Informal work in sub-Saharan Africa: Dead-end or stepping stone?

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Motivation

- A **majority of workers** in the world today are in the **informal economy**.

- The informal economy was expected to **shrink with economic growth**.

- The informal economy is **here to stay**: 'premature deindustrialization' and growth of the informal service sector *(Rodrik 2016).*

- The highest rates of informality are being observed in sub-Saharan Africa (SSA) and South Asia *(ILO, 2018).*

Share of informal employment
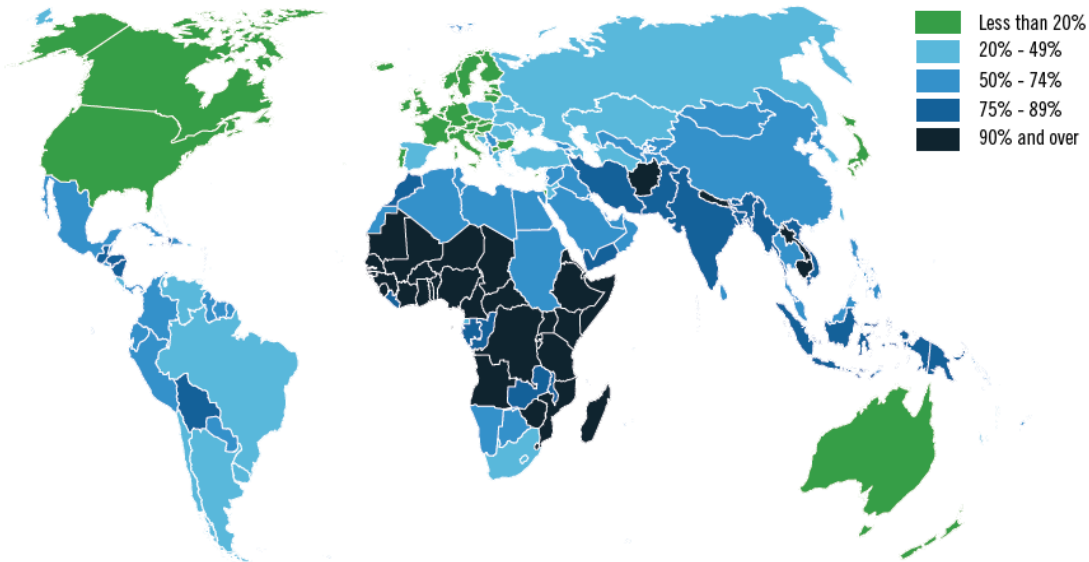
Including agriculture, 2016
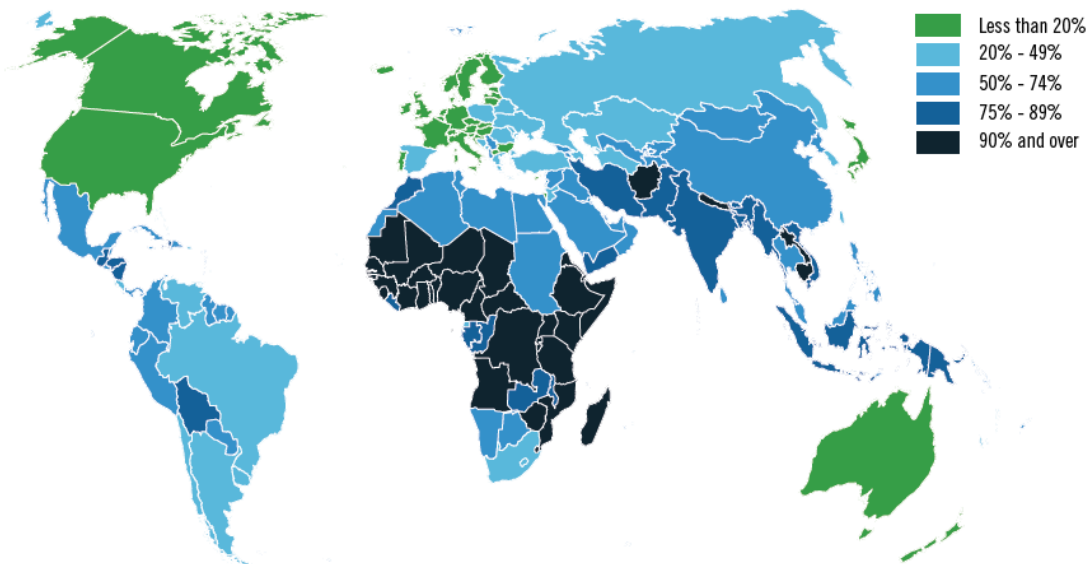
Excluding agriculture, 2016
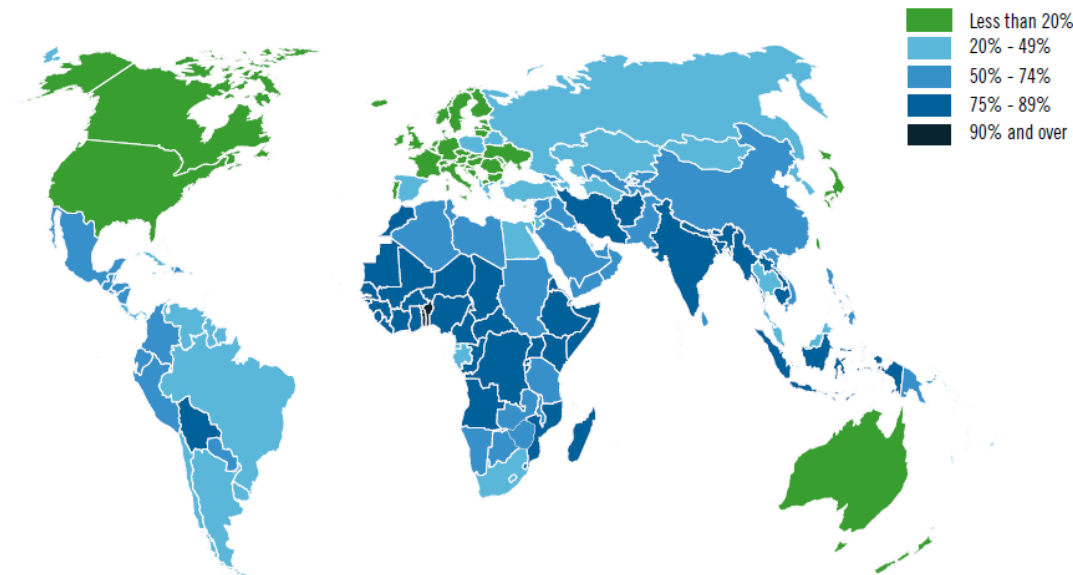
Two billion of the world's employed population aged 15 and over work informally, representing 61.2 per cent of global employment. Excluding agriculture, the global level of informal employment falls to 50.5 per cent, but non-agricultural informal employment remains high in three regions (Africa, the Arab States, and Asia and the Pacific).

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Share of informal employment

Including agriculture, 2016

Excluding agriculture, 2016

Less than 20%
20% - 49%
50% - 74%
75% - 89%
90% and over

Less than 20%
20% - 49%
50% - 74%
75% - 89%
90% and over
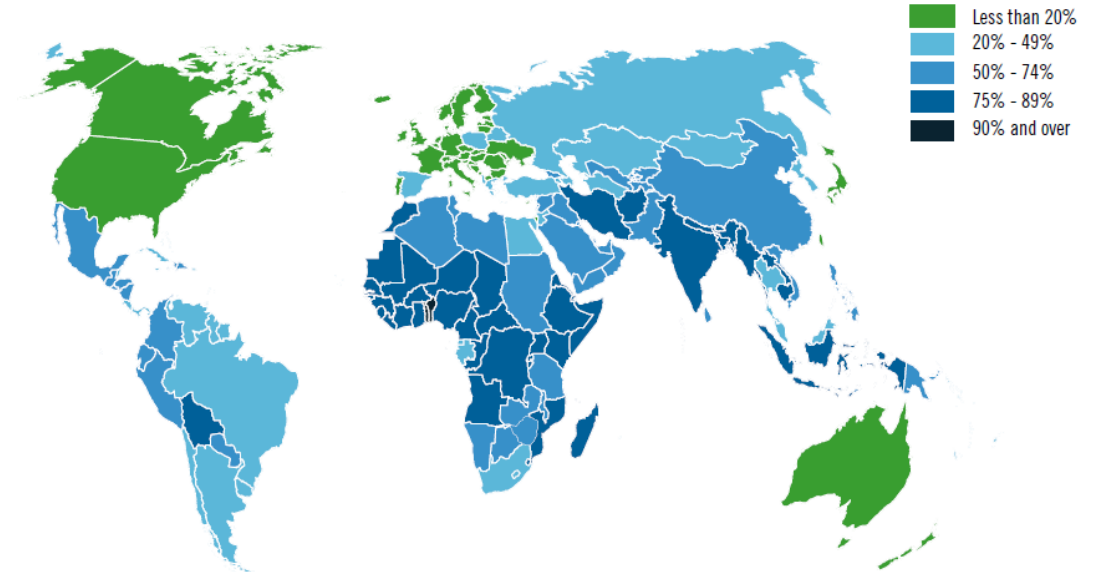
Overall, Africa has been estimated to have 80 per cent of its non-agricultural employment accounted for by informal work, over 60 per cent of its urban employment and a remarkable 90 per cent of its new jobs over the past decade *(Campbell, 2013)*.

