

## Working but poor: understanding working poverty among the youth in South Africa

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### Abstract:

**Objective:** The employment landscape for young people is marked by persistent challenges, increasing the risk of long-term consequences such as reduced earning potential and limited access to decent work. Globally, many economies face similar labour market pressures, further intensifying youth unemployment. The COVID-19 pandemic exacerbated the situation by pushing many young people into precarious employment and deepening their vulnerability to poverty. This paper examines poverty among employed youth under the age of 35, using South Africa as a case study and drawing on the 2023 General Household Survey data collected by Statistics South Africa.

**Methods:** The study followed a quantitative research approach using descriptive statistics and logistic regression analysis.

**Results:** The findings show that gender and other socio-economic factors, such as education, sector of employment and overall life satisfaction, play a critical role in the youth being poor. The working poverty rate was estimated at 34%, which suggests that one in three youths in this sample could not earn enough to lift themselves above the poverty line, despite being employed.

**Conclusions:** A review of existing policy reforms is urgently required, as the government has not done enough to support and empower the youth. This is especially true considering the kinds of employment these young people find themselves in 30 years into democracy. Intensive and intentional support must be prioritised to have the most meaningful catalytic effect on the youth.

## 1. Introduction

The prevalence of 'poverty among the employed'<sup>1</sup> is growing, particularly in developing countries, with sub-Saharan Africa having the highest number of

<sup>1</sup> Herein referred to as the working poor

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young people in employment, characterised by low earnings that are insufficient to support a living (Feder and Yu, 2019). The labour market situations of young people have been particularly plagued by poor performance, with the risk of lifelong consequences in terms of lower earnings prospects and chances of accessing decent employment (ILO, 2018; Mncayi and Meyer, 2022). While absolute poverty and working poverty rates have fallen, there are still significant disparities across age groups, genders, and countries, with many of the highest working poverty rates found in Africa, where the youth have a working poverty rate of 39% compared to 31% for adults (ILOSTAT, 2019).

In South Africa's economic counterparts, such as BRICS, significant strides to move from vulnerable employment to paid employment have not resulted in quality employment. For instance, temporary and informal employment has accounted for an estimated three-quarters of all paid employment, often characterised by job insecurity (ILO, 2018). Most young people in South Africa and the sub-Saharan Africa region at large are forced to accept any form of employment, inevitably characterised by low pay and insecurity, as a way of avoiding unemployment to sustain their livelihoods (Valé et al., 2022; Mdluli-Maziya et al., 2024). Africa is characterised by a predominantly young population that faces numerous socio-economic challenges.

In South Africa's case, persistently and continuously rising unemployment, poverty, and inequality rates (Lilenstein et al., 2018; Rogan and Reynolds, 2019; Stats SA, 2022) are raising concerns about informal employment and, consequently, the prevalence of working poverty (Rogan and Skinner, 2018). As the country's formal sector employment fails to absorb the growing number of low-skilled workers (Burger and Fourie, 2019), most of these individuals end up in the informal sector to try and make ends meet (Lilenstein et al., 2016; Yu and Ohnsorg, 2019). This implies that although some may be working and earning some income, the earnings may be too low to lift themselves and their families out of poverty, trapping them in the vicious cycle (Feder and Yu, 2019).

To mitigate the effects of working poverty, many countries have introduced minimum wage policies whose effectiveness is supported by literature (see Gorry, 2013). However, other studies present an alternative view, arguing that minimum wage policies can enhance the likelihood of poor families escaping poverty while reducing the risk of non-poor families slipping into poverty (Dube, 2019; Lv et al., 2023).

Research on underutilisation has been unbalanced, emphasising the shortage of jobs, even though there is more to the labour market than just scarcity of jobs (Rogan and Reynolds, 2019; Meyer and Mncayi, 2021). Many people are barely working, and wages are not increasing sufficiently to be viewed as full-time employment (Ross and Bateman, 2019). The issue of employment quality is critically important, especially for youth, as full, productive, and decent employment is the most effective path out of poverty (ILO, 2012).

Most studies to date on poverty among the employed in South Africa (Finn, 2015; Vermaak, 2012; Oosthuizen, 2012; Feder and Yu, 2019; Rogan and Reynolds, 2019) have looked at the entire working population, which has undoubtedly been informative but none, according to the best of our knowledge, have concerned themselves with the youth cohort. Young South Africans experience more negative labour market outcomes than any other age category; they are side-lined when it comes to equality in the labour market, and even when they do find employment, it is mostly casual and informal in nature, receiving the lowest pay compared to other age categories (Branson et al., 2019; Mdluli-Maziya et al., 2024; Stats SA, 2022). Young people continue to exhibit larger working poverty rates than adults (ILOSTAT, 2019). These worsening youth labour market outcomes may suggest the possibility that perhaps the government's policies that relate to youth development in the labour market are not effective in reducing poverty.

The significance of this study lies in shedding light on a nuanced aspect of employed youth facing poverty. While it is true that the youth have the potential to earn better wages in the future, it is essential to recognise the immediate challenges they may encounter in the present. By narrowing our focus on this demographic, we aim to highlight the specific circumstances and barriers that contribute to their poverty despite being employed. Furthermore, in examining poverty among those working, we shy away from the assumption that only the unemployed are most likely to endure poverty, which is not true, as research shows that working poverty will be a persistent matter in the future (Crettaz, 2013). Against this background, this study explores the multifaceted nature of poverty among employed youth. By doing so, we hope to contribute valuable insights that can inform targeted interventions and policy initiatives to address the unique challenges faced by this demographic. The rest of the paper is organised as follows: Section 2 reviews the literature on working poverty; Section 3 discusses the methodology and research design followed in the study; the results of the analysis are presented in Section 4; and the last section will provide concluding remarks and recommendations.

## **2. Literature review**

### **2.1 Understanding the working poor**

To understand the working-poor, three factors need to be considered, which are: poverty, household qualities and labour market characteristics (Herman, 2014). It is pivotal to recognise that whether a working individual is regarded as poor will depend on many aspects, such as household size, spending behaviour, wage income and even social grants (Mdluli and Dunga, 2022). Of all these factors, wage income, which is earned when being employed, may provide details on whether one is a working-poor or not; that is, whether they are experiencing working poverty or not. Therefore, working poverty may be regarded as a form

of vulnerable employment, where those who experience it earn very low incomes, regardless of whether they are in full-time or part-time employment. Even though being in employment, in this case, may be deemed better than being unemployed, the truth is that it does not always guarantee a decent living (Mdluli-Maziya et al., 2024). This is very important as decent employment is an essential prerequisite to alleviate poverty, as economic growth and income transfers alone are not sufficient (ILO, 2018).

Specifically, the working-poor are those working but living below an accepted poverty line (Kapsos, 2004). Although these workers are employed, they earn very little income globally (ILO, 2019), but this may differ depending on the country. Jansson and Brostrom (2021) argue that statistics and definitions of the working poor vary depending on how they are measured. In their definition of the working poor, Altman (2007) includes workers earning less than R2 500 per month, equivalent to approximately US\$ 131 in 2023. Finn (2015) used R4,125 per month, accounting for the average number of dependents supported by wage earners. Feder and Yu (2019) used an absolute threshold of R3,264.93 per month, aligning with the proposed national minimum wage in May 2017. This income is often deemed insufficient to support the basic needs of the working individual and their families or those they support, often affecting their survival. Finn (2015:37) defines the working poor as "workers who live in households in which monthly household income per capita falls below the poverty line." According to the EU definition, an individual is considered working-poor if his/her total annual disposable income is below 60% of the national household median income level (EuroFound, 2022). The key takeaway is that there is no universally agreed-upon threshold for working poverty, especially in South Africa; studies use different benchmarks based on absolute or relative measures. Nevertheless, all these definitions provide a much clearer depiction of the association between employment and poverty since they focus on poverty and labour market facets (Kapsos, 2004).

The factors contributing to working poverty can be classified into micro and macro-level categories. At the micro level, the key determinants include individual and household-related factors (Cooke et al., 2008; Nolan et al., 2010). From a household perspective, working poverty is influenced by the combined resources of all household members in relation to their collective needs. Households with a high dependency ratio, particularly those with many dependents, are more likely to experience working poverty. Studies have shown that households with a significant number of dependents, especially children and pensioners, are at a heightened risk of working work poverty due to their reliance on a limited income (Frazer et al., 2010). Additionally, single-earner households, particularly those where the sole breadwinner is poorly educated and employed part-time, face a higher risk of falling into working poverty. Age is also another factor where employment situations get better with age and that the younger an

individual is, the more likely they are to experience negative labour market outcomes such as low earning (Mncayi & Meyer, 2021; Stats SA, 2025). At the macro level, broader systemic factors such as institutions, welfare regimes, and overall economic performance also play a significant role in influencing working poverty (Brady et al., 2010). These structural elements shape the economic opportunities available to low-wage workers and determine the extent to which social policies can mitigate the risks associated with working poverty. Furthermore, MacDonald et al (2020) argue that the incidence of working poverty is not solely due to job insecurity; however, it is influenced by a complex combination of external socio-economic pressures, declining job opportunities, discriminatory welfare systems and poor-quality education. This study will mainly focus on micro-level factors, which include individuals and household factors.

## **2.2 The South African perspective**

South Africa has over 21 million young people aged 15 to 34 years, with a labour force participation rate of 69% in 2024, while about 30% are regarded as inactive and discouraged (Stats SA, 2025a). Overall, individuals aged 15-34 represent nearly a third of the South African population. From 2014 to 2024, their unemployment rate rose by about 10%, reaching 45.5%, while their labour absorption rate fell from around 30.5% to 27.7% during this time frame (Stats SA, 2025b). By global standards, the country is well known for its high youth unemployment rates owing to the shortage of paid employment, pervasive poverty and being one of the most unequal societies in the world (Vermaak, 2012; Rogan and Reynolds, 2019; World Bank, 2021). Decent and secure employment, which is evidenced by decent earnings, has, therefore, become one of the best ways for individuals to escape poverty (Khan et al., 2017). However, the observed inefficiency in the South African youth labour market has acted as an obstacle to economic development. Developing economies, mostly in Sub-Saharan Africa, have not created a sufficient number of labour-intensive firms offering the needed low-skill jobs to absorb young people (Fox et al., 2020).

