

Informality and Poverty in Zambia

Findings from the 2015 Living Conditions and Monitoring Survey

October 2018



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Introduction

In many developing countries, people rely on the informal economy for their livelihoods as employment opportunities in the formal sector are scarce. As a result of widespread subsistence farming in rural areas and the high prevalence of self-employment or casual/atypical employee-employer relationships in most economic sectors, the informal economy accounts for a very large proportion of total employment. In many African countries, less than one in four, sometimes one in five, workers are formally employed. Similarly in Zambia, the great majority of workers are informally employed.

Through key development frameworks, including the 7th National Development Plan and the National Social Protection Policy of 2014, has re-affirmed its commitment to implement nationally appropriate social protection systems to achieve substantial coverage of the poor and vulnerable, including informal economy workers. As Zambia plans to extend social protection coverage, high levels of informality will be an important challenge for the social protection system, in particular, in terms of coordinating both non-contributory social assistance mechanisms and contributory social insurance programmes. A national Technical Working Group (TWG) chaired by the Ministry of Labour and Social Security has been put in place to coordinate cross-sectoral and multi-stakeholders efforts towards extension of social security coverage to informal economy workers.

In Zambia like in many developing countries, quality and up-to-date data on the size and characteristics of informal workers are scarce, which constitutes a major challenge to the formulation of appropriate policies targeting this group, and the extension of social protection coverage in general. Despite its importance to employment and contribution to the economy, the definition and measurement of the informal economy pose a challenge. The analysis on informality and poverty in Zambia presents useful and critical information to support comprehensive policy dialogue on suitable interventions for extension of coverage.

This analysis presented in this report was undertaken by the Organization for Economic Co-operation and Development (OECD), under the EU-Social Protection Systems Programme, and the ILO Lusaka office. The analysis was produced at the request of the Technical Working Group on Extension of Social Protection to the Informal Economy in Zambia, that is chaired by Ministry of Labour and Social Security. It focuses on defining the characteristics of informal workers in Zambia using the Living Conditions Monitoring Survey (LCMS) data from 2015. The objective of this work is to ensure that the planned social protection extension will be guided by evidence ensuring adequate policy design and hence the effective inclusion of informal workers into the social protection system.

The methodology used in this report is based on the work conducted as part of the OECD/ILO report on tackling vulnerability in the informal economy. While in most cases, globally and in Zambia, the analysis of informality patterns in the labour markets is based on information from Labour Force Surveys (LFS), this study is based on information from the main household budget survey in Zambia the Living Conditions Monitoring Survey data from 2015. Compared to the LFS, the LCMS includes detailed information on consumption expenditure which is used to calculate official poverty statistics in Zambia. This provides an opportunity to explore in more depth the socioeconomic characteristics of informal workers and analyze the relationship between household welfare and formal/informal employment status of household members. For the first time, this study provides a detailed distributional analysis of welfare and well-being levels of informal workers in Zambia.¹ The 2015 Zambia LCMS was conducted between April and May 2015 by the Central Statistical Office. It is a population-based household survey that collects data using structured personal interviews with household members, with the objective of measuring the well-being of the Zambian population. The following dimensions of well-being are captured in the LCMS: general living conditions (household size, composition, relationships, income and expenditures, food security and coping strategies), economic activities and employment status of household members, education, health, housing conditions, access to community level socio-economic facilities such as health facilities or schools.

¹ It is important to note that official statistics for the calculation of informality rates in Zambia are based on the LFS. Due to the use of the LCMS as source of data, and differences in the nature of the two surveys, the informality rates calculated in this report differ somewhat to the official ones. This may also in part driven by the fact that the timing of the LFS and LCMS do not coincide.

Definition and Categorization of informal work in the Zambia LCMS 2015

In order to define the sample of individuals of interest in this analysis – informal workers – we follow several steps. First, we look at the overall population to identify individuals who are working and those who are not working. According to the LCMS 2015, 42.9% of the overall population over 12 years of age are working for pay, 6.3% are contributing family workers, while 26.3% are students, 10.4% are homemakers, 9.2% are unemployed, and 3.8% are retired, too young or too old to be working.

Following categories in the LCMS questionnaire, we define the working population as consisting of individuals in wage employment, running a business, in the farming / fishing / forestry industries, piece workers, and contributing family workers, while we exclude individuals looking for work, students, home makers, retired, or individuals who report being too old or too young to work.

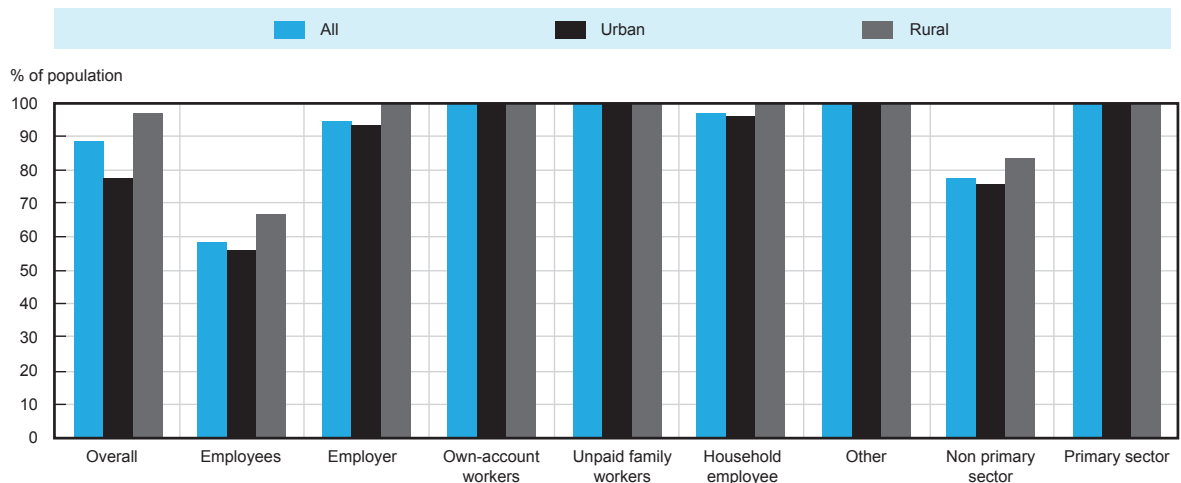
Those who are working are thereafter grouped into the following categories based on self-reported employment status: (i) employees, (ii) employers (iii) own-account workers, (iv) contributing family workers, (v) household employees and (iv) other. The subsequent categorization as informal or formal workers is primarily based on sector of employment (formal if working for the Government, NGO or International Organization), the affiliation to social security, eligibility for paid annual leave, and if this information is unavailable, on size of the firm (more than 5 employees). Annex 1 provides a graphical representation of how these different criteria contribute to the categorization of formal and informal workers.²

2 In line with Figure 16 of CSO, 2016

Proportion of the Zambian workforce informally employed

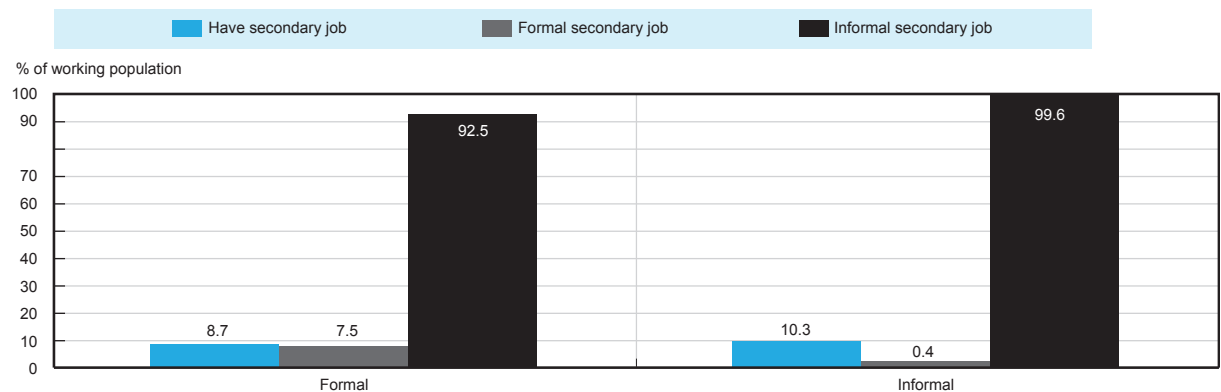
Overall, we find 88.7% of the employed Zambian population work informally. In particular, 87.5% are informal workers employed in the informal sector, 1.2% are informal workers employed in the formal sector, and 11.3% are formal workers employed in the formal sector.³ Informality rates are highest (virtually 100%) among contributing family workers and own-account workers; there is more variation in working conditions amongst employees. Informality rates are generally higher in rural areas, though they still exceed 50% for urban employees. Virtually all workers in the primary sector (defined as working in the farming, fishing and forestry industries) are informally employed (Figure 1).

