

Trends in the Cost of Living in South Africa

Development Policy Research Unit School of Economics University of Cape Town

25 November 2024







Table of Contents

K	ey Find	lings	iii
Li	imitatio	ons	v
1	. In	ntroduction	1
2	. P	overty and Inequality in South Africa, 2011-2023	2
	2.1.	Measuring Poverty	2
	2.2. 2.2.1 2.2.2 2.2.3 2.2.4	Poverty in South Africa Absolute Poverty Measures Poverty in South Africa since 2011 Working Poverty in South Africa since 2011 Households with and without Children in South Africa since 2011	3 3 7 11
	2.3.	Inequality in South Africa	13
	2.4.	Inflation Trends	15
	2.5.	Summary	18
3	. In	ncomes	19
	3.1. 3.1.1 3.1.2	Household Income I Trends in Household Income I Income by Household Characteristics	 19 19 22
	3.2. 3.2.1 3.2.2 3.2.3	Income Sources Key Income Sources Wage Trends Social Grants	24 24 27 28
	3.3.	Summary	32
4	Cos	t of Basic Services	33
	4.1.	Expenditure Patterns across the Income Distribution	33
	4.2.	Education	34
	4.3.	Food	35
	4.4.		37
	4.5.	Iransport	38
	4.6.	Free Basic Services	39
	4.7. 1 0	Summon	41
F	4.0.	sease to Paris Sorvices	42 ЛЛ
5	. А с1	Less to Busic Services	44
	5.1. 5.2		44
	5.Z.		49 F1
	5.3 .1 5.3.2	Outlities and Services Overall Access to Utilities Water and Sanitation	51 53

5.3.3	B Electricity	57
5.3.4	4 Refuse Removal	59
5.3.5	5 Communications	60
5.4.	Transport	61
5.4.1	1 Work-Related Travel Patterns	61
5.4.2	2 Education-Related Travel Patterns	62
5.5.	Education	63
5.5.1	1 Early Childhood Development	64
5.5.2	2 School Education	65
5.5.3	3 Post-Secondary Education	67
5.6.	Health and Social Development	69
5.6. 5.6.1	Health and Social Development 1 Choice of Healthcare Provider	
5.6. 5.6.1 5.6.2	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid	69
5.6. 5.6.1 5.6.2 5.7.	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid Food Security	
5.6. 5.6.1 5.6.2 5.7. 5.8.	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid Food Security Summary	
5.6. 5.6.1 5.6.2 5.7. 5.8. 6. Con	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid 3 Food Security 4 Summary	
5.6. 5.6.2 5.7. 5.8. 6. Con	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid 2 Food Security Summary Summary	
5.6. 5.6.2 5.7. 5.8. 6. Con 7. R	Health and Social Development 1 Choice of Healthcare Provider 2 Medical Aid 2 Medical Aid Summary oclusion Seferences	69

DISCLAIMER

The views expressed in this report are that of the authors based on their research and analysis,

and do not reflect the view of the National Planning Commission.

Key Findings

The National Development Plan (NDP, 2012) recognises the need to address poverty and inequality by reducing the cost of living, emphasising the importance of affordable essential goods and services, and access to quality education and healthcare. However, recent challenges, including COVID-19 lockdowns, supply chain disruptions, fuel price increases, and rising interest rates, have intensified concerns about the cost of living. Government's ability to mitigate the impact of these pressures is constrained by ongoing fiscal constraints, limiting its capacity to provide adequate support to households struggling with rising costs. Economic growth in South Africa between 2011 and 2023 has also been low, averaging just 1.0 percent annually (SARB, 2024), and the period has been characterised by limited improvements in living standards, subdued job creation, and stagnant wage growth.

Against this backdrop, this research investigates the impact of the cost of basic goods and services on the cost of living for poor and working poor households between 2011 and 2023. The research is informed by three groups of research questions, focussing on the provision of basic services, incomes, and the cost of living.

The findings reveal a nuanced picture of progress amid enduring challenges.

- Poverty rates in 2023 are broadly similar to those in 2011 across various groupings. Despite some improvements in the early part of the 2010s, the second half of the decade generally saw slight deteriorations in poverty rates. Covid-19 coincided with significant increases in poverty, with only slow and marginal improvements observed since. Households with children experience higher poverty rates than those without. However, it is important to recognise that the GHS data is not ideal for the accurate measurement of money-metric poverty, and the results rest on a reconstructed household income variable.
- **Employment is crucial for escaping poverty.** The employed have significantly lower poverty rates than the rest of the population. This is despite the fact that poverty status is determined at the household level; the wages of the employed are often enough to ensure that households are not poor.
- The value of secondary education in the labour market diminished. This is evidenced by an 8.6 percent rise in the proportion of the working poor with completed secondary schooling, the likely outcome of increasing numbers of workseekers with a matric certificate and relatively weak demand for workers with this qualification.
- **Regional economic disparities persist**. Gauteng attracts job seekers but shows higher rates of unemployed poor, while KwaZulu-Natal grapples with a larger proportion of working poor, suggesting lower wages or more limited opportunities.
- **Real wages declined over the period**. Real wages contracted each year at an average of 0.3 percent, resulting in an overall decline in real wages in 2023 compared to 2011.
- The Gini coefficient remains elevated at 0.63 as of 2023. Despite a marginal decrease in overall inequality, with employed groups experiencing a 7.1 percent reduction compared to 4.5 percent decrease nationally, inequality remains high. The income structure shows little change, with disadvantaged households still heavily reliant on government grants. Here too, however, the data is not ideal for accurate measurement, especially given that high incomes were often capped.
- The composition of household income has remained largely unchanged over the period. Overall, wages and salaries account for nine-tenths of household income, confirming the importance of

labour market income for escaping poverty. Poor households continue to rely heavily on grants, whereas wealthier households depend on earnings from labour. This reliance on labour income for pensions means that poor households, unable to accumulate pension savings, increasingly depend on grants during retirement.

- Social assistance has expanded, with the number of grants paid by the state increasing by 26.2 percent from 2010/11 to 2022/23. This has been critical in supporting households at the bottom end of the income distribution. While grant values are regularly adjusted to account for inflation over time, comparison with the headline consumer price index suggests marginal real declines for the old age grant, war veterans grant, disability grant, and care dependency grant, while there has been a slight gain in real terms for the child support grant and grant-in-aid. However, the foster care grant has lost almost a fifth of its value in real terms over the period. Importantly, however, comparisons of grant values with other price indices that are more reflective of the consumption patterns of poor households (such as the decile one CPI or the food CPI) suggest much more significant declines in the real values of social grants.
- Education and healthcare accessibility face mounting challenges due to rising costs and resource constraints. The education gap has widened, and public health facilities are increasingly overburdened. Food affordability has deteriorated, with poorer households more susceptible to food insecurity.
- Housing trends reflect ongoing socioeconomic divisions, with a shift towards urban living and formal dwellings. While access to basic services expanded, quality declined, particularly impacting poor communities. Urban sprawl and inadequate public transport exacerbate living expenses for low-income groups.
- **Cost of living pressures intensified**. This was driven by an average inflation rate of 5.2%. Essential expenses like education, food, and transport saw price hikes far exceeding the national average, straining household budgets.
- The provision of free basic services has the effect of reducing pressure on poor households' budgets, while also insulating them from price increases for these services by reducing the weight of these services within their expenditure bundles. However, the most recent data from municipalities suggests a scaling back in the provision of free basic services, with all four services seeing reductions in the number of households benefiting over the 2011-2023 period.

Limitations

This study relies on multiple data sources, including national surveys and inflation data derived from national inflation statistics. To improve transparency and enhance the readability of this report, we note some limitations with respect to its findings.

1. Data source variability and temporal misalignment

This study draws from multiple data sources, including household surveys and government statistics, each with its own strengths and limitations. Data release schedules vary, with some data providing realtime data while other sources have significant lags. Moreover, data may be outdated, especially if surveys are conducted infrequently. In some instances, surveys occurred only once during the study period.

2. Inflation data complexities

Inflation data, while crucial to this analysis, comes with several inherent complexities. The CPI basket is based on a representative basket of goods and services. However, public releases of the data do not allow for significant interrogation of the data at sufficiently detailed levels to draw robust conclusions at detailed levels of disaggregation. This is noted as a serious limitation of the study. We attempted to overcome this challenge by requesting additional data from StatsSA. Where possible, StatsSA provided additional disaggregated data for this study.

3. External factors

Major economic shocks during the study period, including the COVID-19 pandemic years of 2020 and 2021, may create anomalies in the data that distort data quality and outcomes, and impact the insights presented. These have been acknowledged where possible to alert readers to potential variations from observed trends over time. For example, due to pandemic-related constraints, the General Household Survey (GHS) collected data on a reduced set of questions in 2020 and 2021, which may affect the comprehensiveness of the data for these years.

4. Household survey data

Household survey data is subject to several biases, including sampling bias, where certain groups may be underrepresented or excluded, and non-response bias, where households may refuse to participate or not answer certain questions. Additionally, measurement errors can occur when respondents provide inaccurate or inconsistent answers, particularly for sensitive topics like income or expenditure. Social desirability bias can also skew results, as respondents may provide answers that are socially acceptable rather than truthful. Recall bias can lead to inaccurate information, as respondents may forget or misremember past events or expenditures. Moreover, data quality issues can arise from errors during data collection, entry, or processing, affecting data accuracy. Finally, surveys may have limited coverage, failing to capture all aspects of household behaviour, income, or expenditure, which can result in an incomplete picture of the population being studied.

1. Introduction

The National Development Plan (NDP, 2012) recognises the need to address poverty and inequality by reducing the cost of living, emphasising the importance of affordable essential goods and services, and access to quality education and healthcare. However, recent challenges, including COVID-19 lockdowns, supply chain disruptions, fuel price increases, and rising interest rates, have intensified concerns about the cost of living. Government's ability to mitigate the impact of these pressures is constrained by ongoing fiscal constraints, limiting its capacity to provide adequate support to households struggling with rising costs. Economic growth in South Africa between 2011 and 2023 has also been low, averaging just 1.0 percent annually (SARB, 2024), and the period has been characterised by limited improvements in living standards, subdued job creation, and stagnant wage growth.

Against this backdrop, this research investigates the impact of the cost of basic goods and services on the cost of living for poor and working poor households between 2011 and 2023. The research is informed by three groups of research questions, focussing on the provision of basic services, incomes, and the cost of living. These are:

- 1. What are the trends in access and costs of basic services (electricity, water, transport, education, health, and food) from 2011 to 2023, and how have these affected the cost of living for poor and working poor households?
- 2. What factors have contributed to changing trends for households with working people versus those with unemployed people over the same period?
- 3. What are the impacts on households with children versus those without children, and what are the gender impacts?
- 4. Have wages and other income (including social grants) increased in real terms for working people who receive low pay (working poor)?
- 5. What are the trends in income shares across the income distribution from 2011 to 2023?
- 6. Has the cost of living for poor and working-class households reduced or increased over the decade under review (2011 to 2023)?

In answering these questions, this report firstly provides a comprehensive picture of the measure of success that the government has had in providing basic services (such as electricity or water) to most of the country. Secondly, the report identifies how the costs of basic services have affected poverty in South Africa, as well as the main drivers of those costs. Thirdly, it examines real income trends in South Africa; particularly wages and social grants: the former being a key factor underpinning poverty and inequality in South Africa, and the latter representing a key intervention addressing these issues.

2. Poverty and Inequality in South Africa, 2011-2023

2.1. Measuring Poverty

In order to assess the poverty status of individuals and households, a clear definition of poverty is essential. Poverty can be defined in money-metric or non-money-metric terms. Money-metric poverty is defined and measured in terms of monetary amounts or values, such as income or expenditure that falls below a specified amount in currency terms (a poverty line). Non-money-metric measures of poverty are based on other dimensions of well-being, such as health or access to basic goods and services. Commonly, poverty is measured in absolute terms, in relative terms, in subjective terms, or multidimensionally.

Absolute poverty is defined in terms of a fixed income threshold below which individuals or households are considered to be poor. The threshold is usually set at a level that is deemed necessary to meet basic needs such as food, shelter and clothing. An example of an absolute poverty line is the current international poverty line used by the World Bank of \$2.15 per day (in 2017 Purchasing Power Parity terms) (Jolliffe et al., 2022). Many countries also have their own national poverty lines based on their unique economic conditions and social norms. For example, in Ethiopia the extreme poverty line is set at US\$2.04 per day, while in Turkey it is set at US\$7.63 per day and in the United States it is \$24.55 per day (Jolliffe et al., 2022).

Relative poverty measures define poverty in relation to the overall distribution of income or wealth within a society. For example, individuals might be considered to be in relative poverty if their income is less than 50 percent of the median income in their country. An alternative relative poverty measure may define as poor those individuals who are members of the poorest 40 percent of households.

Unlike objective measures of poverty that might use income or consumption figures, subjective poverty relies on an individual's own perceptions regarding their economic well-being. Surveys or questionnaires are used to ask individuals about their ability to afford basic goods and services, their perception of where they are located in the distribution, or their views of the minimum income required to make ends meet.

More recently, a multidimensional approach to poverty measurement has gained importance, recognising that poverty goes beyond income and should consider access to essential services and opportunities. Multidimensional poverty measures the extent of deprivation across multiple dimensions of well-being, such as education, health, housing, water and sanitation (UNICEF, 2021). The recognition of services as part of understanding poverty is due its key role in the development of a well-functioning society. Broader access to services results in positive externalities for society. For example, expansion in access to healthcare services will likely result in the reduction of contagious diseases and lower child mortality (Lanau et al., 2020). Universal access to services also helps narrow the gap between the richest and poorest households (at least in terms of access to services), as everyone, regardless of their wealth, has access to the same schools, transportation and healthcare facilities. However, one challenge with expanding services is that public expenditure on such services tends to favour the non-poor over the poor, and this is particularly prevalent in low-income countries (Lanau et al., 2020). This is largely due to expansion of services being easier in urban areas where the non-poor tend to live, than it is in rural areas, where poorer residents tend to reside.

Overall, the choice of poverty measure depends on the purpose of the analysis, the available data, and the context in which poverty is being assessed. It is important to recognise the limitations of any single measure, and to use a combination of indicators to gain a comprehensive understanding of poverty.

2.2. Poverty in South Africa

2.2.1 Absolute Poverty Measures

Statistics South Africa publishes three national poverty lines – a food poverty line, a lower-bound poverty line and an upper-bound poverty line – which are updated annually to account for changing prices and expenditure patterns (Figure 1). In 2023, the food poverty line was set at R760 per person per month while the lower-bound and upper-bound poverty lines were set at R1 058 and R1 558 per person per month respectively (Statistics South Africa, 2023). The food poverty line represents the minimum cost per person associated with achieving caloric sufficiency (i.e., the recommended minimum number of calories required per day) and is considered the threshold for extreme poverty. The lower-bound poverty line is calculated as the food poverty line. The upper-bound poverty line is calculated as the food poverty line. The upper-bound poverty line is calculated as the food poverty line.



Figure 1. Inflation-adjusted national poverty lines (per capita per month), 2006-2023

Source: Statistics South Africa (2023).

Note: Figures are per person per month in Rands. From 2006 to 2014, values are expressed in March prices for the respective years; from 2015 to 2022, values are expressed in April prices; and in 2023 values are expressed in May prices.

2.2.2 Poverty in South Africa since 2011

In profiling poverty, the analysis here relies on indices developed by Foster, Greer and Thorbecke (1984). The FGT indices are used to quantify the level of poverty within a population and measure not only the incidence of the poverty but also its depth and severity (Foster et al., 2010). The three most commonly used FGT measures are the headcount ratio, the poverty gap index, and the squared poverty gap index.

• The headcount ratio (P₀) measures the proportion of the population whose income (or expenditure) is below a specified poverty line (Makoka and Kaplan, 2005). Of the three

BOX 1: Deriving the Household Income Variable

This study primarily uses the General Household Survey (GHS) from 2011 to 2023. The GHS is representative at the national, provincial and metro levels, and has been collected annually since 2002.

Household income is an important variable for this study as it underpins inequality measures. In the GHS data, household income comprises salaries/wages, income from a business, remittances, pensions, grants, sales of farm products and services, and other incomes (e.g. rental income and interest). The StatsSA-derived household income variable is an estimate of total household income for households with a total monthly income of less than R20 000. This estimate combines earnings from salaries, grants, remittances and pensions and can be reconstituted by the researcher when conducting data analysis.

According to the metadata, estimated monthly incomes of R20 000 and higher were capped at R20 000, as the survey was not designed to capture incomes from more complex sources, such as rental income and interest, typical of higher-income households. This data truncation creates a limitation, resulting in a loss of information on high-income HHs and constrains the extent of analysis that can be conducted on the dataset. However, the published data reveals that this cap has shifted over time. The cap was adjusted in 2013 and again in 2015, raised each time by R10 000. It was adjusted annually again from 2020, in a way that suggests there is no longer a cap on the variable.

To overcome this issue of capping, household income is broken up into four income sources, namely grants, wages, pensions, remittances. The wage data consists of point estimates of wages, bracket responses and missing data (no point estimates provided). Following Wittenberg (2017), Kerr and Wittenberg (2019) and Kohler and Bhorat (2023), we impute wages for the bracket and missing wages. First, to detect outliers, we employ a studentised regression residual approach and set these outliers to missing. We estimate an expanded Mincerian wage regression of the logarithm of monthly wages on a vector of observable covariates using Ordinary Least Squares (OLS), predicting the residuals, and flagging observations with large residuals as outliers. The limitation of the GHS is that we do not have the occupation and industry variable because the GHS is not designed to capture detailed labour market information. Nonetheless, we use a vector of observable covariates, which includes years of education, experience, experience squared, gender, race, province, rural-urban status, and marital status for the working-age population. After running the Mincerian wage regression, our residuals are concentrated around zero and appear randomly distributed across the fitted values, which suggests that both linearity and homoscedasticity hold. We then set wages to missing for wages with absolute studentised residuals of more than three. This condition is widely used in the literature (Kohler and Bhorat, 2023; Wittenberg, 2017; Kerr and Wittenberg, 2019; Steven, 1984). These missing values will be imputed together with the missing wage data.

Second, we employ a multiple imputation (MI) approach to impute the exact wage values for workers who: (i) reported their bracket; (ii) reported neither their exact wage nor their bracket (i.e., those who recorded as 'don't know' or 'refusal'); and (iii) those flagged as outliers (see Kohler and Bhorat; 2023 for a detailed explanation of the imputation method used). Imputations are not generated for those who reported exact wage values. Table 14 in the appendix describes the wage data on the sample size, extent of missing data, and number of imputations for both bracket and exact value responses between 2011 and 2023 for the employed. On average, 17.4 percent of workers do not report the bracket response, while 45.6 percent do not report exact wage data over the reported period. The last column shows that we successfully imputed, on average, 97.6 percent of missing brackets, exact wage data and/or outliers.

Next, we adjust grant values to account for the bi-annual government changes (April and October adjustments). That is, for any given year, we allocate monthly grant values based on the announced value, taking into account the changes from April and October each year. We then average across the year to obtain a monthly average grant value. We use the remittances and pension values as given from the GHS data.

Lastly, we construct our household income variable by summing the imputed wage variable, adjusted grant values, pension and remittances. To account for inflation, values from each survey are rebased to December 2023 prices.

measures, this one is the easiest to understand. However, it does not take into account how far the poor are below the poverty line, or the distribution of income amongst the poor. The headcount ratio is also known as the poverty rate.

• The poverty gap index (P₁) measures the difference between the mean income of the poor and the poverty line and is expressed as a percentage of the poverty line. The poverty gap index has two distinct advantages over the headcount ratio: firstly, the depth of poverty can be understood and secondly, the measure can provide an indication of the minimum cost of eliminating poverty (Makoka and Kaplan, 2005).

• The squared poverty gap index (P₂) is similar to the poverty gap measure, although the gaps between the mean income (or expenditure) of the poor and the poverty line are squared, giving more weight to the poor who are furthest away from the poverty line. A key advantage of this measure is that it allows for an understanding of distributional changes of income (or expenditure) amongst the poor (Makoka and Kaplan, 2005). However, a key limitation of this measure is that it is difficult to interpret and is therefore not as widely used as the other two measures.

Having considered these three indices, we now turn our attention to the trends that these indices show in South Africa. We consider four groups in our analysis: the national population, the employedⁱ, all households, and households with at least child under the age of 18 years. For the first two groups, poverty is measured at the individual level, while for the latter two groups, it is done at the household level. The determination of whether an individual or household is poor is based on whether household income per capita value falls below the upper-bound poverty line, provided by Statistics South Africa, for that particular year.

Table 1 presents estimates of the headcount ratio (poverty rate) across each of the groups between 2011 and 2023. In 2011, using the upper-bound poverty line, 51.6 percent of the population were poor. This proportion dropped to 46.6 percent in 2015 and to 44.9 percent in 2019 before rising again to 48.8 percent in 2023. Between 2011 and 2023, the overall change was a decrease of 5.4 percent. While the 2011 estimate presented here is similar to the official poverty estimate of 52.3 percent, the 2015 estimate is 8.9 percentage points lower than the official estimate of 55.5 percent in 2015 (Statistics South Africa, 2017a). The official estimates for 2011 and 2015 were based on the 2010/11 Income and Expenditure Survey and the 2014/15 Living Conditions Survey (Statistics South Africa, 2017a), both of which are designed to measure poverty and inequality based on detailed expenditure and income modules. In contrast, the primary focus of the GHS is measuring service delivery and, while the GHS-based estimates presented here suggest a slight decline in the poverty rate between 2011 and 2023, it is important to recognise that these are based on data containing a significant proportion of imputations.

	2011	2015	2019	2023	Percent change
					(2011-2023)
Upper-bound poverty line	R799	R992	R1 227	R1 558	
All (Individual)	51.6	46.6	44.9	48.8	-5.4
	(0.00)	(0.00)	(0.00)	(0.01)	
Employed individuals	22.6	19.2	18.0	21.2	-6.2
	(0.00)	(0.00)	(0.01)	(0.00)	
All (Households)	41.5	36.7	36.9	39.5	-4.8
	(0.00)	(0.00)	(0.00)	(0.00)	
Households with children	54.8	50.2	49.1	52.6	-4.0
	(0.01)	(0.00)	(0.00)	(0.01)	

Table 1. Poverty headcount ratio (P₀) in South Africa, 2011-2023

Source: GHS 2011, 2015, 2019, 2023, own calculations.

Notes: Standard errors are in brackets. A full set of estimates for both individuals and households using the food, lowerbound and upper-bound poverty lines is presented in Table 15 in the appendix.

Poverty rates amongst the employed are considerably lower than for the general population. This is to be expected as jobs provide wages, which allow employed individuals and their households to escape poverty. Similar to the broader population, the poverty rates amongst workers have declined over the period, from 22.6 percent in 2011 to 21.2 percent in 2023, a reduction of 6.2 percent or 1.4 percentage points.

Amongst households, it is estimated that 41.5 percent were poor in 2011. While this proportion fell to 36.7 percent in 2015, it had risen to 39.5 percent by 2023. The GHS data therefore suggests a slight

decline in poverty rates at the household level over the 12-year period. Households with children were, however, consistently more likely than households without children to be poor in each of the years. The majority (54.8 percent) of households with children were poor in 2011 and, although this proportion dipped below 50 percent in 2015, by 2023 it was just 2.2 percentage points lower than in 2011. The rate of poverty reduction (4.0 percent) was the slowest amongst the four groups considered. Higher poverty rates amongst households with children may be due to a combination of factors including the impact of childbearing and-rearing on women's economic participation, relatively few employed adult male household members in households with children, and the direct effect of children adding to the size but not to the income of the household, thus lowering per capita income.

Table 2 presents the poverty gap index for the same four groups. In 2011, the poverty gap for the entire population was 28.4 percent, which means that the poor, on average, have an income shortfall of 28.4 percent of the poverty line. Put differently, on average a minimum of R226.92 (based on a poverty line of R799 per month in 2011 prices) would have been required per poor person to eliminate poverty (poverty gap *multiplied by* the poverty line = $0.284 \times R799 = R226.92$) in 2011. By 2023, the poverty gap is estimated to have fallen to 24.8 percent, a decrease of 3.6 percentage points over the period, indicating a slight decline in the depth of poverty in South Africa over the period.

	2011	2015	2019	2023	Percent change (2011-2023)
Upper-bound poverty line	R799	R992	R1 227	R1 558	
All (Individual)	28.4	24.4	23.1	24.8	-12.7
	(0.00)	(0.00)	(0.00)	(0.00)	
Employed individuals	10.0	8.1	7.4	8.5	-15.0
	(0.00)	(0.00)	(0.00)	(0.00)	
All (Households)	22.9	19.7	19.4	20.9	-9.6
	(0.00)	(0.00)	(0.00)	(0.00)	
Households with children	29.1	25.5	24.9	26.7	-8.3
	(0.00)	(0.00)	(0.00)	(0.00)	

Table 2. Poverty gap index (P1) in South Africa, 2011-2023

Source: GHS 2011, 2015, 2019, 2023, own calculations. Notes: Data are weighted. Standard errors are in brackets.

Notes: Data are weighted. Standard errors are in brackets.

Amongst the employed, the poverty gap index is approximately one-third of that of the general population, indicating that poor workers are considerably closer to the poverty line than the average poor person. Again, this should not come as a surprise, given the access to income enjoyed by the employed. As was the case nationally, the poverty gap for the employed declined by 15.0 percent over the 12-year period, which is slightly more rapid than the decline for the overall population.

The poverty gap for all households was between 3.7 and 5.5 percentage points lower than the general population, a phenomenon linked to the fact that poor households tend to be slightly larger than non-poor households. This difference has narrowed over the period, as the household-level poverty gap fell by just two percentage points from 22.9 percent in 2011 to 20.9 percent in 2023, compared to the 3.6 percentage point decline at the individual level. As was the case for the poverty headcount index, households with children consistently experienced a poverty gap that was higher than the national average. The poverty gap for households with children fell from 29.1 percent to 26.7 percent over the period, a decline of 2.4 percentage points or 8.3 percent.