Since the end of apartheid, there has been a considerable amount of research on the levels and trends in poverty and wage inequality in South Africa (see Leibbrandt et al., 2011; Hundenborn et al., 2016; Francis & Webster, 2019; Natrass & Seekings, 2019; Mtapuri & Tinarwo, 2021). Wage inflexibilities seem to have placed significant upward pressure on wages, consequently reducing the demand for labour, particularly for young people who do not have enough labour market experience (Bhorat et al., 2016). A skills-biased growth path has, in turn, sustained the comparatively high demand for skilled workers who, being in short supply, preserve a substantial wage premium (Bhorat & Khan, 2018), while lower-skilled labour is left in unemployment or vulnerable types of employment such as working poverty or being in low wage employment. These poor labour

market situations have consequently forced large numbers of these young people to exhibit higher poverty rates than adults. Despite many young people finding full-time employment, low earnings and widespread underemployment, especially in rural areas, have been rising (Fox et al., 2020; Harambee, 2024). The challenge of poor-quality employment, evidenced by the high incidence of vulnerable and informal employment, remains a primary challenge in Sub-Saharan Africa (ILO, 2018).

The resultant effects of informal employment are evidenced by low average earnings which are low by standard (monthly wage of R1 845) and when compared to the average earnings of workers in formal employment (OECD, 2024). In trying to track poverty in South Africa, Vermaak (2011:25) found that between 2001 and 2006, the number of workers considered poor as well as the extent to which wages fell below the poverty line declined. However, these numbers soon began increasing. The gap in earnings is even wider when considering age, where Borat and Khan (2018) find that between 1995 and 2010, adult workers on average earned more (2% - 5% range) than younger workers and that the gap is even higher when considering gender, race, marital status in favour of being married and staying in urban areas. These earning gaps are also observed amongst occupation types and education, with all occupations earning more than workers in elementary positions (Bhorat & Khan, 2018). This is a worrying trend which cements the view that working poverty and wage inequality are more substantial amongst the marginalised in South Africa. For young people, the decision to settle for substandard employment is fuelled by the growing number of people with university qualifications, which raises the competition for jobs (Ndebele & Ndlovu, 2019).

The gender differences are also observed where a persistent feature of the South African labour market where occupations dominated by females pay them substantially less than those dominated by males (Mosomi, 2019). Findings by Stats SA indicate that 15.9% of all employed females work in the informal sector (Stats SA, 2025). Apartheid laws in fact forced many female workers into informal work which is casual and unprotected in nature simply because they were prohibited from entering the paid labour force, hence domestic work became the one work that absorbed an increasingly large number of females, or at least that they were forced into (Du Toit, 2013; Ncube, 2012).

In their study, Lilenstein et al. (2016) found that an estimated 30% of workers in South Africa are in working poverty and earning low wages. Green and Henseke (2016) argue that earning prospects are often limited by the lack of higher education, which is why those in working poverty are most likely to have secondary, primary or no education compared to those with tertiary education. According to Romanello (2018), educational attainment levels substantially shape young people's decisions to pursue employment opportunities. Given that lower education qualifications are associated with negative employment

outcomes, the frustration of struggling to find well-paying employment might force some young people into resorting to work for low-paying employment, trapping them in the cycle of poverty (Meyer and Mncayi, 2021).

For young people in South Africa, entering the labour market at an early age perpetuates the likelihood of being in precarious employment, which is characterised by low wages, amongst other factors. Despite acknowledging the value of education as promoting positive employment outcomes, the decision to enter the labour market early is propagated by limited resources such as finances and poverty (Mlatsheni & Ranchhod, 2017). In deciding on earlier labour market entry, these young people often end up accepting any work, which is low-paying and mediocre, to increase their family income, and therefore look after themselves and their families. Failure to attain the right skills and education render young people vulnerable to precarious, and low-paying employment and underemployment. If they do not find any work, they may be prone to lengthy spells of unemployment (Meyer and Mncayi, 2021). Persistent vulnerable employment in the environment of an increasing and young working-age population has the potential to compromise forthcoming development opportunities (ILO, 2018). The next section reviews past studies on working poverty in South Africa and globally.

### **2.3 Previous empirical literature**

Empirical studies investigating and measuring working poverty consistently underscore its complexity and the diversity of methodological approaches used to capture it. Common methods include assessments based on relative income, material deprivation, employment conditions, labour market status, and educational attainment. While many studies rely on income-based thresholds, alternative approaches are increasingly employed to provide a multidimensional understanding of the working poor.

For example, Cheung et al. (2019) used a material deprivation framework to assess working poverty in Hong Kong and found only moderate overlap with those identified as poor using income-based measures. Notably, they estimated that nearly half of Hong Kong's population lives in working-poor households, revealing income limits alone as a metric.

Globally, the persistence of working poverty challenges the assumption that employment ensures a decent standard of living. In Europe, approximately 10% of employed individuals are classified as poor (Ratti et al., 2017), while in New Zealand, around 7% of employed households fall below the poverty threshold (Plum et al., 2019). A comprehensive review of national policies across EU member states by Peña-Casas et al. (2019) highlighted that working poverty is disproportionately high among individuals with low educational attainment, migrant backgrounds, and among single parents, particularly those born outside the EU. Jansson and Broström (2020), using data from Statistics Sweden,

observed a transformation in the profile of individuals experiencing in-work poverty. While it was female-dominated in 1987, by 2017, the typical person in working poverty was a male immigrant aged between 26 to 55 years. Novianti et al. (2020), through qualitative analysis, identified that temporary and low-wage employment, household structure and density, and individual factors like education, gender, age, health, and migration status are determinants of in-work poverty.

Studies across developing regions also emphasise that employment alone is insufficient for poverty alleviation. Yassine and Bakass (2022), in their analysis of Moroccan youth, found that employment did not significantly improve well-being, indicating that job quality and wage levels matter as much as access to work itself. Similarly, Usman and Abubakar (2023), using panel data from 17 Sub-Saharan African countries, reported that rising working poverty was positively associated with labour productivity but negatively associated with the dependency ratio, suggesting structural economic dynamics at play. Cheung and Chou (2016), using data from the 2011 Hong Kong Population Census, found that low-paid work and the absence of a second earner in the household are primary mechanisms leading to working poverty. Their study also revealed that the risk of working poverty varies between high and low-skilled labour.

Within the South African context, a growing body of research has identified significant demographic and occupational disparities in working poverty. Lilenstein et al. (2016) found that working poverty was more prevalent among Black South Africans and women, and that its incidence decreased with higher levels of education. Lilenstein et al. (2018) further found that the probability of working poverty rises when individuals are self-employed, are rural workers and work in the informal sector. Feder and Yu (2020) similarly reported that working poverty was higher among females Africans, youth, and those with low education levels. Their earlier work (Feder & Yu, 2019) emphasises that the working poor in South Africa are predominantly poorly educated African women in elementary occupations within the informal sector.

Horemans et al. (2016) highlighted similar vulnerabilities in the European Union, noting that youth, women, and low-skilled individuals are especially prone to working poverty. Oosthuizen (2012), in a study on low-pay work in South Africa, confirmed the importance of race, gender, and education as determinants of low earnings but found no significant relationship between age and the risk of low pay. Finally, Rogan and Reynolds (2015) documented a decline in South Africa's working poverty rates from 1997 to 2012. However, they noted that over 14% of workers remained classified as poor, underscoring the persistent nature of the phenomenon despite improvements in employment figures. Collectively, these studies highlight the multifaceted nature of working poverty, influenced by labour market dynamics, household structures, and broader socio-economic factors. They underscore the necessity for comprehensive policy interventions

that address not only employment opportunities but also job quality, wage adequacy, and support for diverse household configurations.

### 3. Data

This study employed a quantitative research design using secondary data from the 2023 General Household Survey (GHS), conducted by Statistics South Africa. The GHS is a nationally representative cross-sectional survey collecting socio-economic data from South African households. The analytical sample was limited to heads of households aged 15-34, consistent with the national definition of youth (Stats SA, 2021). Different countries all over the world use different definitions of youth, and though the United Nations recognise the youth as those between 15 and 24, it does recognise that each region may have its specific definition (United Nations Development Programme, 2014; Parliament of the Republic of South Africa, 2024). Only those who reported being employed during the reference period were included. Respondents with missing information on employment status, household income, or household size were excluded from the analysis. The final sample comprised 2,340 employed youth.

### 4. Research Methodology

#### 4.1 Measurement of working poverty

The primary outcome of interest was working poverty, which captures individuals who are employed but live in poverty (ILOSTAT, 2024). This measurement followed a structured three-step approach. Given that the dataset had already been filtered to include only employed youth (aged 15–34), the analysis focused on identifying poverty status using per capita household income and a nationally defined poverty threshold. Following this, poverty was assessed using the Upper-Bound Poverty Line (UBPL) of R1,558 per capita per month (Stats SA, 2023). The UBPL is particularly appropriate in this setting because it covers both the food and non-food elements necessary for a basic quality of life (Rogan & Reynolds, 2019; Mdluli-Maziya et al., 2024; Makhhalima, 2023). While other countries may use consumption-based or multidimensional measures of poverty, the income-based approach is preferred in this study as it is both consistent with South Africa's national standards and easier to apply at the household level, specifically when working with existing survey data.