Figure 1: Proportion of workers who are informally employed, by type of employment



Beyond their primary economic activity, about 9% of all workers declare having a secondary job. The great majority of those secondary jobs or businesses are informal, in particular, they are all informal if the primary activity is informal. About 9% of workers formally employed in their primary activity report to have another job, which in 92% of the cases is informal.

Figure 2: Secondary activity

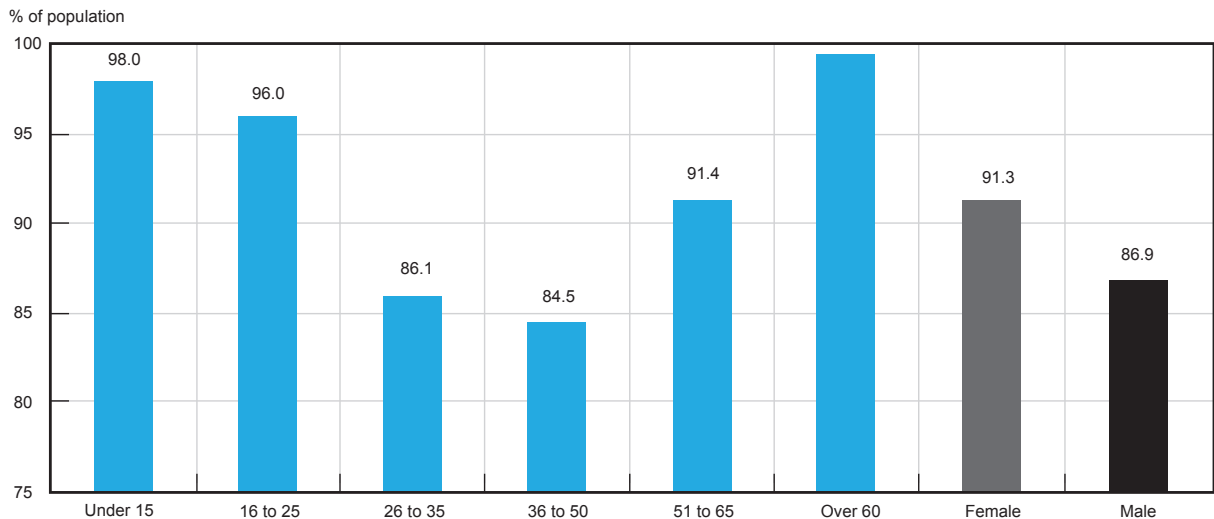


³ The estimated total informal employment rate is very close to that produced on the basis of the 2014 Labour Force survey, which indicated that 89.3% of the working population had informal jobs (informally employed). See CSO (2015)

Informality variation by education, location and gender

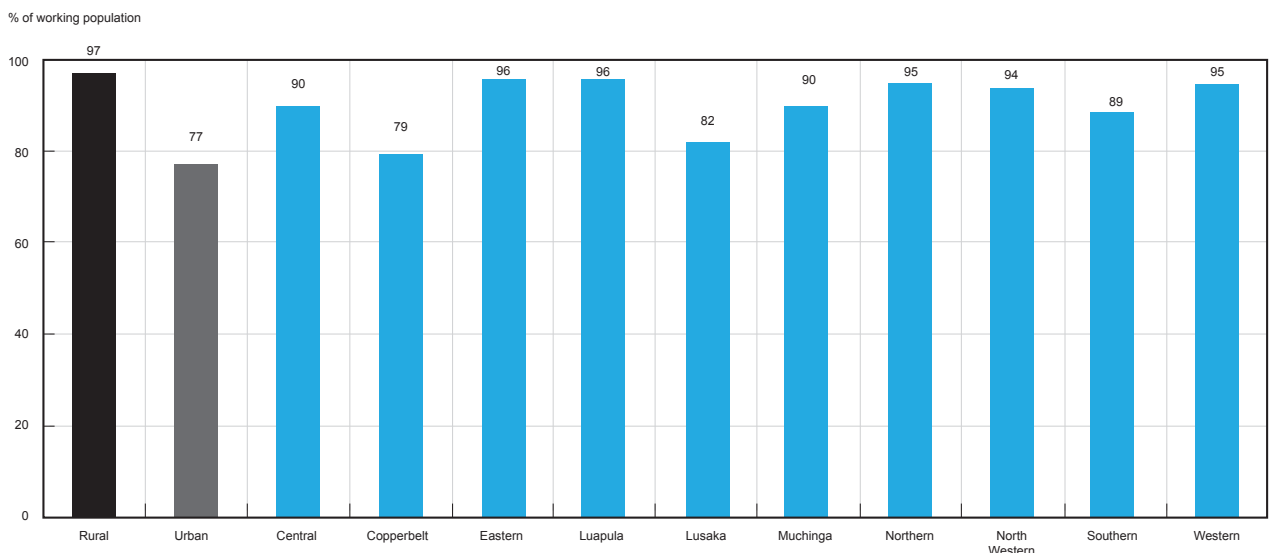
In terms of demographics, two major trends appear. First, there is a U-shaped curve in the proportion of informal employment across age groups, meaning that middle-aged workers show the lowest rates of informal employment, while informality rates are highest in the first and last year of a worker's career. Second, women are more likely than men to be informally employed (Figure 3).

Figure 3: Informal workers demographics



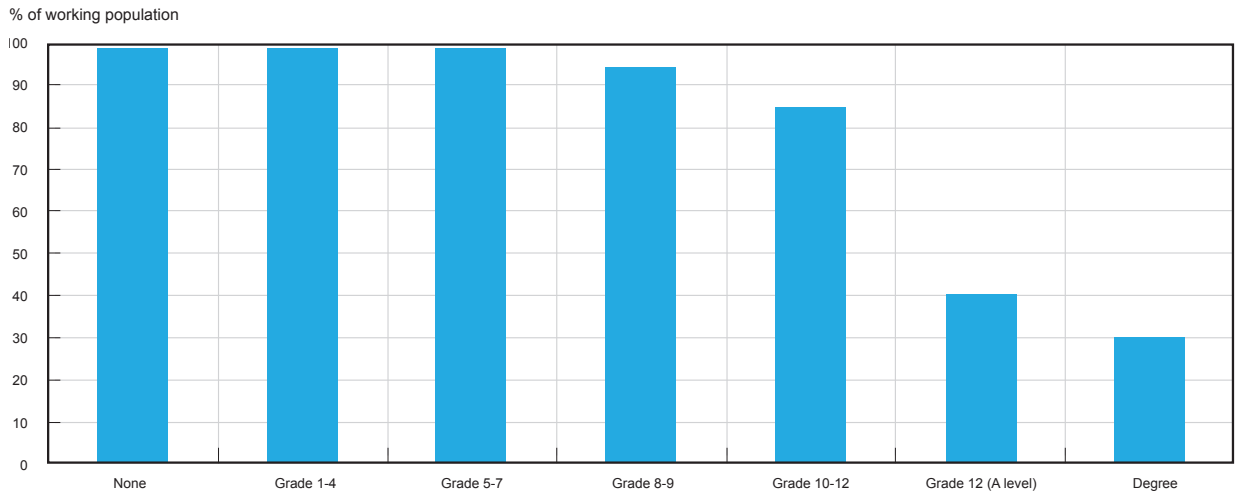
Informal work is also more predominant in rural areas (representing 97% of workers) but still high in urban areas where less than one in four jobs is of formal nature. From a regional perspective, Eastern, Luapula, Northern, Western, North Western, Muchinga and Central provinces register very high levels of informality, with less than 5% of workers formally employed. Relatively lower informality rates can be found in the Copperbelt and Lusaka provinces, where approximately one in five jobs is formal.