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Figure 1

Share of informal employment in non-agricultural sectors, sub-Saharan African countries with available information, latest year (percentages)

■ Women ● Men
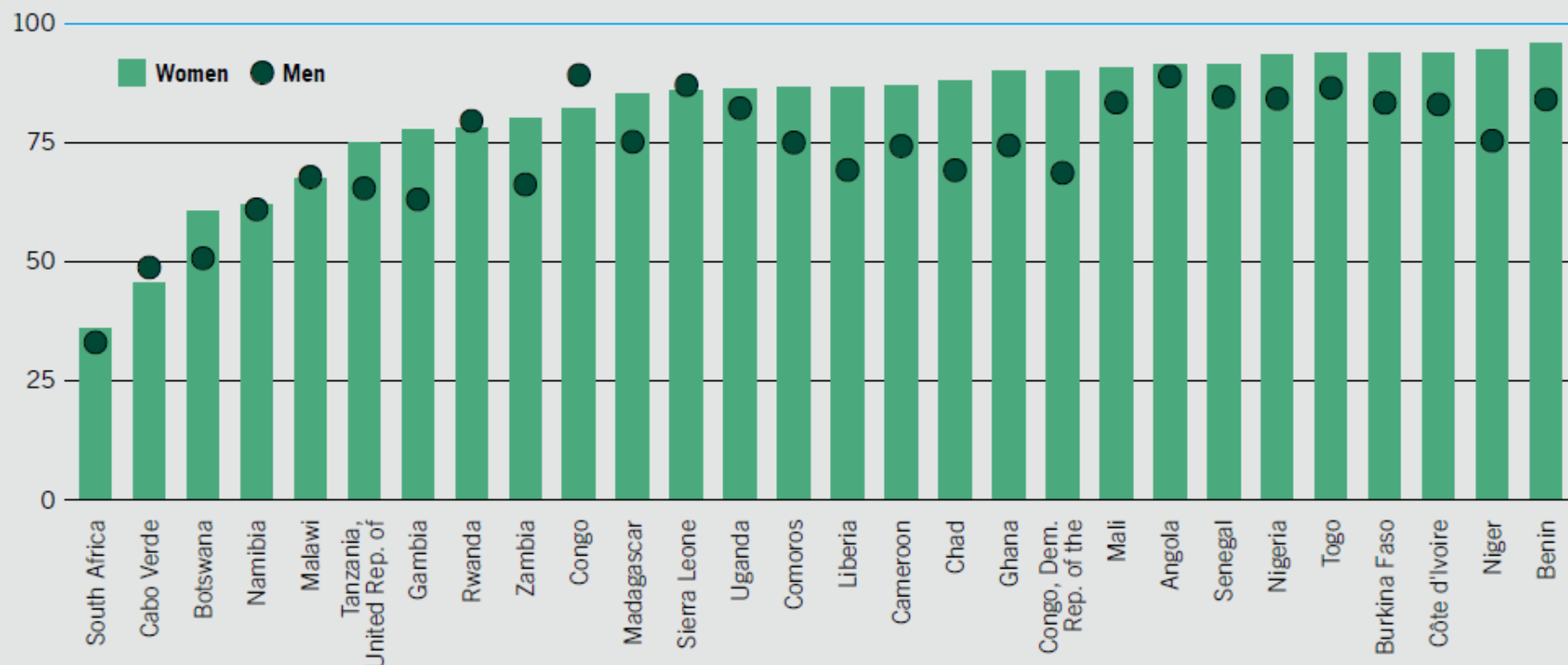
Note: Informal employment includes all workers in unincorporated enterprises that produce, at least partly, for the market and are not registered (i.e. workers in the informal sector) as well as persons employed outside the informal sector who are not subject to national labour legislation (i.e. employees not affiliated to social security schemes related to the job or not entitled to certain employment benefits, such as paid annual leave or paid sick leave). A full definition of informal employment is available at: http://www.ilo.org/ilostat-files/Documents/description_IFL_EN.pdf.

Source: ILO, 2018b.

ILO (2018), World Employment Social Outlook, International Labour Organisation, Geneva

Rates of unemployment and vulnerable employment, 2018

■ Unemployment rate (percent of total labor force)
■ Vulnerable employment rate (percent of total employment)
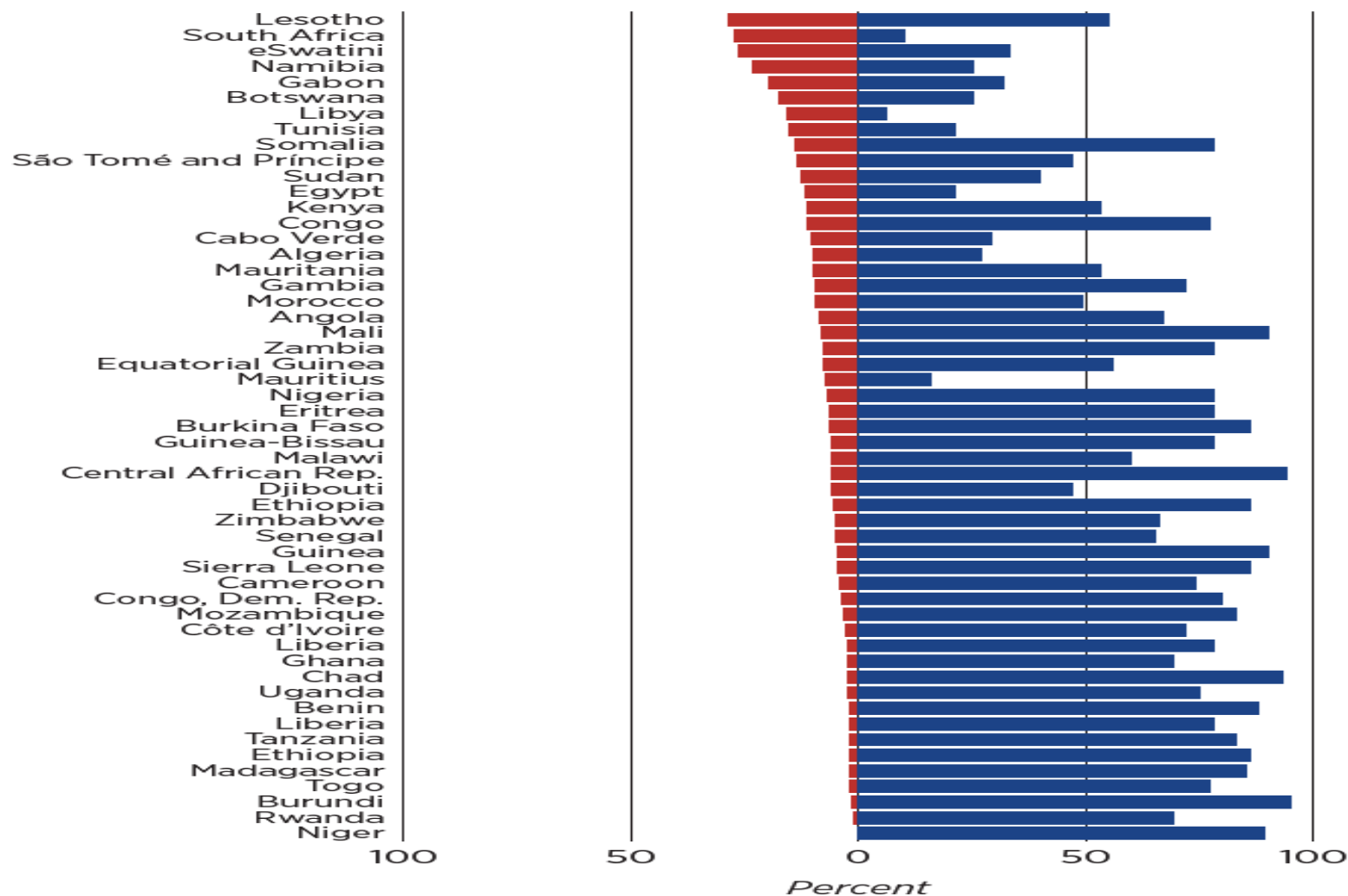
Source: Author, using data from International Labour Organization.

Source: AfDB 2019

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The Gender Dimension of Informality

Share of vulnerable employment in total employment. Female (%)
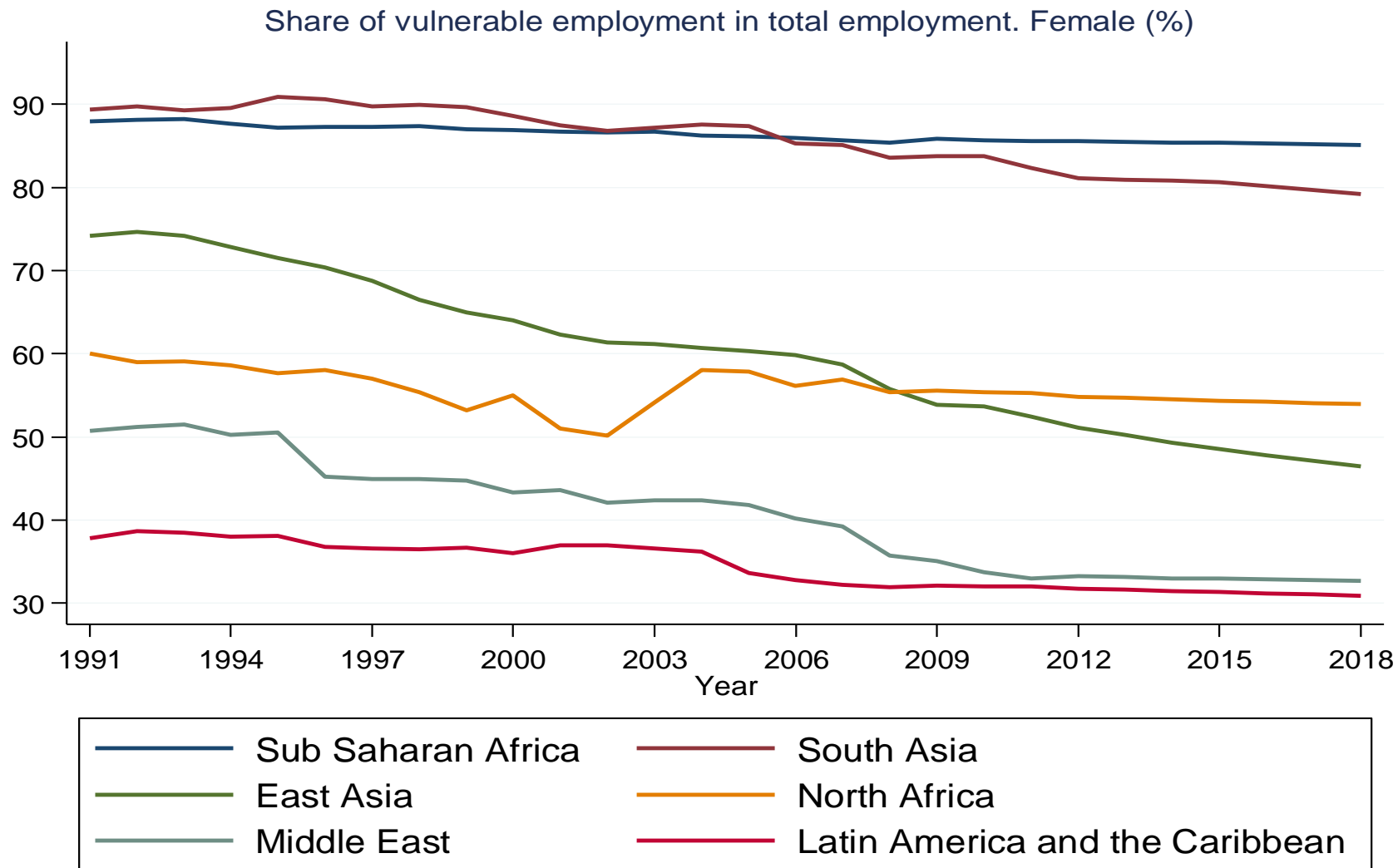
Note: 'vulnerable employment' is defined as own-account workers and contributing family workers