The squared poverty gap (or severity of poverty) accounts for inequality amongst the poor by weighting the poverty gaps according to the distance from the poverty line. In the calculation of the squared poverty gap, therefore, greater weight is attached to the poorest individuals or households, meaning that raising the poorest individual or household out of poverty has a larger impact on the measure than doing so for an individual or household that is just below the poverty line. As interpretation of the actual numbers is difficult (ILO, 2005), it is more useful to focus on the trends for each group. Nationally, the

squared poverty gap declined from 18.7 to 15.7 between 2011 and 2023, a decline of 16.0 percent (Table 3). Indeed, the squared poverty gap (or the severity of poverty) declined nationally at both the individual and household level, suggesting improvements in poverty over the period. The severity of poverty was relatively low for the employed, declining marginally from 5.9 to 4.8 over the period, remaining less than one-third of the national level in each of the years presented. Although the squared poverty gap was higher for households with children than for all households, this gap has narrowed slightly from 3.1 points in 2011 to 2.7 points in 2023.

	2011	2015	2019	2023	Percent change
					(2011-2023)
Upper-bound poverty line	R799	R992	R1 227	R1 558	
All (Individual)	18.7	15.9	14.9	15.7	-16.0
	(0.00)	(0.00)	(0.00)	(0.00)	
Employed individuals	5.9	4.7	4.3	4.8	-18.6
	(0.00)	(0.00)	(0.00)	(0.00)	
All (Households)	15.7	13.4	13.3	14.2	-9.6
	(0.00)	(0.00)	(0.00)	(0.00)	
Households with children	18.8	16.2	16.00	16.9	-10.1
	(0.00)	(0.00)	(0.00)	(0.00)	

Table 3. Squared poverty gap (P₂) in South Africa, 2011-2023

Source: GHS 2011, 2015, 2019, 2023, own calculations. Notes: Data are weighted. Standard errors are in brackets.

Overall, this analysis yields several key messages. Firstly, being employed substantially reduces the probability of being in poverty, as work provides a stable source of income which is usually sufficient to lift households above the upper-bound poverty line. Furthermore, the importance of obtaining employment to escape poverty has increased over the 2011-2023 period, as evidenced by the employed experiencing the fastest rate of reduction across all three poverty measures. Secondly, while the national population experienced a decrease in poverty, this was during a period when South Africa's official unemployment rate increased from an average of 24.8 percent over the four quarters of 2011 to an average of 32.4 percent in 2023 (own calculations, Statistics South Africa, 2024d). This reduction in poverty can be partially explained by the expansion of social grants in South Africa, as highlighted by Köhler and Bhorat (2020), who find that a range of grants substantially increase the incomes of the poor. Finally, households with children experience the highest level of poverty, which suggests that need for greater support to these households to address deprivation.

2.2.3 Working Poverty in South Africa since 2011

One of the aims of this research is to understand the experience of the working poor. The idea of working poverty is particularly salient in the South African context given high unemployment and the general importance of labour market earnings for avoiding poverty. Unfortunately, there is no universally accepted way to define the 'working poor'.

The European Union defines the working poor as "individuals who are classified as employed (i.e. being in work for over half of the year) and who are at risk of poverty, i.e. live with an equivalised disposable income below 60 percent of the national median equivalised disposable income" (European Commission, 2014: 482). In contrast, the US Bureau of Labor Statistics (2023) defines the working poor as those who live below the official poverty line and spent at least 27 weeks in the labour market (either working or looking for work) in the past year. Finn (2015) argues that because the South African median wage is far below that of the mean wage in South Africa, it makes sense to adopt an absolute measure (such as the one by the US Bureau of Labor Statistics), a recommendation followed here.

Vermaak (2010) analyses the Labour Force Surveys in 2000 and 2006 and used imputed earnings to estimate the number of working poor across the period, using R150 and R500 (in 2000 prices) as the

poverty lines. In the case of the former poverty line, the percentage of the employed in poverty fell from 5.6 percent to 3.3 percent. In the case of the latter poverty line, 25.3 percent of the employed were poor in 2000, which was reduced by 7.6 percentage points to 17.7 percent in 2006.

Finn (2015) provides a working poverty line estimate of R4 125 per month (2015 prices). To arrive at this figure, he identifies earners who worked at least 35 hours a week and reside in a poor household, defined as a per capita income of R1 319 per month (2015 prices). He calculates a household poverty gap – the difference between an individual's earnings and the official poverty line – and the average poverty gap per earner in the household, which provides an indication as to the depth of poverty experienced by households. The mean wages of each earner are calculated and added to the average poverty gap per earner of each household. He finds that the majority of employed Africans and Coloureds earn below the threshold, while this true for only 37.0 percent of Indians/Asians and 22.4 percent of Whites. In addition, 58.0 percent of employed females earn below R4 125 per month, while this is true for 50.6 percent of males.

Rogan and Reynolds (2015) examine the trends in the working poor between 1997 and 2012. They find that while the proportion of working poor declined over the period, it remains high. In 2012, 13.8 percent of working poor households lived below the lower-bound poverty line of R219 per capita per month (2000 prices) in 2012, while the corresponding figure for the upper-bound poverty line (R323 per capita per month in 2000 prices) was 21.4 percent. An additional line – set at R593 per capita per month (2000 prices) and representing the minimum amount of money required to cover the basic needs of households – indicated that 36.3 percent of working poor households fell below that line.

Lilenstein et al. (2016), using data from Wave 3 of the National Income Dynamics Study and an inflationadjusted poverty line of R659 per capita per month, found that 17.0 percent of employed workers and 19.0 percent of 'working households' – defined as where at least one member of the household was working- were experiencing poverty. Their work is extended by Feder and Yu (2020) who undertake a longitudinal analysis of all four waves of the NIDS. Using an upper-bound threshold poverty line of R1 071 per capita per month (December 2016 prices), derived from an official poverty line as determined by Statistics South Africa, they find that the proportion of households experiencing working poverty decreased in each subsequent wave. In wave 1, this figure was 35.3 percent, decreasing to 31.7 percent in wave 2 and subsequently to 28.0 and 25.8 percent in waves 3 and 4, respectively.

In assessing trends working poverty between 2011 and 2023, the definition used by Feder and Yu (2020)—defining the working poor as employed individuals who are members of poor households (i.e., households where per capita income is below the poverty line)—is employed here with poverty defined using the upper-bound poverty line. Table 4 compares the demographic characteristics of the working poor with those of the unemployedⁱⁱ poor between 2011 and 2023.

Both the working poor and the unemployed poor are evenly split between males and females over the period. Females accounted for between 48.3 percent and 51.3 percent of the unemployed poor and working poor in 2011, 2015 and 2019. However, there appears to have been a gradual rise in the female share of the unemployed poor over the period, reaching 53.6 percent in 2023. In contrast, 48.9 percent of the working poor were female in 2023, a difference of almost five percentage points compared to their share of the unemployed poor.

	2011		20	2015		19	2023	
	Unemp.	Working	Unemp.	Working	Unemp.	Working	Unemp.	Working
	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Poverty Line	R7	'99	R9	92	R1	227	R1 .	558
Gender								
Male	50.1	51.7	50.0	48.8	48.7	50.8	46.4	51.1
Female	49.9	48.3	50.0	51.2	51.3	49.2	53.6	48.9
Race								
African	91.1	90.0	93.5	87.5	93.5	91.8	94.3	90.6
Coloured	7.9	7.5	5.3	6.8	5.7	4.9	5.1	5.8
Asian	0.6	0.4	0.7	0.6	0.4	0.6	0.4	1.5
White	0.5	2.2	0.6	5.1	0.4	2.6	0.3	2.1
Age Cohort								
15-24 years	31.8	10.5	28.9	9.6	23.0	7.3	22.5	7.8
25-34 years	39.5	31.0	41.9	31.7	41.1	29.7	37.3	28.9
35-44 years	17.9	26.8	18.2	26.3	22.5	30.3	24.7	32.5
45-54 years	8.6	20.4	9.1	20.0	10.2	20.4	12.2	19.4
55-64 years	1.9	8.3	1.8	8.4	3.1	8.7	3.1	8.1
65+ years	0.2	3.0	0.2	4.0	0.2	3.6	0.2	3.4
Education								
Primary or less	15.1	31.9	16.9	27.3	12.9	21.5	10.4	17.0
Inc. secondary	44.6	43.8	49.6	44.7	50.0	42.7	46.8	44.2
Comp. secondary	34.3	18.6	28.7	18.2	30.8	24.3	36.2	27.2
Certificate/Diploma	4.5	2.1	3.2	2.2	4.3	4.1	4.3	3.3
Degree	0.8	0.6	0.7	5.9	1.0	1.6	1.0	1.5
Area Type								
Urban	62.7	55.5	60.0	59.1	56.8	54.5	54.2	57.1
Rural	37.3	44.5	40.0	40.9	43.2	45.5	45.9	42.9
Province		-		-	-	-		
Western Cape	9.8	9.6	7.0	9.3	6.1	6.1	6.2	7.3
Eastern Cape	12.6	14.9	13.1	15.1	11.5	12.4	10.8	12.5
Northern Cape	2.9	2.5	2.0	2.0	2.1	2.0	1.9	2.3
Free State	8.6	6.9	6.3	6.0	6.2	6.7	6.3	6.3
KwaZulu-Natal	17.0	18.5	26.1	20.6	21.2	19.9	23.2	20.4
North West	8.6	8.0	6.6	6.5	6.7	8.9	6.3	6.6
Gauteng	24.2	19.0	22.8	19.9	25.4	20.0	24.6	23.8
Mpumalanga	8.9	8.9	8.8	9.0	12.7	11.4	11.2	10.8
Limpopo	7.5	11.7	7.3	11.6	8.1	12.6	9.5	10.2

Table 4. Characteristics of the working poor and unemployed poor, 2011-2023

Source: GHS 2011, 2015, 2019, 2023, own calculations.

Notes: Figures may not total to 100 due to omission of unspecified and other categories, and rounding.

Africans comprised the overwhelming majority of the unemployed poor and working poor across all years. However, the shares recorded for Africans are higher than their 81.4 percent share of the population in 2022 (Statistics South Africa, 2022). Roughly nine out of ten working poor individuals was African in 2023, a proportion that is virtually unchanged from 2011. Coloureds saw their share of both working and unemployed poor decline slightly over the period. By 2023, only 5.8 percent of the working poor were Coloured, compared to 7.5 percent in 2011. While Whites comprised 7.3 percent of the South African population in 2022 (Statistics South Africa, 2022) they account for just 2.1 percent of the working poor in 2023, virtually unchanged from 2011. This evidence suggests that, despite the end of apartheid in 1994, the numerous advantages which accrued to Whites under the system continue to play a role in understanding poverty dynamics in South Africa.

Young economically active people are consistently much more likely to be classified as unemployed poor than working poor over the 2011-2023 period, reflecting the difficulty of finding employment and persistently high youth unemployment rates in South Africa (Dhliyawo, 2023). In 2023, 7.8 percent of the working poor were aged 15-24 years, compared to 10.5 percent in 2011 and compared to 22.5

percent of the unemployed poor in 2023. Although the difference in shares between the unemployed and working poor of those aged 25-34 years is smaller than the 15-24 cohort, it is still significant. This older youth cohort accounted for a share of the unemployed poor that is 8.4 to 11.4 percentage points higher than is the case for the working poor. Individuals aged 35-54 years account for 46.3 percent to 51.9 percent of the working poor. While this cohort might be expected to have more experience—and therefore a higher likelihood of employment—than younger cohorts this large share is a reflection of the absolute number of individuals who are employed in these two cohorts (ranging from 8.9 million to 11.5 million, compared to a range of 5.6 million to 7.1 million for the other cohorts).

Individuals with primary or less education comprise a substantially larger proportion of the working poor than the unemployed poor, although the difference narrowed from 16.8 percentage points in 2011 to 6.6 percentage points in 2023 (when this group accounted for 17.0 percent of the working poor, compared to 10.4 percent of the unemployed poor). On the surface, this appears to be counter-intuitive, with an established empirical relationship between educational attainment and obtaining a job in South Africa, where those with less education find it more challenging to obtain a job than those with higher levels of educational attainment (Statistics South Africa, 2020). However, these shares may reflect age: the working poor are slightly older than the unemployed poor, while younger cohorts have benefited from the expansion of access to schooling, which has resulted in higher levels of education for these cohorts (Statistics South Africa, 2020). This can be seen within both the unemployed poor and working poor groups, with the share of individuals with primary or less education decreasing substantially as older, less-educated individuals age out of the labour force.

Individuals with incomplete secondary education comprise a plurality of the working poor: at 44.2 percent of the working poor in 2023, this proportion has not changed much between 2011 and 2023. This group's share amongst the unemployed poor was 44.6 percent in 2011, increasing to 46.8 percent by 2023. However, the largest increase amongst the working poor is for those with a completed secondary education: in 2011, 18.6 percent of the working poor had a complete secondary education, but this had increased to 27.2 percent by 2023. The growing share of working poverty accounted for by those with a completed secondary education demonstrates that only increasing access to education is not a sufficient condition to escape poverty. In effect, the value of a completed secondary education in terms of labour market outcomes has decreased over time as more people were able to obtain that qualification. At the same time, minimum educational requirements sought by employers have increased, with many white-collar jobs required a post-secondary qualification. As such, many individuals with a completed secondary education may no longer be eligible for jobs that they would previously have been able to access.

Except for 2023, urban areas accounted for a larger share of the unemployed poor than the working poor. This has been driven not by an increase in the proportion of the working poor living in urban areas (which has remained roughly constant over the period), but by a substantial reduction in the share of the unemployed poor who reside in urban areas from 62.7 percent in 2011 to 54.2 percent in 2023. Despite the lower proportion, the number of unemployed poor residing in urban areas increased from 1.9 million to 3.5 million over the period. However, rural areas experienced faster growth, with the number of unemployed poor increasing from 1.1 million in 2011 to 2.9 million in 2023.

In most provinces, there are only small differences between their shares of the unemployed poor and the working poor. The differences are most apparent in South Africa's two most populous provinces: Gauteng and KwaZulu-Natal. Gauteng accounts for a larger share of the unemployed poor than the working poor, with this difference ranging from 0.8 percentage points (in 2023) to 5.4 percentage points (2019). A possible explanation for the difference is that many people who are actively looking for working are attracted to the province due to perceptions of a greater availability of jobs; however, once they have jobs, they are less likely to be poor since wages are relatively high. Except for 2011, the opposite is true in KwaZulu-Natal, with the province accounting for a large share of the working poor than of the unemployed poor. This may be due to relatively fewer economic opportunities in the

province than other major provinces (especially Gauteng), or relatively lower wages and/or larger households in KwaZulu-Natal, implying a higher proportion of the employed experience poverty.

2.2.4 Households with and without Children in South Africa since 2011

Table 5 compares the characteristics of the heads of poor households with and without children under the age of 18 years.

While childless poor households are predominantly male-headed, with their share above 63.0 percent in each year, a similar share of poor households with children are female-headed. In the United States, Sharma (2023) finds that the poverty rate for female-headed households with children was 36.5 percent, more than double the 16.5 percent poverty rate for male-headed households with children. In South Africa, Rogan (2010) shows that female-headed households are at greater risk of being poor where they have a higher proportion of children. Although the presence of children also has the same effect on male-headed households, the impact is substantially larger in female-headed households.

	2011		2015		2019		2023	
	With	Without	With	Without	With	Without	With	Without
	children							
Poverty Line	R7	99	R9	92	R1 :	227	R1 :	558
Gender								
Male	39.6	65.6	36.6	63.1	35.9	67.1	36.8	68.3
Female	60.4	34.4	63.4	36.9	64.1	32.9	63.2	31.7
Race								
African	93.2	85.9	92.7	83.7	95.0	90.0	93.8	91.0
Coloured	6.1	4.0	5.8	3.6	4.2	3.8	5.5	3.7
Asian	0.3	1.1	0.3	1.7	0.3	0.8	0.3	1.1
White	0.3	9.0	1.2	11.0	0.5	5.4	0.4	4.1
Age Cohort								
15-24 years	6.4	13.9	4.9	13.7	4.0	12.5	3.8	11.5
25-34 years	17.8	22.8	19.0	20.6	19.0	23.0	16.8	23.7
35-44 years	21.3	14.5	22.3	15.0	24.5	19.7	26.3	20.7
45-54 years	22.8	18.0	22.2	16.6	21.0	16.9	21.1	18.3
55-64 years	16.8	14.2	16.2	15.0	16.8	13.7	16.1	12.3
65+ years	14.8	16.5	15.5	19.0	14.8	14.1	15.9	13.5
Education								
Primary or less	49.5	35.1	43.7	32.5	35.4	28.3	29.8	22.0
Inc. secondary	37.6	39.6	40.8	39.7	41.2	41.8	44.7	43.3
Comp. secondary	9.9	16.4	10.6	16.0	16.3	19.9	18.7	24.6
Certificate/Diploma	1.2	4.0	1.5	3.2	2.3	5.5	2.1	4.0
Degree	0.2	2.0	1.7	6.8	0.9	2.3	1.0	2.3
Area Type								
Urban	44.6	61.8	46.8	63.6	47.2	62.0	51.2	62.5
Rural	55.4	38.2	53.2	36.4	52.8	38.0	48.8	37.5
Province								
Western Cape	7.1	8.4	6.0	8.9	4.7	6.9	6.7	7.2
Eastern Cape	15.8	15.9	16.5	14.0	13.9	11.6	12.7	11.6
Northern Cape	2.6	2.0	2.4	1.7	2.1	1.7	2.4	1.6
Free State	6.7	6.3	6.9	5.6	7.1	5.8	7.0	6.1
KwaZulu-Natal	20.6	14.4	21.1	17.1	20.2	18.5	19.1	16.0
North West	7.7	8.3	7.0	8.6	8.7	10.3	8.2	8.8
Gauteng	14.4	26.6	15.6	27.0	17.4	26.7	20.2	29.5
Mpumalanga	8.7	6.9	9.5	6.7	10.3	8.5	10.5	9.0
Limpopo	16.4	11.2	15.0	10.2	15.5	10.0	13.2	10.4

Table 5. Characteristics of household heads for households with and without children, 2011-2023

Source: GHS 2011, 2015, 2019, 2023, own calculations.

Notes: Figures may not total to 100 due to omission of unspecified and other categories, and rounding.

Amongst poor childless households, the proportion headed by Africans increased from 85.9 percent in 2011 to 91.0 percent in 2023, an increase of 5.1 percentage points. In contrast, the proportion of Whiteheaded poor households decreasing from 9.0 percent in 2011 to 4.1 percent in 2023. In comparison, the racial composition of household heads with children has largely remained unchanged over the period. However, African-headed households comprise a significantly larger share of poor households with children than of poor childless households, while the opposite is true for households with White household heads.

Poor childless households are, on average, headed by younger individuals than households in which children are present. Households headed by youth aged 15-34 years comprise over 35.0 percent of poor childless households across all periods, while these two groups do not exceed 25.0 percent combined amongst poor households with children. In contrast, poor households with children are most often headed by individuals aged 35-54 years: they account for 47.4 percent of poor households with children in 2023, up slightly from 44.1 percent in 2011. This increase over time has been driven by households headed by 35-44 year olds, which saw their share of poor households with children rise from 21.3 percent in 2011 to 26.3 percent in 2023.

In line with this difference in the age of household heads across these two types of households, poor households with children tend to have household heads with lower levels of education than poor households without children. Across all years, the proportion of households with children headed by individuals who attained primary or less education was substantially higher (by between 7.1 and 14.4 percentage points) than was the case for poor households without children. In 2023, 74.5 percent of poor households with children were headed by individuals with less than complete secondary education, compared to 65.3 percent of poor childless households. Conversely, 30.9 percent of poor childless households had households heads with children. Over the period, educational attainment amongst heads of both types of households improved, with substantial declines in the proportions with primary or less education, slight increases in the proportions with incomplete secondary education, and significant increases (approaching 10 percentage points) in the proportions with complete secondary education.

A marginally smaller proportion of households without children have heads who have a completed secondary education compared to those households with children. The difference ranges from 3.6 percentage points in 2019, to 6.5 percentage points in 2023. This is line with statistics from the Department of Basic Education (2024), which show that the number of National Senior Certificate passes has increased by 2.5 per year between 1994 and 2023, implying that more young people (who comprise a plurality of heads of poor households without children) are completing their secondary education. Heads of poor households without children are also more likely to have obtained a post-secondary educational qualification, such as a certificate/diploma or degree, than their counterparts in households with children although the differences are far smaller than for the complete secondary educational qualification.

There is a stark contrast between where households without and with children reside. In the case of those without children, the majority lives in urban areas (more than 60.0 percent across all years), and this has not substantially changed between 2011 and 2023. For poor households with children, there is a more even division between urban and rural areas, with rural areas typically accounting for the larger share. However, the trend over time has been towards a larger share of poor households with children located in urban areas, rising from 44.6 percent in 2011 to 51.2 percent in 2023. A likely explanation for this is related to the age profile of the households, with younger cohorts being drawn to urban areas for jobs and public services, while older cohorts may have other considerations, such caring for elderly family members, which may require that they leave urban areas. At the same time, South Africa is urbanising with each passing year. Between 2011 and 2023, the proportion of the population living in urban areas is estimated to have increased from 62.3 percent to 69.8 percent by 2023 (UN, 2018).

Three provinces – KwaZulu-Natal, Gauteng and Limpopo – have substantially different shares of poor households with and without children. In 2011, 20.6 percent of households with children were resident in KwaZulu-Natal, compared to only 14.4 percent of poor childless households, a difference of 6.2 percentage points. Although this gap was reduced to 3.1 percentage points by 2023, it remains one of the largest differences between provinces. A similar pattern emerges in Limpopo. In contrast there is a much larger proportion of childless poor households in Gauteng compared to households with children, with the difference ranging from 9.3 percentage points to 11.8 percentage points. In 2023, only two provinces in addition to Gauteng were home to a larger share of childless poor households than poor households with children: the Western Cape (7.2 percent of poor childless households, compared to 6.7 percent of poor households with children) and North West (8.8 percent and 8.2 percent respectively). This pattern may be linked to patterns of migration – and labour migration in particular – with all three provinces experiencing significant net in-migration. Between 2016 and 2021, these three provinces had the largest net in-migration flows of South Africa's provinces: +865 000 for Gauteng, + 317 000 for the Western Cape, and +113 000 for North West (Statistics South Africa, 2024b).

2.3. Inequality in South Africa

South Africa has long been characterised by extreme inequality, with the World Bank (2022) ranking it as the most unequal country in the world, with a consumption per capita Gini coefficient of 0.67 (where a value of zero designates perfect equality and a value of one perfect inequality). This high level of inequality is further supported by comparing South Africa's income shares of the top 10 percent and bottom 50 percent of the population in 2022 with those of other countries (Figure 2).



Figure 2. Income shares of the top 10 percent and bottom 50 percent of the population, 2022

Source: Alvaredo et al. (2022).

In South Africa, the top 10 percent of the population receive 65.4 percent of income, the highest proportion across all countries in the database. In contrast, the top 10 percent of the population in Brazil and India receive around 57 percent of total income, while the proportion is 43.4 percent in China and 38.1 percent in Algeria. At the other end of the distribution, the poorest 50 percent of the population receive 133 percent of total income—higher than the shares in Brazil (9.0 percent), Thailand (10.8 percent) and India (13.1 percent). On this metric, South Africa therefore performs somewhat better.

Several studies show that inequality worsened in the next two decades following 1994. Using the IESs from 1995 and 2000, Seekings et al. (2004) estimate the Gini coefficient increased from 0.65 to 0.70. Employing data from the PSLSD and the NIDS, Leibbrandt et al. (2012) find that the Gini coefficient increased from 0.66 to 0.70 between 1993 and 2008. However, inequality was shown by Hundenborn et al. (2018) to have fallen marginally between 1993 and 2014, with the Gini coefficient decreasing from 0.68 to 0.66. Statistics South Africa (2019) also show a decline in inequality as measured by the Gini coefficient, albeit over a different period (2006-2015), from 0.67 to 0.65. Thus, while inequality is estimated to have been high and rising during the initial decade and a half of the post-apartheid period, more recent estimates suggest that inequality may have stabilised or even declined marginally.

Figure 3 presents estimates of the Gini coefficient for the population as a whole, as well as for the employed, the working poor and the unemployed poor between 2011 and 2023, using the household nominal income per capita variable employed in the poverty analysis section. Across all four groups, income equality has declined slightly between 2011 and 2023, in line with the findings of Hundenborn et al. (2018) and Statistics South Africa (2019). The largest relative decline was amongst the employed, who experienced a decrease in income inequality of 7.1 percent, compared to a 4.5 percent decline nationally. The relatively low level of inequality amongst the working and unemployed poor compared to the other two groups is a function of the way in which these two groups were defined, which capped the maximum amount of household income per capita at the upper-bound poverty line for that particular year, thereby reducing inequality.



Figure 3. Gini coefficient, 2011-2023

Source: Own calculations, GHS 2011, 2015, 2019 and 2023.

Notes: The poor are defined as those individuals who reside in households whose per capita incomes fall below the upperbound poverty line in the particular year. The upper-bound poverty lines are: R799 per month in 2011, R992 per month in 2015, R1 227 per month in 2019, and R1 558 in 2023. Estimates are derived using the imputed household income variable as described in Box 1.

Despite the decline, however, inequality remains high. There are several explanations for South Africa's persistently high level of inequality. Firstly, South Africa's apartheid legacy resulted in the White minority accumulating assets and access to the best labour market opportunities, which were not afforded to people from other races, particularly the Black majority (World Bank, 2022). Furthermore, the apartheid government forcibly relocated Black people to homelands known as Bantustans or townships (Shifa et

al., 2023), which were located far from urban centres where the most job opportunities are available. As a result, these areas are characterised by high levels of poverty and which stand in stark contrast to the relatively high standard of living in urban areas (Shifa et al., 2023). Lastly, the post-1994 South African labour market is characterised by rising wages for skilled workers but stagnant wages for semi-skilled workers, as demand for more highly skilled workers grows relative to that for less skilled workers. As the majority of South Africans are not in skilled occupations, this further reinforces inequality (World Bank, 2022).

2.4. Inflation Trends

The cost environment is one of households' primary concerns, making inflation an important factor when examining poverty and inequality. In South Africa, price trends have impacted citizens' financial well-being, especially in key spending categories. The Consumer Price Index (CPI) measures aggregate price increases and remains the most important indicator of purchasing power over time. It is derived from a representative basket of goods and services describing the average South African household.