Figure 4: Informality rate by location



There is a clear association between informal work and education; while with no or very little education are almost all informally employed. Secondary education is associated with a relatively small reduction in informality, while informality rates drop very significantly for workers with an A-level or a post-graduate degree (Figure 5).

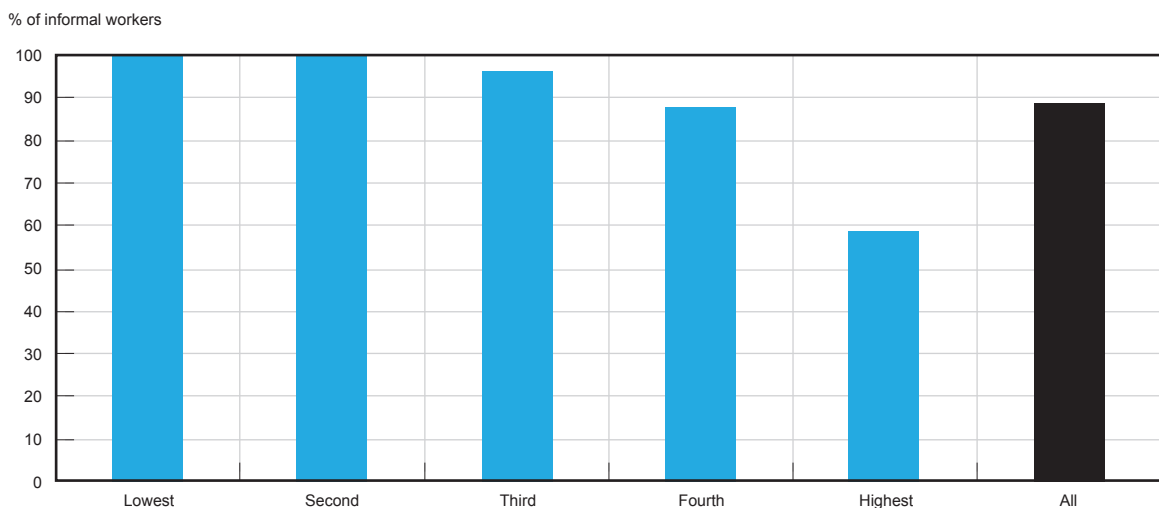
Figure 5: Informality and education



Informal workers are significantly worse off economically

There is a gradient in the incidence of informal work and income. Less than 60% of individuals ranked in the wealthiest household consumption quintile⁴ are informally employed, while basically all workers in the bottom 40% are informally employed and even for third and fourth quintiles the overwhelming majority are informally employed (Figure 6).

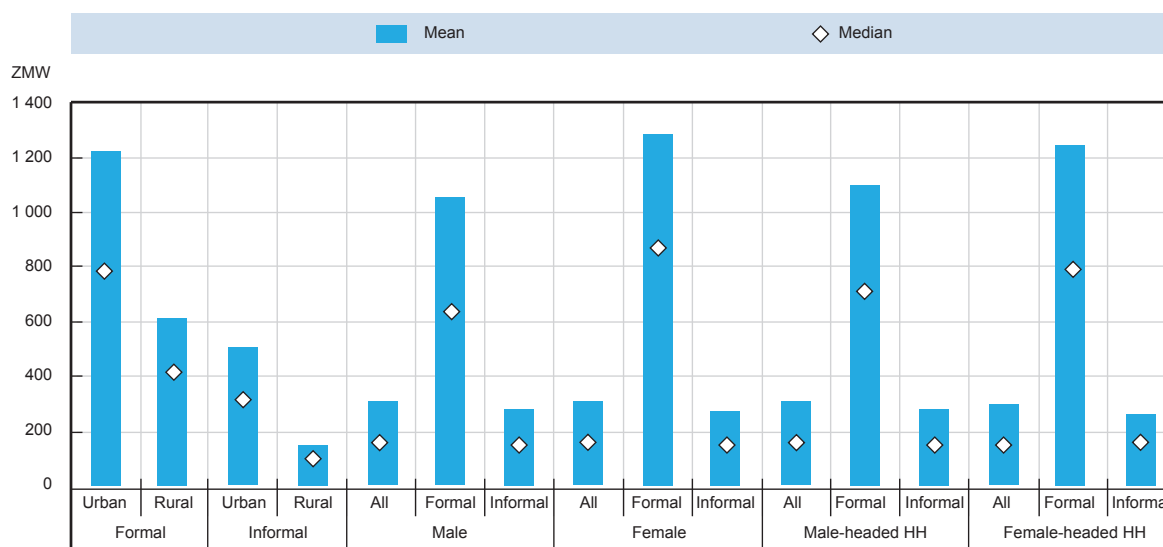
Figure 6: Informality by household welfare quintile



⁴ The quintiles variables calculated by the Central Statistic Office and included in the LCMS database was used throughout this section.

Per capita monthly expenditure is indeed much higher for formal workers (around 1 121 Kwacha) than for informal workers (around 277 Kwacha), and rural per capita consumption levels are much lower than urban ones. This difference is particularly noticeable when comparing female to male-headed households: mean per capita expenditure is almost 4 times higher for formal workers in female-headed households than for informal workers in female-headed households, while it is about 5 times higher for informal vs. formal workers in male-headed households (Figure 7). When examining the median of monthly expenditure per capita, the same trends emerge: formal workers spend 722 Kwacha as compared to 154 Kwacha for informal workers; and informal workers in both urban and rural centres make less than their formal counterparts.

Figure 7: Per capita expenditure by location, gender of worker, gender of head of household, and informality status



Poverty and Informality

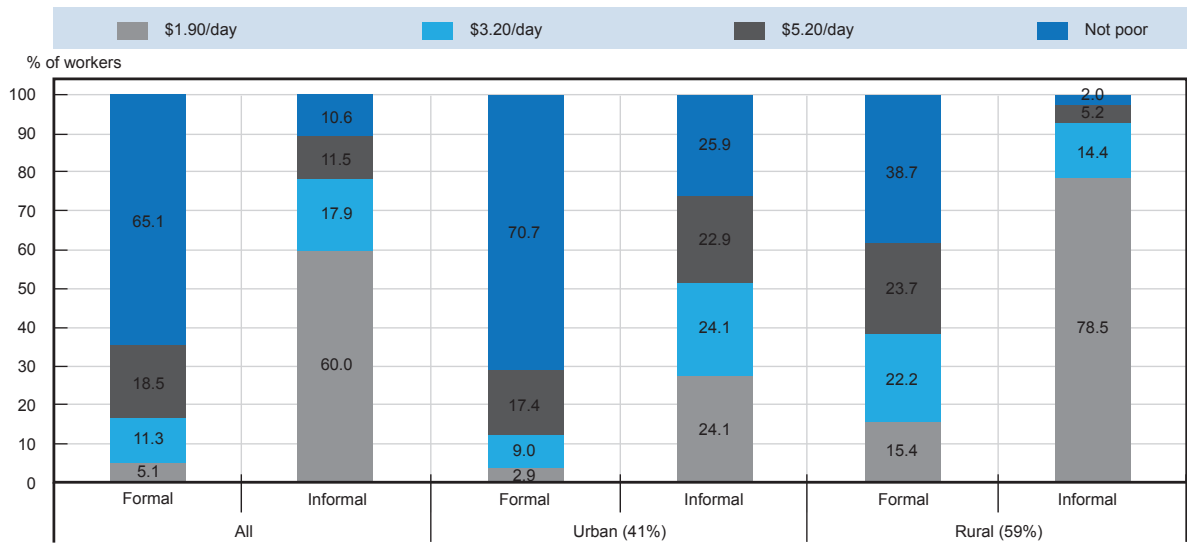
Another way to assess this gradient is to look at poverty levels – based on international poverty lines - across formal and informal workers. Using LCMS data provides a unique opportunity to analyze poverty and informality data jointly. We consider three poverty lines set at \$1.90/day, \$3.20/day and \$5.20/day.

