



International
Labour
Office
Geneva



Non-standard forms of employment in Uganda and Ghana

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CONDITIONS OF WORK AND EMPLOYMENT SERIES No. 70

INWORK

Inclusive Labour Markets, Labour Relations
and Working Conditions Branch

***Non-standard forms of employment in Uganda and
Ghana***

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ILO Cataloguing in Publication Data

Dumas, Christelle; Houdré, Cédric

Non-standard forms of employment in Uganda and Ghana / Christelle Dumas, Cédric Houdré ; International Labour Office, Inclusive Labour Markets, Labour Relations and Working Conditions Branch. - Geneva: ILO, 2016 (Conditions of work and employment series ; No. 70)

International Labour Office Inclusive Labour Markets, Labour Relations and Working Conditions Branch.

precarious employment / temporary employment / informal employment / labour market / working conditions / wages / Ghana / Uganda

13.01.3

First published 2016

Cover: DTP/Design Unit, ILO

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Printed by the International Labour Office, Geneva, Switzerland

Abstract

Africa has experienced sustained growth in recent decades. However, it is still confronted with major challenges with respect to poverty and sustainable development, and in particular regarding employment, as illustrated by the post-2015 agenda of the UN. One of these challenges (and new Sustainable-Development Goals) relates to the promotion of sustainable and inclusive growth, full and productive employment and decent work for all. There has been concern over the past few decades about the evolution of labour markets in developed countries, and the shift in employment away from traditional full-time permanent jobs towards more flexible and less regulated – so called Non-Standard Forms of Employment (NSFE). However, the context of labour markets and traditional work contracts in Africa stands in sharp contrast to that in developed countries: the Agricultural sector remains large and the informal sector is prominent. Following the initiative of the International Labour Office (ILO) to extend our knowledge of NSFEs to developing countries, this report discusses the incidence of NSFEs and their consequences for wages, job quality and other job characteristics in two sub-Saharan countries: Ghana and Uganda. The choice of these countries is driven by the availability and complementarity of micro-data and the two countries' differing recent economic performance.

The 2012 incidence of NSFEs in urban areas, defined in opposition to standard full-time permanent contracts, is around 28 per cent of wage employees in Uganda and 35 per cent in Ghana. A little over 40 per cent of these jobs correspond to part-time employment in both countries, the other 60 per cent being temporary workers, those engaged in fixed-term/non-durable relationships and casual work arrangements. Global macro-economic developments since 2008/2009 have affected the structure of employment, and in particular the different types of paid employment. During the crisis in Uganda, there were notable shifts in permanent part-time and short-term contracts that can be related to economic growth. In addition, the work hours of NSFE workers fell following the 2011 recession in Uganda, while they remained stable for workers in standard employment. Although NSFE workers do not represent the majority of the workforce in either country, non-standard forms of employment appear to be used by employers as a tool for workforce adjustment.

NSFE jobs are unequally distributed across the workforce: the young, low-educated or low-skilled workers, and those working in the Agricultural sector are more frequently found in NSFEs, and in particular in casual employment. The fall in NSFE incidence with education is particularly steep: even primary education is sufficient to substantially increase the odds of standard employment in Ghana, while secondary or vocational education leads to significantly better outcomes in this respect in Uganda. There are no systematic gender gaps: women are more likely to have NSFE jobs in Ghana, but not in Uganda (although, considering job transitions, women are significantly less likely to move to better employment situations in Uganda).

Except for those in part-time jobs, hours of work in NSFEs and standard employment are the same: in both average weekly hours (57 in Uganda, 50 in Ghana) are above the standard legal thresholds but within the acceptable legal exceptions. The similarity in hours translates into insignificant differences in monthly earnings between NSFE and standard workers, once part-time jobs are accounted for. The main drivers of earnings remain education, age, gender and tenure. There is however a clear and robust gap in both countries regarding the social benefits associated with employment, with NSFE workers being in this respect clearly worse off than standard workers.

Finally, a key question regarding NSFEs from a dynamic perspective is the relationship between NSFEE work, in particular early in the career, and future labour-market prospects, as compared to being unemployed. Overall, NSFEE jobs do significantly increase the chances of moving to standard employment within the year. However, this result is mainly driven by part-timers; short-term workers are neither better nor worse off than the unemployed in terms of future entry into standard employment. There are robust gender differences here, all else equal, with women having a 30 per cent to 45 per cent lower probability of moving to standard employment. The transition statistics show that NSFEEs may play a stepping-stone role for educated and younger workers, but rather seem to be a dead end for lower-educated workers. Further evidence would be useful here to help confirm these findings.

The worse future prospects, greater job insecurity and lower social benefits translate into lower job satisfaction for NSFEE workers. Those in non-durable and therefore more precarious work situations frequently feel (up to a figure of 46 per cent in Ghana) “bothered by” the uncertainty of their employment status. Casual and short-term workers have more dissatisfying jobs (as reported by up to 74 per cent of casual workers in Uganda). However, standard workers are themselves frequently dissatisfied or would like to change jobs (58 per cent in Uganda). The main reason for dissatisfaction across all employment categories remains pay, followed by job insecurity.

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1. Introduction

This report aims to analyse non-standard forms of employment (NSFE) in Africa. NSFES include part-time work, fixed-term contracts of different durations, and casual work arrangements. In particular, we look at NSFE incidence by population sub-groups, and their consequences in terms of job quality, including earnings and future career prospects. We focus on two sub-Saharan African countries, Uganda and Ghana, which have experienced very different economic outcomes in recent decades.

In developed countries, which have been the subject of most existing analyses, NSFE incidence has increased substantially in the past few decades. A number of pieces of work have shown that NSFES are disproportionately found for low-educated, low-skilled, young and female workers. There is however continuing debate over their impact on future career prospects. In Africa, where the structure of employment stands in sharp contrast to that in developed countries, we still know little about the development and consequences of NSFES. Although Africa has experienced sustained growth in recent decades, substantial challenges remain in terms of the improvement of working conditions, labour markets and social outcomes. The recent economic crisis has increased employers' requirements for more flexible employment, which has developed to the potential detriment of workers. The evolution of employment patterns in developed countries has moreover raised concerns that economic growth in Africa might not be sufficient to reduce the incidence of precarious work.

This report provides evidence on the prevalence of NSFE employment, on the population groups that are most affected by these work arrangements, and tests whether NSFE jobs are stepping-stones to more standard employment contracts or are rather dead-end jobs. Given that rural labour markets in Africa are mostly informal and subject to particular constraints associated with Agriculture, we focus on the urban population. We first consider the sharp economic fluctuations and the panel structure of the data in Uganda to establish the cyclicity of the NSFE share in total employment, to see whether NSFES respond to the increased need for labour-market flexibility. We then describe population NSFE incidence to assess the role of education, skills and gender in work arrangements. Finally, we exploit the rich set of covariates in our datasets to control for selection into work arrangements to identify the effect of NSFES on earnings, job satisfaction and various job-related social benefits. We also identify the effect of non-standard work on the probability of moving to a better and more secure job in the future. The choice of Uganda and Ghana is guided by both the availability and complementarity of the different micro-datasets to explore these questions, and the relevance of the two countries, given that they have experienced contrasting economic circumstances over recent decades. The complementarity of countries and data sets allows us to explore a wide variety of non-standard employment arrangements: part-time work, fixed-term contracts of different durations, and casual work arrangements. Most importantly, the panel data in Uganda yield estimates of transitions across labour-market statuses and identify the effect of NSFE on future labour-market prospects, controlling for a rich set of covariates that limit the problem of selection bias.

Our results show that NSFE, defined in opposition to standard full-time permanent, represent between 28 per cent to 35 per cent of urban wage employment in both countries, 40 per cent of which correspond to part-time work. In Uganda, non-standard forms of employment seem to be used by employers as a tool for workforce flexibility, as permanent part-time and short-term contracts have fluctuated markedly with real GDP movements over the recent crisis. Moreover, work hours fell in the 2011 recession in Uganda for NSFE workers, but not for workers in standard employment.

NSFE jobs, and in particular casual jobs, are more prevalent for the young, low-educated or low-skilled, and those working in the Agricultural sector. Secondary, or even

primary, education significantly reduces the chances of NSFEE work. The gender gaps are not systematic, although with respect to employment transitions; women do have a significantly lower chance of moving towards better employment situations in Uganda.

NSFEE workers are less likely to receive social benefits. However, once part-time workers are accounted for, they do not have significantly lower monthly earnings, all else equal. The main drivers of earnings remain education, age, gender and tenure. Education also affects the impact of NSFEE on the probability of moving to a better job. NSFEEs are shown to play a stepping-stone role for educated (and young) workers, but rather represent dead-ends for lower-educated workers. Overall, the worse future prospects, greater job insecurity and lower social benefits translate into lower job satisfaction in NSFEE work.

1.1. Literature review

There have been a number of analyses of NSFEE workers in OECD countries. These have first concluded that women are disproportionately represented in NSFEE, as measured by part-time work. In addition, the young are more commonly found in temporary jobs. Last, NSFEEs are closely associated with lower-skilled occupations for a variety of reasons: these occupations are the most likely not to have security due to workers' low bargaining power, and workers there are easily trained and replaced if they leave. The share of temporary workers among wage employees varies widely across industrialized countries. In the 2015 ILO report this ranges from below 5 per cent (Romania and the Baltic states) to around 25 per cent (Poland and Spain). A growing literature on the consequences of temporary jobs in advanced economies has provided empirical evidence that temporary jobs are associated with lower wages, lower social-security coverage, more limited access to training and lower tenure. However, in economies that are characterized by high unemployment, these simple differences between standard employment and NSFEEs are not sufficient for us to conclude that NSFEE contracts are harmful for workers. These jobs are mostly taken up by low-skilled workers, who may well otherwise be unemployed or work in the informal sector in developing countries. The debate has therefore mostly focused on the transition possibilities out of NSFEE to more stable and permanent jobs: Do NSFEE workers have a better chance of obtaining a standard job than the unemployed? From an empirical point of view, identification is difficult here. Many of the papers covering European countries have appealed to matching techniques or control estimations to take into account the particular characteristics of NSFEE workers. Most of this work finds that temporary employment obtained through agencies is a stepping stone to permanent employment (Kvasnicka, 2005 and Lechner et al., 2000 for Germany; Amuedo-Dorantes et al., 2008 and Malo and Munoz-Bullon, 2002 for Spain; Anderson and Wadensjö, 2004 for Sweden; Gerfin et al., 2005 for Switzerland; Booth et al 2002, for UK; and Esteban-Pretel et al., 2011 for Japan). However, even though the prospects of NSFEE workers are better than those of the unemployed, it remains the case that transitions from temporary jobs to better ones are only few in numbers (see the literature review in ILO, 2015). A darker picture is painted by Autor and Houseman (2010) regarding the USA: they find that individuals who participated in a welfare-to-work program and were allocated to temporary jobs experienced no rise in their future income, while those who were allocated to a direct-hire job did enjoy a quite substantial rise in their later earnings. This contribution is notable as the only one with evidence from a natural experiment, and is therefore almost immune from selection bias. However, Ichino et al. (2008) argue that control strategies might be sufficient to identify the effects of labour-market participation via temporary jobs.

Most of the NSFEE literature to date has focused on advanced economies. African labour markets are very different to those of advanced economies. Wage employment remains limited, and most workers are employed in the Agricultural sector either as self-employed or under informal working arrangements. These simple facts should make us cautious about

inferring results for Africa from industrialized countries. There are a number of reasons why NSFES might be different in Africa. First, the definition of NSFES there is less straightforward than in rich countries, as the gold standard of a salaried, full-time permanent contract can reflect a variety of situations, depending on whether workers have access to a number of rights (Social Security, paid leave, training, freedom of association). In addition, the legal framework often offers quite poor guidance for the identification of, for example, part-time work. To provide estimates that are comparable to those from other countries, we will mainly follow the recent ILO definition and adopt a statistical approach to NSFES. We focus on urban areas: casual and seasonal work are mostly found in the Agriculture sector and reflect rather different circumstances, as Agricultural work is seasonal by definition. In addition, the effect of NSFES might be much more diluted than in rich countries: it is not clear whether a temporary written contract is less stable than an oral open-ended informal job. However, Devey et al. (2006) find that in South Africa informal workers are over-represented in the categories of temporary and casual employees. Last, the firm's flexibility advantage from temporary work may be lower in environments with fewer regulations.

The 2015 ILO report provides statistics for capital cities in seven Sub-Saharan African countries, and for the whole country in Uganda and Ethiopia: in the capitals, the share of temporary work among salaried workers ranges from 7 per cent in Benin to 22 per cent in Burkina Faso, over 40 per cent in Ethiopia and almost 70 per cent in Uganda. These estimates are of comparable size to those in Europe, where they are estimated over the whole country. In the World Bank's enterprise surveys, another source of information on employment structure, 9.7 per cent of total employment in Manufacturing is temporary, as opposed to 11.5 per cent in Services. Here, these estimates are higher than those in Europe and East Asia, lower than those in South Asia and North Africa, and of comparable magnitude to those in Latin America. In developing countries, women do not seem to be more likely to have a temporary job than are men. Regarding part-time work, the probability ranges from 9 per cent (Botswana) to 25 per cent (Madagascar). The evidence in this respect is scarce, so that we do not have a full picture of the different job types across countries.

1.2. The context in Uganda and Ghana

1.2.1 Income and social indicators

Uganda's GNP per capita in 2013 was PPP\$ 1630, while that in Ghana was PPP\$ 3900. Ghana thus qualifies as a lower-middle income country, while Uganda is a low-income country. Both countries have social outcomes which produce a higher HDI rank than GNP rank, but these social outcomes are however limited.¹ In both countries, life expectancy at birth is close to 60, with education outcomes that are better in Ghana. Ghanaian adults have on average 7 years of education (5.4 for Uganda) and children can expect to obtain 11.5 years of schooling (10.8 in Uganda).

1.2.2 Overall growth

Uganda and Ghana experienced sharp but different growth trends in recent decades (see Figure 1). Ghana's GDP per capita increased dramatically, at an annual rate of 16.2 per cent over the 2000-2014 period (in current US\$), compared to Uganda's per capita GDP, which grew at 7.6 per cent annually. As is the case for most countries, Uganda and Ghana were hit hard by the recent economic crisis. Uganda's per capita GDP fell by 4 per cent (in current US\$) in 2011, although it surged again afterwards to reach an annual average growth rate of

¹ Ghana ranks 138 for HDI (163 for GNP) and Uganda ranks 164 for HDI (195 for GNP). Uganda is classified as a low human-development country.

6.2 per cent between 2009 and 2013. Ghana's per capita GDP fell more rapidly, by 11 per cent in 2009, but then recovered to grow at an annual rate of 14.1 per cent between 2009 and 2013.

1.2.3 Economic structure

The exposure of Uganda and Ghana to international trade differs in a number of respects (Figure 2). After a significant fall in the export share in GDP in Ghana from 2000 to 2008, this share has risen faster than overall GDP to reach about 48 per cent of GDP in 2012. On the contrary, the export share in Uganda has risen steadily, starting from a lower figure of 10.6 per cent in 2000 to about 20 per cent of GDP in 2012, with the highest figure being 24 per cent in 2008. The fall in the Ugandan export share coincided with the start of the worldwide crisis.

Both countries continue to rely heavily on Agriculture, with the share of value-added in Agriculture amounting to 26.5 per cent in Uganda and 23 per cent in Ghana in 2012 (Figure 3 and Figure 4). The share of employment in Agriculture is about 66 per cent in Uganda (in 2009 World Bank figures) and 41.5 per cent in Ghana (in World Bank, 2010). In both countries, Services and Industry have developed steadily at the expense of Agriculture, but the recent crisis has hit the Industrial sector hardest. In Uganda, the share of the latter fell from 27.4 per cent in 2008 to 18.1 per cent in 2010, and has not recovered since. In Ghana, this share started to fall before the crisis, from 27.5 per cent in 2005 to 19 per cent in 2009, but has since recovered to reach a figure of 28.6 per cent in 2013.

Both economies have shown some resilience to the crisis, but Uganda was hit after Ghana, and is still recovering with regards to GDP per capita, export share in GDP and the share of the industrial sector.

1.2.4 Labour markets

Uganda has a high rate of labour-force participation (77.6 per cent in 2012, Figure 5) compared to Ghana (69 per cent) and Sub-Saharan economies as a whole (70 per cent). The 2012 unemployment rate is similar in both countries (4.2 per cent) but the trend over recent decades has been very different (Figure 6): Uganda's unemployment rate was low from 1990, but doubled after 2005, with the rise starting before the crisis. In Ghana, however, the unemployment rate fell sharply after 2000 when it was at about 10 per cent. The crisis has been associated with lower unemployment. The aforementioned rising trend of non-standard jobs might raise concerns as they are associated with inferior employment conditions, thus causing negative impacts on individual working life (De Cuyper *et al.*, 2008). To shed light on this issue, this section aims at assessing the penalties for engaging in NSFE in terms of remuneration, career pathway as well as other employment conditions. It seeks to present a contextualized literature review on this question in Asia, with a focus on existing evidence for selected countries in the current study.

2. Definitions of standard and non-standard forms employment

We start with the definition of Non-standard employment. Due to the increasing attention that is being paid to the development of non-standard forms of employment worldwide, the ILO has recently proposed to establish a guideline definition of NSFE (ILO, 2015). "Non-standard" here covers a wide array of situations that share at least one common feature: they all differ from the classic full-time contractual wage employment relationship. The ILO's report for discussion at the Expert Meeting of February 2015 (ILO, 2015) defines standard employment as follows:

-
- Full-time work
 - An unlimited-duration contractual arrangement
 - A subordinate relationship (work for pay, whether a wage or in-kind)

In contrast, any form of employment that does not fulfil these three criteria is considered to be non-standard. This group thus includes the three types of arrangements listed below.