Figure 4 presents an overview of the South African inflation environment between 2011 and 2023. Headline CPI increased from 100 to 194.6 over the period, indicating that prices increased by 94.6 percent over the period. This fall in purchasing power means that households would have to almost double their expenditure in 2023 to acquire the same basket of goods and services as purchased in 2011. Alternatively, what could be purchased with R1 at the beginning of the study period would require R1.95 at the end of the period to purchase.



Figure 4. Headline CPI and the inflation rate, 2011-2023

Source: Own calculations, Statistics South Africa (2024a).

Notes: Headline CPI is rebased from December 2021 to January 2011. The diagram shows the 6 percent upper and 3 percent lower bound of the inflation target, and average inflation over the period.

The rise in the CPI directly translates into the erosion of purchasing power. Over the period, the inflation rate averaged 5.2 percent, marginally below the upper bound of the South African monetary policy inflation target of 6 percent. The average inflation masks the volatility of and variation in monthly inflation rates, shown by the orange line in Figure 4. It is important to note how inflation fared relative

to the inflation target adopted by the South African Reserve Bank (SARB). Only once since 2011 did inflation fall below the lower target. This was at the onset of the COVID-19 pandemic where much of the world shut down to contain the spread of the virus. This low inflation rate has not been reached since and is unlikely to be reached soon. In contrast, the upper bound has been breached at least six times, reaching a high of 7.8 percent in July 2022, a few months after the Russian invasion of Ukraine.

Figure 4 also shows two additional important economic features. The first is the frequency of change in the inflation rate, leaving little room for consistent prediction of future rates. The second is the magnitude of change. Times such as 2011, 2015, 2019, 2020 and 2022 depict changes of large magnitude, further fuelling difficulties in accurate expectations or predictions.

Figure 5 provides an insightful glance at relative cumulative price changes for the key expenditure categories of the CPI and illustrates the divergent inflationary paths across categories. Broadly, overall inflation given by the brown dotted line averaged 94.6 percent over the period. Any lines ending above the dotted line indicate categories that have become more expensive than those below the overall inflation line. Four of these categories have increased more than the average inflation rate of 94.6 percent. Education (+138 percent), FNAB (+133 percent), ABT (+106 percent), Miscellaneous goods and services (+113 percent) and transport (+104 percent) experienced the largest price increases above overall inflation. While these rates are higher than the average, not all categories have increased faster than average inflation. Categories such as health (+94%) and housing and utilities (92%) have also increased at a relatively high rate, but with a cumulative rate marginally lower than overall inflation, it is identified as relatively cheaper. A final standout is that only one category experienced an overall decline in price level over the period – Communication. The cumulative decrease in the cost of communication between 2011 and 2023 is 4.25 percent.



Figure 5. Cumulative inflation by category, 2011-2023

Source: Own calculations, Statistics South Africa (2024a).

Notes: The figure shows cumulative inflation for the key categories of South African inflation between 2011 and 2023.

A breakdown of the average annual inflation rate by expenditure category is shown in Figure 6 below to unpack the nuances of some of the largest contributors.

Figure 6. Average annual inflation by category and province, 2011-2023



Source: Own calculations, Statistics South Africa (2024a).

Note: Not all categories have been included in the figure. The excluded categories include communication, recreation and culture, restaurants and hotels, and miscellaneous goods and services. Individually, these account for a small proportion of the basket, and overall amount to 31.94 percent of the basket.

Figure 6 shows the breakdown by category and province. The radar chart is drawn to compare average annual inflation rates over the period for key categories of the CPI. Even though education comprises a small part of the CPI basket at 2.62 percent, the category experienced the highest average annual inflation rate at 6.9 percent, exceeding the 6 percent upper bound of the inflation target. The FNAB inflation rate is close to that of education. This trend suggests that the cost of education and basic sustenance has been rising more rapidly than other categories, potentially putting significant pressure on household budgets nationwide. The inflation rates for these categories frequently exceed the upper inflation target (represented by the dashed grey line), indicating persistent above-target price increases in these crucial sectors.

There is considerable variation in inflation rates across different expenditure categories. While education and food show consistently high rates, categories such as clothing and footwear (yellow line) and household contents and services (brown line) generally exhibit lower inflation rates, often falling below the lower inflation target. This disparity highlights the uneven nature of price increases across different sectors of the economy. Transportation (green line) and housing and utilities (purple line) tend to fall in the middle range, showing moderate inflation rates that are generally within or close to the target band in most provinces. This information should be contextualised. At an annual inflation rate of 7 percent, nominal education costs double every 10 years.

Provincial differences in inflation rates are also evident from Figure 6. Some provinces, such as the Western Cape (WC) and Gauteng (GT), appear to have slightly higher overall inflation rates across multiple categories than others. In contrast, provinces like the Eastern Cape (EC) and Northern Cape (NC) show relatively lower inflation rates in several categories. This geographic variation suggests that local economic conditions, policies, and market dynamics among others play a role in determining inflation rates, leading to disparities in the cost of living increases across different regions of South Africa. Despite these variations, the overall high education and food inflation pattern remains consistent across all provinces, indicating a nationwide trend in these critical sectors.

2.5. Summary

Poverty rates in 2023 are broadly similar to those in 2011. The data suggests a small decline in poverty between 2011 and 2023. This was true across all measures of money-metric poverty considered: the headcount ratio, the poverty gap index and the squared poverty gap index. The employed experienced the largest decline in poverty over the period, followed by the general population, all households and households with children. However, it is important to recognise that the GHS data is not ideal for the accurate measurement of money-metric poverty, and the results rest on a reconstructed household income variable.

The labour market value of a completed secondary education decreased between 2011 and 2023. The share of the working poor with a complete secondary education increased by 8.6 percentage points. The decrease was caused by an increase in the number of individuals obtaining this qualification and employers increasing the minimum educational qualifications for entry-level roles.

Gauteng accounts for a larger share of the unemployed poor than working poor. Many job seekers are drawn to Gauteng due to the perceived abundance of job opportunities. However, once they secure employment, they are less likely to fall into the category of the working poor, as the wages tend to be relatively high.

KwaZulu-Natal accounts for a larger share of the working poor than the unemployed poor. This could be attributed to relatively fewer economic opportunities in the province, or relatively lower wages, implying a larger share of the employed experience poverty.

Poor childless households are, on average, headed by younger individuals than those in which children are present. Households headed by individuals aged 15-34 years comprise over 35.0 percent of poor childless households across all periods, while these two groups do not exceed 25.0 percent combined amongst poor households with children.

Household heads of poor households with children have lower levels of educational attainment than heads of poor childless households. There is a higher share of primary or lower levels of education and a lower share of completed secondary education amongst household heads in poor households with children than without children.

There is a noticeable difference in the locations where poor households with children and those without children reside. More than 60.0 percent of poor households without children reside in urban areas, and this has not substantially changed between 2011 and 2023. For poor households with children, the distribution between urban and rural areas is relatively balanced. However, there is a growing trend of a higher proportion of these households residing in urban areas.

Although inequality declined slightly between 2011 and 2023, it remains high. The employed experienced the largest decline in inequality (-7.1 percent) compared to a 4.5 percent decline nationally. However, inequality remains high, with the national Gini coefficient estimated at 0.63 in 2023.

Average inflation was relatively high at 5.2 percent between 2011 and 2023. Inflation rates showed significant variation across the period, with a low of 2 percent in May 2020 and a high of 7.8 percent in July 2022. Since the last quarter of 2021, average inflation has exceeded the inflation target upper limit.

The cumulative inflation rates of key household expenditure categories, food and non-alcoholic beverages, education, and transport, are significantly above the national cumulative inflation rate. The cumulative inflation rate of 94.6 percent masks significant variation among key household expenditure categories. Education (+138 percent) experienced the highest rate, followed closely by food and non-alcoholic beverages (+133 percent).

3. Incomes

3.1. Household Income

3.1.1 Trends in Household Income

The analysis of trends in household income focuses on monthly per capita household income, adjusted to December 2023 prices. As described in Box 1, household income is the sum of four income sources: wages and salaries, grants, remittances, and pension income. Shared out equally across all household members, this is monthly per capita household income. Households are the unit of analysis here: income deciles are constructed using monthly per capita household income in each year and each decile accounts for 10 percent of all households in that year. Because household size often varies systematically with income, this means that these deciles account for differing shares of the total population, with poorer deciles often accounting for more than 10 percent of the total population. Table 16 in the appendix reports each decile's population share and income share for each year between 2011 and 2023. For example, in 2023, the bottom four deciles (40 percent) of households are home to 49.5 percent of the population, account for 5.8 percent of total income. In contrast, the top decile (10 percent) of households accounts for 48.0 percent of total income, but only 6.9 percent of the population.

Average per capita income in South Africa decreased from R5 316 in 2011 to R5 270 in 2023, representing a 0.9 percent decline. Figure 7 illustrates the significant variation around these averages, by presenting average household per capita income for each decile in December 2023 prices. Mean per capita household income in decile 4 hovers around the lower-bound poverty line, while mean income in decile 5 is roughly equivalent to the UBPL.



Figure 7. Mean household per capita income per month by decile (December 2023 prices), 2011-2023

Source: GHS (2011, 2015, 2019, 2023), Statistics South Africa (2024a).

Notes: Household income refers to imputed household income as described in Box 1. Deciles are household deciles, each representing 10 percent of all households. Values are expressed in December 2023 prices. The lower-bound poverty line (LBPL) is R1 088 per capita per month in December 2023 prices, while the upper-bound poverty line (UBPL) is R1 602.

Mean per capita household incomes for the bottom four deciles have consistently fallen below the UBPL over the period, while mean per capita household incomes for the bottom three deciles have remained below the lower-bound poverty line. In contrast, the per capita income of the richest 10 percent of households in 2023 was nearly 16 times the upper-bound poverty line and more than 23 times the lower-bound poverty line, illustrating the high degree of income inequality.

Figure 8 presents trends in mean household per capita income across the distribution over the 2011-2023 period to provide a clearer picture of income trends. The figure presents mean household per capita income in the form of an index where 2011 equals 100; a value below 100 indicates that average household per capita income in a given year is lower than it was in 2011, whereas a value above 100 indicates that it has risen since 2011. For the period as a whole, the poorest quintile saw an increase of 17.7 percent in mean household per capita incomes in real terms, while a similar increase is observed for quintile 2. For quintiles 3 and 4, incomes increased by 13.2 percent and 5.8 percent in real terms. Quintile 5, however, is estimated to have experienced a slight decline in mean household per capita income of 5.5 percent, suggesting that the slight decline in the overall mean income between 2011 and 2023 highlighted above was attributable to the trends for the top quintile. However, it is important to note that the income variable used here is unlikely to be accurate for the wealthiest households that earn significant incomes from sources other than wages, grants, remittances and pensions; these households incomes are likely significantly underestimated and the trends observed here may be completely different to trends for a more comprehensive income variable.



Figure 8. Change in indices of mean household per capita income by quintile (2011=100), 2011-2023

Source: GHS (2011-2023), Statistics South Africa (2024a).

Growth incidence curves (GICs) take this analysis a step further by illustrating the average annual growth rate of real household per capita income for every percentile of the distribution between two points in time. GICs are typically used to identify whether a growth episode in a country was pro-poor or not. Figure 9 shows the per capita household income growth rate between 2011 and 2023, and for three subperiods, across the income distribution. Over the entire 2011-2023 period, income growth was concentrated in the bottom half of the income distribution, exceeding two percent per annum for some

Notes: Household income refers to imputed household income as described in Box 1. Quintiles are household quintiles, each representing 20 percent of all households. Values expressed as indices with base 2011=100.

percentiles. Between the 20th and 50th percentiles, households experienced increases in per capita income of around one percent per annum. Above the 50th percentile, income growth rates gradually declined and after the 85th percentile turned negative for most percentiles. In short, using this measure of household income, households at the lower end of the distribution experienced income growth, while those at the very top end experienced declines.





Splitting the 2011-2023 period into three sub-periods, a different picture emerges. Between 2011 and 2017, income growth was significantly more rapid, although there were strong reversals across the entire distribution from 2017 until 2020. However, the short 2020-2023 period saw stronger growth, with gains particularly for the lower end of the distribution, a phenomenon that may be linked to the rollout of the Covid-19 SRD grant.

Cumulative distribution functions (CDFs) are typically used for poverty analysis and, in particular, exploring the robustness of poverty trends where there are multiple poverty lines. Figure 10 plots a series of CDFs, which show the proportion of households with per capita income no more than a particular value, for four years from 2011 to 2023. Thus, for example, roughly 50 percent of households in 2011 had per capita household incomes of no more than R2 000 per month, while around roughly 60 percent of households in 2015 had incomes of no more than roughly R3 500 per month. Where one CDF lies below another, the proportion of households earning up to a given amount is lower, pointing to a rise in incomes for that part of the distribution.

Source: GHS (2011, 2017, 2020, 2023), Statistics South Africa (2024a).
 Notes: Household income refers to imputed household income as described in Box 1. Percentiles are household percentiles, each representing one percent of all households. Values are deflated to December 2023 prices. Note that each graph has different y-axes.



Figure 10. Cumulative distribution function of real per capita household income (December 2023 prices), 2011-2023

Source: GHS (2011, 2015, 2019, 2023), Statistics South Africa (2024a). Notes: Household income refers to imputed household income as described in Box 1. Values are deflated to December 2023 prices. Values above R10 000 per capita per month are not presented.

The 2011 CDF lies above all the CDFs from at least R500 to around R6000, meaning that poverty declined between 2011 and each of the other years, irrespective of the choice of poverty line within this range of values. However, the CDFs for the other three years are much closer to each other, particularly for the range of Rand values up to R2 000 per capita per month. This means that evaluations of changes in poverty over time are going to be dependent on the exact poverty line chosen. Above R2 000, the picture is somewhat clearer: the proportion of households with incomes above a particular level is estimated to have increased from 2011 to 2015 and from 2015 to 2019; however, this proportion declined between 2019 and 2023 and, depending on the exact level of income being considered, the proportion in 2023 becomes indistinguishable from that in 2011. Simply put, this suggests improvements in per capita household incomes from 2011 to 2019, but a deterioration thereafter.

3.1.2 Income by Household Characteristics

Figure 11 compares the CDFs for households with and without employed members in 2011 and 2023. In both 2011 and 2023, the CDF for households with no employed members lies below that of households with at least one employed member. The CDFs show that poverty declined for both households with and those without employed members between 2011 and 2023, irrespective of the choice of poverty line within a broad range of values up to at least R5 000 per month.

The gaps between the CDFs illustrate the significant disparities in income between those who reside in households with and without access to wage income. The incidence of poverty for households without access to wage income is high compared to those with at least one employed member: in 2023, using the upper-bound poverty line, the poverty rate for households with access to wage income is 25 percent, roughly one third of the rate for households without access to wage income. While the poverty rates are slightly higher in 2011 at the upper-bound poverty line, this gap between these two groups of households is similar in size. Households without employed members are more likely to rely on grants

and remittances as their primary sources of income, highlighting the importance of social assistance in alleviating poverty.



Figure 11. Cumulative distribution functions of real household income per capita (December 2023 prices) by presence of employed household member, 2011 and 2023

 Source:
 GHS (2011, 2023), Statistics South Africa (2024a).

 Notes:
 Household income refers to imputed household income as described in Box 1. Values are deflated to December 2023 prices. Values above R10 000 per capita per month are not presented.

While households without access to wage income are more vulnerable to poverty than those with at least one employed member, the same is true of households with children which tend to have lower incomes than households without children (World Bank, 2018; Hall et al., 2012). How does the income distribution of household with children compare with households without children in South Africa? Figure 12 compares the CDFs for households with and without children in 2011 and 2023. In both 2011 and 2023, the CDF for households without children falls below that of households with children, pointing to higher incomes for the former group. The gaps between the graphs show the significant disparity between households with and without children. For example, approximately 60 percent of households with children in both years. Put differently, around 20 percent of households with children in both years. Put differently, around 20 percent of households without children in both years. Put differently, around 20 percent of households without children in both years. Put differently, around 20 percent of households without children in both years. Put differently, around 20 percent of households without children.

The figure suggests that poverty slightly decreased for both groups over the period, with the decrease in poverty being more substantial for households with children than those without children. This is true for all poverty lines between R500 and at least R4 000 per month.



Figure 12. Cumulative distribution functions of real household income per capita (December 2023 prices) by presence of children, 2011 and 2023

Source: GHS (2011, 2023), Statistics South Africa (2024a).

Notes: Household income refers to imputed household income as described in Box 1. Values are deflated to December 2023 prices. Values above R10 000 per capita per month are not presented.

3.2. Income Sources

3.2.1 Key Income Sources

As the discussion of households with and without employed members illustrates, different kinds of households will derive their incomes from different sources. In the GHS, the following income sources can be identified: salaries/wages; income from a business; remittances; pensions; grants; sales of farm products and services, and other incomes (e.g. rental income, interest); however, as previously noted, only salaries/wages, remittances, pensions and grants are included within the household income variable considered here. Figure 13 presents each of the four income sources as a share of total household income in each year between 2011 and 2023.

Income from the labour market—salaries and wages—consistently account for close to 90 percent of total household income in each year. That said, salaries and wages declined slightly in importance over the period, from 88.5 percent of household income in 2011 to 86.3 percent in 2023. That said, from a low of 84.9 percent in 2020, wages and salaries have been gradually increasing as a share of household income.



Figure 13. Contribution of income sources to household income, 2011-2023

Source: GHS (2011, 2015, 2019, 2023), Statistics South Africa (2024a). Notes: Household income refers to imputed household income as described in Box 1.

Of the three remaining sources of income, grants contribute the second largest share of total household income. Averaging between 5.8 percent and 6.6 percent of income between 2011 and 2019, the share of income accounted for by grants jumped to 10.1 percent in 2020—the height of the Covid-19 lockdowns and coinciding with a significant social assistance response to the pandemic. While the share of income accounted for by grants declined in 2021 to 8.1 percent, ending the period at 7.5 percent of household income, its share remains above the average for the nine pre-Covid years since 2011. South Africa's social assistance is relatively high compared to other developing countries, accounting for 3.3 percent of GDP compared to 1.4 percent of other developing countries (World Bank, 2021; Bhorat et al, 2023).

Both remittances and private pensions each contribute less than three percent to total income over the period, apart from the final three years when the share accounted for by pensions rose to around four percent. In 2011, remittances accounted for 2.6 percent, marginally more than the share of private pensions (2.4 percent). By 2023, remittances remained at around 2.4 percent of household income, while pensions had increased to 3.9 percent.

South Africa has a relatively comprehensive social assistance programme, which aims to protect the poor through cash or in-kind transfers (Bhorat et al, 2023). Grants are instrumental in supporting households at the lower end of the income distribution that typically lack access to labour income. This is confirmed in Figure 14, which illustrates the contribution of each income source across the income distribution between 2011 and 2023. The data confirms that grants are the main source of income for poor households, while labour income is the main source of income at the top income deciles. In 2023, grants accounted for 86.0 percent and wages and salaries for 8.2 percent of household income in decile 1. In contrast, grants were almost non-existent in decile 10 (0.2 percent), while income from work accounted for 94.6 percent of household income.^{IIII} In fact, grants have grown in importance for the poorest deciles over the period. For example, the share of grant income in household income for the bottom decile increased from 75.7 percent in 2011 to 86.0 percent in 2023, a trend that may have been reinforced by the introduction of the Covid-SRD grant. In contrast, the contribution of remittances to

total income has steadily decreased for the lower deciles over the period. The share of remittances in the income of the bottom decile decreased from 12.9 percent in 2011 to 5.8 percent in 2023, a decline of 6.1 percentage points.



Figure 14. Contribution of income sources to household income across the distribution, 2011-2023

Relative to other income sources, private pensions contribute the smallest share of income across the income distribution. In addition, pension income is skewed towards higher income households and contributes little to nothing to the resources at the lower end of the distribution. The share of income from pensions in the top decile increased from 2.5 percent in 2011 to 4.6 percent in 2023. This gap between the poorest deciles and wealthiest deciles shows the disparities in the ability to save across the income distribution, which is linked to differences in access to employment and income from work.

In summary, the composition of income has remained largely unchanged over the 2011-2023 period. Poor households are heavily—and increasingly—reliant on grants, while households at the top of the income distribution rely on earnings from labour. Since pensions are mainly derived from labour income, low employment rates and weak access to income from work amongst the poorest households undermines their ability to save and renders them reliant on the state for income support during old age.

South Africa's social security system does not have provisions for those outside formal employment, and informal sector workers cannot afford to contribute to pension systems. Therefore, most of these workers retire without any source of income, facing poverty and destitution in old age (ILO, 2022). Retirement policies should target poor households by integrating them into pension systems. For example, government can provide incentives for poor households to save; subsidize pension contributions of low wage earners; incentivize workers in the informal sector, the self-employed or atypical workers to save for retirement; or create flexible retirement savings options tailored for irregular income earners. While achieving inclusive retirement reform in South Africa is important to ensure that all households have the opportunity to make long-term retirement savings, and in turn,

Source:GHS (2011, 2015, 2019, 2023), Statistics South Africa (2024a).Notes:Household income refers to imputed household income as described in Box 1.

relieve pressure on the fiscus by reducing government spending on the old age grant, the effectiveness of such reform is constrained by the extent to which the economy creates jobs.

3.2.2 Wage Trends

There is a broad consensus in the literature that labour market income is the main contributor of household income inequality (Shifa et al, 2023; Bhorat et al. 2020; Hundenborn et al. 2018; Wittenberg, 2017). Changes in wages therefore are likely to drive changes in wage inequality. Figure 15 presents changes in mean and median real wages of the employed from 2011 to 2023. The gap between mean and median wages provides a sense of income inequality: the closer the mean and median wage are, the lower inequality.

The GHS data suggests relatively large variation in mean wages over the period and this is at least partly related to the challenges in the income data in this survey. Mean real wages increased from around R12 500 in 2011 to R15 700 in 2019, before falling again to R12 100 in 2023. This change between 2011 and 2023 represents an average annual growth rate of-0.3 percent. Median wages also increased during the first part of the period, rising from around R6 900 in 2011 to a peak of R9 200 in 2018, before declining during the later years to R7 300 in 2023. Between 2011 and 2023, however, the real median wage is estimated to have grown by 0.5 percent per annum on average.





Source: Own calculations, GHS (2011-2023), Statistics South Africa (2024a). Notes: The wage income variable includes imputations as described in Box 1.

Figure 16 presents the average annual rate of growth of real wages between 2011 and 2023 across the wage distribution. Over the full 2011-2023 period, wage growth was largely confined to the bottom 60 percent of the wage distribution, with several percentiles registering average annual rates of growth of over two percent per annum. Apart from a few percentiles around the 80th percentile, real wages above the 60th percentile were either stagnant or slightly declining. Wage growth at the lower end of the distribution may be partly attributable to the implementation of policies such as the national minimum wage, amongst others.



Figure 16. Annual average growth of real wages, 2011-2023

Source: Own calculations, GHS (2011, 2017, 2020, 2023), Statistics South Africa (2024a). Notes: The wage income variable includes imputations as described in Box 1.

Separating the period into sub-periods, it is clear that real wage growth was essentially confined to the 2011-2017 and 2017-2020 periods. Between 2011 and 2017, real wages increased relatively rapidly across the entire wage distribution, with particularly strong growth at the lower end of the distribution. Between 2017 and 2020, real wage growth was largely confined to the bottom 60 percent of the distribution, while real wages in the top 30 percent were typically falling. However, during the 2020-2023 period, real wages were largely in decline.

In summary, the key results from this descriptive analysis are that the wage growth rate was concentrated in the bottom of the wage distribution between 2011 and 2023. However, low wage earners experienced positive wage growth prior to the pandemic, and contraction during the post-pandemic period.

3.2.3 Social Grants

South Africa has a relatively comprehensive social security system given its level of economic development (Bhorat et al., 2024). The system consists of two pillars: social assistance, which aims to protect the poor using cash or in-kind transfers; and social insurance, which aims to protect individuals from adverse events (Bhorat et al., 2024). The post-apartheid period has seen a significant expansion in the size of the social assistance system and the number of social grants provided by the state has increased during the period under review.

The total number of social grants increased from 14.9 million in 2010/11 to 18.8 million in 2022/23 period, an increase of 26.2 percent over the period (Table 6). Social assistance consists of seven different cash grants, namely the old age grant (OAG), the war veterans grant, the disability grant (DG), the foster care grant (FCG), the care dependency grant (CDG), the child support grant (CSG), grant-in-aid (GIA), and the COVID-19 social relief of distress grant. In addition to these grants, social relief of distress is also provided to qualifying households, often in the form of in-kind support. Three grants—the CSG, OAG and DG—together account for more than 96 percent of all grants (excluding the COVID-19 SRD grant)

in terms of grants disbursed (SASSA, 2024). In the 2022/23 financial year, the CSG accounted for the largest share of the total number of grants (13.1 million or 69.8 percent of all grants). The old age grant accounted for 20.6 percent of all grants, while the disability grant accounted for a further 5.5 percent. No other grant accounted for more than two percent of total grants.

	2010/11	2014/15	2018/19	2022/23	Share (%)		2/23 Share (%) Change (2010/1 2022/23)		2010/11- 2/23)
Grant type	('000s)	('000s)	('000s)	('000s)	2010/11	2022/23	('000s)	(%)	
Old Age	2 679	3 087	3 553	3 887	17.9	20.6	1 208	45.1	
War Veterans	1	0	0	0	0.0	0.0	(1)	-98.4	
Disability	1 201	1 113	1 048	1 035	8.0	5.5	(165)	-13.8	
Grant-in-Aid	58	113	222	329	0.4	1.7	270	462.4	
Care Dependency	112	127	150	157	0.8	0.8	45	39.9	
Foster Child	513	500	386	274	3.4	1.5	(239)	-46.6	
Child Support	10 372	11 703	12 452	13 148	69.4	69.8	2 776	26.8	
Total	14 936	16 643	17 812	18 830	100.0	100.0	3 894	26.1	

Table 6. Number of social grants by type of grant, 2010/11-2022/23

Source: SASSA (2024).

