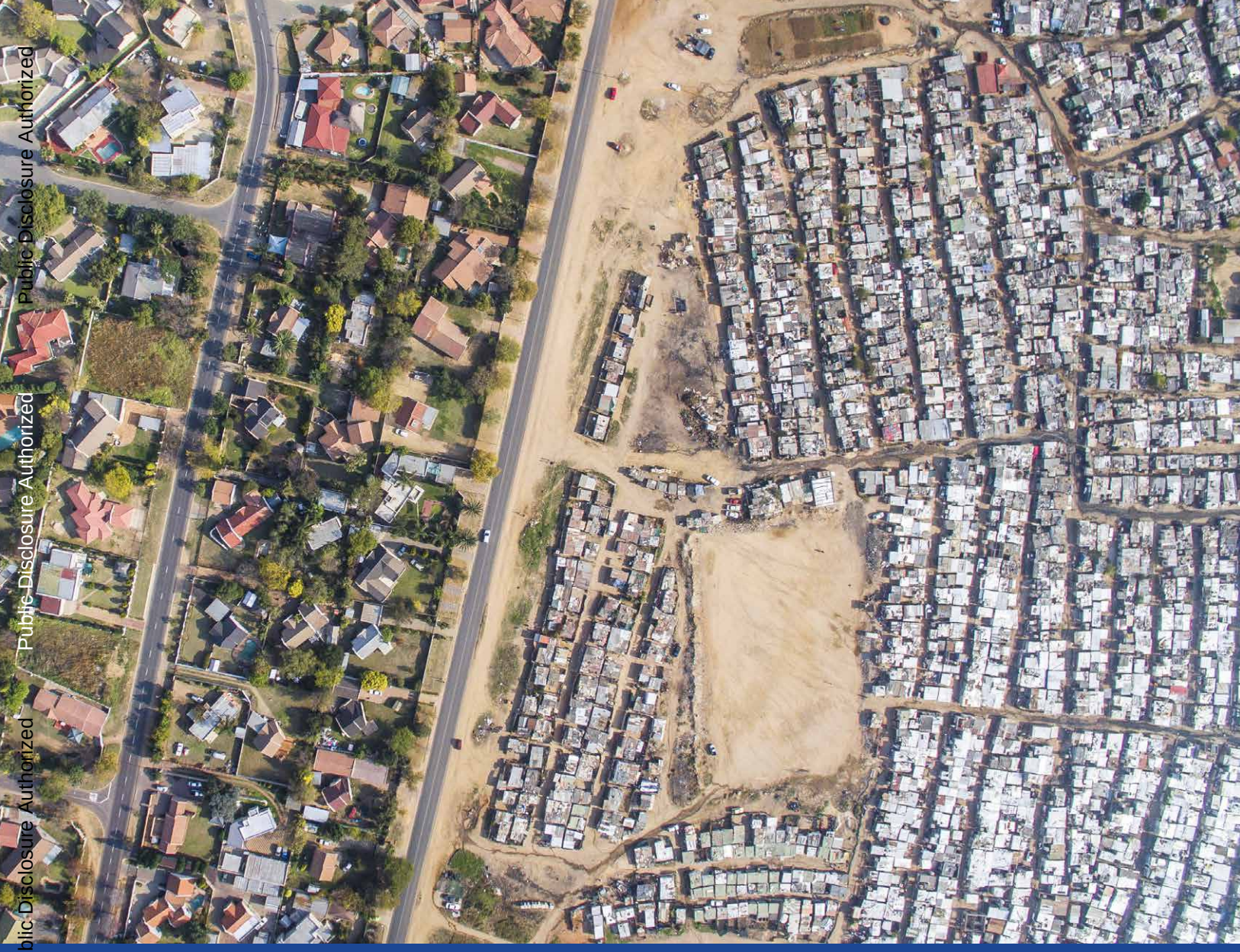

Overcoming Poverty and Inequality in South Africa

An Assessment of Drivers, Constraints and Opportunities

planning, monitoring & evaluation
Department:
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REPUBLIC OF SOUTH AFRICA

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2030 NDP

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ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AsgiSA	Accelerated and Shared Growth Initiative for South
B-BBEE	Broad-Based Black Economic Empowerment
BCEA	Basic Conditions of Employment Act
BRICS	Brazil, Russia, India, China and South Africa
CGE	Computable General Equilibrium
CPI	Consumer Price Indexes
CSG	Child Support Grant
CSP	Community, social, and public
DAFF	Department of Agriculture, Forestry and Fisheries
DG	Disability Grant
DPME	Department of Planning, Monitoring and Evaluation
EPWP	Expanded Public Works Programme
ETI	Employment Tax Incentive
FPL	Food Poverty Line
GDP	Gross domestic product
GEAR	Growth, Employment and Redistribution
GHS	General Household Survey
GIC	Growth Incidence Curves
GNI	Gross National Income
HFIAS	Household Food Insecurity Access Scale
HIV	Human Immuno-Deficiency Virus
HOI	Human Opportunity Index
IES	Income and Expenditure Survey
ILO	International Labor Organization
ISRDP	Integrated Sustainable Rural Development Program
LBPL	Lower bound poverty line
LCS	Living Conditions Survey
LRA	Labour Relations Act
MPI	Multidimensional Poverty Index
NDP	National Development Plan
NIDS	National Income Dynamics Study
NMW	National minimum wage
OAG	Old Age Grant
QLFS	Quarterly Labour Force Survey
RIF	Recentered Influence Functions
SAMPI	South African Multidimensional Poverty Index
SASSA	South Africa Social Security Agency
SD	Sectoral Determination (of wages)
SMME	Small, micro, and medium enterprises
Stats SA	Statistics South Africa
TES	Temporary employment services
UBPL	Upper bound poverty line
UNDP	United Nations Development Programme
WDI	World Development Indicators

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FOREWORD

This report is an analysis of South Africa's progress in reducing poverty and inequality since 1994, with 2006 to 2015 as a reference period. Its aim is to understand the dynamics of poverty and inequality in the country, to identify the drivers of progress for the purpose of further policy actions in this area.

Reducing poverty and inequality is the overriding concern of South Africa's development policies and programs, from the onset of our democracy in 1994 in the Reconstruction and Development Programme (RDP) to the current National Development Plan: Vision 2030 (NDP). The guiding principle, as captured in the NDP, is that *"no political democracy can survive and flourish if the mass of our people remain in poverty, without land, without tangible prospects for a better life. Attacking poverty and deprivation must be the first priority of a democratic government"*. The NDP posits that to raise the living standards to the minimum required level will involve various mechanisms, such as increasing employment, incomes, productivity as well as through social protection and quality public services. The measure of success of government's development policies will be when the lives and opportunities of poorest South Africans are transformed for the better.

Government is committed to eliminating poverty, and fiscal policy is one critical lever that expresses this commitment. The equitable share formula used to determine transfers to provincial and local spheres of government contains a poverty component as a redistributive measure. The 'social wage' has been used as a redistributive mechanism of the government budget deliberately aimed at improving the lives of the poor and reducing their cost of living. This has been achieved through, among others, free primary health care; no-fee paying schools; old age and child support grants; housing; and free basic services (water, electricity and sanitation) to poor households. Although these policies and interventions have resulted in notable gains in poverty reduction since 1994, the country continues to face the challenge of high poverty, high inequality and high unemployment. The persistence of these challenges calls for a rigorous assessment of the drivers, constraints and opportunities for poverty and inequality reduction in South Africa.

The report shows that, overall, poverty levels are lower today compared to 1994. Relatively high and consistent economic growth following the end of apartheid in 1994 up to around 2011 supported poverty reduction in South Africa, although economic growth prospects have been

slowing in recent years. The economy is currently not generating sufficient jobs, and the unemployment rate was 27.7 percent in the third quarter of 2017. Youth and unskilled workers bear the brunt of the problem as employers seek skilled workers, and the youth unemployment rate was 38,6 percent. As a result, poverty rates increased between 2011 and 2015. This experience is a reminder of the reality that the country's socio-economic challenges are deep, structural and long-term. This report is therefore timely as we, as a country, continue to grapple with these challenges and seek pathways to sustainable solutions, guided by the NDP.

While the long-term trend indicates progress in reducing poverty, inequality has remained stubbornly high. The report reveals South Africa as one of the most unequal countries in the world, with consumption inequality having increased since 1994. Wealth inequality is high and has been rising over time. A polarized labor market results in high wage inequality. Intergenerational mobility is relatively low and serves as a barrier to inequality reduction.

The report highlights the growing importance of education (skills) and labor market outcomes in supporting the country's poverty and inequality reduction agenda. Creating more jobs in an inclusive manner is thus important for the realization of the NDP's vision of eliminating poverty and reducing inequality.

We hope that the report makes a valuable contribution to this quest for effective strategies against poverty and inequality in the country, as part of national development planning and poverty monitoring activities, and building on existing work and knowledge. We would like to express our gratitude to the National Planning Commission Secretariat at the Department of Planning, Monitoring and Evaluation, Statistics South Africa, and the World Bank for their collaborative efforts in undertaking this study.

Dr Nkosazana C. Dlamini-Zuma, MP

Minister in the Presidency: Planning, Monitoring and Evaluation

PREFACE

I am pleased to present the *Overcoming Poverty and Inequality in South Africa: An Assessment of Drivers, Constraints and Opportunities*. This study was prepared jointly by the National Planning Commission Secretariat at the Department of Planning, Monitoring and Evaluation (DPME), Statistics South Africa, and the World Bank. It goes to the heart of South Africa's major challenges of poverty and inequality which, together with unemployment, are identified in the National Development Plan (NDP) as the triple challenge that is to be overcome by 2030. In this regard, this report is also aligned to the World Bank Group's twin goals of assisting countries in their efforts to end extreme poverty by 2030 and promote shared prosperity.

The Government of South Africa, supported by economic gains made since 1994, has made significant progress in reducing poverty, improving access to basic services, education, health care, social protection, and economic opportunities which have helped in reversing some of the adverse effects of a system of segregation under apartheid. However, this progress is being undermined by the country's recent low economic growth prospects.

The triple challenge of high poverty, high inequality, and high unemployment persists. Poverty remains high for an upper middle-income country with more than half (55 percent) of the population of South Africa being poor at the national upper bound poverty line of ZAR 992 per person per month in 2015 prices. In addition, with a consumption per capita Gini coefficient of 0.63 in 2015, South Africa is one of the most unequal countries in the world**.** Furthermore, unemployment reached 25.1 percent of the workforce in 2015 and was 27.7 percent in the third quarter of 2017. This makes overcoming these challenges very complex, exacerbated by an environment of low growth which has not generated sufficient jobs.

This study offers a comprehensive assessment of the extent and causes of poverty and inequality in South Africa. The last such assessment was done in 1998. The *Overcoming Poverty and Inequality in South Africa: An Assessment of Drivers, Constraints and Opportunities* report focuses on the role of labor markets in reducing poverty and inequality in South Africa. South Africa has a dual economy where on the one hand is a small high-skilled, high-productivity economy and on the other hand, a large low-skilled, low-productivity one. This assessment argues that it is this duality that has in part resulted in high wage inequality that has been steadily rising reflecting a highly polarized labor market.

This study reveals that labor market incomes are the largest contributor to inequality in South Africa, contributing more than 90 percent of the overall Gini coefficient between 2006 and 2015. If also finds that the nature of inequality has changed with the role of skills and labor market factors having grown in importance in explaining poverty and inequality while that of gender and race, though still important, has declined presenting an opportunity for policy to influence poverty and inequality outcomes. It shows that access to higher levels of education and stable labor market income are key determinants for households to achieve economic stability in South Africa. Social protection remains important in reducing extreme poverty, but the fiscal space for further expansion is limited.

The report identifies unlocking the full potential of labor markets and promoting inclusive growth through skills creation among possible areas of intervention that will accelerate poverty and inequality reduction. It also argues that interventions that simultaneously stimulate growth and reduce inequalities are likely to have much more impact than interventions that only stimulate growth or only reduce inequalities.

As the country grapples with the triple challenges, it is my hope that this evidence-based analysis will enhance our understanding of the drivers of inequality and barriers to its reduction and that it will add to the ongoing public debates on policies that are suitable and effective to tackle poverty, inequality and unemployment in South Africa.

Paul Noumba Um

Country Director for South Africa

World Bank

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This report was prepared by the World Bank jointly with the National Planning Commission Secretariat at the Department of Planning, Monitoring and Evaluation (DPME) and the Poverty and Inequality Statistics Unit at Statistics South Africa. The World Bank team comprised Victor Sulla (co-task team leader), Precious Zikhali (co-task team leader) Nga Thi Viet Nguyen (Poverty and Equity Global Practice), Sebastien Dessus (Program Leader, AFSC1), Marek Hanusch (Macroeconomics, Trade and Investment Global Practice), and Kanishka Kacker (Consultant). The core team from the DPME comprised Mthokozisi Tshuma, Lusanda Batala, and Ziphezinhle Mzobe who made the collaboration a success through efficient coordination, planning of various initiatives and technical expertise provided on the content of the study. The core team from Statistics South Africa comprised the entire Poverty and Inequality Statistics Unit team.

The following consultants and World Bank staff produced technical background papers to the report: Carel van Aardt, Zaakhir Asmal, Bernadene de Clercq, Haroon Bhorat, Arden Jeremy Finn, Coretta Jonah, Safia Khan, Murray Leibbrandt, Indira Bongisa Lekezwa, Kezia Lilenstein, Julian May, Cecil Mlatsheni, Morné Oosthuizen, Dan Pavelesku, Ericka Rascon, Jamele Rigolini, Simone Schotte, Johann van Tonder, Kirsten van der Zee, and Rocco Zizzamia. Special thanks to Julian May who provided invaluable contributions at the inception stage of the work by co-authoring a Discussion Note that was used to kick-start consultations with relevant stakeholders to inform the scope and focus of the report.

The team would like to express their gratitude to the management of all the three institutions for their support and leadership throughout the study. The support of DPME management, Tshediso Matona, Kefiloe Masiteng, and Khulekani Mathe (who has since left DPME but was present at the start of the project) is greatly appreciated. Within the World Bank, the report was undertaken under the guidance and leadership of Andrew Dabalen (Practice Manager), Pierella Paci (Practice Manager), Paul Noumba Um (Country Director), and Sebastien Dessus (Program Leader).

The report benefited from comments and feedback from participants at various stakeholder consultation workshops. Three workshops were held at the inception stage to present and get feedback on the Discussion Note: the first was with government officials and organized by DPME; the second was organized by Fiona Tregenna and held at the University of Johannesburg, and the last was held at the University of Cape Town, organized by Julian May and Murray Leibbrandt. The team would like to thank the organizers and participants for their invaluable comments and insights.

A working group, set up and coordinated by the DPME, served as a platform for technical and policy guidance to the study. The team would like to express gratitude to the following government departments that nominated officials to be part of this working group: the Department of Social Development, National Treasury, Economic Development Department, Department of Trade and Industry, Department of Higher Education and Training, as well as the Department of Agriculture, Fisheries and Forestry. Throughout the process, the working group provided invaluable insights at various stages of the study.

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EXECUTIVE SUMMARY

For more than two decades, South Africa has sought to address poverty and inequality with a wide range of initiatives, including the use of fiscal policy to support redistributive measures. The *social wage* – which refers to the government's investment in education, health services, social development including social assistance to vulnerable households and individuals as well as contributory social security, public transport, housing, and local amenities as a redistributive measure – has played a notable role in the government's efforts to reduce poverty and inequality. These efforts can be traced back to the 1993 Reconstruction and Development Program, the first prescription of the post-apartheid era, which identified the reduction of poverty as a central goal. Other policies have continued that effort and the most recent of these, the National Development Plan 2030: Our Future—Make It Work (2012), seeks to eliminate poverty and reduce inequality and identifies the triple challenge of high poverty, inequality, and unemployment as a major challenge for the country. The persistence of these challenges, more than two decades after the end of apartheid, calls for a comprehensive assessment of the extent and causes of poverty and inequality, with attention to trends, drivers, dynamics, policy, impact, and monitoring.

High unemployment remains the key challenge for South Africa and the country struggles to generate sufficient jobs. The labor market is characterized by several challenges. These include, among others, first, high level of unemployment which reached 25.1 percent of the workforce in 2015 and 27.7 percent in the third quarter of 2017 associated with slow job creation as economic growth slowed in recent years. Second, racial and gender disparities are still predominant in South Africa's labor market, an enduring legacy of apartheid. Race still affects the ability to find a job, as well as the wages received once employed. Although an increased number of women participate in South Africa's economy, female participants find it harder to find a job, and earn less than men when they do. Third, there is strong evidence of structural mismatch between labor demand and labor supply for unskilled workers. Despite extremely high and rising unemployment, skilled labor can be difficult to find in most skilled and professional segments largely due to the poor state of the public education system. Yet education has a strong influence on the probability of labor market participation. Fourth, location matters for labor market outcomes, with people in urban areas having better prospects of getting a job and a higher probability of getting a formal job, but there are no significant differences across provinces. Location has implications on the travel costs which tend to be a burden for getting jobs. The unemployed, and especially the youth, tend to lack resources and mobility for a job search or ability to relocate as jobs could be located far. In some cases, underdeveloped transport, high cost of commuting and crime makes job search more difficult and raise associated expenses and reservation wages. Fifth, labor market institutions and a rigid regulatory environment are shown to contribute to high levels of unemployment and wage disparities. Sixth, Small Micro and Medium Enterprises (SMMEs) have been struggling to advance inclusive growth and development as envisaged in the country's NDP: the share of SMMEs has been falling over time as well as the proportion of employees working in this sector. All these challenges slow the ability of labor markets to accelerate poverty and inequality reduction. Overcoming these challenges is critical given that unemployment has an adverse impact on poverty and inequality. Unemployment rates tend to be higher among the poor. Similarly, labor force participation is lower in poor than non-poor households.

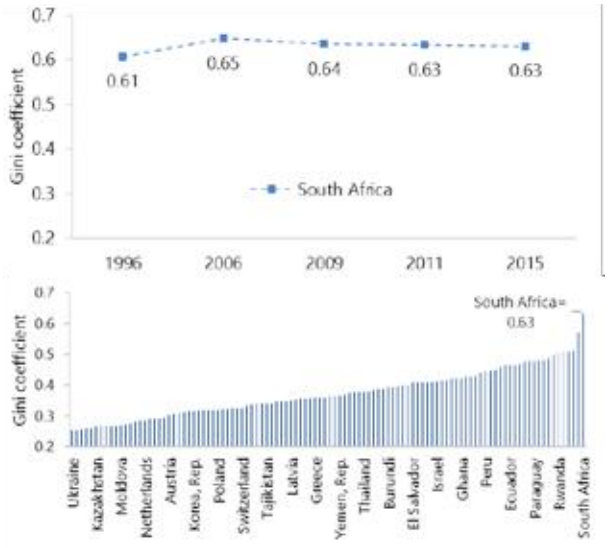
This report documents the progress South Africa has made in reducing poverty and inequality since 1994, with a focus on the period between 2006 and 2015. It aims to enhance understanding of the drivers of inequality and barriers to its reduction in South Africa, with a focus on the role of labor markets. It also identifies possible areas of intervention that will accelerate poverty and inequality reduction. The focus on labor markets is important given the persistently high unemployment in South Africa and the consequent impact that has on poverty and inequality.

BY ANY MEASURE, SOUTH AFRICA IS ONE OF THE MOST UNEQUAL COUNTRIES IN THE WORLD

Consumption expenditure data show that South Africa is one of the most unequal countries in the world, and that inequality has increased since the end of apartheid in 1994.[1] Analysis of the distribution of consumption expenditure per capita in the recent Living Conditions Survey 2014/15 found that the country had a Gini coefficient of 0.63 in 2015, the highest in the world and an increase since 1994 (Figure 1). Further analysis of consumption expenditure trends provides evidence that the very poor—those in the bottom 10 percent—grew at a slower pace than the rest of the population between 2006 and 2015 (Figure 2).

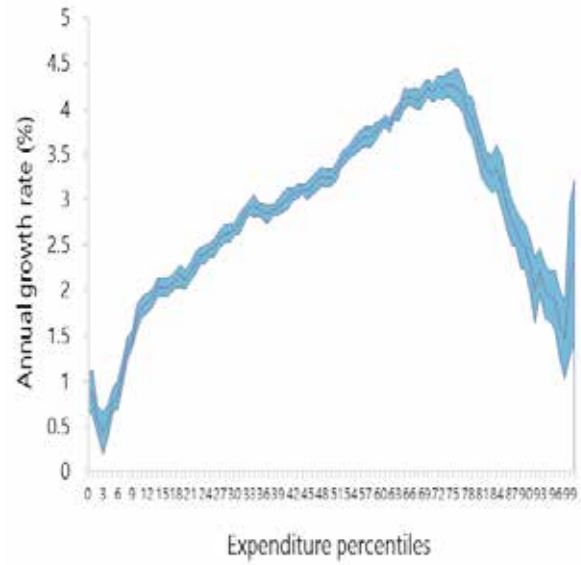
1 It is important to note the differences in the Gini coefficients presented in this report and those presented in Statistics South Africa (2017). While both estimates are based on the same data, Stats SA uses different welfare aggregates for poverty and inequality estimates. The per capita welfare measure used for poverty measurement includes all food items while for non-food items, large-sized, or "lumpy, durable goods" are excluded to reduce their biasing factor in the monthly estimates. For inequality measurement, total consumption expenditure (including components that are excluded in the welfare aggregate used for poverty measurement), in per capita terms, is used. This report uses the same per capita welfare aggregate for both poverty and inequality measurement, and it is the one that excludes some components of consumption. This allows for comparison across countries, as most countries tend to use the same per capita welfare aggregate for poverty and inequality estimates.

Figure 1: Long-term trends in inequality, comparison to other countries



Source: South Africa: authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15 and WDI for 1996. WDI for the rest of the countries and regional estimates..

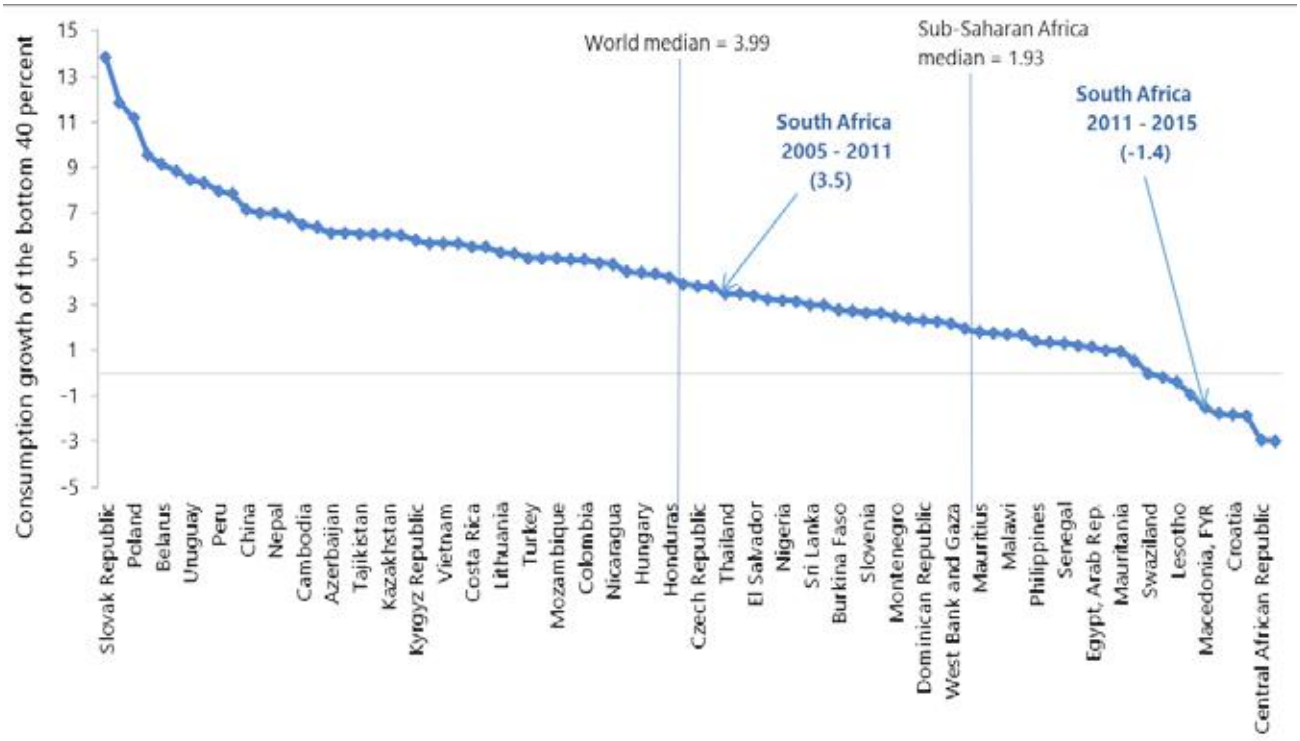
Figure 2: Growth incidence of consumption, expenditures by percentile, 2006–2015



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

South Africa also lags its peers on the inclusiveness of consumption growth. Inclusiveness in this case is examined by comparing the rate of consumption growth for the bottom 40 percent of the population to that of comparator countries as well as Sub-Saharan Africa and the World. The result: the bottom 40 percent had consumption growth of 3.5 percent between 2006 and 2011, with a deceleration of 1.4 percent for the period between 2011 and 2015. This does not compare well with the median for the world (3.9 percent) or, in the later period, with Sub-Saharan Africa (Figure 3). South Africa's BRICS partners—in this case Brazil, Russia, and China—fare better than South Africa in terms of inclusiveness of growth.

Figure 3: Shared prosperity indicator in selected countries (2007–2014)



Source: Authors' calculations based on WDI http://www.worldbank.org/en/topic/poverty/brief/global-database-of-shared-prosperity

Wealth inequality is also high and has been growing over time. The net wealth inequality is even higher than consumption inequality in South Africa, although there is strong correlation between levels of inequality in consumption and wealth, with wealth remaining an important source of long-run inequality. Analysis of wealth inequality based on data from four rounds of wealth surveys carried out by UNISA between 2008 and 2015 suggests that the top percentile of households had 70.9 percent of the wealth and the bottom 60 percent had 7.0 percent—richer households are almost 10 times wealthier than poor households. Ownership of financial assets features prominently among the factors that influence wealth inequality. For the poor, financial assets represent 36 percent of total assets compared to 75 percent for the rich. Moreover, those with lower incomes and young to middle-age groups have high rates of indebtedness. This prevents many segments of the population from participating in asset accumulation and wealth building. Race and human capital (education) have very high returns for wealth generation, even higher than in the case of income or consumption inequality.

The labor market is effectively split into two extreme job types. At one extreme is a small number of people with highly paid jobs in largely formal sectors and larger enterprises, at the other extreme is most of the population, who work in jobs that are often informal and pay less well. The highly paid jobs are highly sticky: once people find these jobs they are unlikely to give them up. The less well-paying jobs are more fluid, more likely to employ new entrants into the labor market, and more likely to witness exits from employment. The wages between the two extremes are highly unequal (Figure 5): those with highly paid jobs earn nearly five times the average wage in low skilled jobs, yet they constitute less than a fifth of the total working population. Thus, while a segment of the population enjoys wages that are on average equal to workers living in developed economies, the wages of those at the lower end of the distribution are comparable to those seen among the poorest countries.

The persistence of high wage gaps is associated with the skills premiums and differences between unskilled, semi-skilled, and high-skilled workers. With wages rising for skilled workers, the stagnation of wages for semi-skilled workers fuels the increase in wage inequality. In fact, workers in the middle of the distribution have witnessed an erosion in the growth of their wages over time, relative to the rest of the workforce in the labor market. This is related to the shrinkage of semi-skilled employment and their returns which points to the existence of a "missing middle" in the labor market, as evident in Figure 4.

Figure 4: Real monthly wage by percentile, average annualized percentage change, 1994–2014

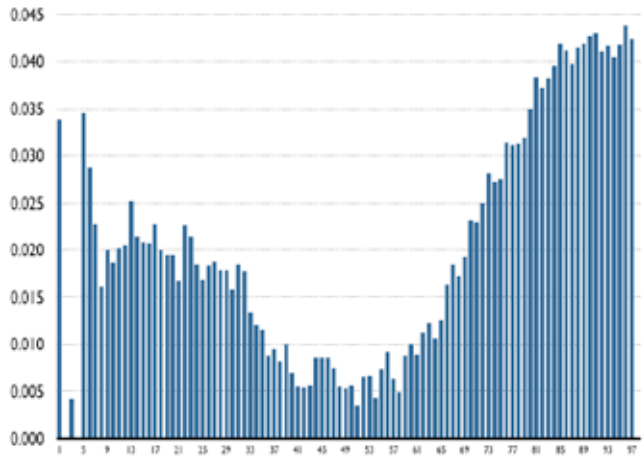
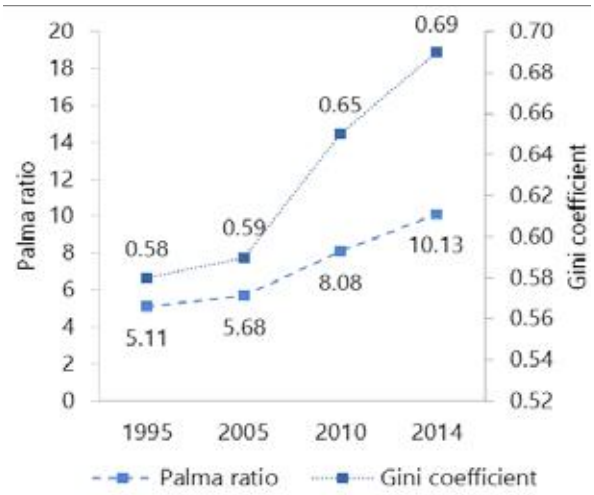


Figure 5: Real wage inequality, 1995–2014



Source: Post-Apartheid Labour Market Series, Authors' calculations.

Inequality of opportunity, measured by the influence of race, parents' education, parents' occupation, place of birth, and gender influence opportunities, is high. In a society where there is equality of opportunity, these factors should not be relevant to reaching one's full potential: ideally, only a person's effort, innate talent, and choices in life would be the influencing forces. Analysis of the proportion of children with access to a basic service, adjusted by how equitably the service is distributed among groups differentiated by circumstances (via a Human Opportunity Index), shows that opportunities among children in South Africa vary widely depending on the types of service. An estimation of the inequality of opportunity index and its ratio to overall inequality found that inequality of opportunity in South Africa is high relative to its comparators. This is further compounded by low intergenerational mobility, which is an obstacle to inequality reduction. Intergenerational mobility in South Africa is low in comparison to other countries indicating an enduring link between life outcomes for a given generation versus those of the previous generation.

SOUTH AFRICA HAS HIGH LEVELS OF CHRONIC POVERTY AND A RELATIVELY SMALL MIDDLE CLASS

Nearly half of the population of South Africa is considered chronically poor at the upper-bound national poverty line of ZAR 992 per person per month (2015 prices). This segment of the population is characterized by high poverty persistence. A second segment of the population has an above average chance of falling into poverty (the transient poor). A third segment, the non-poor but vulnerable, face above average risks of slipping into poverty though their basic needs are currently being met. These latter two groups made up 27 percent of the population. Combining these two groups with the chronic poor suggests that for about 76 percent of the population, poverty is a constant threat in their daily lives.

South Africa also has a high concentration of low income earners (the poor) and a few very high-income earners (the rich or elite), but only a small number of middle-income earners, resulting in a high level of income polarization. This high level of income polarization slows the growth of the middle class, who made up about 20 percent of the population between 2008 and 2015. Only 4 percent of the population can be considered elite with living standards far above the average. The middle class consists of those who are in a better position to maintain a non-poor standard of living even in the event of negative shocks. The size of the middle class in South Africa is considerably smaller than in other countries. For example, close to 80 percent of Mauritius' population could be classified as middle class.

LABOR MARKET INCOMES, EDUCATION, GENDER, AND RACE ARE IMPORTANT DRIVERS OF INEQUALITY IN SOUTH AFRICA, THOUGH EDUCATION AND INCOMES HAVE GROWN IN IMPORTANCE WHILE GENDER AND RACE HAVE DECLINED

Labor market incomes, education, gender and race are important drivers of inequality in South Africa, though education and labor market incomes have grown in importance while gender and race have declined, contributing more than 90 percent of the overall Gini coefficient between 2006 and 2015. This is important in the context of the high wage inequality, low labor force participation, and high unemployment that perpetuates high levels of inequality. For instance, high unemployment leads to relatively low levels of skill generation due to the absence of high-paying jobs. This, in turn, perpetuates high levels of inequality.