##### Step 1: Per capita income

To assess individual poverty status based on household resources, per capita income was calculated as:

$$PCI_i = \frac{INC_i}{HHSIZE_i} \quad (1)$$

Where:  $PCI_i$  represents the per capita income for individual  $i$ .  $INC_i$  captured the total household income while  $HHSIZE_i$  represented the number of individuals in the household.

Though it might appear logical to assess working poverty based on individuals' monthly earnings, this method does not fully capture the economic conditions experienced by employees. Poverty is typically assessed at the household level, taking into account the total income available and the number of individuals dependent on it (Letsoalo, 2015; Mdluli & Dunga, 2022). As such, this study adopts per capita household income, calculated by dividing total household income by household size, to assess working poverty. This method aligns with national poverty lines, which are defined on a per-person basis, and more accurately captures whether an employed individual lives under conditions of poverty (Rogan & Reynolds, 2015; Nishimwe-Niyimbanira, 2019).

### Step 2: Classification of the working poor

Each employed individual was classified as working poor if their per capita household income was below the upper bound poverty line (UBPL) of R1,558 (Stats SA, 2023). The classification was implemented as a binary indicator:

$$WP_i = \begin{cases} 1 & \text{if } PCI_i < \text{poverty line} \\ 0 & \text{if } PCI_i \geq \text{poverty line} \end{cases} \quad (2)$$

Where:  $WP_i$  denotes the working poverty status of individual  $i$ . This classification was captured through a binary variable, where 1 = Working poor, 0 = Not working poor. So, in this instance, individuals were then classified as working poor if they met two conditions:

- (1) they were employed, and
- (2) their per capita household income was below the poverty threshold.

### Step 3: Working poverty rate

The working poverty rate was calculated as the proportion of employed individuals who were classified as working poor:

$$WPR = \left( \frac{\sum_{i=1}^N WP_i}{N} \right) \times 100 \quad (3)$$

Where  $N$  signifies the total number of employed individuals in the sample and  $\sum WP_i$  represents the total number of working poor individuals.

## 4.2 Data analysis and model

Data preparation, including variable coding, was performed using Python (version 3.12). Subsequent analysis and modelling were carried out using SPSS (version 30). The data analysis process was divided into three steps. First, descriptive analysis with frequency and percentage tables provided the sample's demographic and geographic profile. Second, inferential techniques, including cross-tabulations, were used to assess associations between categorical variables. Lastly, a binary logistic regression model, based on predictors identified from the literature (see Table 1), was used to examine factors associated with poverty among employed South African youth.

**Table 1. Variable coding and description**

Variable	Denotation	Description and coding criteria
Race	$RACE_i$	Indicates the race of the participant. This was categorically coded: 1=non-whites (blacks, coloureds, Indian/Asians), 0=whites.
Gender	$GEN_i$	Represents the gender of the individuals. Categorical and dichotomous variables. 1=males, 0=females.
Marital status	$MS_i$	Shows the marriage status of the individual. Dichotomously coded with 1 = married or living together and 0 = not married.
Level of education	$LOE_i$	Indicates the participant's level of education. Again, this variable was categorically coded with the use of dummy variables. Including no primary education, primary education, secondary education, post-secondary education, or training. Tertiary education was used as the reference group.
Geographical location	$GEO_i$	Portrays the location of residence for the participants. This variable was dichotomous with 1= provinces with a working poverty rate >35% (i.e., Eastern Cape, Northern Cape, Free State, North-West, Mpumalanga, and Limpopo and 0=provinces with a working poverty rate <35% (i.e., Western Cape, Gauteng, KwaZulu-Natal and Northern Cape).
Life satisfaction	$LSATIS_i$	This variable asked the respondents how satisfied they are with their lives. The variable was categorically coded, where 1 = not happy with life, 0= happy with life.
Grant recipient status	$Grant_i$	This was categorically coded: 1 (yes, I receive), 0 (no, I don't receive)
Age	$AGE_i$	Age of the head of household. This was categorical, 1=26-34 and 0=15-24.

Source: Stats SA GHS data (2023).

To identify factors associated with the likelihood of being working poor among youth, the study employed a binary logistic regression model, where the dependent variable  $WP_i$  indicates whether an individual is classified as working poor (refer to equation 2).

Taking this into consideration, the logistic regression equation takes the form:

$$\log \left( \frac{P(WP_i=1)}{1-P(WP_i=1)} \right) = \theta_0 + \theta_1 X_{1i} + \theta_2 X_{2i} + \dots + \theta_k X_{ki} \quad (4)$$

Where  $WP_i$  is the binary outcome variable (1 = working poor, 0 = not working poor).  $P(WP_i = 1)$  is, the probability that individual  $i$  is working poor.  $\theta_0$  shows the intercept  $\theta_1 + \theta_2 + \theta_3, \dots, \theta_k$  are the coefficients for the predictors  $X_1 + X_2, \dots, X_k$

Diverse diagnostic tests were conducted to verify the reliability of the results and the adequacy of the model fit. These included the Omnibus test for model coefficients and the Hosmer and Lemeshow test (Hosmer & Lemeshow, 2000). Additionally, both variance inflation factors and tolerance values were utilised.

Moreover, the Nagelkerke R-square (Nagelkerke, 1991) and Cox and Snell R-square (Cox & Snell, 1989) indices were employed to assess the proportion of variance in the dependent variable accounted for by the model. Since this study utilised publicly accessible, anonymised secondary data, obtaining ethical approval was not necessary.

### 5. Model estimation and results

Table 2 presents the demographic composition of the sampled employed youth heads of household. The total sample size was 2,430 individuals. In terms of gender, the sample is mostly male (73.2%), Black (88.8%) youth who are largely unmarried (63.3%) and between the ages of 26 and 34 years (83.5%). Regarding educational attainment, the majority of participants have completed either secondary education (35.5%) or vocational training (42.1%). Only a small proportion (16.5%) have attained tertiary education, which significantly constrains their opportunities for accessing higher-paying employment (OECD, 2024). The distribution according to geographical location shows that most of the participants are based in Gauteng (36.5%), followed by KwaZulu-Natal (13.4%) and the Eastern/Western Cape, which are both at 9.5% each. These findings correspond with patterns of youth migration, indicating that they typically relocate nearer to job opportunities (Hall et al., 2015).

**Table 2. Demographic composition of the sample**

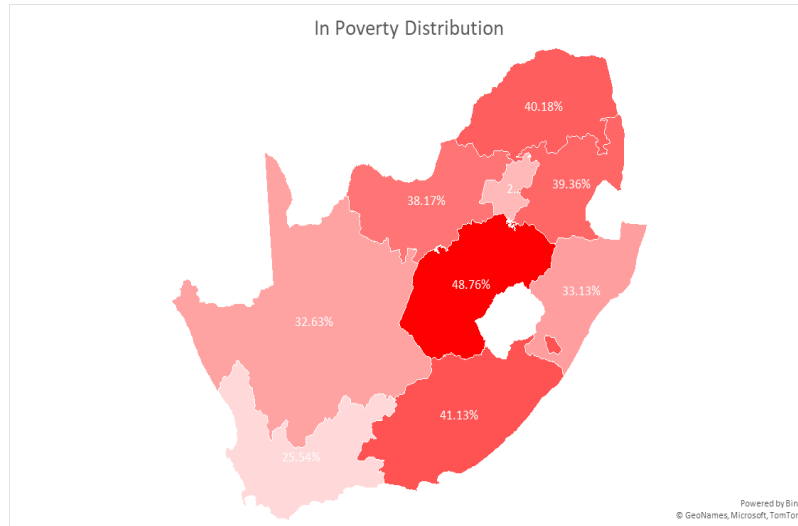
Variable	Sub-category	<i>f</i>	%
Gender	Male	1 779	73.2%
	Female	651	26.8%
Race	Blacks	2 158	88.8%
	Coloured	117	4.8%
	Indian / Asian	41	1.7%
	White	114	4.7%
	< 20 years	39	1.6%
Age	21 -25 years	360	14.8%
	26 – 30 years	951	39.1%
	31 – 34 years	1080	44.4%
	Married/living together	893	36.7%
Marital status	Not married	1 537	63.3%
	No education	15	0.6%
Education levels	Primary education	129	5.3%
	Secondary education	863	35.5%
	Matric and vocational training	1023	42.1%
	Tertiary education (at least a 3-year diploma and above)	400	16.5%
	Western Cape	231	9.5%
Geographical location	Eastern Cape	231	9.5%
	Northern Cape	95	3.9%
	Free State	121	5.0%
	KwaZulu-Natal	326	13.4%

	North-West	131	5.4%
	Gauteng	888	36.5%
	Mpumalanga	188	7.7%
	Limpopo	219	9.0%
<b>Working poverty status</b>	In working poverty	828	34.1%
	Not in working poverty	1 602	65.9%
<b>Employment sector</b>	Formal sector	1 749	72%
	Informal sector	652	26.8%
	Do not know	29	1.2%
<b>Life satisfaction</b>	Not happy	1 635	67.3%
	Happy	795	32.7%
<b>Household size</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b> <b>Mode</b>
	1	11	2.21    1
<b>Household size distribution</b>	<b>Single-member households</b>	<b>Households with 1-3 members</b>	<b>Large households (+6 members)</b>
	43.7%	81.7%	3.1%
<b>Total sample (N)</b>	<b><u>2 430</u></b>		

Source: GHS Data (2023)

While a substantial portion of the youth sample is employed in the formal sector (72%), more than one-third remain working-poor (34.1%). This suggests that having a job does not invariably result in adequate earnings (Beukes et al., 2017), pointing to potential instability in the youth-held occupations within the sample. Finally, approximately two-thirds (67.3%) of young people report low life satisfaction, which may be related to issues like working poverty and restricted socio-economic progression.