- Part-time work. The difficulty here is to identify a threshold number of hours worked that allows meaningful comparisons to be made across countries. In Uganda, the 2006 Employment Act defines the maximum number of hours worked per week to be 48, with exceptions for shift workers, where this maximum is 56 hours per week². In Ghana, the 2003 Labour Act stipulates a maximum number of hours per week of 40 in most cases, with the exception of seasonal work where the maximum is 50.³ From a legal viewpoint, any number below these thresholds can be considered as part-time work. This is however not helpful for cross-country comparisons, and risks misclassifying individuals who are just below this maximum threshold as being part-timers, even though their work is full-time. Faced with this problem, the ILO proposed, for statistical purposes, to define part-time work as that of fewer than 35 hours per week. Alternative statistical definitions have also been proposed in the literature, ranging from 30 hours (van Bastelaer et al., 1997) to 40 hours per week, or by defining a relative threshold at 50 per cent of the common number of full-time hours per week. In this paper, we retain the main statistical definition of part-time work as employment of less than 35 hours per week. In addition to this 35-hour threshold, we present some descriptive statistics (Table 3) from a threshold of half the maximum number of hours worked (which gives weekly hours figures of 24 for Uganda and 20 for Ghana), as these are more meaningful, given each country's legal framework.
- Temporary employment. This covers a heterogeneous set of arrangements including fixed-term contracts, written or oral, that are characterized by a pre-defined term, project- or task-based contracts, seasonal work and casual work, which means on an occasional and intermittent basis.
- Temporary placement agencies / multiple parties arrangements. Here the worker contracts with a private agency, which itself contracts with a user firm. This latter firm must in general respect a number of legal obligations towards workers (with regards to health and safety issues, for instance). However, the datasets we use do not allow us to identify such arrangements.

² The Employment Act, 2006, Section 53.

³ The Labour Act, 2003, Sections 33 & 34.

3. Data

3.1. Uganda

3.1.1 Surveys

In Uganda, we have two different micro-data sets: the National Labor Force and Child Activities Survey (NLFCAS, which we will often refer to below as the LFS) 2011/2012, and the Uganda National Panel Survey (UNPS) collected by the Uganda Bureau of Statistics (UBOS) in 2009/2010, 2010/2011 and 2011/2012.

The NLFCAS 2011/2012 is the first stand-alone national labour force survey to be carried out by UBOS (UBOS, 2013). It was collected on a nationally-representative sample of the population aged 5 years and over, with some sub-national representativeness for key labour-market indicators. The final sample consists of 31,779 individuals, from 6,292 households. Within the interviewed households, 24,223 individuals satisfied the criteria to be asked the labour-market questions and have answered them.

The NLFCAS data yields descriptive statistics on the structure of employment in Uganda and allows us to assess the incidence of non-standard forms of employment by population sub-groups: age, gender, education, and sector of employment. We will also provide a description of working conditions and job quality across the different forms of employment.

The UNPS data was collected by UBOS with financial and technical support from the Government of the Netherlands and the World Bank Living Standard Measurement Surveys – Integrated Surveys on Agriculture (LSMS-ISA: we will often refer to this below as the LSMS). The UNPS is carried out annually, over a twelve-month period (a “wave”), on a nationally-representative sample. The final sample consists of 13,671 individuals interviewed in the 2009 wave (respectively 12,306 and 13,303 in 2010 and 2011) in 2,876 households (respectively 2,552 and 2,785).

The UNPS data allow us to look at trends in employment structure and analyse labour-market dynamics at the individual level. The period of data collection, from 2009 to 2012, is of great interest as it covers the recent crisis (described in Section 1.2) and allows us to trace out labour-market behaviour during the economic downturn. In particular, as data were collected year-round, we can track the change in employment structure by semester over this period, and link the changes to the macro shocks that hit the Ugandan economy. We will also take advantage of the longitudinal dimension of the data to present results regarding the transition from non-standard to possibly better jobs.

We use the weight variable that is provided in both surveys, in order to produce nationally-representative figures.

3.1.2 Population of interest

In this report, we mostly focus on individuals living in urban areas, of working age (between 14 and 64 years old), in the labour force and employed, and working for pay. The effective sample size of this selected population varies from 1,463 individuals in the LFS to between 533 and 394 in the different waves of the LSMS (Table 1). The main selection effect comes from the restriction to urban areas, as about 84 per cent of the Ugandan population was rural in 2011/2012. This choice is driven by our focus on NSFES, which are less-clearly identified in the Agricultural sector.

Given the different number of observations between the two surveys, we will mostly use the LFS to provide descriptive statistics, since this entails splitting the sample. The LSMS survey will be used to assess changes (at both the macro and individual level). We start by comparing the statistics from the two samples, to check that they give a consistent picture of employment in Uganda.

3.1.3 Key questions and indicators

The LFS questionnaire starts by assessing individual labour-force status (inactive, unemployed, self-employed, employer, helping without pay, and wage worker). We will focus on this last category of wage workers. The questionnaire distinguishes fixed-term from permanent or open-ended jobs. In addition, when the position is fixed-term, we know whether the duration of the contract was under 1 year, between 1 and 3 years, or over 3 years.

Individuals are also asked about the number of hours worked in the previous week in the main activity: we use this information to define part-time work, with the various cut-offs as suggested in the literature. All individuals with a permanent or open-ended position but who worked under a given number of hours in the previous week (typically 35) are categorized as part-time.⁴

We also have some indirect information on casual work: we explain in detail how we treat this information later on. We have information on wages, even if they are in-kind. We also know if the employer pays social contributions, whether the worker receives paid annual leave, sick leave, maternity/paternity leave and medical benefits. The survey hence allows us to distinguish different durations of fixed-term contracts and describes job amenities in a variety of dimensions. It is also useful to have two surveys covering the same country as this allows us to double-check our results.

We can construct similar categories of contractual arrangements in the LSMS data. However, while we do have information about work hours (in the last week) and earnings here, we do not have detailed information about job amenities.

Both surveys provide the standard individual-related and job-related information: age, gender, occupation, sector and place of residence.

3.2. Ghana

3.2.1 Survey

For Ghana, we use the 6th round of the Ghana Living Standard Survey including the labour-force module carried out in 2012/2013 by the Ghana Statistical Service. This was designed to provide a nationally- and regionally- representative sample. The questions of the labour-force module were answered by individuals aged 5 or over. The final sample is composed of 71,523 individuals from 16,772 households. Within the interviewed households, 62,042 individuals were eligible and replied to the labour questions.

⁴ Individuals with fixed-term jobs are not re-categorized if they declare hours under the cut-off. This reflects our prior that full-time permanent is preferable to part-time permanent, which is itself preferable to temporary work. We do not further divide the categories due to the limited number of observations.

3.2.2 Population of interest

As in Uganda, we focus on individuals living in urban areas, of working age (between 14 and 64 years old), in the labour force, employed and working for pay. This produces a sample of 3,935 individuals in the GLSS6 (Table 1). Two restrictions have sharp effects on the effective sample. The first is the urban restriction, as about 50 per cent of the Ghanaian population was rural in 2012/2013; however, rural areas were oversampled and represent 62 per cent of the individuals sampled. The second is the restriction to wage employment in most of the analysis. By applying these restrictions, we restrict our analyses to a third of the working individuals aged between 14 and 64 in the sample.

3.2.3 Key questions and indicators

The GLSS6 contains a labour-force module which covers approximately the same topics as the Ugandan LFS. The Ghanaian questionnaire is of interest as it clearly and directly identifies casual work. However, contrary to the Ugandan data, the GLSS6 does not identify the duration of work contracts. We cannot therefore distinguish directly between fixed-term and permanent jobs: we use the subjective assessment of the durability of the employment relationship to circumvent this problem. Respondents say whether they believe they will be able to keep their current job for the next 12 months: we use this subjective evaluation to distinguish durable and non-durable jobs. The definition of NSFEE in Ghana therefore differs from that in Uganda. In addition, the GLSS6 does not provide an activity calendar for the reference week. As will become apparent below, this poses particular problems for the calculation of a homogeneous earnings variable in this sample.

4. Incidence of non-standard employment

4.1. Structures of employment

How prevalent are non-standard forms of employment in the Ugandan and Ghanaian urban labour markets?

A first point here, as noted earlier, is that Uganda has a high rate of labour-force participation, while that in Ghana is above the overall world average, but representative of sub-Saharan countries and hence is lower than that in Uganda (see Section 1.2). In the population considered here, the urban labour-force participation rates are similar in both countries: just over a third of the working-age population was inactive in the labour market in Uganda in 2011/2012, as compared to 28.5 per cent in Ghana in 2012/2013. The unemployed represent 5.2 per cent of the urban working-age population in Uganda, and 2.6 per cent in Ghana. The remainder of the population, 61.4 per cent in Uganda (69 per cent in Ghana), either works for an employer, for a household business, or is self-employed (Table 2).⁵ These last two categories are larger in size in Ghana, producing a similar share of wage work in both countries of 25.5 per cent of the urban population. This represents almost 40 per cent of the employed population in Uganda and 37 per cent in Ghana. These are the individuals we are interested in here.

⁵ Rural areas are different with respect to the unemployment rate and, most importantly, the share of self-employed or contributing family workers. This underlines the great extent of informal work in rural areas and Agriculture.

We start by providing estimates of the working population engaged in NSFE and compare these across countries and datasets. Tables 3 and 4 present the share of workers in part-time jobs, fixed-term contracts (of various durations) or non-durable employment relationships, and casual work for different definitions of part-time. As the questionnaires are different, we cannot define NSFE in the same way in both countries. We are able to construct our central measure of part-time work (under 35 hours per week in the main activity) in both countries, and also consider alternative statistical definitions. The other NSFE are:

- In Uganda: fixed-term contract employees, split up into less than 1 year, between 1 and 3 (LFS) or 5 years (LSMS), and, in some specifications, casual workers⁶ as a separate category.
- In Ghana: standard employment is defined as a full-time and durable job. We then distinguish full-time but non-durable, part-time durable and non-durable and casual jobs.

Our central NSFE concept, where part-time work is under 35 hours per week, leads us to identifying between 28 per cent and 25 per cent of employees as NSFE workers in Uganda (depending on whether we separately identify casual workers), and around 35 per cent workers in Ghana who do not have full-time durable jobs. Part-time work accounts for around 44 per cent (42 per cent) of these NSFE jobs in Uganda (Ghana). Around 7 per cent of employees work under a fixed-term contract in Uganda, with a smaller share (under 1.5 per cent) employed with a fixed-term contract of more than 3 years. In Ghana, a significant share of workers (18.8 per cent) believes that they will not be able to keep their job over the next 12 months. When we separate out casual work, we find that 5 per cent of workers have casual jobs in Uganda and 6.4 per cent in Ghana. This figure is rather low, but is consistent across countries; it can be considered as a lower bound in Uganda, given how the information is inferred. Finally, alternative cut-offs for part-time work paint quite different pictures. With part-time defined as working under 20 hours per week, 5 per cent of workers in Uganda⁷ are in permanent part-time jobs and 4.4 per cent work part-time in Ghana; however, when part-time corresponds to under 35 hours, these figures rise to 13.7 per cent and 14.7 per cent of workers in Uganda and Ghana respectively. One key issue with part-time work is whether it reflects a choice or rather is imposed by the market/employer. We will provide some insights into this question below when we look at worker job satisfaction.

The figures from the Ugandan LFS and LSMS surveys are consistent for 2011/2012. The estimate of the share of short-term contracts, of duration of less than 1 year, is lower in the LSMS survey however. Although there are many missing values for type of employment in 2009/2010, the changes in employment structure appear significant over the year, in line with the macroeconomic situation.

4.2. Labour market evolution during the crisis in Uganda

We now look further at the aggregate relationship between macroeconomic fluctuations and employment structure using the repeated LSMS data over 2009-2012 in Uganda. We

⁶ The identification of casual work in Ghana is straightforward in the questionnaire, while in Uganda it has to be inferred from the full occupation title. Therefore, we do not systematically include casual work as a separate category in the analysis of the Ugandan data.

⁷ Note that with our definition of NSFE, workers with fixed-term or casual jobs can work part-time but are characterized with respect to the nature of the employment contract, and not their part- or full-time status.

exploit the year-round data collection and calculate estimates according to the interview semester (from the second semester of 2009 to the second semester of 2012).⁸

The Ugandan economy experienced marked economic fluctuations over this period. Overall real growth in Uganda was low in the second semester of 2009. The economy then experienced a sharp bounce-back in 2010, in particular in the first semester (a +14 per cent growth rate in nominal GDP), but this did not last long. GDP fell heavily in the second semester of 2011 and the first semester of 2012. In the second semester of 2012, there was nominal growth but inflation rates rendered real growth negative.

Labour-market evolution over the period

It is worth noting that, unemployment in Uganda was unaffected by the sharp economic fluctuations, even though there is considerable unemployment volatility over the business cycle in developed countries (Cahuc and Zylbergberg, 2004). Paid employment as a whole also seems to have been relatively unaffected by macroeconomic fluctuations (Figure 7). Employment fell slowly from the second half of 2009 to the end of 2011, with the trend being interrupted by a small bounce-back in the first half of 2012. Inactivity and self-employment reacted more significantly to the macro shocks than did wage employment. In many advanced countries, labour-force participation is weakly pro-cyclical with a slight lag. Evidence for developing countries is mixed,⁹ and in Uganda it appears counter-cyclical, as does self-employment.

We can also see shifts between employment types that can be related to macroeconomic shocks (Figure 8). Over this period, standard employment fluctuated around a fixed figure of 72 per cent. Part-time employment jumped from 18.6 per cent to 23.0 per cent during the persistent growth period of 2009-S2 to 2010-S2. It subsequently dropped sharply from 19.6 per cent to 14.8 per cent in the second half of 2011, which coincides with the sharp fall in GDP growth. The share of fixed-term jobs of under one year started growing shortly before the recession but then fell rapidly in the last semester of 2011 and the first of 2012 (Figure 8, right panel). Short-term contracts therefore seem to have been used by employers to cope with severe macroeconomic shocks: employers hire in good times for short-term periods, and do not extend contracts (or hire again) in bad times. There are also adjustments in fixed-term contracts of over a year, but with less pro-cyclicity, as expected. We do however remain cautious about these results, and it would be useful to have longer time series to confirm these patterns.

We draw two methodological lessons from these results. First, measuring the incidence of NFSE and in particular of temporary employment, in different countries is difficult since it varies substantially with the economic conditions at the time of the survey. To calculate NFSE trends, we would need several measures for the same country at different points in time, or to be able to compare countries in similar economic conditions. Second, the period we observe here is definitely not macro-economically stable, and we may have seen more mobility between employment types than in more stable economies.

⁸ The overall sample is however not supposed to be representative at the infra-annual level. The results are thus to be interpreted with caution.

⁹ For labour-force participation cyclicity in developed countries, see Darby et al. (2001). In developing countries Bhalotra and Umana-Aponte (2010) find that female labour-force participation is counter-cyclical in Asia, and weakly pro-cyclical in Africa.

4.3. Who holds a non-standard job?

Standard forms of employment remain dominant for both men and women in both countries (Tables 5 and 6). In Uganda, NSFEE prevalence is lower among women than men, while the opposite holds in Ghana. In Uganda, fixed-term contracts of over 3 years are very particular. As will become apparent below, workers with these contracts are far more educated than other workers, and also earn higher wages. Men are more frequently employed for very short durations (under 1 year) or in casual work.

Young workers (under 25) are more likely to work in casual or non-durable jobs (Tables and 8). The employment type profile by age is particularly clear in Ghana, but less pronounced in Uganda. Last, older workers in Uganda have a lower share of standard employment and a higher share of short-term contracts of under a year or part-time jobs. In Ghana, on the contrary, older workers are similar to the average, except for a higher share of part-time durable jobs.

Education plays a crucial role in determining employment type in both countries (Tables 9 and 10). The share of workers with casual jobs clearly falls with education. We observe a similar pattern for short-term contracts in Uganda, while in Ghana the share of employees in non-durable jobs rises from lower to higher education, except for under- and post-graduates. This relationship with education is reflected in occupation (Table 11 and 12). Casual workers are almost exclusively in Uganda and more frequently in Ghana those at the bottom end of the qualifications scale: elementary occupations in Uganda, and skilled workers in the Agricultural sector as well as craft and sales workers in Ghana. Some sectors have traditionally been associated with NSFEEs, like Agriculture and construction, although their use has also grown in new industries (ILO, 2015). This pattern is also observed in Uganda and Ghana: the agricultural sector, even in urban areas, is more likely to use casual and part-time workers (Tables 13 and 14). The share of short-term and casual contracts is also higher in the production sector in Uganda, but not in Ghana.

Finally, the public and private sectors are similar in terms of standard and part-time work in Uganda, but not in Ghana where 62 per cent of private-sector jobs are full-time durable vs. 72 per cent in the public sector. The private sector in Ghana also employs a greater share of casual workers, as is also the case in Uganda.

5. Impact of NSFEE on job characteristics and satisfaction

In this section, we analyse the correlation between employment type and different job attributes in a regression framework. We focus on the impact of employment type on income, using linear regressions. We also take advantage of the longitudinal dimension of the Ugandan LSMS to account for individual fixed effects, producing results that are similar in size and significance to those found in the cross-section analysis.

5.1. Working hours

NSFEEs are supposed to offer more flexibility to employers, and we saw that in Uganda the volume of fixed-term contracts is very pro-cyclical. Flexibility can also be obtained via adjustments in work hours.

Over the 2011-2013 period NSFEE workers worked fewer hours than did workers in standard jobs (Table 15 and Table 16). However, most of this difference reflects the exclusion

of part-time from standard employment, leading to greater work-hour homogeneity in this latter category. By definition, part-time jobs involve fewer hours. In Uganda, half of part-time workers work under 24 hours per week, compared to 60 hours per week for workers in standard jobs. Fixed-term contracts with duration of over three years or over one year are more similar to standard employment in this respect, with median weekly hours of 52 and 54 respectively. Shorter contracts involve fewer hours, with a median figure of 49 per week. There is more heterogeneity in part-time and casual contracts than in standard or longer-term contracts (as measured by the P75/P25 ratio). In Ghana, where we split non-durable and casual jobs up into full- and part-time positions, we find only little difference in hours worked between durable, non-durable and casual jobs (Table 16).

Using the panel structure of data in Uganda, we show that work hours, even within employment-contract type, respond to the business cycle (Figure 9). The intensive margin of short-term contracts is very pro-cyclical at the individual level, when we look at the median number of work hours. This falls from a high of 54 hours worked per week, in the first half of 2010, to a low of only 18 hours per week in the first semester of 2012, during the two dramatic recession semesters. Work hours in standard jobs, whether full- or part-time, are much less sensitive to business cycles. Employers therefore adjust on both the extensive and intensive margins with respect to fixed-term contracts.