The importance of labor markets and education factors in explaining inequality in South Africa has been growing. A decomposition analysis suggests race, education, and labor market income are the main contributors to the observed high level of inequality. The inequality of opportunity in education is particularly influential in the transition to tertiary education, where despite a high return, access to higher education remains limited. The influence of education on inequality raises concerns regarding low-income families that lack easy access to credit markets and incur relatively high costs of sending a child to college. This serves as a major barrier to getting sufficient levels of education to participate actively in the semi-skilled and skilled labor market.

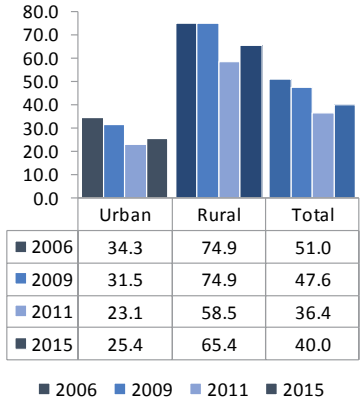
While still an important factor, the impact of race falls consistently across time in its contribution to inequality. Notably though, some decline in the gender bias for participation and employment is observed over time. Race and gender in earnings outcomes, while retaining their predicted bias where African and female workers earn, on average, significantly less than male and white workers—does begin to decline after 2011. This is important in that it creates an opportunity for policy to influence inequality outcomes.

SOUTH AFRICA HAS MADE PROGRESS IN REDUCING POVERTY OF THE PAST TWO DECADES, BUT HIGH INEQUALITY ACTS AS A BRAKE ON POVERTY REDUCTION, SO POVERTY RATES REMAIN HIGH FOR AN UPPER MIDDLE-INCOME COUNTRY

Close to 2.3 million South Africans escaped poverty between 2006 and 2015, as the poverty rate, measured at the national lower-bound poverty line of ZAR 758 per person per month (April 2017 prices), fell from 51 to 40 percent during this period (Figure 6). Not only have the poverty rates fallen since the end of apartheid, poverty became less deep (based on the poverty gap, a measure that is calculated as the mean difference between consumption expenditure of each household and the poverty line) and less unequal (based on the squared poverty gap which builds on the poverty gap and gives more weight to the very poor by squaring the poverty gap). This indicates an improvement in the welfare of South Africans below the poverty line. Poverty is consistently higher among South Africans living in rural areas than for those in urban areas, with the gap between rural and urban poverty rates averaging around 40 percentage points during this period. In rural areas, 65.4 percent of the population lived below the poverty line in 2015, down 9.5 percentage points from 74.9 percent in 2006. This is high compared to urban areas where 25.4 percent of the population were poor in 2015, following an 8.9 percentage point reduction from 34.3 percent in 2006.

Use of international poverty lines supports the overall positive story of declining poverty levels in post-apartheid South Africa but show that poverty rates in South Africa are high for an upper middle-income country. The US$1.9 (2011 purchasing power parity, exchange rates) poverty rate fell from 33.8 percent in 1996 to 18.8 percent in 2015 (Figure 7). Despite this long-term progress, South Africa's US$1.9 a day poverty rate is higher than that of many other upper middle-income countries and higher than that of several countries with a per capita Gross National Income (GNI) less than that of South Africa (Figure 8). Further, it is higher than that of many other upper middle-income countries. For instance, at 18.8 percent, South Africa's US$1.9 poverty rate is higher than that of two of its BRICS partners, Russia (0.0 percent) and China (1.9 percent).

Figure 6: Overall changes in national poverty rates, lower-bound poverty lines



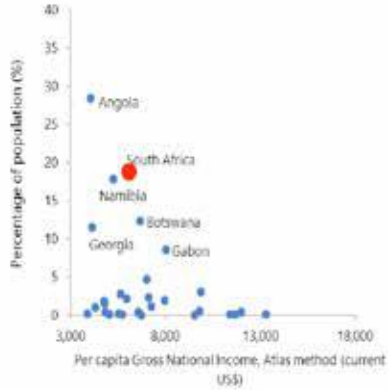
	Urban	Rural	Total
2006	34.3	74.9	51.0
2009	31.5	74.9	47.6
2011	23.1	58.5	36.4
2015	25.4	65.4	40.0

Source: Authors' calculations based on the Income and Expenditure Survey for 2005/06 and 2010/11 and the Living Conditions Survey for 2008/09 and 2014/15.

Figure 7: Long-term trends in $1.9/day international poverty rates

Source: PovCalNet for 1993 to 2001 and authors' calculations for 2006 to 2015 based on the Income and Expenditure Survey for 2005/06 and 2010/11 and the Living Conditions Survey for 2008/09 and 2014/15.

Figure 8: Overall changes in international poverty rates, comparison to other upper middle-income countries



Source: PovCalNet.

The trajectory of poverty reduction was reversed between 2011 and 2015, threatening to erode some of the gains made since 1994. At least three million more South Africans slipped into poverty during this period, with the poverty rate increasing from 36 percent to 40 percent. Not only did poverty rates rise between 2011 and 2015, the level of poverty became deeper and more unequal. This shows the welfare of poor South Africans worsened during this period. Calculations at the US$1.9 a day poverty line indicate a 2.4 percentage point increase in the poverty rate from 16.4 to 18.8 percent.

Consistent with the story revealed by trends in monetary poverty rates, notable progress has been made in reducing multidimensional poverty since the end of apartheid in 1994. Strides have been made in broadening access to basic public services. As Figure 9 shows, the proportion of the population with access to electricity, improved water sources, and improved sanitation facilities increased steadily between 1994 and 2015. Analysis of the coverage rates of a basic service adjusted by how equitably the service is distributed among groups differentiated by circumstances suggests opportunities for children are equalizing regardless of birth circumstances. For instance, near-universal access to primary education has been achieved, a necessary first step for equalizing opportunities among children and an important success for the education system to build on. An increase in access to telecommunications, electricity, improved water and sanitation, and school infrastructure has contributed to improved opportunities for children in South Africa. Further, estimation of the South African Multidimensional Poverty Index (SAMPI) shows a notable decline in multidimensional poverty between 2001 and 2016, driven by a decline in the proportion of households that were multidimensionally poor. Unemployment, followed by education (years of schooling) are consistently the top two contributors to multidimensional poverty in South Africa, highlighting the importance of job creation and education in reducing multidimensional poverty in South Africa. Comparing South Africa to other countries and regions in terms of the proportion of the population with access to electricity, improved water sources, and improved sanitation facilities (Figure 9 to Figure 12) suggests South Africa lags behind an average upper middle-income country but performs better than an average country in Sub-Saharan Africa. Further and consistent with use of monetary indicators, non-monetary indicators, specifically the SAMPI, show that the major reduction in multidimensional poverty took place between 2001 and 2011, while the last five years registered stagnation in multidimensional poverty.

Figure 9: Changes in the proportion of the population with access to selected basic services

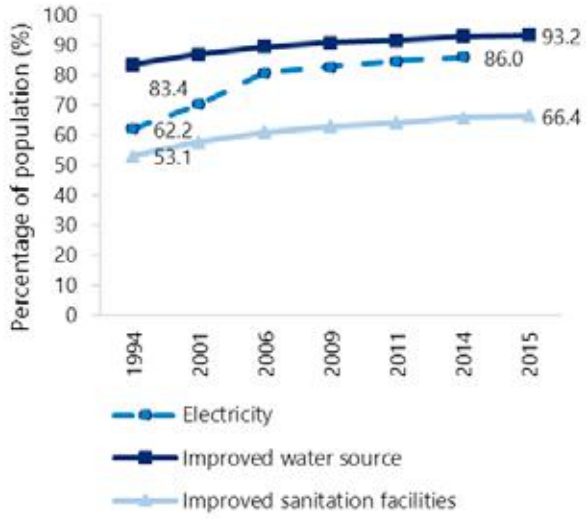


Figure 10: The proportion of the population with access to electricity, comparison to other countries, 2014

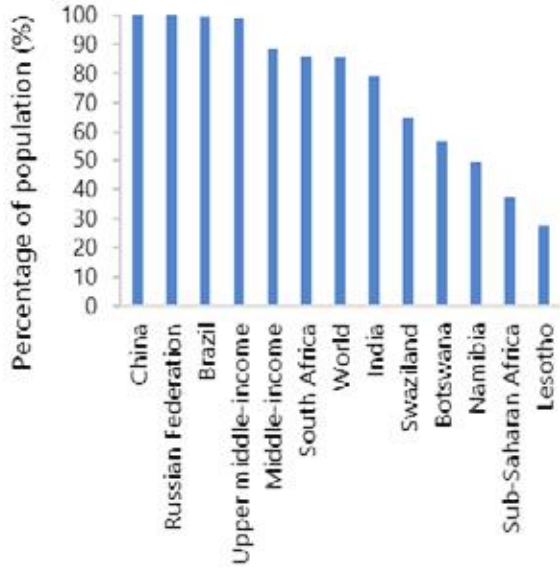


Figure 11: The proportion of the population with access to an improved water source, comparison to other countries, 2015

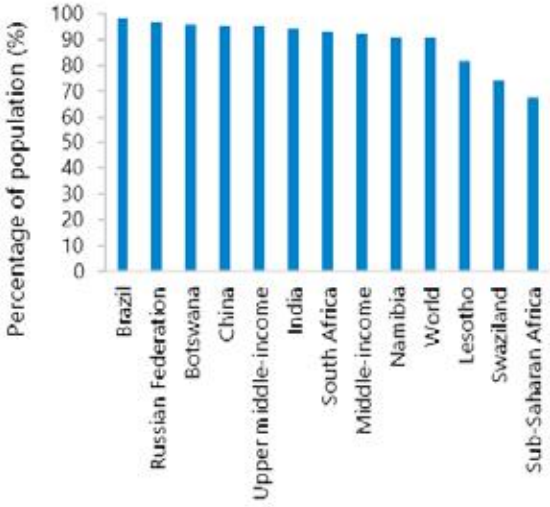
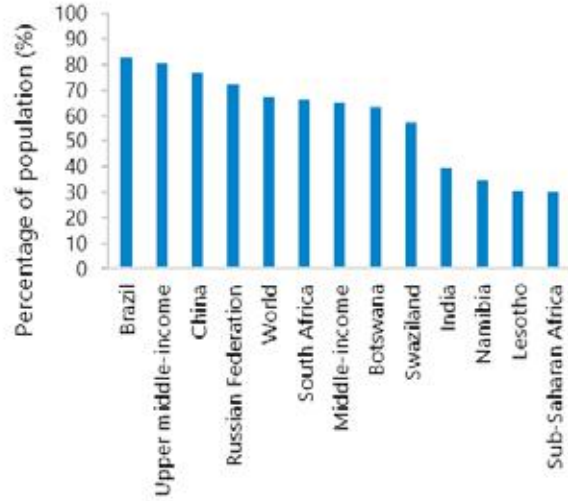


Figure 12: The proportion of the population with access to improved sanitation facilities, comparison to other countries, 2015



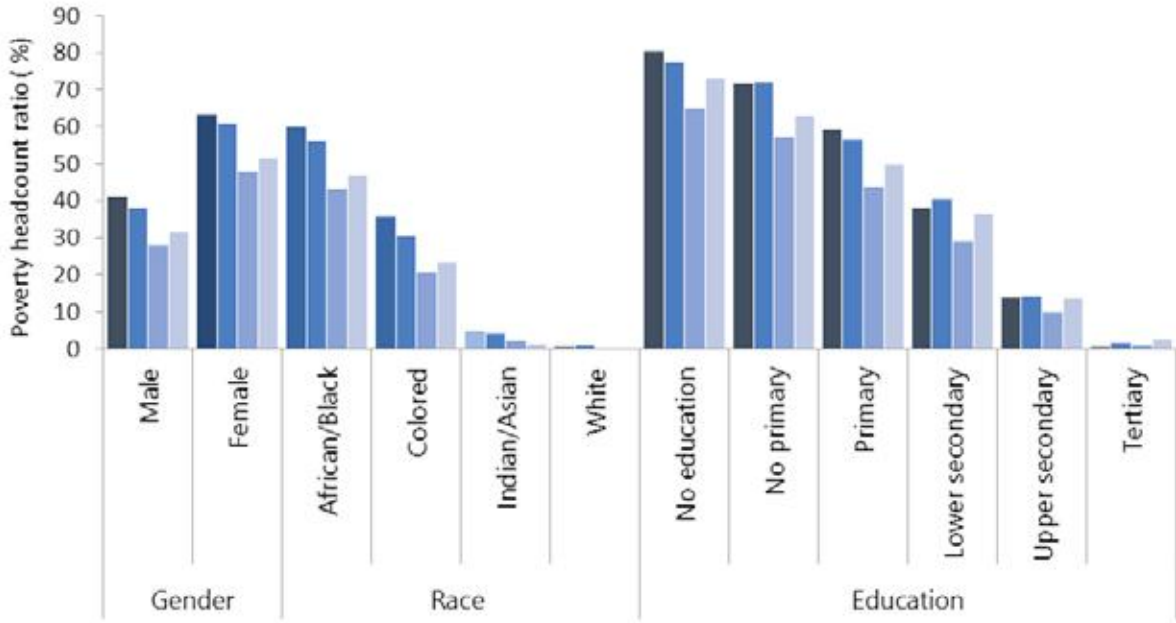
Source: World Development Indicators.
Note: Values for the poverty headcount ration are the most recent available over the past five years.

POVERTY LEVELS ARE CONSISTENTLY HIGHEST AMONG FEMALE-HEADED HOUSEHOLDS, BLACK SOUTH AFRICANS, THE LESS EDUCATED, THE UNEMPLOYED, LARGE FAMILIES, AND CHILDREN

Poverty levels are consistently highest among female-headed households, black South Africans, and children below the age of 15 and these groups tend to have a higher risk of falling into poverty (Figure 13 and Figure 14). Members of female-headed households are up to 10 percent more likely to slip into poverty and 2 percent less likely to escape poverty than members of male-headed households. Race remains a strong predictor of poverty in South Africa, with black Africans being at the highest risk of being poor. Large families, children, and people in rural areas are especially vulnerable to being in poverty for a long time.

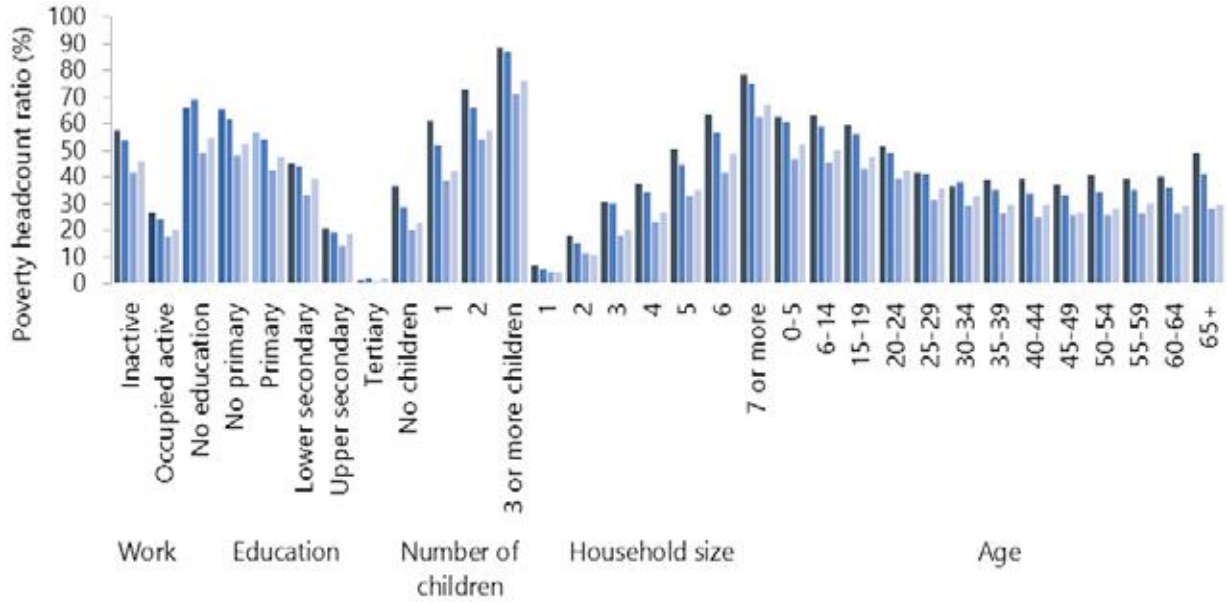
A higher level of education of the household head and having access to stable labor market income, by contrast, are key determinants for households to achieve economic stability in South Africa. Higher levels of education of the household head are strong predictors of lower vulnerability to poverty. Living in a household where the head has attained some tertiary education reduces the average risk of poverty by about 30 percent compared to those living in households where the head has no schooling. Poverty also tends to be a more temporary phenomenon for those with higher labor market earnings. From this we may conclude that improving access to quality higher and tertiary education, easing labor market access, and improving the quantity and quality of employment opportunities would be important prerequisites to further poverty reduction.

Figure 13: Poverty headcount ratio by characteristics of head of household



Source: Authors' calculations based on the Income and Expenditure Survey for 2005/06 and 2010/11 and the Living Conditions Survey for 2008/09 and 2014/15.

Figure 14: Poverty headcount ratio by individual characteristics



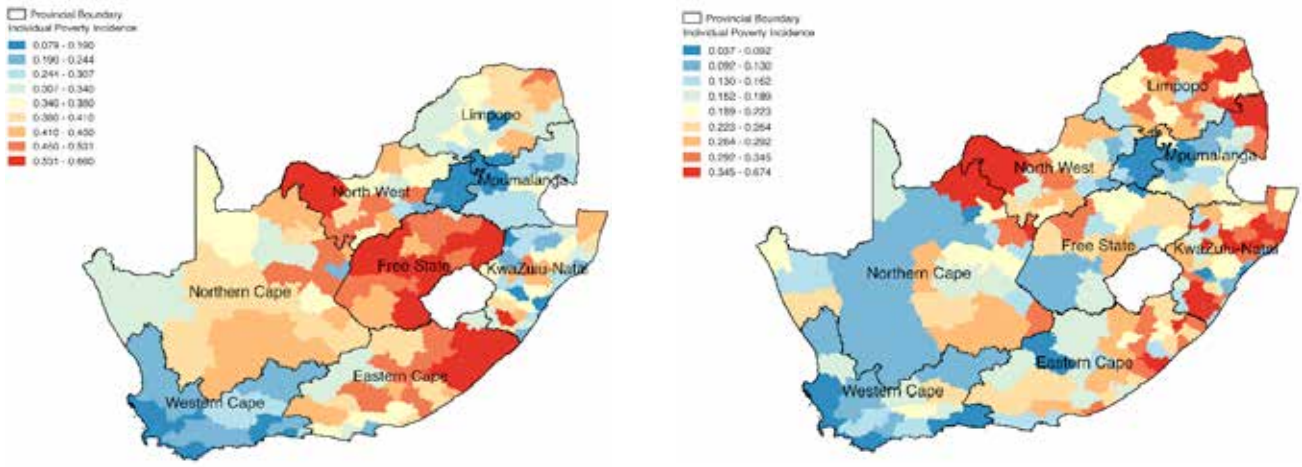
Source: Authors' calculations based on the Income and Expenditure Survey for 2005/06 and 2010/11 and the Living Conditions Survey for 2008/09 and 2014/15.

GEOGRAPHY IS STILL A MARKER OF POVERTY

Poverty has a strong spatial dimension in South Africa, a demonstration of the enduring legacy of apartheid. As is typical in most parts of Africa, rural areas have the highest poverty concentration in South Africa. In 2006, 60.3 percent of the poor were in rural areas. This decreased marginally to 59.7 percent in 2015. Eastern Cape, KwaZulu-Natal, and Limpopo were consistently the three poorest provinces between 2006 and 2015. At 59.1 percent, Eastern Cape had the highest poverty rate in 2015 and recorded the lowest reduction in poverty levels. Limpopo had the highest poverty headcount ratio of 67.1 percent in 2006, 71.5 percent in 2009, and 52.7 percent in 2011. Its poverty rate in 2015 was 57.0 percent. Gauteng consistently has the lowest poverty rate (19.0 percent in 2015). At 26.0 percent in 2015, KwaZulu-Natal had the largest share of the poor in South Africa. This is partly due to the relatively high population share in KwaZulu-Natal.

Figure 15: Poverty incidence at the municipality level

1996 **2011**

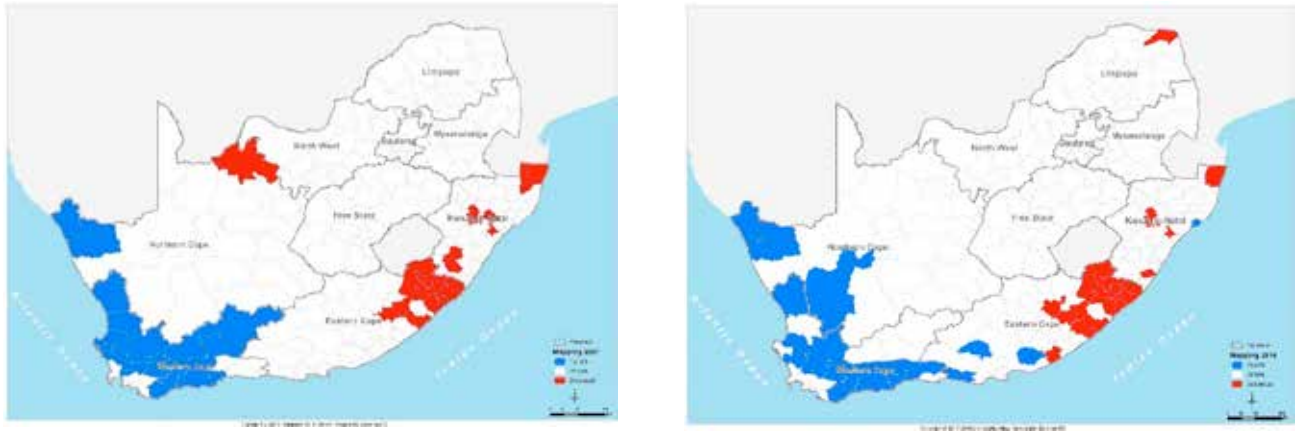


Source: Poverty Map calculations (map in the left) are from Alderman et al. (2002) and 2011 Poverty Map calculations (map in the right) are the author's.
Notes: Darker lines correspond to province level boundaries.

Not only do poverty and inequality vary cross provinces, they vary across districts and municipalities. A poverty mapping exercise using the 2011 South African population census data reveals the existence of various pockets of poverty at the municipality level within provinces, but also the notable dispersion of municipality poverty rates in others (Figure 15). In 2011, poverty was more prevalent in peripheral areas of the Eastern Cape, Limpopo, KwaZulu-Natal, and North West where the highest individual poverty rates at the municipality level were found. In contrast, extreme poverty was highest in the central and eastern parts of the country (Free State, Eastern Cape, North West, and Northern Cape) in 1996. The spatial distribution of poverty shifted from the central areas of the country in 1996 to the borders and remote areas in 2011.

Figure 16: Multidimensional poverty headcount ratio at the municipality level, the 20 poorest municipalities

2001 **2016**



Source: Poverty Map calculations are from Statistics South Africa.

The results reveal a notable divide in poverty levels between two sets of provinces: Free State, Gauteng, and Western Cape versus Eastern Cape, KwaZulu-Natal, and Limpopo. This divide is a clear legacy of apartheid: compared to Eastern Cape, KwaZulu-Natal, and Limpopo; the Free State, Gauteng, and Western Cape did not have high concentrations of "homelands" during apartheid. Homelands were areas set aside for black South Africans along ethnic lines during apartheid. Public service delivery and infrastructure was poor in these areas. An estimation of the multidimensional poverty index for South Africa supports this spatial pattern of poverty. High levels of multidimensional poverty are found in areas that are predominantly rural. In terms of variation across provinces, Eastern Cape had the highest SAMPI score, alongside Limpopo, driven by relatively high multidimensional poverty headcount ratios. Considering performance among municipalities, the 20 poorest municipalities were in the Eastern Cape, Limpopo and KwaZulu-Natal (Figure 16). Multidimensional poverty remains concentrated in previously disadvantaged areas, such as the former homelands: the 10 poorest municipalities are in the former homelands of Eastern Cape and KwaZulu-Natal, highlighting the enduring effects of apartheid, which limited development in homelands. The 20 richest municipalities are mainly in the Western Cape. A strong correlation is found between municipality-level poverty rates in 1996 and 2011: the higher the poverty rate a municipality had in 1996, the more likely it was to also have higher poverty rate in 2011. This suggests spatial patterns of poverty have not changed much over time.

Labor market incomes were an important source of poverty reduction between 2006 and 2015. When decomposing change in poverty between 2006 and 2015 by income sources, labor market income is shown to be the largest contributor to improving people's lives at national level, and in urban settings, but less so in rural areas. Improvement in skills and education were instrumental for poverty reduction in South Africa, although returns to education have been decreasing in recent years. In other words, the overall population has attained more education since 2006, and that helped reduce poverty. However, returns to education, especially to the semi-skilled occupations, are not increasing anymore. Urbanization, demographic changes, and expansion in the provision of services all contributed to the improvement of households' welfare. While having an employed household head does not necessarily translate to a lower vulnerability to poverty, the type of employment that the head engages in, especially regarding its stability and duration, is important.

SOCIAL PROTECTION IS IMPORTANT IN SUPPORTING POVERTY AND INEQUALITY REDUCTION PARTICULARLY AMONG THE EXTREMELY POOR

Since the end of apartheid, the government has progressively expanded its spending on the social wage, broadly defined to encompass investments in areas deemed to help address poverty and inequality, while maintaining generally sound fiscal indicators. It broadened the tax base and built an efficient tax administration to generate the resources it needed to expand the social safety net for the poor. The country has an extensive transfers system that benefits a quarter of the population. Close to 17 million low-income South Africans have access to means tested social grants.

Social assistance has proven successful in reducing extreme poverty. In 2015, government social transfers are estimated to have reduced the poverty headcount rate by 7.9 percent and the poverty gap by 29.5 percent. This is explained by very high rates of coverage among the poorest members of society, with coverage rates among the bottom 60 percent far above average coverage rates of other upper middle-income countries. The grants had an impressive impact on poverty. Studies found that the grants are used in many households to improve health and education outcomes, resulting in long-term impact on poverty reduction. At the same time the negative impact of grants on employment is very small.

Social transfers kept inequality from rising in South Africa. The analysis suggests that income inequality was stagnant in recent years. However, without social assistance the Gini coefficient would have been 10.5 percent higher, a significant and unprecedented impact on inequality.

On average, in upper middle-income countries, the Gini coefficient is reduced by 1.7 percent by social transfers, while the reduction is 0.7 percent in Sub-Saharan Africa and 1.6 percent in Latin American countries. The South African social assistance system is thus very effective at keeping inequality in check.

Poverty reduction in the later part of the 2000s is strongly associated with expansion of social grants, but further expansion of social grants in the future is fiscally unsustainable. Further expansion of social grants in a time of low economic growth and slowdown in tax revenues poses a challenge to fiscal sustainability. The overall goal of economic policy could be to keep the current social protection system while seeking to drive growth by addressing labor market issues, skills gaps, and job creation.

ACCELERATING THE REDUCTION OF POVERTY AND INEQUALITY WILL REQUIRE UNLOCKING THE FULL POTENTIAL OF LABOR MARKETS AND PROMOTING INCLUSIVE GROWTH THROUGH SKILLS CREATION

The prospects for eliminating poverty by 2030, the goal of the government's current policy, will depend on gross domestic product (GDP) growth and inequality reduction, the former being affected by the level of access the poorest groups have to economic opportunities, as well as by fiscal redistribution. South Africa has low growth-to-poverty elasticities due to its extremely high level of inequality. The extent of poverty reduction therefore depends on *both economic growth and inequality reduction*. Sluggish growth with improvements in access to education among the poor is anticipated to slightly reduce inequality and poverty in the coming years. Poverty rates (at the lower-bound national poverty line) are projected to decrease from 40 percent of the population in 2015 to 33 percent in 2030 despite slow growth, as inequality would decline with a Gini coefficient dropping from 62.8 in 2017 to 59.5 in 2030.

The analysis in this report highlights the importance of job creation and skills improvement to reducing poverty and inequality in South Africa. The study underscores the importance of growing the economy in an inclusive manner that generates much-needed jobs to achieve further reductions in poverty and inequality. South Africa's polarized economy, coupled with its skills constraint, hurts the poor and keeps inequality high. The lack of competitiveness from low productivity undermines job growth, thus excluding many from labor markets. South Africa has two segments that do not seem to integrate—a small high skill, high-productivity segment and a large low-skilled, low-productivity segment.

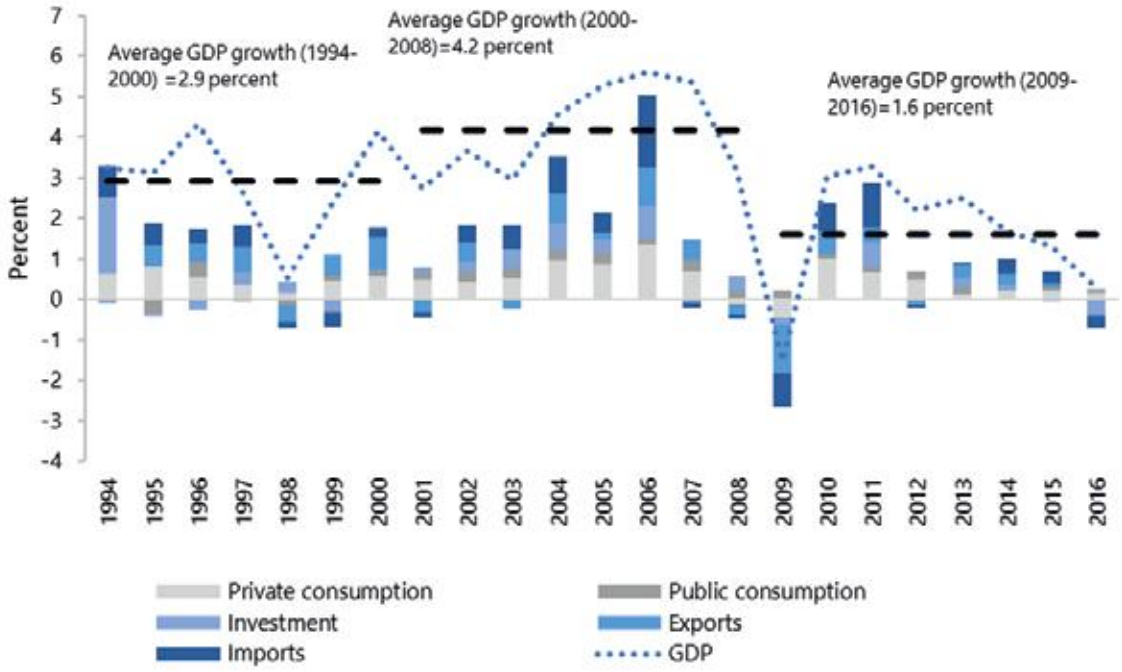
Interventions that simultaneously stimulate growth and reduce inequalities are likely to have much more impact than interventions that only stimulate growth or only reduce inequalities. Analysis of current policy interventions, such as the employment tax incentive and the national minimum wage, suggests that their effect on inequality, and thus poverty, is very modest. Creating good jobs for the poor will have a much larger impact on inequality and poverty. The social impact of reforms currently envisaged to boost growth would be significantly amplified with reforms to equip poor to reap growth opportunities, through the acquisition of skills. Such reforms would also further strengthen the social compact, with a likely positive effect on investment. Nonetheless, recognizing the time needed to increase the economic participation of the poor—whole generations—such a package of reforms would still need to maintain social assistance to the poor and vulnerable. Higher fiscal revenue from accelerated growth would provide the fiscal space to do so.