Notes: SASSA (2024) did not provide statistics for the Covid-19 grant.

Over time, the composition of social assistance has shifted as different grants expand or contract more rapidly than others. The old age grant increased particularly rapidly over the period (an increase of 45.1 percent), resulting in its share of grants increasing by almost three percentage points over the period. The number of child support grants also grew relatively rapidly, although its 26.8 percent increase over the period was only marginally faster than the average for all grants. In contrast, the number of individuals receiving disability grants decreased by 13.8 percent over the period (a decline of 165 000), resulting in its share of grants falling by 3.5 percentage points over the period.

In terms of grant values, the old age, war veterans and disability grants are the highest value grants, with recipients of the former two grants receiving a slightly higher amount once they reach the age of 75 years.^{iv} Grant values are regularly adjusted to address the effects of inflation over time. Figure 17 presents the inflation-adjusted values of the major grants from April 2011 to October 2023 (values are expressed in December 2023 prices). Overall, nominal adjustments have generally managed to keep pace with the headline inflation rate for most grants, with the exception of the foster grant and COVID-19 SRD grants. Real values for the old age, war veterans and disability grants remained around R2 100 per month from April 2011 to April 2017, and gradually edged higher to around R2 200 before COVID-19. In 2020, the value was increased substantially as a temporary relief response for the COVID-19 pandemic until October 2020. Since COVID-19, however, the real value of these grants has declined gradually, returning to the levels seen during the mid-2010s.

The real value of the CSG and grant-in-aid remained very gradually drifted upwards between April 2011 and April 2020, before the temporary boost in response to the COVID-19 pandemic. Following the removal of this boost, the real value of these grants has gradually—and very slightly—eroded. In addition, on the first of June 2022, government offered extra support for individuals taking care of orphaned children to supplement the standard child support grant (Social Development, 2022). This is the child support plus top-up in the figure.

In contrast, the foster care grant and COVID-19 SRD grant saw significant declines in real terms. The real value of the foster grant declined from R1 411 in April 2011 to R1 130 in December 2023, representing a decline of 20.0 percent. The COVID-19 SRD grant fell by 18.4 percent from R428 in May 2020 in December 2023 prices, to the current R350.





Source: Own calculations, SASSA (2011-2023), Department of Social Development (2011-2023), and Statistics South Africa (2024a).

Notes: Values adjusted to December 2023 prices.

It is important to note that using alternative price indices may impact on the assessment of whether nominal grant values have kept up with inflation. The estimates presented here use the official measure of inflation (headline inflation for all urban areas), which shows that prices have increased by 94.6 percent between January 2011 and December 2023. In contrast, food prices have increased by 136.1 percent over the same period, while inflation rates for the poorest five expenditure deciles have ranged from 95.7 percent for decile 5 to 114.1 percent for decile 1. Expanding the measure to the whole country (i.e., including rural areas), overall inflation over the period was 95.7 percent, food inflation was 137.6 percent, and deciles 1 through 5 experienced inflation rates of 112.3 percent to 97.6 percent. Using any of these price indices changes the picture presented in Figure 17 significantly (Table 7). For example, using headline CPI, the real value of the old age grant declined by 0.6 percent between January 2011 and December 2023; however, using the food CPI for urban areas, the decline is 18.0 percent, while the decline is 9.6 percent using the decile 1 price index for urban areas.

	N	ominal valu	es	Jan 2011 values in Dec 2023 prices using:			% Change in Real Terms		
Grant type	Jan 2011	Dec 2023	% Change	Head- line CPI, Urban	Food CPI, Urban	Decile 1, Urban	Head- line CPI, Urban	Food CPI, Urban	Decile 1 <i>,</i> Urban
OAG, DG, CDG	R 1 080	R 2 090	93.5	R 2 102	R 2 550	R 2 313	-0.6	-18.0	-9.6
OAG (75+), WVG	R 1 100	R 2 110	91.8	R 2 141	R 2 597	R 2 355	-1.5	-18.8	-10.4
FCG	R 710	R 1 130	59.2	R 1 382	R 1 676	R 1 520	-18.2	-32.6	-25.7
CSG, GIA	R 250	R 510	104.0	R 487	R 590	R 535	4.8	-13.6	-4.7

Table 7. Changes in real values of grants using alternative price measures, 2010/11-2022/23

Source: SASSA (2023), Statistics South Africa (2024a).

Notes: Rural price indices are very similar to the urban price indices and therefore the figures presented here are representative of the magnitude of the impact.
BOX 2: Preserving the purchasing power of social grants

In simple terms, 'purchasing power' can be thought of as how many goods and services can be bought for a given amount. Rising prices mean that, over time, households are forced to spend more money to purchase the same basket of goods and services. In other words, the purchasing power of their money is falling. Ensuring that the purchasing power (or real value) of social grants is maintained over time is essential to the ability of the grant system to effectively play its role in reducing poverty. To determine the real value of each of the grants, the (nominal) Rand value of the grant at a particular point in time must be adjusted using a price index. Thus, it is possible to express the value of a grant paid out today or at any time in the past in, for example, December 2023 Rands.

There is a wide range of options in terms of price indices that can be used to deflate nominal values. Most commonly, the headline CPI for all urban areas is used as a deflator and this is the price index generally used throughout this report. The average expenditure basket that underlies headline CPI is, though, not particularly representative of households at the lower end of the income distribution. Oosthuizen (2007), for example, shows that the average basket of goods and services calculated using the standard approach for constructing CPI weights is most representative of households in the 95th percentile of the income distribution in 2000. This is a common result internationally, but greater inequality is associated with CPIs being most representative of households higher up the income distribution. Statistics South Africa (2024a) also shows, for example, that the richest 10 percent of households account for 48.7 percent. This means that, if one uses the headline CPI for all urban areas to calculate the real value of grants, the focus will be on price movements of goods and services most commonly consumed by wealthy households.

As an alternative to using headline CPI to deflate grant values, the food CPI is sometimes suggested. However, this may be argued to have important disadvantages. First, grants are not spent exclusively on food, meaning that the food CPI may not reflect the kinds of price changes experienced by grant recipient households. Second, the food CPI is particularly volatile— the standard deviation of the monthly year-on-year inflation rate for the food CPI for all urban areas between January 2009 and August 2024 is almost triple that of headline CPI—due to the impact of price fluctuations that are driven by seasonal and other factors, such as local and international food supply shocks. Further, while price indices can rise and fall, the food CPI is more likely than an overall CPI to fall. High volatility in inflation rates may increase pressure for more frequent adjustments to the nominal grant values, while falling CPIs would imply that grant values would need to be reduced in order to maintain their real values.

If the objective is to ensure that grants maintain their purchasing power over time, a suitable price index would be one that accurately reflects the basket of goods and services purchased by households receiving grants. Statistics South Africa publishes price indices for the ten expenditure deciles each month (total country expenditure deciles), calculated based on the spending patterns within each decile. The price index for one of the lower deciles—e.g. decile 3—could be chosen as the basis for deflating the values of the grants, or a new index covering, say, the poorest 40 percent of households could be constructed. This index would be more representative of the spending patterns of households receiving social grants, ensuring that food has an appropriately large weight within the basket while also recognising that poor households are also exposed to inflation from non-food sources.

The Household Affordability Index, constructed by the Pietermaritzburg Economic Justice and Dignity Group, is another approach to understanding purchasing power for poor households. This index tracks food prices based on a food basket that was designed in 2020 with low-income women in several areas within Johannesburg, Cape Town, Durban, Pietermaritzburg, Mtubatuba, and Springbok (PEJDG 2024). Food prices are monitored in "47 supermarkets and 32 butcheries that target the low-income market and which women identified as those they shop at in the areas where they live" (PEJDG 2024). This approach has some limitations in the context of understanding the purchasing power of grants in that it is not nationally representative and only includes food items. The authors also note that the food basket is "not nutritionally complete" (PEJDG 2024).

Based on the data collected, the average cost of the Household Food Basket across the monitored areas was R5 348.65 in October 2024, compared to R3 916.72 in October 2020 (PEJDG 2020, 2024). This represents an increase of 36.6 percent over the four-year period, or an average annual inflation rate of 8.1 percent. This is slightly higher than the 7.6 percent annual increase for Statistics South Africa's food price index for all urban areas (own calculations, Statistics South Africa 2024a).

3.3. Summary

There is a high concentration of households living in poverty and another group living just above the poverty line. More than 40 percent of households sit below the poverty line under the UBPL, with the poverty gap being widest for the poorest 10 percent of households.

Households at the bottom of the income distribution have seen an increase in average per capita income, while those at the top end have experienced a decline. Households without employed members face a higher incidence of poverty compared to those with at least one employed member, with the poverty rate being almost three times higher for those with at least one member employed (based on the UBPL).

Households with children are more likely to be poor than those without children. There has been a more modest decrease in poverty among households with children.

South Africa's income structure has remained largely unchanged over the last twelve years. Poor households continue to rely heavily on grants, whereas wealthier households depend on earnings from labour. This reliance on labour income for pensions means that poor households, unable to contribute to pension savings, increasingly depend on grants during retirement.

Social assistance remains a crucial tool for alleviating poverty and narrowing the income gap in South Africa. The total number of social grants increased from 14.9 million in 2010/11 to 18.8 million in 2022/23, representing a 26.2 percent increase, and have kept pace with inflation. Two social grants have not kept pace with inflation, namely the foster care and COVID-19 SRD grants.

Employment is an important pathway out of poverty. Policies that create jobs and promote investment are needed to absorb more labour into the economy.

Wages have been relatively stable, with wage growth concentrated at the bottom of the wage distribution. This is likely due to the introduction of labour market regulations. In summary, while there have been some positive trends for households at the bottom of the income distribution, a reduction in poverty for certain groups, and a slight decrease in inequality, income inequality remains stubbornly high.

4. Cost of Basic Services

Examining inflation data from a cost perspective is central to understanding changes in the cost of living over time. Inflation measures provide a standardised way to compare price increases across different goods and services, revealing how purchasing power changes over time. An important feature of modern-day societies is the general rise in prices, which naturally causes concern for households. However, when prices rise in line with inflation, households are not necessarily worse off over time. Households may even experience an improved standard of living if price increases are slower than income increases. Unfortunately, this is often not the case. Many societies, including South Africa, experience general price increases that outpace income growth, leading to a decline in real purchasing power. This decline directly results from inflation's impact on the cost of living.

A primary concern for households is the expenditure incurred on a basket of goods and services required to maintain a given standard of living. This basket includes, but is not limited to, items such as food, education, health, transport, utilities and clothing. At its core, these items are required by a household to sustain itself in society. Notably, households have no control over the prices of many items in the basket. So, the commonly derived phrase "cost of living" becomes focal when understanding the impact of price increases over time.

This section examines the evolving cost landscape of basic goods and services in South Africa over the past 13 years. The analysis focuses on essential utilities and services that form the foundation of daily life for South African households, including education, food, electricity, water, transport and healthcare.

4.1. Expenditure Patterns across the Income Distribution

Figure 18 presents the composition of household expenditures across the income distribution in South Africa. While housing and utilities, transport, miscellaneous goods and services, and food constitute the top expenditures nationally, accounting for 32.6 percent, 16.3 percent, 14.7 percent, and 12.9 percent of expenses, respectively, a more nuanced analysis reveals stark disparities between the poorest and richest deciles.

Notably, the poorest 10 percent of households allocate a substantial 31.1 percent of their expenses towards food and non-alcoholic beverages, indicating the disproportionate burden basic necessities place on poor households' budgets. Housing and utilities (29.0 percent), transport (11.8 percent), and clothing and footwear (8.0 percent) follow in importance. In contrast, the richest households prioritize housing and utilities (35.6 percent), transport (19.6 percent), miscellaneous goods and services (17.3 percent), and furniture and equipment (5.2 percent), with food accounting for just 5.8 percent of expenditure.

The data highlights significant disparities in expenditure patterns across different income groups, with the poorest households struggling to afford basic necessities. The poorest 60 percent of households devote more than 25 percent of their expenses towards food, underscoring the significance of this expenditure category for low-income households. Housing expenses remain a significant burden across all income groups, ranging from 25 percent to 35 percent of total expenditures, with a national average of 32.6 percent, highlighting the importance of affordable housing.



Figure 18. Composition of consumption expenditure by decile, 2014

Source: Own calculations, LCS 2014/2015.

Notes: Percent shares for each category are presented in Table 17 in the appendix.

Transport also constitutes a major expense, with the poorest decile allocating 11.8 percent and the richest decile allocating 19.6 percent of their expenses towards this category. This finding around varying transport expenses highlights differences in transportation needs and access across income levels. Furthermore, the richest 20 percent of households spend an average of 16.8 percent on miscellaneous goods and services, such as insurance, personal care, and jewellery, in sharp contrast to the poorest households, which spend considerably less (5.7 percent for the poorest 10 percent). This highlights disparities in discretionary household spending and underscores the persistence of inequality and limited economic mobility for low-income households, given the disproportionate burden of basic expenses.

4.2. Education

Earlier, Figure 5 showed that education inflation continues to outstrip all other categories. Education comprises only 2.62 percent of the inflation basket, indicating that it is not one of the larger household expenditures for the average South African household. However, many households incur school fee expenditures that may be significant in relation to their total expenditure.

Education fees are commonly adjusted once per year^v, usually at the start of the academic year. A breakdown by sub-category within education shows a similar initial growth path for all sub-categories that diverges from approximately 2015 when Fees Must Fall protests first started (Figure 19). This movement resulted in lower annual increases in university fees, as shown by the stepped green line.

The overall increase in primary and secondary school fees is 153.4 percent over the period. This yields an annual average inflation rate of 7.31 percent, which is 2.1 percentage points higher than the headline CPI of 5.2 percent for the same period. At an annual average inflation rate of 7.31 percent for primary and secondary school education, costs to the household doubled in 9.5 years. This means that if households spent R100 on education in 2011, by mid-2019, they were spending approximately R200 on the same education basket. In contrast, university education costs took 11 years to double, from 2011

to 2021. This substantial rise in a relatively small component of the CPI basket suggests that education inflation has been outpacing overall consumer price increases, potentially having a disproportionate impact on household budgets. This suggests that national inflation figures may not adequately capture the financial pressures faced by families in different regions when it comes to educational expenses.



Figure 19. Cumulative education inflation by sub-category, 2011-2023

These trends, viewed in the context of education's relatively small contribution to the overall CPI, emphasize the importance of monitoring sector-specific inflation rates. They also highlight the need for targeted policies to address rising education costs, particularly in secondary education and in regions experiencing the highest inflation rates, as these increases may be more burdensome than the CPI weighting suggests.

4.3. Food

Figure 18 showed that food constitutes more than 30 percent of expenditure for the poorest 40 percent of households, making it the largest category of household expenditure for the poorest households. Within the CPI basket, food and non-alcoholic beverages (FNAB) accounts for 17.14 percent of the weight. This is split into 15.3 percent for food and 1.84 for non-alcoholic beverages. Figure 20 shows cumulative headline inflation plotted against FNAB inflation to illustrate the relatively higher FNAB inflation rate. Overall, cumulative FNAB inflation is 136.1 percent between 2011 and 2023, exceeding cumulative headline inflation (94.6 percent) by 41.5 percentage points by the end of the period. This implies a significantly higher annual food inflation rate of 6.8 percent over the period compared to 5.2 percent for headline inflation. The differing inflation trends become more noticeable from the beginning of 2016, widening the differential over time. From 2022, there is an additional widening of the inflation rate, leading to a large overall differential by the end of the period.

Source:Own calculations, Statistics South Africa (2024b).Note:Data for this graph was acquired through a special request to Statistics South Africa for disaggregated data.



Figure 20. Cumulative headline and food and non-alcoholic beverages inflation, 2011-2023

Figure 21 shows cumulative inflation for the components of FNAB. An examination of the individual categories comprising the food basket reveals that sugar, sweets and desserts inflation was 197 percent over the period. Vegetables followed at 150.4 percent, with oils and fats, milk, eggs and cheese (dairy), fish, and breads and cereals averaging 137.0 percent, 136.2 percent, 135.1 percent and 132.7 percent respectively. Three categories of other food, meat and fruit also experienced increases of 129.6 percent, 127.1 percent and 64.3 percent respectively.

Figure 21. Cumulative inflation for food and non-alcoholic beverages sub-categories, 2011-2023



Source: Own calculations, Statistics South Africa (2024a).

Source: Own calculations, Statistics South Africa (2024a).

An important observation is that food inflation shows high volatility over time and variation between categories. This is evident across all food sub-categories but is especially apparent for items such as fruit and vegetables, where some inputs are beyond the producers' control and where seasonality plays an important role in the balance between supply and demand and, therefore, in determining prices.

4.4. Utilities

Administered prices refer to goods and services whose prices are set or significantly influenced by government policy rather than determined solely by market forces. In South Africa, these include essential utilities like water, electricity, and municipal assessment rates. These prices are often regulated to ensure access to basic services, but they can also be a source of inflationary pressure when increased to cover rising costs or fund infrastructure improvements. Figure 22 illustrates the cumulative inflation of three key administered prices –water, electricity, and assessment rates –from 2011 to 2023. All three categories show significant increases over the 13-year period, with water and electricity prices rising more steeply than assessment rates at approximately twice the average annual inflation rate. This trend indicates that the cost of these essential services has grown substantially faster than general inflation, potentially placing a heightened burden on South African households and businesses.





Water prices show the most dramatic increase, rising by over 250 percent cumulatively since 2011. This steep climb reflects the challenges faced in water management, including infrastructure maintenance, drought management, and the need to expand access to clean water across the country. Electricity prices have also increased substantially by over 230 percent during this period. This rise is particularly noteworthy given South Africa's ongoing electricity crisis. The country has been grappling with severe power shortages, frequent load shedding (planned blackouts), and Eskom's financial struggles. Despite these price increases, South Africa continues to face electricity supply issues, highlighting the complex challenges in aligning pricing, infrastructure investment, and service delivery in the energy sector. Assessment rates have increased at a slower pace compared to water and electricity, rising by about 140 percent over the period. These rates, which are property taxes levied by municipalities, play a

Source:Own calculations, Statistics South Africa (2024a).Note:Data for this graph was acquired through a special request to StatsSA for disaggregated data

crucial role in funding local government services. Their more moderate increase might reflect efforts to balance the need for municipal revenue with the burden on property owners.

The overall trend of rising administered prices, particularly in essential utilities like water and electricity, presents significant challenges for South African policymakers. They must balance the need to fund and improve these critical services with the impact on affordability and cost of living for citizens. The steeper rise in utility prices compared to assessment rates also suggests that infrastructure-intensive services are facing more acute cost pressures, possibly due to historical underinvestment or increasing operational challenges.

4.5. Transport

Figure 23 illustrates the cumulative inflation trends for various transport-related categories from 2011 to 2023. The categories depicted are overall transport, purchase of vehicles, private transport operation, and public transport. Transport accounts for 14.35 percent of the CPI basket.

The most striking feature of the graph is the sharp divergence in inflation rates among different transport categories, especially after 2020. Private transport operation shows the most dramatic increase, with its cumulative inflation rate soaring to around 160-170 percent by 2023. This steep rise likely reflects increasing fuel costs and maintenance expenses for private vehicle owners. Public transport follows as the second-highest category, reaching about 130 percent cumulative inflation by 2023, indicating significant price increases in services like buses and taxis (prices for train transport increased by 87 percent over the period according to data obtained from Statistics South Africa). The overall transport category (which represents a weighted average of all transport costs) shows a more moderate increase, reaching about 100 percent cumulative inflation by the end of the period.



Figure 23. Cumulative transport inflation, 2011-2023

Source: Own calculations, Statistics South Africa (2024a).

Interestingly, the purchase of vehicles category demonstrates the lowest cumulative inflation rate, growing steadily but more slowly than the other categories and reaching only about 70 percent by 2023. This suggests that while the costs of operating and using transport have risen dramatically, the relative

cost of purchasing vehicles has increased at a slower pace. The graph also shows notable volatility in the private transport operation category, with sharp fluctuations particularly evident from 2020 onwards, possibly reflecting the impact of global events such as the COVID-19 pandemic and oil price fluctuations. Overall, this graph underscores the significant and uneven increases in transport-related costs in South Africa over the past decade, with operational costs outpacing vehicle purchase prices and public transport costs rising considerably.

4.6. Free Basic Services

At the core of the government's commitment to the people of South Africa, is the commitment through the South African Constitution to provide access to basic services including water, electricity, sewerage and sanitation, and solid waste management. Housing and utilities and food and non-alcoholic beverages constitute the largest household expenditure categories (Figure 18). The figure shows that housing and utilities constitute a large proportion of household expenditure across all income deciles and remain a key category of expenditure independent of income. Within the CPI basket, basic services—calculated as the sum of *water and other services* and *electricity and other fuels*—constitute approximately 7.16 percent of the expenditure basket. Through the extension of the free basic services, the effective weight of these services in the CPI basket can be reduced for poor households, reducing pressure on household budgets and serving to at least partially insulate households from rising prices.

Data from the *Non-financial Census of Municipalities survey (NFCM)* describe patterns and trends in the supply of free basic services across the country. This census of all 257 municipalities provides information on service delivery of water, electricity, sewerage and sanitation, and solid waste management (refuse removal) for planning and monitoring with respect to national priorities around service provision and poverty alleviation (Statistics South Africa, 2024c). This survey provides data on the supply side or provision of basic services by local or district municipalities with a 100 percent response rate. The unit of analysis in household surveys is households, while in the NFCM, services are analysed in terms of consumer units, defined as the delivery point to which a service is billed. This may be a household. It can therefore not be assumed that households and consumer units are identical, nor can the same level of service delivery to households and consumer units be inferred.

The free basic services policy, first introduced in 2001, stipulates that consumer units, defined as the delivery point or billing unit of a municipality's basic services, may benefit from free or subsidised access to basic services. Specifically, consumer units may receive some free allocation of water (6 kl) and electricity (50kwh), the amounts determined by the National Framework for Municipal Indigent Policies of 2005 and Guidelines for the implementation of the national Indigent Policy by municipalities (2006). Access to sewerage and sanitation and solid waste management (refuse removal) is commonly subsidised by a fixed amount of R50 per household.

Figure 24 shows the provision of four basic services in South Africa between 2011 and 2022. All four basic services show an increase in their provision by municipalities, with an average increase of approximately 40 percent across all four categories. Specifically, sewerage and sanitation services increased the most at 43 percent while water provision increased by 39 percent over the period. These percentage increases represent an overall rise in service provision of between 3.2 million and 4.3 consumer units.

Figure 24. Provision of basic services, 2011-2022



Source: Own calculations, NCFM (2024).

Note: The provision of basic services is recorded at the consumer unit or billing unit level and is not directly comparable with other household surveys. Data is released with a two-year delay with 2022 data the most recently publicly available dataset.



Figure 25. Provision of Free Basic Services, 2011-2022

Source: Own calculations, NCFM (2024).

Note: The provision of basic services is recorded at the consumer unit or billing unit level and is not directly comparable with other household surveys. The provision of free basic services is recorded at the household level and is therefore not directly comparable to data recorded at the consumer unit level. Data is released with a two-year delay with 2022 data the most recently publicly available dataset.

While the national picture portrayed in Figure 24 suggests a significant improvement in the provision of basic services as overall provision has increased between 2011 and 2022, Figure 25 shows the uneven nature of this rollout. In 2011, more than 4.1 million households received free basic water services. By 2022, the number of households has decreased to 2.8 million, a decline of more than 1.3 million households. A similar pattern of decline is observed across the three remaining categories. However, the extent of the decline is much smaller than that of water, with declines of 500 000, 95 000 and 300 000 households for free basic electricity, free basic sewerage and sanitation and free basic solid waste management, respectively.

Figure 26. Free basic service allocations for indigent households



Source: DPLG (2005).

The National Development Plan (2012) articulates the government's national socioeconomic development strategy, including ways to reduce the cost of living for poor households through service subsidies or reductions in expenditures. Free and subsidised basic services, including water, electricity, sewerage and sanitation and solid waste management directly reduce the cost of living for poor households and are a targeted approach to poverty alleviation and inequality reduction within the grasp of government.

4.7. Inflation and Wages

Figure 27 presents a comparative view of cumulative inflation, nominal wages, and real wages in South Africa over the past 13 years. The cumulative inflation line represents the total increase in the general price level of goods and services over time, illustrating the erosion of purchasing power. The nominal wages line, represented by mean nominal wages, shows the actual monetary value of wages as they have increased over the years without adjusting for inflation. This reflects the face value of what workers earn. The real wages line, derived by adjusting nominal wages for inflation, represents the true purchasing power of workers' earnings over time.

By plotting these three measures together, we can discern the net position of South African consumers and workers. The relationship between the nominal wage line and the inflation line indicates whether wage increases have kept pace with rising prices. The real wage line, however, tells the most crucial story- it shows whether workers' purchasing power has improved, remained stable, or declined over the 13-year period. If the real wage line rises above its starting point, it suggests that wage growth has outpaced inflation, leading to improved living standards. Conversely, if it falls or remains flat, it indicates that despite nominal wage increases, workers' buying power has stagnated or decreased, potentially resulting in a lower standard of living through an erosion of purchasing power. This graph thus provides a comprehensive picture of how economic forces have impacted the financial well-being of South African workers over time.





Source: Own calculations, GHS (2011-2023), StatsSA (2024b).

Note: Annual averages presented in this graph may differ from monthly averages due to aggregation methods. Annual figures smooth out short-term fluctuations and provide a broader trend perspective, while monthly data capture more granular changes throughout the year.

By the end of 2023, South Africans had lost a marginal 3.4 percent relative to 2011 real wages. This means that despite any nominal wage increases, when adjusted for inflation, the average worker can buy 3.4 percent less goods and services at the end of the period than they could at the beginning. This may be viewed in a few ways. First, the average workers' standard of living has slightly decreased over the 13-year period. Second, nominal wage increases have not fully kept pace with the rising cost of living. Third, workers are slightly worse off in real terms than 13 years ago.

The negative real wage position in 2023 underscores the challenges faced not only by workers but also by the households in which these workers reside to maintain their living standards in the face of rising prices, highlighting the potential role of broader economic conditions in South Africa over this period.