5.2. Impact on daily and monthly earnings (Mincer equation)

We here consider two different concepts of labour income: daily and monthly earnings. When they earn a wage, most respondents declare daily, weekly or monthly earnings. We use the periodicity information to calculate monthly earnings for the whole sample in both countries, and use the retrospective activity calendar for the reference week in U-LFS and U-LSMS to calculate in addition a daily wage rate for the whole sample. In the Ghanaian data we do not have a calendar and use imputation to calculate monthly earnings for those declaring daily earnings.¹⁰ In both countries, some interviewees also (or only) declare income based on sales commission or in-kind income. We convert all types of labour income into monthly and daily earnings.

We start with Uganda.¹¹ As noted above, most non-standard workers have different weekly hours than standard workers. We therefore expect that weekly or monthly earnings to be lower for NSFE workers, all else equal, due to the different amount of market work supplied. The Mincerian regression of log monthly earnings (including in-kind income) reveals that NSFE workers have lower earnings in Uganda, controlling (amongst others) for age, gender, education and tenure in the current job (Table 21). When NSFE is extended by separating permanent but part-time contracts and casual workers, the results show that fixed-but long-term contracts are associated with higher wages, and it is casual workers who were behind the previous result of lower NSFE earnings. Contracts fewer than 3 years or even 1 year attract negative estimated coefficients in the labour-income regression, but these coefficients are not significantly different from zero. These results continue to hold when we account for individual fixed effects using Ugandan LSMS panel data over the 2009/2012 period (three waves, Table 23).

Other covariates attract the expected signs in the labour earnings equation, as follows:

- There is a hump-shaped profile of earnings in **age**;

¹⁰ The Annex describes in detail the GLSS6 questionnaire and our modelling assumptions.

¹¹ In some specifications, fixed-term contracts of over a year are aggregated to standard employment (Full or Part-time).

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- There is a very clear **gender** gap in monthly earnings, which extends to daily earnings, even after controlling for part-time vs. full-time work. In Uganda, all else equal (in particular education and tenure), women earn 43 per cent less in the labour market than do men, which is twice as large as the income gap between no schooling and a secondary education;
 - **Education** is the most important predictor of earnings (Table 22). Earnings rise steeply at each education level, except for primary schooling. Despite the importance of primary education in international-development strategies, earnings in Uganda only rise significantly after secondary education, and then keep increasing with vocational training (post-primary and post-secondary) and then higher degrees;
 - **Tenure** within the job is also positively correlated with earnings, as is working outside of **Agriculture**.

One notable result is that the negative correlation between NSFE and monthly earnings in Uganda is not found for daily earnings (Table 21). The daily-earnings results reveal that part-time workers and fixed- but long-term contract workers have higher pay on average. Casual workers have similar daily pay to workers in standard employment. When it exists, the premium ranges from 22 per cent for part-time workers to 66 per cent for 3 years and over contract workers. Given the size of this premium, it is difficult to explain this difference via compensating differentials, although it is not easy to disentangle any potential compensating differentials from other market/productivity effects. A more likely explanation is the number of days (and hours) worked. Standard workers declare a median number of 60 hours per week compared to 56 for the whole sample and 24 for part-time workers with permanent contracts (Table 15).

In Ghana, we take advantage of the larger sample size to provide a finer breakdown of NSFE, where we interact job durability and casual status with full- and part-time work, as in the previous descriptive statistics. The signs and size of the estimated coefficients on the control variables such as age, education, gender and tenure correspond to those found in Uganda (Table 24). In Ghana, we find a negative and mostly significant¹² effect of part-time work on monthly earnings, but full-time casual workers earn no less than full-time permanent workers *ceteris paribus*. This confirms the results in Uganda that more than the type of contract per se, monthly earnings are primarily determined by the number of hours worked. There does not seem to be a penalty for casual work. However, in Ghana, workers who subjectively assess their job as non-durable do earn about 30 per cent less than standard workers, all else equal.

Finally, it is worth pointing out another similarity between Uganda and Ghana. In both countries, although they do play a role, employment types are not the main factors behind the earnings differentials between workers (Tables 22 and 25). Education is by far the most important factor. This accounts for 12.5 points of the R-squared in the full-specification regression in Uganda, and 18.5 points in Ghana (where these R-squareds are 35.3 per cent and 37.2 per cent, respectively). Gender accounts for a smaller share of the earnings variance (3.1 and 2.1 points) followed by employment types in Uganda (2.2 points) and age in Ghana (1.8). Disaggregating employment types to separate out casual workers in Uganda does not significantly improve the goodness of fit as measured by the R-squared (Table 21). In Ghana, the explanatory power of employment types might reflect the way in which we identify short-term employment.

¹² This is significant for durable and non-durable employment, but not for casual jobs.

5.3. Impact on social security and other benefits coverage

The data on social-benefit coverage (social security, health benefits and the existence of paid annual leave) reveal a number of important features. In Ghana, the 2003 Labour Act stipulates that temporary work contracts must respect the provisions regarding hours of work, rest periods, public holidays, sick leave etc.,¹³ although it does not seem to contain provisions regarding pension entitlements or health benefits for temporary and casual workers. Under Ugandan Law, temporary or part-time workers are not exempt from contributions to the National Social Security Fund.¹⁴ However, standard jobs in both countries offer better conditions in terms of social insurance than do short-term/non-durable/casual jobs (Tables 19 and 20). In Uganda however they do not rank better than longer- but still fixed-term jobs, while in Ghana part-time durable jobs have similar rank to full-time durable jobs with respect to job amenities.

In Uganda, there are sharp differences with respect to particular benefits. Only 21 per cent of workers in standard jobs contribute to Social Security, but 43 per cent are covered by health insurance. These shares are respectively 73 per cent and 71 per cent for fixed-term jobs of over 3 years, and 43 per cent and 48 per cent for fixed-term jobs of between 1 and 3 years. This could reflect that in Uganda short-term contracts are more often used in the formal sector, and therefore offer better amenities than the average full-time permanent/open-ended job. In particular, there is neither time limitation nor a maximum number of renewals for fixed-term contracts in Uganda, and they can also be given for permanent tasks, contrary to the regulations in many countries. This probably increases the probability of their use by the formal sector.

In Ghana, the differences in social benefits are smaller, and their receipt fades out quickly with job insecurity. Casual workers on part-time arrangements barely receive these at all. On average 36 per cent of workers contribute to their pension, 48 per cent benefit from annual leave and 45 per cent from health benefits.

The results of probit regressions for the receipt of social security / pension contributions, paid annual leave or health benefits associated with the job produce the same patterns as the descriptive statistics (Tables 26 and 27). NSFES are associated with worse social-benefit coverage. In Ghanaian data, social-benefit entitlement falls with job insecurity, all else equal, while the results in this respect are less clear in Uganda (although health-benefit coverage, for instance, is lower for NSFES workers).

5.4. Job satisfaction

We last ask whether the fewer hours worked, reduced social benefits and lower earnings translate into lower NSFES worker job satisfaction. In Uganda, satisfaction data only appears in the U-LFS in 2011/2012, but this does coincide with the lowest level of work hours observed in LSMS for full-time standard and short-term jobs. This data should then arguably produce an upper-bound of the dissatisfaction associated with employment, at least for the period under consideration. In Ghana, there is information on satisfaction with the situation and willingness to change current situation as well.

In Uganda, workers are asked whether they would like to change their current employment situation and, if they say “Yes”, they are then asked why they want to change. A separate question asks if they would like to work more. Ugandan workers are classified as

¹³ The Ghana Labour Act, 2003, art. 75.

¹⁴ The National Social Security Fund Act, 1985.

dissatisfied if they would like to change their current employment situation or if they would like to work more. In Ghana, workers are asked to what extent they are satisfied with their job. They are also asked whether they would like to change their current employment situation. They are classified as dissatisfied if they want to change their employment situation or if they say they are less than very satisfied with their job.

In 2011/2012, 59 per cent of Ugandan workers were dissatisfied according to the definition above (Table 17), with the corresponding figure in Ghana being 52 per cent (Table 18). The satisfaction patterns across employment types are similar. Standard employment does not sharply improve job satisfaction compared to the average: 58 per cent of standard workers are dissatisfied in Uganda and 45 per cent in Ghana. However, casual and non-durable jobs both reduce job satisfaction: 74 per cent of casual workers in Uganda and 70 per cent of those in Ghana are dissatisfied, and 67 per cent of short-term contract workers in Uganda and 80 per cent of workers in non-durable jobs in Ghana are dissatisfied.

The Ugandan LFS data allow us to explore the reasons behind job dissatisfaction (Table 17). About 20 per cent of workers would like to work more, which could be thought of as quite high given the standard working week in advanced economies. In 2011/2012, the 30th percentile of the distribution of work hours was 45 hours per week, which is already above most legal working time figures in developed countries. Unsurprisingly, workers in precarious jobs are more dissatisfied with their work hours. Roughly 26 per cent of those in part-time jobs would like to work longer hours, suggesting that part-time employment is not always a choice. However, 16 per cent of standard workers would also like to increase their work hours.

There is considerable job dissatisfaction in Uganda, with 59 per cent of workers being dissatisfied. While respondents do not overwhelmingly state that they want to work more hours, 73 per cent of those who want to change job hope to obtain higher pay by doing so. The temporary nature of jobs is also raised as the main reason for wanting to change for between 8 per cent and 18 per cent of workers in fixed-term contracts. However, this reason appears only for fixed-term contracts of under 3 years.

In Ghana, job dissatisfaction clearly falls with job insecurity, with casual workers being much more dissatisfied than other categories, although dissatisfaction is also high for workers in non-durable jobs.

These results are partly confirmed in the regression analysis (Tables 28 and 29). In Ghana, the types of employment are correlated with job dissatisfaction, all else equal. Non-durable and casual work reduces job satisfaction (a 30-percentage-point rise dissatisfaction compared to a mean figure of 50 per cent). Obviously non-durable work is endogenous to the definition of dissatisfaction in Ghana, but casual work is not, and it attracts a very significant negative estimated coefficient. In Uganda, employment types are not significant once the other covariates are introduced into the regressions. The main determinants of satisfaction are hourly earnings, gender and age.

6. Dynamics of forms of employment

In this section we take advantage of the panel structure of the Ugandan LSMS to look at employment dynamics and evaluate the impact of NSFEE on future labour-market prospects. We start by checking that attrition is not too selective and then compare the transition patterns by population sub-groups. Last, we carry out probit regression analysis to see whether NSFEE work, compared to unemployment or inactivity, reduces the probability of future standard employment.

6.1. Panel attrition and selection

We use unbalanced panel data from the three 2009-2012 Ugandan LSMS waves. The estimation of transition rates only requires two consecutive waves of observation. We pool observations for individuals who are observed for at least two consecutive years. The main methodological issue with panel data is endogenous attrition, whereby those who would experience certain transitions leave the panel with different probabilities. We cannot ascertain this for certain, but can check for selection on observables by comparing the characteristics of the initial cross-section sample (LSMS 2009/2010) to those of the sub-samples of individuals observed in both 2009/2010 and 2010/2011 (two waves) and for all three waves.

There does not seem to be a major selection problem on observables (Table 30). There are a number of small differences. The initial panel members are younger and more likely to live in Kampala and the Central region around Kampala. There are only small differences by gender or education.

6.2. Transition patterns into and out of NSFE

NSFE workers clearly have a higher probability of moving to standard employment than those who are currently not employed or are self-employed. On average, 35.4 per cent of NSFE workers are in standard employment the following year (Table 33). A considerable share, however, drops out of the labour force (21.7 per cent) or start their own business. Standard workers, on the contrary, are more stable: 61.2 per cent of them remain in standard employment one year later.

The disaggregation of NSFE and non-employment reveals a number of transition patterns (Table 32). Among NSFE workers, part-timers (permanent and fixed- but longer than 1 year contracts) have a significantly higher probability of moving to a full-time permanent job the following year (38.4 per cent) as compared to short-term (less than one year) contract employees (25 per cent). These transition rates to standard employment are quite high compared to figures from other countries, given that they reflect transitions over a 2-year period. By comparison Booth et al. (2012) find that seasonal/casual workers in the UK have around a 30 per cent chance of moving to a permanent job over the 1991-1997 period and fixed-term workers have a 37 per cent chance of doing so over the same period. The most interesting benchmark category for our purpose here is the unemployed. They are clearly different from the inactive: 16.7 per cent move to standard employment in the following year, 10 per cent obtain a NSFE job and 25 per cent start a business. Fixed- and short-term workers have similar but slightly more favourable figures: 25 per cent move to a permanent job, 16.6 per cent remains in a NSFE job, either fixed-term or part-time and 33.3 per cent start a business. However, as will become more apparent, part of this difference reflects the gender composition of the two groups, and the significant gender differences in transition patterns.

Focusing on the transition to standard employment, there are sharp gender differences (although the sample sizes here are small): see Tables 34 and 35. Almost 30 per cent of unemployed men move to standard employment the next year, compared to only 8 per cent of women. A similar share (32 per cent) of men in fixed-term contracts of under 1 year find standard employment the next year, compared to an analogous figure of only 9 per cent for women. However, very few women have fixed-term contracts of less than 1 year in our sample. For part-timers, transitions are more frequent for both genders, with 42 per cent of men finding a standard job as compared to a figure of 31 per cent for women.

Finally, education is a strong predictor of labour-market transitions. To avoid small sub-samples, we aggregate post-primary, post-secondary and higher degrees, as we previously saw that there was a significant earnings gap between non-vocational and vocational education. This produces four educational groups: no schooling, primary, secondary, and vocational and

higher degrees. Focusing on the transition from NSFE jobs to standard employment, we find a very steep increase with education (Table 366 and Figure 10). Workers without formal schooling move only little to standard jobs (there are no such transitions from fixed-term positions in our sample, with an analogous figure for part-timers of only 10 per cent). This probability rises steadily with education. For fixed-term workers, for instance, the figure is 13.3 per cent for primary schooling, 27.3 per cent for secondary, and 44.4 per cent for higher degrees. The education pattern for the unemployed is not monotonic, probably due to subsample size. These results show that NSFE jobs reflect different opportunities for future work by education: NSFEs are a dead-end for low-skilled/low-educated workers, but do not prevent higher-educated workers from moving to standard jobs. The next subsection provides insights into this question in a regression framework.

6.3. Are NSFE dead-end jobs?

Most of the literature in advanced economies has looked at the effect of entering the labour market via a temporary job on future prospects. Except for Autor and Houseman (2010), who use a natural experiment to identify the causal labour-market effect of temporary employment, the evidence here remains rather descriptive, in the sense that there is no attempt to control for the initial position on the labour market. We are no exception to this general rule and present here a simple probit model for having a permanent job in year N+1 depending on labour-force status in year N. We estimate four specifications of the model: two using a sample including the self-employed and inactive, which differ in the disaggregation of labour-force status (whether we distinguish part-timers from fixed-term workers, or only use an aggregate NSFE term), and the other two based on only the employed and unemployed. These last two specifications are based on only a very small sub-sample of 219 pairs of consecutive years.¹⁵ The reference status on the labour market is unemployment, as we want to know whether the future prospects of NSFE workers are better than those of the unemployed.

When we include the self-employed and the inactive, there is no significant advantage of NSFE over unemployment as a stepping stone to standard employment (Table 38). However when we separate part-time and fixed-term jobs, the former find a standard job more rapidly than do the unemployed. This part-time advantage also appears in the sub-sample restricted to the employed and the unemployed. Self-employment and inactivity are associated with a significantly lower probability of moving to standard employment. Given the considerable share of self-employed workers in less-developed economies like Uganda, these results underline the importance of extending the analysis outside of the employee-employer relationship.

The results also confirm the difficulties faced by women in moving to standard employment, whether this comes from a deliberate choice (for flexibility) or not. However, we no longer find the steep education profile that appeared in the transition rates. This could be associated with the small sample size and the mixed effect of education for the unemployed, which could blur the overall effect of education in this regression analysis.

7. Conclusion and policy perspectives

This report has provided a fascinating and nuanced view of NSFE employment in Uganda and Ghana. We review here the most important messages from the previous sections. The urban labour markets in Uganda and Ghana remain characterized by considerable

¹⁵ As for the estimation of transition rates, individuals observed for three consecutive years, who do not move to a standard job between the two first waves, generate two observations in our estimation sample.

numbers of self-employed or inactive individuals. Among individuals in paid employment, NSFE jobs represent between 28 per cent and 35 per cent, with part-time jobs accounting for about 40 per cent of NSFE work. NSFE jobs share some similarities but also differ in many respects, and do not form a particularly homogenous category. Fixed- and short-term and casual jobs are found among more vulnerable workers and correspond to lower-quality jobs; in contrast, permanent part-time and fixed- but long-term contracts (over 3 years) are not so different from standard employment. Our findings in detail are as follows.

- Part-time and short-term contracts are used by employers to manage the economic cycle, both at the extensive and intensive margins, rendering the workers employed here more insecure: these workers express more job dissatisfaction.
- Workers in fixed- and short-term or non-durable contract jobs are more vulnerable: they are young or older workers, and have less or no education. They predominantly appear in the Production sector, employed as trade workers. They have lower monthly earnings than do standard employment workers, and have fewer job amenities such as social security, health benefits and paid annual leave.
- Casual work also concerns particularly vulnerable workers, who are more likely to have no education and are younger. This type of contractual arrangement is mainly found for low-skill occupations such as elementary occupations, trade, craft and sales workers, predominantly in the Agricultural and Production sectors. Contrary to what we might expect, they also work long hours and are mostly dissatisfied due to their pay. They are unlikely to receive social benefits.
- In Uganda, workers in fixed- but longer-term contracts (over 3 years or even 1 year) are different from other NSFE workers: their jobs are less pro-cyclical, they are educated and of prime adult age. They do not seem particularly vulnerable. They more often work in professional, clerical support or technical occupations. More notably, they earn 66 per cent higher wages all else equal, and have better job amenities than the average standard wage worker. They are on average not more dissatisfied, but would like to work longer hours.
- Regarding labour-market dynamics, having an NSFE job does not prevent workers from moving to standard employment, as compared to being unemployed. The transition rates from fixed-term to permanent contracts and from part-time to full-time work are high compared internationally. However, women and less-educated workers have a lower probability of making such transitions, although the education results for women are more mixed.