Source: Ilostat

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Figure 11. Gender gap in the share of informal employment in total employment including agriculture (percentage points, latest available year)
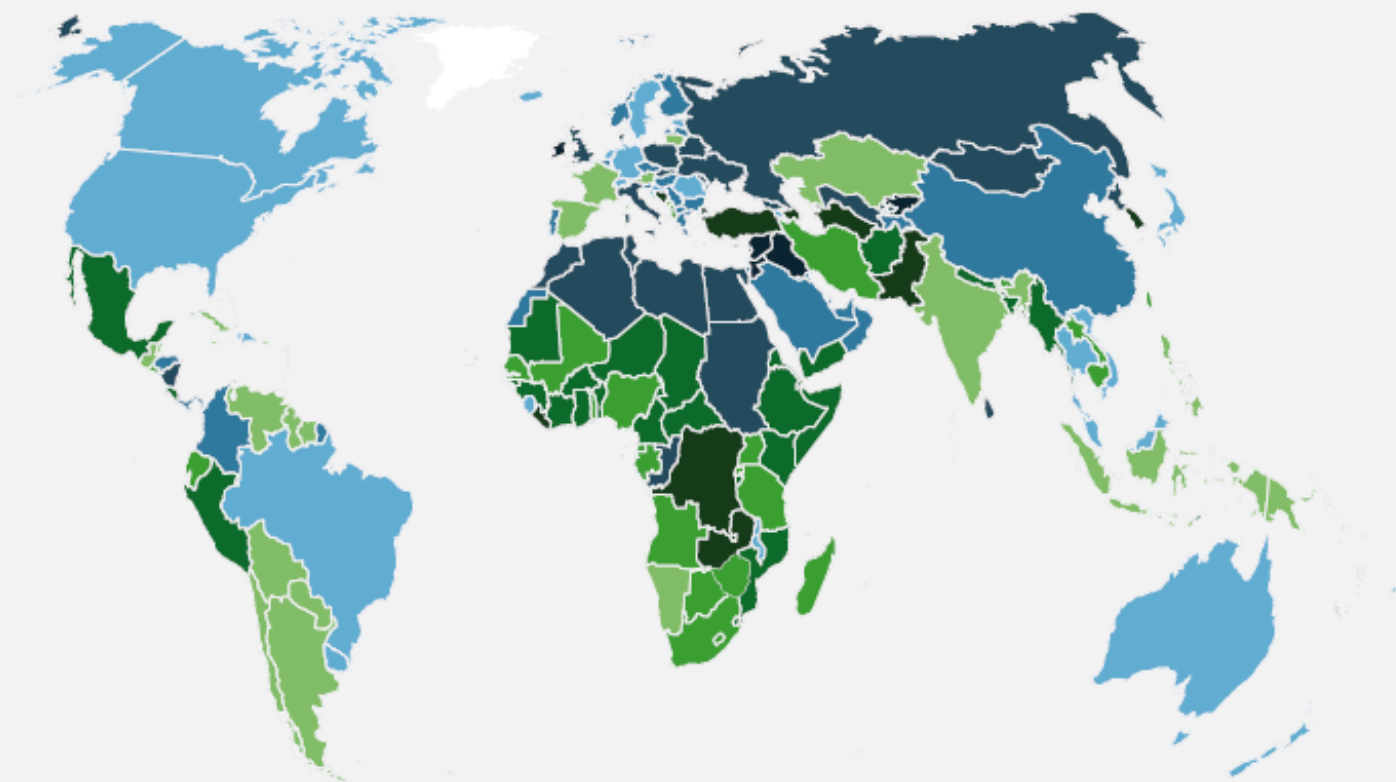
Legend:
- IE Men>Women: >10 pcpts (6 countries; 3.3%)
- IE Men>Women: 5 to 10 pcpts (29 countries; 15.9%)
- IE Men>Women: 2.5 to 5 pcpts (19 countries; 10.4%)
- IE Men>Women: 0 to 2.5 pcpts (27 countries; 14.8%)
- IE Women>Men: >10 pcpts (10 countries; 5.5%)
- IE Women>Men: 5 to 10 pcpts (31 countries; 17.0%)
- IE Women>Men: 2.5 to 5 pcpts (27 countries; 14.8%)
- IE Women>Men: 0 to 2.5 pcpts (33 countries; 18.1%)

Heterogeneity in Informal Work

- Informal work can be **both** wage employment and self employment.

- Within informal wage employment, workers are employed as casual labourers in poorly paid unskilled jobs, at the lower end, along with skilled workers employed in better paid jobs that are not covered by labour legislation or social protection provisions but nevertheless require some professional training to obtain these jobs.

- Within informal self-employment, subsistence own-account or household entrepreneurs (often referred to as "penniless entrepreneurs" or the "reluctant self-employed") along with more dynamic entrepreneurs with higher productivity and growth potential (sometimes referred to as "constrained gazelles" and "top performers").

Lower Tier and Upper Tier Informality

- Informal workers thus range from multi-dimensionally deprived individuals in subsistence activities which exhibit low returns, are easily accessible, and undesirable relative to formal sector employment, to workers in activities which are better paid, exhibit barriers to entry, and may even be preferred to formal sector employment (Fields, 2019).

- This internal duality between a primarily exclusion-driven "lower-tier" and a more exit-driven "upper-tier" in informality can be observed both in wage employment and self-employment.

What should be the policy response to pervasive informality?

- **Formalise, formalize, formalize!**

- Yes, but is this really possible?

- A "second best" option: what can we do to make the lives of informal workers better?

- Specifically, how do we move workers from lower tier to upper tier informality?

- **This is the approach we are following in our UNU-WIDER flagship project on informality.**
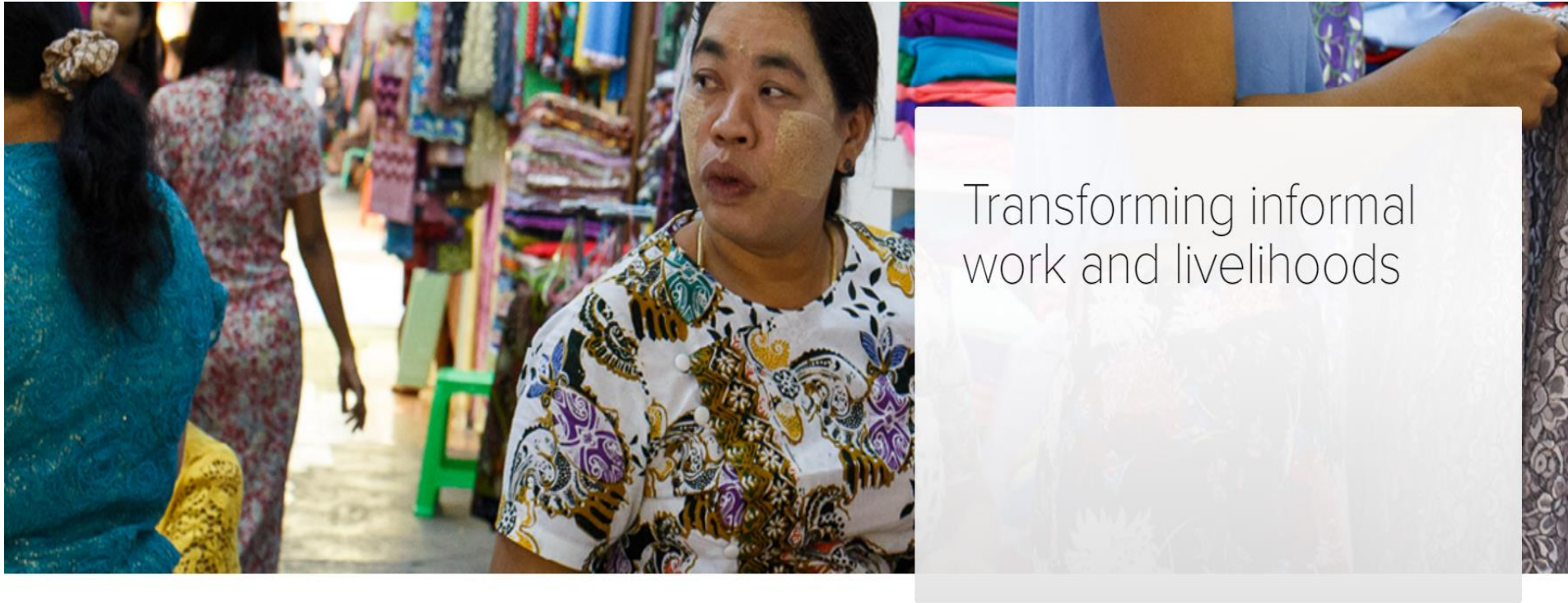
Transforming informal work and livelihoods

This project looks at what we know about the patterns and drivers of informality. It will provide knowledge for better policy-making with respect to the informal sector, by understanding the causes and consequences of informality.

1 NO POVERTY

5 GENDER EQUALITY

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Exclusion view on informality

Originates from the classic dualistic model by *Harris and Todaro (1970).*

➢ Considers the informal economy as a last resort for workers who cannot find a job in the formal economy and must, nonetheless, earn a living.

