Pieters (2013) above among many others. But at the same time it would also seem to highlight the poor quality of many currently available wage jobs. But many of the results here may not be too surprising: most would think it likely that those who exercised choice over their work are more satisfied. It is important nonetheless that we are aware of the breeding grounds for dissatisfaction.

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Appendix A1: Variables description

Secondary Education:

The indicator for Secondary Education completed is constructed based on the question: *"What is your highest level of completed formal education/training?"*. The categories for this question varies by country and year. To ensure consistency over country and year, for Uganda we identify an individual as having completed secondary education or above if he/she reports as highest completed level of education being Incomplete or Complete A level; tertiary education, bachelors degree, or postgraduate studies. In 2015 those categories for Uganda change slightly so we identify an individual as having completed secondary education or above if he/she reports as highest completed level of education being O level; A level; Professional Certificate; Diploma; First Degree; Post graduate certificate; post graduate diploma or masters degree and above. For Malawi we identify an individual as having completed secondary education or above if he/she reports as highest completed level of education being secondary; university; other tertiary; or vocational school. For Madagascar we identify an individual as having completed secondary education or above if he/she reports as highest completed level of education being secondary; secondary studies; post-secondary; university; post-university.

Region:

Using detailed information on districts (111 in Uganda; 28 in Malawi; 114 in Madagascar) we derive a regional indicator. Specifically, the region categories for Uganda are: Central, Eastern, Northern, and Western. For Malawi are Central, Eastern, and Northern; for Madagascar they reflect the 6 provinces such as Antananarivo, Antsiranana, Fianarantsoa, Mahajanga, Toamasina, and Toliara, and fro Zambia they reflect the 10 provinces such as Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, North Western, Northern, Southern and Western.

Pay and other benefits:

Pay and other benefits are defined on a series of questions asking whether the employee benefits from a service at workplace.

An employee is identified as receiving a pay benefit if he/she reports one or more of the following at work place: Annual paid leave (holiday time); Paid sick leave; Severance/end of service payment; Overtime pay; Bonus/reward for good performance;

An employee is identified as receiving other benefit if he/she reports one or more of the following at work place: Transport or transport allowance; Meals or meal allowance; Pension/old age insurance; Medical insurance coverage; Social security contribution; Educational or training courses; Occupational safety/protective equipment or clothing; Childcare facilities Maternity/paternity leave; Housing allowance/benefits.

Appendix A2.

In the International Standard Classification of Occupation 2008 (ISCO-08) provided by the ILO Skill is defined as the ability to carry out the tasks and duties of a given job. To arrange occupations into groups, ILO uses two dimensions: skill level and skill specialization. The concept of skill level is applied mainly at the top (major group) level of classification to give more emphasis to the first of the operational measures, the nature of the work performed, than to the formal and informal education and training requirements. Skill level is defined as a function of the complexity and range of tasks and duties to be performed in an occupation, and is measured operationally by considering, the nature of the work performed in an occupation in relation to the characteristic tasks and duties; the level of formal education defined in terms of the International Standard Classification of Education (ISCED-97)(UNESCO, 1997) required for competent performance of the tasks and duties involved; and the amount of informal on-the-job training and previous experience for competent performance of these tasks and duties.

Skills level are classified into 4. below the corresponding level of education for each skill level:

- Skill level 1 for some of the occupation at this level, completion of primary education or first stage of basic education may be required.
- Skill level 2: are usually obtained through completion of the first stage of secondary education.
- Skill level 3 are usually obtained as a results of study at a higher educational institution for a period of 1-3 years following completion of secondary education.
- Skill level 4 are usually obtained as a result of study at a higher educational institution for a period of 3-6 years leading to the award of a first degree or higher qualification.

Table A2a.

<table>
<tr><td></td><td colspan="2">Mapping of ISCO-08 major groups to skill levels</td><td></td><td></td></tr>
<tr><td></td><td>ISCO-08 major groups</td><td>Skill Level</td><td>ISCED-97 groups</td><td>Usual education assigned</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Managers</td><td rowspan="2">3+4</td><td>4= Secondary Stage of Tertiary education;
First stage of tertiary education, 1st degree</td><td rowspan="4">Secondary or above completed</td></tr>
<tr><td>3=First stage of tertiary education</td></tr>
<tr><td>2</td><td>Professionals</td><td>4</td><td>Secondary Stage of Tertiary education;
First stage of tertiary education, 1st degree</td></tr>
<tr><td>3</td><td>Technicians and Associate Professionals</td><td>3</td><td>First stage of tertiary education</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>4</td><td>Clerical Support workers</td><td rowspan="3">2</td><td rowspan="3">Post-secondary, non-tertiary education;
Upper Secondary level of education;
Lower secondary level of education
Lower secondary level of education</td><td rowspan="3">Primary and Lower</td></tr>
<tr><td>5</td><td>Services and Sales Workers</td></tr>
<tr><td>6</td><td>Skilled Agricultural, Forestry and Fishery Workers</td></tr>
</table>

7	Craft and Related Trades Workers			**secondary**
8	Plant and Machine Operators and Assemblers			
9	Elementary occupations	1	Primary level of education	**No schooling or less than primary**
0	Armed Forces Occupations	1+2+4	Primary level of education+ Post-secondary, non-tertiary education; Upper Secondary level of education; Lower secondary level of education Lower secondary level of education + Secondary Stage of Tertiary education; First stage of tertiary education, 1st degree	

Appendix A3: Estimates for all workers, including parents' education as control.