From a policy perspective, our results do not lead to simple recommendations. Although further work is needed to confirm the combined role of education and employment types, in Uganda NSFEs seem to be stepping stones for educated men, but dead ends for less-educated workers and women. It is therefore not clear that greater regulation of these types of employment would lead to better social and economic performance in Africa. Education, in particular at the primary or above primary level, remains the most prominent determinant of labour-market outcomes and dynamics. If employers require greater workforce flexibility, efforts should be pursued to improve the social coverage associated with the more precarious jobs such as short-term and casual work. These workers currently lack proper access to pensions and health insurance. This situation will likely affect well-being in a more global life-cycle perspective, which it was not possible to adopt in the current report.

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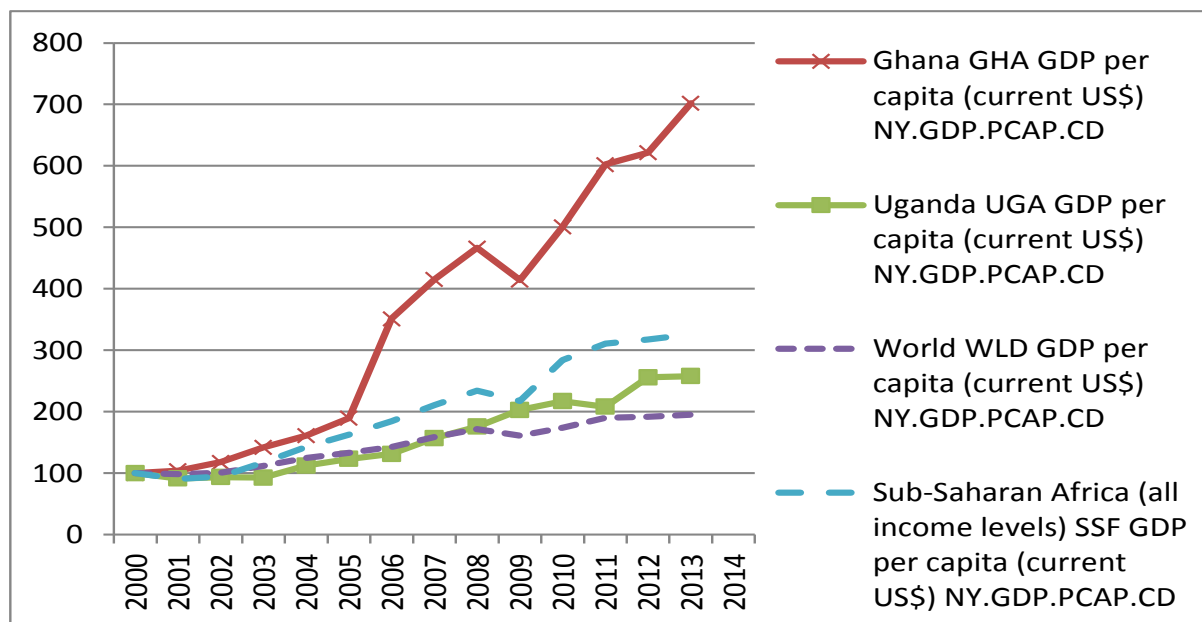
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Annexes

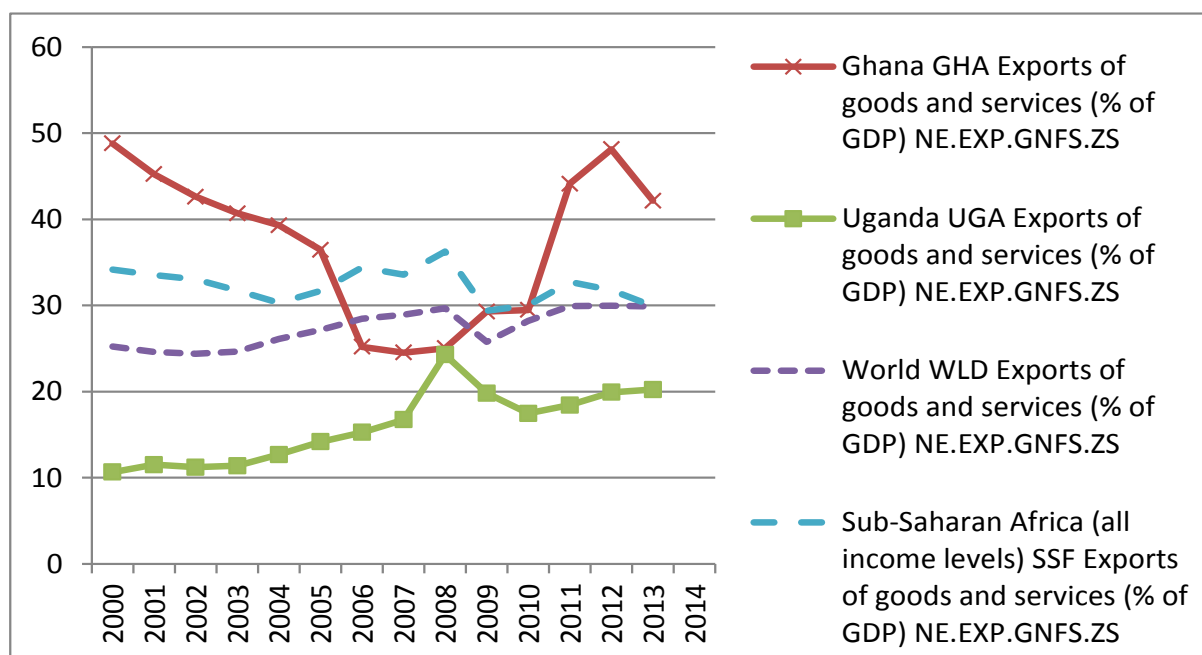
Figures

Figure 1. GDP per capita in Uganda, Ghana and other regions



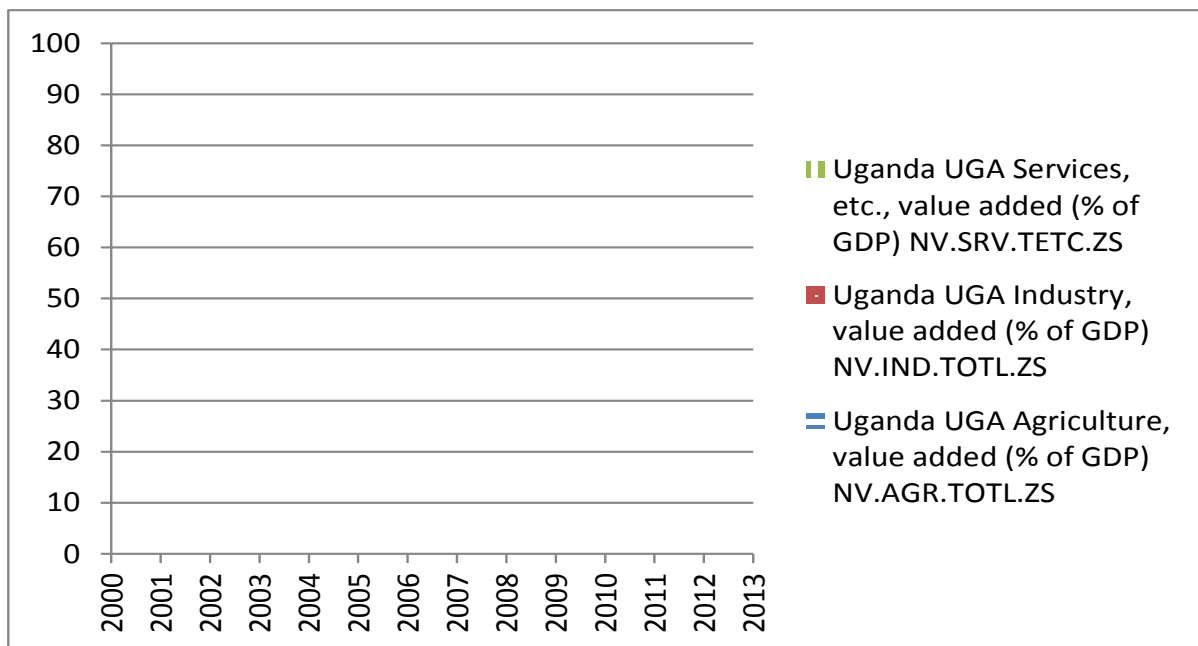
Source: World Bank, authors' calculations. Note: base 100 in 2000. The letters next to titles refer to the time-series label in the World Bank Database.

Figure 2. Share of exports of goods and services in GDP in Uganda, Ghana and other regions



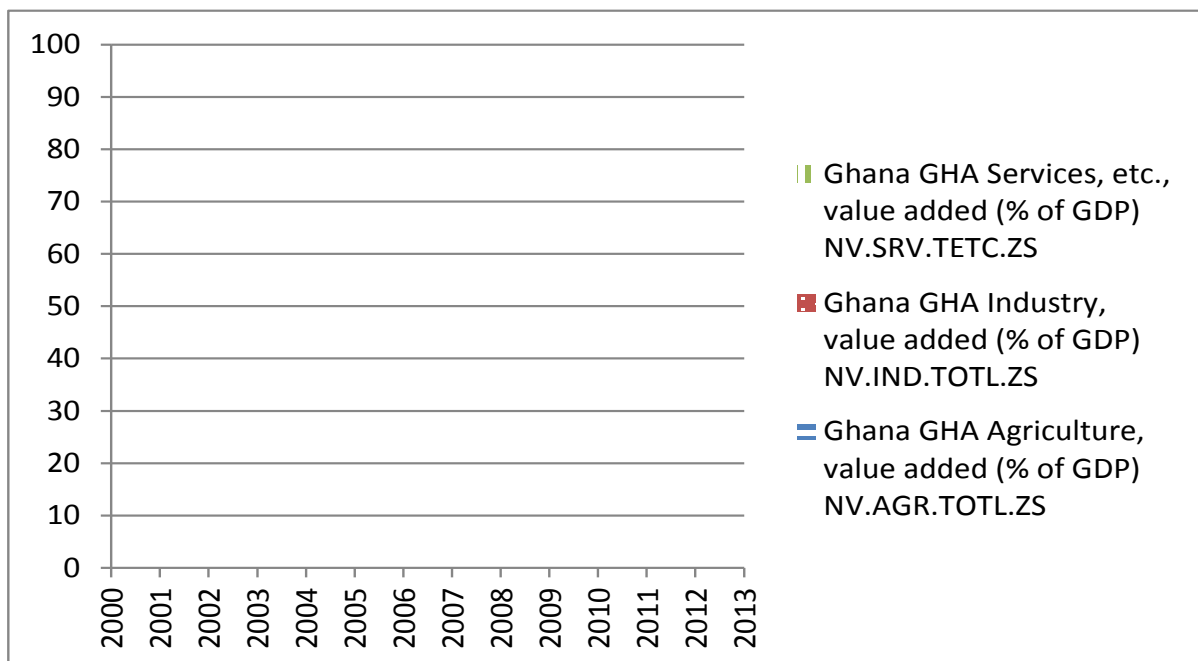
Source: World Bank, authors' calculations. The letters next to titles refer to the time-series label in the World Bank Database.

Figure 3. Share of agriculture, industry, and services value added in GDP (%) in Uganda



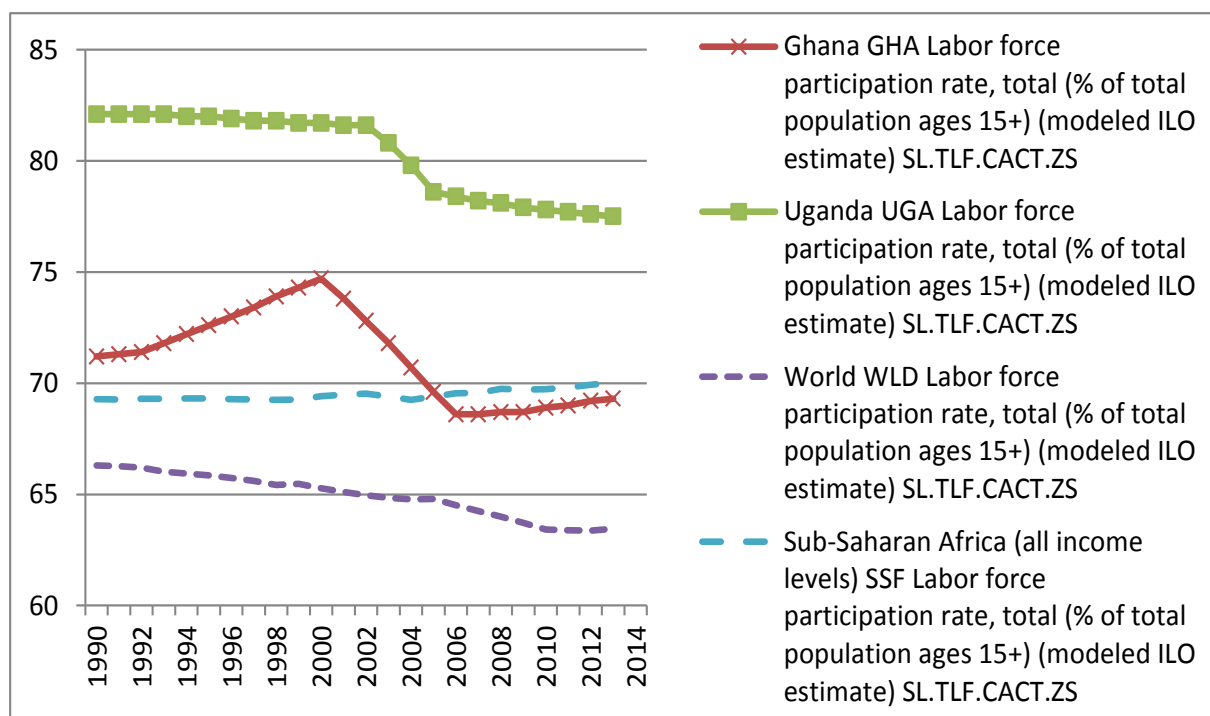
Source: World Bank, authors' calculations.

Figure 4. Share of agriculture, industry, and services value added in GDP (%) in Ghana



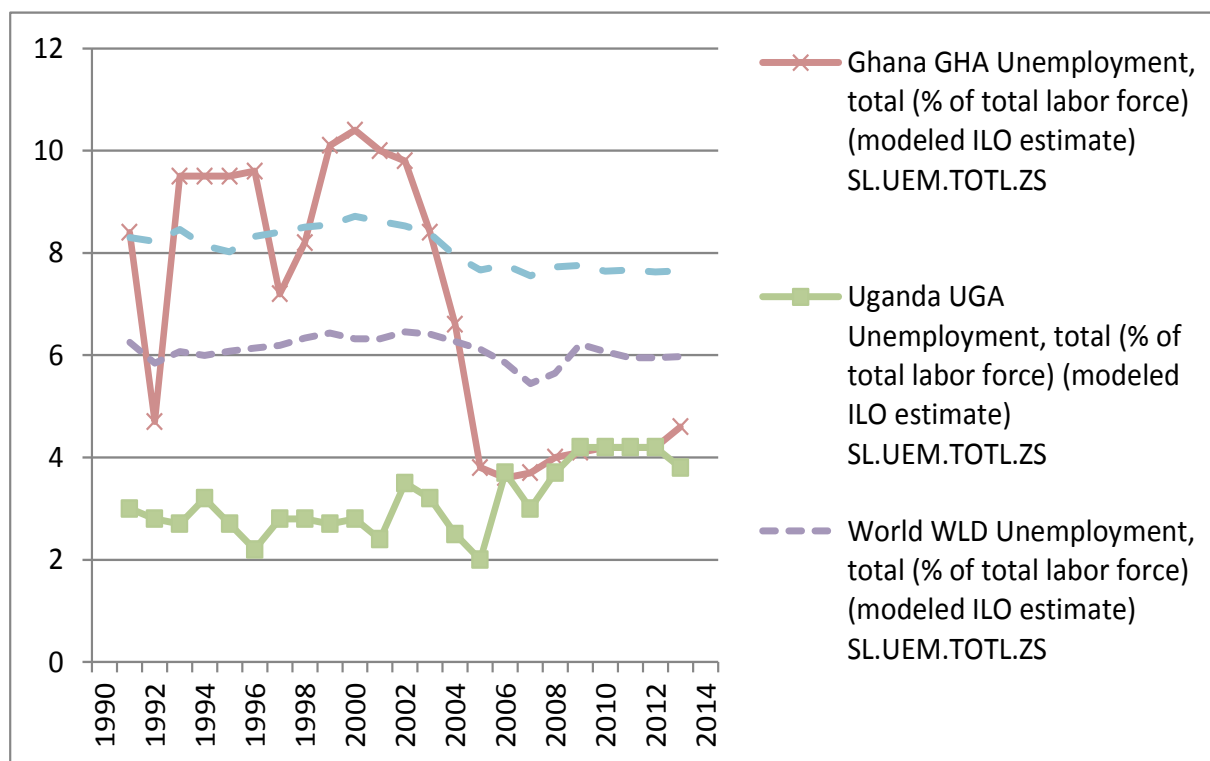
Source: World Bank, authors' calculations.