CHAPTER 1
INTRODUCTION

Through implementing its 2012 National Development Plan (NDP), South Africa aims to eliminate poverty and reduce inequality by 2030. That plan builds on previous post-apartheid policy documents for which reduction of poverty and inequality have been anchors, including the 1994 Reconstruction and Development Program (RDP), the 1996 Growth, Employment, and Redistribution (GEAR), and the 2006 Accelerated and Shared Growth Initiative for South Africa (AsgiSA). Initiatives taken under those policies have sought to address the country's triple challenges of high poverty, high inequality, and high unemployment. The initiatives include, for example, the use of fiscal policy as a tool to effect redistribution. Specifically, transfers to different spheres of government are based on poverty considerations. In addition, the *social wage*—government investments in education, health services, social development, as well as social assistance to vulnerable households and individuals and contributory social security, public transport, housing, and local amenities—has played a notable role in these efforts. The social wage accounts for close to 60 percent of government spending.

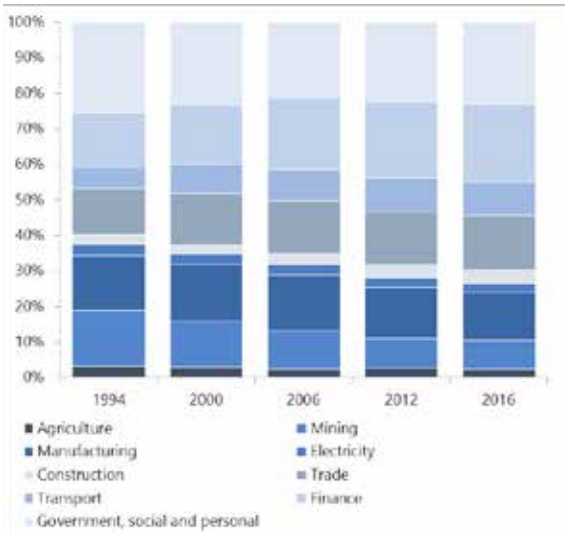
The initiatives have been supported by sound institutions and economic gains since 1994. South Africa is an upper middle-income economy with a generally stable macroeconomic system, diversified economy, relatively low taxes and tariffs, well controlled fiscal deficit, and relaxed exchange rates. The end of apartheid in 1994 resulted in major adjustments in the economy that helped to support growth. With the end of sanctions by the international community South Africa was reintegrated into the global trading system and benefited from capital reallocation and new investment from abroad. Labor markets opened to the entire South African population as the race-based jobs reservation policy ended. The financial sector also opened to more South Africans, allowing them to access credit to build assets or finance consumption. The economy grew by an average 2.9 percent between 1994 and 2000 (Figure 17), supported by labor expansion and capital reallocation. It accelerated to an average 4.2 percent between 2001 and 2008, supported by significant investment, household borrowing and growing wages supporting private consumption, and buoyant commodity prices (commodities account for about 60 percent of South African exports). The average growth fell to 1.6 percent between 2009 and 2016.

Figure 17: Real GDP growth decomposition



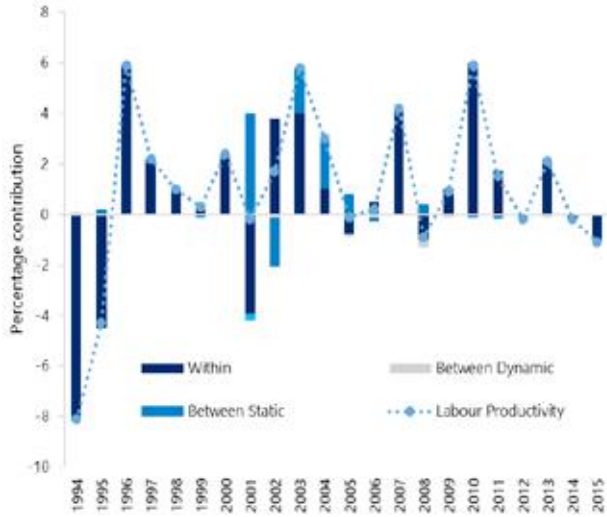
Source: South African Reserve Bank; Bloomberg and World Bank staff calculations. Expenditure side decomposition.

Figure 18: Economic structure of South Africa (share of GDP, supply side)



Source: South African Reserve Bank; Bloomberg and World Bank staff calculations.

Figure 19: Average labor productivity decomposition (contributions to labor productivity growth)



Source: The value-added shares are from World Development Indicators (WDI), share of employment for agriculture, services, and industry is obtained using estimates from the International Labor Organization (ILO), as in Senkal (2017).

Since 1994, the economy has undergone structural transformation with a decline in primary sectors and expansion of tertiary sectors. From the supply side, growth has been driven by the services sector, which is made up of trade, transportation, finance, and social services, and accounted for 70 percent of gross domestic product (GDP) in 2016, up from 60 percent in 1994 (Figure 18). Both the primary and secondary sectors have been losing GDP share. Agriculture, including forestry and fisheries, fell from 3 percent in 1994 to 2 percent in 2016—a small share by regional standards, owing in no small part to the relatively high level of development and sophistication of the South African economy. Industry, comprising mining, manufacturing, utilities, and construction, fell from 37 percent of GDP in 1994 to 28 percent in 2016. To a significant degree, the South African economy had been built on mining, but the sector has increasingly lost share to services. Lack of a dynamic, job-generating, and competitive manufacturing sector remains a significant growth challenge.

South Africa's structural transformation is well advanced, but factors of production are not always allocated to their most productive use. The services sector is already the largest sector in the economy and the engine of growth. Labor productivity since 1994 has mostly been driven by productivity gains within sectors with relatively little reallocation of factors of production across sectors (Figure 19). Rigidities and frictions in the economy, including relatively inflexible labor and capital markets—to a significant extent due to muted competition—constrain the efficient reallocation of factors and both capital and labor do not always allocate factors of production to their most productive use.[2] Such inefficiency is one reason for the poor performance of total factor productivity. Since the global financial crisis, total factor productivity has been declining, costing an estimated 0.6 percentage points of forgone GDP growth every year.[3]

Very low economic growth in recent years is the main challenge for the government's far-reaching development plan. The global financial crisis hit South Africa hard, and economic progress has stalled since then. Growth between 2009 and 2017 averaged only 1.6 percent, gradually declining from an intermittent high in 2011 to only 0.3 percent in 2016/17. Further, low quality of education, high HIV/AIDs prevalence, and poor government service delivery to remote and poor communities compromise efforts to reduce unemployment, poverty, and inequality.

High unemployment remains the key challenge as the country struggles to generate sufficient jobs. Overall, since 1994, a growing economy created many jobs in South Africa—but not enough to significantly reduce unemployment. Although the NDP envisions the creation of 11 million jobs between 2011 and 2030, this is unlikely to occur. To achieve the employment target of the NDP, the economy would need to create about 600,000 jobs a year, but the economy has barely been managing to create half of that. Net job creation between 1993 and 2015 was 2.7 million in the private sector (formal and informal) and 470,000 in the public sector, almost exclusively created after 2005. Most private sector jobs were created in the services sector, with agriculture and manufacturing shedding jobs—not least because of increasing capital intensity in those sectors. Between 2011 and 2015, an average of 589,000 workers entered the labor force every year, of which only 424,000 found employment; 165,000 became unemployed and 20,000 left the labor force discouraged from being able to find any work. Thus, despite significant job creation, the pace of employment growth was too slow for the pool of unemployed workers and new labor market entrants. Unemployment hit a 14-year high of 27.7 percent in the first quarter of 2017. High unemployment is increasingly putting pressure on South Africa's social contract as a job is the main way out of poverty and toward a more prosperous life.

The target of the South African government is to cut unemployment by at least half, to a maximum of 14 percent, in 2020. However, it is not evident that this target can be met given the modest gains in employment in the recent past. Further, it is worrying that employment continues to have a gendered and generational distribution.

2 For capital reallocation, see 10th South Africa Economic Update (2017) and for labor reallocation see "Firm level dynamics, job flows and productivity: South Africa 2009–2014," mimeo, World Bank and National Treasury of South Africa.

3 10th South Africa Economic Update (2017).

Women have far worse employment prospects than men—around 37 percent of working age women are employed compared to 50 percent of men. Youth (15–24 years old) unemployment is also high, consistently around 50 percent, and much higher than all of the older age groups. Finally, employment does not necessarily reduce poverty: about 35 percent of those who are employed are in households living below any of the poverty lines.

Companies doing or planning to do business with the South African government must comply with Broad-Based Black Economic Empowerment (B-BBEE) policies. B-BBEE policies aim to redress past imbalances and broaden the economic access to members of historically disadvantaged communities, and this way, facilitate socioeconomic transformation. The goal is to increase the number of black South Africans that either own or manage companies. Under the policies, companies gain credits if they have a certain percentage of black ownership and participate in the supply chain with companies complying with the policies. Since 2012, the government has announced plans to tighten labor and foreign ownership laws and mandated industrial localization. Sectors of concern have included the extractive industries, security services, and agriculture. It remains uncertain in which direction government will go to address rigidities in labor regulations in the face of popular discontent around unemployment, poverty, and inequality.

The need for more inclusive growth has been recognized in South Africa. Growth is less likely to be sustainable with high and increasing inequalities; and high inequality can hamper growth. While the use of the fiscal system (specifically the social wage) is central to the reduction of poverty and inequality, the current low level of growth and accompanying deterioration in the fiscal balance raise questions about the sustainability of the social wage–oriented interventions against poverty and inequality. As the World Bank (2014) notes, although fiscal policy goes a long way toward reducing poverty and inequality, both remain high. The challenge, therefore, is to make growth more inclusive by finding ways to boost the incomes of poor.

The persistence of these challenges, 24 years after the end of apartheid, calls for a comprehensive assessment of the extent and causes of poverty and inequality in South Africa with attention to trends, dynamics, policy, impact, and monitoring. This is especially pertinent given that the last comprehensive national poverty and inequality assessment was published in 1998 (May et al. 1998). It was commissioned by the government of South Africa with assistance from the United Kingdom's Department for International Development, United Nations Development Program (UNDP), World Bank, and the Dutch government.

The purpose of this report is to document South Africa's progress in reducing poverty from 1994 to date. It aims to contribute to the realization of South Africa's national targets of eliminating extreme poverty and reducing inequality by 2030. The specific objectives are as follows:

- To enhance understanding of the barriers to and engines of reducing poverty and inequality in South Africa in recent years.
- To critically assess the role of labor markets in reducing poverty and inequality in South Africa.
- Based on the results from the analysis, to identify possible areas of intervention that will accelerate the reduction of poverty and inequality.

Pursuing these objectives enables the report to contribute to policy dialogue toward the attainment of the NDP vision. It also offers insights into how the challenge of unemployment can be tackled through the creation of more and better jobs as well as by improving the employability of the labor force. The focus on the labor markets is justified given the challenge of high unemployment and the impact that has on poverty and inequality. Unemployment rates tend to be higher among the poor. Similarly, labor force participation is lower in poor than non-poor households.

The report draws on several technical background papers produced by local and international researchers. It also builds on substantial existing work and a knowledge base that includes large sample surveys, panel data, detailed evaluations, and impact assessments, as well as qualitative studies undertaken by Statistics South Africa

(Stats SA) and independent South African and international researchers.

The report adds value to existing work in six ways. First, it adopts a policy focus that is missing in the bulk of existing literature on poverty and inequality in South Africa. Second, given the global reach of the World Bank, the report benchmarks against and brings experiences from other countries in similar circumstances. Third, focusing on inequality in addition to poverty (including the bottom 40 percent, middle classes, and vulnerable groups) brings a new perspective. Fourth, by using panel data sources, particularly the four waves of the National Income Dynamics Study (NIDS), the report is able to frame the whole discussion dynamically. Fifth, the use of non-monetary (beyond income/consumption) indicators of poverty that are relevant to South Africa ensures that the analysis will inform policy dialogue. Sixth, the recently completed Living Conditions Survey 2015 by Stats SA creates an opportunity to provide a comprehensive and up-to-date analysis of poverty and inequality.

The report is organized as follows: Chapter 2 discusses the trends in monetary and non-monetary poverty since the end of apartheid, with a focus on 2006–2015. It also provides a profile of the poor and their location. The extent and determinants of transitions into and out of poverty is also discussed. The chapter documents South Africa's progress in reducing poverty since 1994, though poverty rates remain high for an upper middle-income country and the trajectory of poverty reduction was reversed between 2011 and 2015. Chapter 3 presents different dimensions of inequality and documents the unusually high level of inequality in South Africa. Chapter 4 examines the drivers of poverty reduction and inequality largely through decomposition analysis. Labor market incomes emerge as a large contributing factor. Chapter 5 details the link between labor market dynamics and poverty in South Africa. Chapter 6 concludes by synthetizing the policy implications of the preceding chapters and identifying possible areas of intervention that would accelerate the reduction of poverty and inequality.

CHAPTER 2

EVOLUTION, DIMENSIONS AND DYNAMICS OF POVERTY IN SOUTH AFRICA

Poverty levels in South Africa have fallen since 2006. In 1996, 33.8 percent of South Africans lived below US$1.9 a day. This fell to 25.5 percent in 2006 and to 18.8 percent in 2015. Using the national lower bound poverty line of R647 per person per month in 2015 prices, 51.0 percent of the population was poor in 2006 and 40.0 percent in 2015. However, as the chapter documents, although the overall trend indicates progress toward poverty reduction between 1996 and 2015, between 2011 and 2015 poverty rates rose from 36.4 percent to 40.0 percent at the national lower bound poverty line. Consistent with this, non-monetary indicators of poverty indicate notable progress in reducing multidimensional poverty after 1994, but it has stagnated in recent years. A profile of the poor shows a typical poor household is rural and headed by a single, economically inactive female black South African. Rural areas remain the regions of highest poverty concentration and the Eastern Cape, KwaZulu-Natal, and Limpopo are consistently the poorest provinces. Poverty is persistent in South Africa and the economy is highly polarized as evident in a relatively small middle class and high levels of chronic poverty. Almost half of the population is considered chronically poor at the national upper bound poverty line, of R992 per person per month in 2015 prices. A higher level of education of the household head and access to stable labor market income are key determinants for households to achieving economic stability in South Africa.

This chapter discusses the trends in monetary and non-monetary poverty since the end of apartheid, with a focus on the period between 2006 and 2015. International poverty lines are used to compare South Africa to peers in terms of income levels. The chapter also profiles the poor based on individual and household characteristics as well as their geographic distribution. The extent and determinants of transitions into and out of poverty are also discussed.

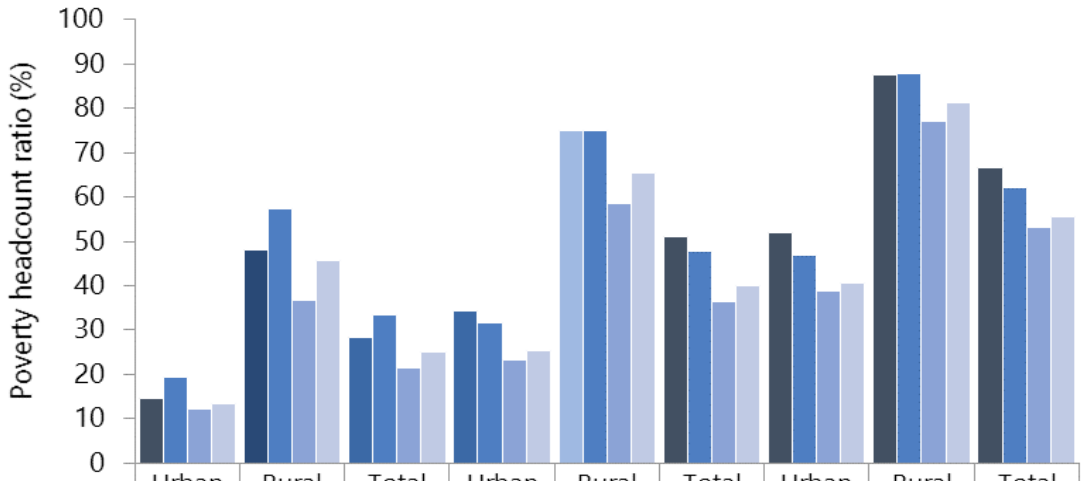
A. DESPITE PROGRESS IN REDUCING POVERTY SINCE 1994, POVERTY RATES REMAIN HIGH FOR AN UPPER MIDDLE-INCOME COUNTRY

i. Trends in national poverty

South Africa recorded a decrease in consumption poverty rates between 2006 and 2015, regardless of the poverty measure used.[4] All measures indicate a decline of at least 3 percentage points in the national poverty headcount ratio, which captures the proportion of the population living below a specific poverty line (Figure 20). The number of South Africans living below the food poverty line (FPL) fell from 28 percent in 2006 to 25 percent in 2015. The corresponding decline was from 51.0 to 40.0 percent at the lower bound poverty line (LBPL), while it declined from 66.6 percent to 55.5 percent at the upper bound poverty line (UBPL). In absolute terms, around 2.3 million South Africans escaped poverty at the LBPL and 1.2 million at the UBPL. However, around 343,000 more South Africans were poor based on the FPL in 2015 than in 2006 (see Box 1 for an explanation of poverty measurement methodology in South Africa).

4 Henceforth, 2006 refers to 2005/06, 2009 to 2008/09, 2011 to 2010/11, and 2015 to 2014/15 survey years.

Figure 20: Overall changes in poverty rates



	Food poverty line			Lower bound poverty line			Upper bound poverty line		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
2006	14.6	48.2	28.4	34.3	74.9	51.0	52.0	87.6	66.6
2009	19.4	57.4	33.5	31.5	74.9	47.6	46.8	88.0	62.1
2011	12.3	36.6	21.4	23.1	58.5	36.4	38.8	77.0	53.2
2015	13.4	45.6	25.2	25.4	65.4	40.0	40.6	81.3	55.5

Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

Box 1: The methodology of poverty measurement in South Africa

In South Africa, absolute poverty is measured by comparing per capita household consumption expenditure to a specified national poverty line. All food items are included in the welfare indicator while non-food items, large-sized, or "lumpy, durable goods" are excluded to reduce their biasing factor in the monthly estimates. To get the welfare indicator, all household consumption expenditures are annualized and then adjusted according to household size. The surveys used for this welfare measurement are typically the Income and Expenditure Surveys (IES) and the LCS which are administered by Stat SA and collect detailed information on household expenditures. In addition, the surveys collect information on household expenditures, education, demographics, income, and as of 2015, labor market status. The households sampled in each wave are meant to be nationally and regionally representative.

Poverty lines are determined using a cost-of-basic-needs (CBN) approach.[5] In 2012, Statistics South Africa (Stats SA) published a suite of three national poverty lines to be used for poverty measurement. These have since been used in most official studies of poverty. The three poverty lines are the food poverty line (FPL), the lower bound poverty line (LBPL), and the upper bound poverty line (UBPL). The FPL is the level of consumption below which individuals are unable to purchase sufficient food to provide them with an adequate diet. It is determined in two stages. First, a food reference basket is constructed. Second, the basket is costed to determine the level of the FPL. This line is also considered the extreme poverty line. The LBPL and UBPL lines are computed by including an allowance for non-food consumption. To determine the level of the LBPL, the average expenditure on non-food items by households whose total expenditure is close to the FPL is added to the FPL. Thus, the LBPL is based on households that sacrifice some of their basic food requirements to meet their non-food needs. The UBPL, on the other hand, is computed by adding the average expenditure on non-food items by households whose food expenditure is very close to the food line as the reference group. For these households, in addition to the basic food requirements that are measured by the FPL, there are certain basic non-food items that they need. Individuals can purchase both adequate food and non-food items at the UBPL.

The three poverty lines are updated periodically using the Consumer Price Indexes (CPIs). The mechanism used to update the poverty lines is described in Stats SA (2008: 23)

Table 1: Inflation-adjusted poverty lines, 2006–2017 (per person per month in South African Rands)

Year	Food poverty line	Lower bound poverty line	Upper bound poverty line
2006	219	370	575
2007	237	396	613
2008	274	447	682
2009	318	456	709
2010	320	466	733
2011	335	501	779
2012	366	541	834
2013	386	572	883
2014	417	613	942
2015	441	647	992
2016	498	714	1,077
2017	531	758	1,138

Source: Stats SA (2017).
Note: All values are linked to March prices, except for 2015, 2016, and 2017 which are linked to April prices.

5 See Stats SA (2008 and 2015) for the history and technical discussion of poverty lines in sSouth Africa

Three areas of improvement in the way poverty is measured in South Africa are noted. First, the way in which non-food items are selected for inclusion in the welfare indicator could be further improved in line with international best practices and reflected in Deaton and Zaidi (2002). Second, the value of the consumption flow from durable goods needs to be more comprehensively included in the welfare indicator. Third, the introduction of adjustments for regional differences in prices (spatial deflation) in addition to the intra-year temporal deflation to compute a real welfare indicator is recommended.

The welfare of South Africans below the poverty line improved between 2006 and 2015. A reduction is revealed in two alternative measures of poverty that focus more on the poor and capture the depth and severity of poverty: the poverty gap and poverty severity. The depth of poverty is a measure of intensity and is calculated as the mean difference between household consumption expenditure and the poverty line.[6] It is expressed as a percentage of the poverty line. Measured at the LBPL, Table 2 shows that the poverty gap fell by 5.5 percentage points from 22.2 percent in 2006. This means the per capita amount of resources needed to eliminate poverty through perfectly targeted cash transfers decreased between 2006 and 2015. The squared poverty gap is an indicator of poverty severity. It builds on the poverty gap and gives more weight to the very poor by squaring the poverty gap. It reflects the degree of inequality among the poor themselves.[7] The squared poverty gap declined from 12.2 to 9.1 percent between 2006 and 2015, suggesting reduced severity of poverty. Overall, these two measures suggest poverty became less deep and less unequal between 2006 and 2015.

6 The poverty gap is the mean shortfall of the entire population from a specified poverty line. It is measured from zero to 100, with zero meaning no poverty while 100 indicates zero consumption expenditure for everyone and a positive poverty line.

7 The squared poverty gap considers not only the poverty gap but also the inequality among the poor by placing more weight on households that are further from the poverty line. A transfer from a poor to a less-poor person raises the squared poverty gap while a transfer from a poor to a poorer reduces it.

Table 2: Changes in the depth and severity of poverty

		Poverty gap					
		2006	2009	2011	2015	Change: 2015–2006	Change: 2015–2011
Food poverty line	Urban	4.0	6.3	3.6	4.1	0.1	0.5
	Rural	16.9	22.5	12.1	17.7	0.8	5.5
	Total	9.3	12.3	6.8	9.0	-0.2	2.3
Lower bound poverty line	Urban	12.6	12.2	8.2	8.9	-3.6	0.7
	Rural	35.9	36.0	24.3	30.0	-5.9	5.8
	Total	22.2	21.0	14.3	16.6	-5.5	2.4
Upper bound poverty line	Urban	23.8	22.2	16.5	17.5	-6.3	1.0
	Rural	52.6	52.6	40.3	45.5	-7.1	5.2
	Total	35.6	33.5	25.5	27.7	-7.9	2.2
		Squared poverty gap					
Food poverty line	Urban	1.6	2.9	1.5	1.8	0.1	0.3
	Rural	8.0	11.3	5.6	9.1	1.1	3.5
	Total	4.2	6.0	3.0	4.5	0.2	1.4
Lower bound poverty line	Urban	6.1	6.3	4.0	4.4	-1.8	0.4
	Rural	20.8	20.9	12.8	17.3	-3.5	4.5
	Total	12.2	11.7	7.3	9.1	-3.1	1.8
Upper bound poverty line	Urban	13.6	13.0	9.1	9.7	-3.9	0.6
	Rural	35.3	35.4	24.9	29.7	-5.7	4.8
	Total	22.5	21.3	15.0	17.0	-5.5	1.9

Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

Poverty is higher in rural than in urban areas, and the gap between rural and urban poverty rates widened between 2006 and 2015. In rural areas, 65.4 percent lived below the LBPL in 2015, down from 74.9 percent in 2006. In urban areas, 25.2 percent of the population were poor, a drop from 34.3 percent in 2006. The gap between rural and urban poverty did not change significantly between 2006 and 2015: it was about 41 percentage points in 2006 and 40 percentage points in 2015.

Not only is the poverty headcount ratio higher in rural areas compared to urban areas, poverty is deeper and more unequal in rural areas as well. However, at the LBPL, the depth and severity of poverty fell faster in rural than in urban areas between 2006 and 2015. The poverty gap in rural areas decreased by 5.9 percentage points from 35.9 percent in 2006 to 30.0 percent in 2015. In urban areas, a 3.6 percentage point reduction was recorded from 12.6 to 8.9 percent. The amount of resources needed to bring the consumption expenditure of the poor up to the poverty line is higher in rural than urban areas. Similarly, inequality among the poor is relatively larger in rural than in urban areas: the squared poverty gap was 17.3 percent in rural areas, while it was 4.4 percent in urban areas in 2015 at the LBPL. The challenge around the depth and severity of poverty at the food (extreme) poverty line is shown in Table 2: the poverty gap and the squared poverty gap increased, albeit slightly, in both rural and urban areas between 2006 and 2015.

Despite the positive trend on poverty reduction between 2006 and 2015, poverty rates increased between 2011 and 2015. At least 2.5 million more South Africans slipped into poverty between 2011 and 2015, despite a positive overall trend in poverty reduction between 2006 and 2015. Forty percent of the South African

population lived below the LBPL in 2015, up from 36.4 percent in 2011. In absolute terms, this translates to over 3.1 million more South Africans slipping into poverty between 2011 and 2015.

Not only did poverty rates rise between 2011 and 2015, the level of poverty became deeper and more unequal. Measured at the LBPL, Table 2 shows that the poverty gap rose by 2.3 percentage points from 14.3 percent in 2011. This means the per capita amount of resources needed to eliminate poverty through perfectly targeted cash transfers increased between 2011 and 2015. The squared poverty gap increased from 7.3 to 9.1 percent suggesting increased severity of poverty during this period. According to the Stats SA's 2017 poverty trends report, the increase in the poverty levels between 2011 and 2015 is associated with "a combination of international and domestic factors such as low and anemic economic growth, continuing high unemployment levels, lower commodity prices, higher consumer prices (especially for energy and food), lower investment levels, greater household dependency on credit, and policy uncertainty." (Statistics South Africa 2017, pp 16). Rather than focus on the most recent trends, this study takes a longer-term perspective with the aim of understanding the causes and consequences of polices and sources of poverty reduction. This requires a longer-term perspective and makes it possible to better capture and explore factors and polices affecting inclusive growth and poverty in South Africa.

ii. International poverty trends

The overall positive story of declining poverty levels in post-apartheid South Africa is supported by the international poverty lines. Figure 21 shows a positive overall trend in poverty reduction at the US$1.9 (2011 purchasing power parity, PPP, exchange rates) poverty line, which fell between 1996 and 2015. Between 2006 and 2015, the poverty headcount ratio also fell. At the US$3.1 a day international poverty line, poverty levels fell between 2006 and 2015. In absolute terms, the number of poor fell by around 1.8 million between 2006 and 2015 at the US$1.90 a day poverty line and by 2.4 million at the US$3.1 a day international poverty line.

The use of international poverty lines also supports the story of increasing poverty rates between 2011 and 2015. Calculations indicate a 2.4 percentage point increase at the US$1.9 a day poverty line (Figure 22). At the US$3.1 a day international poverty line, the rate increased by 2 percentage points between 2011 and 2015. A 1.7 percentage point increase is observed at the US$5.0 a day poverty line. Around 1.8 million more South Africans slipped into extreme poverty measured at the international poverty line of US$1.9 a day between 2011 and 2015. This figure rises to around 2.2 million when the US$3.1 a day poverty line is used, and to around 2.7 million South Africans at the US$5.0 a day poverty line.

Figure 21: Long-term trends in US$1.9/day international poverty rates

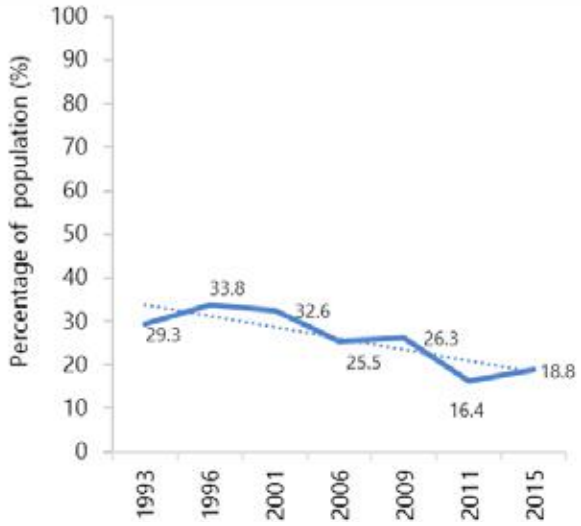


Figure 22: Overall changes in US$1.9/day international poverty rates

Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15. PovCalNet for the years 1993, 1996 and 2001.

South Africa's US$1.9 (PPP) a day poverty rate is higher than that of many other upper middle-income countries. In 2015, 18.8 percent of South Africans lived below the US$1.9 a day international poverty line. This is higher than several countries that have a lower per capita gross national income (GNI) than South Africa. Further, it is higher than that of many other upper middle-income countries. For instance, at 18.8 percent, South Africa's poverty rate is higher than that of two of its BRICS partners, Russia (0 percent) and China (2 percent) (Figure 23 and Figure 24).

Figure 23: Overall changes in international poverty rates, comparison to other countries

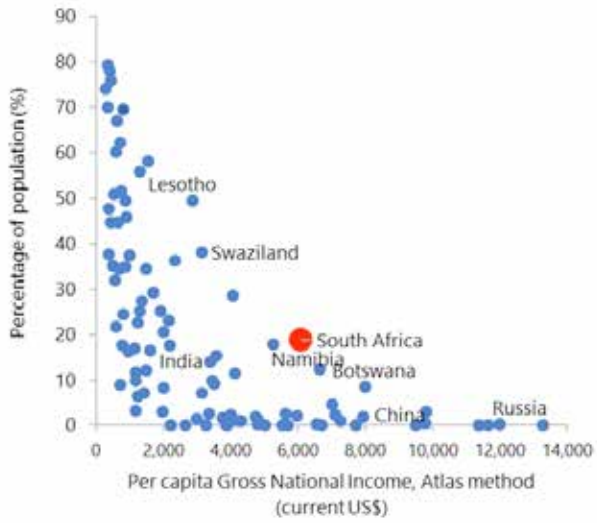
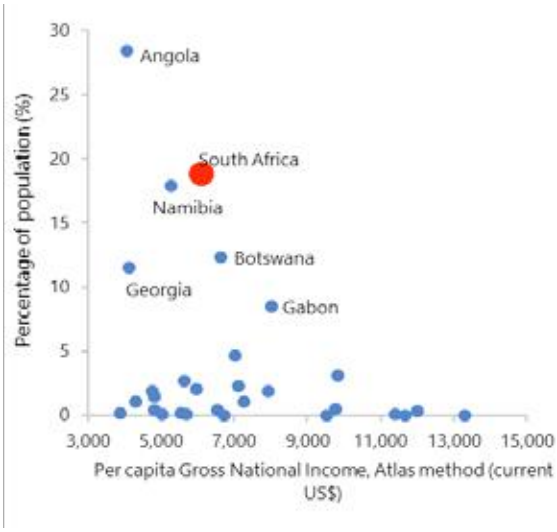


Figure 24: Overall changes in international poverty rates, comparison to other upper middle-income countries

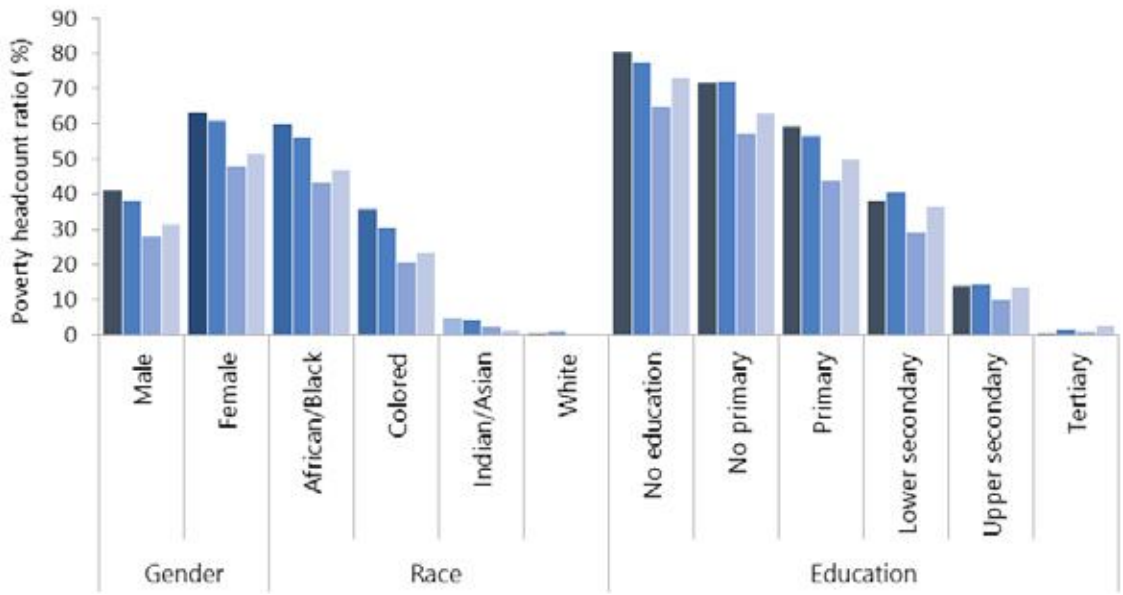


Source: PovCalNet and WDI.
Note: Values are the most recent available over the past five years.