➢ A source of livelihood for the poor *(La Porta & Shleifer, 2014).*

Formal economy	Rationing = Exclusion	**Informal economy**

Formal economy

- Barriers to entry
- Preferable
    - Better pay
    - Access to formal systems of social and legal protection

Informal economy

- Easily accessible
- Undesirable
    - Low returns
    - Unprotected

Exit view on informality

Assumes a perfectly competitive labour market and considers informality as the result of **individual utility-maximisation** where individuals exit the formal sector after evaluating the costs and benefits of informality relative to formality *(Hart, 1973; Maloney, 1999, 2003, 2004).*

Formal economy

Choice = Exit

Informal economy

- Benefits
  - Better pay
  - Access to formal systems of social and legal protection
- Costs
  - Costs, time and effort associated with registration/regulation

- Benefits
  - Independence/autonomy
- Costs
  - Lower pay
  - Higher Instability/ vulnerability
  - Constrained opportunities (e.g. ability to make contracts)

Combined view: Exit and exclusion

The economic literature increasingly recognises the extent of **heterogeneity in informal work** *(see, inter alia, Basu et al., 2018; Chen, 2012; De Vreyer & Roubaud, 2013; Grimm et al., 2012; Günther & Launov, 2012; Nguimkeu, 2014; Kanbur, 2017; Perry et al., 2007; Tonin, 2013).*

➢ The **informal economy** has its **own internal duality** *(Fields, 2005).*

➢ An exit-driven **upper-tier** and an exclusion-driven **lower-tier**:

- Lower tier: subsistence activities pursued for lack of alternatives (easy entry/unskilled), typically own-account/household self-employment or casual wage employment, very low earnings, low productivity

- Upper tier: larger firms with growth potential, higher productivity, more capital intensive, better paid jobs that may not be covered by labour legislation or social protection provisions, but nevertheless need some professional training to obtain these jobs

Research questions
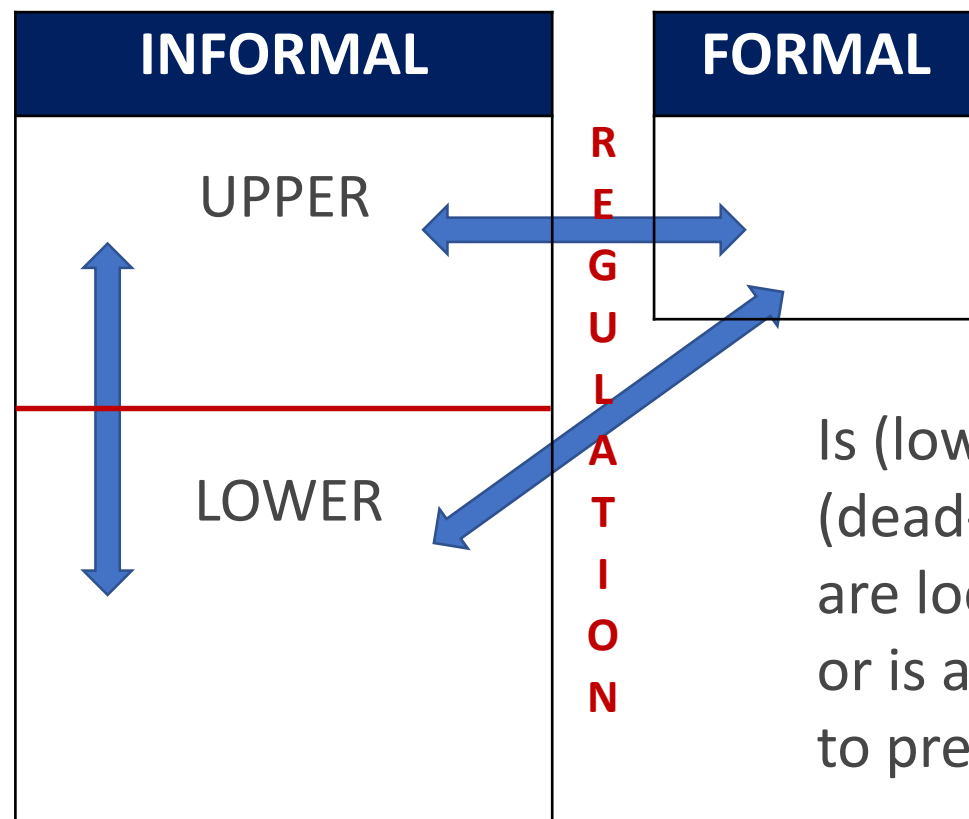
INFORMAL	FORMAL
UPPER	
LOWER	

REGULATION

Key **research questions** focus on:

- Frequency of transitions?
- Factors that hinder/encourage transitions?
- How transformative are these transitions?

Is (lower-tier) informality itself is a persistent state (dead-end), such that the most disadvantaged workers are locked in a situation of inferior pay and conditions, or is a transient state that can present a stepping stone to preferable forms of employment?

Research questions
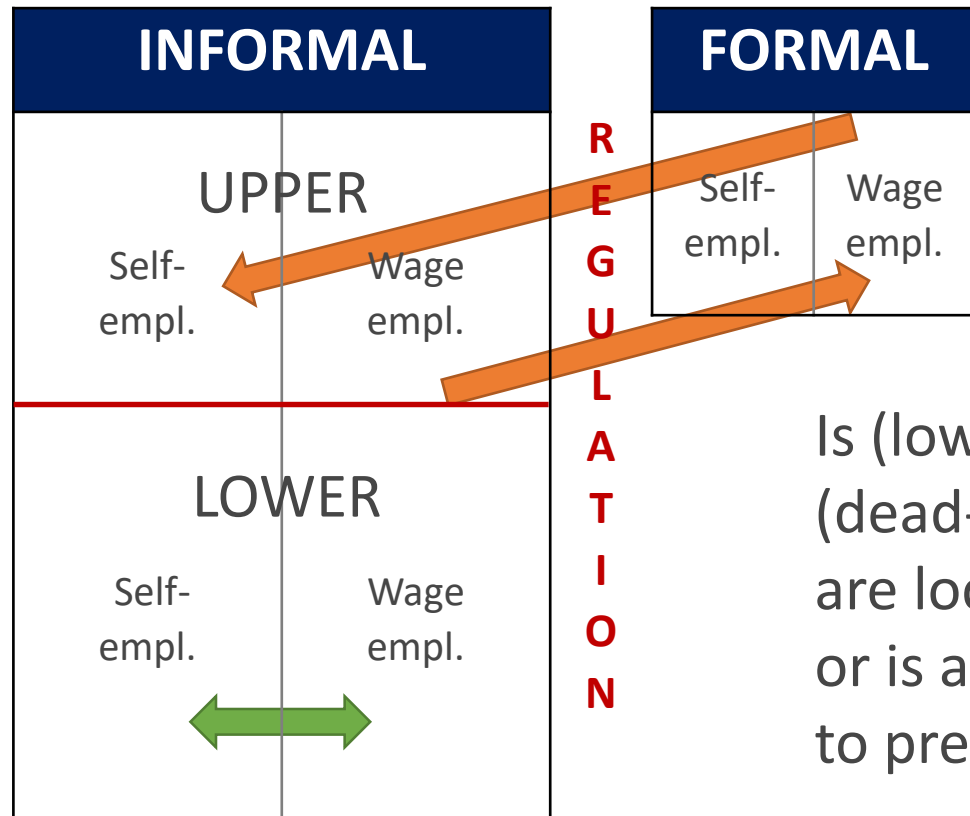
Key **research questions** focus on:

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Is (lower-tier) informality itself is a persistent state (dead-end), such that the most disadvantaged workers are locked in a situation of inferior pay and conditions, or is a transient state that can present a stepping stone to preferable forms of employment?

➢ Evidence for Latin America *(Perry et al., 2007)* and small set of transition countries *(Commander et al., 2013; Slonimczyk and Gimpelson, 2015)*, but little knowledge on sub-Saharan Africa.

Our Contribution

- We examine the nature, magnitude and direction of employment transition patterns in the informal economy in sub-Saharan Africa, where our knowledge of such transitions is limited.

- The location of the countries in our study – in Western Africa (Ghana), Eastern Africa (Tanzania and Uganda) and Southern Africa (South Africa) – provides a basis for making generalisable claims on the patterns of mobility within and across the informal economy in Sub-Saharan Africa.

- We offer a comparative perspective on the composition of employment and document transition patterns across different formality states, separating between wage and self-employment.

- Importantly, we not only distinguish between formal and informal employment, but offer a more nuanced view that additionally differentiates between "upper-tier" and "lower-tier" informality.

Outline of the Rest of My Lecture

- Data and definitions

- Descriptive statistics

- Regression analysis

- Conclusion

Data and definitions

Informal employment

Defined by International Labour Organization (ILO)

- **Informal sector:** A group of production units comprised of **unincorporated enterprises** owned by households, including informal own-account enterprises and enterprises of informal employers (typically small and non-registered enterprises). → **Enterprises**

- **Informal employment:** All work (i.e. both self-employment and wage employment) that is **not registered, regulated or protected by existing legal or regulatory frameworks** (no secure employment contracts, workers' benefits, social protection or workers' representation). → **Workers**

- **Informal economy:** Combined both perspectives.