Figure 5. Labour-force participation in Uganda, Ghana, World and Sub-Saharan Africa



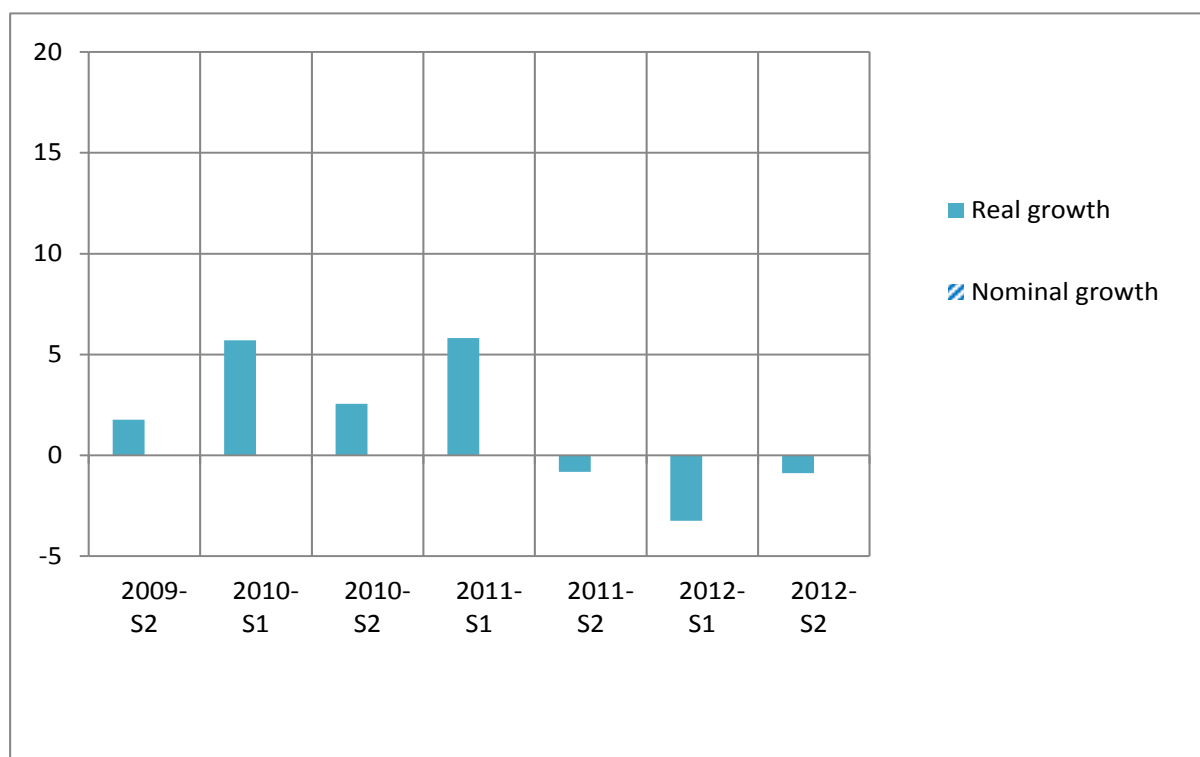
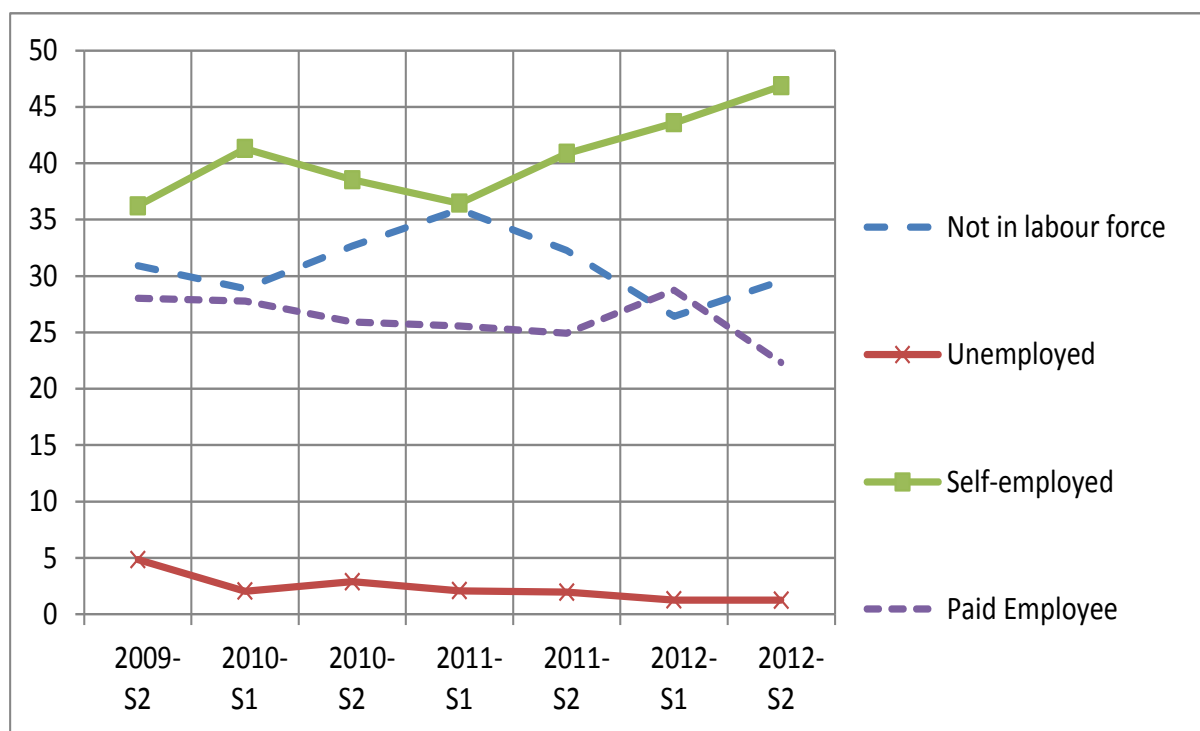
Source: World Bank.

Figure 6. The unemployment rate in Uganda, Ghana, World and Sub-Saharan Africa



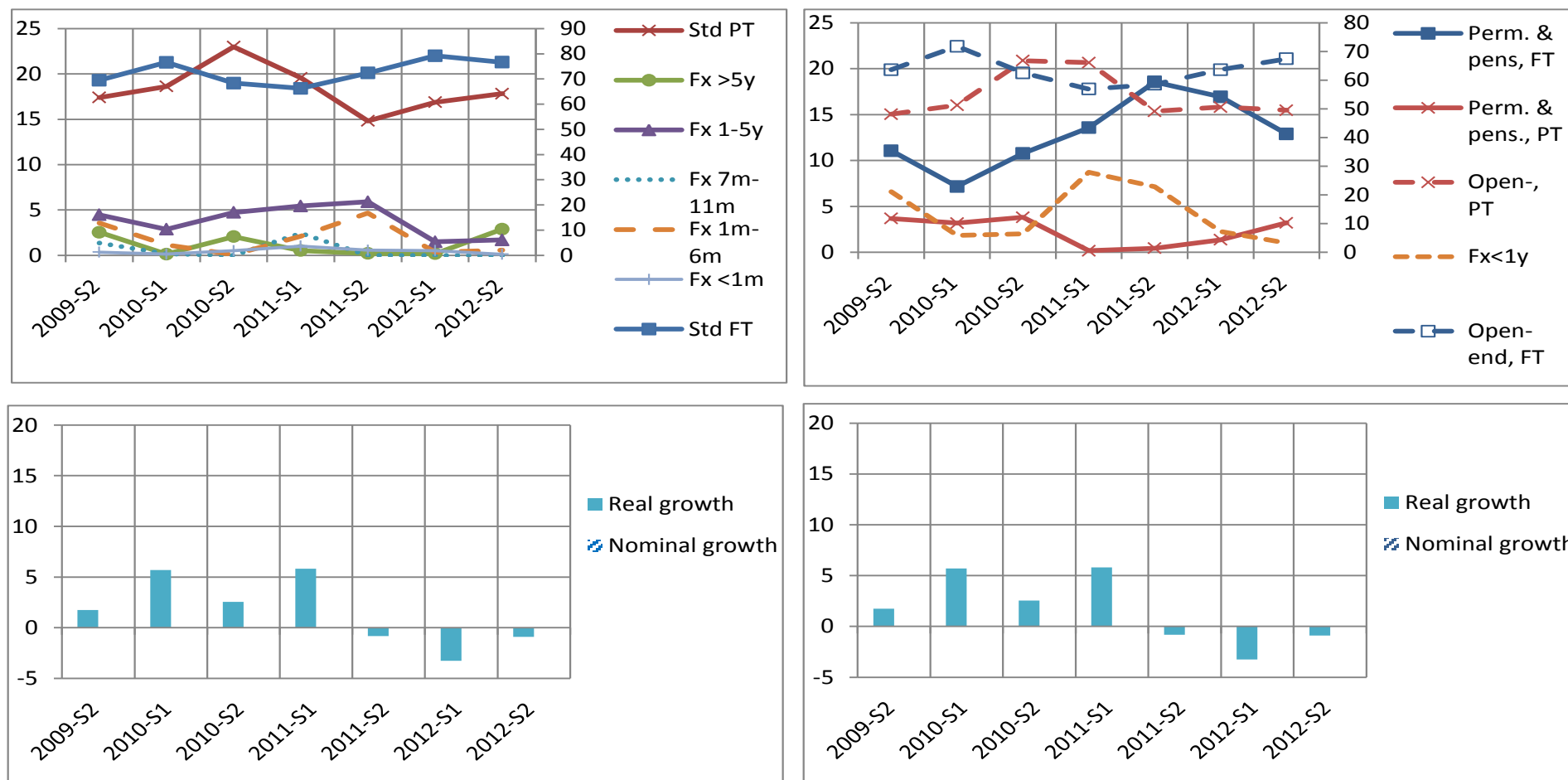
Source: World Bank.

Figure 7. Growth and activity status of the Ugandan population over 2009-2012



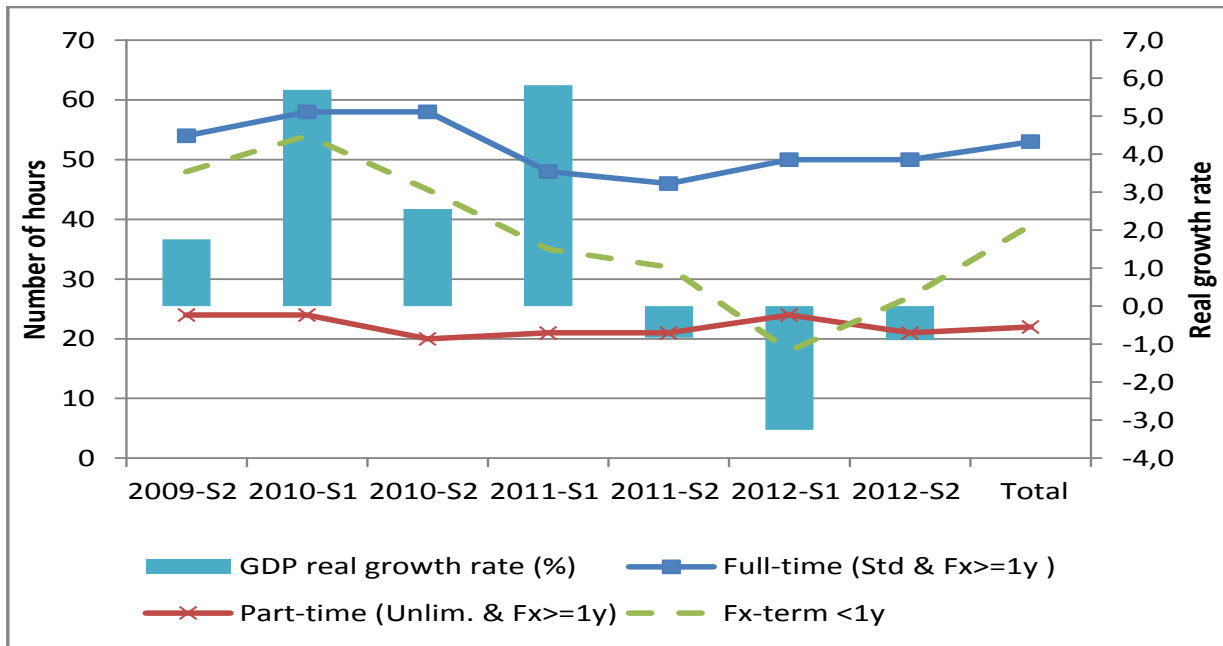
Source: LSMS 2009-2012 (upper panels), UBOS Quarterly National Account and CPI (lower panel)

Figure 8. Semestrial evolution of the structure of wage employment (upper panels) and growth rate of GDP (lower panels) 2009-2012 - Uganda.



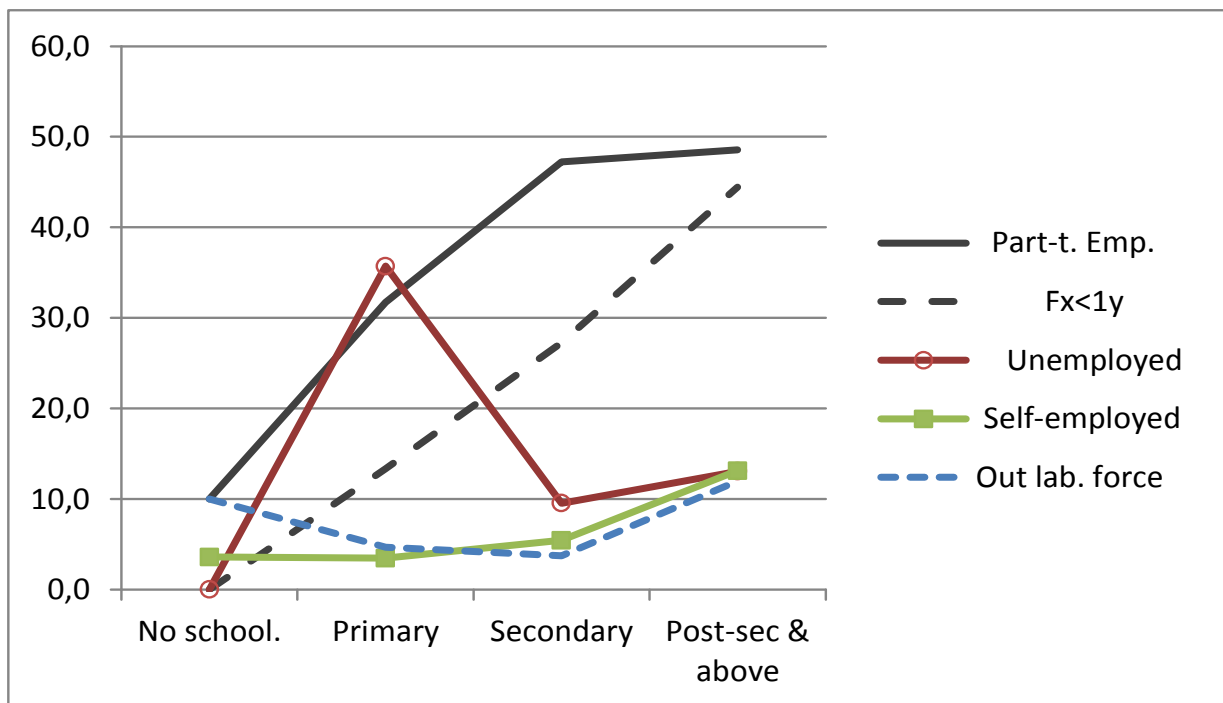
Source: UNPS2009-2012 (upper panels), UBOS Quarterly National Accounts and CPI (lower panel). Note: upper-left panel: “Std FT” is on the right scale, upper-right panel: “Open-end, FT” is on the right scale. The abbreviations stand for: Standard Full-time (Std FT), Standard Part-time (Std PT), Fixed-term with duration over 5 years (Fx > 5y), Fixed-term between 1 to 5 years (Fx 1-5y), Fixed-term between 7 to 11 months (Fx 7-11m), Fixed-term between 1 to 6 months (Fx 1-6m), Fixed-term shorter than 1 month (Fx <1m). Permanent and pensionable Full-time (Perm & pens, FT), Permanent and pensionable Part-time (Perm & pens, PT), Open-ended Full-time (Open, FT), Open-ended Part-time (Open, PT), and Fixed term shorter than 1 year (Fx<1y).

Figure 9. Median work hours, by form of employment, 2009-2012 - Uganda.



Source: LSMS 2009/10, LSMS 2010/11, LSMS 2011/12.

Figure 10. Probability of moving to standard employment in N+1 given labour-force status in N and education - Uganda



Tables

Table 1. The selection of the sample of interest

Population	Uganda				Ghana
	LFS 2011/2012	LSMS 2009/2010	LSMS 2010/2011	LSMS 2011/2012	GLSS6 2012/2013
Total	31779	13671	12306	13303	71523
Urban	9545	3333	2664	2766	27194
Working age	5632	2216	1763	1821	16798
In employment	3575	1431	1182	1164	12090
Wage employee	1463	533	397	394	3935

Source: Uganda: LFS 2011/2012, LSMS 2009/2010, LSMS 2010/2011, LSMS 2011/2012, authors' calculations. Ghana: GLSS6 2012/2013, authors' calculations.

Table 2. Activity status - Uganda

12. Activity status	Uganda			Ghana		
	Urban	Rural	Total	Urban	Rural	Total
Not in labour force	33.36	31.78	32.07	28.49	17.09	23.13
Unemployed	5.19	0.64	1.47	2.57	0.89	1.78
Self-employed, incl. contributing workers	35.82	56.70	52.89	43.48	73.06	57.38
Paid employee	25.63	10.88	13.57	25.47	8.96	17.71
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Uganda-LFS2011/2012, Ghana-GLSS6, authors' calculations.

Table 3. Structure of wage employment under alternative definitions of Part-time – Uganda

Alternative definitions of NSFE	Uganda - LFS 2011/2012					Uganda - LSMS		
	Part-time<35h	Part-time<24h	Part-time<20h	Part-time<35h & casual		2009/2010 Part-time<35h	2010/2011 Part-time<35h	2011/2012 Part-time<35h
Std FT	75.12	82.39	83.74	71.97	Std FT	67.97	65.35	75.88
<i>NSFE</i>	24.78	17.61	16.26	28.03		32.03	34.65	24.12
Std PT	13.70	6.43	5.08	12.23	Std PT	16.45	20.12	16.91
Fx >3y	1.45	1.45	1.45	1.45	Fx >5y	0.81	1.39	1.22
Fx 1-3y	3.88	3.88	3.88	3.74	Fx 1-5y	3.71	4.66	2.14
Fx <1y	3.83	3.83	3.83	3.50	Fx <1y	2.72	6.59	1.89
Casual	-	-	-	5.17	Casual	-	-	-
.	2.02	2.02	2.02	1.93	.	8.35	1.90	1.96
Total	100.00	100.00	100.00	100.00	Total	100.00	100.00	100.00

Source: Uganda LFS 2011/2012, Uganda LSMS 2009-2012, authors' calculations. Note: "Std FT" is Unlimited duration, Full-time, wage employment, "Std PT" is Unlimited duration, Part-time, wage employment, "Fx >3y" is a Fixed-term job of over 3 years, "Casual" is identified when possible with the full label of the declared occupation. In the LSMS, contract duration is cut at 5 years and not at 3 years as in the LFS.