Figure 1 displays a heat map illustrating the geographic distribution and severity of working poverty among the sampled youth, using South Africa's provincial boundaries. The map shows that the Free State province, known as the major agricultural producer in South Africa, has the highest incidence of working poverty (48.76%) among the employed youth, almost double that of the Western Cape Province (25.54%), and is followed by the Eastern Cape Province (41.3%) and Limpopo Province (40.18%). Given that these provinces are predominantly rural, these results were expected. For instance, the first quarterly labour force survey of 2025 shows that the Eastern Cape, Free State and Limpopo have one of the highest incidences of unemployment, regardless of whether the expanded or official definition is used (Stats SA, 2025c).



**Figure 1. Working poverty distribution by province**

**Source:** Output data from Python

Contrarily, provinces such as the Western Cape, Gauteng, and KwaZulu-Natal, though also characterised by agricultural activity, record a relatively lower poverty distribution, with working poverty rates at 25.5%, 29.7%, and 33% respectively, due to their diversified labour markets. These three provinces are the largest contributors to the South African GDP growth in the last quarter of 2024, with Gauteng contributing about 40%, KwaZulu-Natal (16.4%), and the Western Cape at 14.3% (Stats SA, 2025d).

#### *Cross-tabulation analysis*

The labour market in South Africa is marred by not only age-related inequalities but also deeply rooted gender and racial inequalities (Stats SA, 2025e). Table 3 indicates that females, though a smaller part of the sample, experience higher working poverty rates (39%) compared to males (32%). Males dominate both poverty and non-poverty groups, but females are more likely to be in poverty, highlighting a gender disparity. South African women, irrespective of age, face more significant barriers to accessing quality employment compared to their male counterparts (Commission for Gender Equality, 2024). Furthermore, females in South Africa appear to be employed in jobs where their earnings are between 23 and 35 per cent less than those of males (Mabuza, 2020; Pleace et al., 2024; Oyenubi, 2024).

**Table 3. Gender disparities in youth working poverty**

Gender by working poverty status			Working poverty status		
			Not in working poverty	In working poverty	Grand Total
Male	Count		1203	576	1779
	% Within the Gender		68%	32%	100%
	% Within the working poverty status		75%	70%	73%
Female	Count		399	252	651
	% Within the Gender		61%	39%	100%
	% Within the working poverty status		25%	30%	27%

Source: SPSS output based on GHS data (2023)

A sectoral analysis provides meaningful insights into the characteristics of a labour market and is particularly relevant for the current study. Table 4 shows that more than half of the employed youth (58%) in the informal sector are classified as working poor compared to only 24 per cent of those who are classified as non-poor. This is an expected outcome, given the precarious nature as well as the quality of jobs that typically characterise this sector. This is further asserted by King and Shackleton (2021), highlighting the "survivalist nature" of the informal sector. According to the latest Quarterly Labour Force Survey by Stats SA (2024), the informal sector accounted for an employment rate of 19% in the fourth quarter, asserting its position as the second-largest source of employment in South Africa after the formal sector.

**Table 4. Employment formality by working poverty status**

Employment formality by Working Poverty Status			Working poverty status		
			Not in working poverty	In working poverty	Grand Total
Formal Sector	Count		1321	428	1749
	% Within the work formality		76%	24%	100%
	% Within the working poverty status		82%	52%	72%
Informal Sector	Count		274	378	652
	% Within the work formality		42%	58%	100%
	% Within the working poverty status		17%	46%	27%
Unknown (Do not know)	Count		7	22	29
	% Within the work formality		24%	76%	100%
	% Within the working poverty status		0%	3%	1%

Source: SPSS output based on GHS data (2023)

Lastly, age was analysed against working poverty status, as can be seen in Table 5. The results show that almost 40% (36.2%) of employed youth aged 15-24 are in working poverty, which is a higher proportion than those aged 25-34. These results are in line with the expectation that older employees derive benefits associated with longer tenure or further education and training.

**Table 5. Age by working poverty status**

			Working poverty status		Total
			Not in working poverty	In working poverty	
Age	15-24	Count	185	105	290
		% Within age	63,8%	36,2%	100,0%
		% Within working poverty status	11,5%	12,7%	11,9%
		% of Total	7,6%	4,3%	11,9%
	25-34	Count	1417	723	2140
		% Within age	66,2%	33,8%	100,0%
		% Within working poverty status	88,5%	87,3%	88,1%
		% of Total	58,3%	29,8%	88,1%

Source: SPSS output based on GHS data (2023)

### ***Binary logistic regression results***

This study utilised eight variables to predict whether the working youth in the sample were living in poverty or not. These variables included marital status, life satisfaction, education level, sector of employment, gender, geographical location, race, social grants recipient status and age. The results in Table 6 show that the first independent variable was marital status, and it was statistically significant at the 1% level of significance. Contrary to traditional assumptions that marriage offers financial security (e.g., Angel et al., 2007; Lurie & Stier, 2022), the findings of this study suggest that unmarried youth have reduced odds of experiencing working poverty by 64% ( $1 - 0.346$ ) compared to their married counterparts. Household composition could help explain these results, as, for instance, married persons may live in households with children or dependents, which increases financial pressures and hardships. Bitana et al. (2024), in their study on the influence of household size on socioeconomic conditions in Southern Ethiopia, found that household consumption expenses rise with increasing household size, while savings decrease with household size. Also, this finding may reflect reduced or limited labour market participation, often linked to care responsibilities, which forces individuals to accept low-paying yet flexible work (Magadla et al., 2019; Casale et al., 2020). Indeed, further cross-tabulation analysis between marital status and working poverty status (*see* Appendix B) shows that a higher proportion of married individuals (42.3%) are in working poverty compared to their unmarried counterparts (29.3%). These findings contradict Dunga (2025), who found that married individuals have higher

household incomes than other groups, aiding in poverty reduction, and Ehab and Mosaad (2024), who found that being unmarried increases the susceptibility to working poverty, especially among never-married women in Egypt.

The second variable was life satisfaction, with being happy taking the place of the reference category. The results for life satisfaction show that the employed youth who indicated being unhappy have a significantly higher probability of being poor. These results assert that reduced levels of life satisfaction are associated with an increased probability of being in working poverty compared to their happy counterparts. Specifically, individuals who report being unhappy are 1.334 times more likely to be in working poverty than those who are happy, holding other factors constant. This positive and statistically significant relationship ( $p = 0.007$ ) suggests that lower life satisfaction may either contribute to or reflect the experience of material deprivation and job-related hardship commonly associated with working poverty (Danish et al., 2019). Drishti et al. (2022) argue that low-paying jobs and low education levels are associated with lower levels of life satisfaction. Furthermore, unhappiness and diminished life satisfaction are consistently linked to various forms of poverty, including working poverty, which is mediated by factors such as a lack of perceived control over life, material deprivation, and limited access to resources and opportunities (Minkov, 2009; Martin & Hill, 2012; Mood & Jonsson, 2015; Zhu & Chou, 2022).

The regression results reveal a clear and statistically significant relationship between education level and the likelihood of being in working poverty. Compared to those with tertiary education, having lower levels of education significantly increases the odds of experiencing working poverty (Spada et al., 2023). Specifically, the positive beta coefficient of 2.224, which is significant at 1%, suggests that the working youth with no education are susceptible to working poverty and are about 9.2 times more likely to be in working poverty. Higher levels of education, such as a matric education as well as vocational training, do not appear to buffer the effects of working poverty. The results show that youth who completed matric are still vulnerable to working poverty, as indicated by the positive beta coefficient of 0.308. The results of the odds ratio suggest that these youth are 36% more likely to be in working poverty compared to those with a tertiary education. This result is significant at 1%. This strong gradient underscores the protective effect of higher education against working poverty (Kuldasheva, et al., 2023). Hershbein (2020) concludes that higher education not only increases the prospects of securing high-quality employment but also increases the chances of earning a higher income, thereby reducing the likelihood of falling into working poverty.

**Table 6. Results of the binary logistic regression**

	B	S.E.	Wald	df	Sig.	Exp(B)
Marital status (not married)	-1,050	,106	97,265	1	<.001***	,350
Life satisfaction (not happy)	,286	,106	7,212	1	,007***	1,331
No education	2,224	,462	23,229	1	<.001***	9,247
Primary education	,807	,134	36,488	1	<.001***	2,241
Secondary education	,520	,065	64,446	1	<.001***	1,681
Matric education	,308	,047	42,298	1	<.001***	1,360
Vocational training	,263	,056	21,748	1	<.001***	1,301
Provinces with WP >35%	,368	,098	14,082	1	<.001***	1,445
Sector of employment (Informal sector)	,596	,055	115,631	1	<.001***	1,814
Race (non-whites)	,048	,257	,035	1	,851	1,050
Grant recipient status	1,119	,251	19,865	1	<.001***	3,061
Gender (male)	-,945	,115	66,998	1	<.001***	,389
Constant	-1,384	,287	23,295	1	<.001***	,251

**Notes:**

- (\*\*\*)1% significance level
- Reference categories: Marital status (married); Race (Whites); Life satisfaction (happy); Education level (tertiary education); Province (provinces with a WP <35%, i.e., Gauteng, Western Cape, Northern Cape and KwaZulu Natal); Sector of employment (formal sector); Gender (female), Age (15-24); Receives Social Grant (1 = Yes, 0 = No)
- Provinces with WP >35%: These provinces comprise the Eastern Cape, Free State, North-West, Mpumalanga and Limpopo.