B. WHO ARE THE POOR?

The profile of the poor is presented at the LBPL. The demographic characteristics of households, such as family size, structure, and ethnicity, are important in determining the socioeconomic status of the family and its level of poverty. Thus, the analysis in this section focuses on the demographic composition of households, attainment of education, and labor indicators. The considered characteristics include gender, race, and education of head of household, unemployment status as proxied by economic activity, and the composition of the household, such as its size and age structure. Figure 25 and Figure 26 present poverty rates by each characteristic considered in this chapter. The profiles are generated using the LBPL, consistent with the focus on the LBPL in the NDP. It is important to note that these profiles do not use equivalent scales, but rather are drawn from a welfare measure (consumption per capita) that treats everyone the same and does not account for different needs within households.

Figure 25: Poverty headcount ratio by characteristics of head of household



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15. The calculations are done using the LBPL.

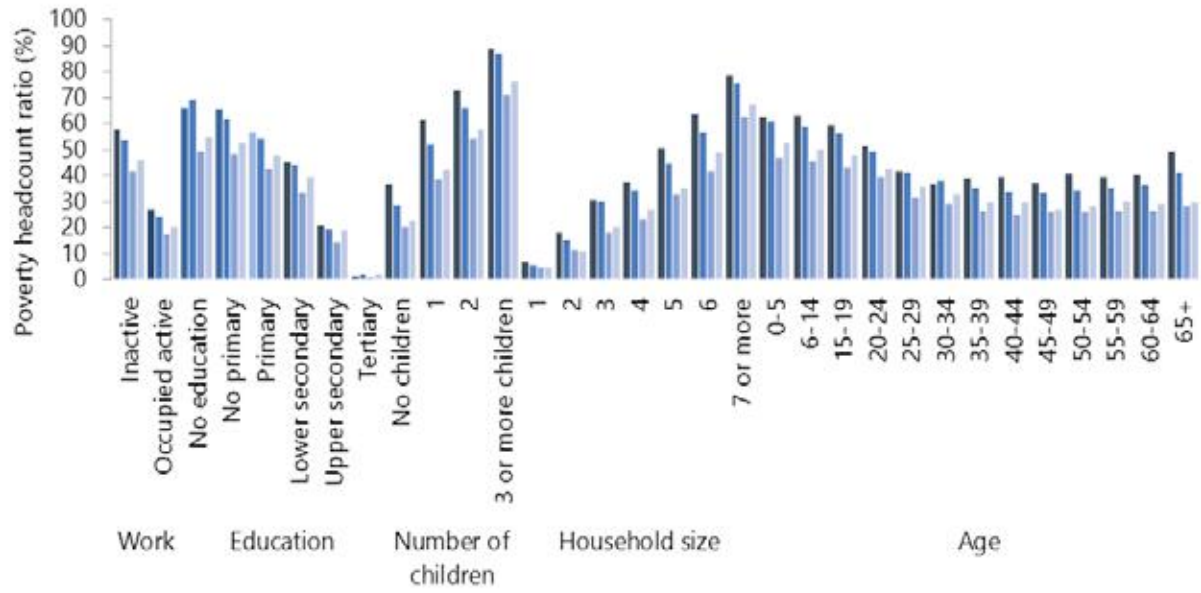
Poverty is higher among individuals living in female-headed households compared to those living in male-headed households across all periods analyzed. In 2006, 63.4 percent of female-headed households were poor compared to about 41.5 percent of households with male heads. In 2015, the poverty headcount among female-headed households was 51.2 percent compared to 31.4 percent among male-headed households. The reduction in poverty rates was not significantly different between the two groups: the decline was 11 percentage points among female-headed households and 10 percentage points among male-headed households. The gap between the poverty rates of the two groups did not change over the years, remaining at around 20 percentage points in each period.

Black South Africans consistently exhibit the highest poverty rates. In 2015, 47 percent of the households headed by black South Africans were poor. This was very high compared to 23 percent for those in households headed by a person of mixed race (colored), a little more than one percent for the population in households headed by an Indian/Asian South African, and less than one percent among those in households headed by white South Africans.

Between 2006 and 2015, all ethnic groups experienced a reduction in poverty rates, with black and colored South Africans experiencing the fastest decline. Black South Africans make up close to 80 percent of the population. Despite the gains made by these two population groups between 2006 and 2015, they registered an increase in poverty between 2011 and 2015. The black South African group registered an increase of 3.7 percentage points while the colored group registered an increase of 2.5 percentage points.

Poverty declines with rising levels of education. In 2015, 73.1 percent of the population living in households whose head did not have a formal education versus 2.6 percent of those living in households whose head had attained an education beyond upper secondary school were poor. Between 2006 and 2015, the population living in households with heads who had completed primary school experienced the fastest decline in poverty. Similar patterns are true for individuals: in 2015, 55.0 percent of individuals with no formal education were poor compared to 2.6 percent of those who went beyond upper secondary school.

Figure 26: Poverty headcount ratio by individual characteristics



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15. The calculations are done using the LBPL.

Participation in economic activities matters for poverty reduction; the non-working or economically inactive experience higher rates of poverty than those who are active. The poverty rate among the economically inactive was 46.3 percent in 2015, down from 57.7 percent in 2006. In comparison, the economically active registered a poverty rate of about 20.5 percent in 2015, down from 27.3 percent in 2006. The fall in the poverty rate was higher among the economically inactive (11 percentage points) compared to the economically active (7 percentage points). This could be a result of the poverty-reducing impact of government social protection transfers, which could be benefiting the unemployed or economically inactive.

Considering poverty across different age groups suggests poverty is highest among children below the age of 15. Children up to age 5 consistently register the highest poverty rates across all four periods, although falling from 63.0 percent in 2006 to 52.6 percent in 2015. Children aged 6–14 had a poverty rate of about 50.5 percent in 2015, compared to 63.4 percent in 2006. Children up to age 14 constituted 30 percent of the entire population in 2015. The

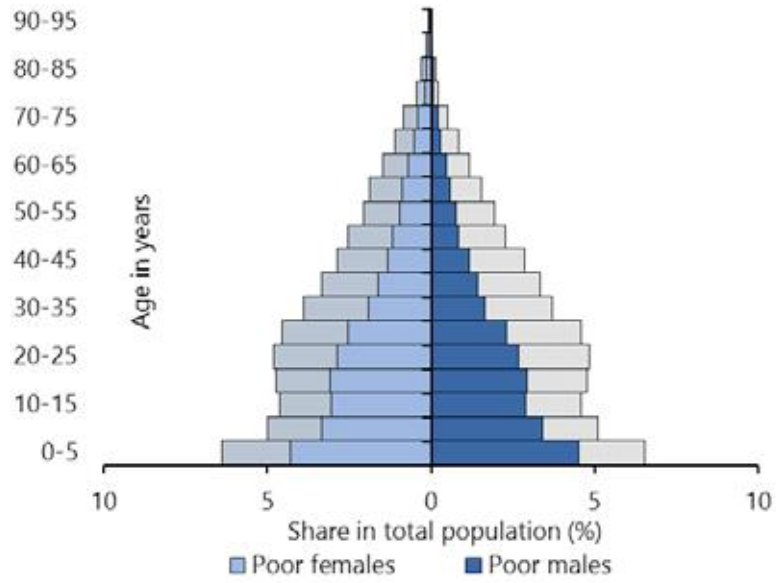
fastest decline in poverty was experienced by the elderly, aged 65 and above, whose poverty rate fell by around 19 percentage points between 2006 and 2015, possibly due to government social transfers that targeted the elderly.

The more children a household has, the higher the chances of being poor. Around 22.9 percent of the population with no child in the household was poor in 2015 following a decline from 36.9 percent in 2006. The population living in households with at least three children, on the other hand, had a poverty rate of 76.3 percent in 2015, compared to 88.9 percent in 2006. Although they constitute the largest proportion of the entire population, the share of poor with no child declined by about 10 percentage points between 2006 and 2015.

The larger the size of the household, the higher the incidence of poverty. This relationship is consistent across all years. For instance, in 2015, the poverty headcount ratio among the population of one-person households was 5.0 percent compared to a ratio of 67.6 percent for households with at least seven members, who made up around 31 percent of the population in 2015. Thus, addition of members to the household progressively increases the probability of being poor.

A profile of the poor shows a typical poor household as rural and headed by a single, economically inactive female black South African. This is informed by statistical tests to examine the differences between poor and non-poor households in 2015 to complement Figure 25 and Figure 26. The tests suggest that poor households are less likely to have heads who are employed in the formal sector and fewer adults employed in the formal sector. In terms of education, poor households have fewer heads who have completed primary school, compared to non-poor households. The average age of a household head is higher among the poor (51 years) compared to the non-poor (48 years). Poor households tend to be larger (4.9 members) than non-poor households (2.8 members). Poor households tend to have fewer adults than non-poor households. Thus, the average number of children is higher among the poor households compared to the non-poor. As expected, the profile of the bottom 40 percent of the consumption distribution is very similar to that of the poor.

Figure 27: Age-gender pyramid and poverty, 2015



Source: Authors' calculations based on the Living Conditions Survey for 2014/15.

The gendered and young face of poverty is evident in the age-gender pyramid (Figure 27). Poverty is more pronounced among females compared to males.[8] While the poverty incidence among the two groups is not strikingly different, especially in the lower ages, the poverty incidence remains higher for women as age increases compared to men. Further, the pyramid suggests both the population and poverty in South Africa have a predominantly young face. This is reflected in a wide base of the population pyramid.

C. WHERE DO THE POOR LIVE?

i. Variation in poverty across provinces

Rural areas have the highest poverty concentration. In 2006, 60.3 percent of the poor were in rural areas. This decreased marginally to 59.7 percent in 2015. The distribution of the population suggests the increased rural-to-urban migration could be contributing to the decline in rural poverty, in addition to real reduction in poverty levels observed nationally. The proportion of South Africans living in rural areas fell from 41.0 in 2006 to 36.5 percent in 2015.

8 This is estimated by assuming a person living in a poor household is poor. That is, household rather than individual welfare measures are used.

Eastern Cape, KwaZulu-Natal, and Limpopo are the poorest provinces. At 59 percent, Eastern Cape had the highest poverty rate in 2015. Limpopo had the highest poverty headcount ratio of 67 percent in 2006, about 72 percent in 2009, and 53 percent in 2011. Its poverty rate in 2015 was 57 percent. Gauteng consistently has had the lowest poverty rate (19 percent in 2015) (Figure 28). All provinces experienced a reduction in poverty between 2006 and 2015, using the LBPL. Mpumalanga recorded the highest reduction in poverty levels, with the poverty rate falling from 60 percent to 43 percent between 2006 and 2015. Eastern Cape recorded the lowest reduction in poverty levels. Not only is Limpopo the poorest province measured at the poverty headcount ratio, the depth and severity of poverty was the highest in three out of four years, while it was the second highest in 2015. All provinces except for Mpumalanga recorded an increase in poverty between 2011 and 2015. This holds for all three poverty measures: poverty headcount ratio, poverty gap, and squared poverty gap. Mpumalanga is the only province that consistently recorded a decrease in poverty rates across all the years.

Figure 28: Poverty headcount ratio by province

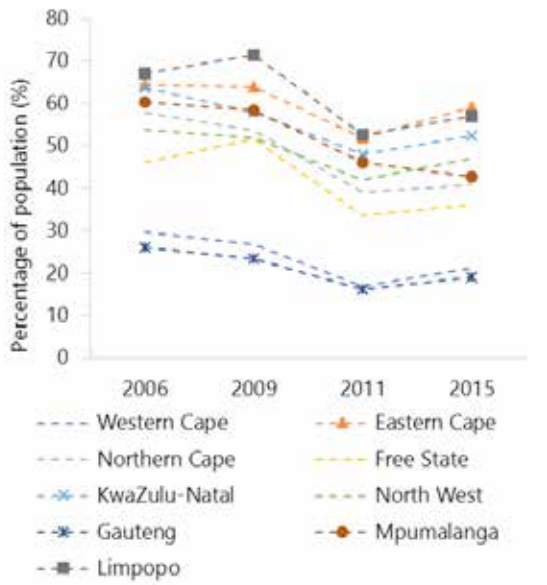
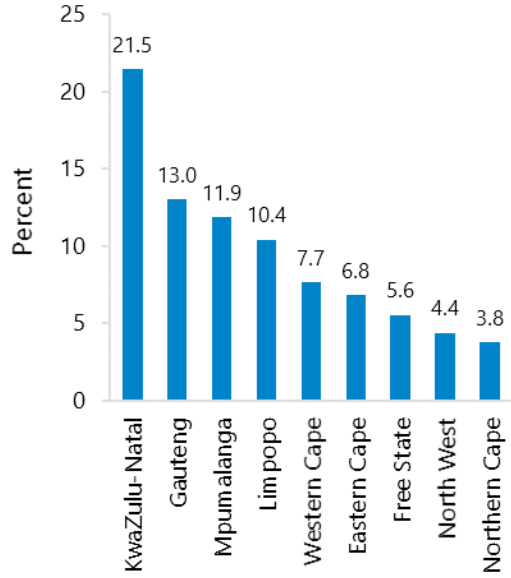


Figure 29: Regional poverty decomposition, 2006 to 2015



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15. Changes are calculated at the LBPL.

KwaZulu-Natal drove the reduction in poverty rates between 2006 and 2015. Relative contributions of each province to aggregate poverty reduction between 2006 and 2015 are reported in Figure 29. These "intra-sectoral effects" are computed as the change in the poverty headcount ratio for each province between 2006 and 2015, multiplied by its population share in 2006. About 21.5 percent of the reduction in the national headcount ratio was due to gains in KwaZulu-Natal, while 13.0 percent was due to poverty reduction gains in Gauteng. The contribution of Gauteng to aggregate poverty reduction is not only due to its poverty reduction record (11 percentage point reduction between 2006 and 2015) but also due to the magnitude of its share of the population (24.0 percent in 2015).

The aggregate contribution of shifts in population and the interaction effects between sectoral gains and population shifts was also estimated. About 15.3 percent of the decline in the national headcount ratio was due to population shifts between provinces. Keeping the provincial headcount ratios constant and considering only the changes in provincial population shares, however, suggests poverty would have declined by only 1.7 percentage points. People most likely moved out of high-poverty into low-poverty provinces and the growth in the population of Gauteng might reflect this. The negative interaction effect could be because the population was moving out of high-poverty areas such as the Eastern Cape.

At 26.0 percent in 2015, KwaZulu-Natal had the largest share of the poor. This is partly due to the relatively high population share in KwaZulu-Natal, 19.9 percent in 2015, down from 21.0 percent in 2006. The pattern of distribution of the poor did not change much between 2006 and 2015. KwaZulu-Natal accounts for the biggest share of the poor in the country, followed by Eastern Cape and then Gauteng.

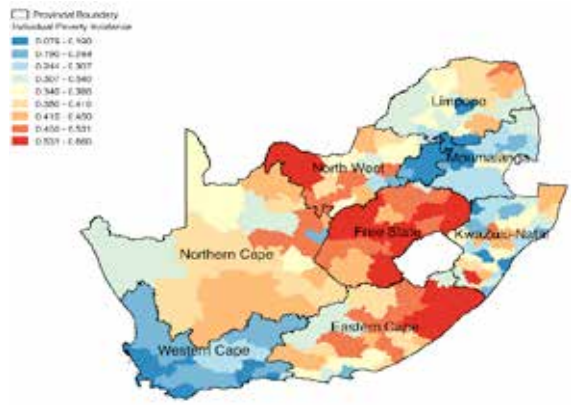
ii. Variation in poverty across municipalities

A spatial representation of the poverty levels supports the existence of pockets of poverty in some municipalities, but also dispersion of municipality poverty rates in others. In 2011, extreme poverty—measured at the food poverty line—was more prevalent in peripheral areas of the North West, Limpopo, KwaZulu-Natal, and Eastern Cape where the highest individual poverty rates at the municipality level were found (Figure 30Figure 23). Most of the 30 municipalities with the highest rates—from 28 percent to 63 percent of households living in extreme poverty—were in KwaZulu-Natal and Limpopo. The 30 municipalities with the lowest household poverty rates were in Gauteng and Western Cape.

In contrast, extreme poverty was highest in the central and eastern parts of the country (Free State, Eastern Cape, North West, and Northern Cape) in 1996. Comparing the quantiles of 1996 and 2011 poverty maps at the municipality level, Figure 30 shows that the municipalities ranking highest for extreme poverty have faced a modest change over time in the northeast of Northern Cape and the east of North West. Northern Cape and Free State have seen a decrease in poverty rates. Overall, Northern Cape and Free State have improved their ranking in the poverty rate distribution at the municipality level. However, in general, poverty rates present a higher heterogeneity in the poorest quantile in 2011 than in 1996.

Figure 30: Poverty incidence at the municipality level

1996



2011

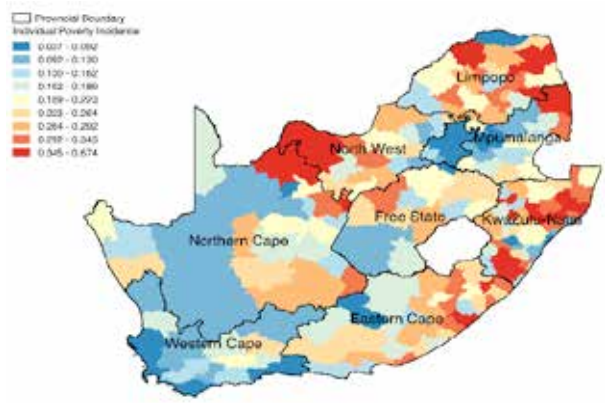
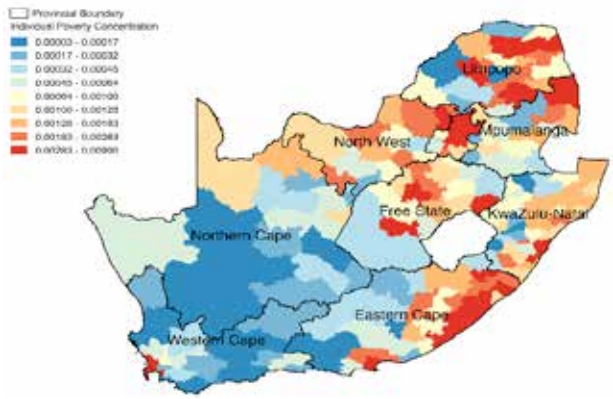
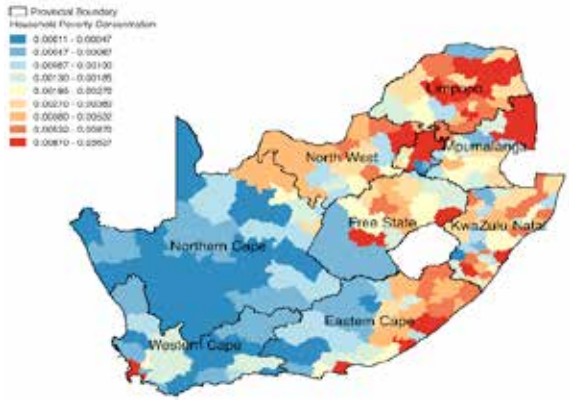


Figure 31: Poverty density at the municipality level

1996



2011



Source: Poverty map calculations (map in the left) are from Alderman et al. (2002) and 2011 poverty map calculations (map in the right) are those of the authors.
Notes: Darker lines correspond to provincial boundaries.

Despite a change in the spatial distribution of the poverty rates between 1996 and 2011, the spatial distribution of the poor did not change notably during this period. Figure 31 displays the poverty density in 1996 and 2011. The labels at the left of each map correspond to the percentage of poor population living in the municipality of the total number of poor people in the country. The municipalities with the highest proportions of poor in both years were in Limpopo, Gauteng, North West, and KwaZulu-Natal. The west of Northern Cape and the south of Free State show a modest improvement in their poverty density rankings (see Box 2).

Box 2: Estimating poverty at the municipality level

Aggregating poverty levels at national and provincial levels is likely to understate extreme poverty within districts and thereby mask heterogeneity across subnational levels. To better understand the heterogeneities, a poverty mapping exercise was conducted. Using consumption data from the Income and Expenditure Survey (IES) 2010/11 and the geographical coverage of the Population Census 2011, a poverty map was constructed using the standard method developed by Elbers et al. (2002)—also known as the ELL (Elbers, Lanjouw, and Lanjouw 2002) method—and considering the suggestions of Tarozzi and Deaton (2009). To construct poverty estimates, detailed information on household expenditure or income are used to project welfare indicators into census records at geographical partitions not possible when using the IES. Thus, the results are expected to help inform provincial and local governments where policy implementation occurs and where information about the poor is needed.

Poverty estimates were calculated for all 234 municipalities in the country. The FPL was used (R335 per person per month in March 2011). The focus on the FPL is consistent with policy emphasis on eliminating extreme poverty.

There is a strong correlation between municipality-level poverty rates in 1996 and 2011. As presented in Figure 32, the higher the poverty rate a municipality had in 1996, the more likely it was to also have higher poverty rates in 2011. Similarly, larger municipalities had lower poverty rates in both periods and poverty in these municipalities fell.

Figure 32: Comparison of municipality poverty rates, 1996 and 2011

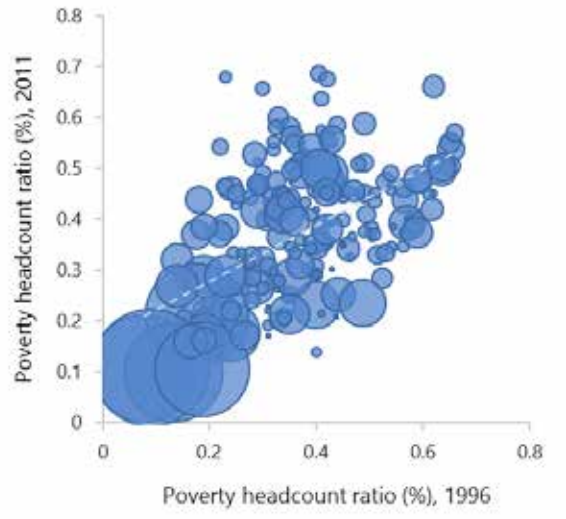
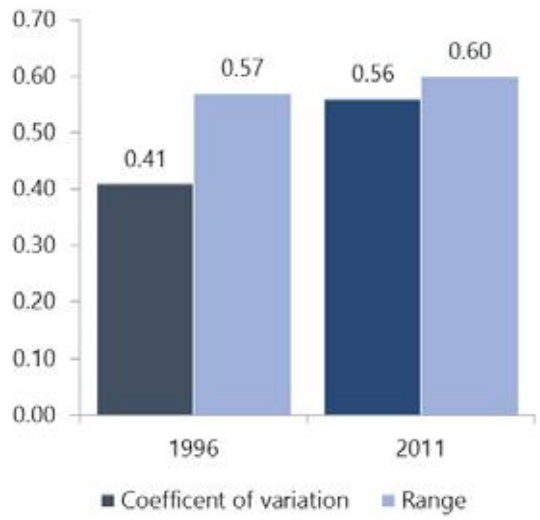


Figure 33: Dispersion and range in municipality poverty rates, 1996 and 2011



Source: Authors' calculations.

The variation in poverty levels between municipalities is high and has been widening. Disparities in poverty levels across municipalities widened between 1996 and 2011. As presented in Figure 33, the dispersion in poverty rates between municipalities, expressed using the coefficient of variation, increased by 36.6 percent between 1996 and 2011. In addition, the range, which measures difference between the richest and poorest municipalities, was high and increased during this period.

D. NOTABLE PROGRESS HAS BEEN MADE IN REDUCING MULTIDIMENSIONAL POVERTY SINCE THE END OF APARTHEID IN 1994

This section complements the preceding analyses by exploring levels and trends in non-monetary poverty and well-being during the period 1993–2016. The race-based exclusionary policies of apartheid prevented most of South Africa's population from participating in meaningful economic activities and accessing basic public services. This resulted in unequal distribution of resources, which led to high levels of poverty among marginalized groups. With the advent of democracy in 1994 came a strong need for transformation and redistribution of resources to address the prevailing racial, spatial, and economic inequalities. This resulted in policies such as the RDP, GEAR, AsgiSA, and is reflected in the current NDP as well, which advocates for "leaving no one behind" and aims to eradicate poverty and reduce inequality by 2030.

It is important to go beyond monetary poverty measures, and track progress based on more comprehensive non-monetary dimensions that capture the multidimensionality of poverty. Money-metric poverty measures have been criticized for being unable to capture the well-being impacts of use of services that are not transacted in markets. For example, outcomes related to educational attainment, health, water and sanitation, and food security affect well-being, yet their intrinsic values often exceed their costs as reflected in levels of household expenditures on these items. Similarly, the social impacts of unemployment stretch beyond the observed income loss to affecting the quality of life of concerned individuals. Considering non-money-metric measures of well-being is especially important in South Africa given the government's use of the social wage—the redistributive elements of the government budget that provide free basic services and social protection—to increase access to basic services for the previously marginalized communities.

The non-monetary indicators analyzed in this section include access to basic services and utilities, education, food security and malnutrition, and ownership of durable household assets. The choice of indicators is influenced by availability of data and relevance to South Africa. These indicators have been shown to improve livelihoods and thus are important dimensions of poverty. Though comprehensive and aligned to the context of South Africa, the indicators analyzed in this chapter is not exhaustive.

i. Access to basic services and utilities

South Africa has made strides in broadening access to basic public services since the end of apartheid. As Figure 34 to Figure 37 show, the proportion of the population with access to electricity, improved water sources, and improved sanitation facilities increased steadily between 1994 and 2015. In 2015, 93 percent of the population had access to improved water source compared to 83 percent in 1994. In 1994, 62 percent had access to electricity and this rose to 87 percent in 2014. In 2015, 66 percent of the population had access to improved sanitation facilities, following a 13 percentage point increase from 53 percent in 1994. Comparing South Africa to other countries and regions suggests that it lags average upper middle-income countries in all three basic public services, but it performs better than an average country in Sub-Saharan Africa.

Figure 34: Changes in the proportion of the population with access to selected basic services

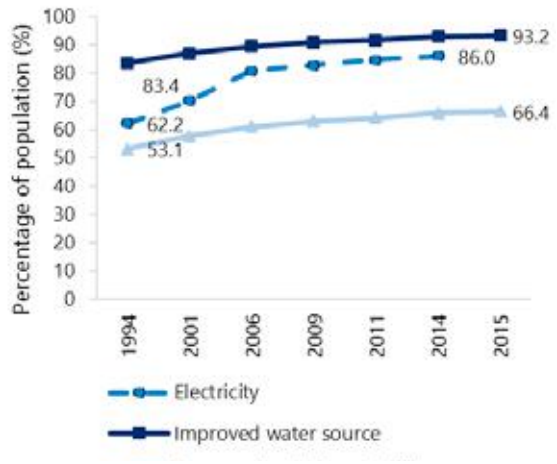


Figure 35: The proportion of the population with access to electricity, comparison to other countries, 2014

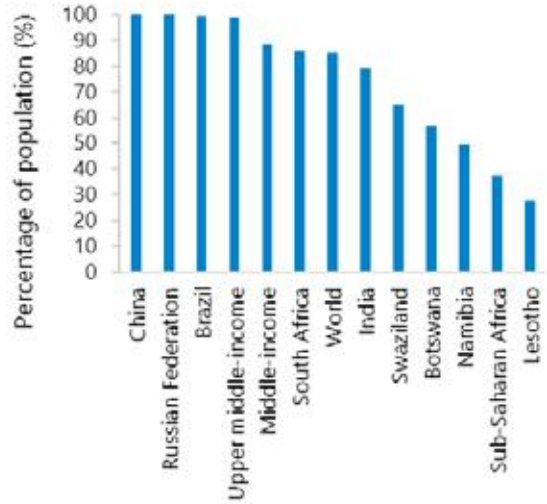


Figure 36: The proportion of the population with access to an improved water source, comparison to other countries, 2015

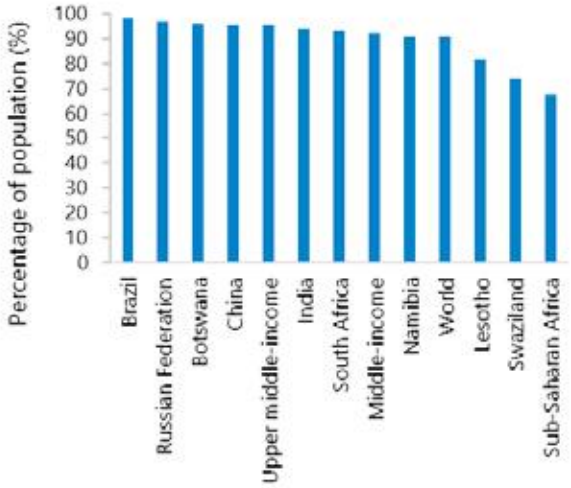
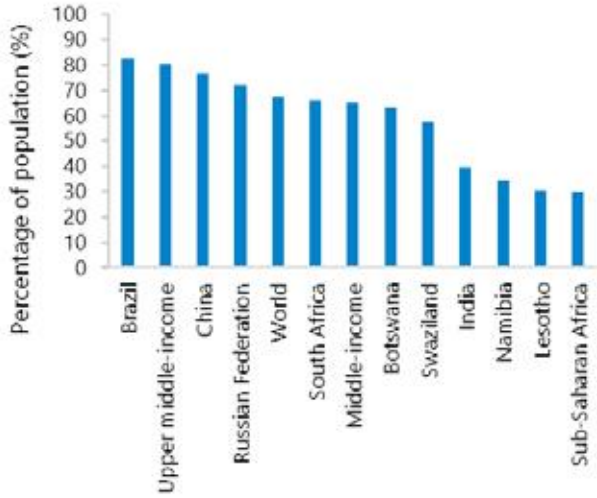


Figure 37: The proportion of the population with access to improved sanitation facilities, comparison to other countries, 2015



Source: World Development Indicators.

Access to basic public services is positively correlated with income, with access lowest among the poorest segments of the population. Figure 38 to Figure 40 present the proportion of the population with access to a selected service by per capita consumption decile, using the LCS 2014/15 data. At 98 percent, the rates of connection to the electricity supply among the richest decile are 20 percentage points higher than the proportion among the poorest decile (78 percent). Of the poor at the LBPL, 83 percent had access to electricity in 2014 compared to 93 percent among the non-poor (Figure 38).

Access to an improved water source is uneven across income groups (Figure 39). Of the poorest 10 percent of households, 54 percent had access to an improved water source in 2015, 43 percentage points lower that the proportion among the richest 10 percent. A focus on the poor shows a percentage of households with access to an improved water source of around 71 percent compared to 95 percent of the non-poor. The same pattern holds for access to an improved sanitation facility (Figure 40). These patterns underscore poverty as a barrier to access to basic services and a contributor to and/or a result of resource inequality. In addition, the patterns highlight the need for the government to address the constraints (for example in terms of affordability or infrastructure) which limit access by the poor.