	Madagascar	Malawi	Uganda	Zambia
Female	-0.092	0.043	0.153*	0.131*
	[0.063]	[0.067]	[0.078]	[0.072]
Relationship(Omitted Head of H)				
Spouse/Partner	0.135	0.067	0.017	0.003
	[0.083]	[0.072]	[0.088]	[0.114]
Son/Daughter	-0.217***	0.007	-0.078	-0.084
	[0.074]	[0.075]	[0.078]	[0.106]
Bother/Sister	-0.486**	-0.07	-0.074	-0.062
	[0.207]	[0.155]	[0.239]	[0.112]
Other relative/not related	-0.037	-0.039	-0.071	-0.130
	[0.093]	[0.085]	[0.101]	[0.082]
Secondary Education	0.025	-0.049	-0.185*	-0.125*
	[0.050]	[0.064]	[0.097]	[0.071]
Urban	-0.159***	-0.067	-0.044	0.013
	[0.049]	[0.063]	[0.064]	[0.078]
Tenure	0.001	0.002	0.003*	0.001
	[0.001]	[0.002]	[0.001]	[0.002]
Actual Weekly Hours	0.003***	0.002	0.004***	-0.003*
	[0.001]	[0.001]	[0.001]	[0.002]
Current job (Omitted employee)				
Self-employed -forced	-0.113	0.216***	0.251***	0.187**
	[0.096]	[0.078]	[0.087]	[0.085]

Self-employed -by choice	0.262***	0.660***	0.581***	0.570***
	[0.087]	[0.078]	[0.086]	[0.098]
Unpaid Family Member	0.115	0.468***	0.179*	0.168*
`	[0.082]	[0.099]	[0.102]	[0.090]
Formal Employees	0.123	0.276**	0.031	0.258*
	[0.111]	[0.123]	[0.120]	[0.136]
Small firm	-0.099*	-0.185*	-0.186***	-0.092
	[0.059]	[0.098]	[0.072]	[0.080]
Working while studying	-0.120**	-0.018	0.158**	0.283***
	[0.061]	[0.073]	[0.075]	[0.089]
Mother Secondary Education completed	-0.006	0.000	0.114	0.142**
	[0.068]	[0.024]	[0.155]	[0.068]
Father Secondary Education completed	-0.065	0.012	-0.014	0.125*
	[0.062]	[0.019]	[0.102]	[0.072]
Subjective Measure: (omitted Matched)				
Over-qualified	-0.563***	-0.530***	-0.597***	-0.378***
	[0.062]	[0.064]	[0.092]	[0.091]
Underqualified	-0.211***	-0.306***	-0.441***	-0.264***
	[0.048]	[0.055]	[0.057]	[0.072]
Year	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes
Sector	Yes	Yes	Yes	Yes
Observations	**3,014**	**2,239**	**1,935**	**1,428**

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0. Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; relationship with the head of household; tenure squared; interaction term working while studying and female; year, region and sector controls. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.

Appendix A4: Estimates for all workers, including poor households as control.

	Madagascar	Malawi	Uganda	Zambia
Female	-0.122**	0.036	0.124*	0.112*
	[0.057]	[0.063]	[0.068]	[0.062]
Relationship (Omitted Head of H)				
Spouse/Partner	0.079	0.039	0.006	-0.031
	[0.075]	[0.069]	[0.076]	[0.100]
Son/Daughter	-0.221***	-0.015	-0.068	-0.12

	[0.067]	[0.072]	[0.070]	[0.092]
Bother/Sister	-0.557***	-0.112	-0.178	-0.103
	[0.191]	[0.149]	[0.184]	[0.100]
Other relative/not related	-0.013	-0.068	-0.095	-0.122
	[0.082]	[0.080]	[0.085]	[0.074]
Secondary Education	-0.007	-0.062	-0.12	-0.156***
	[0.043]	[0.062]	[0.081]	[0.060]
Urban	-0.119***	-0.110*	-0.120**	-0.014
	[0.045]	[0.060]	[0.056]	[0.069]
Tenure	0.000	0.002	0.002*	0.001
	[0.001]	[0.002]	[0.001]	[0.002]
Actual Weekly Hours	0.003**	0.001	0.004***	-0.004***
	[0.001]	[0.001]	[0.001]	[0.001]
Current job (Omitted employee)				
Self-employed -forced	-0.159*	0.221***	0.194***	0.241***
	[0.087]	[0.073]	[0.074]	[0.075]
Self-employed -by choice	0.246***	0.645***	0.534***	0.571***
	[0.079]	[0.073]	[0.073]	[0.085]
Unpaid Family Member	0.130*	0.424***	0.068	0.221***
`	[0.075]	[0.094]	[0.088]	[0.080]
Formal Employees	0.125	0.263**	-0.054	0.376***
	[0.099]	[0.117]	[0.103]	[0.125]
Small firm	-0.056	-0.172*	-0.150**	-0.128*
	[0.054]	[0.094]	[0.062]	[0.071]
Working while studying	-0.108*	-0.008	0.154**	0.266***
	[0.056]	[0.070]	[0.065]	[0.081]
Poor Households	-0.298***	-0.228***	-0.253***	-0.477***
	[0.040]	[0.054]	[0.048]	[0.057]
Subjective Measure: (omitted Matched)				
Over-qualified	-0.608***	-0.524***	-0.518***	-0.386***
	[0.057]	[0.060]	[0.079]	[0.081]
Underqualified	-0.246***	-0.290***	-0.430***	-0.211***
	[0.044]	[0.053]	[0.049]	[0.064]
Year	Yes	Yes	Yes	Yes
Sector	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes
Observations	**3,539**	**2,475**	**2,548**	**1,799**