**Source:** SPSS output based on GHS data (2023)

Another variable of interest was geographical location, and the results show that working youth residing in provinces with working poverty levels exceeding 35% are 1.44 times more likely to experience working poverty compared to those residing in other provinces (i.e., Gauteng, Western Cape, Northern Cape and KwaZulu-Natal). These provinces indeed have the highest incidences of unemployment, and they also contribute the least to South Africa's GDP (Stats SA, 2025d). Provinces characterised by working poverty rates exceeding 35% of working poverty are also experiencing low economic growth and a high unemployment rate. Specifically, Eastern Cape, Free State, Northwest, Limpopo, and Mpumalanga recorded GDP growth rates of -0.3%, 0.1%, -0.3%, 0.1%, and -0.1%, respectively, in the first quarter of 2024. This pattern aligns with the findings of Marrero and Serven (2018) and Purnomo and Istiqomah (2019), who assert that economic growth contributes to poverty reduction only when it generates high-quality employment opportunities. The variation in median wages or salaries across provinces can also help explain the differences in youth experiencing working poverty. For example, Free State, Eastern Cape, and Limpopo are among the provinces with the lowest median monthly earnings, with a gap exceeding R2,000 compared to Gauteng, which has the highest median earnings (StatsSA, 2024). These findings underscore the importance for

governments and policymakers to develop province-specific strategies aimed at stimulating inclusive economic growth at the local level.

The sector of employment was another variable of interest under observation. The results show that the youth working in the informal sector are 1.81 times more likely to experience working poverty. This finding validates the increased vulnerability of being employed in the informal sector that often comes with low pay, earnings inequality and working poverty (Bhorat, et al., 2016; OECD, 2024a). These findings mirror those of Jaouhar and Adaskou (2020) in Morocco, who found a causal relationship between poverty and working in the informal sector. Kathuria and Raj (2015) also found that the low wages in the informal sector caused a high incidence of poverty in rural India. Feder and Yu (2020) also find that elementary positions in the informal sector increase the likelihood of low-wage employment, working poverty and low-wage poverty in South Africa.

Youth receiving social grants are 3.1 times more likely to be in working poverty than those not receiving grants, with a strong, significant association at the 1% level. This may indicate that grant recipients are more economically vulnerable and that they might be concentrated in precarious segments of the labour market (Mackett, 2020; Miyajima, 2023). Grants alone might not alleviate poverty, particularly for those already in low-wage or unstable jobs, increasing their likelihood of experiencing working poverty. These findings mirror those of Winchester et al. (2021), who report that social grants are not enough to lift recipients out of poverty, as many have to rely on additional sources of income such as remittances. Additionally, Blattman et al. (2020) report social grants as a temporary boost rather than a permanent solution to in-work poverty. Contrarily, Zwane et al. (2025) found that social grants have a significant and positive impact on household poverty among households in Hlokozi Village in South Africa. Contrary to the findings of this study, Zwane et al (2025); Mnaeme (2024) and Satumba et al. (2017) argue that social grants play a significant role in reducing poverty, however, their effectiveness largely depends on the household size, dependency ratio and the amount of the social grant.

The final variable of interest was gender. Males are 61.1% ( $1 - 0.389 \times 100$ ) less likely to be in working poverty compared to females. These findings mirror those by Lui (2019) and Aisa et al. (2019), who concluded that females disproportionately make up a large share of the working poor, especially in countries with high female labour force participation. These results could also be explained by a significant gap in wages between males and females, with females estimated to be earning 23 to 35 per cent less than their male counterparts in South Africa (Mosomi, 2019). Casale et al. (2020) further highlight the underrepresentation of women in high-income fields such as STEM, with most women enrolling in the 'care economy' fields such as teaching and nursing, which often offer lower earnings due to the undervaluation of these careers.

Gender bias also contributes to the wage gap; women may have to balance family commitments with work responsibilities, leaving them with fewer hours for productive work. Collectively, these factors render women susceptible to working poverty.

Race and age group have no significant impact on working poverty, with p-values of 0.629 for age and 0.851 for race. Age was excluded from the final model as the focus is on youth aged 15–34, where further disaggregation showed no meaningful differences. Its removal improved the model's fit. Although race is statistically insignificant, it remains in the model due to its relevance in South Africa's socio-economic context. Race-related disadvantages may be indirectly reflected through education and the employment sectors, which are linked to historical inequalities (Van der Berg, 2011). Including race ensures these structural factors are considered for a better understanding of youth working poverty.

#### **Diagnostic tests**

Table 7 shows the results of the diagnostic tests that were run to determine the reliability of the model. In terms of the model summary, the Hosmer and Lemeshow Test shows that the  $p = 0.211$  is well above the 0.05 threshold, which implies there is no significant difference between observed and predicted values. The model fits the data very well. The Nagelkerke  $R^2$  indicates that the model explains about 24% of the variation in the likelihood of youth being in working poverty, which is acceptable in social science research (Dunga, 2019; Mncayi & Meyer, 2022). The results of the Omnibus Tests of Model Coefficients show that the model as a whole is statistically significant.

**Table 7. Diagnostic tests and model summary results**

<b>Omnibus test of model coefficient:</b> Chi-square = 468,675 Sig. <0.001 <b>Model summary:</b> -2 Log Likelihood = 2649,139 <b>Cox &amp; Snell R-square:</b> 0.175   <b>Nagelkerke R-square</b> = 0.243 <b>Hosmer and Lemeshow test:</b> Chi-square = 10,835 Sig. 0.211
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Source: SPSS output based on GHS Data (2023)

Daoud (2017) and Kim (2019) noted that multicollinearity in logistic regression causes unstable parameters, high variance inflation, and unreliable inferences, reducing the validity of results. It can be detected using correlation coefficients, VIF, and eigenvalue methods (Shrestha, 2020). This study used VIF per Zainodin et al. (2015) to quantify multicollinearity and ease variable elimination. Appendix A shows that all variables have VIF values below 5, closer to 1, and tolerance values above 0.5, indicating no significant multicollinearity.

The final analysis was on the working poverty rate, which was calculated as the proportion of employed individuals who were classified as working poor. Using equation 3, the working poverty rate was:

$$WPR = \left( \frac{828}{2340} \right) \times 100 \approx 34.08\% \quad (5)$$

This indicates that approximately 34% of the youth in the sample could not earn enough to lift themselves above the poverty line, despite being employed. This result verifies that merely generating jobs for the youth is inadequate in South Africa, highlighting the importance of both wage quality and employment standards (National Treasury, 2011; Patel et al., 2018; Meyer & Mncayi, 2021). This finding might indicate that numerous positions filled by young individuals in South Africa could be characterised by low wages, instability, and even informal arrangements (National Planning Commission, 2017). Evidently, the first Quarterly Labour Force Survey of 2025 reveals a continued decline in formal sector employment in South Africa, alongside a rise in informal sector jobs (Stats SA, 2025c). This shift highlights the growing difficulty of securing stable employment (ILO, 2015), increasing the risk of poverty for workers in the informal sector, where job security and wages are typically low and unpredictable (OECD, 2024a). These trends underscore the need to reassess current youth development policies to ensure they effectively improve the living conditions of young people.

## **6. Conclusion and Recommendations**

This study analysed the state of poverty among employed South African youth between the ages of 15 and 34, emphasising that employment does not always protect against poverty. Employed youth, particularly those historically disadvantaged, such as non-white and female workers, are more susceptible to working poverty, highlighting the necessity of enhancing efforts to guarantee decent employment. The sector of employment was also another major predictor of working poverty for the youth in this sample, with the regression results highlighting the precarious nature of jobs in the informal sector. Formalising the informal sector may serve as a critical step in addressing the issue of working poverty resulting from low wages and precarious employment. The study found that marriage, often considered a safety net against poverty, is not always effective for young people and does not offer consistent protection from working poverty; in fact, married people are more vulnerable in this dataset.

The regression results revealed a clear and statistically significant relationship between education level and the likelihood of being in working poverty. Those with higher education levels enjoy better job and income security. Limited education restricts access to better employment, stressing the need to expand higher education access as a pathway out of working poverty. This is ever so true, especially in South Africa. Empowering disadvantaged employed youth through further education is key to securing higher-paying jobs or advancing in their careers. Increasing access to funding for higher education is equally vital, as financial constraints hinder many from pursuing studies. A holistic approach is needed, addressing wage levels, job security, and resources. Decent employment is vital for financial security and sustainable development, like poverty

alleviation. To eradicate poverty by 2030 (SDG 1), focusing on in-work poverty and promoting decent work opportunities in the labour market is crucial.

This study also highlighted the importance of mental well-being, as the results indicate that youth who reported higher levels of happiness are less likely to experience working poverty. Poverty and mental well-being share a bidirectional relationship, creating a cycle in which each factor reinforces the other. Poverty can exacerbate mental health challenges due to financial stress, social exclusion, and chronic uncertainty. Conversely, unhappiness can impair an individual's ability to work, learn, or make sound financial decisions, thereby deepening or prolonging poverty.

Another pivotal means to prevent working poverty is that the South African government needs to hold employers accountable to ensure compliance with minimum wage policies to ensure that working individuals, especially the youth, can support more than one person, especially young people who find themselves heading large households. Even though some may argue that improving the quality of current jobs is secondary to creating jobs in the first place, one cannot repudiate decent and quality employment as one of the factors that can help reduce poverty in South Africa. Therefore, the South African government should enforce the reduction of working poverty as a focal component in the country's poverty and social exclusion strategy. Unless the country addresses the various aspects of poverty, it will never succeed in overcoming poverty as a whole.

Even though this study provides important findings, it was not without limitations and must be interpreted cautiously. Firstly, the study uses cross-sectional data, which captures a snapshot in time, limiting the ability to assume causality. Secondly, the study used a broad employment variable that lacked categories like full-time, part-time, or casual employment due to data limitations, potentially missing nuances influencing vulnerability to working poverty. To fully understand working poverty among youth, future studies should address these limitations. Subsequent research can examine factors at the national level to evaluate the influence of macro-level variables such as labour market conditions, the influence and function of labour unions, and overall economic performance on working poverty. This approach will yield a more profound understanding of how structural economic and institutional settings either alleviate or intensify working poverty.