Work status classification
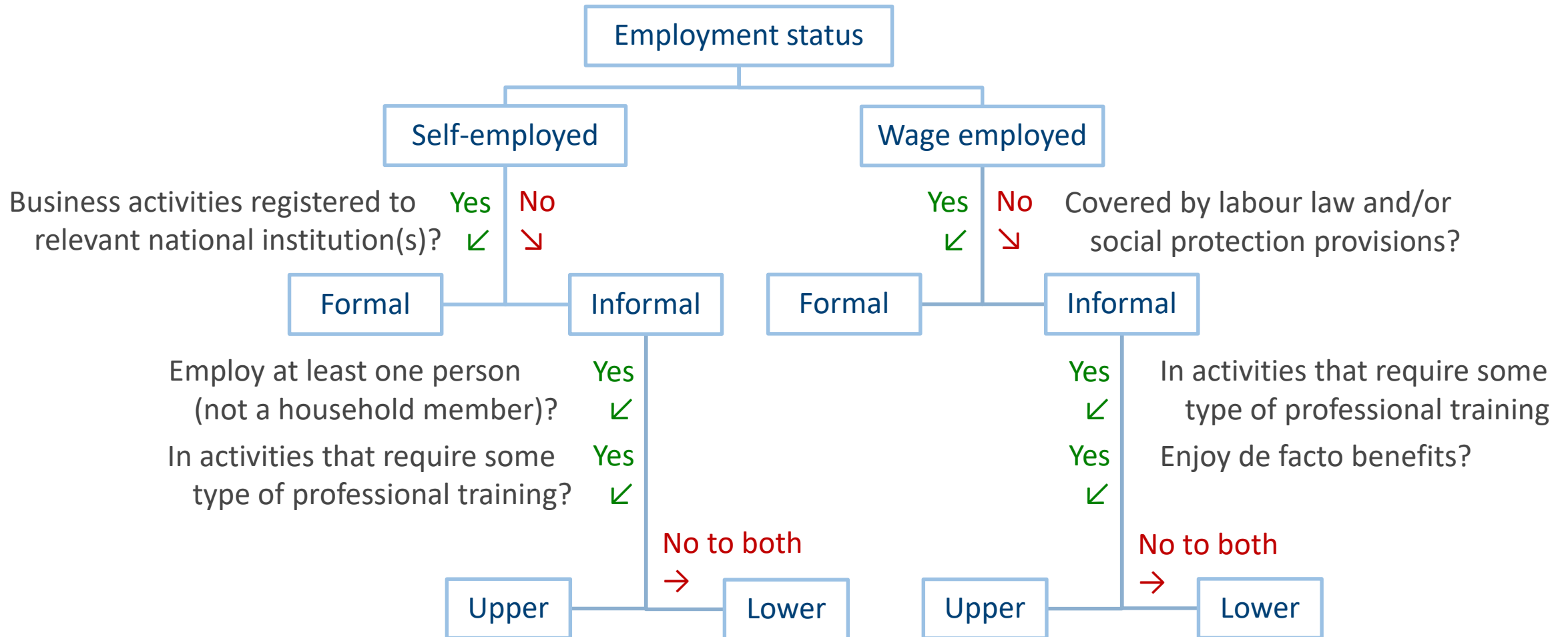
Work status classification
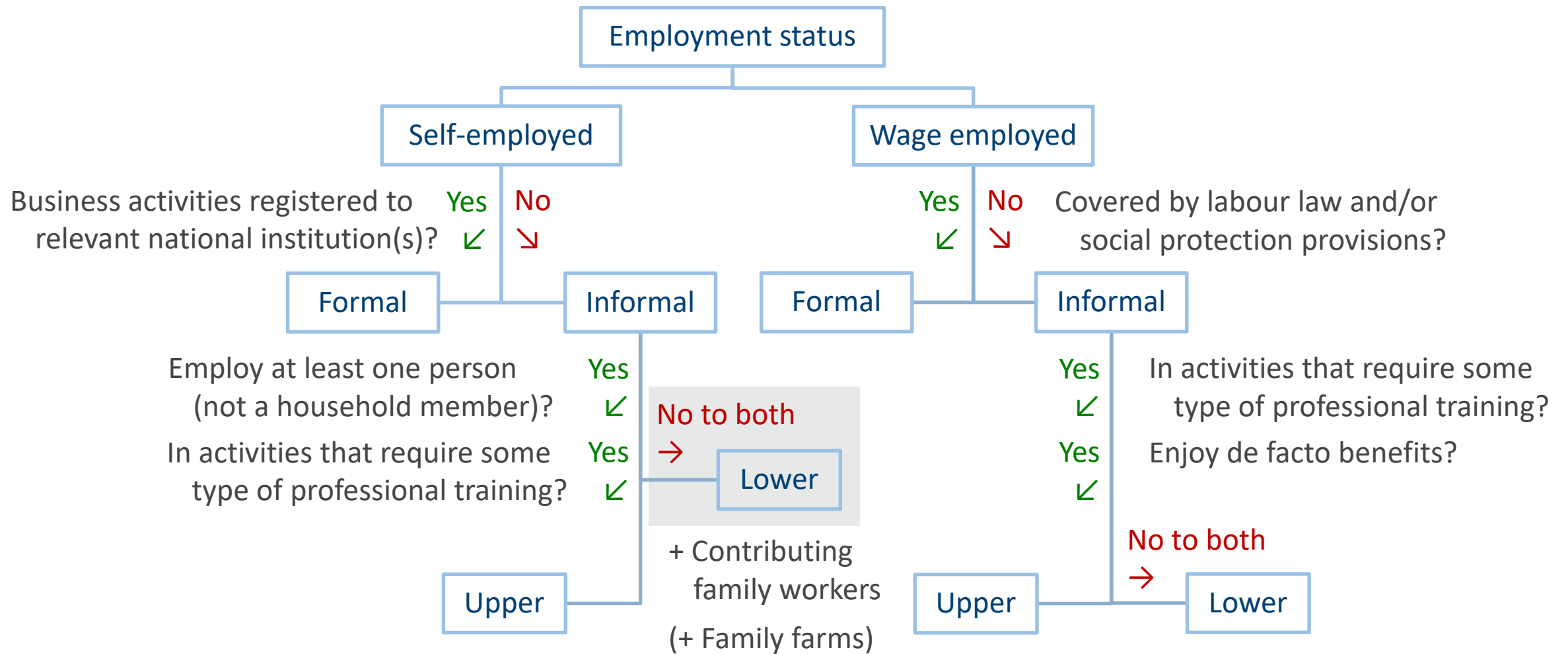
Data sources

Country	Survey	t = 0	t = 1
Ghana	Ghana Socio-Economic Panel Survey (GSPS)	Wave I (2009/2010)	Wave II (2014)
South Africa	National Income Dynamics Study (NIDS)	Wave IV (2014/2015)	Wave V (2017)
Tanzania	Tanzania National Panel Study (TNPS)	Wave II (2010/2011)	Wave III (2012/2013)
Uganda	Uganda National Panel Study (UNPS)	Wave II (2010/2011)	Wave III (2011/2012)

For reasons of data availability and cross-country comparability, we focus the analysis on the two most recent waves of panel data available in each of the four countries under study.

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Work status operationalisation – Uganda
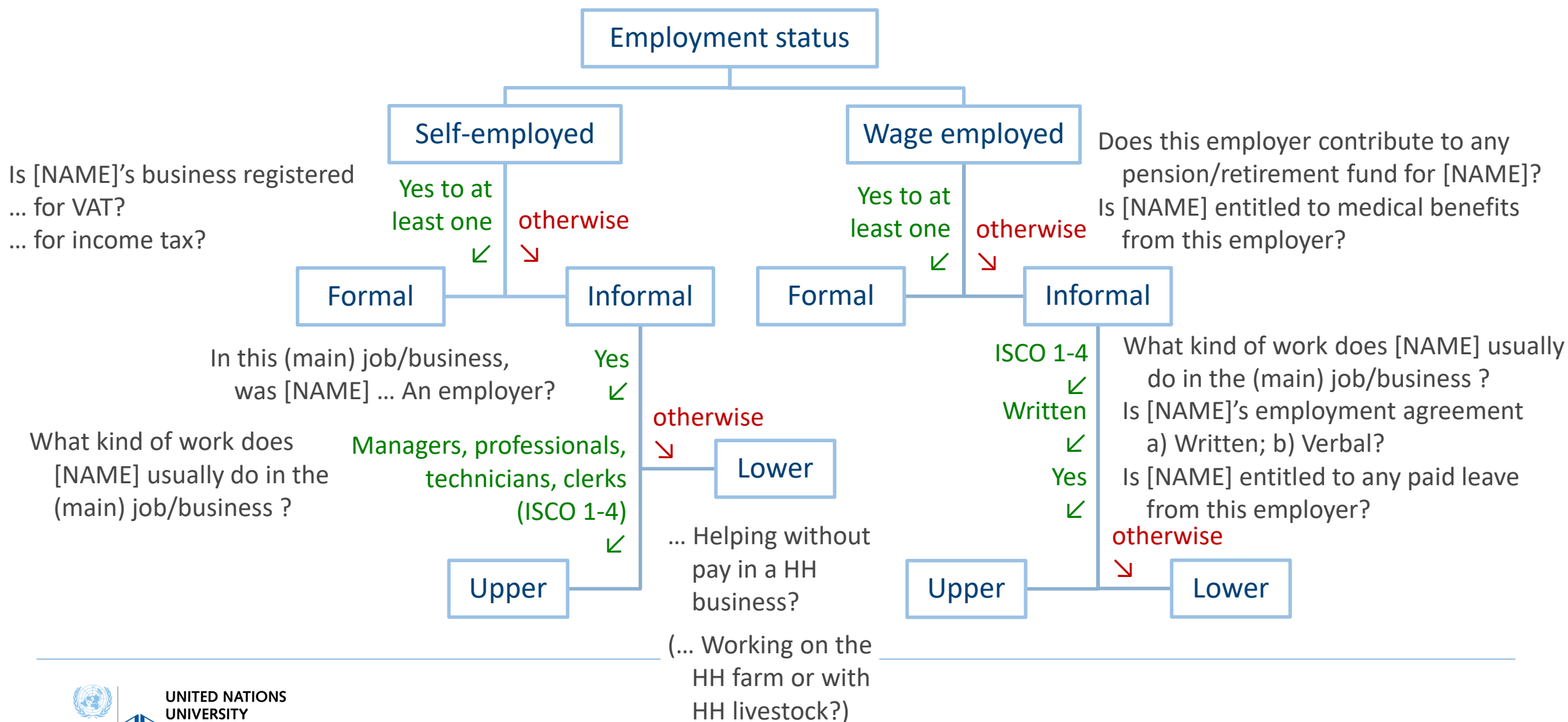
Descriptive statistics
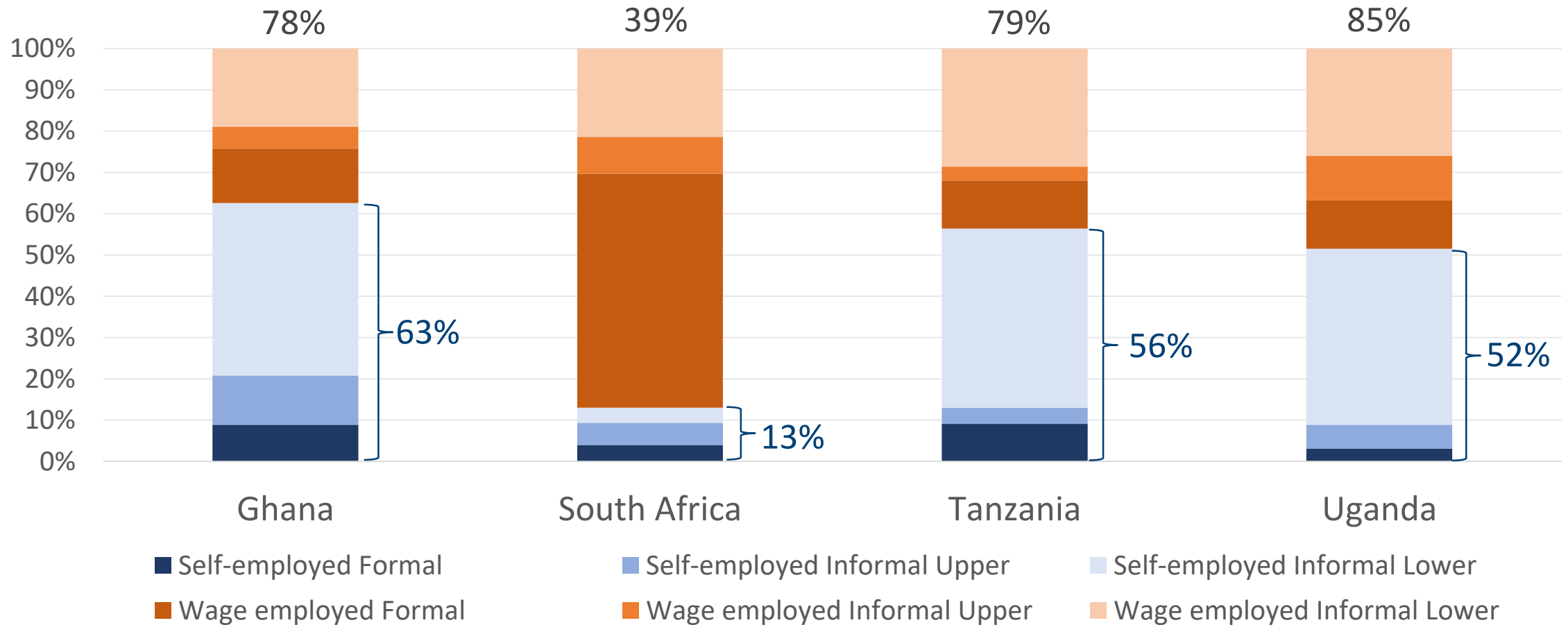
Age and work status