Figure 38: The proportion of the population with access to electricity, by decile, 2015

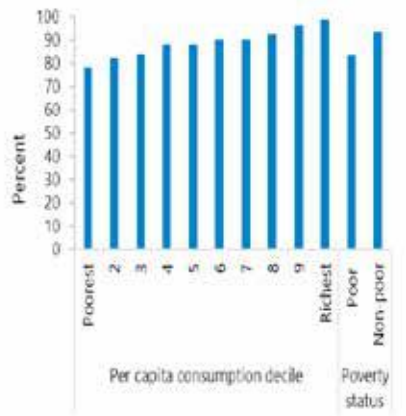


Figure 39: The proportion of the population with access to an improved water source, by decile, 2015

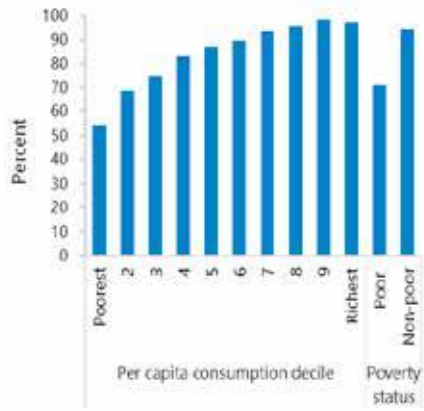
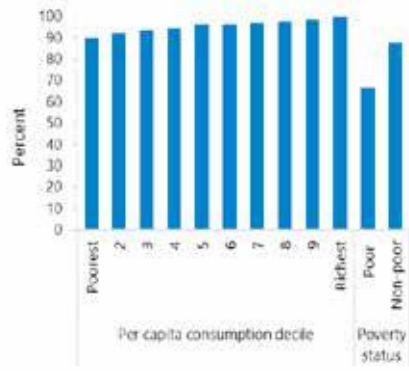


Figure 40: The proportion of the population with access to improved sanitation facilities, by decile, 2015



Source: Authors' calculations based on the Living Conditions Survey for 2014/15.

ii. Housing conditions, access to education, health, and assets

The poor tend to live in overcrowded housing conditions. Living in overcrowded conditions has been linked to worsening of health and education outcomes (see, for example, Leventhal and Newman 2010 and Lund et al. 2010) and thus is a good indicator of poverty. The number of persons per bedroom in a dwelling unit is used here to measure overcrowding. A two persons-per-bedroom standard is applied to determine whether a household is overcrowded. In 2015, about 39 percent of the population was defined as being overcrowded. The poor had an overcrowding headcount rate of 60.8 percent, which is high compared to 23.6 percent among the non-poor (Figure 41). Overcrowding rates are shown to fall with income levels. The overcrowding rate for the bottom 10 percent was 67.9 percentage points higher than for the top 10 percent. This suggests that use of persons per bedroom is a reliable indicator of deprivation caused by low consumption expenditure.[9]

9 No direction of causality is implied: the analysis focuses on correlations rather than causal relationships.

Educational outcomes are uneven across consumption expenditure groups, in favor of rich households. This is revealed in Figure 42, which shows the proportion of South Africans older than 25 that had completed primary education in 2015. Among individuals in the top 10 consumption decile, the proportion who had completed primary school was 35.4 percentage points higher than the proportion for the bottom 10 percent. Of individuals older than 25 among the poor 53.4 percent had completed primary school compared to 72.9 percent among the non-poor.

Access to health and assets is uneven across income groups. The rich have better access to hospitals than the poor. Using distance to the nearest hospital as an indicator of access, Figure 43 shows the proportion of South Africans that indicated the nearest hospital was more than 20 kilometers from their dwelling unit. For the poorest decile, 33.8 percent lived at least 20 kilometers away from a hospital, 27 percentage points higher than the proportion among the richest decile. Consistent with this, poor individuals lived farther away from a hospital compared to the non-poor. As expected, asset ownership indexes were higher among richer households (Figure 44). In 2015, the richest decile had an average of 19 out of 36 asset types, which was close to three times that of the poorest decile (details of how the assets indexes were constructed are in Box 3). Household ownership of physical assets is frequently used to examine the welfare status of households insofar as they capture material deprivation.

Figure 41: Overcrowding headcount rate, by decile, 2015

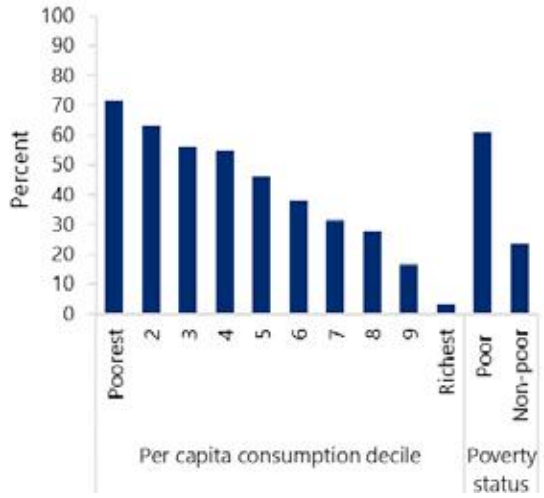


Figure 42: The proportion of the population older than 25 with primary school education, by decile, 2015

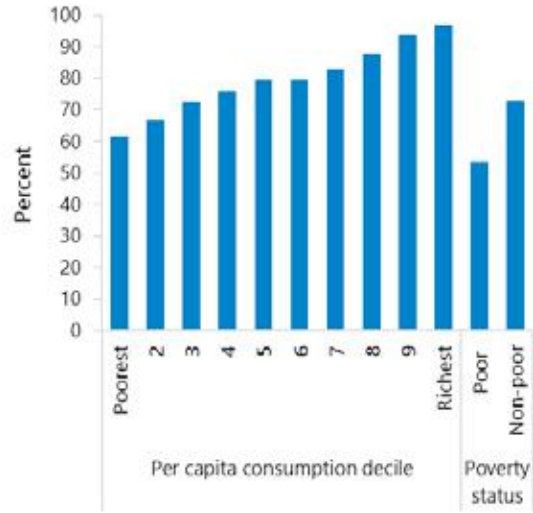


Figure 43: The proportion of the population for whom distance to nearest hospital is at least 20 kilometers, by decile, 2015

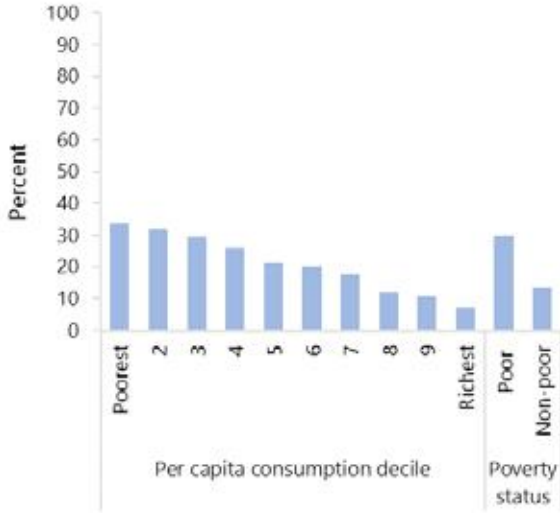
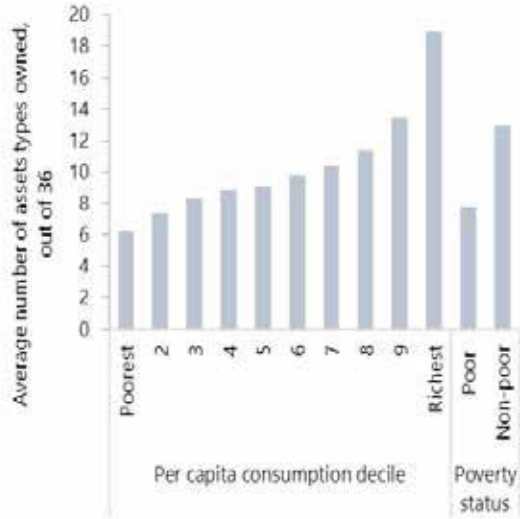


Figure 44: Asset ownership, by decile, 2015



Source: Authors' calculations based on Living Conditions Survey for 2014/15.

iii. Food security and malnutrition

Food insecurity, stunting, and child malnutrition remain challenges in South Africa and have deteriorated since 2012. All components of the Household Food Insecurity Access Scale (HFIAS), the construction of which is described in Box 3, show a modest increase in food insecurity since 2012. In addition, measures of child malnutrition based on anthropometric data show little improvement and may even have worsened in recent years.

Box 3: Construction of an asset index and the Household Food Insecurity Access Scale

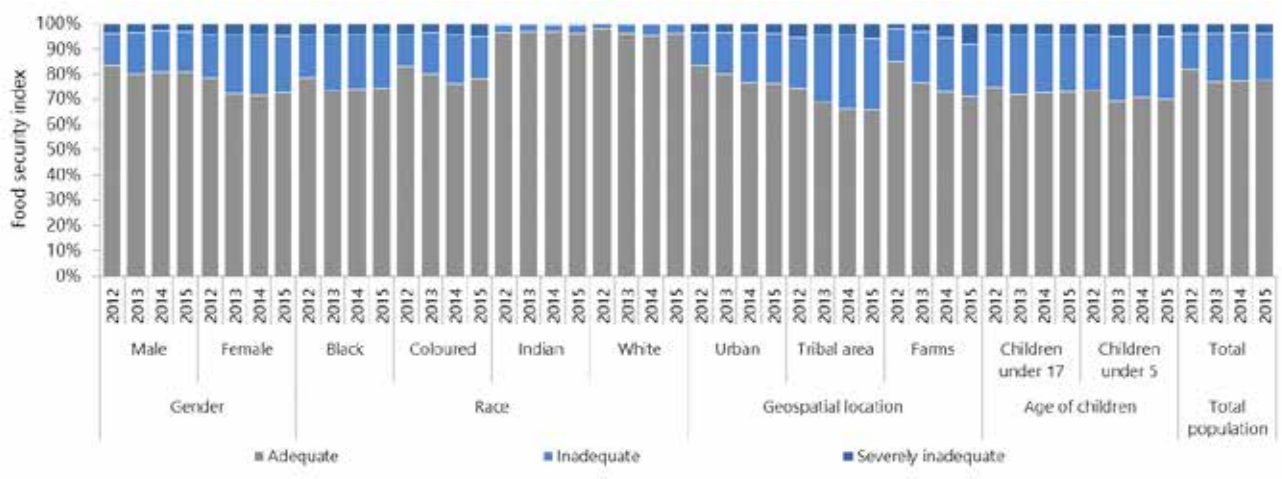
Construction of the asset index. The asset index is constructed by counting the number of asset types a household owns from a specified set of durable assets. A set of 36 assets was identified in the 2015 dataset and used in this analysis. The assists are radio; stereo/HiFi; satellite TV; television; DVD/Blu-ray player; deep freezer-free standing; refrigerator/combined fridge freezer; stove; microwave oven; dishwasher; washing machine; tumble dryer; vacuum cleaner; hot water heater; kitchen furniture; dining room furniture; bedroom furniture; lounge furniture; desktop computer; laptop/notebook/netbook; tablets; camera; cellular telephone; telephone; connection to the internet; motor vehicle; motorcycle/scooter; bicycle; canoe/boat; generator; power-driven tools; plow; tractor; grinding mill; wheelbarrow; bed (base set and mattress).

For each durable asset, a dummy variable was created that takes the value of one if a household owns at least one of that item and zero otherwise. The total asset ownership index for each household was computed by adding up the dummy variables. Given that the set being analyzed comprises 36 items, the index ranges from zero (none of the items) to 36 (at least one of each item). A household owning 10 out of the 36 items, for example, gets a score of 10.

Construction of the HFIAS. The General Household Survey (GHS) has seven questions related to hunger and food availability that are used to generate eight variables on food security (GHS report 2015). These questions specifically seek to establish if any member of the household has gone without food, skipped meals, eaten a smaller variety of food, or cut meal sizes. These questions also have a component that establishes the frequency of occurrence of any of those situations. For example: "For the past 12 months did any adult (18 years and above) in this household go without food?" (GHS 2015 Questionnaire, page 41). Responses are on a five-point scale from never to always. In line with the HFIAS methodology, all eight variables that measure occurrence and intensity are used. In replicating Stats SA, every affirmative answer to a food insecurity question was scored one and non-affirmative zero. The index is then generated as an additive index of the scores. Categories are then created on the following basis: a score of 0–1 reflects adequate food security, 2–6 is considered inadequate, and 7–8 is severely inadequate. This approach is applied to ensure coherence between the index created and the Stats SA index.

Food insecurity is gendered and more prevalent among the black African population. Consistent with other forms of deprivation, women are more likely to be poor and go hungry compared to men. As with all other forms of deprivation in South Africa, black South African households are most likely to be food insecure followed by colored households (Figure 45).

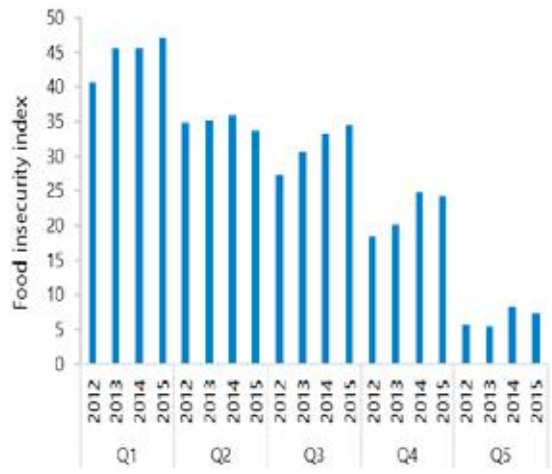
Figure 45: Food security index by household characteristics



Source: Authors' calculations based on GHSs for 2012–2015.

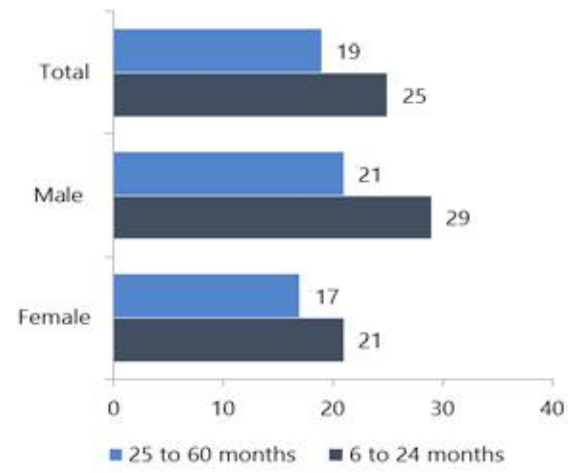
Food security has a clear spatial dimension, with tribal areas recording the highest level of food insecurity compared to urban and farm areas. These patterns are like those found by the South African National Health and Nutrition Examination Survey (SANHANES) 2012, which reported that the largest percentage of participants who experienced hunger (food insecurity) in 2012 were in urban informal (32 percent) and rural formal (37 percent) localities. In terms of differences by age, each year added to the age of a head of household increases the likelihood of food security, but this is a quadratic relationship. Increments in age eventually increase the likelihood of a household being food insecure.

Figure 46: Food insecurity index by quintiles of asset index (percent)



Source: Authors' calculations using GHS 2012–2015.

Figure 47: Gender disaggregated stunting rates in children under five



Source: Authors' calculations using NIDS wave 4.

The poor bear the brunt of food insecurity: while most income groups experienced a decline in food security between 2012 and 2015, the poorest quintile experienced the largest deterioration (Figure 46).[10] Households in the poorest quintile recorded the highest level of both severe and moderate food insecurity in all years. This decreased for each progressive quintile until it reached its lowest level in the richest quintile in which less than 10 percent of households had inadequate food security. The greatest increases in the food security index were in the middle quintiles with the richest quintile experiencing only modest change. A consistent pattern is revealed when the mean per capita monthly income of households in the different food insecurity bands is computed. In all years, households with adequate food security had per capita incomes that were significantly higher than households in the other groups. Not only was food security lower among the poor, inequalities in food security exist, which generally favored the rich.

People practicing subsistence agriculture have higher rates of food security. Given the declining role of agriculture in the South African economy and the low prevalence of smallholder agricultural production in compared to other African countries, it is striking that households that engaged in some form of subsistence agriculture were more likely to be food secure than those that did not. This suggests that interventions that support the production of food would be appropriate, even if these are not a central component of government food security and nutrition strategies.

Another aspect of food insecurity that is important, in addition to hunger and the quantity of foods

10 The quintiles are based on an asset index created using Principal Components Analysis on asset variables available in the GHS data. The index measures the socioeconomic status of households.

consumed, is dietary diversity. Various studies have shown that South Africa has low dietary diversity levels. Many households consume diets that are energy dense and lack micronutrients that are needed for proper growth and development in children. For instance, Labadarios, Steyn, and Nel (2011) found low dietary diversity, which was characterized by limited eggs, legumes, and fruits and vegetables rich in vitamin A. Faber, Wenhold, and Laurie (2015) supported this and further highlighted the association between dietary diversity and household food security, with food secure households having a higher mean dietary diversity score. Further, these studies highlighted the spatial dimensions of food insecurity and low dietary diversity. The provinces with the highest prevalence of poor dietary diversity are Limpopo and the Eastern Cape while the Western Cape has a low score. South Africans in rural and informal urban areas tend to be the worst affected.

Malnutrition is linked to the physical environment in which people live, inadequate and unsafe water, poor sanitation, and unsafe hygiene practices are the main causes of infections of the intestinal tract. Multivariate analysis reveals that people living in informal dwellings are more likely to be food insecure than those living in informal houses. Further, people living in urban areas face a significant threat of food insecurity. This confirms that malnutrition is linked to the physical environment in which people live, especially children. Improved sanitation and hygiene and access to safe water can reduce the frequency and severity of infections of children and pregnant women, including diarrheal diseases. Ingestion of feces and soil contribute to the risk in polluted environments, such as dense shack settlements where human overcrowding and animals are present.

Stunting remains a problem, with boys and younger children at higher risk (Figure 47). Of all the forms of malnutrition examined, stunting remained unusually high. Additionally, stunting is more prevalent in male children than in female children at all ages and younger children are at a higher risk of malnutrition than older children. High stunting rates are a cause for concern because the higher stunting rates of younger children today are likely to result in even higher stunting rates when these children become older.

Multiple factors predefine malnutrition including poverty status, mother's food security, mother's own condition, and access to health care. Investigation of the prevalence and determinants of malnutrition among children under age five found that sex and age of child, employment, body mass index (BMI) of mother, age of mother, height of mother, and household incomes are significant determinants of malnutrition. The study also shows that a mother's height is directly associated with child malnutrition regardless of BMI or weight category. The implication is that women who may themselves have been stunted are likely to give birth to children who become stunted. This situation reflects the cumulative effects of socioeconomic, environmental, health, and nutritional conditions. However, these levels and trends vary by economic status of households. Also, previous studies suggest that other contributors to malnutrition include micronutrient deficiencies arising from unhealthy diets, low birth weight of children due to maternal ill health, and the impact of repeated enteric infections arising from poor sanitation conditions.

South Africa already has several important initiatives to address food insecurity and malnutrition. This includes mandatory fortification of staple foods, the provision of food supplements for mothers and children, as well as the social protection programs such as the child support grant (CSG) and school feeding program. Except for the CSG, poor implementation has been identified as a reason these programs have not performed as well as anticipated. For the CSG, leakages of the grant to other household members, and the small value of the grant (relative to other grants and the costs of nutrition), have been identified as possible reasons why malnutrition has not declined despite more than 12 million children having access to the grants. Other policies focus on increasing the availability of food, including those of the national Department of Agriculture, Forestry, and Fisheries (DAFF), such as garden projects that are implemented by the provincial departments. These targets both rural and urban food security by supporting urban agriculture, community food projects, household food production, new gardens, and rehabilitating abandoned projects. Further, the Department of Public Works offers food-for-work programs for unemployed

persons in addition to the Community Works Program and the Expanded Public Works Program (EPWP). By identifying the food insecure and including them in such income-generating programs the self-provisioning of food can be enhanced.

iv. The South African Multidimensional Poverty Index

This section describes the non-monetary poverty levels in South Africa for the period 2001–2016 using the South African Multidimensional Poverty Index (SAMPI). The SAMPI uses the Alkire-Foster method (Box 4) and builds on the global Multidimensional Poverty Index (MPI) developed by the Oxford Poverty and Human Development Initiative (OPHI) and the UNDP to measure acute poverty. The MPI captures severe deprivations that each person or household experiences with respect to health, education, and living standards. It allows for comparisons within regions, countries, and areas/provinces within countries. It allows for the identification of the most deprived.

The SAMPI was chosen for its ability to provide an integrated picture that could help assess the impact of government programs to achieve poverty reduction wherein the index incorporates basic services, education, living standards, health, and economic activities as highlighted in the NDP. Furthermore, its key attribute of being decomposable by space and population attributes makes it a powerful tool for not only identifying who the poor are and where they are but also for guiding targeted policy interventions on what contributes to poverty in those areas so that resources can be channeled properly.

Box 4: The Alkire-Foster method

To explore the nature and extent of multidimensional poverty in South Africa, a "counting" approach developed by Alkire and Foster (2011) is used to estimate the SAMPI. The approach complements monetary measures of poverty by identifying and counting the number of overlapping deprivations experienced simultaneously by an individual or household. It is built on three premises: the selection of the dimensions and indicators of poverty; the identification of the poor based on set criteria, which involves setting cut-offs or poverty lines against which the poverty/deprivation status is determined; and the aggregation of information through a poverty index.

Stats SA used four guiding principles during SAMPI construction: the Global MPI and its dimensions and indicators; the country context and issues affecting poverty; the availability of data items in censuses; and the suitability and robustness of these data after data exploration, confrontation, and consultation. Given the desire to domesticate the Global MPI to be anchored in the South African context, it was impossible to ignore the country's massive unemployment challenge. According to the Quarterly Labour Force Survey for the fourth quarter of 2017, unemployment stood at 26.7 percent.

Hence, a fourth dimension dealing with unemployment was added to the three standard dimensions already present in the Global MPI. While there is obviously a monetary element to employment, the SAMPI embraced a more social dimension in its measurement and adopted a deprivation cut-off that represented an extreme situation that is unhealthy for the social development of the household. A household is considered deprived in this dimension if all adults in the economically active age cohort (ages 15 to 64) are unemployed using the expanded definition of unemployment (which includes those defined as unemployed as well as discouraged work-seekers). If there are any adults who are not economically active, such as still in education, retired, or looking after the home, they would not be defined as unemployed and, therefore, the household would not be classified as deprived in this indicator.

Therefore, someone who simply lacks a job does not necessarily qualify as deprived (even if by implication it does have a significant bearing on the money-metric poverty status of a household), but rather, this indicator aims to measure the totality of the unemployment situation in a household. Thus, the consequences of being deprived in this indicator manifests in a much more significant way that transcends the simple loss of income. Ultimately, this dynamic of no employed adults in the household seriously compromises the social fabric of the household.

Thus, the SAMPI was customized to suit the context of South Africa. While the Global MPI consists of three dimensions and 10 indicators, the SAMPI comprises four dimensions and 11 indicators. As Table 3 indicates, equal weights across dimensions is assumed, along with equal weights across indicators within each indicator. The data sources for the analysis are the 2001 and 2011 Population Census data as well as the 2016 Community Survey data.

Table 3: SAMPI dimensions, indicators, and deprivation cut-off points

Dimension	Indicator	Deprivation cut-off	Weight
Health	Child mortality	If any child under age 5 has died in the past 12 months	1/4
Education	Years of schooling	If no household member age 15 or older has completed 5 years of schooling	1/8
	School attendance	If any school-aged child (ages 7 to 15) is out of school	1/8
Standard of living	Fuel for lighting	If household is using paraffin/candles/nothing/other	1/28
	Fuel for heating	If household is using paraffin/wood/coal/dung/other/none	1/28
	Fuel for cooking	If household is using paraffin/wood/coal/dung/other/none	1/28
	Water access	If no piped water in dwelling or on stand	1/28
	Sanitation type	If no flush toilet	1/28
	Dwelling type	If an informal shack/traditional dwelling/caravan/tent/other	1/28
	Asset ownership	If household does not own more than one of radio, television, telephone, or refrigerator and does not own a car	1/28
Economic activity	Unemployment	If all adults (ages 15 to 64) in the household are unemployed	1/4

Source: Authors' representations.

v. Changes in multidimensional poverty at the national level

South Africa recorded a notable decline in multidimensional poverty between 2001 and 2016, driven by a decline in the proportion of households that were multidimensionally poor. In 2001, 17.9 percent of South Africans were multidimensionally poor; this dropped to 7.0 percent in 2016 (Table 4). The major reduction occurred between 2001 and 2011, with the multidimensional poverty headcount falling by almost 10 percentage points. Sadly, multidimensional poverty stagnated between 2011 and 2016. The improvement between 2001 and 2011 could reflect, in part, the positive impact of redistribution programs on multidimensional poverty. These programs include, for example, compulsory education for children aged 7 to 15, no-fee schools, feeding schemes, access to free basic services for indigent households, and social grants. The stagnation between 2011 and 2016 is consistent with the trend in monetary poverty headcount ratio, which showed a notable decline up to 2011 but an increase after 2011.

Table 4: Multidimensional poverty at national level

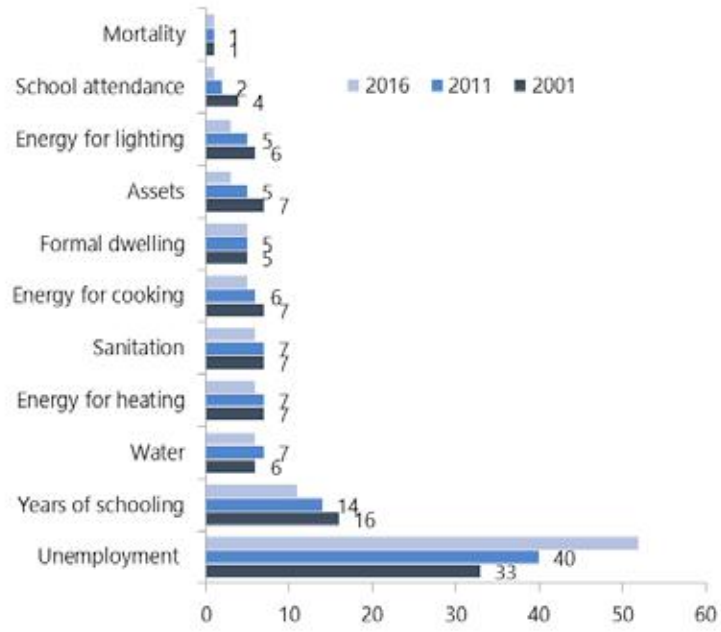
Year	Headcount (H)	Intensity (A)	SAMPI (HxA)
2001	17.9%	43.9%	0.08
2011	8.0%	42.3%	0.03
2016	7.0%	42.8%	0.03

Source: Authors' calculations based on the Population Censuses for 2001 and 2011 as well as the Community Survey 2016.

The reduction in the intensity of multidimensional poverty, which measures the average proportion of indicators in which multidimensionally poor people are deprived, has been slower compared to the reduction in the proportion of the multidimensionally poor. The intensity of poverty fell marginally from 43.9 percent in 2001 to 42.3 percent in 2011 virtually stagnating at 42.8 percent in 2016. The slow reduction of intensity of multidimensional poverty indicates that while the proportion of multidimensionally poor households fell, the circumstances of the poor hardly got better.

Unemployment dampens progress toward reducing multidimensional poverty in South Africa. Unemployment and education (years of schooling) remain the top two contributors to multidimensional poverty in South Africa. Figure 48 shows the extent to which each indicator contributed to multidimensional poverty in the three years considered. While the contribution to multidimensional poverty of most indicators decreased between 2001 and 2016, the contribution of unemployment increased. The contribution of unemployment to the SAMPI increased from 2001 to 2016. This underscores the importance of job creation in reducing multidimensional poverty in South Africa. The reduction in the contribution of the education indicators and the living standards indicators, on the other hand, points to an improvement in service delivery and as well as the education profile of the country. This may be due to programs and policies such as no-fee schools, compulsory education, and free basic services for indigent households, among initiatives.

Figure 48: Contribution of weighted indicators to SAMPI at national level



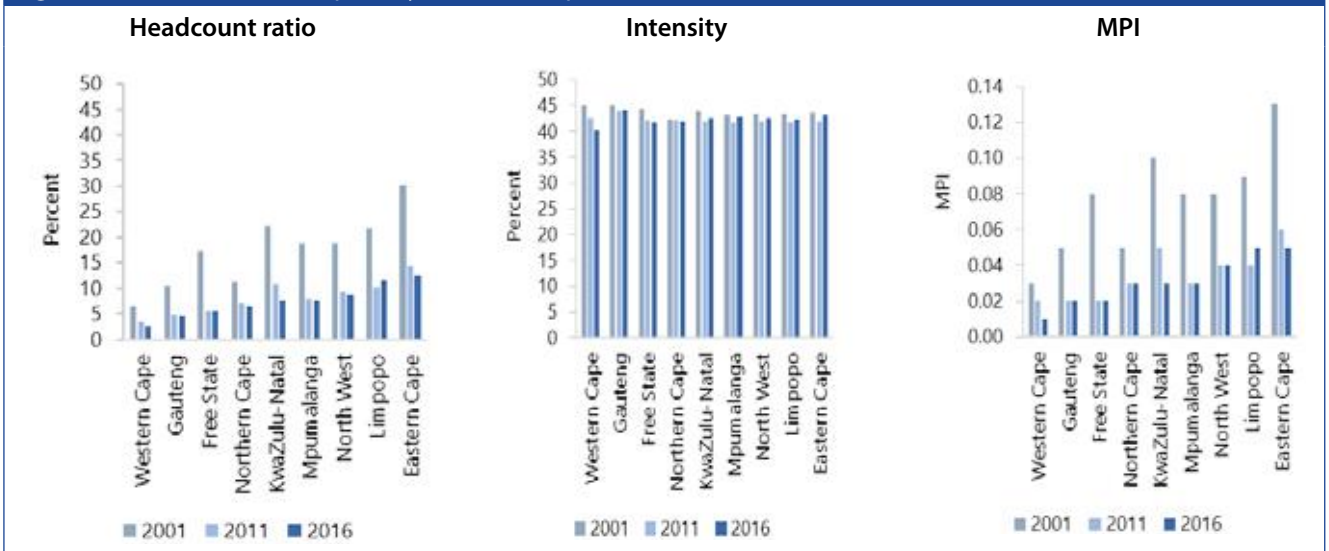
Source: Authors' calculations based on the Population Censuses for 2001 and 2011 as well as the Community Survey 2016.

vi. Multidimensional Poverty Index, headcount and intensity: spatial variation

Computation of multidimensional poverty at the provincial level shows that the Eastern Cape had the highest multidimensional poverty headcount ratio in 2016 at 12.7 percent, followed by Limpopo at about 11.5 percent (Figure 49). The Eastern Cape also has the highest MPI score, alongside Limpopo, driven by relatively high multidimensional poverty headcount ratios. Interestingly, at 4.6 percent, Gauteng had the least multidimensional poverty headcount in 2016 but has the highest intensity of multidimensional poverty. This is of policy relevance as it supports caution around formulating policies or interventions based only on the poverty headcount ratio. The multidimensional poverty headcount ratio in this case hides the worsening situation of the multidimensionally poor. The result, coupled with the finding that Gauteng had the lowest monetary poverty in South Africa in 2015, suggests better performing provinces do have pockets of intense multidimensional poverty.

All provinces experienced a steady reduction in the multidimensional poverty headcount ratio between 2001 and 2016. However, the multidimensional poverty headcount ratio in Limpopo increased from 10.1 percent in 2011 to about 11.5 percent in 2016. Seven out of nine provinces experienced either an increase or near stagnation in the intensity of poverty between 2011 and 2016. Only the Free State and Western Cape registered a clear, though modest, reduction in intensity of multidimensional poverty.

Figure 49: Multidimensional poverty measures at provincial level



Source: Authors' calculations based on the Population Censuses for 2001 and 2011 as well as the Community Survey 2016.

Analysis at the district level suggests multidimensional poverty in 2016 was highest in the Alfred Nzo district municipality in the Eastern Cape followed by the OR Tambo district municipality. Amathole district was the third-poorest district (Figure 50). Important to note is the comparison between the poorest district municipalities and the 18 rural nodes[11] that were selected in 2001 for accelerated development under the Integrated Sustainable Rural Development Program (ISRDP). Evaluating what has transpired in these 18 nodes in terms of poverty since 2001 would inform efforts to accelerate poverty reduction.