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#### **Data availability statement**

The study used publicly available data (2023 General Household Survey) from Statistics South Africa, following all ethical considerations: <https://isibaloweb.statssa.gov.za/pages/surveys/pss/ghs/ghsp.php>

## References

1. Aisa, R., Larramona, G., & Pueyo F. (2019). Poverty in Europe by gender: The role of education and labour status. *Economic Analysis and Policy*, 63(2019), 24-34. <https://doi.org/10.1016/j.eap.2019.04.009>
2. Altman, M. (2007), “*Low wage work in South Africa*”. Human Sciences Research Council, Pretoria, <http://www.cosatu.org.za/docs/subs/2007/work.pdf>
3. Angel, J. L., Jimenez, M. A., & Angel, R. J. (2007). The economic consequences of widowhood for older minority women. *The Gerontologist*, 47(2), 224–234.
4. Beukes, R., Fransman, T., Murozvi, S. & Yu, D. (2017). Underemployment in South Africa. *Development Southern Africa*, 34(1):33-55.
5. Bhorat, H., Naidoo, K., Oosthuizen, M. & Pillay, K. (2016). *Demographic, employment and wage trends in South Africa*. Working paper, United Nations University World Institute for Development and Economic Research. Cape Town, June 2016. <https://www.brookings.edu/wp-content/uploads/2016/07/06-demographic-employment-wage-trends-south-africa.pdf>
6. Bhorat, H., Lilenstein, K., Oosthuizen, M., & Thornton, A. (2016). *Vulnerability in Employment: Evidence from South Africa*. Development Policy Research Unit Working Paper 201604. DPRU, University of Cape Town. [https://commerce.uct.ac.za/sites/default/files/content\\_migration/commerce\\_uct\\_a\\_c\\_za/1093/files/DPRU%2520WP201604.pdf](https://commerce.uct.ac.za/sites/default/files/content_migration/commerce_uct_a_c_za/1093/files/DPRU%2520WP201604.pdf)
7. Bhorat, H. & Khan, S. (2018). *Structural change and patterns of inequality in the South African labour market*. Working paper, Development Policy Research Unit, University of Cape Town, Cape Town, March 2018. [https://commerce.uct.ac.za/sites/default/files/content\\_migration/commerce\\_uct\\_a\\_c\\_za/1093/files/DPRU%2520WP201801.pdf](https://commerce.uct.ac.za/sites/default/files/content_migration/commerce_uct_a_c_za/1093/files/DPRU%2520WP201801.pdf)
8. Bitana, E.D., Lachore, S.T. & Utallo, A.U. (2024). The influence of household size on socioeconomic conditions of rural farm households in Damot Woyde District, Wolaita Zone, Southern Ethiopia. *Cogent Social Sciences*, 10:1, 2358153, DOI:10.1080/23311886.2024.2358153
9. Blattman, C., Fiala, N. & Martinez, S. (2020). The Long-Term Impacts of Grants on Poverty: Nine-Year Evidence from Uganda's Youth Opportunities Program. *American Economic Review: Insights*, 2(3): 287–304. DOI: 10.1257/aeri.20190224
10. Branson, N., De Lannoy, A., & Brynde, K., (2019). Review of youth labour market research. National Income Dynamic Study (NIDS), Southern Africa Labour and Development Research Unit (SALDRU), University of Cape Town, Rondebosch.
11. Burger, P. & Fourie, F. (2019). The unemployed and the formal and informal sectors in South Africa: a macroeconomic analysis. *South African Journal of*

- Economic and Management Sciences*, 22(1), 1-12.  
<https://doi.org/10.4102/sajems.v22i1.2104>
12. Casale D, Posel D. & Mosomi J. (2020). Gender and Work in South Africa. Nov 26. doi: 10.13140/RG.2.2.32400.84483
13. Cheung, K. C. K., & Chou, K. L. (2016). Working Poor in Hong Kong. *Social Indicators Research*, 129(1), 317–335. <https://www.jstor.org/stable/48715288>
14. Cheung, K., Chan, W., & Chou, K. (2019). Material Deprivation and Working Poor in Hong Kong. *Social Indicators Research*, 1-28. <https://doi.org/10.1007/S11205-019-02093-0>
15. Crettaz, E. (2013). A state-of-the-art review of working poverty in advanced economies: theoretical models, measurement issues and risk groups. *Journal of European Social Policy*, 23(4), 347-362.
16. Commission for Gender Equality. (2024). *Women in the South African economy*.  
[https://www.parliament.gov.za/storage/app/media/OISD/Reports/Commission\\_for\\_Gender\\_Equality/2024/01-08-2024/CGE\\_Report\\_Women\\_in\\_the\\_South\\_African\\_Economy.pdf](https://www.parliament.gov.za/storage/app/media/OISD/Reports/Commission_for_Gender_Equality/2024/01-08-2024/CGE_Report_Women_in_the_South_African_Economy.pdf)
17. Cooke, G., & Lawton, K. (2008). *Working out of poverty: A study of the low paid and the working poor*. London: Institute for Public Policy Research. [https://ippr-org.files.svdcdn.com/production/Downloads/working\\_out\\_of\\_poverty\\_1616.pdf?dm=1728042293](https://ippr-org.files.svdcdn.com/production/Downloads/working_out_of_poverty_1616.pdf?dm=1728042293)
18. Cox, D.R., & Snell, E.J. (1989). *Analysis of Binary Data* (2nd Ed.). Chapman and Hall/CRC, London.
19. Daoud, J.I. (2017) Multicollinearity and Regression Analysis. *Journal of Physics: Conference series* 949012009 <https://doi.org/10.1088/1742-6596/949/1/012009>
20. Danish, R., Shahid, R., & Ali, H. (2019). Factors Affecting Life Satisfaction of Employees under Financial Threat. *SEISENSE Journal of Management*. <https://doi.org/10.33215/SJOM.V2I1.82>.
21. Dube, A. (2019). Minimum Wages and the Distribution of Family Incomes. *American Economic Journal: Applied Economics*. <https://doi.org/10.1257/APP.20170085>
22. Dunga, S.H. (2019). The relationship between health outcomes and household socioeconomic characteristics. *Journal of Economics and Behavioural studies*, 10(6), 89-96. doi: 10.22610/jebs.v10i6A.2665.
23. Dunga, H.M. (2025). Examining the impact of marital status and gender on household income dynamics. *International Journal of Research in Business & Social Science*, 14(3): 198-206. <https://doi.org/10.20525/ijrbs.v14i3.3776>
24. Ehab, M., & Mosaad, F. (2024). Informal employment in the health sector: Examining gender disparities. *International Journal of Social Welfare*. <https://doi.org/10.1111/ijsw.12704>

25. Eurofound. (2022). *Working-poor*.  
<https://www.eurofound.europa.eu/topic/working-poor>
26. Feder, J. & Yu, D. (2019). Employed yet poor: low-wage employment and working poverty in South Africa. *Development Southern Africa*, 37(3), 63-381. DOI: 10.1080/0376835X.2019.1597682
27. Finn, A. (2015). *A National Minimum Wage in the Context of the South African Labour Market*. Working paper, Southern Africa Labour and Development Research Unit, University of Cape Town, Rondebosch, September 2015.
28. Fox, L., Mader, P., Sumberg, J., Flynn, J., & Oosterom, M. (2020). *Africa's 'youth employment' crisis is actually a 'missing jobs' crisis*. Brooke Shearer Series number 9. [https://www.brookings.edu/wp-content/uploads/2020/09/Youth-employment-crisis\\_09.08.pdf](https://www.brookings.edu/wp-content/uploads/2020/09/Youth-employment-crisis_09.08.pdf).
29. Francis, D. & Webster, E. (2019). Poverty and inequality in South Africa: critical reflections. *Development Southern Africa*, 36(6), 788-802. DOI: 10.1080/0376835X.2019.1666703
30. Gorry, A. (2013). Minimum wages and youth unemployment. *European Economic Review*, 64, 57-75. <https://doi.org/10.1016/J.EUROECOREV.2013.08.004>.
31. Green, F., & Henseke, G. (2016). Should governments of OECD countries worry about graduate underemployment? *Oxford Review of Economic Policy*, 32(4), 514-537.
32. Hall, K., Ebrahim, A., De Lannoy, A. & Makiwane, M. (2015). *Youth and mobility: Linking movement to opportunity*. [https://ci.uct.ac.za/sites/default/files/content\\_migration/health\\_uct\\_ac\\_za/533/files/Child\\_Gauge\\_2015-Mobility.pdf](https://ci.uct.ac.za/sites/default/files/content_migration/health_uct_ac_za/533/files/Child_Gauge_2015-Mobility.pdf)
33. Harambee, (2024). *Young people want to work, not wait*. <https://www.harambee.co.za/young-people-want-to-work-not-wait/>
34. Herman, E. (2014). Working poverty in the European Union and its main determinants: an empirical analysis. *Inzinerine Ekonomika Engineering Economics*, 25(4), 427-436.
35. Hershbein, (2020). *Boosting College degrees decreases inequality, lowers poverty*. <https://www.upjohn.org/research-highlights/boosting-college-degrees-decreases-inequality-lowers-poverty>
36. Horemans, J., Marx, I. & Nolan, B. (2016). Hanging in, but only just: part-time employment and in-work poverty throughout the crisis. *IZA Journal of European Labor Studies*, 5(5), 1-19.
37. Hosmer D.W., & Lemeshow, S. (2000). *Applied Logistic Regression* (2nd Ed.), Wiley, New York. <https://doi.org/10.1002/0471722146>