Gender and work status

Bar chart titled "Share female (%)" comparing work status categories across Ghana, South Africa, Tanzania, and Uganda.

Legend:
- Self-employed Formal
- Self-employed Informal Upper
- Self-employed Informal Lower
- Wage employed Formal
- Wage employed Informal Upper
- Wage employed Informal Lower

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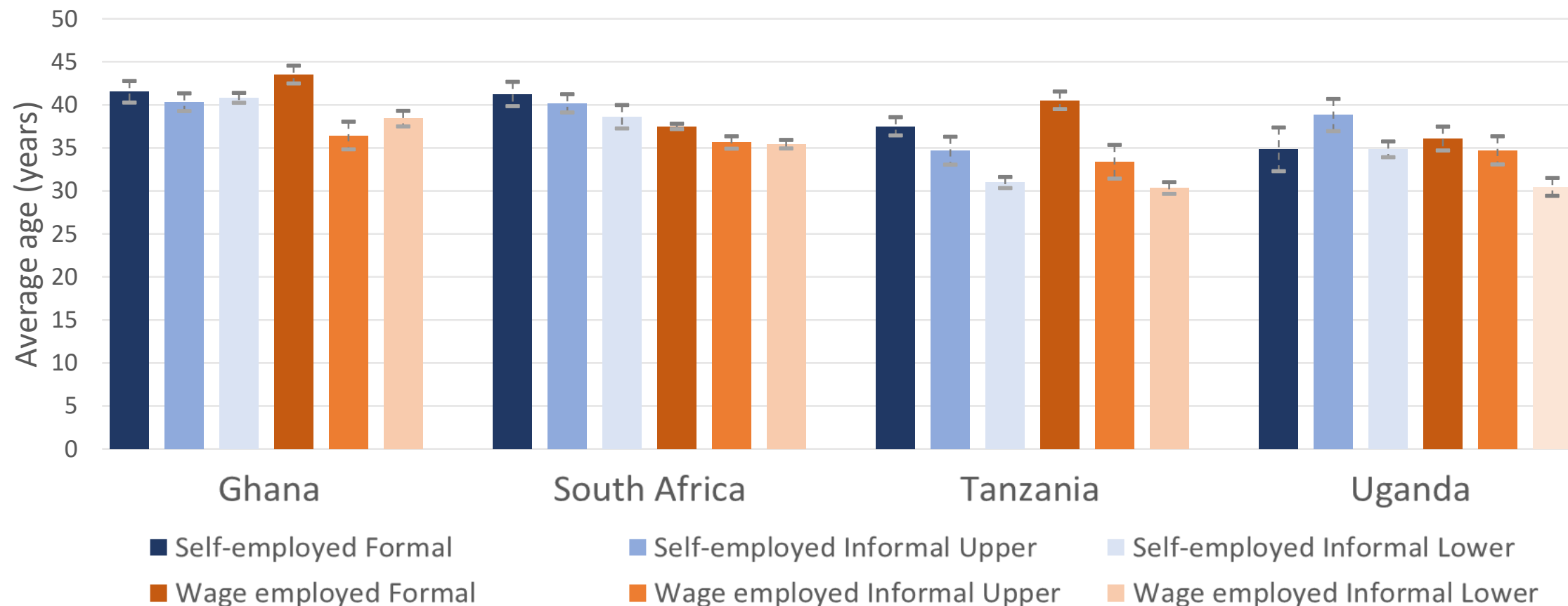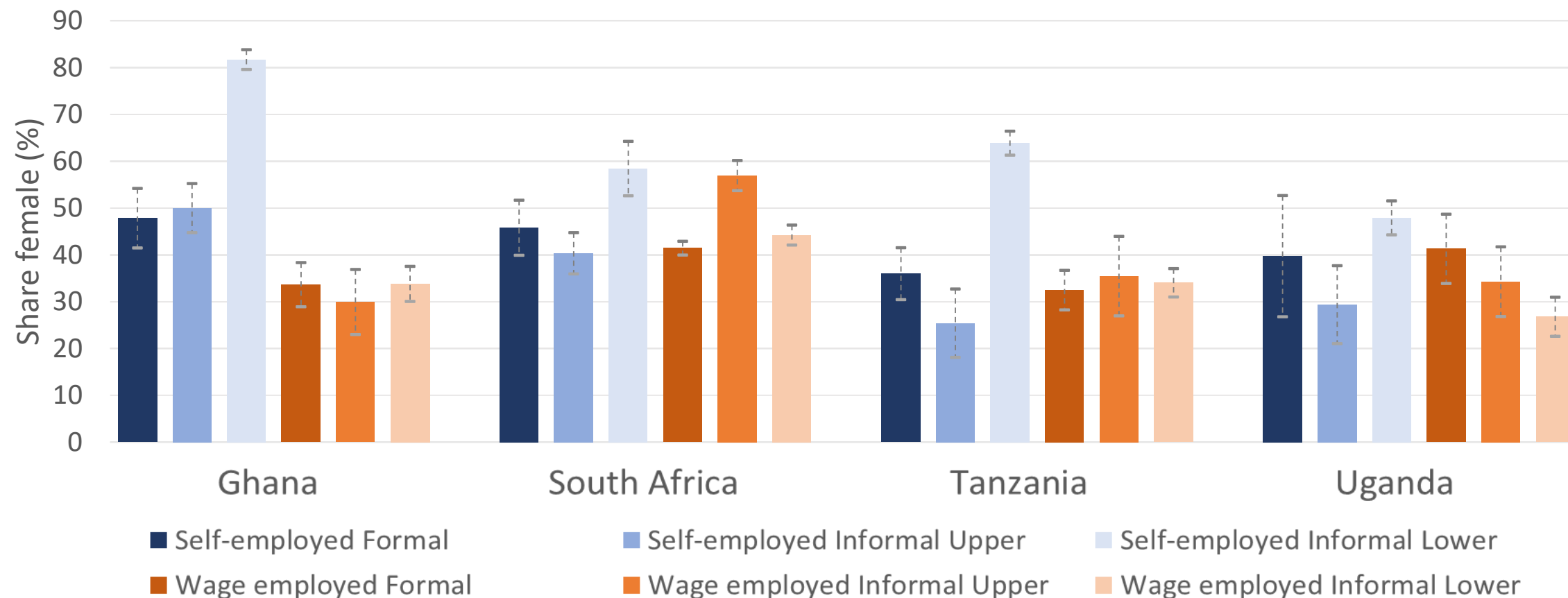
Education and work status
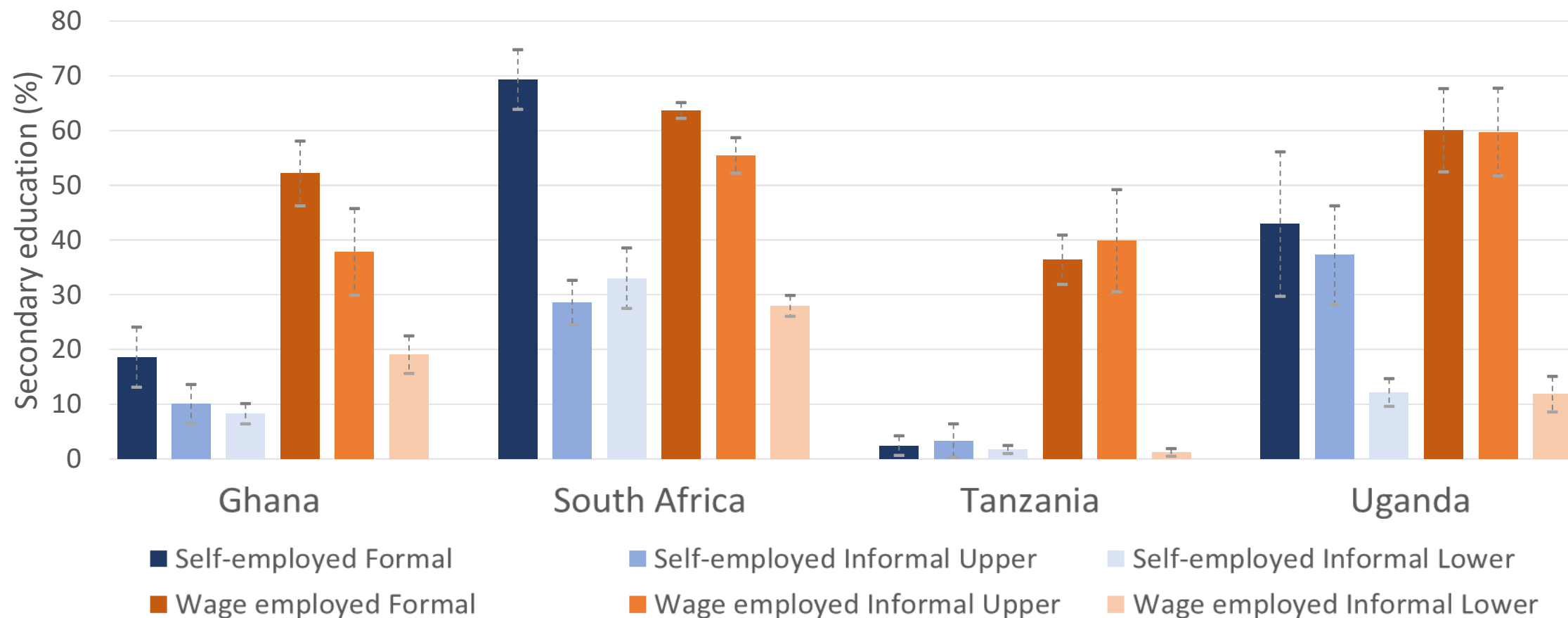
Income and work status