Whereas only 5.1% of formal workers can be classified as living in extremely poor households (per capita expenditure less than the \$1.90/day poverty line), 60% of informal workers live in extremely poor households by the same measure (Figure 8). On the whole, formal workers are less poor than informal workers, whether they reside in urban centres or rural areas. About 98% of the informal workers in rural areas have a per capita income level⁵ of \$5.20/day or less; only 61.3% of formal workers in rural areas consume as little. In urban areas there is a more heterogenous distribution of informal workers by poverty status, but only 25.9% of informal workers live in non-poor households.

While 65.1% of formal workers live in households that are categorized as non-poor based on their per capita income, only 10.6% of informal workers are in non-poor households.

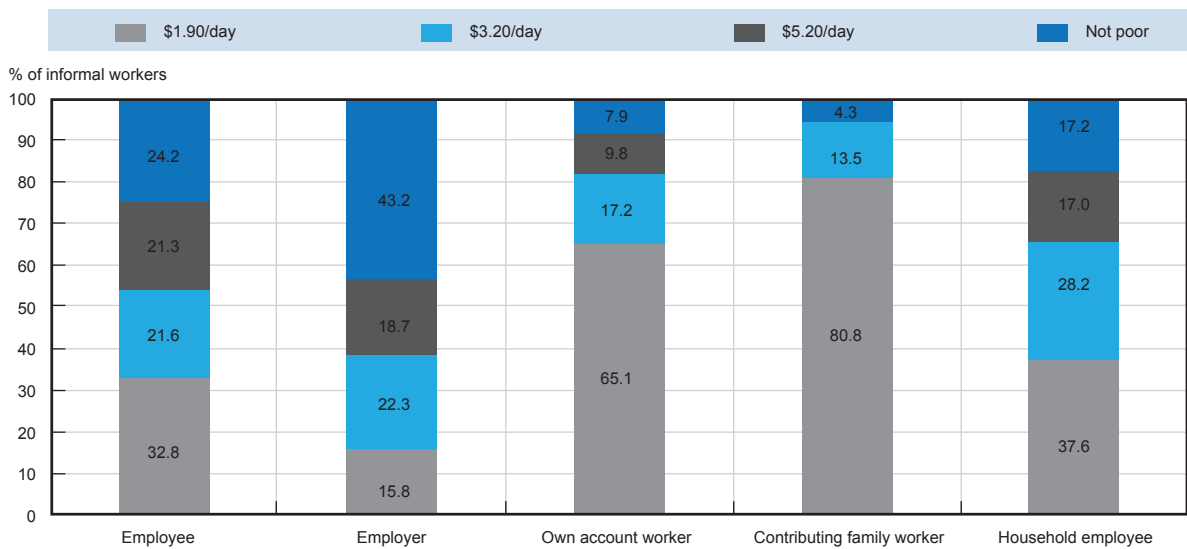
⁵ Measured by the overall consumption of the household they live in divided by the number of household members.

Figure 8: Informality and household poverty status



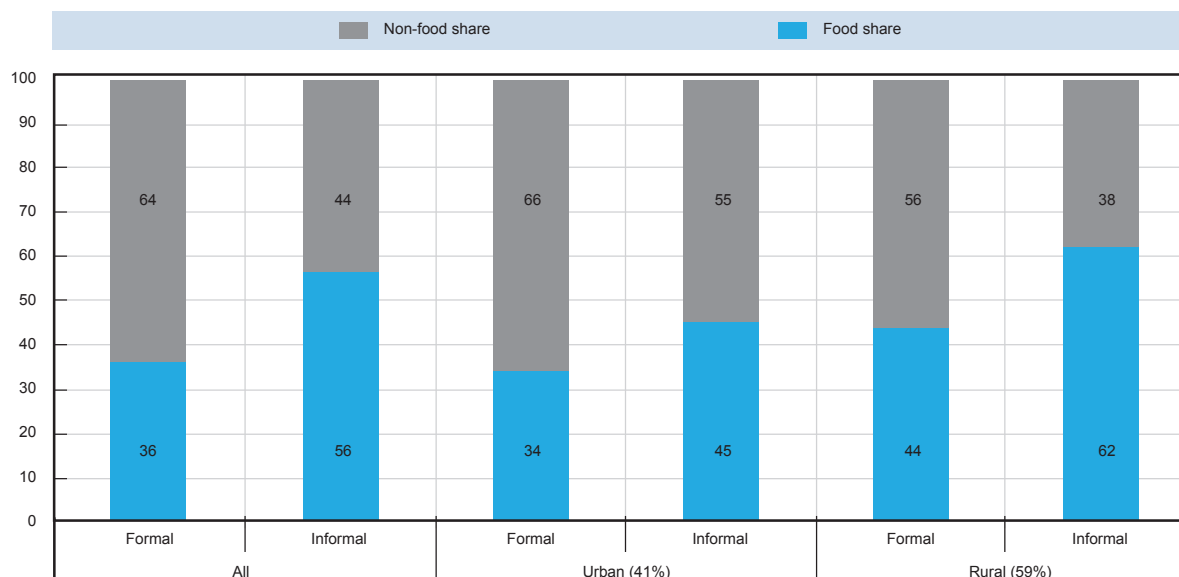
The vulnerability of informal workers varies across different types of employment, with contributing family workers and own account workers being the most vulnerable (respectively 80.8% and 65.1% of them live in extremely poor households). Employees, employers and household employees are more distributed across different household poverty categories, yet in all cases less than half of them live in non-poor households. Figure 9 displays the poverty status for each category.

Figure 9: Poverty and job status for informal workers



Consistent with a higher level of vulnerability for informal workers, the food share out of total consumption is 20 percentage points higher for those informal workers in comparison with formal workers (Figure 10). The difference between rural and urban households is striking, with food representing 62% of rural informal households' consumption, in comparison with 45% for urban informal households.

Figure 10: Food and non-food share and informality



Wages for informal workers are much lower than for formal workers

Not all workers earn an income in cash. Table 1 reports the share of workers without a cash wage. Approximately three in four workers are not earning any income in cash. As expected the share of workers not receiving a wage in cash is remarkably higher for informal workers, a pattern that is observed in both rural and in urban areas, with a stronger discrepancy in rural areas. Own account workers and employers are significantly less likely to earn in cash compared to employees, with higher shares observed across the board for informal workers.