38. ILO (International Labour Organisation). (2015). *Global employment trends for youth 2015: scaling up investments in decent jobs for youth*. International Labour Office, Geneva.
39. ILO (International Labour Organisation). (2012). *The youth employment crisis: A call for action*. Resolution and conclusions of the 101st Session of the International Labour Conference. ILO, Geneva.
40. ILO (International Labour Organisation). (2018). *BRICS summary: youth employment*. BRICS Brief Series. ILO, Geneva.
41. ILO (International Labour Organisation) 2019. *Poor working conditions are main global employment challenge*. <https://www.ilo.org/resource/news/poor-working-conditions-are-main-global-employment-challenge>
42. ILO (International Labour Organisation). (2022). *Global employment trends for Youth 2022*. [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcom/@publ/documents/publication/wcms\\_853321.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcom/@publ/documents/publication/wcms_853321.pdf)
43. ILOSTAT. (2019). *Young people are far more likely to be in working poverty*. ILO, Geneva
44. ILOSTAT. (2024). *Statistics on working poverty*. <https://ilostat.ilo.org/topics/working-poverty/>
45. Jaouhar, J., & Adaskou, M. (2020). *Le Travail Dans Le Secteur Informel Au Maroc Et Pauvrete: Une Analyse De Causalite - Cas De La Region Marrakech-Safi-*, 1. <https://doi.org/10.48382/Imist.Prsm/Regs-V1i23.19738>
46. Jansson, B. & Broström, L. (2020). Who is counted as in-work poor? Testing five different definitions when measuring in-work poverty in Sweden 1987–2017. *International Journal of Social Economics*, 48(3), 477-491. <https://doi.org/10.1108/IJSE-06-2020-0417>
47. Kapsos, S. (2004). *Estimating growth requirements for reducing working poverty: can the world halve working poverty by 2015?* Employment Strategy Department Employment Paper No. 2004/14. International Labour Office, Geneva.
48. Kathuria, V., & Raj S.N., R. (2015). Do Informal Sector Wages Explain Rural Poverty? Evidence from India. *Journal of Poverty*, 20(1), 73–101. <https://doi.org/10.1080/10875549.2015.1094762>
49. Khan, S., Lilenstein, K., Oosthuizen, M. and Rooney, C. (2017). *Correlates of ICTS and employment in Sub-Saharan Africa*. Development Policy Research Unit, University of Cape Town. [https://commerce.uct.ac.za/sites/default/files/content\\_migration/commerce\\_uct\\_a\\_c\\_za/1093/files/DPRU%2520WP201703.pdf](https://commerce.uct.ac.za/sites/default/files/content_migration/commerce_uct_a_c_za/1093/files/DPRU%2520WP201703.pdf)
50. Kim J. H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*, 72(6), 558–569. <https://doi.org/10.4097/kja.19087>
51. King, A., & Shackleton, C. M. (2021). Working in poverty: Informal employment of household gardeners in Eastern Cape towns, South

- Africa. *Development Southern Africa*, 39(6), 1007–1020. <https://doi.org/10.1080/0376835X.2021.1940867>
52. Kuldashaeva, Z., Qadamboevich, B.S., Balbaa, M. E., & Ismailova, N. (2023). Impact of Education and Employment on Poverty. *Journal of Sustainable Development and Green Technology*. 1(2), 38-45. <https://doi.org/10.54216/JSDGT.020104>
53. Letsoalo, P.M. (2015). *An overview and assessment of different approaches to poverty measurement in South Africa*. (Master's thesis, University of Pretoria). University of Pretoria Repository. [https://repository.up.ac.za/bitstream/handle/2263/53508/Letsoalo\\_Overview\\_2015.pdf?sequence=1&isAllowed=y](https://repository.up.ac.za/bitstream/handle/2263/53508/Letsoalo_Overview_2015.pdf?sequence=1&isAllowed=y)
54. Lilenstein, K., Woolard, I. & Leibbrandt, M. (2016). *In-work poverty in South Africa: the impact of income sharing in the presence of high unemployment*. Working paper, Southern Africa Labour and Development Research Unit, University of Cape Town, Rondebosch.
55. Lilenstein, K., Woolard, I. & Leibbrandt, M. (2018). *In-work poverty in South Africa: the impact of income sharing in the presence of high unemployment*, Lohmann, H and Marx, I (Eds.), *Handbook on in-work poverty*, Edward Elgar Publishing, Cheltenham, UK, pp. 416-433.
56. Lurie, L., & Stier, H. (2022). Marital status and gender inequality in household income among older adults in Israel: Changes over time. *Social Indicators Research*, 159(2), 801–820. <https://doi.org/10.1007/s11205-021-02781-w>
57. Lv, X., Yu, Y., Zhao, X., & Si, D. (2023). Minimum wage and household economic vulnerability: Evidence from China. *Economic Analysis and Policy*. <https://doi.org/10.1016/j.eap.2023.09.008>.
58. Mabuza, N. (2020). *Salary disparities in South Africa: An analysis on race and gender in the Labour Market*. University of Cape Town. M-Com Dissertation.
59. MacDonald, R., Shildrick, T., & Furlong, A. (2020). Cycles of disadvantage' revisited: young people, families and poverty across generations. *Journal of Youth Studies*, 23: 12-27. <https://doi.org/10.1080/13676261.2019.1704405>.
60. Mackett, O. (2020). Social Grants as a Tool for Poverty Reduction in South Africa? A Longitudinal Analysis Using the NIDS Survey. *African Studies Quarterly*, 19(1).
61. Magadla, S., Leibbrandt, M., & Mlatsheni, C. (2019). *Does a Motherhood Penalty Exist in the Post-apartheid South African Labour Market?* SALDRU Working Paper 247/1 Cape Town: SALDRU, UCT.
62. Makhhalima, J. (2023). A Gendered Analysis of Poverty among the Employed in South Africa. *International Journal of Economics and Financial Issues* 6 (13), 8-14

63. Martin, K., & Hill, R. (2012). Life Satisfaction, Self-Determination, and Consumption Adequacy at the Bottom of the Pyramid. *Journal of Consumer Research*, 38, 1155-1168. <https://doi.org/10.1086/661528>.
64. Marrero, G., & Serven, L. (2018). Growth, inequality and poverty: a robust relationship? *Empirical Economics*, 63, 725 - 791. <https://doi.org/10.1007/s00181-021-02152-x>
65. Mdluli, P. & Dunga, S. (2022). Determinants of Poverty in South Africa Using the 2018 General Household Survey Data. *Journal of Poverty*, 26(3), 197-213. <https://doi.org/10.1080/10875549.2021.1910100>
66. Mdluli-Maziya, P., Mncayi, P. & Sere, K. (2024). Poverty Among Youth-Headed Households in South Africa: Quo Vadis. *Journal of Poverty*. 28, 1-15 <https://doi.org/10.1080/10875549.2022.2128979>
67. Meyer, D.F. & Mncayi, P. (2021). An Analysis of Underemployment among Young Graduates: The Case of a Higher Education Institution in South Africa. *Economies*, 9(196), 1-16. <https://doi.org/10.3390/economies9040196>
68. Miyajima, K. (2023). The Link Between Social Grants and Employment in South Africa. *Selected Issues Papers*, 2023(039), A001. <https://doi.org/10.5089/9798400243493.018.A001>
69. Minkov, M. (2009). Predictors of Differences in Subjective Well-Being Across 97 Nations. *Cross-Cultural Research*, 43, 152 - 179. <https://doi.org/10.1177/1069397109332239>
70. Mlatsheni, C., & Vimal R. (2017). *Youth labour market dynamics in South Africa: Evidence from Nids 1-2-3. Research Project on Employment, Income Distribution & Inclusive Growth (REDI 3x3. Working Paper 39. REDI3X3. Cape Town: University of Cape Town.*
71. Mncayi, P. & Meyer, D.F. (2022). Evaluating the determinants of the perceptions of underemployment among young university graduates: a South African University case. *Cogent Social Sciences*, 8(1), 1-27. <https://doi.org/10.1080/23311886.2022.2054126>
72. Mosomi, J. (2019). *Distributional changes in the gender wage gap in the post-apartheid South African labour market*. WIDER: Helsinki
73. Mood, C., & Jonsson, J. (2015). The Social Consequences of Poverty: An Empirical Test on Longitudinal Data. *Social Indicators Research*, 127, 633-652. <https://doi.org/10.1007/s11205-015-0983-9>
74. Mtapuri, O. & Tinarwo, P. (2021). From Apartheid to Democracy: Patterns and Trends of inequality in South Africa. *Southern African Journal of Demography*, 21(1): 104-133. <https://doi.org/10.2307/27125725>
75. Nagelkerke, N.J.D. (1991) A Note on a General Definition of the Coefficient of Determination. *Biometrika*, 78, 691-692. <https://doi.org/10.1093/biomet/78.3.691>
76. National Planning Commission (2017) *Research on the Limited Success of Entrepreneurial Activity by Locals in Townships and Rural Areas*. South Africa.