4.8. Summary

- Persistent above-target inflation remains a reality for many key household expenditure categories. Many essential goods and services have consistently experienced inflation rates above the South African Reserve Bank's target range, eroding purchasing power faster than incomes can keep up and impacting living standards.
- Education, transport, and utilities have seen particularly high inflation rates, outpacing general consumer price increases. This trend puts significant pressure on household budgets, especially for lower-income families. Regional variations have not narrowed over time.
- Administered price pressures are a concern. Utilities such as electricity and water have seen substantial price increases, often driven by infrastructure challenges and the need for service expansion. These administered price hikes have a cascading effect on overall living costs.

- The cumulative effect of these inflationary trends over the 13-year period has been substantial, with many essential goods and services now significantly more expensive relative to income levels. This sustained inflation, particularly in critical sectors like education, healthcare, and utilities, poses severe challenges to social equity and economic development in South Africa.
- The disparities in inflation rates across different goods, services, and regions underscore the need for nuanced approaches to economic management and social support. As South Africa continues to grapple with these inflationary challenges, maintaining a focus on inclusive growth and equitable access to essential services will be paramount in ensuring a sustainable and prosperous future for all citizens.
- The provision of free basic services has the effect of reducing pressure on poor households' budgets, while also insulating them from price increases for these services by reducing the weight of these services within their expenditure bundles. However, the most recent data from municipalities suggests a scaling back in the provision of free basic services, with all four services seeing reductions in the number of households benefiting over the 2011-2023 period.

5. Access to Basic Services

5.1. Housing

Households devote a large portion of their income to housing expenses. In other words, housing contributes to a high cost of living. According to data from the Living Conditions Survey (LCS) 2014/15 (Stats SA, 2017a), housing and rental expenses (excluding utilities and maintenance costs) accounted for 24.1 percent of average annual household expenditure in South Africa. Socioeconomic factors such as rising income inequality, slow wage growth and high unemployment reduce the likelihood of households finding affordable housing.

The South African Constitution guarantees the right to sufficient housing (Section 26(1) and (2)). This includes access to housing options like ownership and renting, as well as shelter provision. However, South Africa's current urban landscape has been shaped by the spatial planning legacy of the apartheid era (Goebel, 2007; Turok, 2011). Apartheid's forced relocations and community segregation amplified the scarcity of cheap housing in cities, exacerbating socioeconomic disparities. For example, poor or low-income black communities have often been marginalised and forced to live on the outskirts of cities, distant from employment opportunities and amenities (Seekings, 2000). Inferior quality housing, deteriorating infrastructure, and a lack of maintenance have contributed to South Africa's historical housing challenges (Huchzermeyer, 2001). Moreover, social housing projects have been of poor quality (Manomano and Tanga, 2018). Migration, urbanisation, and population growth also play a role in driving housing costs by raising demand in some areas, while depressing demand in others.

Figure 28 presents an alluvial diagram of housing for South African households in 2023. It is evident that in 2023, a household chosen at random in South Africa will most likely be headed by an African, reside in an urban setting and in a formal dwelling, and own their home debt-free. Overall, 65.9 percent of households reside in urban areas, while 83.1 percent have African heads; 85.5 percent of households live in formal dwellings and 72.0 percent own their dwellings; of those that own their dwellings, 90.3 percent own them debt free.

The vast majority of rural households are headed by Africans (0.331/0.341=97.1 percent); this proportion is roughly the same as in 2011. More than four out of five (0.693/0.831=83.3 percent) of African-headed households reside in formal dwellings, up from 74.6 percent in 2011. Informal dwellings are almost universally (0.138/0.145=95.2 percent) occupied by African-headed households. Households headed by Coloured, Asian, or White individuals rarely reside in informal dwellings, with 95.9 percent (=0.162/0.169) reporting that they live in formal dwellings, marginally lower than the 97.1 percent in 2011.

Roughly three-quarters (0.633/0.855=74.0 percent) of households who live in formal dwellings own their dwellings, with or without debt. This is higher than the ownership rate of 60.0 percent (=0.087/0.145) for informal dwellings. Nine out of ten (90.3 percent) of households who own their dwellings do so without debt, marginally up from 87.3 percent in 2011. The findings suggest that historical settlement patterns still dominate the South African housing landscape. The small decline of informal dwelling amongst Africans indicates marginally better living conditions and access to services.

Figure 28. Housing in South Africa, 2023



Source: Own calculations, GHS 2023.

The trend towards urbanisation over the 2011-2023 period is reflected in Figure 29, which presents patterns of dwelling type by income category. There has been a decline in the share of traditional dwellings and a rise in the share of formal dwellings over the period. The poorest 40 percent and the middle 40 percent of households show the largest shifts: the share of formal dwellings rose by 9.3 percentage points over the period for the poorest 40 percent of households and by 5.3 percentage points for the middle 40 percent, while the proportion of traditional dwellings fell by 9.8 percentage points to 7.4 percent and by 3.2 percentage points to 2.2 percent for these two groups respectively. Mlambo (2018: 66) suggests that people looking for higher quality and availability of basic services (healthcare and educational facilities) and better economic opportunities (employment and higher income prospects) are a possible explanation of the drivers of migration from South Africa's rural to urban areas. The former is associated with the poorest 40 percent of households, who, as this analysis will show, typically have lower levels of access to services and often migrate to informal dwellings, an indicator of lack of adequate affordable urban options. The latter is more likely to be associated with the middle 40 percent, who—as will be seen—typically have access to resources and services, but not necessarily the same quality of services and resources as the richest 20 percent.





Source: Own calculations, General Household Survey (2011-2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Formal dwellings are permanently constructed houses made of materials such as bricks, concrete, or mortar, including flats, townhouses, and semi-detached houses. Informal dwellings are non-permanent or makeshift structures, including shacks in backyards, informal settlements, or squatter camps, and farms with non-permanent dwellings. Traditional dwellings are dwellings or huts constructed from traditional materials, such as mud, thatch, or wood. Other and unspecified dwelling types are not presented.

Figure 30 shows home ownership and rental patterns over the 2011-2023 period across income groups. Home ownership is typically a significant investment for households and therefore changes in ownership levels occur more slowly than changes in migration. Over the period, there has been a gradual shift towards home ownership for the poorest 40 percent and richest 20 percent of households. Amongst the richest 20 percent of households, there has also been a gradual shift away from debt with the proportion of households owning their dwellings with debt falling from 26.2 percent in 2011 to 22.7 percent in 2023, while the share owning their dwelling outright increased from 32.8 percent to 37.7 percent. While changes over the period have been small, however, there are stark disparities in tenure across the income distribution. For example, home ownership through debt and renting appears to be more accessible to higher-income households; thus, the top 20 percent of households are more than 20 times more likely than those in the poorest 40 percent to own dwellings with debt in 2023. This is probably a manifestation of poorer household's lower spending power, as well as strict lending standards and high interest rates, restricting access to credit for the poorest households. Moreover, the benefits of state subsidised housing are limited because these homes have little market value, and thus less suited at facilitating upward mobility or yielding financial returns (Lemanski, 2010). These dynamics perpetuate existing inequalities, because people who cannot access credit are left behind in lowerquality neighbourhoods with limited amenities (lack of access to clean water, poor sanitation, and vulnerability to natural disasters). In contrast, those who can access credit can purchase homes in better-serviced areas.





Source: Own calculations, General Household Survey (2011, 2015, 2019, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Shares do not add to 100 as the 'Other' category is omitted.



Figure 31. Estimated market value of formal dwellings by income decile, 2022

Source: Own calculations, General Household Survey (2022).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Deciles are arranged from poorest (decile 1, or D1) to richest (decile 10, or D10). Approximate market value data is not available for 2023 and therefore 2022 data is used. Values are nominal Rands as at the time of the survey.

Figure 31 highlights the stark differences in the value of property assets—in the form of formal dwellings owned by households—across the income distribution in South Africa. The distribution of housing assets in South Africa is characterised by significant inequality even though this is the asset class with the lowest inequality. When compared to other asset types, property assets are comparatively more accessible. In 2022, of the decile 10 households who reside in formal dwellings, 64.0 percent have dwellings with market values exceeding R1 million. In contrast, 63.1 percent of households in the poorest decile who reside in formal dwellings with market values of no more than R250 000, a proportion that rises to 75.1 percent in decile 2.

These findings are consistent with the work of Chatterjee et al. (2020), who found that the top 10 percent of the population in South Africa hold almost three-fifths (58.8 percent) of the country's housing assets, while the bottom 50 percent of the population own just 14.0 percent. There are consequences to this concentration of wealth, especially for the most vulnerable groups who also are less able to access credit. Because they own fewer assets, the poorest households are more vulnerable to shocks such as job loss or medical emergencies.

Further analysis of the data on measures of dwelling quality—as proxied by the median number of rooms per household member—the data points to rising densities as one moves down the income distribution. The median number of rooms per household member is one for the poorest 40 percent of households, two for the middle 40 percent, and three for the top 20 percent of households. In other words, poor households are more likely to experience overcrowding and poor living conditions when compared with better off households.

Figure 32 illustrates the contrast in monthly housing costs—rental and mortgage payments—for households across the income distribution. The figure excludes households who own their properties outright. As is to be expected, poorer households spend less than better off households, while those that reside in formal dwellings tend to spend more than those in informal dwellings. Amongst households who rent or own their formal dwellings with debt, seven out of ten households (70.6 percent) in the top 20 percent of households spend more than R3 000 per month, compared to one-fifth (19.6 percent) of their counterparts in the poorest 40 percent of households. Amongst the poorest 40 percent of households renting or owning formal dwellings with debt, 51.3 percent spend up to R1 000 per month in rental or mortgage payments; this proportion falls to 34.1 percent of households in the middle 40 percent, and just 11.3 percent of households in the top 20 percent. In contrast, less than four percent of households in informal dwellings spend more than R3 000 per month, irrespective of the income group. Indeed, the proportions of households spending up to R1 000 per month for informal dwellings spend more than R3 000 per month, irrespective of the income group. Indeed, the proportions of households spending up to R1 000 per month for informal dwellings differ only slightly across income category: 93.5 percent of households in the poorest 40 percent, 93.2 percent of those in the middle 40 percent, and 89.3 percent in the top 20 percent.



Figure 32. Monthly housing costs paid by dwelling type and income, 2023

Source: Own calculations, General Household Survey (2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Monthly housing costs include rent and mortgage payments. Shares do not add to 100 due as the 'unspecified' category is omitted.

5.2. Household Assets

Figure 33 depicts rates of access to household assets across income groups in 2023, with households in the top 20 percent of the distribution enjoying consistently higher rates of access across all assets included in the figure. Despite this, the extent of variation in access rates between the three groups varies substantially depending on the item in question. Essential household goods are more uniformly accessible, albeit still reflecting a gap. For example, the differences in access rates between households in the richest and poorest categories are relatively small for items like refrigerators (22 percentage points), stoves (5 percentage points), and televisions (18 percentage points). Similarly, for less critical items the gap is slightly bigger: pay-TV (26 percentage points) and microwave ovens (44 percentage points). The most pronounced disparities in asset ownership between the richest and poorest households are observed in relation to assets which require water-related infrastructure such as geysers (58 percentage points), washing machines (45 percentage points), and sinks (51 percentage points), as well as high-cost items like cars (61 percentage points), computers (51 percentage points), and home security systems (32 percentage points).





Source: Own calculations, General Household Survey (2023). Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Figures in brackets refer to the proportion of households in the income group with access to the given asset.

Higher-income households tend to have more consumer durables, which may also provide long-term cost savings. For example, a refrigerator reduces the need for daily shopping – saving time and reducing transport costs—and may make bulk purchases, which typically have lower unit costs, more viable. The poorest households might have higher daily costs without these items; for example, without a refrigerator, they might purchase perishable goods more frequently and at a higher total cost. Similarly, lack of a vehicle may increase the barriers to accessing better job opportunities, educational facilities, or healthcare services, which can lead to social and economic exclusion and reinforce existing inequalities. The lack of access to time-saving technologies, like washing machines, can result in more time spent on household chores, time that could have been devoted to education or income-generating activities. Therefore, differences in the ownership of consumer durables between the richest and poorest households not only raise living expenses for the latter but also limit economic mobility.

5.3. Utilities and Services

5.3.1 Overall Access to Utilities

Differences in the availability of essential services reflect broader socioeconomic inequalities. Figure 34 presents rates of household access to six services—electricity, piped water on site, flush toilets, refuse removal, cellular telephony, and internet connection—for 2011 and 2023, highlighting the differences in access between income groups and how this has changed over the period. The richest 20 percent of households have the highest rates of access to each of these services, although their access to refuse removal and piped water on site may have declined slightly. In contrast, the poorest 40 percent of households have the lowest rates of access to these services. However, there are two important exceptions where access rates for the poorest 40 percent of households are not significantly different to those for the middle 40 percent of households: electricity and cellular telephony. For these two services, not only are rates of access for these two groups very similar, but they are also relatively close to those for the top 20 percent of households, particularly in 2023.



Figure 34. Access rates to selected utilities by income category, 2011 and 2023

Source: Own calculations, General Household Survey (2011, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year.

In contrast to electricity and cellular telephony, gaps in access rates for the other four services are considerably larger, with access for the middle 40 percent of households typically around halfway between that for the poorest and richest groups. Internet access is a key outlier in this regard: while around two-fifths (44.4 percent) of the richest 20 percent of households had internet access in 2023, this is true of just 10.8 percent of the middle 40 percent of households and 3.3 percent of the poorest 40 percent.

Across these six services, access rates have generally tended to rise slightly over the period. However, electricity access for the bottom 80 percent of households and internet connection for the top 20 percent of households saw relatively large increases. For electricity, access rates increased by 14.2 percentage points for the poorest 40 percent of households and by 11.7 percentage points for the

middle 40 percent to 93.3 percent and 93.7 percent respectively. Internet access for the top 20 percent of households increased by 7.2 percentage points to 44.4 percent in 2023. Cellphone access also increased by around seven percentage points for the poorest 40 percent and middle 40 percent of households to 94.8 percent and 96.0 percent respectively in 2023.

Table 8 presents rates of access to these six utilities by province. Rates of access to electricity are uniformly high, ranging from 91.3 percent of households in Gauteng to 98.0 percent in the Western Cape. In contrast, there is significant variation in access to piped water on site, flush toilets and refuse removal. Gauteng performs best in terms of piped water on site (91.9 percent of households) compared to just 45.6 percent in Limpopo. Limpopo also has the lowest rates of access to flush toilets and refuse removal: its rate of access to flush toilets is 30.0 percent compared to 95.4 percent in the Western Cape, while only one-quarter of Limpopo households have access to refuse removal, compared to between 80 percent and 90 percent in Gauteng and the Western Cape. Household-level access to cellphones ranges from 89.8 percent in the Northern Cape to almost 98 percent in Gauteng, Mpumalanga and Limpopo. In contrast, while two-fifths (40.1 percent) of Western Cape households and one-fifth (21.5 percent) of Gauteng households report having access to a fixed internet connection at home, this was true of just 3.1 percent of households in Mpumalanga and 4.5 percent in Limpopo. Even the Eastern Cape, which has the third-highest rate of access to internet, trails with access at just 7.7 percent.

	Electricity	Piped water on site	Flush toilet	Refuse removal	Cellphone	Internet	
Western Cape	98.0	87.9	95.4	87.9	94.9	40.1	
Eastern Cape	95.6	50.4	47.6	42.4	92.5	7.7	
Northern Cape	94.7	76.2	72.2	65.7	89.8	7.4	
Free State	94.0	86.8	77.0	68.9	93.5	6.3	
KwaZulu-Natal	97.4	67.6	51.0	51.9	96.9	6.9	
North West	92.3	65.8	50.5	50.3	95.5	5.3	
Gauteng	91.3	91.9	87.1	83.5	97.6	21.5	
Mpumalanga	92.6	72.5	45.0	43.8	97.6	3.1	
Limpopo	97.7	45.6	30.0	24.6	97.7	4.5	
South Africa	94.5	75.1	66.0	62.6	96.2	14.5	

Table 8. Access to selected utilities by province, 2023

Source: Own calculations, General Household Survey (2023).

Figure 35 presents the provincial ranking of the incidence of utility interruptions and environmental issues experienced by South African households in 2023, providing context on the quality of service delivery and environmental conditions. A higher vertical position in the graph indicates that a larger share of households in that province experience that utility interruptions or environmental problems. Problems are ranked from left to right in ascending order of incidence; in other words, problems further to right are, on average, experienced by a larger proportion of households. Figure 35 relates to the cost of living in terms of how utility interruptions can increase household expenses: Load-shedding necessitates alternative energy sources (e.g., generators, candles); and water supply interruptions may induce additional costs to ensure access to water. Moreover, environmental problems may lead to additional costs for waste removal services (if irregular or no municipal collection), healthcare (due to water pollution, air pollution) and property maintenance (due to land degradation, excessive noise, and littering).

Figure 35. Utility interruptions and environmental problems, 2023



Source: Own calculations, GHS (2023).

Notes: Vertical position: provincial rank, where higher positions indicate better performance (lower share of utility interruptions or environmental problems). Thickness: Proportion of households experiencing each utility interruption or environmental problem. Horizontal sorting: Categories are arranged by the national prevalence of each utility interruption or environmental problem, from most to least affected households. Refer to Table 18 in the appendix for estimates of the proportion of households experiencing each problem.

Nationally, 13.7 percent of households report experiencing noise pollution, while 16.9 percent report experiencing air pollution. Roughly one-third of households report problems with littering, land degradation or irregular or no refuse collection. Just over half (55.2 percent) of households report experiencing water supply interruptions, while more than three-quarters (77.5 percent) report power disruptions. Environmental problems and frequent utility outages can cause property prices to decline, and therefore negatively impact households' wealth and limit local government revenue. For instance, sewage discharges from load-shedding have been connected to a decline in the value of real estate in impacted areas (Winter, 2011:59). Moreover, interruptions in the provision of services drive up living costs by raising business operating costs. For example, small businesses incur higher costs because of power outages (caused by aged infrastructure and cable theft) (Schoeman and Saunders, 2018). Additional costs are ultimately passed on to customers.

5.3.2 Water and Sanitation

Figure 36 presents an overview of household water and sanitation access in South Africa in 2023. The majority of urban households—89.1 percent (=0.621/0.697)—report access to piped water on site, whereas most rural households do not (0.174/0.303=57.4 percent). This means that four out of five households with piped water on site are located in urban areas. Three in five (60.2 percent) households with access to water on site have piped water in their dwellings; this represents 45.2 percent of all households.





Source: Own calculations, General Household Survey (2023).

The vast majority (98.2 percent) of households with piped water in their dwellings also have access to a flush toilet. In addition, 39.4 percent of households without piped water in their dwellings have access to a flush toilet. This means that two-thirds (66.0 percent) of all households have access to a flush toilet.

Table 9 shows that on-site access to piped drinking water in dwellings is correlated with socioeconomic status. Households with higher levels of income or households above the poverty line, urban households, male-headed households, households residing in formal dwellings and households without children are more likely to have on-site access to piped water. Thus, while 45.2 percent of households nationally have access to piped water, this was true for 53.0 percent of households in formal dwellings, 60.7 percent of urban households, over 90 percent of Asian and White households, and 56.5 percent of non-poor households. These patterns are consistent with the findings by Rhodes and McKenzie (2018), and Cole et al. (2018).

Between 2011 and 2023, access to in-dwelling piped water improved for households in informal dwellings (+12.5 percent), African-headed households (+14.6 percent), female-headed households (+11.4 percent), the poorest decile of households (+5.2 percent), households below the poverty line (+13.0 percent), and households with children (+8.8 percent). However, the quality of services appears to have deteriorated: more households experienced supply interruptions and the share of households that are treating their drinking doubled over the period. Further investigation of the data indicates that although interruptions occur more frequently, the duration is less likely to persist for extended periods.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
National average	44.6	44.6	45.4	46.3	46.0	46.6	46.7	46.3	44.9	46.6	45.2	45.8	45.2	1.3
Formal	56.1	56.8	56.7	56.2	56.9	56.5	56.4	55.3	53.7	54.8	53.3	54.1	53.0	-5.5
Informal	5.6	7.2	5.5	8.0	7.2	8.7	8.1	7.4	4.8	2.8	2.4	4.7	6.3	12.5
Urban	62.5	61.6	62.6	63.9	62.6	63.2	63.1	62.6	61.2	63.2	61.6	61.6	60.7	-2.9
Rural	25.4	26.5	25.3	24.4	28.0	26.6	25.3	26.5	26.7	27.2	25.5	31.1	30.3	19.3
African	31.4	31.6	33.2	34.6	34.6	35.6	36.2	36.1	34.4	36.5	35.2	36.3	36.0	14.6
Coloured	83.4	81.8	82.3	82.8	82.7	82.7	82.9	82.4	86.5	85.3	86.4	85.7	85.6	2.6
Asian	96.9	96.3	96.1	96.9	94.7	94.8	94.7	93.5	95.5	98.1	91.7	95.5	94.9	-2.1
White	95.0	97.2	95.6	95.8	95.4	95.5	93.8	94.0	92.9	94.8	94.4	92.8	91.3	-3.9
Male HH head	48.0	47.9	48.7	49.7	48.9	49.1	48.6	48.6	46.8	48.4	47.5	47.4	46.0	-4.2
Female HH head	39.6	39.8	40.8	41.6	42.0	43.1	43.9	43.2	42.3	44.2	42.1	43.6	44.1	11.4
Poorest decile	30.7	29.5	35.6	32.2	36.1	61.1	33.2	57.6	28.0	36.2	34.1	34.7	32.3	5.2
HH below upper bound poverty line	24.7	24.7	26.8	25.9	28.3	37.7	27.9	34.7	25.7	28.9	27.2	28.5	27.9	13.0
HH above upper bound poverty line	58.4	57.8	58.0	58.5	56.2	54.6	57.5	53.5	56.2	59.6	57.4	57.0	56.5	-3.3
Richest decile	88.2	90.2	88.4	89.2	86.9	82.8	87.3	71.6	83.2	88.4	86.8	86.4	85.3	-3.3
HH w/o child	47.8	47.3	48.4	49.3	47.6	47.4	47.7	47.6	46.9	50.3	46.7	46.4	46.0	-3.8
HH with child	41.9	42.1	42.8	43.8	44.6	45.9	45.7	45.1	43.1	43.7	44.0	45.2	44.5	6.2
Treatment	8.0	10.2	8.3	8.8	8.9	8.9	9.7	10.4	11.2			17.6	14.6	82.5
Interuptions	38.2	40.8	39.7	37.2	42.2	41	37.4	34.3	38.7	37.6	40.5	48.9	49.6	29.8

Table 9. Household access to piped water in dwelling by household characteristic, 2011-2023

low

Sources: Own calculations, GHS (2011-2023).

Notes: Heatmap table values represent the share of households that have access to water within their dwelling. Treatment refers to whether the household boils, adds chlorine or other chemicals, and filtering to drinking water. Interruptions refer to any interruption within the last 12 months. The final percent (%) column represents the percentage change between 2011 and 2023. Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year.

high

Between 2011 and 2023, household access to piped water on-site increased slightly from 73.4 percent to 75.1 percent (Figure 37). Access to piped water on-site is positively correlated with per capita household income: while around three out of five households in deciles two and three have access, this is true of nine out of ten households in deciles nine and ten. Decile one is an exception to this pattern, exhibiting higher access rates than deciles two through four in both years. At the same time, changes in access across the income distribution contributed towards a narrowing of the gap between households at the top and those at the bottom of the income distribution. Thus, access improved for the bottom six deciles, but declined slightly for the top four deciles. That said, the data reveals an important difference in the type of piped water connection across the income distribution: poorer households are considerably less likely to have piped water within their dwellings compared to richer households. Similarly, the likelihood that households pay for water services also rises with income and is higher for households in urban or commercial agricultural areas.





Source: Own calculations, General Household Survey (2011, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Piped water on site includes piped water in dwelling and piped water on site.

Figure 38 indicates that household income and geographic location are positively correlated with access to sanitation. Higher income households in an urban setting are more likely to have access to a flush toilet, a pattern that holds across different geographies although the differences are particularly stark in commercial agricultural areas. Thus, while 97.1 percent of urban quintile five households have access to a flush toilet compared to 77.6 percent of their quintile one counterparts, the figures in traditional rural areas are 43.3 percent and 5.4 percent respectively. In commercial agricultural areas, while 91.6 percent of quintile five households have access to flush toilets, this is true for less than one-quarter (21.5 percent) of quintile one households.



Figure 38. Type of toilet by income quintile and location, 2023

Source: Own calculations, General Household Survey (2011, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Flush toilets include flush toilets connected to public sewerage system, septic tank or conservancy tank, or pour bucket-flush toilet connected to a septic tank or seepage pit. Pit latrines include pit latrines with(out) ventilation pipe and pit latrines without ventilation pipes either without slab or open pit. Bucket toilets include all bucket toilets, whether collected by the municipality or emptied by the household.

Pit latrines are the dominant type of toilet in traditional rural areas, even amongst quintile five households, while in commercial agricultural areas around two-thirds of households in quintiles one and two are reliant on pit latrines. Households without adequate sanitation may incur additional healthcare costs due to increased exposure to waterborne diseases. Inadequate sanitation facilities can thus also negatively impact productivity and educational outcomes. The sicknesses associated with poor quality facilities may disrupt learning and lead to absenteeism, and ultimately hinder educational attainment.

5.3.3 Electricity

Between 2011 and 2023, household access to electricity access improved nationally (Table 10): the proportion of households with access to electricity increased from 83.6 percent in 2011 to 94.5 percent in 2023, an increase of 13.0 percent or almost 11 percentage points. This expansion of access has been driven by strong gains in rural areas (+26.1 percent), amongst African-headed households (+16.9 percent), amongst poor households (+18.0 percent), and amongst households that reside in informal dwellings (+17.0 percent). By 2023, therefore, access rates for all categories of households were above 90 percent, with the only exceptions being households in informal dwellings (81.8 percent) and rural households (80.8 percent).