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0.Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; relationship with the head of household; tenure squared; interaction term working while studying and female; year, region and sector controls. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.

Appendix A5: Estimates for all workers, including previous job and number of times changed job in last three years as control.

	Madagascar	Malawi	Uganda	Zambia
Female	-0.143**	0.054	0.133*	0.116*
	[0.057]	[0.063]	[0.069]	[0.069]
Relationship (Omitted Head of H)				
Spouse/Partner	0.077	0.074	0.024	0.101
	[0.075]	[0.069]	[0.077]	[0.111]
Son/Daughter	-0.221***	0.01	-0.092	-0.055
	[0.068]	[0.072]	[0.070]	[0.100]
Bother/Sister	-0.505***	-0.136	-0.150	-0.065
	[0.183]	[0.149]	[0.183]	[0.108]
Other relative/not related	0.007	-0.023	-0.111	-0.066
	[0.082]	[0.080]	[0.087]	[0.079]
Secondary Education	0.032	-0.012	-0.078	-0.041
	[0.042]	[0.062]	[0.081]	[0.063]
Urban	-0.128***	-0.067	-0.081	0.080
	[0.045]	[0.060]	[0.056]	[0.072]
Tenure	-0.001	0.003	0.002	0.000
	[0.002]	[0.002]	[0.002]	[0.003]
Actual Weekly Hours	0.003***	0.001	0.004***	-0.004***
	[0.001]	[0.001]	[0.001]	[0.001]
Current job (Omitted employee)				
Self-employed -forced	-0.374***	0.192**	0.092	0.086
	[0.142]	[0.080]	[0.102]	[0.094]
Self-employed -by choice	0.069	0.632***	0.426***	0.469***
	[0.134]	[0.080]	[0.103]	[0.107]
Unpaid Family Member	-0.260**	0.436***	0.058	0.179*
`	[0.129]	[0.100]	[0.116]	[0.096]
Formal Employees	0.132	0.255**	-0.033	0.476***
	[0.100]	[0.120]	[0.104]	[0.133]
Small firm	-0.067	-0.180*	-0.154**	-0.142*
	[0.054]	[0.095]	[0.062]	[0.078]
Working while studying	-0.127**	-0.007	0.145**	0.227***
	[0.056]	[0.070]	[0.065]	[0.085]
Last job (Omitted employee)	0.247**	0.028	0.163*	0.322***
Self Employed	[0.126]	[0.080]	[0.096]	[0.100]
	0.475***	0.058	0.047	0.182
Unpaid family worker	[0.117]	[0.092]	[0.111]	[0.119]
	0.519***	-0.320***	-0.221	-0.162**
Not working	[0.185]	[0.091]	[0.135]	[0.082]
Number times changed job in the past 3 years (Omitted 0)				

1	-0.063	0.033	-0.003	-0.041
	[0.072]	[0.085]	[0.090]	[0.116]
2	-0.051	-0.056	0.086	0.054
	[0.092]	[0.111]	[0.119]	[0.151]
3	-0.233*	-0.006	-0.242	0.218
	[0.131]	[0.175]	[0.167]	[0.192]
4 or more	0.037	-0.441	-0.178	-1.117**
	[0.167]	[0.382]	[0.266]	[0.447]
Subjective Measure: (omitted Matched)				
Over-qualified	-0.603***	-0.502***	-0.496***	-0.411***
	[0.057]	[0.061]	[0.079]	[0.089]
Underqualified	-0.234***	-0.301***	-0.426***	-0.252***
	[0.044]	[0.053]	[0.049]	[0.070]
Year	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes
Sector	Yes	Yes	Yes	Yes
Observations	3,554	2,475	2,552	1,543

Note: Estimation by ordered probit. The dependent variable is Job satisfaction which is an ordered variable with the following categories: 0. Very unsatisfied, 1. Somewhat unsatisfied, 2. Somewhat satisfied, 3. Very satisfied. Additional control not reported are: age group 15-19, 20-24, 25-29; age squared; relationship with the head of household; tenure squared; interaction term working while studying and female; year, region and sector controls. Robust standard error in [.]. Significance *** p<0.01, ** p<0.05, * p<0.1.