Table 4. The structure of wage employment under alternative definitions of part-time – Ghana

Ghana - GLSS6 2012/2013			
Extended forms of employment	Part-time <35h	Part-time <24h	Part-time <20h
FT - Non casual & durable	64.62	71.06	72.18
<i>NSFE</i>	35.38	28.94	27.82
PT - non casual & durable	10.19	3.76	2.64
FT - non casual & non durable	16.47	17.82	18.02
PT - non casual & non durable	2.37	1.03	0.83
FT – casual	4.14	4.68	5.44
PT – casual	2.19	1.65	0.90
Total	100.00	100.00	100.00

Source: Ghana-GLSS6, authors' calculations. Note: "FT –Non casual & durable" corresponds to full-time paid employment not declared as casual and subjectively assessed as a durable employment relationship (no probability of losing the job within the next 12 months), "PT-..." stands for part-time with calculated according to a full-time number of hours as defined in the different columns.

Table 5. Incidence of NSFE by gender – Uganda 2011/2012

Forms of Emp. with PT=35h and casual	Male	Female	Total
Std FT	69.5	76.1	72.0
<i>NSFE</i>	28.3	22.4	26.1
Std PT	12.6	11.7	12.2
Fx >3y	2.0	0.5	1.5
Fx 1-3y	3.1	4.8	3.7
Fx <1y	4.3	2.2	3.5
Casual	6.4	3.2	5.2
.	2.2	1.5	1.9
Total	100.0	100.0	100.0

Source: Uganda LFS 2011/2012.

Table 6. NSFE incidence by gender – Ghana, 2012/2013

Forms of Emp. w/ PT=35h & Durability	Male	Female	Total
FT - Non casual & durable	66.48	60.59	64.62
<i>NSFE</i>	33.52	39.41	35.38
PT - Non casual & durable	9.3	12.14	10.19
FT - Non casual & Non durable	15.84	17.85	16.47
PT - Non casual & Non durable	2.32	2.49	2.37
FT - casual	4.29	3.81	4.14
PT - casual	1.77	3.11	2.19
Total	100	100	100

Source: Ghana GLSS6, authors' calculations.

Table 7. NSFE incidence by age - Uganda

Age groups	Std FT	Std PT	Fx >3y	Fx 1-3y	Fx <1y	Casual	Total
14-24	73.27	12.60	0.00	2.67	3.58	7.87	100.00
25-34	73.73	12.19	1.85	3.78	3.82	4.63	100.00
35-44	75.37	9.69	2.22	6.25	3.00	3.47	100.00
45-54	70.07	16.97	2.87	3.86	2.52	3.71	100.00
55-64	67.23	19.53	2.95	0.00	7.33	2.96	100.00
Total	73.39	12.47	1.48	3.82	3.57	5.27	100.00

Source: U-LFS 2011/12.

Table 8. NSFE incidence by age - Ghana

Age groups	FT - non casual & durable	PT - non casual & durable	FT - non casual & non durable	PT - non casual & non durable	FT - casual	PT - casual	Total
14-24	53.17	8.65	21.81	3.64	7.54	5.19	100.00
25-34	62.14	10.32	17.16	2.91	5.53	1.94	100.00
35-44	68.64	9.83	16.12	1.70	1.83	1.88	100.00
45-54	73.17	10.48	12.49	1.61	1.44	0.81	100.00
55-64	68.67	13.58	11.59	0.93	3.87	1.37	100.00
Total	64.62	10.19	16.47	2.37	4.14	2.19	100.00

Source: GLSS6, authors' calculations.

Table 9. NSFE incidence by education - Uganda

Education	Std FT	Std PT	Fx >3y	Fx 1-3y	Fx <1y	Casual	Total
No formal schooling	65.55	9.60	0.00	0.83	6.84	17.18	100.00
Primary	67.98	15.80	0.47	1.58	4.75	9.42	100.00
Secondary	75.94	10.91	0.57	3.98	3.58	5.01	100.00
Post primary specialisation	85.67	6.95	1.78	3.50	2.10	0.00	100.00
Post-secondary specialisation	73.86	15.96	2.74	5.71	1.73	0.00	100.00
Degree and above	75.88	8.41	5.70	7.69	2.32	0.00	100.00
Total	73.34	12.46	1.48	3.83	3.59	5.30	100.00

Source: LFS 2011/2012.

Table 10. NSFE incidence by education- Ghana

Education	FT - non casual & durable	PT - non casual & durable	FT - non casual & non durable	PT - non casual & non durable	FT - casual	PT - casual	Total
No or pre-prim. schooling	54.82	14.24	12.61	1.87	9.58	6.88	100.00
Primary	64.04	9.75	14.95	1.88	3.99	5.39	100.00
Junior secondary	65.47	7.83	17.43	2.31	4.53	2.44	100.00
Senior sec. & vocational	64.04	7.32	20.62	3.03	3.96	1.03	100.00
Under and post-graduate	69.13	15.17	12.48	2.08	1.11	0.03	100.00
Total	64.62	10.19	16.47	2.37	4.14	2.19	100.00

Source: GLSS6, authors' calculations.

Table 11. NSFE incidence by Occupation - Uganda

Occupation (ISCO08)	Std FT	Std PT	Fx >3y	Fx 1-3y	Fx <1y	Casual	Total
Manager	87.02	0.00	12.98	0.00	0.00	0.00	100.00
Professional	75.42	11.18	2.67	8.28	2.44	0.00	100.00
Technician and ass. Professional	76.28	16.14	3.39	3.47	0.72	0.00	100.00
Clerical support worker	64.36	17.17	5.29	8.92	4.26	0.00	100.00
Service and sales worker	85.69	8.33	0.37	3.01	2.41	0.19	100.00
Skilled Agricultural	33.26	59.01	0.00	0.00	7.73	0.00	100.00
Craft and related trade worker	66.48	16.16	1.36	3.87	12.14	0.00	100.00
Plant and machine operator	85.73	10.88	0.74	2.32	0.34	0.00	100.00
Elementary occupation	45.05	14.65	0.57	1.13	3.70	34.89	100.00
Total	73.39	12.47	1.48	3.82	3.57	5.27	100.00

Source: LFS 2011/2012.

Table 12. NSFE incidence by Occupation - Ghana

Occupation (ISCO08)	Non casual & durable		Non casual & non durable		Casual		Total
	FT	PT	FT	PT	FT	PT	
Manager	73.29	10.88	14.03	1.14	0.65	0.00	100.00
Professional	67.37	18.38	11.25	2.70	0.24	0.06	100.00
Technician and ass. Professional	64.22	12.14	17.11	3.18	3.36	0.00	100.00
Clerical support worker	60.15	6.50	28.69	3.19	1.12	0.36	100.00
Service and sales worker	65.26	6.32	18.13	1.99	4.72	3.58	100.00
Skilled Agricultural	54.76	11.89	12.07	1.72	17.01	2.55	100.00
Craft and related trade worker	68.60	6.62	12.96	2.03	7.25	2.54	100.00
Plant and machine operator	70.89	5.91	17.23	1.47	4.17	0.32	100.00
Elementary occupation	44.86	13.64	20.11	3.80	8.56	9.02	100.00
Total	64.62	10.19	16.47	2.37	4.14	2.19	100.00

Source: GLSS6, authors' calculations.

Table 13. NSFE incidence by Sector - Uganda

Sector	Std FT	Std PT	Fx >3y	Fx 1-3y	Fx <1y	Casual	Total
Agriculture	41.70	26.83	0.00	0.00	1.80	29.67	100.00
Production	63.82	13.49	1.06	3.67	9.21	8.75	100.00
Services	77.98	11.28	1.68	4.10	2.17	2.79	100.00
Private sector	73.53	12.11	1.03	3.64	3.49	6.20	100.00
Public sector	73.42	13.31	3.08	4.74	3.21	2.23	100.00
Total	73.39	12.47	1.48	3.82	3.57	5.27	100.00

Source: U-LFS 2011/2012.

Table 14. NSFE incidence by sector - Ghana

Sector	Non casual & durable		Non casual & non durable		Casual		Total
	FT	PT	FT	PT	FT	PT	
Agriculture	51.49	11.15	13.55	2.75	11.74	9.32	100.00
Production	63.98	9.58	13.36	2.96	6.90	3.21	100.00
Services	65.24	10.34	17.46	2.20	3.10	1.67	100.00
Private sector	61.91	8.16	18.85	2.54	5.60	2.93	100.00
Public sector	71.80	15.57	10.17	1.95	0.27	0.25	100.00
Total	64.62	10.19	16.47	2.37	4.14	2.19	100.00

Source: GLSS6, authors' calculations.

Table 15. Number of hours worked last week, by forms of employment - Uganda

Number of hours per week	p25	Median	Mean	p75	p75/P25	Median to Std FT
Std FT	48	60	63.9	76	1.6	1.00
<i>NSFE</i>						
Std PT	14	24	21.9	30	2.1	0.40
Fx >3y	45	52	55.3	69	1.5	0.87
Fx 1-3y	41	54	53.8	59	1.4	0.90
Fx <1y	35	49	49.4	60	1.7	0.82
Casual	29	50	48.3	65	2.2	0.83
Total	42	56	56.8	71	1.7	0.93

Source: U-LFS 2011/12.

Table 16. Number of hours worked last week, by forms of employment - Ghana

Number of hours per week	p25	Median	Mean	p75	p75/P25	Median to Std FT
FT - non casual & durable	~	50	54.3	65	1.6	1.00
<i>NSFE</i>						
PT - non casual & durable	18	25	23.0	30	1.7	0.50
FT - non casual & non durable	42	54	56.7	72	1.7	1.08
PT - non casual & non durable	16	24	21.9	30	1.9	0.48
FT - casual	45	54	56.5	66	1.5	1.08
PT - casual	11	20	18.4	22	2.0	0.40
Total	40	48	50.0	60	1.5	0.96

Source: GLSS6, authors' calculations.

Table 17. Underemployment and job dissatisfaction - Uganda

Situation	Std FT	Std PT	Fx >3y	Fx 1-3y	Fx <1y	Casual	Total
Would have liked to work more	16%	26%	27%	31%	21%	29%	19%
Percentage dissatisfied	58%	58%	49%	55%	67%	74%	59%
Present job(s) is(are) temporary	5%	5%	8%	18%	12%	4%	5%
Fear of losing the present job(s)	1%	1%	0%	0%	0%	0%	1%
To work more hours paid at current rate	1%	1%	0%	0%	0%	0%	1%
To have higher pay	74%	72%	64%	51%	60%	81%	73%
To work less hours with a reduction in pay	0%	0%	0%	0%	0%	0%	0%
To use better your qualifications/skills	2%	0%	10%	5%	8%	3%	2%
To have more convenient working time	2%	0%	0%	4%	5%	0%	1%
To improve working conditions	13%	15%	0%	10%	15%	12%	13%
Other reason (specify)	3%	7%	17%	11%	0%	0%	3%
Total	100	100	100	100	100	100	100

Source: U-LFS 2011/2012. Note: 16 per cent of workers in standard employment would have liked to work more hours than actually worked. Workers are identified as dissatisfied when they would have liked to work more or would have liked to change the current employment situation. For those who would like to change current situation, the main reason for change was asked: these shares appear in the bottom panel.

Table 18. Job uncertainty and job dissatisfaction - Ghana

Job satisfaction	Non casual & durable		Non casual & non durable		Casual		Total
	FT	PT	FT	PT	FT	PT	
Dissatisfied*	44.57	40.29	78.66	81.58	71.90	69.99	52.32
<i>Satisfaction w/ job</i>							
Very satisfied	62.66	66.65	28.11	32.14	37.05	38.16	55.06
Somewhat satisfied	31.77	24.61	41.33	45.45	42.84	40.86	33.60
Somewhat dissatisfied	2.13	3.60	8.88	11.53	5.15	3.63	3.78
Very dissatisfied	3.43	5.13	21.67	10.89	14.96	17.35	7.57
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<i>Wanted to change job</i>	32.23	27.27	60.22	59.77	57.50	56.42	38.56
<i>Job uncertain and it bothers me</i>	0.00	0.00	43.48	46.63	30.78	34.92	10.31
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: GLSS6 2012/2013. Note: 44.6 per cent of workers in standard employment (full-time durable employment) feel dissatisfied with their current situation, either because they are less than very satisfied with their job, or wanted to change job. By definition they cannot be in an uncertain employment relationship and be bothered by this uncertainty, but this is a third source of dissatisfaction for non-durable workers.

Table 19. Social benefits by form of employment - Uganda

	Social security	Health benefits	Annual leave
Std FT	21%	43%	22%
NSFE			
Std PT	14%	34%	20%
Fx >3y	73%	71%	57%
Fx 1-3y	43%	48%	31%
Fx <1y	12%	18%	9%
Casual	1%	6%	1%
Total	20%	39%	21%

Source: U-LFS 2011/12.

Table 20. Social benefits by form of employment - Ghana

Social benefits	Pension	Annual leave	Health benefits	Other social security
FT - Non casual & durable	41%	52%	50%	40%
NSFE				
PT - Non casual & durable	44%	54%	49%	47%
FT - Non casual & non durable	26%	43%	41%	26%
PT - Non casual & non durable	22%	38%	32%	24%
FT - casual	1%	9%	12%	1%
PT - casual	0%	17%	2%	0%
Total	36%	48%	45%	35%

Source: GLSS6, authors' calculations.

Table 21. Mincer equation for daily and monthly earnings - Uganda 2011/2012

VARIABLES	Log Daily earnings (wage + in-kind)			Log Monthly earnings		
	(1)	(2)	(3)	(1)	(2)	(3)
Age	0.0558*** (0.0152)	0.0562*** (0.0154)	0.0564*** (0.0153)	0.0598*** (0.0146)	0.0600*** (0.0149)	0.0636*** (0.0149)
Age squared	-0.000645*** (0.000211)	-0.000622*** (0.000215)	-0.000631*** (0.000213)	-0.000724*** (0.000203)	-0.000696*** (0.000207)	-0.000750*** (0.000207)
Female+A31	-0.430*** (0.0575)	-0.426*** (0.0579)	-0.418*** (0.0577)	-0.438*** (0.0555)	-0.430*** (0.0560)	-0.428*** (0.0562)
Primary schooling	-0.0712 (0.130)	-0.0745 (0.132)	-0.0889 (0.131)	-0.0602 (0.126)	-0.0665 (0.128)	-0.0939 (0.127)
Secondary schooling	0.207 (0.130)	0.279** (0.131)	0.269** (0.130)	0.150 (0.125)	0.221* (0.128)	0.192 (0.127)
Post-primary	0.553*** (0.178)	0.643*** (0.181)	0.624*** (0.179)	0.495*** (0.172)	0.584*** (0.175)	0.553*** (0.175)
Post-secondary	0.693*** (0.145)	0.892*** (0.145)	0.858*** (0.144)	0.594*** (0.140)	0.799*** (0.140)	0.752*** (0.140)
Degree & above	1.025*** (0.155)	1.338*** (0.151)	1.298*** (0.150)	0.932*** (0.150)	1.248*** (0.146)	1.179*** (0.146)
Social security	0.183** (0.0837)			0.163** (0.0805)		
Annual leave	0.283*** (0.0883)			0.273*** (0.0850)		
Health benefits	0.162** (0.0702)			0.200*** (0.0680)		
Production sector	0.506*** (0.135)	0.508*** (0.138)	0.487*** (0.140)	0.420*** (0.131)	0.425*** (0.134)	0.403*** (0.137)
Services sector	0.290** (0.129)	0.329** (0.131)	0.299** (0.135)	0.261** (0.125)	0.303** (0.127)	0.277** (0.132)
Tenure 1-5 years	0.207*** (0.0688)	0.224*** (0.0700)	0.229*** (0.0695)	0.165** (0.0666)	0.180*** (0.0679)	0.182*** (0.0679)
Tenure > 5 years	0.373*** (0.0870)	0.431*** (0.0880)	0.433*** (0.0876)	0.332*** (0.0838)	0.391*** (0.0851)	0.375*** (0.0852)
Central Region	-0.0504 (0.0604)	-0.0493 (0.0613)	-0.0431 (0.0613)	-0.0294 (0.0584)	-0.0262 (0.0594)	-0.0247 (0.0598)
Eastern Region	-0.404*** (0.106)	-0.374*** (0.107)	-0.376*** (0.107)	-0.368*** (0.102)	-0.334*** (0.104)	-0.331*** (0.104)
Northern Region	-0.244* (0.134)	-0.192 (0.136)	-0.185 (0.134)	-0.273** (0.128)	-0.220* (0.131)	-0.208 (0.130)
Western Region	-0.0798 (0.0960)	-0.101 (0.0976)	-0.0958 (0.0970)	-0.104 (0.0925)	-0.124 (0.0943)	-0.140 (0.0943)
<i>Forms of employment</i>						
Part-time Std & Fx-term > 1 years	0.175** (0.0749)	0.136* (0.0759)		-0.424*** (0.0719)	-0.463*** (0.0731)	
Fx-term < 1 year	-0.0241 (0.144)	-0.0591 (0.146)		-0.263* (0.138)	-0.303** (0.141)	
Part-time Std			0.224*** (0.0807)			-0.400*** (0.0782)
Fx-term > 3 years			0.662*** (0.211)			0.661*** (0.205)
Fx term 1-3 years			-0.119 (0.152)			-0.179 (0.147)
Fx term < 1 year			-0.0234 (0.153)			-0.229 (0.148)
Casual			-0.0892 (0.126)			-0.294** (0.126)
Constant	7.182*** (0.297)	7.153*** (0.302)	7.181*** (0.304)	10.49*** (0.287)	10.47*** (0.293)	10.46*** (0.296)
Observations	1,247	1,247	1,248	1,228	1,228	1,229
R-squared	0.363	0.338	0.346	0.381	0.353	0.354

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 22. Contribution of each covariate to the R² of the earnings regression – Uganda 2011/2012

	MAIN SPECIFICATION	Log Monthly earnings - First-order contribution to R ² of each regressor Specification without...						
		Forms of employment	Education	Tenure	Gender	Age	Sector	Region
Observations	1,228	1,247	1,233	1,242	1,228	1,228	1,228	1,228
R-squared	0.353	0.331	0.228	0.342	0.322	0.341	0.348	0.346
Contribution to R-squared (= R _{sq} main specif - R _{sq})		0.022	0.125	0.011	0.031	0.012	0.005	0.007

Source: Authors' calculations.