11 These areas were earmarked for accelerated development under the Integrated Sustainable Rural Development Programme (ISRDP). For details, see Statistics South Africa (2016b), "Quest for nodal development: Evidence from Census 2001 and Census 2011." South Africa

Figure 50: Poorest and richest districts and local municipalities in South Africa in 2016

Top and bottom 10 districts

Top and bottom 20 municipalities

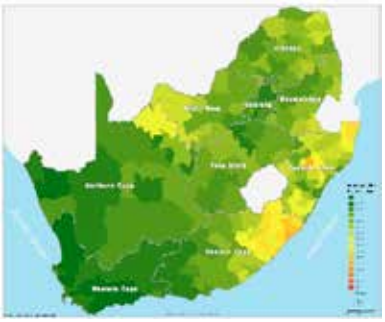
Source: Poverty Map calculations are from Statistics South Africa.

Multidimensional poverty is revealed to be higher in rural areas compared to urban areas. Focusing on the 20 poorest districts in 2016 shows that the majority (15 out of 20) are in rural nodes (Figure 50). Fourteen of the 18 rural nodes are on the list of 20 poorest districts. Dr. Ruth Segomotsi Mompati, Vhembe, Ngaka Modiri Molema, Ilembe, Waterberg, and Bojanala Platinum district municipalities are worse off compared to other areas that were selected for accelerated development, such as Central Karoo, Thabo Mofutsanyane, uMgungundlovu, and Ehlanzeni district municipalities. This suggests that the list of areas earmarked for accelerated development needs to be reconsidered.

Most municipalities in the 20 poorest local municipalities in 2016 were in the Eastern Cape, Limpopo, and KwaZulu-Natal. Fifteen of the 20 poorest municipalities are in the Eastern Cape; four (Msinga, uMhlabuyalingana, Maphumulo, and Mzumbe) are in KwaZulu-Natal; and the remaining municipality, Mutale, is in Limpopo. It should also be noted that all the 10 poorest municipalities are in the former homelands of Eastern Cape and KwaZulu-Natal, highlighting the enduring legacy of apartheid. The richest 20 municipalities consist mainly of municipalities in the Western Cape (15 out of 20). These patterns are illustrated in the SAMPI maps for 2001, 2011 and 2016, which suggest areas that were disadvantaged under apartheid still have the highest multidimensional poverty levels (Figure 51).

Figure 51: Multidimensional poverty headcount ratio at the municipality level

2001



2011

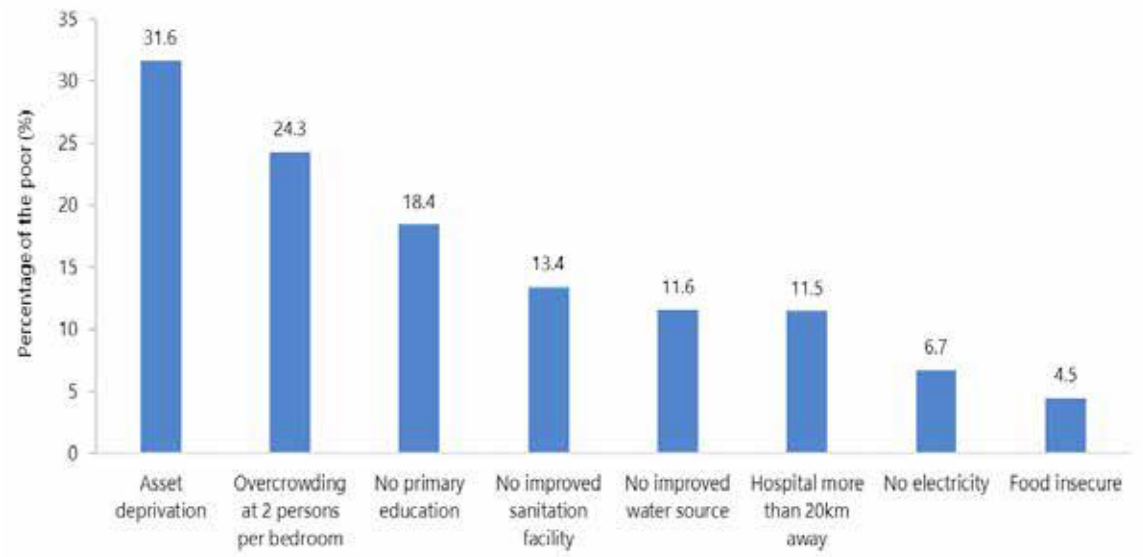
2016

Source: Poverty Map calculations are from Statistics South Africa.

vii. Multidimensional deprivation

At least 4 percent of the monetarily poor were affected by an additional deprivation in 2015**.** Among those depravations were lack of assets, overcrowded housing conditions, incomplete primary school, lack of access to an improved sanitation facility or improved drinking water source, and others (Figure 52).

Figure 52: Deprivations affecting the poor in 2015



Source: Authors' calculations based on Living Conditions Survey for 2014/15.

The monetary poor are simultaneously deprived in multiple dimensions. In 2015, 3.7 percent of the monetarily poor lived in overcrowded housing and had no connection to electricity supply. The share of monetarily poor with no access to improved water and sanitation facilities was 5.2 percent. The proportion of the monetarily poor that were food insecure and asset deprived was 4.2 percent. The highest proportion of simultaneously deprived households was 5.7 percent for households that were monetarily poor, lived more than 20 kilometers from the nearest hospital, and had not completed primary school.

E. ECONOMIC MOBILITY: TRANSITIONING FROM CHRONIC POVERTY TO MIDDLE CLASS

NIDS data is used in this section. NIDS is a multi-year dataset aimed at gathering information over a panel of households in South Africa. Implemented by the South African Labor and Development Research Unit at the University of Cape Town School of Economics, this survey spans—at present—6 years between 2008 and 2014/15. The survey is held every two years, for a total of four waves from 2008 to 2014/15. NIDS collects information on four modules: income, expenditure, assets, and debts. Data on income and expenditure was collected in all four waves, while wealth (defined as assets less debts) information was collected only in waves 2 and 4. NIDS holds two advantages compared to IES. One, it has more detailed labor market information in addition to labor market status (whether a respondent is employed, unemployed, or inactive) as it collects information on the sector and occupation if the respondent is employed. Two, NIDS collects information on the education and work status of parents. These characteristics have been shown to be extremely influential in determining equity of opportunity. They thus form a key part of the empirical analysis.

This section analyzes NIDS data to provide a dynamic perspective on the experience of poverty in South Africa, aiming to deepen understanding of the extent and the determinants of transitions into and out of poverty.

Transition matrices provide a basic understanding of the degree of economic mobility, duration of poverty spells, and intertemporal consumption averages that decompose standard poverty measures into chronic and transient components. Subsequently, a model of poverty transitions is used to examine the individual and household characteristics associated with observed mobility patterns. Five social classes are defined based on their probability of falling into poverty: chronic poor, transient poor, vulnerable, middle class, and elite. Finally, the section profiles the relative size, growth, racial composition, and other demographic characteristics of the classes, as well as their geographic location, labor market resources, and mobility patterns. The analysis uses the UBPL—set at ZAR992 per person per month in 2015 prices—as it is deemed more realistic in the context of the focus on social classes.

i. Poverty transitions, chronic poverty, and characteristics

Poverty is persistent in South Africa. Table 5 presents four sets of poverty transition matrices using the UBPL for the period 2008–2014/15, based on the pooled sample of wave-to-wave transitions. A sizable proportion of those living below the UBPL in a given wave of the survey did not escape poverty in the next wave. Moreover, about a quarter of those with a per capita expenditure above the UBPL in a given wave fell into poverty in the next wave.

Table 5: Poverty transition matrices for South Africa, 2008-2014/15 (pooled 4 waves panel)

		t (destination)	
		Poor	Non-Poor
t-1 (origin)	Poor	82.7	17.3
	Non-Poor	24.8	75.2

Source: Authors' calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition). Calculations done using the UBPL.

Chronic poverty is the dominant contributor to total poverty, accounting for more than 80 percent of the upper bound poverty rate. Applying the two approaches presented in Box 5 to South Africa suggests that between 80 to 90 percent of the poor, using the UBPL, can be classified as chronically poor. That is, for a large share of the population, poverty is a permanent state. The share of the transient poor tended to be highest in 2010/11, when—likely due to the global economic crisis—some households were temporarily pushed below the poverty line.

Box 5: Estimating chronic and transient poverty

Two approaches have been used in the literature to decompose poverty at one time into a long-run chronic component and a short-run transient component. The *components* approach, developed by Jalan and Ravallion (1998), calculates the permanent component of household income (or consumption expenditure) by taking the intertemporal average. The chronically poor are then identified as those for whom this component falls below the poverty line. The *spells* approach, accounts more explicitly for the time spent in poverty by counting the number of poverty spells experienced over a given number of periods and defining a duration cut-off above which households are classified as chronically poor (Bane and Ellwood 1986, Calvo and Dercon 2009, Foster 2009).

Seventy-eight percent of South Africans were in poverty at least once during the 2008–2014/15 period. Thirty-nine percent of the South African population, 21.7 million people, were poor in all periods of the analysis. Another 39 percent fell into poverty at least once during the 2008–2014/15 period (Figure 53). Figure 54 shows that the chronically poor tend to be dependent more on government social grants and less on labor market incomes.

Figure 53: Poverty duration, 2008–2015

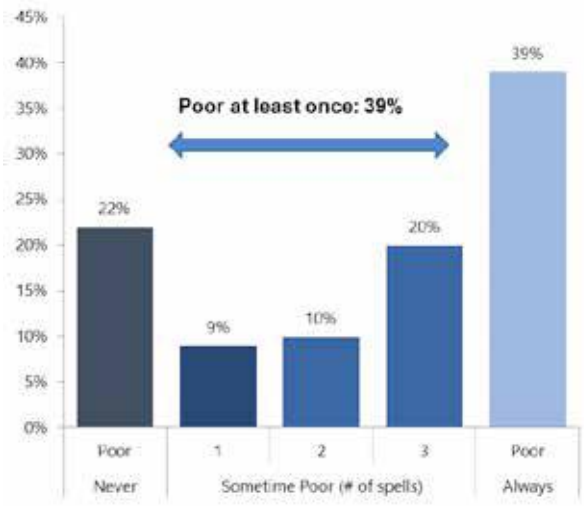
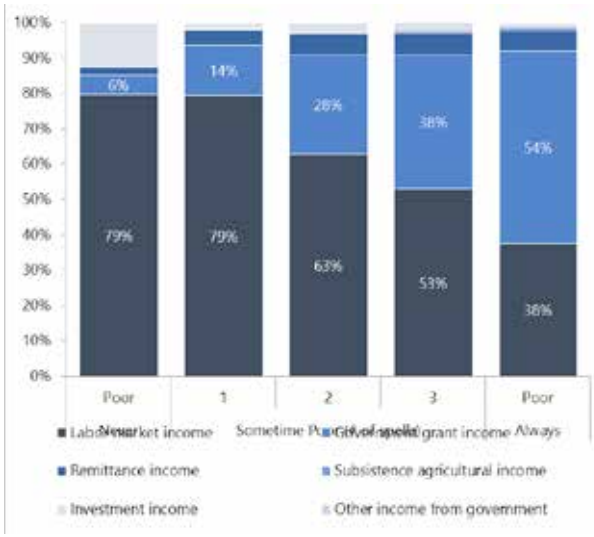


Figure 54: Income source by duration in poverty



Source: Authors' calculations based on NIDS data, 2008-2014/5.
Notes: Calculations based on the UBPL.

ii. The scope of social classes in South Africa

The concept of a middle class has been broadly discussed in socioeconomic literature and policy debates in South Africa and abroad. Empirical evidence suggests that countries with a larger share and faster growth in the middle class are associated with better reforms and governance. As people gain middle-class status, they tend to accumulate savings and acquire secondary and tertiary education investments in the future. Members of the middle class are likely to support accountable government and the rule of law. This group acquires higher levels of education, consumes high-quality goods and services, and fosters economic stability. Faster growth and poverty reduction is associated with the appearance and growth of the middle class.

This section defines and analyzes the middle class in South Africa based on the four waves of the NIDS survey. A conceptual framework is described in the background note[12]. The framework proposes a multilayered class model that differentiates five social classes: the chronic poor, characterized by high poverty persistence; the transient poor, who have above-average chances of escaping poverty; the non-poor but vulnerable, whose basic needs are currently being met but who face above-average risks of slipping into poverty; the middle class, who are in a better position to maintain a non-poor standard of living even in the event of negative shocks; and the elite, whose living standards situate them far above the average.

Only one in four South Africans can be considered stably middle class or elite, whereas the other three are either poor or face an elevated risk of falling into poverty (Figure 55). The size of the middle class is thus considerably smaller, and growth has been more sluggish than suggested by other studies (Box 6). Moreover, about 14 percent of the population is in the vulnerable group. That is, a substantial share of the non-poor still faced a considerable risk of falling into poverty. Among the poor, about 80 percent could be considered chronically poor (accounting for half of the South African population), whereas the remaining 20 percent of the poor (accounting for 13 percent of the population) could be classified as transient poor. At 20 percent of the population, the share of the middle class in South Africa is relatively small. For example, close to 80 percent of the population of Mauritius could be classified as middle class.

12 Schotte S, Zizzamia, R. and Leibbrandt M. (2017). Assessing the Extent and Nature of Chronic Poverty, Poverty Dynamics, and Vulnerability to Poverty in South Africa, forthcoming.

Box 6: Defining the scope of middle class in South Africa

In face of the ambitious hopes placed on the middle class as torchbearers of both democracy and long-term economic growth, it is little wonder that upbeat stories about a rapidly expanding new middle class in Africa (AfDB 2011) have been excitedly embraced by the business community, policymakers, and the media (Giesbert and Schotte 2016). The *conceptual contribution* consists of proposing a class schema with particular relevance for the emerging and developing country context marked by high economic insecurity. The method is based on López-Calva and Ortiz-Juarez 2014. Following Cappellari and Jenkins (2002, 2004, 2008), the analysis uses a multivariate regression model that explicitly allows for possible feedback effects from past poverty experiences and accounts for potential endogeneity of initial conditions, unobserved heterogeneity, and non-random panel attrition—four factors insufficiently addressed in existing studies when estimating poverty risks. Details of the methodology are presented in the background paper to this report.

Households were classified as being poor versus non-poor using the UBPL set at R992 (in January 2015 prices) per person per month, equivalent to about US$5.5 a day (in 2011 PPP). The multivariate model of poverty transitions is fitted to four waves of panel data from the NIDS covering the period 2008–2014/15.

Figure 55: Class sizes, 2008–2014/15

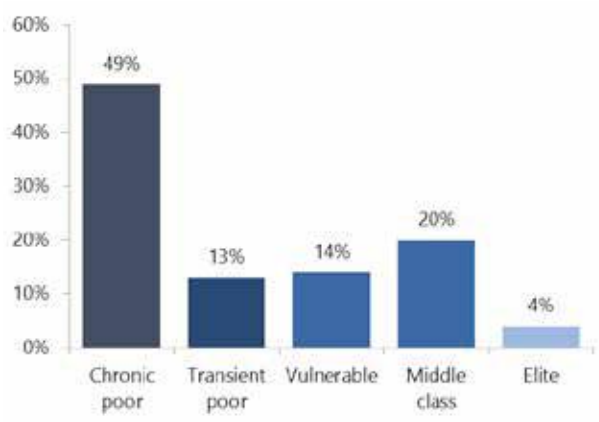
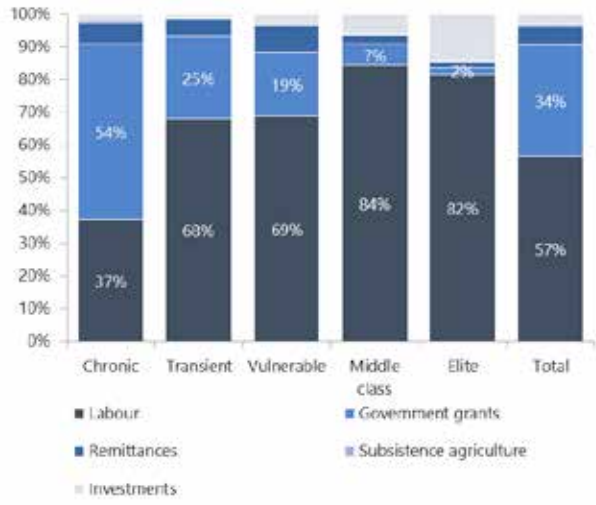


Figure 56: Income by sources, classes



Source: Authors' calculations using NIDS waves 1–4 pooled sample (post-stratified weights corrected for panel attrition).

iii. The profile of social classes and factors associated with escaping chronic poverty

This section profiles the five social classes and identifies factors associated with the probability of escaping chronic poverty.[13]

The relative importance of social grants in the lives of the poor remains significant. Specifically, the chronic poor derive more than half of their income from government social grants (Figure 56). By comparison, social grants make up one-fourth of the income of the transient poor and one-fifth of the income of the vulnerable. In comparison, 7 percent of total household income of the middle class is derived from grants. Those who remain stably out of poverty rely heavily on labor income.

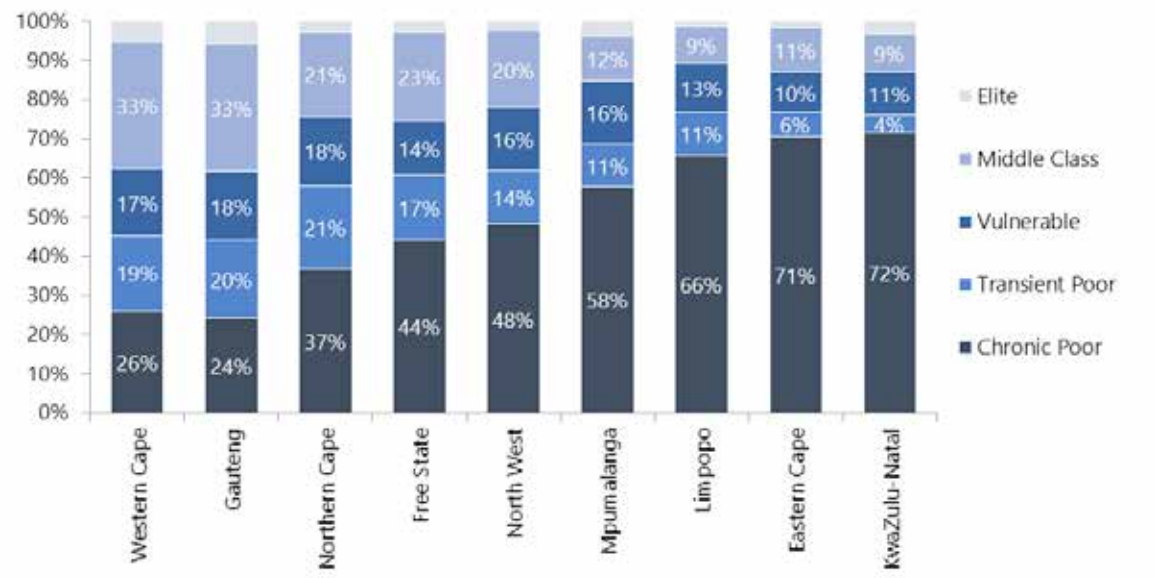
The chronic poor are deprived in multiple dimensions. Unsurprisingly, those who are poor in multiple periods are also relatively more deprived in their access to basic goods and services. Only 21 percent of the chronic poor had access to electricity, flowing water, a flushable toilet, and

13 The factors associated with escaping chronic poverty are assessed using panel regression. The dependent variable of the regression is the probability that the household will get out of chronic poverty and not fall back into poverty afterwards. The explanatory variables included demographic characteristics, location, labor, education and skills, and changes in these variables.

formal housing, while close to 77 percent of the never poor had access to all of those assets.

Social classes have a strong geographical split in South Africa (Figure 57). Nine in 10 of South Africans who did not experience poverty between 2008 and 2014/15 were urban dwellers as compared to four out of 10 among the chronic poor. Of the transient poor, 17 percent resided in traditional areas. Similarly, about 27 percent of the vulnerable lived in traditional areas, compared to 5 percent of the middle class. KwaZulu-Natal has the highest incidence of chronic poverty and the second smallest middle class (after Limpopo). At the same time, KwaZulu-Natal has the fourth largest elite (after Gauteng, the Western Cape, and Mpumalanga), indicating a substantial degree of local social inequality. Chronic poverty is lowest in the Western Cape and in Gauteng—which also have the strongest middle class and elite. While vulnerability is substantial in all provinces, including those with low levels of chronic poverty, a negative relationship between the extent of chronic and transient poverty across the provinces is observed.

Figure 57: Geographic distribution of South Africa's five social classes, 2008–2014/15

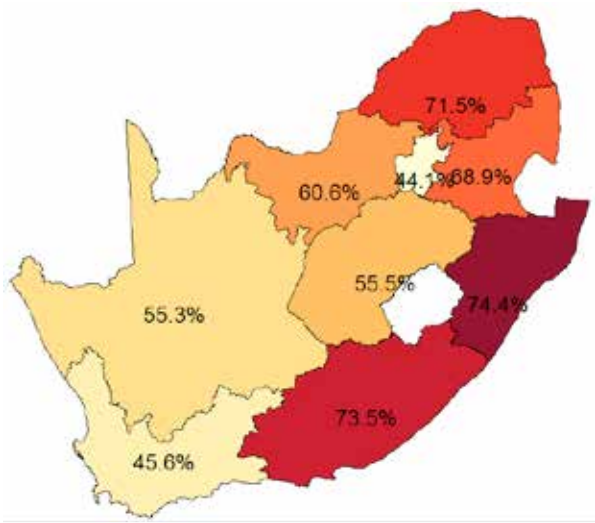


Source: Authors' calculations using NIDS waves 1–4 pooled sample (post-stratified weights).

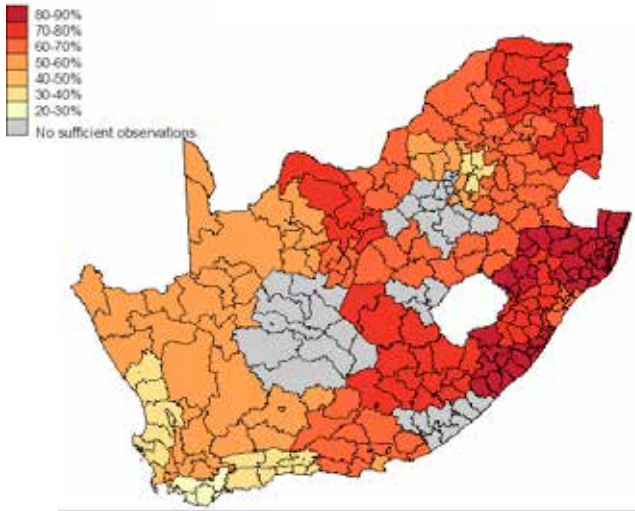
The provinces with the highest average propensity to poverty are KwaZulu-Natal, Eastern Cape, and Limpopo (Figure 58, panel a). These provinces contain most of the former Bantustans. This is clearer in Figure 58 (panel b), where the darkest areas of the map correspond closely to the geographic location of former homelands. It is apparent that the apartheid legacy is still most strongly felt in these severely underdeveloped traditional areas, which remain poorly integrated into the South African economy.

Figure 58: Pockets of high propensity to poverty in South Africa, 2014/15

a. Probability of remaining poor or falling into poverty, at the province level



b. Probability of remaining poor or falling into poverty, at the district level

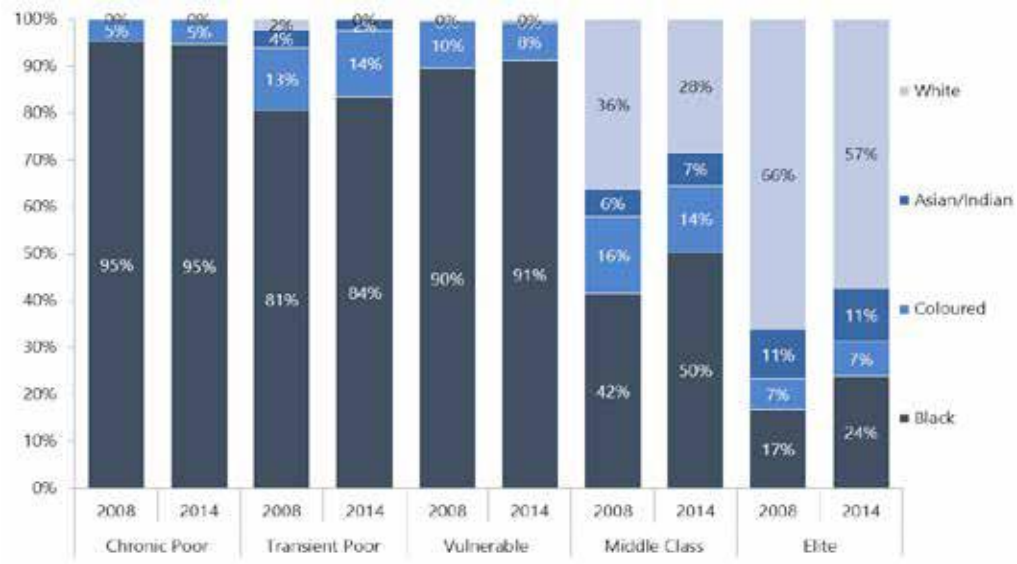


Source: Authors' calculations using NIDS waves 1–4 pooled sample (post-stratified weights).
Notes: In panel b, only districts with at least 400 respondents in NIDS wave 4 were kept.

At 42 years of age on average, household heads in the vulnerable class tend to be younger than those in the other classes, which may be associated with a less stable position in the labor market. At 50 years of age, household heads tend to be the oldest among those living in chronic poverty. This may link to formation of larger, intergenerational households, where adult children or grandchildren co-reside with (grand)parents receiving old age pensions (see Klasen and Woolard, 2009). Furthermore, seven out of 10 chronically poor individuals live in households with a female head, compared to five to six out of 10 among the transient poor and vulnerable classes, and three out of 10 among the middle class and elite. This reflects the higher incidence of poverty and vulnerability to poverty among single mothers in South Africa.

Race is a strong predictor of poverty, and the chronically poor group is almost exclusively made up of black and colored South Africans. These two groups also constitute most of the transient poor and the vulnerable. However, colored South Africans seem to be more heavily concentrated among the transient poor (though this lower chance to be persistently poor was not statistically significant in the regression results) and the stable middle class, facing lower risks of downward mobility. Although black South Africans also constitute the largest proportion of the middle class—with a growing trend in recent years as illustrated in Figure 59—their share among the two top groups remains far from demographic retrospectivity. That is, while black South Africans make up about 80 percent of the total population, in 2014/15 they made up just above 50 percent of the middle class. On the other hand, while whites constitute a mere 10 percent of the South African population, almost one in three members of the middle class and two in three members of the elite are white.

Figure 59: Racial composition of South Africa's five social classes, 2008 and 2014/15



Source: Authors' calculations using NIDS waves 1–4 pooled sample (post-stratified weights).

There is a strong relationship between the educational attainment of household heads and the incidence and persistence of poverty (similar patterns are observed at individual education levels). Given that higher levels of education tend to be accompanied by a lower risk of poverty, heads of chronically poor households are the least educated, with no more than five years of primary education, while the transient poor and the vulnerable tend to have some secondary education. A household head in the middle class generally has completed secondary schooling, while those in the elite tend to have some tertiary education. Of those who did not experience a single poverty spell between 2008 and 2014/15, 93 percent lived in households with a head who attained at least secondary schooling. Of those, two-thirds had either completed secondary education or even attained or completed tertiary education. Particularly, having attained some tertiary education appears to be correlated with lower consumption volatility and poverty risks.

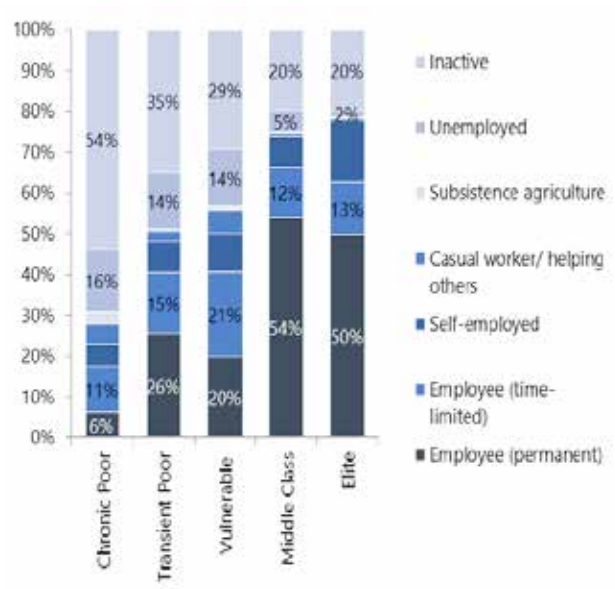
The classes clearly differ in their access to the labor market: the more disadvantaged the class of a household, the more likely the household head is unemployed or economically inactive. Only 31 percent of household heads among the chronically poor are employed, with the remainder being economically inactive or unemployed. Among the transient poor and the vulnerable, about 50 percent are employed. This figure rises substantially for the middle class and elite. About 80 percent of the household heads in these two classes are economically active and the employment rate is above 75 percent. Overall, employment of any household member raises significantly the probability that the household will escape extreme poverty, and getting a skilled job further significantly increases the probability. Those who have remained out of poverty live in households with heads who are more likely to actively participate in the labor market, and of those who participate, a substantially larger share are employed.

The employed can be categorized into five types of economic activity: subsistence agriculture (accounting for a marginal share of total employment in South Africa), casual work, self-employment, employees with temporary or time-limited work contract, and employees with a permanent work contract. Precarious forms of work, including casual employment and employment without a permanent contract, constitute the largest share of all jobs among the poor and the vulnerable, whereas among the middle class and elite, 80 percent of all household heads who work as employees have a permanent contract (Figure 60a). In line with the

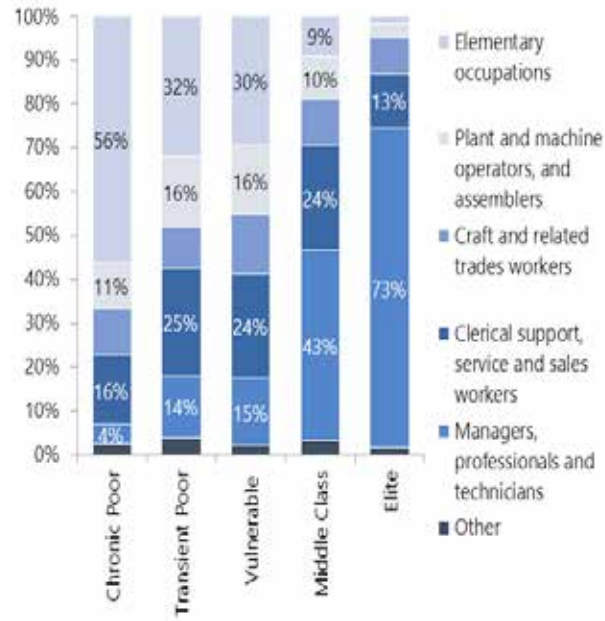
observed education patterns, among those who engage as employees, household heads of chronically poor households are most likely to be employed in elementary occupations. Similarly, for household heads belonging to transient poor and vulnerable households, elementary occupations also dominate, followed in significance by service and sales occupations. Among the middle and elite classes, a very high proportion of household heads are employed in highly skilled occupations, such as managers, professionals, or technicians (Figure 60b).

Figure 60: South Africa's five social classes in the labor market, 2008–2014/15

a. Economic activity of the household head



b. Occupation of the household head (employees)



Source: Authors' calculations using NIDS waves 1–4 pooled sample (post-stratified weights).
Notes: Figures represent employment status and occupational category limited to heads of households.

Female-headed households, large families, children, and people in rural areas are especially vulnerable to being in poverty for a long time. Larger households face a higher risk of experiencing a poverty spell which tend to be more persistent. Specifically, the chronically poor live in households that, on average, have seven members, which is more than twice the size in comparison to those who were never poor. Chronic poverty particularly affects children, with every second child below age 15 growing up in persistent poverty.

SUMMARY

Consumption poverty rates declined in South Africa between 2006 and 2015, but the trend has reversed in recent years. The share of South Africans living below the food poverty line also declined about the same amount as measured by either the lower bound poverty line or upper bound poverty line. In absolute terms, around 2.3 million South Africans escaped poverty at the LBPL and 1.2 million at the UBPL. Between 2011 and 2015, however, at least 2.5 million more South Africans slipped into poverty. Poverty rates not only rose between 2011 and 2015, the level of poverty also became deeper and more unequal.