77. National Treasury. (2011). *Confronting youth unemployment: policy options for South Africa*. Discussion Paper. Government Publication.
78. Ndebele, N., & Ndlovu J. (2019). Employment experiences of postgraduate students in KwaZulu-Natal: An intersection of qualifications and employability in the labour market. *South African Journal of Higher Education*, 33: 92–10. <https://doi.org/10.20853/33-2-2802>
79. Nishimwe-Niyimbanira, R. (2019). Income poverty versus multidimensional poverty: Empirical insight from Qwaqwa. *African Journal of Science, Technology, Innovation and Development*, 12(5), 631–641. <https://doi.org/10.1080/20421338.2019.1638585>
80. Novianti, L., Masbar, R., Nasir, M. (2020). What Determines the Poverty of Paid Workers in Indonesia? *East African Scholars Journal of Economics, Business and Management*. 3(1) 2617-7269. DOI: 10.36349/easjebm.2020.v03i01.009
81. OECD (Organisation for Economic Co-operation and Development). (2024). *Labour market outcomes*. OECD Publishing, Paris, <https://gpseducation.oecd.org/revieweducationpolicies/#!node=41763&filter=Teritary>
82. OECD (Organisation for Economic Co-operation and Development). (2024a). *Breaking the vicious circles of informal employment and low-paying work*. OECD Publishing, Paris, <https://doi.org/10.1787/f95c5a74-en>
83. Oosthuizen, M. (2012). Low pay in South Africa. *International Labour Review*, 151(3), 173-192. <https://doi.org/10.1111/j.1564-913X.2012.00144.x>
84. Parliament of the Republic of South Africa. (2024). *Press release: parliament statement on youth day*. [https://www.parliament.gov.za/press-releases/parliament-statement-youth-day\\_2](https://www.parliament.gov.za/press-releases/parliament-statement-youth-day_2)
85. Patel, L., Khan, Z., & Englert, T. (2018). How might a national minimum wage affect the employment of youth in South Africa? *Development Southern Africa*, 37(1), 147–161. <https://doi.org/10.1080/0376835X.2018.1552556>
86. Peña-Casas, R., Ghailani, D., Spasova, S. & Vanhercke, B. (2019). *In-work poverty in Europe: a study of national policies*. European Social Policy Network (ESPN), Brussels: European Commission.
87. Plum, A., Pacheco, G., & Hick, R. (2019). In-work poverty in New Zealand 2019. [https://workresearch.aut.ac.nz/\\_\\_data/assets/pdf\\_file/0009/326709/In-work-Poverty-in-NZ\\_PDF.pdf](https://workresearch.aut.ac.nz/__data/assets/pdf_file/0009/326709/In-work-Poverty-in-NZ_PDF.pdf)
88. Pleace, M., Clance, M., & Nicholls, N. (2023). *The gender wage gap in South Africa*. Working Paper 219. SA-TIED (South Africa Towards Inclusive Economic Development).
89. Purnomo, S., & Istiqomah, I. (2019). *Economic Growth and Poverty: The Mediating Effect of Employment*. JEJAK. <https://doi.org/10.15294/JEJAK.V12I1.18591>

- 90.Oyenubi, A. (2024). Analysis of the labour market impacts of the coronavirus pandemic: Evidence from Zambia. *Development Southern Africa*. *Development Southern Africa*, 41(1), 183-206. DOI: 10.1080/0376835X.2023.2261977
- 91.Ratti, L., Aranguiz, A., De Becker, E., Schoukens, P., Garcia-Muñoz, A. & Robert A. (2017). In-Work Poverty in the EU. <https://assets.eurofound.europa.eu/f/279033/17a9fbc6ae/ef1725en.pdf>
- 92.Rogan, M. & Reynolds, J, 2015. *The working poor in South Africa, 1997–2012*. Institute of Social and Economic Research Working Paper 2015/4. Institute of Social and Economic Research, Rhodes University, Grahamstown.
- 93.Rogan, M. & Reynolds, J. (2015). Trends in the working poverty rate (WPR) in post-apartheid South Africa, 1997-2012. *Development Southern Africa*, 36(5), 699-716.
- 94.Rogan, M. & Skinner, C. (2018). The size and structure of the South African informal sector 2008–2014: A labour-force analysis. In: Fourie (Ed.), *The South African informal sector: providing jobs, reducing poverty*, Human Sciences Research Council (HSRC) Press, Pretoria, pp. 77-102.
- 95.Romanello, M. (2018), Youth informality in Brazil: an analysis of school-to-work transitions. *Apuntes*, 83, 41-167.
- 96.Ross, M. & Bateman, N. (2019). *Low-wage work is more pervasive than you think, and there aren't enough "good jobs" to go around*. <https://www.brookings.edu/articles/low-wage-work-is-more-pervasive-than-you-think-and-there-arent-enough-good-jobs-to-go-around/>
- 97.Stats SA. (2021). *National Poverty Lines*. Statistical Release P0310. <https://www.statssa.gov.za/publications/P03101/P031012021.pdf>
- 98.Stats SA. (2022). *South Africa's youth continue to bear the burden of unemployment*. <https://www.statssa.gov.za/?p=15407>
- 99.Stats SA. (2023), *National Poverty Lines*. Statistical Release P0310. <https://www.statssa.gov.za/publications/P03101/P031012023.pdf>
- 100.StatsSA. (2024). *Monthly earnings in South Africa*. <https://www.statssa.gov.za/publications/02-11-20/02-11-202022.pdf>
- 101.Stats SA, (2025). *Gaps persist in South Africa's labour market*. <https://www.statssa.gov.za/?p=18668>
- 102.Stats SA. (2025a). *The social profile of South African youth: a decade in review*. <https://www.statssa.gov.za/?p=18083>
- 103.Stats SA. (2025b). The social profile of the youth 2014 – 2024. <https://www.statssa.gov.za/publications/Report-03-19-09/Report-03-19-09.pdf>
- 104.Stats SA. (2025c). *Quarterly labour force survey – quarter 1 (2025)*. <https://www.statssa.gov.za/publications/P0211/P02111stQuarter2025.pdf>
- 105.Stats SA. (2025d). *Gross domestic product – fourth quarter 2024*. <https://www.statssa.gov.za/publications/P0441/P04414thQuarter2024.pdf>
- 106.Stats SA (2025e). *South Africa's youth in the labour market: A decade in review*. <https://www.statssa.gov.za/?p=18398>

107. Spada, A., Fiore, M., & Galati, A. (2023). The Impact of Education and Culture on Poverty Reduction: Evidence from Panel Data of European Countries. *Social indicators research*, 1–14. <https://doi.org/10.1007/s11205-023-03155-0>
108. UNDP (United Nations Development Programme). (2014). *Youth strategy 2014-2017: empowered youth, sustainable future*. UNDP, New York.
109. Usman, U., & Abubakar, S. (2023). The Rising Working Poverty, Dependency Ratio and its Effect on Labour Productivity in Sub-Saharan Africa. *ABUAD Journal of Social and Management Sciences*. <https://doi.org/10.53982/ajsms.2023.0401.09-j>
110. Vale, B., Finestone, E., Magadla, S. & Strugnell, D. (2022). *Boosting decent employment for Africa's youth*. Evidence Synthesis Paper Series 12/2022. [https://includeplatform.net/wp-content/uploads/2022/12/12\\_12\\_Boosting-3.pdf](https://includeplatform.net/wp-content/uploads/2022/12/12_12_Boosting-3.pdf)
111. Van der Berg, S. (2011). Current poverty and income distribution in the context of South African history. *Economic History of Developing Regions*, 26:1, 120-140. DOI: 10.1080/20780389.2011.583018
112. Vermaak, C. (2012), Tracking poverty with coarse data: evidence from South Africa. *Journal of Economic Inequality*, 10, 239–265. <https://doi.org/10.1007/s10888-011-9211-2>
113. Winchester, M., King, B., & Rishworth, A. (2021). “It's not enough:” Local experiences of social grants, economic precarity, and health inequity in Mpumalanga, South Africa. *Wellbeing, Space and Society*. <https://doi.org/10.1016/j.wss.2021.100044>
114. World Bank. (2021). *South Africa: social assistance, programs and systems review*. World Bank, Washington, DC.
115. Yassine, A. & Bakass, F. (2022). Do Education and Employment Play a Role in Youth's Poverty Alleviation? Evidence from Morocco. *Sustainability*, 14(18), 1-25. <http://dx.doi.org/10.3390/su141811750>
116. Yu, S. & Ohnsorg, F. (2019). *The challenges of informality*. World Bank, Washington, DC. <https://blogs.worldbank.org/developmenttalk/challenges-informality>
117. Zhu, A., & Chou, K. (2022). The Effects of Multidimensional Poverty on Life Satisfaction Among Older Adults in Hong Kong. *Journal of Applied Gerontology*, 42, 1022 - 1034. <https://doi.org/10.1177/07334648221141410>
118. Zwane, T., Biyase, M. & Rooderick, S. (2025). Assessing the impact of social grants on household welfare using propensity score matching approach. *International Journal of Development Issues*, 24(1):1-15. <https://doi.org/10.1108/IJDI-01-2022-0024>

**APPENDIX A: Collinearity statistics**

	<b>Tolerance</b>	<b>VIF</b>
(Constant)		
Gender	,899	1,112
Marital status	,891	1,123
Life satisfaction	,941	1,062
No education	,969	1,032
Primary education	,902	1,109
Matric (grade 12)	,733	1,364
Vocational training	,914	1,094
Tertiary education	,720	1,389
Geographical location (province)	,976	1,025
Race	,908	1,101
Sector of employment	,840	1,190
Grant recipient status	,928	1,077

**APPENDIX B: Marital status and working poverty**

			<b>working poverty status</b>		<b>Total</b>
			<b>Not in working poverty</b>	<b>In working poverty</b>	
<b>Marital status</b>	<b>Married</b>	Count	515	378	893
		% within marital status	57,7%	42,3%	100,0%
		% within working poverty status	32,1%	45,7%	36,7%
		% of Total	21,2%	15,6%	36,7%
	<b>Not married</b>	Count	1087	450	1537
		% within marital status	70,7%	29,3%	100,0%
		% within working poverty status	67,9%	54,3%	63,3%
		% of Total	44,7%	18,5%	63,3%
<b>Total</b>	Count	1602	828	2430	
	% within marital status	65,9%	34,1%	100,0%	
	% within working poverty status	100,0%	100,0%	100,0%	
	% of Total	65,9%	34,1%	100,0%	

Chi-Square: 0.001