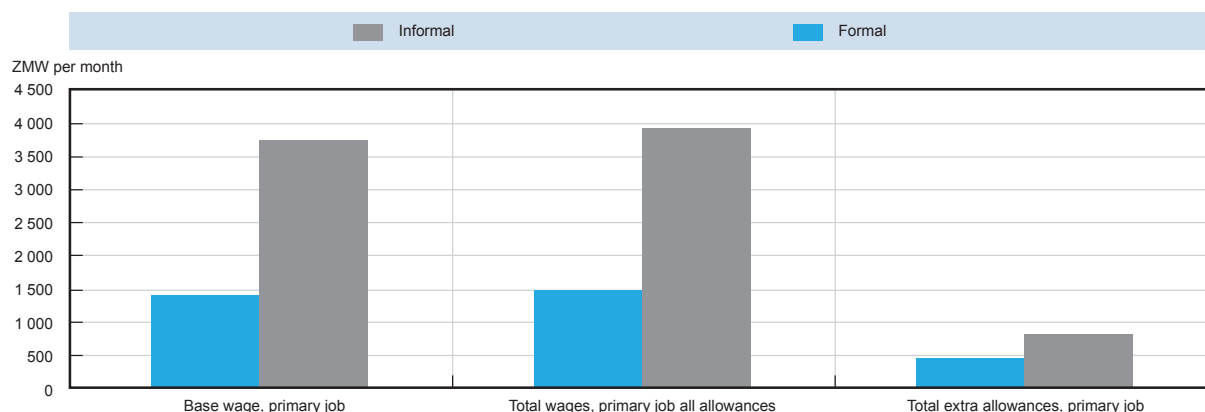
Table 1: Share of workers not earning a cash wage (%)

		All	Male	Female	Employee	Employer	Own account worker	Contributing family worker	Household employee
All		77.1	72.8	83.3	29.1	74.3	95.2	99.8	35.7
Urban	Formal	14.6	15.7	12.5	13.9	48.4	76.8	-	0
	Informal	66.8	60.3	75.9	35.4	76.1	87.3	99.3	27.7
Rural	Formal	15.8	14.3	20.2	13.3	-	77.3	-	100
	Informal	95.4	93.7	97.7	55.3	74.5	98.5	99.8	58.9

The remainder of this section only focuses on workers with a work-related cash income larger than zero. Wages can be defined as the sum of a base wage and allowances (including transport, housing, overtime, etc). As shown in Figure 11, the levels of those differ widely across informal and formal workers. The average wage including allowances for formal workers is 3 909 Kwacha, while for informal workers it is 1 436 Kwacha.⁶

⁶ For the purpose of this study, observations with a reported wage of 0 were not included in the computations.

Figure 11: Average monthly primary wage



On average, formal workers earn at least double the wages of their informal counterparts. This formal to informal wage ratio holds consistently across location, gender, and status in employment. The wage difference is most pronounced for workers in rural areas, where those in the formal employment earn a median wage 7 times larger than those informally employed (Table 2). The wage differential between formal and informal workers is also significantly larger for women (formal wages are 5.7 times larger) compared to men (formal wages are 3.8 times larger). Household employees (e.g. domestic workers) are the category of workers with lowest wage differential between formal and informal employees, but also with lowest wages across the board.

Table 2: Monthly base wages, per capita

		All	Urban	Rural	Male	Female	Employee	Employer	Own account worker	Contributing family worker	Household employee
Informal	Mean	1 417	1 561	826	1 445	1 345	1 454	2 305	1 462	750	643
	Median	850	900	500	900	700	900	1 000	700	750	600
Formal	Mean	3 740	3 817	3 370	3 655	3 921	3 753	4 081	2 580	.	1 149
	Median	3 500	3 500	3 500	3 500	4 000	3 500	5 000	2 500	.	1 000
Formal to informal median wage ratio		4.1	3.8	7	3.8	5.7	3.8	5	3.5		1.6

Figure 12 displays the distribution of wages⁷ for informal and formal workers, as well as the classification according to quintiles, with each section representing one quintile (of the overall wage distribution). Overall, informal workers have much lower wages than formal workers: a third of informal workers report a wage of 530 Kwacha or less and half report a wage of 740 or less. In comparison, a third of formal workers earn 2 450 Kwacha or less, and half report an wage of 3 600 Kwacha or less. Only 8.9% of informal workers have a wage above 3 909 Kwacha, the average wage for formal workers.

Figure 12: Distribution of wages for formal and informal workers

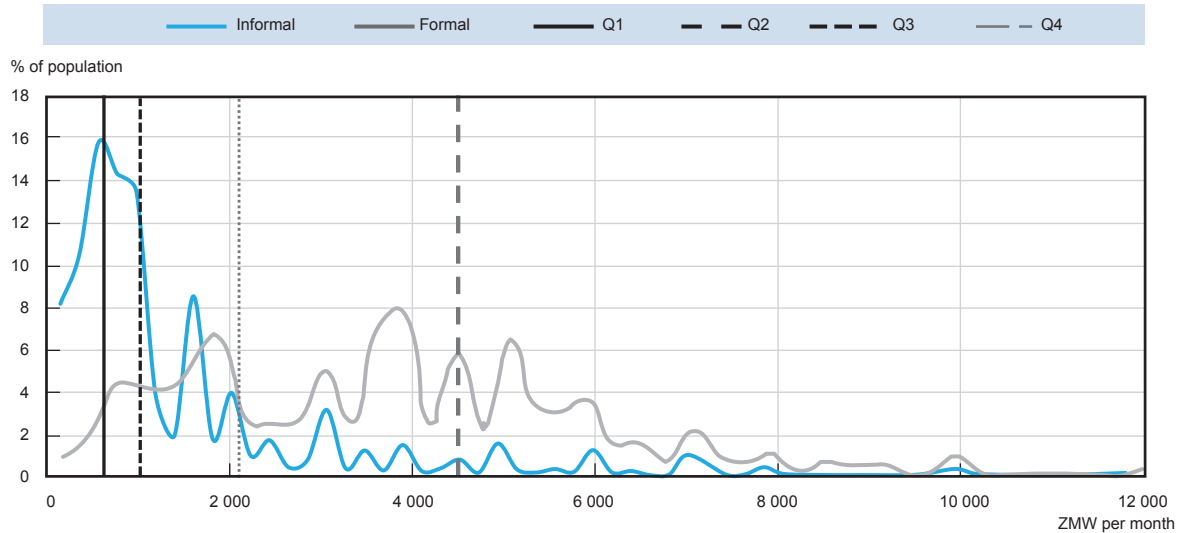
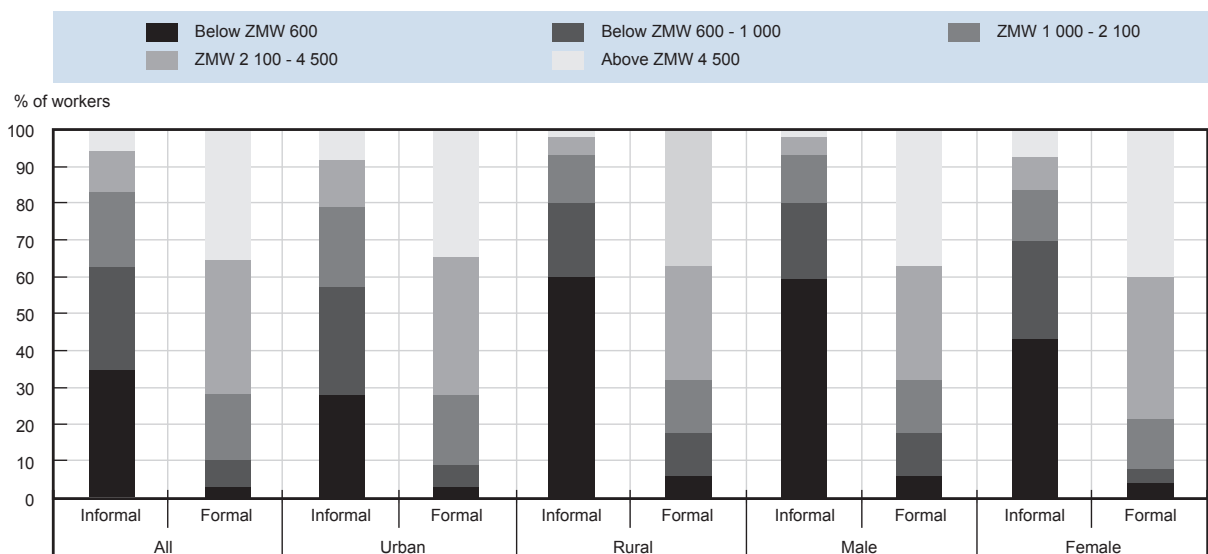


Figure 13 displays the distribution of workers across deciles of wages, with a disaggregation by location and gender for informal and formal workers. The number of workers belonging to the bottom 20% of wages is much higher for workers in the informal economy, representing more than a third of them, than for workers in the formal economy, where they only represent 3%. The difference between rural and urban areas is striking: more than half of rural informal economy workers are in the lowest decile of wages (earning less than 600 Kwacha). Overall, only 6% of informal workers belong to the top quintile of earners, while more than a third of formal workers do.