The level of multidimensional poverty has declined since the end of apartheid, but it has stagnated in recent years. Further, the results highlight continuing gaps with respect to expanding access to basic services in an inclusive manner and reducing multidimensional poverty. The poor tend to be affected by these gaps more than the rich, with access increasing with income levels. Inequality is high when it comes to access to safe water and improved

sanitation. Food insecurity, stunting, and child malnutrition remain a challenge and some indicators have deteriorated since 2012. Reducing multidimensional poverty will involve leveling the playing field in the access of children to quality education, irrespective of location, gender, or race. Paying special attention to water, sanitation, and health care needs of rural areas and townships, and overcrowding in townships would also be important. Policy design needs to recognize that children of certain circumstances are vulnerable to deprivations in multiple dimensions simultaneously. The presence of multiple deprivations points to the need for policy solutions.

Poverty is persistent and the economy is highly polarized. Almost half of the population is chronically poor at the UBPL. That is, for a relatively large share of the population, poverty is a permanent state. The causes of chronic poverty are linked to low levels of education, low labor force participation, demographic factors, and low skills. One in four South Africans can be considered stably middle class or elite, whereas the rest are either poor or have an elevated risk of falling into poverty. At 20 percent, the size of the middle class is thus considerably smaller, and its growth has been more sluggish than suggested by other studies. The racial composition of the middle class has changed over time: however, black South Africans are still underrepresented in the middle class relative to their share in the overall population.

A higher level of education of the household head and access to stable labor market income are key determinants for households to achieving economic stability. This implies that access to quality higher and tertiary education, better labor market access, and improvement of both the quantity and quality of employment opportunities would be important to spurring the growth of the middle class. The demographic characteristics of households, such as family size, structure, and race play an important role in the determination of the socioeconomic status of the family and its level of poverty. Black South Africans consistently have the highest poverty rates, but the prevalence is falling.

Poverty has a clear spatial dimension and spatial patterns of poverty suggest progress toward dismantling the spatial legacy of apartheid has been slow. Rural areas remain the regions of highest poverty concentration. The results reveal a notable divide in poverty levels between two sets of provinces: Free State, Gauteng, and Western Cape versus Eastern Cape, KwaZulu-Natal, and Limpopo. This divide is a clear legacy of apartheid: compared to Eastern Cape, KwaZulu-Natal, and Limpopo; the Free State, Gauteng, and Western Cape did not have high concentration of "homelands" during apartheid. Homelands were areas set aside for black South Africans along ethnic lines during apartheid. Public service delivery and infrastructure was poor in these areas.

CHAPTER 3

SOUTH AFRICA IS ONE OF THE MOST UNEQUAL COUNTRIES IN THE WORLD

With a consumption expenditure Gini coefficient of 0.63 in 2015, South Africa is the most unequal country in the world and incomes are highly polarized. The country is characterized by high wealth inequality and low intergenerational mobility which arise from high income inequality and inequality of opportunity for children. This also helps explain the missing middle and polarization in the labor market. These inequalities appear to be passed down from generation to generation, implying little change in inequality over time and perhaps even a worsening of the already bad situation. Not only does South Africa lag its peers on level of inequality and poverty, it lags on the inclusiveness of consumption growth. Also, changes in the inequality had an adverse impact on the reduction of extreme poverty.

This chapter examines inequality of both outcomes and opportunities. It aims to identify factors relevant to explaining each type of inequality, as well as how they have changed over time. The Income and Expenditure Surveys (IESs) from 2005/06 and 2010/11, Living Condition Surveys (LCSs) from 2008/09 and 2015/16, and the National Income Dynamics Studies (NIDS) from 2008 to 2014/15 are used. Wealth and dimensions of wage inequality, as well as the level of polarization, are examined. Also analyzed is inequality of opportunity.

A. CONSUMPTION INEQUALITY IS VERY HIGH AND HAS INCREASED SINCE THE END OF APARTHEID

South Africa inherited very high inequality from the time of apartheid, and it increased since.[14] Analysis of the distribution of consumption expenditure per capita in the recent Living Conditions Survey 2014/15 found that the country had a Gini coefficient of 0.63 in 2015, one of the highest in the world and an increase since 1994.[15]

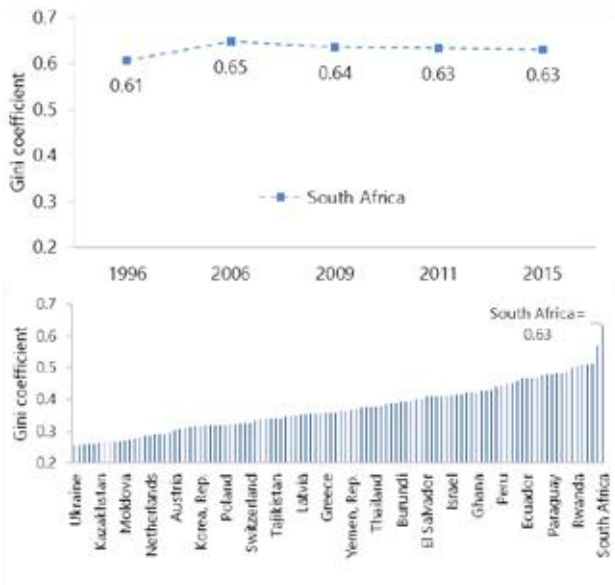
South Africa is economically highly polarized country. Figure 62 shows an international comparison of countries' Duclos-Esteban-Ray Polarization Indexes[16]. South Africa has the highest value of the index. This level of polarization has not changed over time: the value stays at or close to 0.37 across a 10-year span.

14 It is important to note the differences in the Gini coefficients presented in this report and those presented in Statistics South Africa (2017). While both estimates are based on the same data, Stats SA uses different welfare aggregates for poverty and inequality estimates. The per capita welfare measure used for poverty measurement includes all food items while for non-food items, large-sized, or "lumpy, durable goods" are excluded to reduce their biasing factor in the monthly estimates. For inequality measurement, total consumption expenditure (including components that are excluded in the welfare aggregate used for poverty measurement), in per capita terms, is used. This report uses the same per capita welfare aggregate for both poverty and inequality measurement, and it is the one that excludes some components of consumption. This allows for comparison across countries, as most countries tend to use the same per capita welfare aggregate for poverty and inequality estimates.

15 WDI is used as the source for the countries, using the latest available year after 2011.

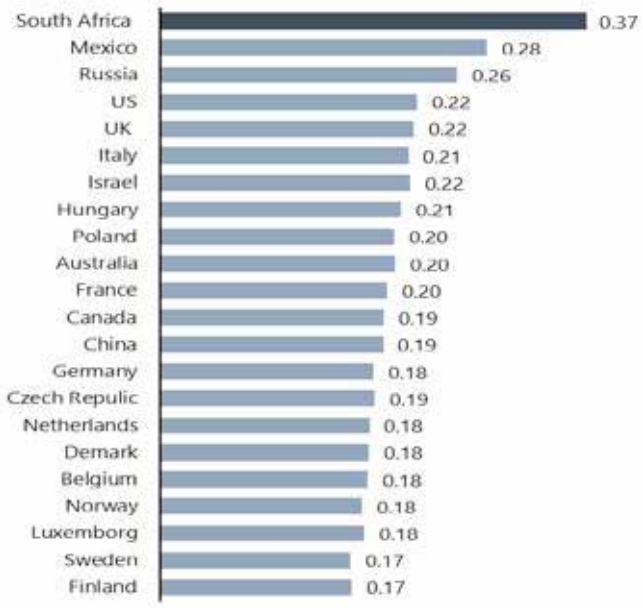
16 Duclos-Esteban-Ray index (Duclos et al 2004) measures the extent to which groups of individuals within a country feel alienated from each other, yet this alienation takes place alongside a strong within-group identity.

Figure 61: Long-term trends in inequality, comparison to other countries



Source: South Africa: authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15 and WDI for 1996. WDI for the rest of the countries and regional estimates.

Figure 62: Polarization indexes across countries



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and the Living Conditions Surveys for 2014/15.
Note: Methodology based on Duclos et al. (2004).

Consumption trends indicate growth in the median to upper-median percentiles, decline at the top, and stagnation at the bottom. Figure 63 shows the growth incidence curve for consumption expenditures between 2006 and 2015. The trend here corroborates the evidence that the very poor—those in the bottom 10 percent—grew less that the rest of the population over time. Consumption growth between 2006 and 2011 was concentrated in median to upper-median percentiles. Between 2011 and 2015, the ratios did not change much, indicating stagnation. Figure 64 shows consumption shares over time, by groups defined in terms of their place in the overall distribution. The 40th to 75th percentile gains the most (5 percent) while the top 10 percentiles lose the most (6 percent) between 2006 and 2015. The bottom 40 percent experienced no change in their share of consumption.

Figure 63: Growth incidence of consumption expenditures by percentile, 2006 to 2015

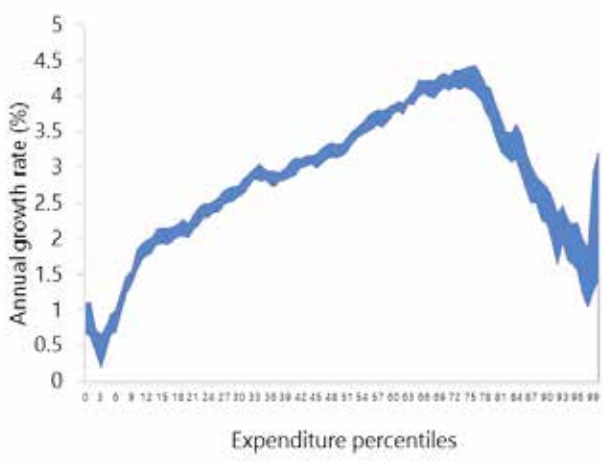
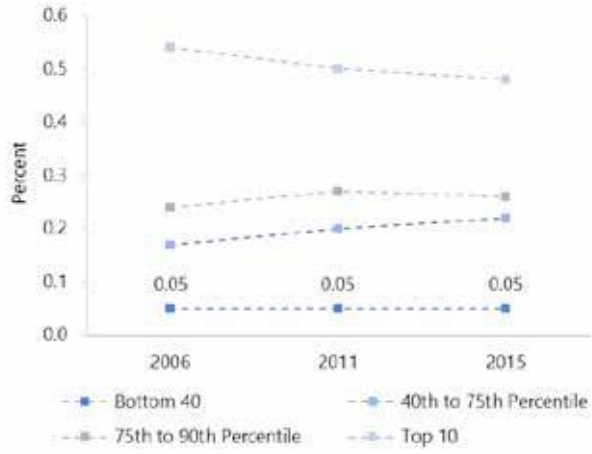


Figure 64: Consumption shares over time



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and 2010/11 and the Living Conditions Surveys for 2014/15.

Employment income accounts for a larger share of income for median and upper-median percentiles, while the poor rely on grants. The increased reliance on employment incomes appears to raise income shares for the median and upper-median percentiles, while the bottom 40 percent rely more on grants. Figure 65 shows these trends, indicating changes between 2006 and 2015 in the composition of income by deciles. Particularly for those in the 40th to 75th percentile, work-based income increases significantly as a proportion of total income. Meanwhile, the poor increased their dependence on grants: the bottom 40 percent experienced a 4 percent rise in the proportion of grants and other income sources to total income. Figure 66 shows the top decile had an 8 percent decline in its share of total income, and the median to upper-median percentiles, particularly those between the 40th and 75th, had an increase.

Figure 65: Changes in income shares by source

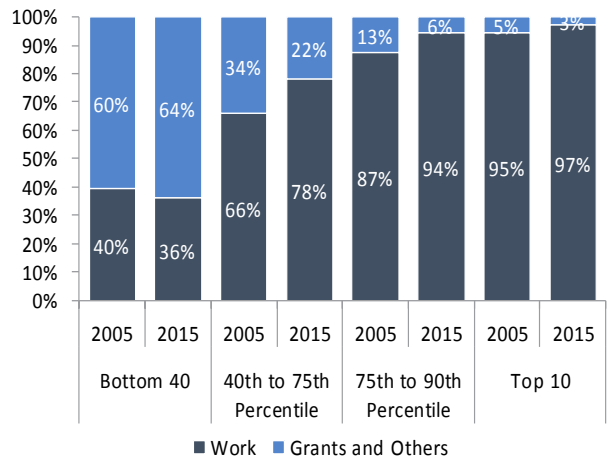
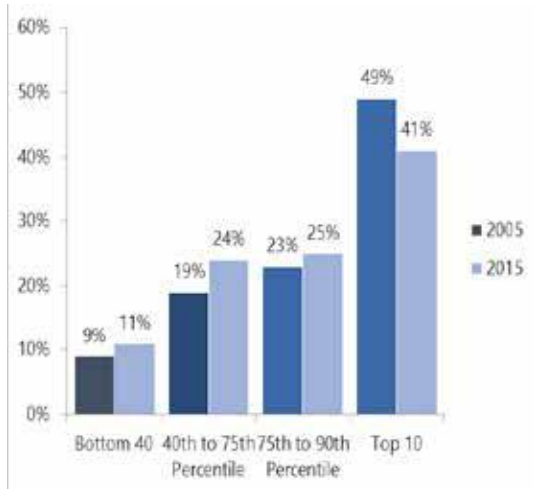


Figure 66: Income shares over time



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and the Living Conditions Surveys for 2014/15.

B. HIGH LEVEL OF INEQUALITY OF OPPORTUNITY

i. Extent of inequality of opportunity

Access to quality basic services, such as education, health care, and essential infrastructure, provides a better understanding of the nature and causes of inequality of outcomes.

From a cross-country perspective, the inequality of opportunity (and its ratio to overall inequality) is the highest in South Africa. Figure 67 shows selected estimates of the inequality of opportunity index and its ratio to overall inequality for South Africa, upper middle-income, and Sub-Saharan African countries.[17]

17 The Ferriera-Gignoux (2011) method for estimating the inequality of opportunity uses gender, age, race, father's education and occupation, and the district council at birth as the predictor variables.

Figure 67: Inequality of opportunity, cross-country estimates

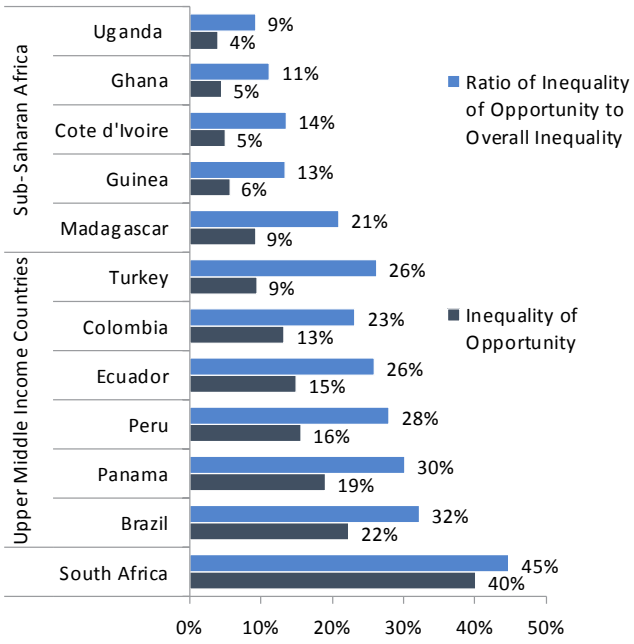
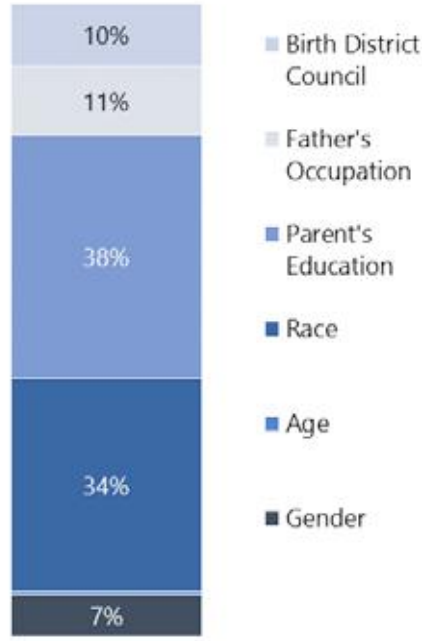


Figure 68: Decomposition of the inequality of opportunity into constituent factors



Source: Brunori et al. (2013); for South Africa, estimates from NIDS 2008–2014/15.

Race, parent's education, and father's occupation are major determinants for individuals' opportunities, and the latter two factors affect labor market outcomes for children. Father's occupation plays a large role, highlighting the importance of intergenerational labor networks; meanwhile, the level of a child's education can be strongly influenced by that of its parents. Figure 68 shows that the contribution of race is less than that of parent's education. The father's occupation makes the next biggest contribution at 11 percent.[18]

18 This analysis is also carried out at the household level, using characteristics of the household head. Households are divided into four racial categories—black, colored, Asian/Indian, and white. Parents' education consists of mother's and father's highest level of education, each of which has five possible values—no schooling, primary, secondary, matriculation, and tertiary. Father's occupation has 10 possible values—legislators/senior officials/managers, professionals, technicians/associate professionals, clerks, service/shop/market sales workers, skilled agricultural/fishery workers, craft/related trades workers, plant and machinery operators/assemblers, military, and elementary occupations.

ii. Human Opportunity Index in South Africa

The main principle of equality of opportunity for children is that predetermined circumstances such as gender, ethnicity, place of birth, or family origins should not play a role in determining the ability of a person to archive socioeconomic success. This way, a child born in a poor, rural, black family should have the same chance to get quality education and be successful as a child of a white family from Sandton in the Gauteng province, one of the richest areas in South Africa. Opportunities among children are measured in this section by the Human Opportunity Index (HOI), which is the coverage rate of a basic service adjusted by how equitably the service is distributed among groups differentiated by circumstances.[19]

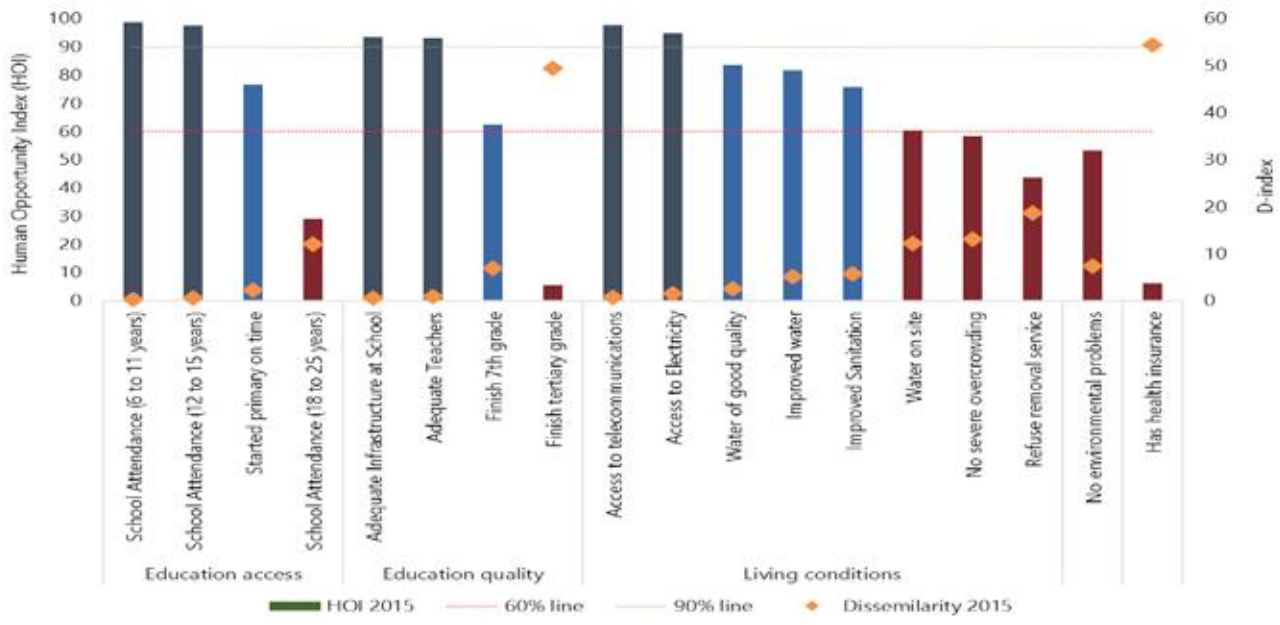
19 This means that two societies with the same coverage rate for a service can have different HOIs if access to that service in one society is determined to a greater extent by gender, race, family background, or other personal circumstance beyond their control and considered by society to be an unjust source of exclusion.

A range of indicators capturing access to education, health, and basic services are analyzed to show how equitable and extensive access to services are in South Africa. The indicators included in the analysis are school attendance (ages 6–11, 12–15, and 18–25), quality of education (ability to finish tertiary grade, starting primary school on time, adequate infrastructure at school, adequate teachers), access to health insurance, access to services (severe overcrowding,[20] access to water on site, improved water and quality, improved sanitation, access to electricity, waste removal service, access to telecommunications, and environmental issues).

Opportunities among children in South Africa vary widely across different types of services. HOI indexes and the D-index measuring the level of inequality for each service or good are presented in Figure 69. Some opportunities, such as school attendance by children under the age of 16, school instructors, adequate teachers, access to telecommunications, and access to electricity are nearly universal, with an HOI above 90 percent. Intermediary HOI between 60 and 90 is associated with the quality of education such as starting primary school on time, completing seventh grade, and improved water and sanitation. However, well below universal (an HOI of 60 percent or below) are access to health insurance, environment issues, housing conditions without overcrowding, and access to tertiary education and school attendance among youth. The latter are distributed with high inequality among children of different circumstances.

20 Severe overcrowding is defined as habitation by more than three people per room.

Figure 69: Human Opportunity Index and D-index of inequality of opportunity, 2015

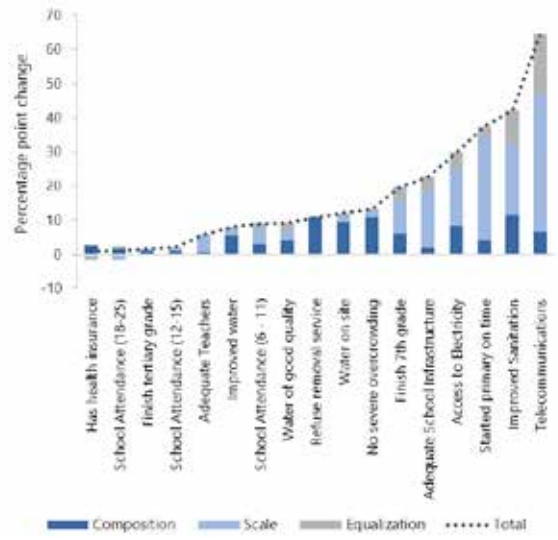


Source: Authors' calculation from LCS 2014/15 and GHS survey. HOI (0–100)—higher is better. D-index (dissimilarity)—penalty for inequality of distribution—higher index is higher inequality.

Despite rapid improvement in access to services in the 2000s, progress slowed in recent years. In comparison to middle-income countries, South Africa fares well on school attendance, access to electricity, and telecommunications, but ranks below most comparators on the HOI for completing primary school on time and access to safe water on site, improved sanitation, and access to tertiary education. Our analysis suggests general improvements in HOI over 2006–2015, but the gaps with other countries are generally not closing. Except for electricity, telecommunications, and access to sanitation, where South Africa's average annual progress has been exceptional, progress on the other dimensions was less impressive. The bulk of the change in most of the HOI indicators occurred between 2002 and 2010, while the improvement between 2011 and 2015 was positive, but less prominent. Especially slow progress is observed in tertiary education and youth school attendance, where HOI remains low due to high inequality of opportunity.

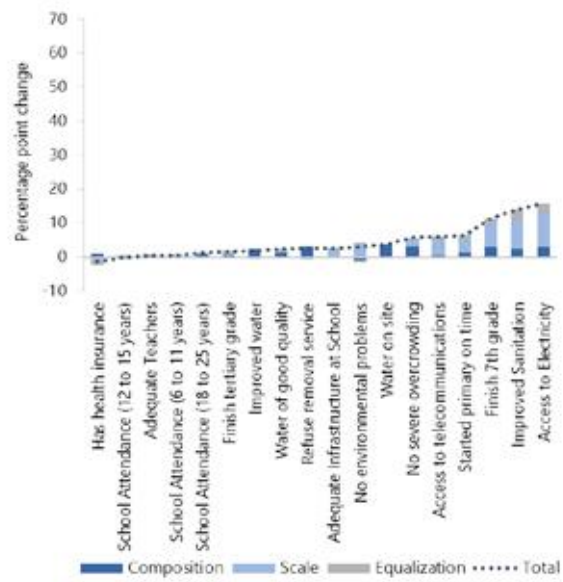
Inequality of opportunity among children in South Africa is shaped by various circumstances. Figure 71 shows the contribution of various circumstances to the D-index measuring inequality of opportunity. Whether a child lives in a township or rural area as opposed to an urban area, and education of the household head contributes the most to inequality of opportunity in most cases. Location is particularly important for opportunities related to infrastructure (access to electricity, telecommunications, water); and education of the household head contributes the most to inequality in finishing primary school on time and having health insurance, underscoring the role of the family's socioeconomic background on the future of its children.

Figure 70: Change in the HOI and decomposition of changes, 2002–15



Source: Authors' calculation from LCS 2014/15 and GHS surveys.

Figure 71: Contribution circumstances to D-index, 2015



Source: Authors' calculation from LCS 2014/15 and other surveys. Selected with high inequality (D-index greater than 10).

The overall picture of inequality of opportunity is ambiguous. On the positive side, South Africa improved most of the HOI indexes over 2006–2015, achieving near-universal access to primary education, a necessary first step for equalizing opportunities among children and an important success for the education system to build on. The rapid rise in access to telecommunications and electricity, both of which more than tripled to reach more than 90 percent in 2015, together with a big increase in HOI for sanitation and school infrastructure, are improving opportunities for children. Major challenges are the limited and unequal access to quality education and ability to finish primary school on time, and inequality of access to tertiary education. Inequality is high with respect to access

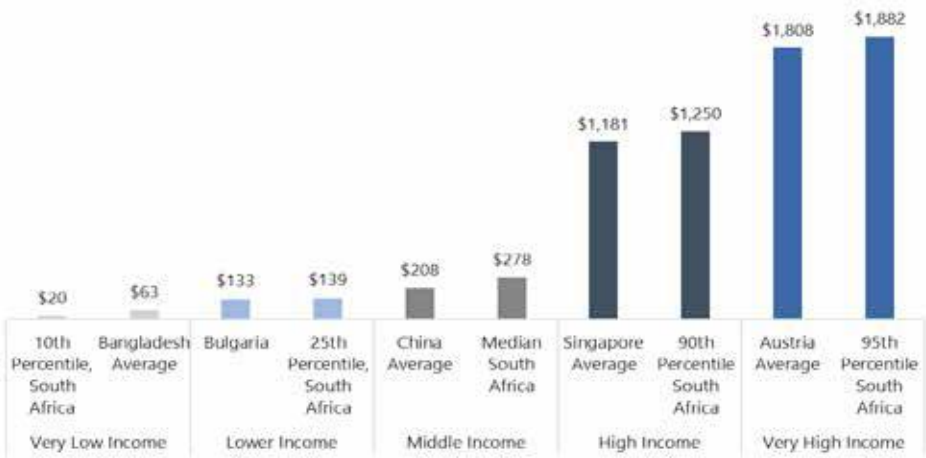
to safe water on site and improved sanitation and general lack of physical safety—all of which affect the conditions for children and youth to develop their human potential. Early childhood education has substantial long-term impacts that affect adult earnings. Access to safe water and improved sanitation are particularly critical inputs for child health, a determinant of nutrition status.

C. WAGE INEQUALITY IS VERY HIGH AND IS COMPOUNDED BY HEAVY POLARIZATION BETWEEN TWO EXTREMES

i. Trends and causes of wage inequality

South Africa is characterized by extreme wage inequality. While part of the population enjoys wages roughly equivalent to those living in developed economies, the lower-end wages are comparable to those in the poorest countries (Figure 72).

Figure 72: Wage inequality



Source: Data for international wages come from Oostendrop (2013) and is the average wage in US dollars for the latest year data is available. Data for South Africa come from NIDS wave 4, converted into US dollars using the conversion rate of R10.76 per dollar (taken for January 3, 2014, from https://www.bloomberg.com/quote/USDZAR:CUR).

High wage inequality is compounded by heavy polarization between two extremes. The number of workers with high-end jobs is low, while a large fraction of the working population is employed in very low paid jobs. For instance, high-skill jobs earn nearly five times the average wage for low-skill jobs yet constitute less than a fifth of the total working population. A little over 10 percent of the working population is white, but white South Africans make nearly three times the average wage for black Africans, who constitute nearly three-quarters of the entire labor force (Figure 73 and Figure 74).

Figure 73: Average wages by groups

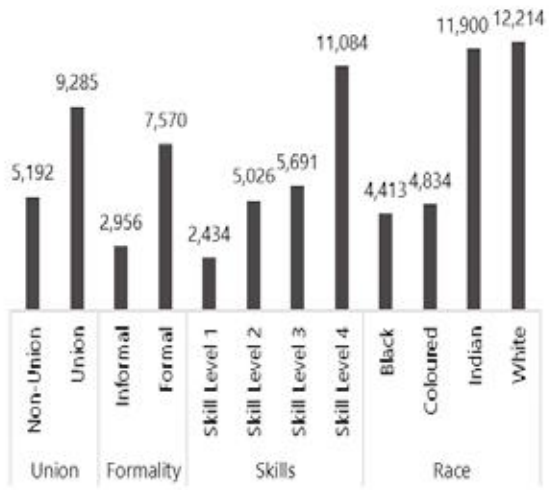
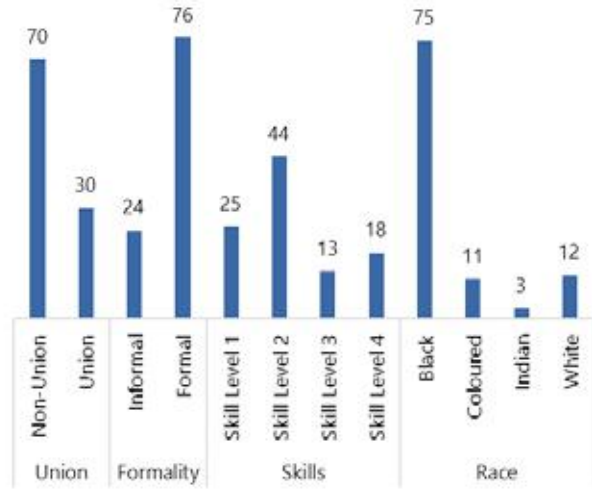


Figure 74: Group share in the sample



Source: NIDS wave 4.

A skills-biased labor demand trajectory in an economy would be suggestive of a widening level of internal labor market inequality. Real growth in wages has been positive for all percentiles of the distribution, including the mean. However, real wage growth rates are heterogeneous by percentile. A closer look at the average annualized percentage change in wages by percentile between 1994 and 2014 (Figure 75) shows that the middle of the income distribution has lost the most in the post-apartheid era. The average annual real wage growth rate of the bottom 29 percentiles ranges between 3.4 percent to about 1.7 percent, after which the growth rate drops to an average of 0.98 percent between the 30th and 69th percentiles. For the 70th percentile and above, the average growth rate per year is 3.6 percent. Thus, while real wages at the bottom of the distribution are growing at an annualized rate of 2 percent per year, and high-end real wages are growing at almost twice the rate of the bottom, workers in the middle of the distribution have experienced real growth rates that barely exceed 1 percent.

Figure 75: Real monthly wage by percentile, average annualized percentage change 1994–2014

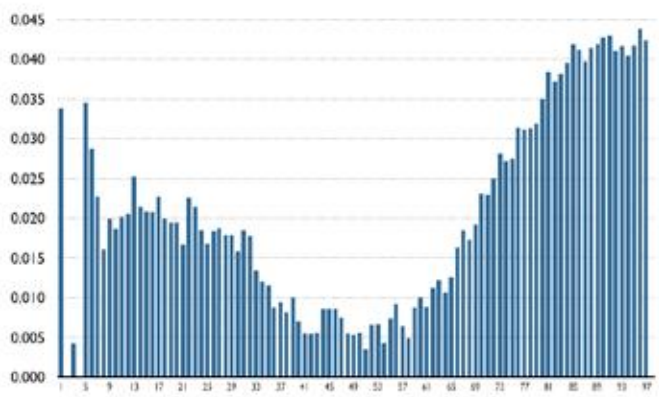
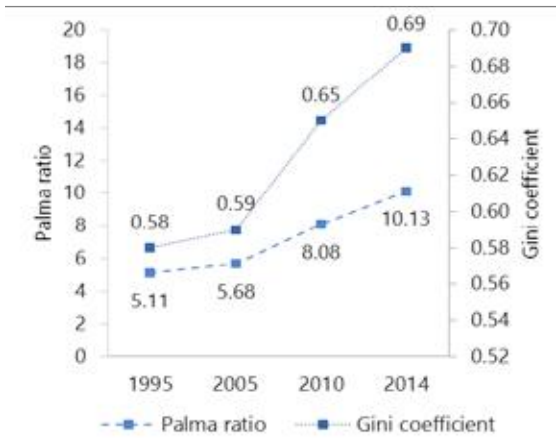


Figure 76: Real wage inequality, 1995–2014



Source: Post-Apartheid Labour Market Series, authors' calculations.