Table 10. Household access to electricity, 2011-2023

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
National average	83.6	89.0	89.9	92.0	91.9	93.1	94.0	95.0	93.6	94.7	94.4	94.6	94.5	13.0
Formal	86.6	92.3	92.5	94.2	94.1	94.7	95.4	96.0	94.1	94.5	94.4	94.7	94.5	9.1
Informal	69.9	76.4	81.4	79.9	78.5	80.5	79.7	81.4	78.6	86.1	83.7	81.5	81.8	17.0
Urban	86.4	92.0	92.3	94.1	94.0	94.7	95.3	95.9	94.0	94.5	94.3	94.6	94.4	9.3
Rural	64.1	72.0	76.5	77.6	73.3	77.9	77.5	79.9	76.7	82.0	82.7	81.6	80.8	26.1
African	80.1	86.2	87.4	90.1	90.1	91.6	92.8	94.1	92.4	93.7	93.4	93.7	93.6	1 <mark>6</mark> .9
Coloured	89.9	97.7	97.8	98.0	98.0	98.2	98.2	98.3	97.8	98.3	98.3	98.1	97.9	8.9
Asian	98.8	99.4	99.5	99.6	100.0	99.4	99.8	99.1	97.4	100.0	98.0	98.9	99.6	0.8
White	99.8	99.9	99.9	99.9	99.9	99.8	99.8	99.9	99.9	99.9	100.0	99.5	99.6	-0.2
Male HH head	82.6	89.0	89.7	91.8	91.6	92.6	93.6	94.4	92.6	93.5	93.8	93.5	93.2	12.8
Female HH head	85.0	89.0	90.2	92.2	92.4	94.0	94.6	95.9	95.1	96.3	95.3	96.2	96.2	13.2
Poorest decile	78.9	81.3	84.7	88.4	88.6	94.8	90.9	94.8	89.6	91.9	92.6	93.0	91.9	1 <mark>6.5</mark>
HH below upper bound poverty line	79.1	83.8	85.4	88.1	88.6	91.8	91.6	93.9	91.5	92.8	92.6	92.7	93.3	18.0
HH above upper bound poverty line	86.5	90.3	91.2	93.2	93.3	94.4	95.4	96.1	95.6	95.6	95.9	96.5	96.3	11.3
Richest decile	99.2	99.8	99.4	99.9	99.3	99.2	99.5	98.5	99.1	100.0	99.6	99.3	99.3	0.1
HHw/o child	80.5	88.1	89.4	91.3	90.7	91.8	93.0	94.0	91.6	93.8	93.0	93.1	92.8	1 <mark>5.3</mark>
HH with child	86.2	89.8	90.2	92.5	93.0	94.4	95.0	96.0	95.5	95.4	95.6	96.1	96.1	11.5
		low											high	

Sources: Own calculations, GHS (2011-2023).

Notes: Heatmap table values represent the share of households that have access to electricity. The final percent (%) column represents the percentage change between 2011 and 2023. Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year.

Electricity disruptions drive up the cost of living. Electricity is a key input in many processes and a lack of access therefore impacts daily life and economic activities. Reduced electricity access manifests itself as decreased productivity and lowers incomes. Households from lower socioeconomic backgrounds are more vulnerable to electricity supply interruptions, as they are less likely to have the financial resources to weather extended power outages or afford alternative energy sources. For instance, the poor are less likely to be able to afford backup power sources such as uninterruptable power supplies (UPS) and are less likely to prevent damages from load shedding, have insurance, or be able to replace equipment damaged by loadshedding (Inglesi-Lotz, 2023). In other words, quality issues in service delivery exacerbate energy insecurity and deepening existing social inequalities.

5.3.4 Refuse Removal

As with other services, the likelihood of refuse being removed is positively correlated with per capita household income (Figure 39). In 2023, while 86.5 percent of households in the top quintile report that their refuse is removed, this was true of only two-thirds (66.5 percent) of the middle 40 percent of households and less than half (46.7 percent) of the poorest 40 percent of households. There has, however, been no discernible trend—either improvement or deterioration—in access to refuse removal over the period.



Figure 39. Refuse removal by income category, 2011-2023

Source: Own calculations, General Household Survey (2011, 2015, 2019, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Rubbish is considered to be removed irrespective of who removed it. Shares may not add to 100 due to the omission of the 'Unspecified' category.

Insufficient rubbish removal can perpetuate environmental and health inequalities and raise the cost of living through several channels: (i) solid waste pollution heightens fire risk, potentially leading to property loss (Schmitz, 2018); (ii) inadequate rubbish removal can lead to health consequences such as disease transmission, respiratory disorders, and other health concerns, especially in informal settlements (Schmitz, 2018). (iii) waste can contaminate water supplies, which raises the risk of stunting in young children (Soe et al., 2023); (iv) waste attracts pests, which pose additional health hazards and force households to incur additional pest control expenses (Schmidt, 2008); (v) unhygienic conditions

deter customers, in turn negatively impacting businesses and reducing livelihoods (Barber et al., 2011; Vilnai-Yavetz and Gilboa, 2010); and (vi) illegal dumpsites may be associated with crime (Massa et al., 2023).

5.3.5 Communications

Table 4.3 shows that there was a decline in landline access nationally between 2011 and 2023 from 15.3 percent of households to 5.0 percent. This decline in access was consistent across all household characteristics. Higher per capita income is associated with higher rates of access. However, the overall decline in landline access is not surprising given the high rates of access to cellular telephones. In fact, access to cellular telephones is nearly universal, having increased steadily from 90.6 percent in 2011 to 96.2 percent in 2023. This suggests telephones have been substituted for cellphones and that access to mobile communication is a necessary part of daily life, regardless of income level.





Note: Darker values indicate a higher value. The final column represents the percentage change between 2011 and 2023.

National levels of home internet access grew steadily from 10.2 percent to 14.5 percent between 2011 and 2023 (Table 12). Similar to other utilities, the share of internet access is correlated with household income levels: the top 10 percent of households have access rates more than three times the national average (53.1 percent compared to 14.5 percent), whereas the access rate for the poorest decile is 6.8 percent, less than half the national average. Further investigation of the data suggests that there is a significant digital divide for internet access across household head population and gender groups in 2023: White-headed households have higher levels of internet access (67.2 percent) compared to households with Asian (39.7 percent), Coloured (34.0 percent), and African heads (7.4 percent).

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	%change
National average	10.2	10.0	10.3	11.1	9.9	9.8	10.6	10.4	9.1	8.3	10.4	13.0	14.5	42.2
Formal	12.9	13.0	13.1	13.7	12.5	12.2	13.1	12.7	11.0	9.8	12.4	15.4	17.1	32.6
Informal	0.4	0.4	0.6	0.8	0.7	0.5	0.7	0.8	0.5	0.6	0.0	0.6	1.8	350.0
Poorest decile	4.9	4.8	7.8	5.2	9.8	17.3	5.5	20.3	4.6	4.8	3.3	5.9	6.8	38.8
HH below upper bound poverty line	1.7	1.8	2.7	2.6	3.7	6.3	2.1	6.5	1.9	2.1	1.4	2.5	3.3	94.1
HH above upper bound poverty line	10.4	10.1	10.3	11.4	10.0	9.6	10.7	10.2	9.1	7.9	10.8	13.8	15.9	52.9
Richest decile	49.4	49.5	46.8	49.4	43.1	38.4	49.4	31.7	41.9	40.7	45.5	55.1	55.6	12.6
HHw/o child	12.3	11.9	12.1	12.7	11.3	11.4	12.5	12.1	11.0	10.8	12.0	14.6	15.3	24.4
HH with child	8.4	8.4	8.7	9.6	8.6	8.2	8.7	8.8	7.5	6.4	8.9	11.4	13.7	63.1
Metro	16.4	16.8	16.8	18.1	16.3	15.6	17.6	17.3	15.4	14.0	17.2	21.4	23.8	45.1

Table 12. Household internet access, 2011-2023

low

high

Sources: Own calculations, GHS (2011-2023).

Notes: Heatmap table values represent the share of households that have internet access at home. The final percent (%) column represents the percentage change between 2011 and 2023. Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year

Households without internet access face additional costs accessing other services that increasingly rely on digital platforms such as banking, education and job opportunities. This results in higher costs for lower-income households to get these services. Similarly, a lack of internet connectivity limits other options for digital entrepreneurship that generates revenue through remote employment.

5.4. Transport

Transport accessibility is dependent on the mode of transport. Moreover, the location of housing influences transport availability, accessibility, and affordability. Historical urban planning in South Africa focused on private interests and spatial segregation, which led to urban sprawl (and lack of urban density and connectivity). Sprawl hinders the development of an effective public transportation system and additionally implies that people cannot reduce transportation costs through walking or cycling (McKay, 2020). A key legacy of apartheid, therefore, is that poor households often reside in peripheral areas with limited transport options, and poor access to social amenities (such as education and healthcare) (Venter et al., 2007).

Transport time burdens disproportionately impact the poor, who often have limited transportation options and face significant constraints on their resources. For the poorest and lowest income households, who depend more on public transportation, sprawl results in higher inefficiency and opportunity costs in terms of time lost due to unreliable and longer commute times. Moselakgomo et al. (2017), for example, show that Gauteng city region township dwellers faced stagnant long commuting distances between 2001 and 2013. Time spent commuting could otherwise be allocated to income-generating activities, education, or personal development.

Urban sprawl and consequent increased vehicle emissions can lead to long-term sustainability issues, affecting the quality of life and living costs over time. Inadequate public transportation compels many urban residents to depend on private motor vehicles or mini-bus taxis. This leads to higher transportation costs (relative to other forms of transport), which contributes to increasing the cost of living. Private vehicles also create negative externalities as they contribute to traffic congestion and air pollution, which can lead to additional healthcare expenses.^{vi}

The transportation cost burden is affected by the prices, and usage patterns of different transport options. LCS 2014/15 (Stats SA, 2017) data indicates that households transportation expenditure amounts to between 10.7 percent and 19.6 percent of total expenditure (averaging 16.3 percent). For all households, this constitutes the second or third largest expense. Many South Africans spend a significant portion of their income on transport, leading to "transport poverty", where individuals either cannot afford transportation or must reallocate funds from other essential needs. The LCS data also reveals that individuals with the following characteristics tend to spend more on passenger transport: Africans, females, and those from urban informal and traditional areas spend more on public or passenger transport. In contrast, whites, males, and those from urban formal tend to spend more on personal transport (motor vehicles and fuels lubricants).

Analysis of NHTS data shows that 30.8 percent of households in 2020 cite travel costs as a key factor in choosing their travel mode, up from 26.1 percent in 2013. In contrast, travel time, which was the most important factor in 2013 at 32.6 percent, has dropped to 23.3 percent in 2020 (Stats SA, 2020). Moreover, a growing share of households are using taxis as their main mode of travel.

5.4.1 Work-Related Travel Patterns

Figure 40 compares the average trip duration and monthly cost for work-related travel across transport modes in 2013 and 2020. Time travelled for all public modes of transport (train, taxi, and bus) increased over the period; these modes were also associated with the longest transport times. In December 2023 Rands, the monthly costs for train and taxi increased by R57 and R248 respectively, while costs for bus

transport fell by R36. Given their heavy reliance on taxis, this suggests upward pressure on the cost of living for poorer households. In contrast to train and taxi costs, average monthly costs for private transport modes became cheaper in real terms, falling by R334 for drivers and R622 for passengers.



Figure 40. Average time spent travelling to work and average cost per month by mode of transport, 2013 and 2020

Source: Own calculations, NHTS (2013, 2020), Statistics South Africa (2024a).
Notes: All rand values are expressed in real terms, adjusted for inflation, as of December 2023. Work-related travel patterns are for people aged 15 years and older.

The NHTS (2020) data suggests that walking is often a choice (47.2 percent), or due to unaffordable or unavailable public transport (22.9 percent), or because work is nearby (16.5 percent). However, in rural areas, most workers walk to work due to proximity (Stats SA, 2022:72). In contrast, urban workers tend to walk to work as a matter of choice.

5.4.2 Education-Related Travel Patterns

This section explores the travel patterns of scholars and the financial burden associated with these patterns. In terms of time travelled to educational institutions, the patterns observed in Figure 41 are similar to those for work purposes. However, in terms of monthly costs, there are notable differences in terms of public transportation options, which tend to be less expensive for school travel. This may be due to the fact that educational institutions—and particularly schools—are likely to be more conveniently located. This would seem to be corroborated to some extent by the shorter duration of travel by car or truck, whether as driver or passenger, for education in comparison to work purposes. The majority of car/truck driver trips were to higher education institutions and TVET colleges, while car/truck passengers were 1.5 times more likely to be travelling to pre- or school.



Figure 41. Average time spent travelling to educational institution and average cost per month by mode of transport, 2013 and 2020

Source:Own calculations, NHTS (2013, 2020), Statistics South Africa (2024a).Notes:All rand values are expressed in real terms, adjusted for inflation, as of December 2023.

Between 2013 and 2020, time travelled to educational institutions increased for those using trains, taxis and cars/trucks (as passengers). As is the case for work travel, public transport modes exhibit the longest travel times However, real monthly costs decreased for all modes over the seven-year period. In December 2023 Rands, the monthly school-related costs of train, bus, and taxis fell by R410, R357, and R184 respectively, suggesting that the cost of living decreased for poorer households who are more likely to depend more on public transport. Costs for private transport modes also fell, by R536 and 133 for car/truck drivers and car/truck passengers respectively.

5.5. Education

Education is a key for socioeconomic development. The NDP emphasises that accessible, quality education equips citizens with skills and knowledge for productive economic participation, ultimately reducing poverty and inequality (National Planning Commission, 2012). Through education, people can break the cycles of poverty, gain access to better-paying occupations, and improve their socioeconomic standing (Harper et al., 2003). In turn this enhances housing and food security, as educated individuals are more likely to have stable incomes and effective financial management skills.^{vii} Education is also linked to better health outcomes (Ross and Wu, 1995) and fosters intergenerational mobility.^{viii}

Significant barriers to educational access, particularly for disadvantaged communities, obstruct the realisation of this right. Inflation trends in educational costs have surged beyond other inflationary components. The high costs of quality education make it increasingly inaccessible for many and exacerbate existing inequalities. Moreover, the LCS 2014/2015 indicates that on average, education costs represent 2.5 percent of total household expenditure, with the share being below one percent for the poorest 40 percent of households. This points to both the need for no-fee schools and the impact of this policy intervention on household expenditure patterns.

5.5.1 Early Childhood Development

The development of human capital and future academic success are directly correlated with early childhood development (ECD). Due to the entrenchment of socioeconomic inequality caused by the apartheid legacy in South Africa, many children are unable to access high-quality early childhood development programs (Ashley-Cooper et al., 2019). Figure 42 presents the types of ECD facilities attended by children under the age of seven years across the income distribution between 2017 and 2023. Over this period, children from higher-income households were more likely to be attending a formal ECD facility (creche or educare centre, preschool or grade 00 or 000, or grade R or higher) than children from lower-income households. In 2023, 52.5 percent of children in the poorest 40 percent of households did not attend any type of ECD programme, compared to 36.9 percent in the middle 40 percent of households and 21.5 percent in the top 20 percent. Attendance at creche/educare centres and grade R or higher were at similar levels for children in the middle 40 percent and top 20 percent of households; for children in the poorest 40 percent of households, however, 26.6 percent attended grade R or higher, while 15.4 percent attended a creche or educare centre.



Figure 42. Early childhood development attendance across type of facility by income level, 2014-2023

Source: Own calculations, GHS (2017, 2020, 2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. The 'other' category is omitted from the figure. The data reflects attendance at Early Childhood Development (ECD) facilities, among household members aged 0-6 years. Data for 2011 and 2014 were not coded in a compatible way and are excluded here.

Higher costs for ECD have reinforced pre-existing inequalities, and the gap between socio-economic groups has widened. Children from lower income households are more likely to miss out on the foundational benefits of structured early education. Children from households in the richest quintile are 70 percent and 28 percent more likely to attend a formal ECD facility than children from households in the poorest 40 percent and middle 40 percent of households respectively. This reinforces barriers to social mobility and other inequities as deficits accumulated by poorer children may have long-lasting impacts on their cognitive, social, and economic outcomes throughout their lives.

ECD attendance typically comes at a cost to households. Figure 43 presents the monthly costs paid by households for children attending ECD across the income distribution. Fees are paid for most children who attend creche or educare centres, irrespective of their household income, with just 6.6 percent of children paying no fees at these institutions in 2023. In contrast, in the poorest 40 percent of households, three-quarters (73.2 percent) of children attending Grade R/1/2 pay no fees, as do 44.8 percent of children in the middle 40 percent. For preschools and grades 00/000, 30.5 percent of children in the poorest 40 percent of those in the middle 40 percent of those in the middle 40 percent.





Source: Own calculations, GHS (2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. The data reflect ECD fees for household members aged 0-6 years.

Amongst those that do pay fees, there is a clear gradient with children from higher income households typically paying higher fees. For children in the top 20 percent of households, fees in excess of R2 000 per month are paid for more than two-fifths of those attending grade R/1/2 and three-fifths of those attending preschool. While fees are typically much lower for children from poorer households—90.4 percent of children in the poorest households pay up to R500 per month for creche or educare centre—there are still relatively large numbers of households paying significantly higher fees. For example, 8.7 percent of children in the poorest 40 percent of households pay R501-R1 000 per month to attend preschool, while 3.5 percent pay more than R1 000 per month to attend creche or educare centres. For these households, these represent significant costs that are likely to strain household budgets.

5.5.2 School Education

In South Africa, the enduring legacy of apartheid continues to shape education outcomes, with poorer learners—predominantly from previously disadvantaged communities—performing worse academically due to entrenched systemic inequalities and limited access to quality education (Spaull, 2015). Figure 44 presents the shares of learners attending school according to whether or not they report paying school fees and, if they do not pay fees, the reason for not paying fees between 2011 and 2023. Learners from wealthier households are more likely to report paying school fees than their

counterparts from poorer quintiles. In 2023, 87.2 percent of school learners in quintile five report paying school fees, compared to 32.2 percent in quintile three and just 18.4 percent in quintile one. The key reason for not paying school fees is, however, that learners are attending no-fee schools. Thus, between three-quarters and four-fifths of learners from quintile one and two households did not pay fees because they were attending a no-fee school in 2023 (79.9 percent and 75.5 percent of learners in these quintiles respectively), while the same was true for two-thirds (66.1 percent of quintile three learners).





Source: Own calculations, GHS (2011, 2015, 2019, 2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. 'Other' category omitted from the figure. Figure only includes individuals who report attending a school, irrespective of age.

Regardless of income level, the share of school learners that report paying school fees declined over the period. While education inflation has been relatively high over the period, this decline has not been accompanied by an increase in the proportion of learners reporting that they are unable or unwilling to pay fees. Instead, there has been an increase in the proportion reporting that the reason for not paying school fees is that they attend a no-fee school. While the increase has been marginal for learners in quintile one households (4.2 percentage points), it was larger for learners in the middle quintiles: 7.9 percentage points for quintile two learners, 19.1 percentage points for quintile three learners, and 12.5 percentage points for quintile four learners. In 2023 in quintile five, 11.6 percent of school learners report not paying fees because they attend a no-fee school, up from 6.6 percent in 2011.

Figure 45 illustrates the distribution of school fee payments for learners by household income quintile in 2023. There is a clear positive correlation between income level and ability to pay for school education: 42.3 percent of learners from the richest quintile report paying school fees of more than R12 000 per year, whereas this is true of only 2.5 percent of learners in quintile three and 0.5 percent of learners in the poorest quintile. In fact, 81.6 percent of learners from the poorest quintile report paying no school fees. With roughly 13 percent of learners in the bottom three quintiles reporting paying annual school fees of up to R500, this means that 90 percent to 95 percent of learners in the bottom two quintiles pay no more than R500 per annum in school fees. This is also true of 80.3 percent of learners in quintile three, 53.1 percent in quintile four, and just 16.1 percent in quintile five.


Figure 45. School fees paid for learners by income quintiles, 2023

Source: Own calculations, GHS (2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Figure only includes individuals who report attending a school, irrespective of age.

Besides the fee barriers, children in poorer households are also typically located far from the schools that wealthier children attend, implying additional transport costs that further limit access. Moreover, there are differences in quality of fee paying and no fee schools. Although no-fee schools receive more public funding, fee-paying schools generally maintain smaller class sizes by employing more teachers, resulting in a better student-to-teacher ratio (Maistry and Africa, 2020). Fee paying schools also typically offer superior resources, facilities, and extracurricular opportunities which enhance educational outcomes. Consequently, children from wealthier backgrounds benefit from better-funded educational opportunities, reinforcing a cycle of privilege, while poorer learners remain trapped in a cycle of disadvantage.

5.5.3 Post-Secondary Education

In the South African labour market, higher levels of education are highly valued. Individuals with tertiary qualifications have better employment prospects, and this offers them substantial earnings benefits (Branson and Leibbrandt, 2013). However, higher education institutions face pressure to balance affordability with quality education. This is underscored by the recent student funding crisis, which led to university closures in 2015 and 2016 (Allais, 2019). South African households are increasingly recognising the importance of tertiary education, but not necessarily able to afford higher education.

Figure 46 presents the distribution of post-secondary education attendees across household income quintiles between 2011 and 2023. Unequal access to the post-secondary education system according to socioeconomic status is clear from the figure. In 2023, students from the richest 20 percent of households accounted for 31.4 percent of individuals attending a post-secondary education institution, while 21.1 percent of students were from quintile four; the poorest 60 percent of households accounted for just 47.5 percent of students. However, access to post-secondary education by students from households in the poorer quintiles has risen steadily over the 2011 to 2023 period. The share of students

from the poorest quintile of households increased from 8.7 percent in 2011 to 13.6 percent in 2023; for quintile two, the proportion rose from 8.6 percent to 16.4 percent.



Figure 46. Composition of post-secondary education attendees by income quintile, 2011-2023

Source: Own calculations, GHS (2011, 2015, 2019, 2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Figure includes individuals who report attending a higher education institution (university or university of technology), a further education and training (FET) college, or other college.

The 2023 distribution of tuition fees paid for students in post-secondary education across household income quintile is shown in Figure 47. Households are typically paying significant amounts for household members to attend post-secondary education, although the data suggests a degree of progressivity with students from better-off households often paying more than those from poorer households. In 2023, only 5.0 percent of quintile five students reported paying no tuition fees at all. This is half the proportion for quintile four students (11.5 percent) and one-quarter to one-seventh of the proportions in the bottom three quintiles. In contrast, one in three quintile five students report paying fees of R20 001-R40 000 per annum, compared to between 10 percent and 14 percent of students in the poorest three quintiles, with similar patterns observed for the higher fee ranges. As a result, around 21-38 percent of students in the bottom four quintiles pay more than R20 000 per year in fees for post-secondary education, this is true for more than three out of five students (61.2 percent) in the top quintile. This apparent progressivity is likely the combined result of a number of factors, including greater access for poorer students to financial assistance for post-secondary education, a difference in the distribution of students from each of the quintiles across institution types (university, FET college, other college), and the ability of students from wealthier quintiles to choose relatively more expensive institutions.



Figure 47. Tuition fees paid per student for post-secondary education by income quintile, 2023

Source: Own calculations, GHS (2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Figure includes individuals who report attending a higher education institution (university or university of technology), a further education and training (FET) college, or other college.

Finally, it is important to note that academic success is not assured by access alone. Financial limitations continue to be a major obstacle even with advancements in access to higher education. Letseka and Maile (2008) found that 70% of the families of university dropouts are categorised as having a "low economic status". Moreover, socioeconomic status moderates the association between dropout intention and academic adjustment (Mtshweni, 2021). Financial constraints can therefore reduce academic performance and in turn limit career opportunities, and thus earnings.

5.6. Health and Social Development

According to data from the LCS 2014/15 (Stats SA, 2017), health-related expenditure averages 0.9 percent of household expenditure across all deciles, ranging from 0.8 percent to 1.0 percent. In this section, we examine the utilisation of healthcare facilities and medical aid membership, as well as the prevalence of chronic conditions and disabilities to understand long-term health costs.

5.6.1 Choice of Healthcare Provider

Health inequalities persist in post-apartheid South Africa, with socioeconomic status determining access to healthcare and health outcomes (Omotoso & Koch, 2018b). The public healthcare system is not meeting expectations, which is causing gaps to widen and poor health outcomes to persist despite attempts at quality improvement (Maphumulo and Bhengu, 2019).

The General Household Surveys ask respondents about the type of healthcare provider that they would usually consult first when a household member becomes ill and Figure 48 presents their responses according to household income. The greater access to private healthcare enjoyed by higher income households is clear: 85.1 percent of households in the highest income decile opt for private healthcare, whereas between 90 percent and 98 percent of households from in the poorest four deciles report first

consulting public institutions. Pharmacies are the first port of call for less than two percent of households, with higher income households slightly more likely than those at the lower end of the income distribution to choose them.





Source: Own calculations, GHS (2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Public sector includes public hospital, clinic or other public sector provider; and private sector includes private hospital, clinic, doctor/specialist, or other private sector provider. Other providers not plotted here include traditional/spiritual healers, health facility provided by employer, and alternative medicine.

In comparison to 2011, the 2023 results suggest that an increasing share of households are relying on public facilities as their first choice. One reason for this is likely to be the high cost of private healthcare, which is often unaffordable for vulnerable populations (Harris et al., 2011). Rural populations face a double burden in accessing healthcare, first overcoming financial, transportation, and distance barriers to reach a facility, only to often encounter poor quality services, ultimately exacerbating health inequities compared to urban areas (Gaede and Versteeg, 2011).

5.6.2 Medical Aid

In the South African context, medical aid coverage is critical in providing households with access to private healthcare, which is generally considered to be of better quality than the care available in the public sector. However, given high levels of unemployment, inequality and poverty, medical aids are unaffordable to many households. As the cost of living rises, people cannot afford medical aid, leading to higher out-of-pocket expenses and increased vulnerability to unexpected costs. Figure 49 presents the proportion of the population covered by medical aid schemes between 2011 and 2023. According to the data, the coverage rate has declined over the period, which may partly explain the decline in the proportion of households choosing private healthcare facilities when household members require medical attention.

Less than four percent of the population in the poorest 40 percent of households have access to medical aids, with the coverage rate in 2023 estimated at just 2.1 percent. Coverage rates for the population in

the middle 40 percent of households ranged in the upper teens over the period, but fell to 15.1 percent in 2023. In contrast, almost two-thirds (63.4 percent) of the population in the top quintile have coverage, although this is 3.3 percentage points lower than in 2011. This may possibly reflect the increasing cost of medical aid membership, as well as weak formal sector employment growth over the period.