Figure 13: Distribution of wages across quintiles



Wage refers here to the base wage as well as allowances, including housing, transport, overtime, bonus pay, etc.

Beyond their location and gender, significant differences exist in the distribution of workers across the wage distribution when disaggregating by status in employment. The distribution shown in Figure 14 for formal and different categories of informal employees reveals large differences. Own-account workers are amongst the categories of informal workers with the lowest wages.

Figure 14: Distribution of informal workers across wage quintiles by employment status

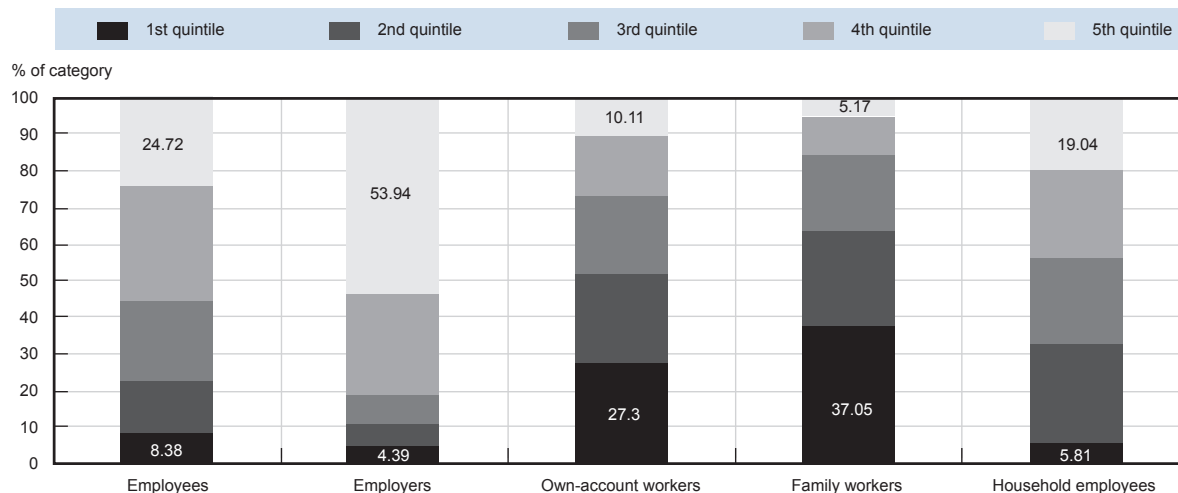
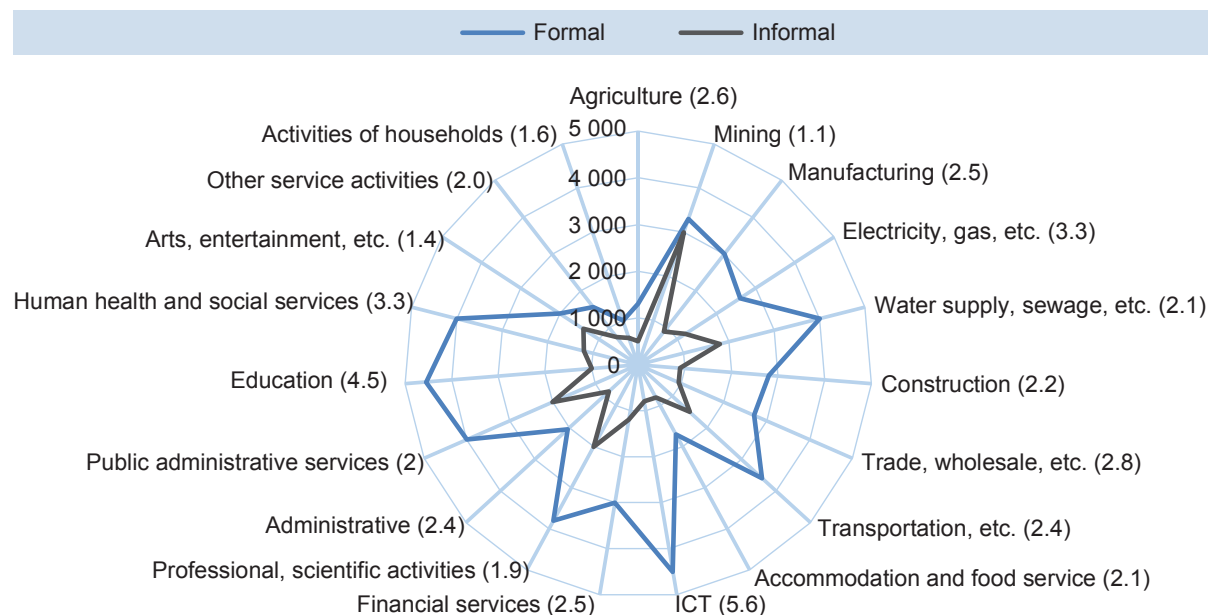


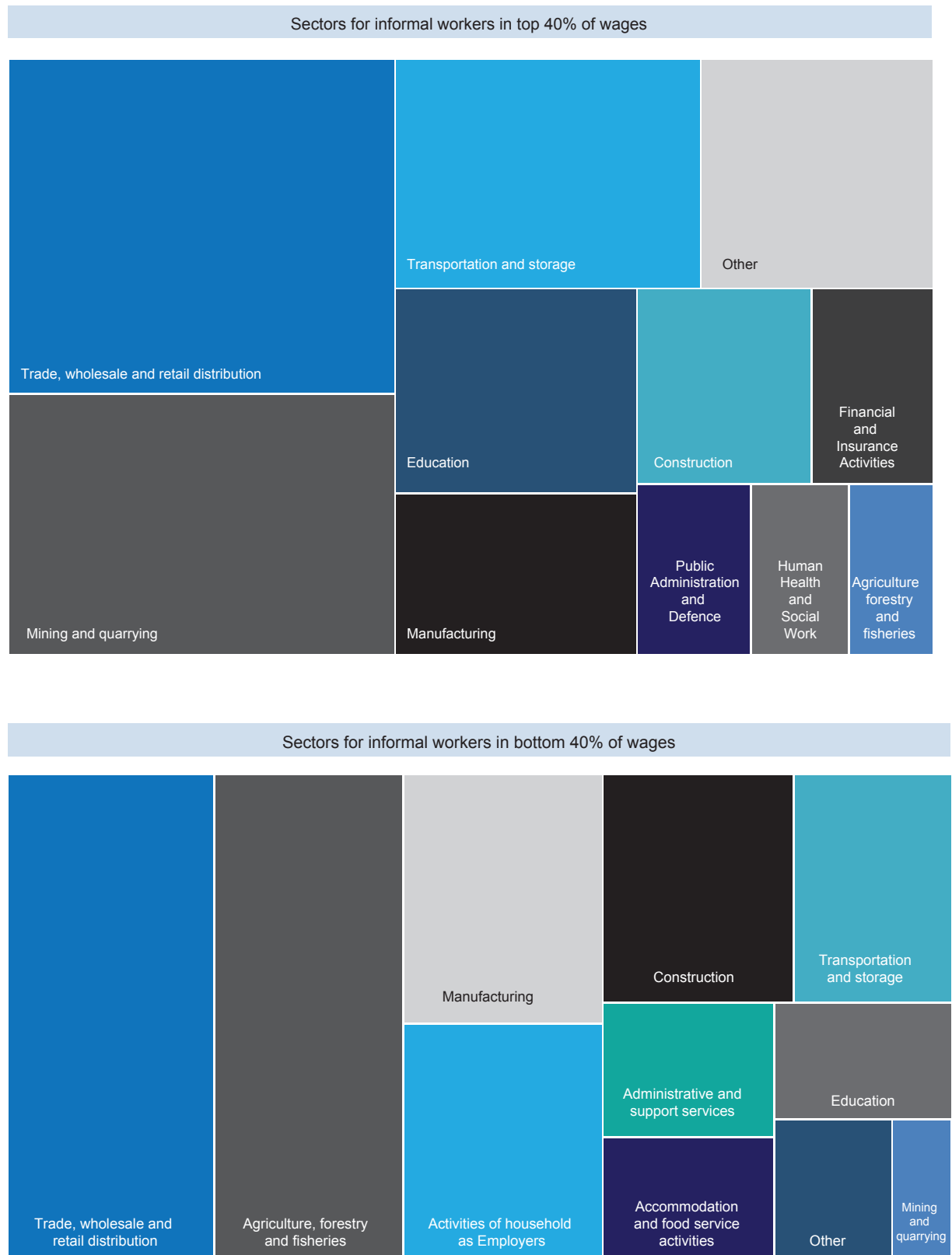
Figure 15 displays median total wages (base wage and any allowances) by sector for informal and formal workers. Again, the difference in median wage levels is striking. The numbers in parentheses display the formal to informal median wage ratio for each sector. Sectors with a wider gap between formal and informal wages are information and communications technology (ICT) (formal wages almost 6 times larger than informal wages), education (4.5 times larger). Lowest wage differentials are found in mining, arts and entertainment, scientific activities, and activities of households.