Analyse the within-group and between-group variance (ANOVA) in labour incomes to test for statistically significant differences in mean earnings across the defined work status groups.

Legend:
- Self-employed Formal
- Self-employed Informal Upper
- Self-employed Informal Lower
- Wage employed Formal
- Wage employed Informal Upper
- Wage employed Informal Lower

Y-axis: Difference in log income

Countries: Ghana, South Africa, Tanzania, Uganda
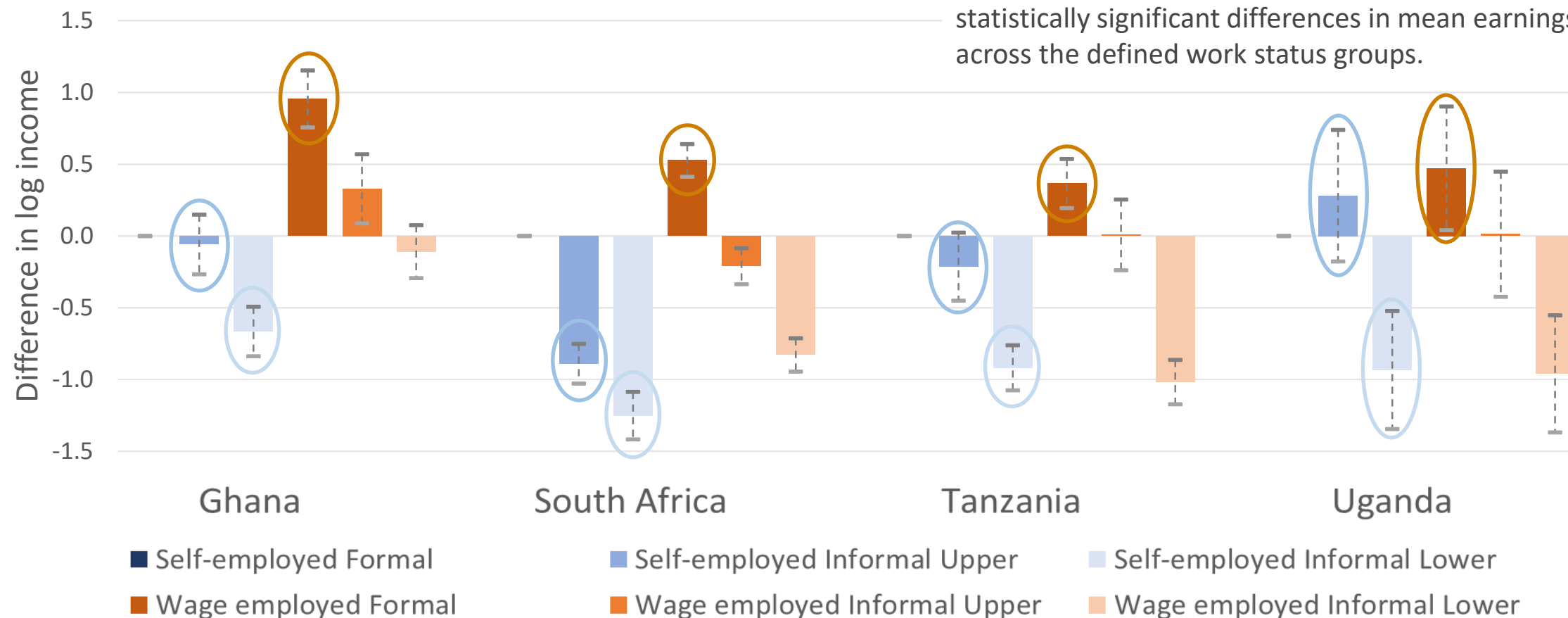
Employment transition matrices

a) Ghana

			WAVE t=1						
			Self-employed			Wage-employed			
			Formal	Informal		Formal	Informal		Total
				Upper	Lower		Upper	Lower	
WAVE t=0	SE	F	29.5	15.8	37.1	2.1	3.4	12.1	100
		IF U	14.7	44.7	18.9	4.0	2.5	15.2	100
		IF L	6.8	6.3	67.2	2.1	2.0	15.8	100
	WE	F	4.3	3.6	10.6	65.1	6.9	9.6	100
		IF U	2.5	3.2	25.8	33.0	11.8	23.7	100
		IF L	7.5	6.4	26.9	21.7	5.3	32.2	100
	TOTAL		9.1	11.2	35.8	21.0	4.5	18.4	100

b) South Africa

			WAVE t=1						
			Self-employed			Wage-employed			
			Formal	Informal		Formal	Informal		Total
				Upper	Lower		Upper	Lower	
WAVE t=0	SE	F	50.8	13.3	8.1	13.0	9.7	5.1	100
		IF U	16.1	23.5	17.6	12.2	11.1	19.5	100
		IF L	8.8	31.1	33.0	4.9	7.6	14.6	100
	WE	F	2.2	1.1	0.4	83.3	7.1	5.9	100
		IF U	6.0	1.0	3.1	50.1	25.1	14.7	100
		IF L	4.6	3.8	3.4	27.1	12.8	48.4	100
	TOTAL		5.2	3.4	2.8	63.4	9.9	15.3	100

c) Tanzania

			WAVE t=1						
			Self-employed			Wage-employed			
			Formal	Informal		Formal	Informal		Total
				Upper	Lower		Upper	Lower	
WAVE t=0	SE	F	31.7	18.2	43.1	2.0	0.0	5.0	100
		IF U	15.2	23.1	34.8	4.5	0.0	22.5	100
		IF L	11.0	4.2	66.5	3.8	1.9	12.7	100
	WE	F	1.5	1.0	3.1	79.7	4.4	10.2	100
		IF U	6.5	2.9	6.0	45.8	5.8	33.1	100
		IF L	2.4	3.6	20.3	14.0	0.8	58.8	100
	TOTAL		8.6	6.0	31.8	22.2	1.8	29.7	100

d) Uganda

			WAVE t=1						
			Self-employed			Wage-employed			
			Formal	Informal		Formal	Informal		Total
				Upper	Lower		Upper	Lower	
WAVE t=0	SE	F	20.7	15.0	51.1	2.7	0.0	10.5	100
		IF U	13.9	39.8	36.8	0.0	4.6	5.0	100
		IF L	4.4	7.2	73.2	2.2	1.0	11.9	100
	WE	F	5.2	0.0	1.7	58.0	27.0	8.1	100
		IF U	5.7	6.1	5.9	20.0	48.3	14.1	100
		IF L	2.7	4.3	13.9	4.7	6.2	68.3	100
	TOTAL		5.7	7.9	34.1	14.8	13.3	24.3	100

Employment transition matrices

a) Ghana

				Self-employed		Formal	Informal		Share of stayers
			Formal	**Informal Upper**	**Lower**	**Formal**	**Informal Upper**	**Lower**	**Share of stayers**
	SE	F	29.5	15.8	37.1	2.1	3.4	12.1	2.6
		IF U	14.7	44.7	18.9	4.0	2.5	15.2	5.3
		L	6.8	6.3	67.2	2.1	2.0	15.8	28.1
	WE	F	4.3	3.6	10.6	65.1	6.9	9.6	8.6
		IF U	2.5	3.2	25.8	33.0	11.8	23.7	0.6
		L	7.5	6.4	26.9	21.7	5.3	32.2	6.1
TOTAL			9.1	11.2	35.8	21.0	4.5	18.4	51.3