Source: Own calculations, GHS (2011, 2015, 2019, 2023).

Note: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year.

The higher a household's income, the more likely they will have medical aid coverage. Consistent with this pattern, the GHS data reveals higher coverage rates for Whites and Asians relative to Coloureds and Africans, as well as low coverage rates comparable to those for the poorest 40 percent of households for the working poor. These findings underscore the persistent inequities in access to healthcare in South Africa, which ultimately exacerbate the cost of living for already vulnerable populations. As a result of the stark differences in coverage rates, higher income groups account for large proportions of medical aid members. In 2023, for example, the top decile accounted for 32.9 percent of medical aid members, but just 6.9 percent of the country's population. Three-quarters (75.5 percent) of medical aid members come from the top three deciles, which together account for just 22.7 percent of the population.

5.7. Food Security

According to the LCS 2014/15 (Stats SA, 2017) the average expenditure on food represents 12.9 percent of total household expenditure. However, household food expenditures are regressive, meaning that poor households devote a larger proportion of their expenditures to food than do higher income households. For all households below the median, approximately 30 percent of expenditure is on food and beverages. In contrast, this number was 5.8 percent for the richest decile of households. Furthermore, above-inflation increases in food prices between 2011 and 2023 has made food less affordable, raising the cost of living. As a result, poorer households are more vulnerable to food price changes and face greater exposure to fluctuations in food costs than their wealthier counterparts.

Table 13 shows that between 2011 and 2023 the average share of households reporting insufficient food, at least some of the time, for adults, and for children, has grown for all income levels. The lower the per capita income of a household, the higher the likelihood of being food insecure. The poorest 40 percent of households experience the highest levels of hunger, with about one in three adults affected. The data also indicates that, if the household is classified as working poor, then children are 1.4 times as likely, and adults are 1.5 times more likely to experience hunger. In terms of coping strategies, households are increasingly likely to report having less variety of food, but simultaneously, less likely to report running out of food, eating less food, or skipping meals.

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2 0 2 0	2 0 2 1	2 0 2 2	2 0 2 3	%change
ood lults	poorest 40%	28.8	29.2	29.8	29.8	27.9	25.8	27.8	22.5	26.4	31.9	34.5	28.6	30.9	7.3
ient f or ac	next 40%	10.6	11.3	11.3	10.6	11.6	13.8	9.9	10.4	11.0	11.6	12.0	11.2	13.7	29.2
suffic	richest 20%	1.9	1.8	1.5	1.9	2.7	2.8	2.1	4.4	3.3	2.3	2.7	2.9	3.9	105.3
ü	national av.	16.2	16.5	16.7	16.5	16.3	16.4	15.6	14.1	15.6	17.8	19.2	16.5	18.6	14.8
food dren	poorest 40%	26.0	27.7	28.8	27.5	25.8	24.8	24.9	22.0	22.4	27.9	29.0	25.3	26.0	0.0
cient l	next 40%	8.8	9.1	9.9	9.7	9.5	12.3	9.2	10.7	8.5	9.6	8.2	9.6	11.7	33.0
suffic	richest 20%	1.2	1.5	1.9	3.0	4.4	3.3	4.1	2.9	3.2	1.8	1.4	2.7	2.9	141.7
Ë	national av.	16.7	18.1	18.6	18.2	17.4	17.5	16.9	16.0	14.6	17.3	17.5	16.5	17.8	6.6
lood	poorest 40%	35.8	40.1	37.7	38.5	37.4	32.9	35.8	31.1	25.6	29.6	30.4	28.5	30.8	-14.0
ut of 1	next 40%	15.6	27.9	15.5	15.1	16.2	19.5	15.0	16.9	10.2	11.0	10.3	10.0	12.6	-19.2
an ol	richest 20%	5.1	14.3	3.2	3.8	4.6	5.1	5.1	8.1	2.5	2.4	0.8	1.9	2.9	-43.1
œ	national av.	21.7	35.8	22.0	22.2	22.4	22.0	21.4	20.8	14.8	16.8	16.4	15.8	17.9	-17.5
pood	poorest 40%	32.8	33.1	34.9	34.1	33.6	29.8	32.5	27.6	26.5	32.2	33.4	29.0	33.3	1.5
ess	next 40%	13.7	13.2	14.1	12.9	13.4	16.7	12.5	12.7	10.7	12.0	11.4	10.6	13.8	0.7
Ate	richest 20%	4.4	2.8	3.3	4.6	4.6	4.3	4.3	6.2	2.8	2.8	1.4	2.0	3.3	-25.0
	national av.	19.5	19.1	20.2	19.7	19.7	19.4	18.9	17.4	15.4	18.2	18.2	16.3	19.5	0.0
neal	poorest 40%	28.7	29.0	29.5	28.5	28.1	25.2	26.6	22.3	22.8	27.6	27.7	24.6	28.2	-1.7
tip a r	next 40%	11.3	10.8	11.4	10.0	11.1	13.6	10.4	10.3	9.1	10.2	9.8	9.1	12.2	8.0
σ	richest 20%	2.9	1.7	2.4	3.2	4.0	3.8	3.0	4.8	2.4	2.0	0.8	1.6	2.9	0.0
	national av.	16.6	16.3	16.8	16.0	16.5	16.3	15.4	14.0	13.2	15.5	15.2	13.8	16.7	0.6
#y of food	poorest 40%	33.0	32.9	35.2	34.1	33.9	30.5	31.8	27.9	30.5	35.1	37.8	33.2	38.1	15.5
varie	next 40%	14.2	14.0	15.4	13.6	14.4	17.5	13.5	14.0	13.6	14.1	13.5	14.5	18.1	27.5
ck of	richest 20%	4.7	3.6	3.6	5.9	6.2	6.0	4.8	7.6	3.9	3.1	2.7	4.9	5.5	17.0
<u>_</u>	national av.	19.8	19.5	20.9	20.3	20.6	20.4	19.1	18.3	18.5	20.3	21.1	20.1	23.6	19.2
				low							high				

Table 13. Food security by income category, 2011-2023

Sources: Own calculations, GHS (2011-2023).

Notes: Income categories derived from the imputed household income variable as described in Box 1. Categories represent shares of households ranked from poorest to richest in each year. Darker values indicate that larger shares of households had individuals who had insufficient food or employed a particular coping strategy in response to hunger due to financial constraints.

The results are suggestive of a substitutionary effect where households—and particularly those at the lower end of the income distribution—switch to lower quality food. Misselhorn and Hendriks (2017) argue that unaffordable food drives individuals to choose cheaper, high-calorie options with low

nutritional value, perpetuating a cycle of food insecurity, overweight, obesity, and child stunting. Food insecurity can lead to healthcare costs and further impact the cost of living and people's quality of life. Further investigation of the data suggests that household composition is less influential on food security, as coping strategies do not vary across households with children without children. Nevertheless, the high prevalence of child hunger underscores the importance of the school feeding programme.

5.8. Summary

The current housing landscape is characterised by socioeconomic inequalities and spatial planning remnants from apartheid. Between 2011 to 2023 there was a trend towards urbanisation and formal housing. The lack of inexpensive options led households to allocate a substantial portion of their income to housing costs. Housing disparities have widened. The wealthiest households continue to secure high-quality homes in well-serviced areas, while the poorest face increasing barriers to adequate housing. These factors increase the cost of living.

Access to basic services gradually improved, but the quality of those services has declined. Without access to alternative options, poor and working-poor households face more severe consequences from the decline in service quality. Frequent interruptions in water and electricity supply, inadequate water treatment, pollution, and unreliable refuse removal have compounded environmental degradation and health risks. Declines in service quality, drive up household expenses, reduce housing affordability, and increase the cost of living.

Unequal asset ownership between income groups raises living expenses for lower-income households, which restricts their abilities and opportunities. Households without basic durables, like refrigerators, must pay more every day for food and transportation. Households without time-saving appliances, such washing machines, spend more time doing chores, creating an opportunity cost where this time could be used more productively.

Urban sprawl and inadequate public transport increase the cost of living. Users of public transportation have experienced with longer wait times and higher costs; this mainly impacts low-income households. In contrast, private transport costs have decreased. Historical urban planning increases transportation costs for the poor and reinforces their economic exclusion. Ultimately, making it harder to access jobs, healthcare, and education.

Access to education is hindered by rising educational costs. The gap in educational access has widened: the poorest households encounter barriers to both ECD and school education, with high fees and limited resources contributing to this disparity. Despite improved access to higher education for lower-income groups, financial barriers persist, reinforcing existing inequalities.

More people rely on strained public healthcare facilities. Medical aid coverage has declined marginally across all income levels. Medical aids are unaffordable for poorer households, which leads to out-of-pocket expenses and broader health inequities. Chronic conditions and disabilities elevate the cost of living for affected households, with lower-income groups bearing a higher burden.

Rising food prices between 2011 and 2023 have worsened food affordability, increasing the cost of living. The prevalence of food insecurity is higher among poorer households. To cope, households may be forced to shift consumption towards lower-quality, less nutritious food.

6. Conclusion

The analysis of trends in South Africa's cost of living from 2011 to 2023 reveals a complex landscape marked by both progress and challenges. The National Development Plan (NDP, 2012) emphasises the need to address poverty and inequality by reducing the cost of living, increasing access to affordable basic goods and services, and access to quality education and healthcare.

The government's efforts to provide basic services have shown some success with improved provision of water, electricity, sewerage and sanitation, and solid waste management. However, these achievements have been overshadowed by rising costs that have disproportionately affected poor and working-poor households.

This research set out to address six broad questions:

- 1. What are the trends in access and costs of basic services (electricity, water, transport, education, health, and food) from 2011 to 2023, and how have these affected the cost of living for poor and working poor households?
- 2. What factors have contributed to changing trends for households with working people versus those with unemployed people over the same period?
- 3. What are the impacts on households with children versus those without children, and what are the gender impacts?
- 4. Have wages and other income (including social grants) increased in real terms for working people who receive low pay (working poor)?
- 5. What are the trends in income shares across the income distribution from 2011 to 2023?
- 6. Has the cost of living for poor and working-class households reduced or increased over the decade under review (2011 to 2023)?

Addressing the first research question, the analysis shows that while access to basic services has generally improved, the costs associated with these services have risen significantly. The cost of basic utilities such as water and electricity, in particular, have outpaced inflation, placing a heavy burden on household budgets. At the same time, fewer households benefit from access to free basic services, disproportionately burdening poor households. Transportation and education costs have also increased, unduly burdening poorer households.

The second and third questions reveal stark similarities between households with employed members versus those without, and substantial disparities between households with and without children. Households with at least one employed person have generally fared better in managing rising costs, but wage stagnation has limited their ability to keep pace with inflation. Households with children face additional pressures, particularly in education and travel expenses. An investigation of gender impacts at the household level is an avenue for further research.

Regarding the fourth question, the findings indicate that there has been a slight fall in real wages over the period. Where real wage growth has occurred, it largely confined to the lower half of the wage distribution. This may indicate that the effects of the national minimum wage are becoming more visible in this part of the wage distribution. Real wage growth for the top 40 percent was either flat or declining over the period.

The fifth question on income share trends reveals persistent and, in some cases, widening inequality. Over time, for the poorest deciles, the share of wages in household income has declined, while grant

income has increased. This suggests a worsening of their labour market position. For the richer deciles, wages remain the dominant source of household income. Households in the bottom deciles have seen little improvement in their relative position.

In summary, while there have been some developments over the period that have served to support poor households, these households continue to face important pressures in terms of the cost of living. Wage growth over the period was confined mainly to the lower half of the distribution, partly dampening cost increases. However, wages remain under pressure and have not grown in a way that makes a significant impact on poor households' living standards. While social assistance has expanded in terms of the numbers of grants paid, grants do not appear to have maintained their real values especially given the expenditure patterns of poor households. The provision of free basic services is a key intervention aimed at insulating poor households from rising prices of these services, but municipal data suggests that a declining number of households are receiving these free services.

These findings highlight the complex interplay between service provision, wage growth, and household well-being. While the government has made strides in expanding access to basic services, the benefits have been partially offset by rising costs and broader economic challenges. The period from 2011 to 2023 has been characterised by low economic growth, limited job creation, and general real wage stagnation, factors that have constrained the government's ability to address cost of living pressures effectively.

Looking forward, these findings underscore the need for a multifaceted approach to address cost of living issues. This should include targeted interventions to manage the costs of basic services or the provision of free basic services, and efforts to stimulate inclusive economic growth and job creation to ensure they adequately protect vulnerable households against rising living costs. Additionally, addressing the persistent inequalities in income distribution will be crucial for creating a more equitable and sustainable economic environment for all South Africans.

7. References

Allais, S., 2019. Towards measuring the economic value of higher education: Lessons from South Africa. In Unterhalter, E. (ed.). *Measuring the Unmeasurable in Education*. London, UK: Routledge. DOI: <u>https://doi.org/10.4324/9780429444494</u>

Alvaredo, F., Atkinson, A. B., Piketty, T. and Saez, E., 2022. *World inequality database* (WID). Available: <u>http://wid.world/data</u>

Ashley-Cooper, M., van Niekerk, L-J. and Atmore, E., 2019. Early Childhood Development in South Africa: Inequality and Opportunity. In: Spaull, N. Jansen, J. (eds) South African Schooling: *The Enigma of Inequality. Policy Implications of Research in Education*, vol 10. Springer, Cham. DOI: <u>https://doi.org/10.1007/978-3-030-18811-5_5</u>

Azomahou, T.T. and Yitbarek, E., 2020. Intergenerational mobility in education: Is Africa different? *Contemporary Economic Policy*, 39(3): 503-523. DOI: <u>https://doi.org/10.1111/coep.12495</u>

Barber, N., Goodman, R.J., and Goh, B.K., 2011. Restaurant Consumers Repeat Patronage: A Service Quality Perspective. *International Journal of Hospitality Management*, 30(2): 329-336. DOI: <u>https://doi.org/10.1016/j.ijhm.2010.08.008</u>

Bhorat, H., Lilenstein, K., Oosthuizen, M. and Thornton, A., 2020. *Wage polarization in a high-inequality emerging economy: The case of South Africa*. WIDER Working Paper 2020/55. Helsinki: UNU-WIDER. Available: https://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2020-55.pdf [Accessed 2024/07/23]

Bhorat, H., Hill, R., Köhler, T., Monnakgotla, J. and Steenkamp, F., 2023. *Who are the Robots Coming For? The Evolving Task Content of Employment in South Africa*. SARChI Industrial Development Working Paper Series WP 2023-06. SARChI Industrial Development, University of Johannesburg. Available: <u>https://www.uj.ac.za/wp-content/uploads/2021/10/sarchi-wp-2023-06-bhorat-et-al-may-2023.pdf</u> [Accessed 2024/07/24]

Bhorat, H., Köhler, T., and Monnakgotla, J., 2024. *Social Security Coverage among the Working-Age Population in South Africa*. Development Policy Research Unit Working Paper 202404. DPRU, University of Cape Town. Available: https://commerce.uct.ac.za/sites/default/files/media/documents/commerce_uct_ac_za/1093/dpru-wp202404.pdf [Accessed 2024/07/19]

Branson, N. and Leibbrandt, M., 2013. Educational attainment and labour market outcomes in South Africa, 1994-2010. OECD Economics Department Working Papers, No. 1022. DOI: https://dx.doi.org/10.1787/5k4c0vvbvv0q-en

Chatterjee, A., Czajka, L., Gethin, A., 2020 Estimating the distribution of household wealth in South Africa. WIDER Working Paper 2020/45. Helsinki: UNU-WIDER. <u>https://doi.org/10.35188/UNU-WIDER/2020/802-3</u>

Cole, M.J., Bailey, R.M., Cullis, J.D.S. and New, M.G., 2018. Spatial inequality in water access and water use in South Africa. *Water Policy*, 20(1): 37-52. DOI: <u>https://doi.org/10.2166/wp.2017.111</u>

Department of Basic Education, 2024. *National Senior Certificate 2023: Examination Report*. Available: https://www.education.gov.za/Portals/0/Documents/Reports/2021NSCReports/NSC23%20Technical%20Report.pdf?ver=2024-01-18-161615-123 [Accessed 2024/07/23]

_____, 2011. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 285). *Government Gazette*, 34169, March 2011.

_____, 2012. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 256). *Government Gazette*, 35189, March 2012.

_____, 2013. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 712). *Government Gazette*, 36292, September 2013.

_____, 2014. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 211). *Government Gazette*, 37474, March 2014.

_____, 2015. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 277). *Government Gazette*, 38647, March 2015.

_____, 2016. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 1210). *Government Gazette*, 40323, October 2016.

_____, 2017. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 305). *Government Gazette*, 40754, March 2017.

_____, 2018. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 362). *Government Gazette*, 41526, March 2018.

_____, 2019. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 490). *Government Gazette*, 42337, March 2019.

_____, 2020. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 361). *Government Gazette*, 43143, March 2020.

_____, 2021. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 286). *Government Gazette*, 44377, March 2021.

_____, 2022. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 1947). *Government Gazette*, 46144, March 2022.

_____, 2023. Social Assistance Act, 2004 (Act No. 13 of 2004) as amended: Increase in respect of Social Grants. (Notice 3208). *Government Gazette*, 48321, March 2023.

Department of Provincial and Local Government, 2005. *National Framework for Municipal Indigent Policies*. Pretoria: Government Printers.

Ebenezer, M. and Abbyssinia, M., 2018. Livelihood diversification and its effect on household poverty in Eastern Cape province, South Africa. *The Journal of Developing Areas*, 52(1): 235-249. URL: https://www.jstor.org/stable/10.2307/26417004

European Commission, 2014. Social Europe: Many ways, one objective. Annual Report of the SocialProtection Committee on the social situation in the European Union (2013). Publications Office of theEuropeanUnion,Luxembourg.Available:https://ec.europa.eu/social/BlobServlet?docId=11503&langId=en [Accessed 2024/07/19]

Feder, J. and Yu, D., 2020. Employed yet poor: low-wage employment and working poverty in South
Africa.DevelopmentSouthernAfrica,37(3):363-381.DOI:https://doi.org/10.1080/0376835X.2019.1597682

Finn, A., 2015. *A national minimum wage in the context of the South African labour market*. SALDRU Working Paper No. 153. Southern Africa Labour and Development Research Unit, University of Cape Town. Available: <u>http://hdl.handle.net/11090/786</u> [Accessed 2024/07/18]

Finn, A. Leibbrandt, M. and Woolard, I., 2013. *What happened to multidimensional poverty in South Africa between 1993 and 2010?* SALDRU Working Paper No. 99. Southern Africa Labour and Development Research Unit, University of Cape Town. Available: <u>http://hdl.handle.net/11090/615</u> [Accessed 2024/07/19]

Foster, J., Greer, J., and Thorbecke, E., 1984. A class of decomposable poverty measures. *Econometrica*, 52(3): 761-766.

Foster, J., Greer, J. and Thorbecke, E., 2010. The Foster-Greer-Thorbecke (FGT) poverty measures: 25 years later. *The Journal of Economic Inequality*, 8(4): pp. 491 – 524. Doi: 10.1007/s10888-010-9136-1

Frame, E., De Lannoy, A. and Leibbrandt, M., 2016. *Measuring multidimensional poverty among youth in South Africa at the sub-national level*. SALDRU Working Paper No. 169. Southern Africa Labour and Development Research Unit, University of Cape Town. Available: <u>http://hdl.handle.net/11090/818</u> [Accessed 2024/07/19]

Fransman, T. and Yu, D., 2019. Multidimensional poverty in South Africa 2001-16. *Development Southern Africa*, 36(1): 50-79. DOI: <u>https://doi.org/10.1080/0376835X.2018.1469971</u>

Gaede, B. and Versteeg, M., 2011. The state of the right to health in rural South Africa. *South African Health Review*, 2011:1. URL: <u>https://hdl.handle.net/10520/EJC119080</u>

Goebel, A., 2007. Sustainable urban development? Low-cost housing challenges in South Africa. *Habitat International*, *31*(3-4): 291-302. DOI: <u>https://doi.org/10.1016/j.habitatint.2007.03.001</u>

Hall K, Woolard I, Lake L & Smith C (eds.), 2012. *South African Child Gauge 2012*. Cape Town: Children's Institute, University of Cape Town.

Harper, C. Marcus, R. and Moore, K., 2003. Enduring poverty and the conditions of childhood: Lifecourse and intergenerational poverty transmissions. *World Development*, 31(3): 535-554. DOI: <u>https://doi.org/10.1016/S0305-750X(03)00010-X</u>

Harris, B. Goudge, J. Ataguba, J.E., McIntyre, D. Nxumalo, N., Jikwana, S. and Chersich, M., 2011. Inequities in access to health care in South Africa. *Journal of Public Health Policy*, 32: S102-S123. DOI: <u>https://doi.org/10.1057/jphp.2011.35</u>

Huchzermeyer, M., 2001. Housing for the poor? Negotiated housing policy in South Africa. *Habitat International*, *25*(3): 303-331. DOI: <u>https://doi.org/10.1016/S0197-3975(00)00037-0</u>

Hundenborn, J., Leibbrandt, M. and Woolard, I., 2018. *Drivers of Inequality in South Africa*. UNU-WIDER Working Paper No. 162/2018. Helsinki: UNU-WIDER. DOI: <u>https://doi.org/10.35188/UNU-WIDER/2018/604-3</u>

Inglesi-Lotz, R., 2023. Load shedding in South Africa: Another nail in income inequality? *South African Journal of Science*, 119(9/10): DOI: <u>https://doi.org/10.17159/sajs.2023/16597</u>

International Labour Organisation (ILO), 2005. *Chapter 4: Measures of Poverty.* International Labour Organisation, Geneva. Available: <u>https://www.ilo.org/media/289306/download</u> [Accessed 2024/07/23]

International Labour Organization (ILO), 2022. *Extension of Social Security to Informal Sector workers, Self Employed and Atypical Workers Consultative Workshop*. ILO, Switzerland. Available:

https://www.ilo.org/meetings-and-events/extension-social-security-informal-sector-workers-selfemployed-and [Accessed 2024/07/23]

Jakubiak-Lasocka, J., Lasocki, J., Siekmeier, R. and Chłopek, Z., 2014. Impact of Traffic-Related Air Pollution on Health. In: Pokorski, M. (eds) *Environment Exposure to Pollutants. Advances in Experimental Medicine and Biology*, 834: 21-29. DOI: https://doi.org/10.1007/5584_2014_14

Jolliffe, D.M., Mahler, D.G., Lakner, C., Atamanov, A. and Tetteh Baah, S.K., 2022. Assessing the impact of the 2017 PPPs on the international poverty line and global poverty. Policy Researching Working Paper No. 9941. World Bank Group, Washington D.C. Available: <a href="https://documents.worldbank.org/en/publication/documents-reports/documentdetail/353811645450974574/assessing-the-impact-of-the-2017-ppps-on-the-international-poverty-line-and-global-poverty [Accessed 2024/07/22]

Kara, A.M. and Kithu, L.M., 2020. Education Attainment of Head of Household and Household Food Security: A Case for Yatta Sub- County, Kenya. *American Journal of Educational Research*, 8(8): 558-566. DOI:10.12691/education-8-8-7.

Kerr, A. and Wittenberg, M., 2019. Earnings and employment microdata in South Africa. WIDER Working Paper No. 2019/47. Helsinki: United Nations World Institute for Development Economic Research (UNU-WIDER).

Köhler, T. and Bhorat, H., 2020. Covid-19, Social Protection and the Labour Market in South Africa: Aresocial grants being targeted at the most vulnerable? DPRU Working Paper No. 202008. DevelopmentPolicyResearchUnit,UniversityofCapeCapeTown.Available:https://commerce.uct.ac.za/sites/default/files/contentmigration/commerceuctacza/1093/files/DPRU%2520WP%252020208.pdf[Accessed 2024/07/19]

______, 2023. Wages and Wage Inequality during the COVID-19 Pandemic in South Africa. Development Policy Research Unit Working Paper 202308. DPRU, University of Cape Town. Available: https://commerce.uct.ac.za/sites/default/files/media/documents/commerce uct ac za/1093/DPRU% 20WP%20202308.pdf

Lanau, A., Mack, J. and Nandy, S., 2020. Including services in multidimensional poverty measurement for SDGs: modifications to the consensual approach. *Journal of Poverty and Social Justice*, 28(2): 149-168. DOI: <u>https://doi.org/10.1332/175982720X15850580703755</u>

Leibbrandt, M., Bhorat, H., and Woolard, I., 1999.Understanding Contemporary Household Inequality in South Africa. . Development Policy Research Unit Working Paper 99/25. DPRU, University of Cape Town. Available: <u>https://open.uct.ac.za/server/api/core/bitstreams/b522b4dc-6bdf-4e2d-b4defc0566820ec4/content</u>

Leibbrandt, M., Finn, A. and Woolard, I., 2012. Describing and decomposing post-apartheid income and inequality in South Africa. *Development Southern Africa*, 29(1): pp. 19 – 34. DOI: <u>https://doi.org/10.1080/0376835X.2012.645639</u>

Lemanski, C., 2010. Homeownership as a solution to poverty in urban South Africa. *International Journal of Urban and Regional Research*, 35(1): 57-77. DOI: <u>https://doi.org/10.1111/j.1468-2427.2010.00945.x</u>

Letseka, M. and Maile, S., 2008. High university drop-out rates: A threat to South Africa's future. *HSRC Policy Brief.* URL: <u>http://hdl.handle.net/20.500.11910/4967</u>

Lilenstein, K., Woolard, I. and Leibbrandt, M., 2016. *In-work poverty in South Africa: The impact of income sharing in the presence of high unemployment*. SALDRU Working Paper No. 193. Southern

Africa Labour and Development Research Unit, University of Cape Town. Available: <u>http://hdl.handle.net/11090/852</u> [Accessed 2024/07/18]

Maistry, S.M. Africa, I.E., 2020. Neoliberal stratification: The confounding effect of the school poverty quintile ranking system in South Africa. *South African Journal of Education*, 40(4): DOI: https://doi.org/10.15700/saje.v40n4a1872

Makoka, D. and Kaplan, M., 2005. *Poverty and Vulnerability – An Interdisciplinary Approach*. MRPA Paper No. 6964. University Library of Munich, Germany. Available: <u>https://mpra.ub.uni-</u> <u>muenchen.de/6964/1/MPRA_paper_6964.pdf [</u>Accessed 2024/07/19]

Maphumulo, W.T. and Bhengu, B.R., 2019. Challenges of quality improvement in the healthcare of South Africa post-apartheid: A critical review. *Curationis*, 42)1). URL: <u>https://hdl.handle.net/10520/EJC-170ff325f8</u>

Manomano, T. and Tanga, P.T., 2018. Housing needs: The quality and quantity of housing provided by the government for the poor in the Eastern Cape province in South Africa. *Social Work*, 54(1): 18-36. DOI: <u>http://dx.doi.org/10.15270/54-1-612</u>

Massa, R., Fondevila, G., Gutiérrez-Meave, R., and Bonilla Alguera, G., 2023. Clandestine Dumpsites and Crime in Mexico City: Revisiting the Broken Windows Theory. *Crime & Delinquency*, 0(0). DOI: <u>https://doi.org/10.1177/00111287231186083</u>

McKay, T., 2020. South Africa's Key Urban Transport Challenges. In: Masse, R. Gunter, A. (eds) *Urban Geography in South Africa*. DOI: <u>https://doi.org/10.1007/978-3-030-25369-1_12</u>

Misselhorn. A. and Hendriks, S.L., 2017. A systematic review of sub-national food insecurity research in South Africa: Missed opportunities for policy insights. *PLoS ONE*, 12(8): e0182399. DOI: <u>https://doi.org/10.1371/journal.pone.0182399</u>

Mlambo, V., 2018. An overview of rural-urban migration in South Africa: Its implications. *Archives of Business Research*, 6(4): 63-70. DOI: <u>https://doi.org/10.14738/abr.64.4407</u>

Moselakgomo, M., Mokonyama, M.T. and Okonta, F., 2017. The relationship between urban neighbourhood type and commuting distance in Gauteng City region, South Africa. A preliminary analysis. Southern African Transport Conference 2017, 10-13 July 2017, CSIR International Convention Centre, Pretoria. Available: <u>http://hdl.handle.net/10204/9621</u>

Mtshweni, B.V., 2021. Adjustment and socioeconomic status: How do these factors influence the intention to drop out of university? *South African Journal of Psychology*, 52(2): 262-274. DOI: <u>https://doi.org/10.1177/00812463211059141</u>

Mushongera, D., Zikhali, P. and Ngwenya, P., 2017. A Multidimensional Poverty Index for Gauteng Province, South Africa: Evidence from Quality of Life Survey Data. *Social Indicators Research*, 130: 277-303. DOI: <u>https://doi.org/10.1007/s11205-015-1176-2</u>

National Planning Commission (NPC), 2012. *National Development Plan 2030*. Pretoria: Government Printer.