Figure 15: Median wages by sector



When comparing the activities of the bottom 40% of earners, in the informal sector with the top 40% of earners, important differences emerge. A quarter of informal top earners are found in the trade sector, while about a fifth works in the mining industry and 13% in transportation. In comparison, about one fifth of the bottom 40% of earners works in trade, one fifth in agriculture, while one tenth works in households, in manufacture, in construction and in transportation, respectively (Figure 16).

Figure 16: Type of industry for informal workers in the bottom and top 40% of wages

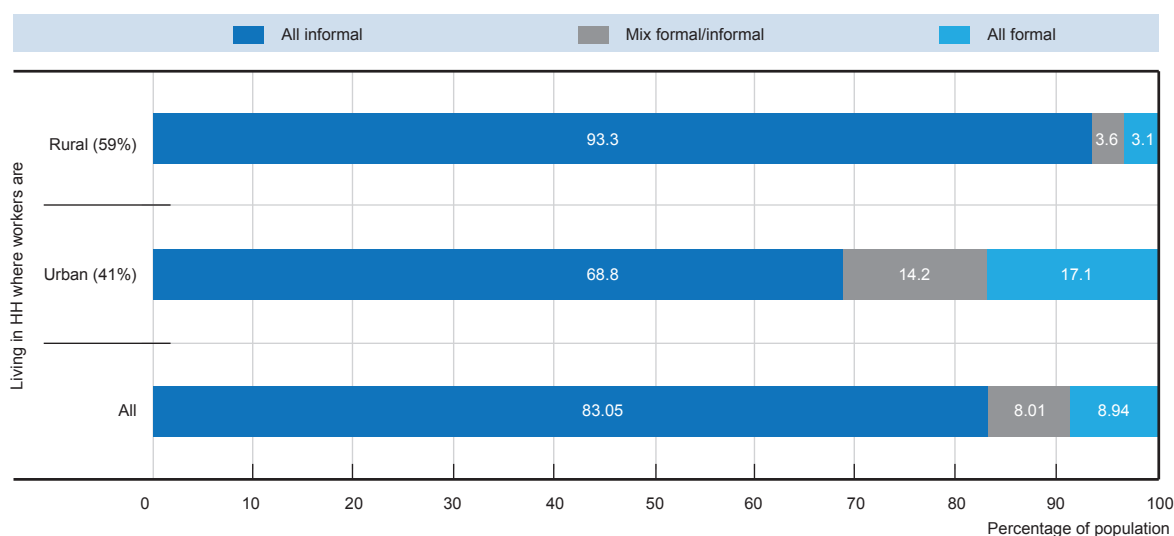


Informality at the Household level

One interesting aspect when assessing informality is to look beyond the individual work status and look more broadly at households. Understanding the degree of informality at the household level, (i.e. if all workers are informal, if they are all formal, or if there is a mix of formal and informal workers) sheds light on levels of income and protection that could be received by informal workers thanks to a spouse or parent working in a formal setting.

As observed in Figure 17, overall about 8% of workers live in households where there is a mix of formal and informal workers. There are, however, major differences in the degree of informality across locations, with rural households being much more likely to be completely informal, while 14% of urban households include a mix of formal and informal workers. In less than 9% of all Zambian households (17% in urban areas) all workers are formally employed.

Figure 17: Degree of informality at household level by location



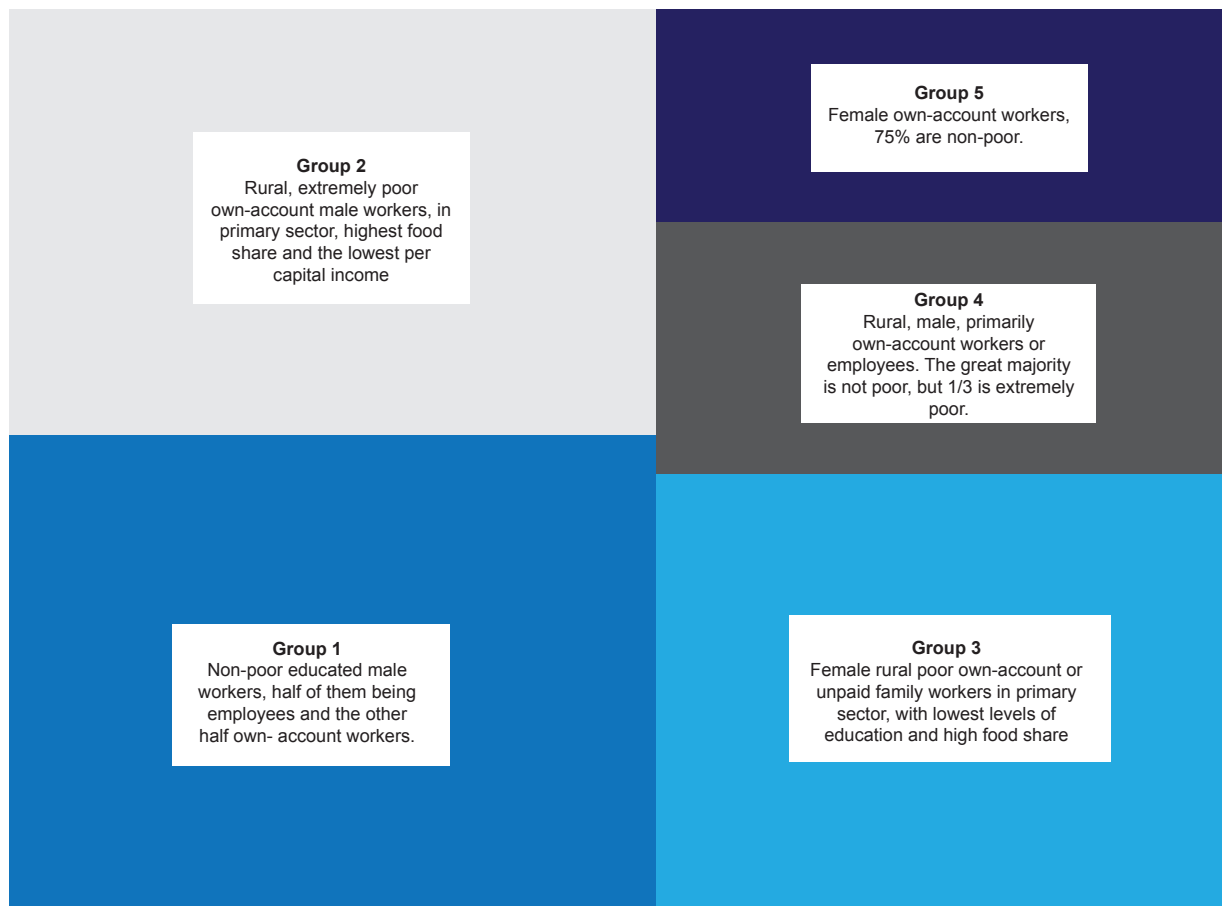
Identifying different profiles of informal workers