Note: the "contribution" to the R² calculated here is a first-order proxy for the contribution of a covariate to the R² of the full specification. It takes into account neither the covariances (higher-order contributions) nor the quantitative/multinomial nature of the covariate.

Table 23. Mincer regression of log monthly earnings on panel data. Ugandan LSMS 2009-2011/2012 with individual fixed-effects

VARIABLES	Log Monthly earnings (Panel FE)
Age	0.177 (0.137)
Age squared	-0.00140 (0.00173)
Primary schooling	-1.849 (1.361)
Secondary schooling	-1.679 (1.372)
Post-primary	-1.705 (1.422)
Post-secondary	-1.546 (1.411)
Degree & above	-1.853 (1.398)
Tenure > 12 months	0.102 (0.109)
Part-time Std & Fx-term > 1 years	-0.267* (0.148)
Fx-term < 1 year	-0.322 (0.236)
Constant	9.589*** (2.551)
Observations	1,061
Number of PIDn	737
R-squared	0.089

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 24. Mincer equation for monthly earnings - Ghana 2012/2013

VARIABLES	Log (monthly earnings)			
	Total sample (observed and imputed)		Sample with observed earnings only	
	(1)	(2)	(3)	(4)
Age	0.0567*** (0.00867)	0.0658*** (0.00886)	0.0616*** (0.00924)	0.0720*** (0.00948)
Age-squared	-0.000623*** (0.000108)	-0.000691*** (0.000110)	-0.000666*** (0.000114)	-0.000746*** (0.000118)
Woman	-0.317*** (0.0302)	-0.325*** (0.0306)	-0.300*** (0.0309)	-0.313*** (0.0314)
<i>No or pre-prim. School. (ref.)</i>				
Primary	0.107 (0.0693)	0.139* (0.0710)	-0.0252 (0.0766)	0.0101 (0.0788)
Jnr Sec.	0.155*** (0.0473)	0.215*** (0.0482)	0.140*** (0.0514)	0.210*** (0.0526)
Snr. Sec & vocat.	0.295*** (0.0510)	0.448*** (0.0507)	0.326*** (0.0543)	0.489*** (0.0544)
U- & P-grad.	0.902*** (0.0569)	1.250*** (0.0511)	0.927*** (0.0593)	1.280*** (0.0543)
Pension contrib.	0.234*** (0.0491)		0.244*** (0.0483)	
Annual leave	0.0106 (0.0414)		0.0402 (0.0413)	
Health benefits	0.115*** (0.0371)		0.127*** (0.0372)	
Other social ben.	0.183*** (0.0456)		0.153*** (0.0449)	
<i>Agricultural Sector (ref.)+A24</i>				
Production Sector	0.0640 (0.0848)	0.0398 (0.0869)	0.0459 (0.0893)	0.0307 (0.0919)
Service Sector	-0.105 (0.0821)	-0.109 (0.0842)	-0.0795 (0.0859)	-0.0804 (0.0884)
<i>Tenure < 1 year (ref.)</i>				
Tenure 1-5 years	0.165*** (0.0403)	0.194*** (0.0413)	0.162*** (0.0422)	0.191*** (0.0434)
Tenure > 5 years	0.326*** (0.0446)	0.367*** (0.0456)	0.313*** (0.0468)	0.357*** (0.0481)
<i>Region Western (ref.)</i>				
Central	-0.0767 (0.0640)	-0.102 (0.0656)	-0.122* (0.0659)	-0.161** (0.0679)
Greater Accra	-0.0262 (0.0469)	-0.0239 (0.0480)	-0.0473 (0.0475)	-0.0493 (0.0490)
Volta	-0.131* (0.0711)	-0.132* (0.0728)	-0.215*** (0.0723)	-0.219*** (0.0744)

Eastern	-0.176*** (0.0594)	-0.169*** (0.0608)	-0.185*** (0.0609)	-0.182*** (0.0627)
Ashanti	0.0154 (0.0524)	0.0127 (0.0537)	-0.0432 (0.0540)	-0.0411 (0.0556)
Brong Ahafo	-0.398*** (0.0699)	-0.384*** (0.0717)	-0.392*** (0.0713)	-0.378*** (0.0734)
Nothern	-0.317*** (0.0912)	-0.311*** (0.0935)	-0.306*** (0.0984)	-0.299*** (0.101)
Upper East	-0.0809 (0.0996)	-0.0916 (0.102)	-0.0817 (0.108)	-0.104 (0.111)
Upper West	-0.195** (0.0807)	-0.163** (0.0823)	-0.168** (0.0813)	-0.135 (0.0834)
<i>FT- Durable (ref.)</i>				
PT- Durable	-0.0660 (0.0441)	-0.0800* (0.0451)	-0.144*** (0.0448)	-0.166*** (0.0460)
FT- Non durable	-0.255*** (0.0389)	-0.302*** (0.0397)	-0.254*** (0.0402)	-0.303*** (0.0412)
PT- Non durable	-0.262*** (0.0891)	-0.318*** (0.0912)	-0.377*** (0.0934)	-0.432*** (0.0961)
Casual FT	0.0689 (0.0749)	-0.0405 (0.0761)	0.140 (0.0867)	0.0116 (0.0887)
Casual PT	-0.0707 (0.101)	-0.165 (0.103)	-0.535*** (0.120)	-0.642*** (0.124)
Constant	4.164*** (0.180)	3.997*** (0.184)	4.013*** (0.191)	3.829*** (0.196)
Observations	3,324	3,324	2,928	2,928
R-squared	0.404	0.372	0.447	0.412

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 25. Contribution of each covariate to the R² of the earnings regression – Ghana 2012/2013

	MAIN SPECIFICATION	Log monthly earnings – First-order contribution to the R ² of each regressor						
		Specification without...						
		Forms of employment	Education	Tenure	Gender	Age	Sector	Region
Observations	3,324	3,324	3,324	3,342	3,324	3,324	3,324	3,324
R²	0.372	0.359	0.187	0.359	0.351	0.354	0.369	0.361
Contribution to R² (= R² main specification - R²)		0.013	0.185	0.013	0.021	0.018	0.003	0.011

Table 26. Probit estimation for receiving job amenities (marginal effects). Ugandan LFS 2011/2012)

VARIABLES	Social benefit amenities in the job		
	Social security	Annual leave	Health benefits
Age	0.0153*** (0.00509)	0.0170*** (0.00598)	0.00675 (0.00838)
Age-squared	-0.000165** (6.80e-05)	-0.000154* (8.12e-05)	-1.19e-07 (0.000119)
Female	-0.0319** (0.0147)	-0.0223 (0.0196)	0.121*** (0.0311)
Primary schooling	0.0477 (0.0817)	-0.0681 (0.0508)	-0.0491 (0.0716)
Secondary schooling	0.204** (0.0957)	0.103* (0.0639)	0.129* (0.0727)
Post-primary	0.322*** (0.170)	0.183** (0.109)	0.210** (0.0977)
Post-secondary	0.428*** (0.151)	0.328*** (0.0999)	0.472*** (0.0647)
Degree & above	0.672*** (0.129)	0.507*** (0.100)	0.596*** (0.0466)
Production sector	0.987*** (0.00928)	0.0400 (0.100)	0.00652 (0.0863)
Services sector	0.470*** (0.0642)	0.0973 (0.0630)	0.0849 (0.0775)
Central Region	0.00487 (0.0166)	-0.0338* (0.0204)	0.0482 (0.0327)
Eastern Region	0.00306 (0.0257)	0.00644 (0.0329)	0.159*** (0.0569)
Northern Region	0.0144 (0.0378)	0.0799 (0.0561)	0.166** (0.0775)
Western Region	-0.0512** (0.0200)	-0.0605* (0.0283)	-0.0451 (0.0548)
Part-time Std & Fx-term > 1 years	-0.0514*** (0.0161)	-0.0273 (0.0256)	-0.106*** (0.0389)
Fx-term < 1 year	-0.0312 (0.0325)	-0.0469 (0.0444)	-0.190** (0.0623)
Observations	1,429	1,429	1,429
Pred. p (x-bar)	0.0911	0.130	0.361

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table 27. Probit estimation for receiving job amenities (marginal effects). Ghanaian GLSS6 2012/2013

VARIABLES	Social benefits amenities in the job			
	Pension	Annual leave	Health benefits	Other social ben.
Age	0.0547*** (0.00620)	0.0274*** (0.00579)	0.0190*** (0.00546)	0.0395*** (0.00584)
Age-squared	-0.000520*** (7.65e-05)	-0.000232*** (7.31e-05)	-0.000160** (6.89e-05)	-0.000356*** (7.25e-05)
Female	0.00807 (0.0200)	0.0375* (0.0200)	-0.142*** (0.0182)	0.0299 (0.0192)
Primary	0.130** (0.0591)	0.0344 (0.0491)	0.0379 (0.0475)	0.168*** (0.0576)
Jnr Sec.	0.247*** (0.0382)	0.183*** (0.0319)	0.142*** (0.0318)	0.250*** (0.0383)
Snr. Sec & vocat.	0.452*** (0.0356)	0.372*** (0.0281)	0.320*** (0.0302)	0.456*** (0.0357)
U- & P-grad.	0.758*** (0.0194)	0.629*** (0.0176)	0.518*** (0.0240)	0.733*** (0.0215)
Production Sector	-0.154*** (0.0536)	-0.0497 (0.0620)	0.0391 (0.0588)	-0.112** (0.0536)
Service Sector	-0.0724 (0.0623)	0.0438 (0.0603)	0.0839 (0.0552)	-0.0862 (0.0600)
Central Region	-0.0931** (0.0373)	-0.0946** (0.0413)	-0.0695* (0.0388)	-0.0851** (0.0361)
Greater Accra Region	-0.0239 (0.0310)	0.0158 (0.0320)	0.00307 (0.0302)	-0.00512 (0.0298)
Volta Region	0.0201 (0.0486)	0.0228 (0.0494)	-0.0810* (0.0434)	-0.0648 (0.0422)
Eastern Region	-0.00187 (0.0414)	0.0435 (0.0417)	-0.0223 (0.0388)	0.0511 (0.0411)
Ashanti Region	-0.0140 (0.0352)	-0.0106 (0.0360)	-0.0499 (0.0335)	0.0171 (0.0344)
Brong Ahafo Region	-0.0261 (0.0408)	0.0201 (0.0425)	-0.000520 (0.0403)	-0.0269 (0.0391)
Nothern Region	0.151** (0.0606)	0.0451 (0.0569)	-0.0250 (0.0528)	0.156*** (0.0586)
Upper East Region	0.0208 (0.0653)	0.0621 (0.0639)	0.0112 (0.0596)	0.157** (0.0675)
Upper West Region	0.221*** (0.0592)	0.107* (0.0562)	-0.0408 (0.0501)	-0.0331 (0.0478)
PT- Durable	-0.0484* (0.0276)	-0.0550* (0.0296)	-0.0716*** (0.0269)	0.0186 (0.0280)
FT- Non durable	-0.145*** (0.0220)	-0.0739*** (0.0247)	-0.0573** (0.0236)	-0.0857*** (0.0225)
PT- Non durable	-0.193*** (0.0399)	-0.135** (0.0529)	-0.150*** (0.0483)	-0.115** (0.0463)
Casual FT	-0.330*** (0.0233)	-0.394*** (0.0362)	-0.320*** (0.0356)	-0.316*** (0.0237)
Casual PT		-0.410*** (0.0460)	-0.398*** (0.0356)	
Observations	3,857	3,935	3,935	3,857
Pred. P(x-bar)	.3445071	.4920444	.4463426	.3339609

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

**Table 28. Probit estimation of job dissatisfaction (marginal effects).
Ugandan LFS 2011/2012**

VARIABLES	Job dissatisfaction	
	(1)	(2)
Age	0.0119 (0.00785)	0.0139* (0.00829)
Age squared	-0.000296*** (0.000113)	-0.000299** (0.000118)
Female	-0.0122 (0.0290)	-0.0640** (0.0323)
Primary schooling	-0.0349 (0.0711)	-0.0558 (0.0753)
Secondary schooling	-0.0638 (0.0704)	-0.0612 (0.0746)
Post-primary	-0.208** (0.0945)	-0.152 (0.105)
Post-secondary	-0.0843 (0.0782)	-0.0319 (0.0840)
Degree & above	-0.252*** (0.0769)	-0.0878 (0.0915)
Production sector	-0.252*** (0.0822)	-0.197** (0.0864)
Service sector	-0.327*** (0.0577)	-0.299*** (0.0606)
Central Region	-0.124*** (0.0312)	-0.138*** (0.0334)
Eastern Region	-0.0478 (0.0536)	-0.0678 (0.0593)
Northern Region	-0.130* (0.0702)	-0.139* (0.0749)
Western Region	-0.246*** (0.0497)	-0.263*** (0.0524)
Social security		-0.0308 (0.0458)
Annual leave		-0.100** (0.0492)
Health benefits		0.0195 (0.0385)
Log Daily earnings		-0.0478*** (0.0155)
Part-time Std & Fx-term > 3 years	0.00440 (0.0395)	0.0152 (0.0406)
Fx-term < 1 year	0.0659 (0.0714)	0.00658 (0.0791)
Observations	1,429	1,262
Pred. p (x-bar)	0.609	0.627
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

**Table 29. Probit estimation of job dissatisfaction (marginal effects).
Ghanaian GLSS6 2012/2013**

VARIABLES	Job dissatisfaction	
	(1)	(2)
Age	-0.00851*	-0.00334
	(0.00511)	(0.00564)
Age-squared	6.10e-05	1.91e-05
	(6.49e-05)	(7.13e-05)
Female	0.0202	-0.00869
	(0.0181)	(0.0203)
Primary	0.0378	0.0609
	(0.0418)	(0.0459)
Jnr Sec.	0.00769	0.0139
	(0.0288)	(0.0317)
Snr. Sec & vocat.	0.00470	0.0523
	(0.0302)	(0.0341)
U- & P-grad.	-0.0953***	0.0225
	(0.0300)	(0.0395)
Production Sector	0.0362	-0.0265
	(0.0506)	(0.0568)
Services Sector	-0.000562	-0.0443
	(0.0493)	(0.0547)
Central	-0.0634*	-0.111***
	(0.0382)	(0.0421)
Greater Accra	-0.0335	-0.0677**
	(0.0291)	(0.0312)
Volta	0.1000**	0.105**
	(0.0422)	(0.0466)
Eastern	-0.0834**	-0.109***
	(0.0373)	(0.0391)
Ashanti	0.0399	0.0353
	(0.0324)	(0.0349)
Brong Ahafo	0.00152	-0.119***
	(0.0385)	(0.0461)
Northern	-0.0382	-0.112*
	(0.0499)	(0.0594)
Upper East	-0.0708	-0.0843
	(0.0539)	(0.0667)
Upper West	0.173***	0.156***
	(0.0444)	(0.0499)
Pension contributions		0.00964
		(0.0327)
Annual leave		-0.0221
		(0.0276)
Health benefits		-0.0217
		(0.0247)

Other social benefits		-0.0797***
		(0.0302)
Ln(Hourly earnings)		-0.0407***
		(0.0108)
PT- Durable	-0.0381	-0.00860
	(0.0266)	(0.0307)
FT- Non durable	0.320***	0.300***
	(0.0194)	(0.0222)
PT- Non durable	0.328***	0.337***
	(0.0363)	(0.0404)
Casual FT	0.211***	0.216***
	(0.0389)	(0.0437)
Casual PT	0.239***	0.300***
	(0.0512)	(0.0510)
Observations	3,935	3,342
Pred. P(x-bar)	.5173076	.5123227

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table 30. Attrition and sample selection – Ugandan LSMS 2009-2011/2012

	Sample Structure		
	Full cross-section 2009	Sub-sample observed 2 waves	Sub-sample observed 3 waves
<i>Region</i>			
Kampala	31.18	30.78	26.45
Central without Kampala	19.90	15.84	16.83
Eastern	16.02	13.67	19.34
Northern	16.38	22.03	21.54
Western	16.52	17.69	15.83
<i>Age group</i>			
14-24	49.23	54.66	40.88
25-34	21.34	19.22	19.67
35-44	15.48	13.09	19.24
45-54	9.48	8.56	14.36
55-64	4.47	4.47	5.85
<i>Gender</i>			
Male	47.74	48.28	47.06
Female	52.26	51.72	52.94
<i>Education level</i>			
No formal schooling	4.74	3.38	5.58
Primary	40.52	38.83	36.94
Secondary	38.63	40.68	39.48
Post primary	3.70	3.70	3.24
Post secondary	6.05	4.53	5.95
Degree and above	5.28	6.45	6.21
.	1.08	2.43	2.61

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 31. Detailed transition numbers - Uganda

Labour status in year N+1	Out labour force	Sample size					Total
		Unemployed	Self-employed	Fx<1y	Part-time	Std emp.	
Labour status in year N							
Out labour force	613	19	197	7	16	46	898
Unemployed	19	10	15	2	4	10	60
Self-employed	232	13	726	7	32	56	1,066
Fx<1y	9	0	12	3	3	9	36
Part-time emp.	23	3	27	4	20	48	125
Std emp.	35	4	53	16	41	235	384
Total	931	49	1,030	39	116	404	2,569

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 32. Detailed Transition rates - Uganda

1. Labour status in year N+1	Transition matrix						
	Out labour force	Unemployed	Self-employed	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out labour force	68.26	2.12	21.94	0.78	1.78	5.12	100.00
Unemployed	31.67	16.67	25.00	3.33	6.67	16.67	100.00
Self-employed	21.76	1.22	68.11	0.66	3.00	5.25	100.00
Fx<1y	25.00	0.00	33.33	8.33	8.33	25.00	100.00
Part-time emp.	18.40	2.40	21.60	3.20	16.00	38.40	100.00
Std emp.	9.11	1.04	13.80	4.17	10.68	61.20	100.00
Total	36.24	1.91	40.09	1.52	4.52	15.73	100.00

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 33. Aggregated Transition rates - Uganda

2. Labour status in year N+1	Transition matrix				
	Not employed	Self-employed	NSFE	Std emp.	Total
Labour status in year N					
Not employed	69.00	22.13	3.03	5.85	100.00
Self-employed	22.98	68.11	3.66	5.25	100.00
NSFE	21.74	24.22	8.63	35.40	100.00
Std emp. >35h	10.16	13.80	4.84	61.20	100.00
Total	38.15	40.09	6.03	15.73	100.00

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 34. Transition rates by gender - Uganda

Labour status in year N+1	Out labour force	Unemployed	Self-employed	Men			Total
				Fx<1y	Part-time	Std emp.	
Labour status in year N							
Out labour force	67.77	2.03	20.30	0.76	3.05	6.09	100.00
Unemployed	16.67	16.67	12.50	8.33	16.67	29.17	100.00
Self-employed	19.46	0.90	66.06	0.90	2.71	9.95	100.00
Fx<1y	20.00	0.00	36.00	8.00	4.00	32.00	100.00
Part-time emp.	18.07	3.61	19.28	2.41	14.46	42.17	100.00
Std Emp.	7.51	0.79	13.83	5.53	11.46	60.87	100.00
Total	32.43	1.72	35.63	2.21	5.73	22.28	100.00

Source: Ugandan LSMS 2009-2012, authors' calculations.