Omotoso, K.O. and Koch, S.F., 2018a. Assessing changes in social determinants of health inequalities in South Africa: A decomposition analysis. *International Journal for Equity in Health* 17(181): 1-13. DOI: <u>https://doi.org/10.1186/s12939-018-0885-y</u>

Omotoso, K.O. and Koch, S. F., 2018b. Exploring child poverty and inequality in post-apartheid South Africa: a multidimensional perspective. *Journal of Poverty and Social Justice*, 26(3): 417-437. DOI: https://doi.org/10.1332/175982718X15361435470229.

Oosthuizen, M., 2007. *Consumer Price Inflation across the Income Distribution in South Africa*. DPRU Working Paper 07/129. November. Development Policy Research Unit, University of Cape Town. Available: <u>http://hdl.handle.net/11427/7276</u>.

Pietermaritzburg Economic Justice and Dignity Group [PEJDG], 2020. Household Affordability IndexOctober2020.Ownpublication.Available:https://pmbejd.org.za/wp-content/uploads/2020/10/October-2020-Household-Affordability-Index-PMBEJD_15102020.pdf

______, 2024. Household Affordability Index October 2024. Own publication. Available: https://pmbejd.org.za/wp-content/uploads/2024/10/October-2024-Household-Affordability-Index-PMBEJD_23102024.pdf.

Rhodes, B. and McKenzie, T., 2018. To what extent does socio-economic status still affect household access to water and sanitation services in South Africa? *Journal of Economic and Financial Sciences* 11(1), a173. DOI: <u>http://dx.doi.org/10.4102/jef.v11i1.173</u>

Rogan, M., 2010. Poverty and headship in post-apartheid South Africa, 1997 – 2006. The global
economic crisis and South Africa: Lessons in long-run economic growth and development. Indaba Hotel
and
Conference
Centre, 27-29
October.Available:https://www.tips.org.za/files/poverty and headship in post-apartheid south africa.pdf[Accessed 17/09/2024].

______, 2016. Gender and multidimensional poverty in South Africa: Applying the Global Multidimensional Poverty Index (MPI). *Social Indicators Research*, 126(3): 987-1006. DOI: <u>http://dx.doi.org/10.1007/s11205-015-0937-2</u>

Rogan, M. and Reynolds, J., 2015. *The working poor in South Africa, 1997-2012*. Institute of Social and Economic Research Working Paper No. 2015/4. Institute of Social and Economic Research, Rhodes University. Available:

https://www.researchgate.net/publication/281435814 The Working Poor in South Africa 1997-2012 [Accessed 2024/09/18]

Ross, C.E. and Wu, C., 1995. The links between education and health. *American Sociological Review*, 60(5): 719-745. DOI: <u>https://doi.org/10.2307/2096319</u>

Savari, M., Sheykhi, H. and Amghani, M.S., 2020. The rile of educational channels in the motivating of rural women to improve household food security. *One Health*, 10: 100150. DOI: <u>https://doi.org/10.1016/j.onehlt.2020.100150</u>

Schmidt, C.W., 2008. The Yuck Factor When Disgust Meets Discovery. Environmental Health Perspectives, 166(12): A524-A527. DOI: <u>https://doi.org/10.1289/ehp.116-a524</u>

Schmitz, P.M.U., 2018. Food insecurity, Fortunate index, and refuse removal as indicators for resilience to disasters. In Behr,F-J. Brönner, C. Orti, M. Negussie, K. (eds.). *Geoscience for Crisis Management: Applied Geoinformatics for Society and Environment*. Stuttgart, Germany: AGSE. 90-101.

Schoeman, T. and Saunders, M., 2018. The impact of power outages on small businesses in the City of Johannesburg. *10th International Conference on Education, Business, Humanities, and Social Sciences Studies,* 19-20 November, Cape Town, South Africa. DOI: <u>https://doi.org/10.17758/EARES4.EAP1118411</u>

Seekings, J., 2000. Introduction: Urban Studies in South Africa after Apartheid. *International Journal of Urban & Regional Research*, 24(4). DOI: <u>https://doi.org/10.1111/1468-2427.00281</u>

Seekings, J., Leibbrandt, M. and Nattrass, N., 2004. *Income Inequality after Apartheid*. Centre for Social Science Research Working Paper No. 75, Southern Africa Labour and Development Research Unit, University of Cape Town. Available: <u>https://www.opensaldru.uct.ac.za/handle/11090/643</u> [Accessed 2024/09/10].

Sharma, M., 2023. Poverty and gender : determinants of female- and male-headed households with children in poverty in the USA, 2019. *Sustainability*, 15(9) : 7602. DOI : <u>https://doi.org/10.3390/su15097602</u>

Shifa, M., Mabhena, R., Ranchod, V. and Leibbrandt, M., 2023. *An assessment of inequality estimates in South Africa*. UNU-WIDER Working Paper No.90/2023. Helsinki: UNU-WIDER. DOI: <u>https://doi.org/10.35188/UNU-WIDER/2023/398-7</u>

Soe, T.K., Laohasiriwong, W., Sornlorm, K., and Mahato, R.K., 2023 Safely managed sanitation practice and childhood stunting among under five years old children in Myanmar. *PLoS ONE*, 18(11): e0290600. DOI: <u>https://doi.org/10.1371/journal.pone.0290600</u>

Sommer, H., Seethaler, R., Chanel O., Herry, M., Masson, S. and Vergnaud, J.C., 1999, June. Health costs due to road traffic-related air pollution. In *An impact assessment project report on Austria, France and Switzerland and prepared for the WHO Ministerial Conference on Environment and Health. London: Federal Department of Environment, Transport, Energy and Communications Bureau for Transport Studies.*

South Africa, 1996. Constitution of the Republic of South Africa, 1996. Pretoria: Government Printer.

South African Reserve Bank (SARB), 2024. *Quarterly Bulletin* No. 313. September. Available: <u>https://www.resbank.co.za/</u> [Accessed: 2024/09/30]

South African Social Security Agency (SASSA), 2023. SASSA Annual Report 2022/23. SASSA, Pretoria. Available:

https://www.sassa.gov.za/annual%20reports/Documents/SASSA%20ANNUAL%20REPORT%202022-23.pdf

______, 2024. SASSA Annual Report 2022/23. Pretoria, South Africa. Available: <u>https://www.sassa.gov.za/annual%20reports/Documents/SASSA%20ANNUAL%20REPORT%202022-</u>23.pdf [Accessed 2024/07/23]

Spaull, N., 2015. Schooling in South Africa: How low-quality education becomes a poverty trap. South
AfricanChildGauge.Available:https://ci.uct.ac.za/sites/default/files/content_migration/health_uct_ac_za/533/files/Child_Gauge_2015-Schooling.pdf[Accessed 2024/07/25].

Statistics South Africa (Stats SA), 2014. The South African MPI: Creating a multidimensional poverty indexusing census data.Report No. 03-10-08. Statistics South Africa: Pretoria.Available:https://www.statssa.gov.za/publications/Report-03-10-08/Report-03-10-082014.pdf[Accessed2024/07/19][Accessed

____, 2017a. *Poverty Trends in South Africa, No. 03-10-06*. Pretoria: Statistics South Africa.

______, 2019. Inequality trends in South Africa: A Multidimensional diagnostic of inequality. Pretoria: Statistics South Africa. Available: <u>https://www.statssa.gov.za/publications/Report-03-10-19/Report-03-10-192017.pdf</u> [Accessed 2024/09/20] ______, 2020. Education Series Volume VI: Education and Labour Market Outcomes in South Africa, 2018. Statistics South Africa: Pretoria. Available: <u>https://www.statssa.gov.za/publications/92-01-06/92-01-062018.pdf</u> [Accessed 2024/07/22]

_____, 2022. *Census 2022*. Statistical Release P0301.4. Statistics South Africa: Pretoria. Available:

https://census.statssa.gov.za/assets/documents/2022/P03014 Census 2022 Statistical Release.pdf [Accessed 2024/09/18]

______, 2023. *National Poverty Lines*. Statistical Release P0310.1. Statistics South Africa: Pretoria. Available: <u>https://www.statssa.gov.za/publications/P03101/P031012023.pdf</u> [Accessed 2024/08/30]

______, 2024a. Consumer Price Index (CPI). Statistical Release P0141. Statistics South Africa: Pretoria. Available: <u>https://www.statssa.gov.za/publications/P0141/CPIHistory.pdf?SCH=0</u> [Accessed 2024/07/24]

______, 2024b. *Mid-year population estimates 2024*. Statistical Release P0302. Statistics South Africa: Pretoria. Available: <u>https://www.statssa.gov.za/publications/P0302/P03022024.pdf</u> [Accessed 2024/08/19]

______, 2024c. *Non-financial Census of Municipalities Survey (NFCM)*. Statistics Release P9115. Statistics South Africa: Pretoria. Available: https://www.statssa.gov.za/?page_id=1854&PPN=P9115_[Accessed 2024/09/20].

______, 2024d. *QLFS Trends 2008-2024Q2*. Available: https://www.statssa.gov.za/publications/P0211/QLFS%20Trends%202008-2024Q2.xlsx [Accessed 2024/09/09].

______, various years. *General Household Survey*. Microdata. Statistics South Africa: Pretoria. Available: <u>https://www.statssa.gov.za/?page_id=1866&PPN=P0318&SCH=73897</u>

Turok, I., 2011. Deconstructing density: Strategic dilemmas confronting the post-apartheid city. *Cities*, 25(5): 470-477. DOI: <u>https://doi.org/10.1016/j.cities.2010.10.003</u>

UNICEF, 2021. A review of the use of multidimensional poverty measures: Informing advocacy, policy and accountability to address child poverty. Available: https://www.unicef.org/media/105966/file/A%20review%20of%20the%20use%20of%20multidimensi onal%20poverty%20measures.pdf [Accessed 2024/07/22]

UNU-WIDER, 2024. World Income Inequality Database (WIID)

US Bureau of Labor Statistics, 2023. *A profile of the working poor, 2021*. Available: <u>https://www.bls.gov/opub/reports/working-poor/2021/home.htm [Accessed 2024/07/19]</u>

Van de Werfhorst, H.G., 2002. A detailed examination of the role of education in intergenerational social-class mobility. *Social Science Information*. 41(3): 407-438. DOI: <u>https://doi.org/10.1177/0539018402041003004</u>

Venter, C., Vokolkova, V. and Michalek, J., 2007. Gender, residential location, and household travel: empirical findings from low-income urban settlements in Durban, South Africa. *Transport Reviews*, 27(6): 653-677. DOI: <u>https://doi.org/10.1080/01441640701450627</u>

Vermaak, C., 2010. The impact of multiple imputation on coarsened data on estimates on the working poor in South Africa. World Institute for Development Economics Research Working Paper No. 2010/86.

World Institute for Development Economics Research, United Nations University: Helsinki. Available: <u>https://www.wider.unu.edu/sites/default/files/wp2010-86.pdf [Accessed 2024/07/19]</u>

Vilnai-Yavetz, I., and Gilboa, S., 2010. The Effect of Servicescape Cleanliness on Customer Reactions. *Services Marketing Quarterly*, 31(2): 213–234. DOI: <u>https://doi.org/10.1080/15332961003604386</u>

Winter, D., 2011. Power outages and their impact on South Africa's water and wastewater sectors. *Water Research Commission*, Report No. KV 267/11. Available: <u>https://www.wrc.org.za/wp-content/uploads/mdocs/KV%20267-111.pdf</u> [Accessed 2024/17/18].

Wittenberg, M., 2017. Wages and wage inequality in South Africa 1994–2011: part 1–wage measurement and trends. *South African Journal of Economics*, *85*(2): 279-297. DOI: <u>https://doi.org/10.1111/saje.12148</u>

World Bank, 2018. Overcoming poverty and inequality in South Africa: An Assessment of Drivers, Constraints and Opportunities. Washington, DC: The World Bank. Available: https://documents1.worldbank.org/curated/en/530481521735906534/pdf/Overcoming-Poverty-and-Inequality-in-South-Africa-An-Assessment-of-Drivers-Constraints-and-Opportunities.pdf

______, 2021. South Africa: Social Assistance Programs and Systems Review. Washington: World Bank. The International Bank for Reconstruction and Development/ The World Bank, Washington, DC. Available: <u>https://documents1.worldbank.org/curated/en/238611633430611402/pdf/South-Africa-Social-Assistance-Programs-and-Systems-Review.pdf</u> [Accessed 2024/07/23]

______, 2022. Inequality in Southern Africa: An Assessment of the Southern African Customs Union. Washington DC: The World Bank. Available: http://documents.worldbank.org/curated/en/099125303072236903/P1649270c02a1f06b0a3ae02e5 7eadd7a82 [Accessed 2024/09/10].

Appendix

	Employed	Brac	kets	Exact	Values	Imputed Data		
		Missing data, incl. Don't Know and Refuse	Missing data	Missing data, incl. Don't Know and Refuse	Missing data	Imputations	Imputations	
	(n)	(n)	(rate, %)	(n)	(rate, %)	(n)	(rate, %)	
	(1)	(2)	(2)/(1)	(3)	(3)/(1)	(4)	(4)/(3)	
2011	23 143	2 537	11.0	8 558	37.0	8 430	98.5	
2012	24 237	2 795	11.5	9 904	40.9	9 716	98.1	
2013	24 892	3 904	15.7	10 167	40.8	9 925	97.6	
2014	24 635	4 013	16.3	10 341	42.0	10 061	97.3	
2015	21 211	3 457	16.3	8 734	41.2	8 387	96.0	
2016	20 462	3 644	17.8	8 650	42.3	8 440	97.6	
2017	20 310	4 028	19.8	8 493	41.8	8 273	97.4	
2018	19 901	3 865	19.4	8 424	42.3	8 220	97.6	
2019	18 162	4 029	22.2	9 373	51.6	9 140	97.5	
2020	7 115	1 877	26.4	4 132	58.1	4 057	98.2	
2021	7 875	1 912	24.3	4 684	59.5	4 606	98.3	
2022	16 577	4 103	24.8	10 057	60.7	9 782	97.3	
2023	18 941	2 937	15.5	11 352	59.9	11 071	97.5	
Total	247 461	43 101	17.4	112 869	45.6	110 108	97.6	

Table 14. Wage sample size, bracket responses, point estimate non-responses, and imputation information

Source: Own calculations General Household Survey (2011-2023).

Table 15. Individual- and household-level poverty rates at different poverty lines, 2011-2023

Year	Indivi	dual-Level Poverty	Rates	Household-Level Poverty Rates				
	Food Poverty	Lower-Bound	Upper-Bound	Food Poverty	Lower-Bound	Upper-Bound		
2011	25.3	38.6	51.6	19.8	30.2	41.5		
2012	24.3	36.9	50.1	18.6	28.4	40.0		
2013	23.8	36.1	49.3	19.2	28.6	40.3		
2014	21.6	33.4	47.0	17.1	26.1	37.4		
2015	22.2	33.9	46.6	17.0	25.9	36.7		
2016	35.1	47.0	58.9	26.7	35.8	47.1		
2017	23.5	33.9	46.7	17.8	25.3	36.6		
2018	25.9	35.8	47.0	20.9	28.0	38.2		
2019	21.8	32.7	44.9	18.0	26.0	36.9		
2020	23.8	36.8	50.6	21.3	30.3	42.1		
2021	24.4	36.6	49.5	19.5	28.3	40.2		
2022	24.7	35.9	48.2	20.6	28.4	39.4		
2023	25.5	36.8	48.8	20.8	29.8	39.5		

Source: Own calculations, GHS (2011-2023), Statistics South Africa (2023).

Notes: Poverty lines are Statistics South Africa's published poverty lines for each year.

Year	Aggregate	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	Total (mil)
2011	Population	10.5	15.3	12.8	11.5	10.3	8.1	9.5	8.2	7.5	6.3	51.6
	Income	0.3	1.0	1.6	2.3	3.3	4.6	7.3	11.1	19.5	49.1	
2012	Population	10.8	15.7	12.7	10.9	9.8	9.4	8.5	8.1	7.6	6.2	52.3
	Income	0.3	1.0	1.5	2.1	3.3	4.3	6.7	10.8	19.0	51.0	
2013	Population	9.7	15.1	12.9	11.1	9.7	9.8	8.9	8.4	8.0	6.3	53.1
	Income	0.3	0.9	1.5	2.1	3.2	4.6	7.2	11.4	19.8	48.9	
2014	Population	11.0	15.2	11.7	11.5	9.8	9.2	8.8	8.2	7.8	6.8	53.9
	Income	0.3	1.0	1.5	2.2	3.3	4.7	7.0	11.0	19.1	49.8	
2015	Population	10.9	15.2	12.5	11.6	8.8	9.4	8.6	8.5	7.8	6.7	54.8
	Income	0.3	1.1	1.6	2.4	3.5	4.8	7.2	11.3	19.1	48.9	
2016	Population	11.6	14.9	12.5	11.2	8.7	9.7	8.5	8.4	7.9	6.6	55.6
	Income	0.3	1.0	1.6	2.4	3.4	5.2	6.9	11.1	19.6	48.4	
2017	Population	11.2	15.7	12.6	11.0	8.9	9.3	8.5	8.4	7.7	6.7	56.5
	Income	0.3	1.1	1.7	2.4	3.4	4.9	7.2	11.4	18.7	48.7	
2018	Population	11.9	15.5	11.4	11.5	8.9	9.7	8.9	8.2	7.5	6.5	57.5
	Income	0.3	1.1	1.7	2.6	3.6	5.3	7.8	11.8	19.8	46.0	
2019	Population	9.9	14.5	12.8	11.7	9.2	10.0	8.8	8.7	7.8	6.6	58.4
	Income	0.3	0.9	1.5	2.1	3.0	4.4	6.5	10.4	17.5	53.4	
2020	Population	9.9	11.6	15.0	12.0	11.0	8.7	9.3	8.5	7.9	6.1	59.4
	Income	0.4	0.9	1.7	2.4	3.4	4.8	7.2	11.3	19.1	48.7	
2021	Population	10.8	14.1	13.6	10.7	9.7	10.0	8.9	8.1	8.1	6.0	60.5
	Income	0.4	1.2	2.0	2.5	3.9	5.4	7.9	11.5	21.0	44.1	
2022	Population	9.1	14.9	13.5	11.5	9.4	9.3	8.7	8.7	8.0	7.0	61.4
	Income	0.3	1.0	1.7	2.4	3.7	4.6	7.1	11.4	19.7	48.0	
2023	Population	8.7	15.7	12.8	12.2	8.3	10.1	9.4	8.1	7.7	6.9	62.3
	Income	0.3	1.1	1.8	2.6	3.6	5.1	7.5	11.3	18.6	48.0	

Table 16. Share of population and income by income decile, 2011-2023

Source: GHS (2011, 2015, 2019, 2023), Statistics South Africa (2024a).

Notes: This is based on imputed household income variable outlined in Box 1. Unit of analysis is at the household level. Rands adjusted to December 2023 prices.

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	SA
Food & non-alcoholic bev.	31.1	32.4	31.9	31.1	28.5	25.5	21.6	15.9	10.5	5.8	12.9
Alcohol and tobacco	2.2	1.9	1.9	1.9	1.8	1.6	1.4	1.2	0.9	0.4	0.9
Clothing	8.0	8.5	8.7	8.9	9.0	8.8	7.9	6.4	4.6	2.5	4.8
Housing and utilities	29	26.2	24.7	24.2	24.8	25.3	27.5	32.2	33.9	35.6	32.6
Household equipment	3.0	3.8	4.1	4.1	4.2	4.6	4.6	4.2	4.9	6.0	5.2
Health	0.9	0.8	0.9	0.8	0.8	0.8	1.0	0.8	0.8	1.0	0.9
Transport	11.8	10.7	10.7	11.3	11.1	12.0	12.9	13.8	15.1	19.6	16.3
Communication	5.0	4.8	4.6	4.5	4.4	4.4	4.0	3.8	3.6	2.7	3.4
Recreation & culture	1.4	1.7	2.2	2.3	2.7	3.3	4.1	4.1	4.3	3.9	3.8
Education	0.3	0.4	0.5	0.7	1.0	1.4	1.6	2.7	3.0	2.9	2.5
Restaurants & hotels	1.6	2.0	2.2	2.2	2.4	2.1	2.1	2.1	1.9	2.2	2.1
Miscellaneous G&S	5.7	6.8	7.6	7.9	9.1	10.0	11.1	12.9	16.3	17.3	14.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1

Table 17. Composition of expenditure by expenditure decile, 2014/15

Source: LCS 2014/2015.

Table 18. Incidence of utility interruptions and environmental problems by province 2023

	Noise pollution	Air pollution	Littering	Land degra- dation	Irregular or no refuse removal	Water supply interrup- tions	Daily load shedding	Water pollution
Western Cape	12.6	10.3	12.1	24.2	14.1	20.6	78.8	10.5
Eastern Cape	10.8	20.5	57.6	41.7	50.3	75.7	70.2	29.4
Northern Cape	19.2	26.8	34.3	40.8	42.5	72.6	70.5	20.9
Free State	21.7	25.1	31.1	56.7	50.5	65.1	70.6	25.9
KwaZulu-Natal	5.9	9.7	48.1	26.2	24.7	63.2	76.1	13.7
North West	15.3	30.6	49.7	31.3	59.3	67.1	75.6	23.0
Gauteng	18.9	16.1	16.5	29.7	26.7	46.8	78.9	16.4
Mpumalanga	15.8	25.0	56.2	43.3	69.5	81.7	75.8	12.5
Limpopo	6.7	13.5	75.4	30.7	41.1	69.7	89.6	12.0
South Africa	13.7	16.9	37.4	32.5	35.8	55.2	77.5	16.8

Source: Own calculations General Household Survey (2023).

Notes: Figures refer to the proportion of households experiencing each utility interruption or environmental problem.

ⁱ In the GHS, if an individual responded 'Yes' to any of the following questions (which were consistently asked across all four surveys), they were considered employed:

[•] During the last calendar week (Sunday to Saturday) did [...] work for a wage, salary, commission or any payment in kind (including paid domestic work), even if it was only for one hour?

[•] During the last calendar week (Sunday to Saturday) did [...] run or do any kind of business, big or small, for yourself or with one or more partners, even if it was only for one hour?

[•] During the last calendar week (Sunday to Saturday) did [...] help without being paid in any kind of business, even if it was only for one hour?

• In the last calendar week (Sunday to Saturday), even though you did not do any work for pay or profit, do you have a job or business that you definitely return to?

ⁱⁱ In the GHS, if an individual responded 'No" to all of the four questions economic activity questions, but indicated that they had been looking for a job or trying to start a business during the preceding four calendar weeks, they were classified as unemployed. This corresponds to the narrow definition of unemployment.

ⁱⁱⁱ Since grants are means-tested, this is likely an error on the part of respondents.

^{iv} In effect, all recipients of the war veterans grant receive the higher amount since they are all over the age of 75 years.

 $^{\rm v}$ StatsSA interviews educational institutions in March each year to gather price information.

^{vi} For further reading on the health impacts of traffic-related air pollution, see Jakubiak-Lasocka et al. (2014), who investigate the effects of air pollution on health, and Sommer et al. (1999), who estimate the health costs associated with road traffic-related air pollution.

^{vii} See Kara and Kithu (2020) and Savari, Sheykhi, Amghani (2020) who found educational attainment of the household head is linked to food security.

^{viii} Education fosters intergenerational mobility, a phenomenon observed across income groups (Azomahou and Yitbarek, 2020). This holds even in highly educated cases (van de Werfhorst, 2002).