Based on the LCMS, we attempt to jointly analyze the characteristics of informal workers to understand their different profiles in Zambia. A technique called Latent Class Analysis (LCA) was applied to the sample of informal workers to identify clusters such that individuals are the most homogenous within a group and as distant as possible from those in another group. The groups are here defined by their gender, location (rural or urban), employment status (employees, employers, own-account workers, contributing family workers, household employees) and household poverty status (extremely poor, moderately poor and non-poor).

This analysis identifies 5 groups of informal workers:

- » **Group 1** (28.3% of informal workers): primarily represents urban, non-poor male workers, half of them being employees and the other half own-account workers. They are the most educated workers among informal workers, and belong to households with the lowest food share (44.9%), and about 8% of them live in mixed formal/informal households. Their per capita income is the highest of all informal workers at 614 Kwachas, and only 12% of them are extremely poor.
- » **Group 2** (24.9% of informal workers): primarily represents rural, extremely poor own-account male workers. They work in the primary sector (80% in farming) and live in households with the highest food share (62.9%) and the lowest per capita income (105 Kwacha).
- » **Group 3** (22.8% of informal workers): primarily represents female rural poor own-account or contributing family workers. About a quarter of the household head or live in a female-headed household.
- » **Group 4** (12.8% of informal workers): represents rural, male, primarily own-account (81%) workers or employees (18%). The great majority is not poor, but 1/3 is extremely poor.
- » **Group 5** (11.1% of informal workers): represents female own-account workers, of whom 65% live in urban areas and 75% are non-poor. Widows are overrepresented in this group (17.9%), and about 40% of them are household head or live in a female-headed household.

Figure 18: Provides an overview of these groups, with each box being proportional to the size of the group.



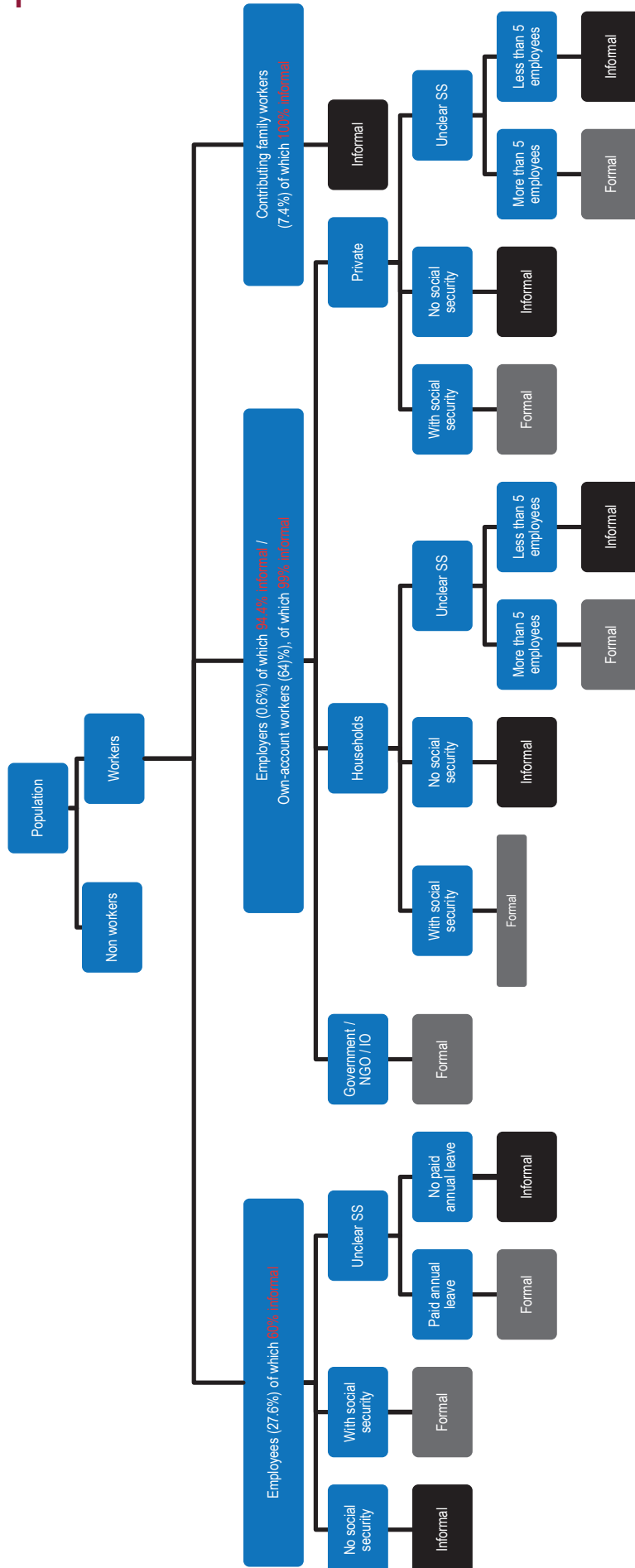
Summary of Key Findings

- Based on estimates from the LCMS 2015, the vast majority of Zambian workers are employed informally (88.7%), thereby affecting most households, with 83% of the population living in households in which all workers are informal.
- Informality rates are significantly larger in rural areas (97% vs 77% in urban areas), and concentrated among workers with low education levels, women (91% vs. 87% for men), the young (97% of the under 25 years old) and elderly (99% of the over 60 years old, vs. 84% of the 36 to 50 years old). Workers are particularly likely to be informal if they work as own-account workers, employers or unpaid family workers.
- The level of education played a crucial factor in determining formality of the job, as high informality rates are concentrated among workers with low levels of education. Secondary education is associated with a relatively small reduction in informality, while informality rates drop very significantly for workers with an A-level or a post-graduate degree.
- Informal workers are socio-economically worse off than formal workers. Almost 60% of them live in households with a per capita consumption of less than \$1.90/day (5% for formal workers), and they spend a much larger share of their household income on food, in particular in rural areas (56% vs. 36% for formal workers).
- While there is heterogeneity in the socioeconomic status of informal workers, only a small share are not vulnerable to poverty and can be considered to be non-poor (10.6% compared to 65.1% of formal workers). Contributing family workers and own account workers are the most vulnerable categories of workers (respectively 80.8% and 65.1% of them live in extremely poor households). Wage levels are significantly lower for informal workers. For instance, a third of informal employees earn less than ZMW 600 per month, in comparison with only 3% of formal employees.
- The wage difference is most pronounced for employees and workers in rural areas, where those in the formal employment earn a median wage 7 times larger than for those informally employed. The wage differences between formal and informal work vary across sectors, with a ratio of formal to informal median wages ranging from 1.1 in mining to 5.6 in ICT. The majority of informal workers with wages in the top 40% of the wage distribution work in trade, mining and transportation, while the informal workers with wages in the lowest 40% of the distribution work in agriculture and trade.

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Annex 1







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