Labour status in year N+1	Out labour force	Unemployed	Self-employed	Women			Total
				Fx<1y	Part-time	Std emp.	
Labour status in year N							
Out labour force	68.65	2.18	23.21	0.79	0.79	4.37	100.00
Unemployed	41.67	16.67	33.33	0.00	0.00	8.33	100.00
Self-employed	23.40	1.44	69.55	0.48	3.21	1.92	100.00
Fx<1y	36.36	0.00	27.27	9.09	18.18	9.09	100.00
Part-time emp.	19.05	0.00	26.19	4.76	19.05	30.95	100.00
Std Emp.	12.21	1.53	13.74	1.53	9.16	61.83	100.00
Total	39.69	2.08	44.14	0.89	3.41	9.79	100.00

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 35. Transition numbers by gender - Uganda

Sample size		Men					
Labour status in year N+1	Out labour force	Unemployed	Self-employed	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out labour force	267	8	80	3	12	24	394
Unemployed	4	4	3	2	4	7	24
Self-employed	86	4	292	4	12	44	442
Fx<1y	5	0	9	2	1	8	25
Part-time emp.	15	3	16	2	12	35	83
Std emp.	19	2	35	14	29	154	253
Total	396	21	435	27	70	272	1,221

Source: Ugandan LSMS 2009-2012, authors' calculations.

Sample size		Women					
Labour status in year N+1	Out labour force	Unemployed	Self-employed	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out lab. force	346	11	117	4	4	22	504
Unemployed	15	6	12	0	0	3	36
Self-employed	146	9	434	3	20	12	624
Fx<1y	4	0	3	1	2	1	11
Part-time emp.	8	0	11	2	8	13	42
Std emp.	16	2	18	2	12	81	131
Total	535	28	595	12	46	132	1,348

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 36. Transition rates by education - Uganda

No formal schooling							
Labour status in year N+1	Out lab.	Unemployed	Self-employ	Fx<1y	Part-t.	Std emp.	Total
Labour status in year N							
Out lab. force	40.00	0.00	45.00	0.00	5.00	10.00	100.00
Unemployed	0.00	50.00	50.00	0.00	0.00	0.00	100.00
Self-employed	7.14	0.00	83.33	1.19	4.76	3.57	100.00
Fx<1y	100.00	0.00	0.00	0.00	0.00	0.00	100.00
Part-t. emp.	30.00	0.00	30.00	10.00	20.00	10.00	100.00
Std emp.	25.00	0.00	33.33	0.00	8.33	33.33	100.00
Total	16.28	0.78	67.44	1.55	6.20	7.75	100.00
Primary schooling							
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-t.	Std emp.	Total
Labour status in year N							
Out lab. force	60.70	1.56	29.96	1.17	1.95	4.67	100.00
Unemployed	21.43	0.00	35.71	0.00	7.14	35.71	100.00
Self-employed	18.10	0.65	73.71	1.29	2.80	3.45	100.00
Fx<1y	20.00	0.00	40.00	6.67	20.00	13.33	100.00
Part-t. emp.	21.95	2.44	26.83	7.32	9.76	31.71	100.00
Std emp.	8.77	0.88	17.54	6.14	8.77	57.89	100.00
Total	29.28	0.99	50.94	2.21	3.98	12.60	100.00
Secondary							
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-t.	Std emp.	Total
Labour status in year N							
Out lab. force	73.20	1.44	19.59	0.62	1.44	3.71	100.00
Unemployed	42.86	9.52	23.81	9.52	4.76	9.52	100.00
Self-employed	29.81	0.81	60.98	0.00	2.98	5.42	100.00
Fx<1y	36.36	0.00	36.36	0.00	0.00	27.27	100.00
Part-t. emp.	8.33	2.78	16.67	0.00	25.00	47.22	100.00
Std emp.	7.21	0.90	18.02	6.31	12.61	54.95	100.00
Total	47.34	1.36	34.37	1.16	4.07	11.71	100.00
Post-primary, post-secondary and degree and above							
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-t.	Std emp.	Total
Labour status in year N							
Out lab. force	64.13	8.70	10.87	1.09	3.26	11.96	100.00
Unemployed	30.43	30.43	17.39	0.00	8.70	13.04	100.00
Self-employed	17.21	4.92	62.30	0.00	2.46	13.11	100.00
Fx<1y	11.11	0.00	22.22	22.22	0.00	44.44	100.00
Part-t. emp.	20.00	2.86	14.29	0.00	14.29	48.57	100.00
Std emp.	8.09	1.47	6.62	1.47	11.76	70.59	100.00
Total	25.42	5.76	25.42	1.20	6.95	35.25	100.00

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 37. Transition numbers by education - Uganda

Sample size		No formal schooling					
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out lab. force	8	0	9	0	1	2	20
Unemployed	0	1	1	0	0	0	2
Self-employed	6	0	70	1	4	3	84
Fx<1y	1	0	0	0	0	0	1
Part-time emp.	3	0	3	1	2	1	10
Std Emp.	3	0	4	0	1	4	12
Total	21	1	87	2	8	10	129
Sample size		Primary schooling					
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out lab. force	156	4	77	3	5	12	257
Unemployed	3	0	5	0	1	5	14
Self-employed	84	3	342	6	13	16	464
Fx<1y	3	0	6	1	3	2	15
Part-time emp.	9	1	11	3	4	13	41
Std Emp.	10	1	20	7	10	66	114
Total	265	9	461	20	36	114	905
Sample size		Secondary					
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out lab. force	355	7	95	3	7	18	485
Unemployed	9	2	5	2	1	2	21
Self-employed	110	3	225	0	11	20	369
Fx<1y	4	0	4	0	0	3	11
Part-time emp.	3	1	6	0	9	17	36
Std emp.	8	1	20	7	14	61	111
Total	489	14	355	12	42	121	1,033
Sample size		Post-primary, Post-secondary and Degree and above					
Labour status in year N+1	Out lab.	Unemploy	Self-emp	Fx<1y	Part-time	Std emp.	Total
Labour status in year N							
Out lab. force	59	8	10	1	3	11	92
Unemployed	7	7	4	0	2	3	23
Self-employed	21	6	76	0	3	16	122
Fx<1y	1	0	2	2	0	4	9
Part-time emp.	7	1	5	0	5	17	35
Std emp.	11	2	9	2	16	96	136
Total	106	24	106	5	29	147	417

Source: Ugandan LSMS 2009-2012, authors' calculations.

Table 38. Probit model for moving to standard employment - Uganda

VARIABLES	Standard Full Time Employment in year N+1			
	Full sample		Employed & Unemployed	
NSFE in year N	0.0421 (0.0312)		0.149* (0.0710)	
<i>Unemployed in year N</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>
Fx-term in year N		-0.00295 (0.0298)		0.0474 (0.121)
Part-time in year N		0.0575** (0.0364)		0.184** (0.0801)
Self-emp. in year N	-0.0834*** (0.0206)	-0.0831*** (0.0205)		
Out of lab. Force in year N	-0.0736*** (0.0175)	-0.0734*** (0.0175)		
25-34	0.0188 (0.0160)	0.0196 (0.0161)	0.0468 (0.0948)	0.0561 (0.0959)
35-44	0.0349** (0.0189)	0.0349* (0.0189)	0.147 (0.101)	0.148 (0.101)
45-54	0.0132 (0.0195)	0.0107 (0.0192)	0.101 (0.122)	0.0832 (0.122)
55-64	-0.0242 (0.0177)	-0.0255 (0.0173)	-0.119 (0.161)	-0.140 (0.147)
Woman	-0.0602*** (0.0110)	-0.0606*** (0.0110)	-0.172** (0.0657)	-0.179*** (0.0659)
Primary schooling	-0.00101 (0.0275)	-0.000384 (0.0276)	0.222 (0.218)	0.229 (0.218)
Secondary schooling	0.0102 (0.0284)	0.0104 (0.0284)	0.270 (0.217)	0.269 (0.217)
Post-primary	0.0501 (0.0565)	0.0524 (0.0575)	0.381 (0.259)	0.394 (0.257)
Post-secondary	0.0908** (0.0619)	0.0924** (0.0626)	0.370 (0.242)	0.369 (0.243)
Degree & above	0.0257 (0.0437)	0.0232 (0.0428)	0.269 (0.258)	0.251 (0.258)
Region Central	0.000259 (0.0140)	0.000391 (0.0140)	0.212** (0.111)	0.217** (0.112)
Region Eastern	-0.0207* (0.0112)	-0.0211* (0.0112)	0.0294 (0.107)	0.0207 (0.106)
Region Northern	-0.0492*** (0.00942)	-0.0482*** (0.00949)	-0.192** (0.0714)	-0.176** (0.0743)
Region Western	-0.00966 (0.0126)	-0.00991 (0.0126)	0.0752 (0.113)	0.0705 (0.112)
Observations	2,167	2,167	219	219
Pred. p (x-bar)	0.202	0.202	0.374	0.378

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Imputation of earnings in Ghana

The Ghanaian GLSS6 data do not allow us to calculate hourly or weekly earnings for paid employees who declare wages or in-kind earnings at other than a weekly frequency. The questionnaire does not contain a proper work calendar for the reference week or month. For employees giving a weekly figure, we assume that the reference week is representative. For employees giving a daily figure, we prefer not to scale up the reference day to the reference week as we do not observe the number of days worked in the reference week. We therefore impute earnings for these employees based on a linear regression of log earnings estimated on the rest of the sample.

In detail, we take the following steps:

1. Define our estimation sample: paid employees in the population of interest declaring earnings over a week or more
2. Define our imputation sample: paid employees in the population of interest declaring daily earnings
3. Calculate weekly wages and weekly in-kind earnings for the estimation sample
4. Calculate the following quantiles of the weekly earnings distribution for the estimation sample: 5, 10, 25, 50, 75, 90, 95, and assign each observation to the corresponding range in the distribution
5. Calculate similar quantiles of the daily earnings distribution in the imputation sample, and assign each observation in the imputation sample to the corresponding range in the distribution
6. Estimate the following model on the estimation sample:

$$\ln(\text{weekly earnings}) = X \cdot \beta + \text{Quantile} \cdot \alpha + \text{FormsEmployment} \cdot \gamma + \varepsilon$$

Where X contain usual covariates (age, age-squared, gender, education, occupation, sector and region)

7. Impute the predicted part ($X\hat{\beta} + Q\hat{\alpha} + FE\hat{\gamma}$) of the model to the imputation sample
8. Calculate hourly earnings for the whole sample by dividing weekly earnings (observed or imputed) by the number of hours worked per week

The imputation model turns out to have very good explanatory power ($R^2=0.94$, Table 39), with a very high significance of the range in the distribution variable.

The imputed values are highly correlated with declared daily earnings: a linear regression of observed values on the imputed values produces an R^2 figure for wages of 0.74 (respectively 0.79 for in-kind earnings) and a slope coefficient of 0.99 for wages (0.57 for in-kind earnings).

The resulting hourly earnings are very tightly distributed around the observed hourly earnings of the estimation sample, the imputed hourly earnings of the estimation sample and the imputed hourly earnings of the imputation sample (Table 40).

Table 39. Imputation model for weekly wages – Ghana 2012/2013

Ln (weekly wage)	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
Age	0.009	0.003	2.97	0.00	0.003	0.014
Age-squared	0.000	0.000	-2.94	0.00	0.000	0.000
Female	-0.004	0.010	-0.41	0.68	-0.024	0.016
<i>No or pre-prim. Schooling (ref.)</i>						
Primary	0.007	0.023	0.3	0.76	-0.039	0.053
Jnr Sec.	0.015	0.016	0.92	0.36	-0.017	0.046
Snr Sec. & voca	-0.003	0.017	-0.18	0.86	-0.037	0.031
U- & P-grad.	0.058	0.020	2.84	0.01	0.018	0.098
<i>Manager (ref.)</i>						
Professional	-0.039	0.022	-1.8	0.07	-0.081	0.004
Technician	-0.035	0.025	-1.36	0.18	-0.084	0.015
Clerical support	-0.049	0.026	-1.87	0.06	-0.101	0.002
Service & sales worker	-0.067	0.024	-2.81	0.01	-0.113	-0.020
Skilled Agricultural	-0.103	0.050	-2.08	0.04	-0.201	-0.006
Craft & rel. Trade worker	-0.081	0.027	-3.03	0.00	-0.133	-0.028
Plant & machine operator	-0.064	0.025	-2.54	0.01	-0.113	-0.014
Elementary occup.	-0.058	0.027	-2.15	0.03	-0.112	-0.005
<i>Tenure <1 year (ref.)</i>						
Tenure 1-5 years	-0.012	0.013	-0.9	0.37	-0.037	0.014
Tenure > 5 years	-0.006	0.015	-0.42	0.67	-0.035	0.022
<i>Agricultural Sector (ref.)</i>						
Production Sector	-0.017	0.035	-0.48	0.63	-0.086	0.052
Services Sector	-0.034	0.034	-1	0.32	-0.101	0.033
Hours / week	0.000	0.000	-0.19	0.85	-0.001	0.001
<i>WageP0-5 (ref.)</i>						
WageP5-10	0.811	0.024	34.12	0.00	0.765	0.858
WageP10-25	1.227	0.023	53.97	0.00	1.182	1.271
WageP25-50	1.783	0.021	84.81	0.00	1.742	1.824
WageP50-75	2.470	0.022	113.51	0.00	2.428	2.513
WageP75-90	3.032	0.024	124.36	0.00	2.984	3.080
WageP90-95	3.403	0.029	118.59	0.00	3.347	3.459
WageP95-100	3.950	0.029	133.89	0.00	3.892	4.007
<i>FT-durable (ref.)</i>						
PT-durable	-0.011	0.016	-0.69	0.49	-0.043	0.021
FT- non durable	-0.053	0.012	-4.35	0.00	-0.077	-0.029
PT- non durable	-0.055	0.031	-1.79	0.07	-0.115	0.005
Casual FT	-0.021	0.026	-0.79	0.43	-0.072	0.031
Casual PT	-0.090	0.040	-2.28	0.02	-0.168	-0.013
_Constant	2.196	0.070	31.18	0.00	2.058	2.334
Number of Obs.	2929					
F(32, 2896)	= 1641.02					
Prob > F	= 0.0000					
R ²	= 0.9477					
Adjusted R ²	= 0.9472					
Root MSE	= .22879					

Source: GLSS6, authors' calculations

Table 40. Comparison of observed and imputed distributions of hourly earnings - Ghana

Distribution of hourly wages	Estimation sample		Imputed sample
	Observed	Predicted	Predicted
p10	0.42	0.43	0.39
p25	0.78	0.80	0.68
p50	1.68	1.67	1.55
p75	3.88	3.52	3.93
p90	6.64	6.75	9.23

Distribution of in-kind earnings	Estimation sample		Imputed sample
	Observed	Predicted	Predicted
p10	0.03	0.03	0.02
p25	0.08	0.10	0.03
p50	0.23	0.25	0.24
p75	0.83	0.82	0.84
p90	1.94	1.65	2.39

Source: GLSS6, authors' calculations.

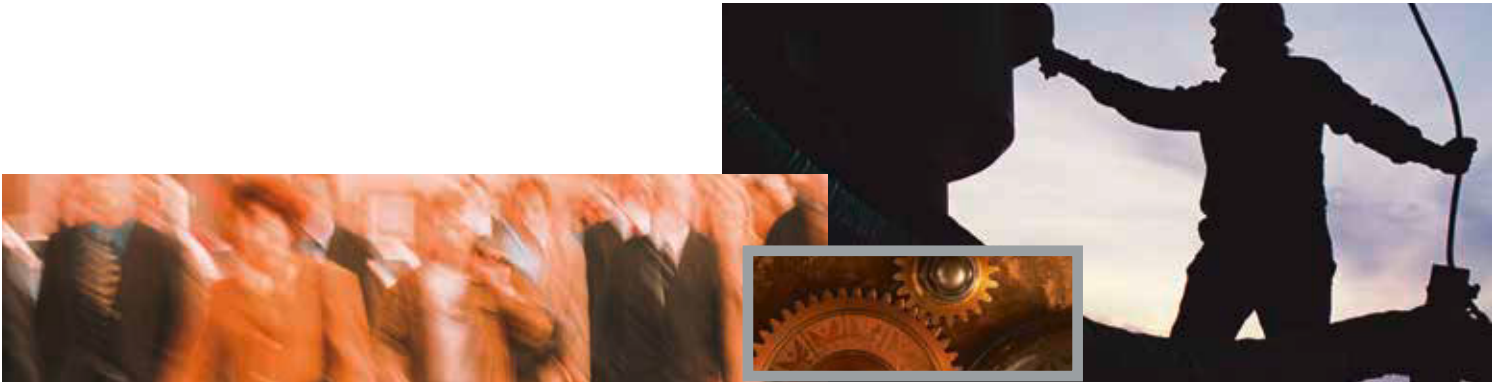
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