(WAVE t=1 across top: Self-employed / Wage-employed; WAVE t=0 down left side)

b) South Africa

				Self-employed		Formal	Informal		Share of stayers
			Formal	**Informal Upper**	**Lower**	**Formal**	**Informal Upper**	**Lower**	**Share of stayers**
	SE	F	50.8	13.3	8.1	13.0	9.7	5.1	2.0
		IF U	16.1	23.5	17.6	12.2	11.1	19.5	1.4
		L	8.8	31.1	33.0	4.9	7.6	14.6	1.1
	WE	F	2.2	1.1	0.4	83.3	7.1	5.9	37.2
		IF U	6.0	1.0	3.1	50.1	25.1	14.7	2.2
		L	4.6	3.8	3.4	27.1	12.8	48.4	10.2
TOTAL			5.2	3.4	2.8	63.4	9.9	15.3	64.0

c) Tanzania

				Self-employed		Formal	Informal		Share of stayers
			Formal	**Informal Upper**	**Lower**	**Formal**	**Informal Upper**	**Lower**	**Share of stayers**
	SE	F	31.7	18.2	43.1	2.0	0.0	5.0	2.9
		IF U	15.2	23.1	34.8	4.5	0.0	22.5	0.9
		L	11.0	4.2	66.5	3.8	1.9	12.7	28.2
	WE	F	1.5	1.0	3.1	79.7	4.4	10.2	9.3
		IF U	6.5	2.9	6.0	45.8	5.8	33.1	0.2
		L	2.4	3.6	20.3	14.0	0.8	58.8	17.9
TOTAL			8.6	6.0	31.8	22.2	1.8	29.7	59.3

d) Uganda

				Self-employed		Formal	Informal		Share of stayers
			Formal	**Informal Upper**	**Lower**	**Formal**	**Informal Upper**	**Lower**	**Share of stayers**
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		IF U	13.9	39.8	36.8	0.0	4.6	5.0	2.3
		L	4.4	7.2	73.2	2.2	1.0	11.9	31.2
	WE	F	5.2	0.0	1.7	58.0	27.0	8.1	6.8
		IF U	5.7	6.1	5.9	20.0	48.3	14.1	5.2
		L	2.7	4.3	13.9	4.7	6.2	68.3	17.7
TOTAL			5.7	7.9	34.1	14.8	13.3	24.3	63.9

Regression analysis

Modelling employment transitions

- Multinomial logistic regression to analyse the dynamics of work status choice *(Gong et al., 2004; Liu, 2015; Maloney, 1999).*

- Interested in estimating the extent to which the probability of being in a specific employment status with $k = \{1, \dots, K\}$ at time $t = 1$ depends on
  - the initial status in employment at time $t = 0$, S_{i0}
  - observed initial individual and household attributes, including workers' age, gender, education, and geographic location (rural/ urban), X_{i0}
  - lower-tier informal wage employment is set as the reference category

$$\pi_{i1k} = \Pr(S_{i1} = k \mid S_{i0}, X_{i0}) \Leftrightarrow \log\left(\frac{\pi_{itk}}{\pi_{it(K+1)}}\right) = S'_{i0}\theta_k + X'_{i0}\beta_k$$

Modelling labour income dynamics

- Analyse link between employment mobility and changes in earnings.

- Multinomial logistic regression to analyse the dynamics of work status choice *(Gong et al., 2004; Liu, 2015; Maloney, 1999).*

- Regress the change in the logarithm of individual labour earnings between time $t = 0$ and time $t = 1$, Δy_{i1}, on
  - the individual's initial log earnings, y_{i0}
  - the initial status in employment at, S_{i0}
  - Interaction term between the initial and the final work status, $(S_{i0} \times S_{i1})$
  - observed initial individual and household attributes, X_{i0}

$$\Delta y_{i1} = \alpha + \delta y_{i0} + v_0 S_{i0} + v_1 (S_{i0} \times S_{i1}) + \varphi X_{i0} + \varepsilon_i$$

Some limitations to keep in mind

The employed multinomial logit and ordered logit models explicitly allow for state dependence in workers' employment transitions. However, four important issues need to be taken into consideration when interpreting our findings.

1. Effects of "genuine state dependence" and "unobserved heterogeneity" cannot be disentangled (would either require longer-running panel data).

2. Analysis limited to the subset of workers who were working in any of the six defined work statuses in both panel waves → transitions into and out of inactivity, unemployment, and family farm activities are not captured in this analysis.

3. Non-random panel attrition may affect the transition estimates.

4. Reporting errors may induce noise and increase our mobility estimates.

Employment transitions

Multinomial logistic regression		Number of obs	=	7,816
Average marginal effects on work status in $t = 1$		Log likelihood	=	-7862.6575
Base outcome: Lower-tier informal wage employed		Pseudo R2	=	0.3344

	(1) Formal self-employed	(2) Upper-tier informal self-employed	(3) Lower-tier informal self-employed	(4) Formal wage employed	(5) Upper-tier informal wage employed
Work status in $t = 0$ (base: lower-tier informal wage employed)					
(1) Formal self-employed	0.332***	0.106***	0.174***	-0.199***	-0.069***
	(0.029)	(0.022)	(0.023)	(0.023)	(0.008)
(2) Upper-tier informal self-employed	0.120***	0.266***	0.104	-0.166***	-0.035***
	(0.012)	(0.037)	(0.069)	(0.019)	(0.012)
(3) Lower-tier informal self-employed	0.105***	0.065***	0.312***	-0.154***	-0.062***
	(0.016)	(0.024)	(0.029)	(0.009)	(0.024)
(4) Formal wage employed	-0.023***	-0.034***	-0.062***	0.475***	-0.024
	(0.006)	(0.004)	(0.001)	(0.026)	(0.018)
(5) Upper-tier informal wage employed	0.005	-0.016***	-0.039***	0.140***	0.130***
	(0.013)	(0.005)	(0.012)	(0.023)	(0.017)
Controls for worker demographic characteristics status in $t = 0$	YES	YES	YES	YES	YES
Location and country fixed effects	YES	YES	YES	YES	YES

*Note:* Standard errors in parentheses. Standard errors clustered at the country-level.

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

Robustness checks

- Excluding South Africa

  Results

- Ordered logistic regression

  Results

  - Pool wage and self-employment

  - Order: Formal > Upper informal > Lower informal

  - Split sample by initial employment status

  - Repeat including additional controls (marriage status, household composition)

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Employment transitions and income dynamics
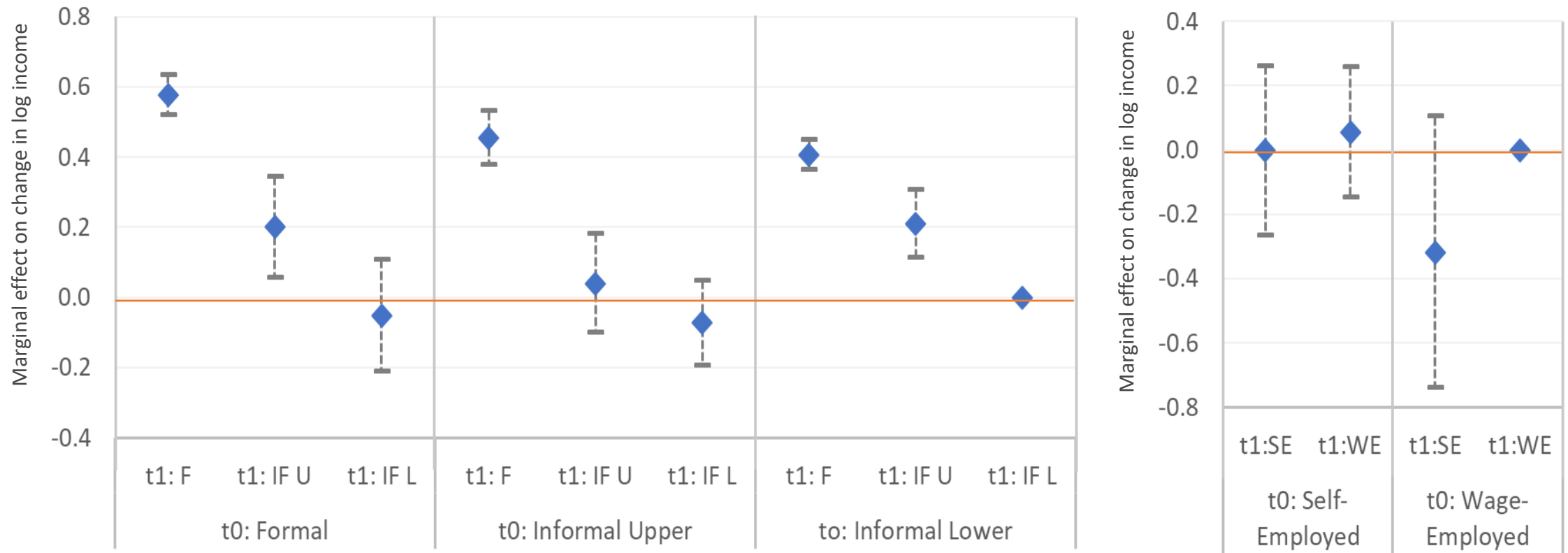
Controls for workers' age, gender, education, and location (rural/ urban), and country fixed effects.

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Conclusion

Summary of key findings

- **Across countries:** Employment stability tends to be highest among the formally wage employed. By contrast, formal self-employment is a much more dynamic state (high mobility into lower informal self-employment except for South Africa).

- **Ghana, Tanzania, & Uganda:** High persistence in lower informal self-employment.
  → Limited alternative opportunities of workers in this most disadvantaged group, who tend to remain locked in a situation of inferior pay and conditions.

- **Tanzania & Uganda:** Similar level of stagnation in lower informal wage employment.
  Ghana & South Africa: For about one out of five workers, lower-tier informal wage employment can present a stepping stone into formal employment relationships.

Summary of key findings ctd.

- Important extent of heterogeneity in the characteristics, earnings, and transition patterns observed for workers in upper-tier versus lower-tier informality.

    – Transition from lower- to upper-tier informality → associated with rise in earnings.

    – Upper-tier informality is a more dynamic state → higher chances of formalising.

    BUT: When controlling for differences in education and other worker characteristics, this gap disappears for the self-employed, while workers in upper-tier informal wage jobs continue to show significantly higher chances of moving into formal wage jobs than those in the lower tier. → Informal wage jobs as a screening device?

- Relatively strong segmentation between wage and self-employment and transition from wage to self-employment often come with an earnings penalty.

Policy implications

- Policy-makers need to recognise the **heterogeneity in informal work**, and devise policies that are not necessarily a "one size fits all" approach.

- Our findings show that for the majority of workers, informal work is a "dead end" rather than a "stepping stone" → Will not disappear automatically.

- The segmentation of wage and self employment implies that different policies may be needed for each type of employment (very different from Latin America, which shows greater dynamism and movement from wage to self employment)

- **The low rates of transition into formality and the persistence of work status in lower tier informality suggests that policies should be focused on enhance the livelihoods of those workers at the bottom of the pecking order in the informal economy.**

- *For future research: Which policies can make the most difference? Which factors trigger upward or downward movements?*

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Thank you for your attention!