Policy may have a large role to play in explaining the gap in the middle of the wage distribution. Pro-poor policies such as the Basic Conditions of Employment Act, employment tax incentives, and various sectoral minimum wage laws may have protected the employment and increased the wages of more vulnerable workers at the bottom of the distribution. A skills-based growth path has in turn maintained the relatively high demand for skilled workers who, being in short supply, retain a significant premium. Ultimately then, the combination of policies protecting and promoting wages at the bottom of the distribution, lack of a semi-skilled labor-intensive manufacturing sector, and a growth trajectory built on high demand for highly skilled workers—has eroded the earnings of workers in the middle of the distribution.

Other measures of inequality indicate that wage inequality increased significantly between 1995 and 2014. The wage Gini coefficient rose from 0.58 to 0.69 between 1995 and 2014. At the same time, the Palma ratio (the share of the top 10 percent of earners' wages to the share of the bottom 40 percent) has almost doubled, from 5.11 to 10.13.[21] Decomposing the Gini coefficients by sector shows the extent to which larger scale wage inequality is driven by the interaction between intra-sectoral skills mismatches and sector of occupation. While real wage inequality has increased in every sector since 1995, the size of the increase differs between sectors based on skills levels.

Lower skilled labor absorption influences the distribution of wage inequality. The finance and community, social, and personal services[22] sectors, whose shares of skilled labor were the highest in 2015, exhibit the largest growth (60 percent and 73 percent, respectively) in their sectoral Gini coefficients between 1995 and 2014. Conversely, the retail and wholesale trade sector, which boosted the highest growth in unskilled labor between 1995 and 2014, exhibits one of the lower growth rates in the wage Gini coefficient of 39 percent.

Wage movements have reinforced a pattern of disadvantaging those in the middle of the distribution. An examination of the real earnings distribution in 1994 and 2014 presents the change in earnings in the post-apartheid era. Employees in the middle of the wage distribution, those typically in semi-skilled jobs, have experienced much lower real wage growth than workers on either side of them in the wage distribution. These findings have been reinforced variously by a sectoral pattern of growth favoring skills-intensive services, policy choices favoring low-wage workers, and technology responses by firms, which may have an adverse impact on the median worker.

D. WEALTH INEQUALITY IS VERY HIGH, EVEN HIGHER THAN INCOME INEQUALITY

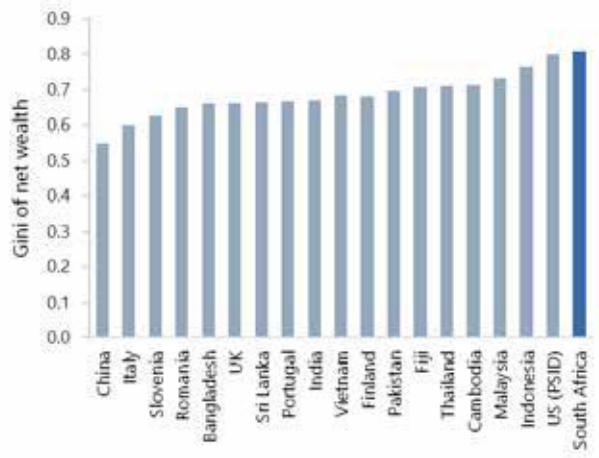
Household net wealth is an indispensable factor in defining the economic well-being of the population. The importance of household wealth analysis for policy followed the publication of Thomas Piketty's *Capital in the 21st Century* (2014). Traditionally, poverty research in South Africa focused nearly exclusively on income poverty. Such research found that income poverty rates are generally high. Increasingly, the focus in South African poverty studies is shifting to exploring relationships between households' wealth and poverty. The data required to compile distributional balance sheets were derived from five nationally representative household financial wellness surveys conducted by the Bureau of Market Research at the University of South Africa during the period 2011–2015.

South Africa is one of the most unequal countries in terms of net wealth distribution (Figure 77 and Figure 78). The share of household wealth held by the top 10 percent in the distribution was 71 percent, while the bottom 60 percent held 7 percent of the net wealth. Similar statistics for OECD countries suggest that, on average, the top 10 percent of the wealthiest households own 50 percent of total wealth, while the bottom 60 percent own only 13 percent.

21 The Gini coefficient and Palma ratio measures vary widely between periods. This could be attributable to the quality of the data collected since earnings surveys have usually low representation of higher income earners.

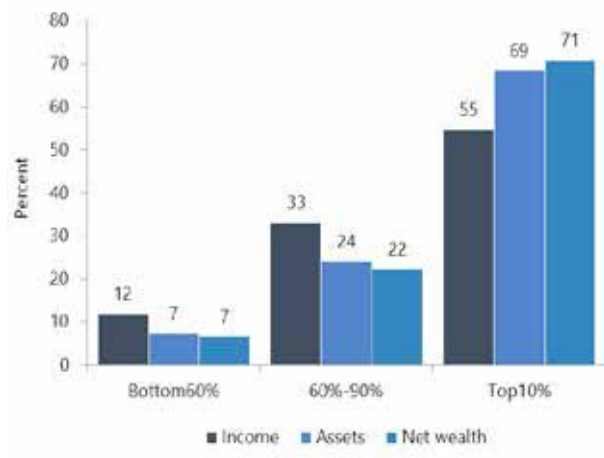
22 CSP services includes government services.

Figure 77: Households wealth inequality, Gini coefficients across countries



Source: Authors' calculations for South Africa, OECD

Figure 78: The share of household wealth held by the percentiles in the distribution



Source: Authors' calculations based on UNISA survey data.

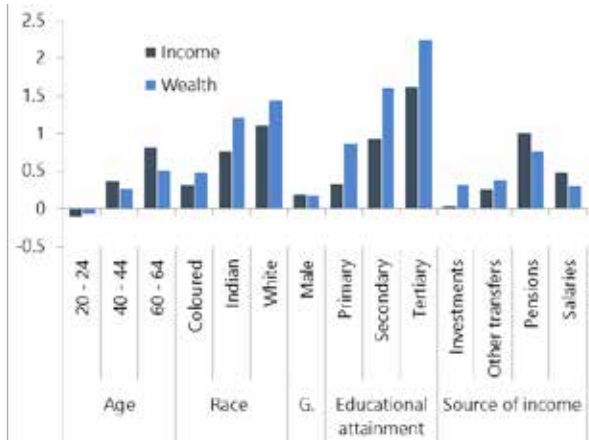
Wealth inequality is much larger than income inequality. The bottom 50 percent of households account for only 8 percent of incomes, 5 percent of asset values, and 4 percent of net wealth. Conversely, the top 10 percent of households account for 55 percent of household incomes, about 69 percent of total household asset values, and 71 percent of household net wealth. Clearly, wealth is much more unequal than income.

Richer households are almost 10 times wealthier than poor households and have much more financial assets and mortgage liabilities. Richer households have, on average, nearly 10 times more wealth than poor households (Figure 79). For the poor, the financial assets represent 36 percent of total assets, while among the rich, financial assets represent 75 percent. Similarly, poor households have a very small share of mortgage in total labilities (about 7 percent), while for the rich this share is close to 58 percent. Ownership of financial assets features prominently among the factors that influence wealth inequality.

Figure 79: Composition of wealth by income group

Source: Authors' calculations for South Africa, OECD

Figure 80: Correlates of households' income and wealth, coefficients from regression analysis



Source: Authors' calculations. Selected coefficients are from regression analysis. Income and log wealth dependent variables. Base age 15–20, blacks, less than primary education, grants as main source of income.

Human capital (education attainment) is strongly correlated with higher wealth as well as higher incomes and earnings. The elasticities for the income and net worth regressions are presented in Figure 80. Tertiary education has the highest elasticity in net wealth determination—on average 220 percent compared to less than primary school. The impact of education on net wealth is even stronger than the impact on income. The second strongest correlate with net wealth is race: white South Africans have much higher elasticity than black South Africans and, as in the case of education, the impact is stronger on net worth. Other factors such as age, employment income, income from investments, and being male contribute to income and wealth generation.

E. LOW INTERGENERATIONAL MOBILITY IS AN OBSTACLE TO INEQUALITY REDUCTION

New data suggest low levels of intergenerational mobility, which also relates to high income inequality. The new estimate of intergenerational elasticity is 0.634 – suggesting relatively low level of intergenerational mobility. This is generally close to earlier estimates by Piraino (2015) of 0.67 (Box 7).[23] In Figure 81 (panel a) estimates of intergenerational elasticities are plotted against Gini coefficients for 23 countries including South Africa. Given the estimated error, 95 percent confidence intervals bound the intergenerational elasticity between 0.73 and 0.53, suggesting South Africa has intergenerational mobility comparable to Brazil, Chile, China, and Peru.

23 If the data are restricted to the first three waves of NIDS, the elasticity estimate is 0.68, very similar to Piraino (2015).

Box 7: Intergenerational mobility in South Africa

Intergenerational mobility refers to the link between life outcomes for a given generation versus those of the preceding generation. A mobile society would be one in which this link is very weak or non-existent. Life outcomes is a very general concept and can refer to incomes, educational achievement, or occupation status, among other factors. Economic mobility varies across countries. Family structure, education, labor markets, and public policies all interact to affect the relationship between child and parental outcomes (Corak 2013). In addition, segregation either along racial or income dimensions, can affect mobility. Many of these factors were first identified by Becker and Tomes (1979, 1986).

As discussed in the previous chapters, inequality is stubbornly high in South Africa and has risen more than two decades after the end of apartheid. Why this remains the case is an enduring puzzle. International evidence suggests an inverse relationship between inequality and mobility, a relationship nicknamed the "Great Gatsby Curve" (Krueger 2012). Given its level of inequality, this relationship suggests South Africa would have low mobility. Intergenerational mobility in South Africa is indeed low, with a high intergenerational elasticity, and shows persistence at the top of the distribution. Piraino (2015) estimates South Africa to have an intergenerational elasticity of 0.67 and suggests the existence of a racial component in mobility.[24] Low intergenerational mobility paints a rather pessimistic scenario as it suggests current levels of inequality are likely to persist in the future.

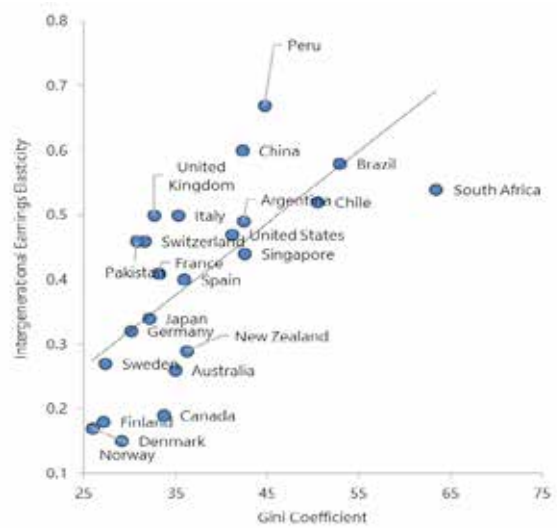
This section presents new evidence on intergenerational mobility and explores the relationship between inequality and mobility based on the new wave of the NIDS data. It also identifies explicit characteristics of intergenerational mobility and analyzes the possible causes of upward mobility.

24 The analysis here focuses on intergenerational income mobility. Other studies analyze intergenerational mobility using different dimensions. Magruder (2012) finds a strong intergenerational link in labor market networks between fathers and sons, which may reduce mobility if networks play a major role in job allocation. Educational mobility appears to be improving but occupational mobility is stagnant (Girdwood and Leibbrandt 2009, Nimubona and Vencatachellumn 2007).

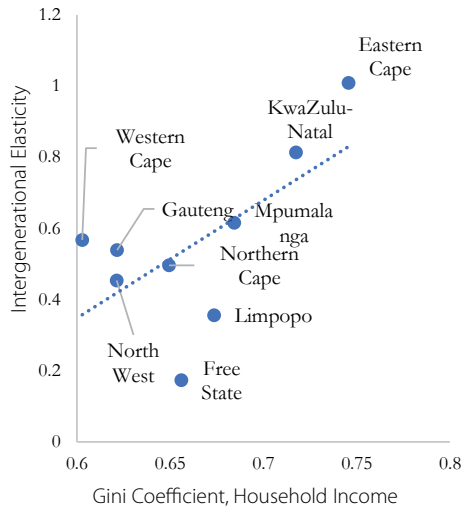
Intergenerational mobility and inequality are negatively correlated. Figure 81 (panel b) shows the relationship between intergenerational elasticity estimates and Gini coefficients within South Africa. Estimated at the province level, an inverse relationship between inequality and mobility is revealed.

Figure 81: The relationship between intergenerational mobility and inequality

Panel a: Cross-country data



Panel b: South African provincial data



Source: Data for earnings elasticities taken from Corak (2016); data for the Gini coefficient taken from the WDI. NIDS survey weights were used to construct the intergenerational elasticity estimate for South Africa.
Note: Higher intergenerational mobility coefficient suggests lower mobility, thus lower coefficients are preferred.

At least a third of all sons born to very poor fathers—those in the first quintile—will occupy the top 40 percent of their income distribution. Sons of rich fathers—those in the fifth quintile—have a 43 percent chance of also being in the top quintile of their income distribution. Table 6 shows the frequency of transferring income quintiles across a generation. Both single and multiple imputation[25] methods give similar results. The probabilities here are constrained to add up to 100 by father quintiles.

25 Full panel data on father and son incomes are lacking so the analysis uses a two sample, two stage instrumental variables procedure (Bjorklund and Jantti 1997), where father incomes are first regressed on a set of characteristics using historical data. The estimated coefficients are then used to predict father incomes for sons captured in the NIDS data. This is the single imputation procedure. In the multiple imputation procedure, coefficients on father characteristics as well as its variance-covariance matrix are estimated. Using these predicted means and variances, multiple imputation then draws multiple simulated means and variances under a specific distributional assumption. These simulations are then averaged out to provide a final estimate of the father's income.

Table 6: Frequencies of transition across income quintiles (multiple imputation estimates)

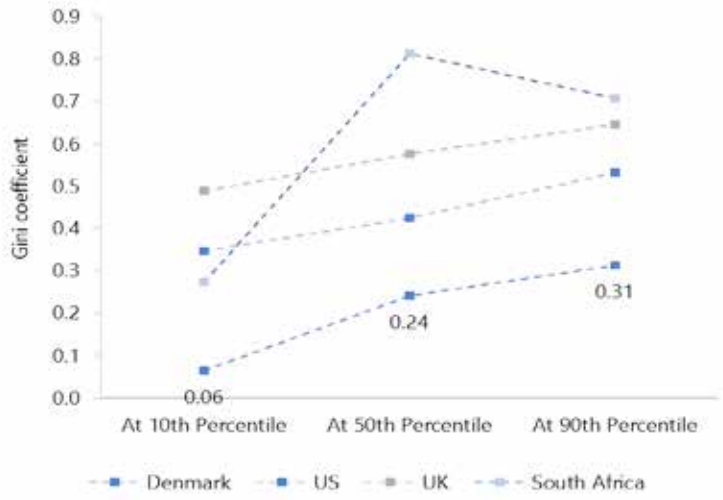
	Son Quintile				
Father Quintile	**1**	**2**	**3**	**4**	**5**
1	22.77	19.43	21.22	20.38	16.19
2	15.98	16.61	21.21	22.52	**23.67**
3	13.19	15.44	20.35	22.25	**28.77**
4	10.86	14.67	16.79	22.70	**34.97**
5	9.88	12.42	14.12	20.88	42.71

Source: Authors' calculations based on NIDS data.
Notes: all rows add up to 100.

Sons of poor fathers are more mobile than sons of rich fathers: elasticities at the 50th and 90th percentile of father's income are more than twice that at the 10th percentile. Figure 82 shows intergenerational elasticities evaluated at the 10th, 50th, and 90th percentile of father's income. For South Africa, the elasticity rises as father income percentiles increase; the estimates at the 50th and 90th percentile are statistically different from the estimates at the 10th percentile.[26] For comparison, from Bratsberg et al. (2007) similar elasticities are reported evaluated for three other countries. At the 10th percentile, South Africa has higher mobility than the United States or United Kingdom, but at higher percentiles mobility falls.

26 The relationship between the incomes of sons and fathers is estimated using a polynomial specification. The order of the polynomial is decided based on overall fit of the regression. Using root mean squared error, the Akaike Information Criterion or an F-test of model fit suggests a third-order polynomial fits best. Bratsberg et al. (2007) uses root mean squared error as the decision criterion. In addition, the plot of the incomes of sons versus fathers does not support moving up a higher order.

Figure 82: Intergenerational elasticities at various percentiles of father's income



Source: Authors' analysis.

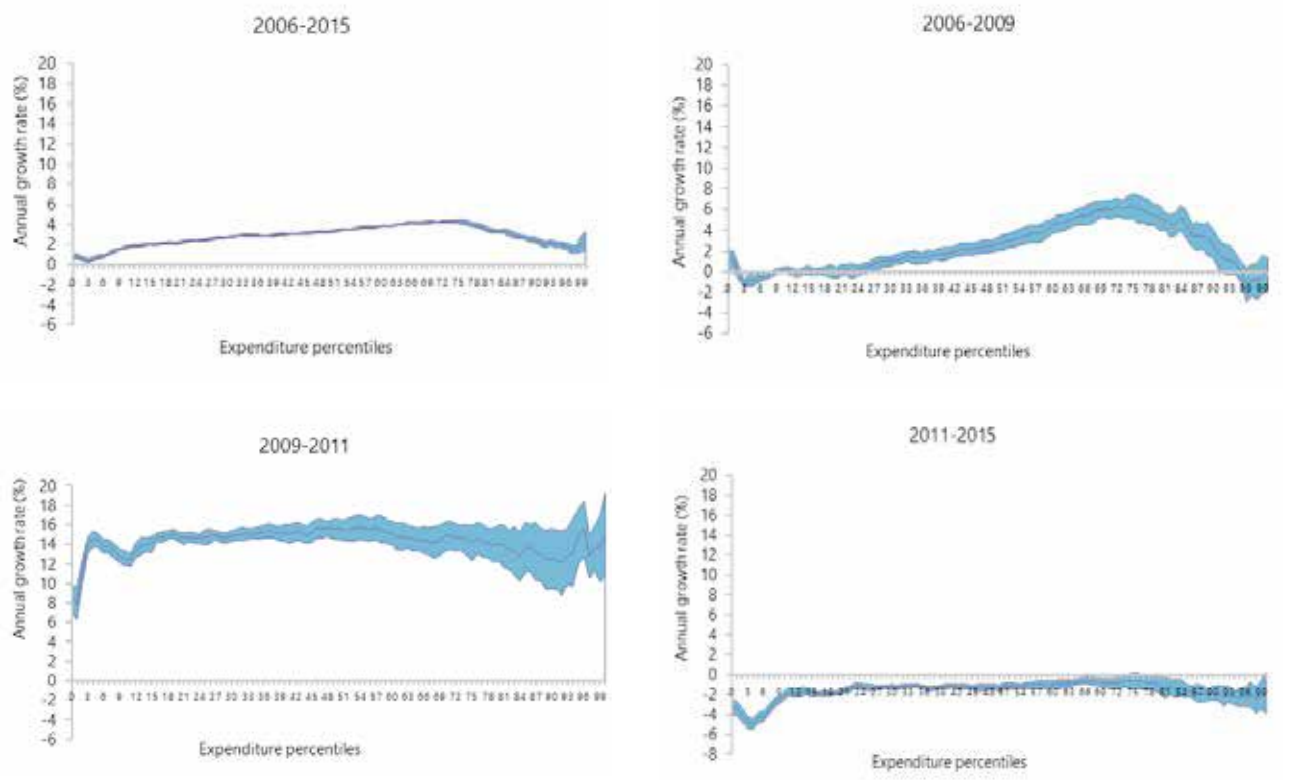
Notes: This figure shows the elasticity between father's and son's income at different points of the distribution of father's income. Data for Denmark, United States, and United Kingdom are taken from Bratsberg et al. (2007); estimates here are taken from regressions that include father's age and age squared as additional explanatory variables. For South Africa, both son's and father's income are age-adjusted, so father's age is not included as a control when evaluating the elasticities; further, the elasticities are calculated at each decile.

F. SOUTH AFRICA LAGS ITS PEERS ON INCLUSIVENESS OF CONSUMPTION GROWTH

i. Incidence of growth

This section examines how consumption expenditure of different groups changed between 2006 and 2015. That is, it describes the distributional effects of consumption growth from 2006 to 2015. This is done using Growth Incidence Curves (GICs) as proposed by Ravallion and Chen (2003). In this case the GICs plot the average growth rate of real consumption between 2006 and 2015. This enables an assessment of the role of growth and redistribution in bringing about changes in poverty in South Africa between 2006 and 2015 as well as between any two periods under analysis. Specifically, the use of GICs sheds light on whether the expenditure of the poor may increase more or less than that of the country overall when national income or expenditure increases. This is important given the prevailing high inequality in South Africa.

Figure 83: Growth incidence curves, national



Source: Authors' calculations based on the IESs for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

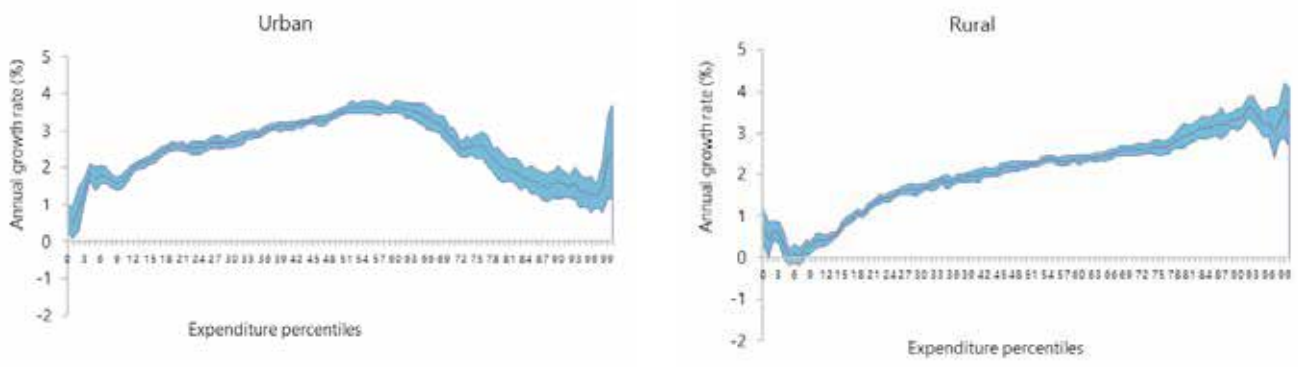
At the national level, growth in consumption expenditure between 2006 and 2015 was pro-poor in absolute terms, but deteriorated in relative terms. All segments of the population along the consumption expenditure spectrum experienced growth in consumption between 2006 and 2015 (Figure 83). Pro-poor growth can be considered "absolute" if the change in consumption expenditure levels of the poor over a given period is non-zero, that is, the consumption expenditure levels of the poor have increased in absolute terms. A "relative" perspective to pro-poor growth says growth is relatively pro-poor if the change in the expenditure levels of the poor is larger than the change in the expenditure levels of the non-poor.

The shape of GIC curves changes sharply between any two periods under analysis. Essentially, the trends were reversed from one period to the next. The GIC for 2006 to

2009 indicates negative growth in consumption for the poorest 2 to 25 percent of the population as well as the top 5 percent. This could be reflecting the negative impacts of the 2008/09 financial crisis, which led the country into a recession, with the economy shrinking by 2.9 percent in 2009. The financial crisis likely affected the richest segment of the population the most given their integration into the financial sector. The poorest of the population are likely to have been affected by the 2007/08 global food prices. The absolute pro-poor pattern shown in 2009–2011 is consistent with the recovery in GDP following the recession in 2009. A growth in per capita GDP of 1.8 percent was recorded between 2009 and 2011. Economic growth prospects have been weaker since then, and this is reflected by negative consumption growth across-the-board between 2011 and 2015.

The pattern of distribution of consumption expenditure growth varies geographically. Considering the urban-rural delineation, between 2006 and 2015 those in the middle of the consumption expenditure distribution in urban areas benefited more, in relative terms, from growth and redistribution of consumption compared to the poor and those at the upper end of the expenditure distribution (Figure 84). The bottom 15 percent and the top 10 percent of the population registered negative growth between 2006 and 2009. Weak economic growth prospects between 2011 and 2015 are shown to have negatively affected the rich more than they affected the poor in urban areas.

Figure 84: Growth incidence curves 2006–2015, urban and rural



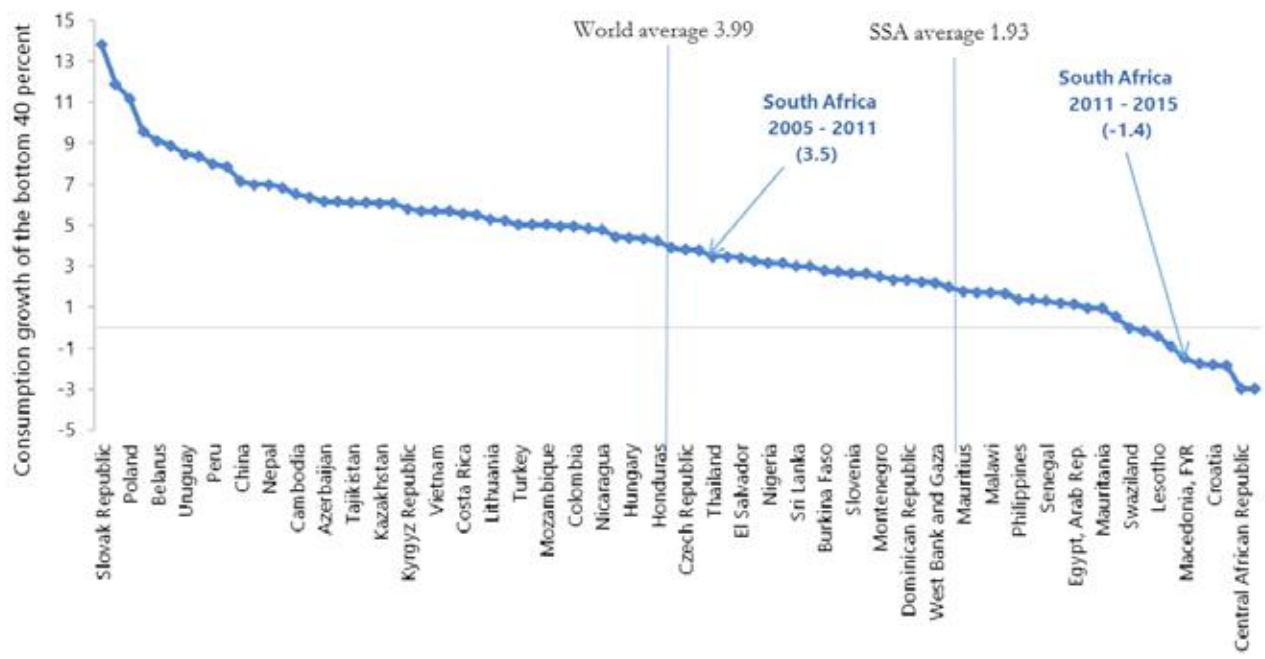
Source: Authors' calculations based on the IESs for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

In rural areas, on the other, hand, the rich benefited more from consumption expenditure growth between 2006 and 2015 than the poor and those in the middle (Figure 84). The overall picture in rural areas is that expenditure rose slower for those in the lower part of the expenditure distribution than for those who were better off. The relatively positive slope of the growth incidence curve in rural areas shows that, as a percentage of their initial consumption level, the rural rich have seen a higher percentage increase in their consumption between 2006 and 2015.

Not only does South Africa lag its peers on international poverty rates, the country is a highly unequal and lags its peers on the inclusiveness of consumption growth. Inclusiveness of growth in this case is examined by considering the rate at which the consumption of the bottom 40 percent of the population grows compared to the growth in the consumption of the total population. Focusing on the bottom 40 percent is consistent with the shared prosperity goal of the World Bank Group. Shared prosperity is an indicator used to measure and track the income or consumption growth among the bottom 40 percent in a country. It is an indicator of economic

growth with equity and inclusion. Growth is said to lack inclusiveness if the income or consumption expenditure growth of the bottom 40 percent is consistently lower than the average income or consumption expenditure growth of the total population. Figure 85 shows that while the bottom 40 percent registered growth in consumption between 2006 and 2011 (3.5 percent), the period between 2011 and 2015 was marked by deceleration of consumption for this group. The consumption of the bottom 40 percent shrank by 1.4 percent. This does not compare well with the median for the world (3.9 percent).

Figure 85: Shared prosperity indicator in selected countries (2007–2014)



Source: Authors' calculations based on WDI http://www.worldbank.org/en/topic/poverty/brief/global-database-of-shared-prosperity

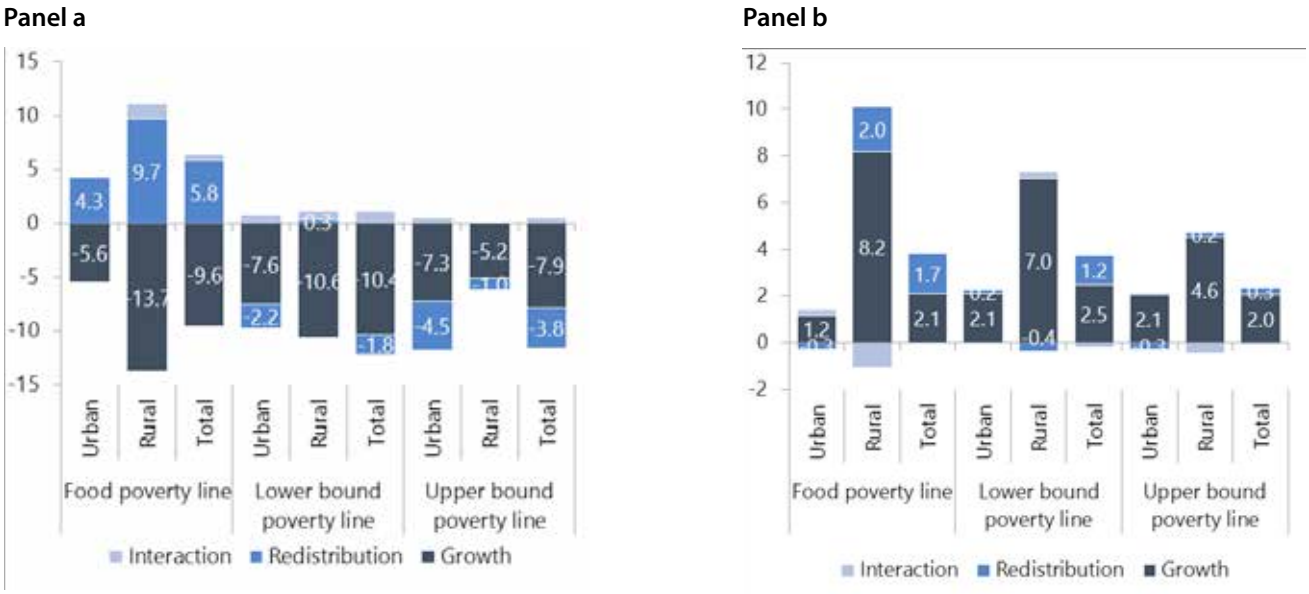
G. INEQUALITY SLOWS DOWN POVERTY REDUCTION

The broad links between economic growth and poverty changes can be attributed to changes in the growth (or lack thereof) in consumption and changes in inequality of consumption. The method used here to decompose changes in poverty into growth and redistribution components was developed by Datt and Ravallion (1992).

Decomposition of changes in incidence of poverty between 2006 and 2015 suggests growth in consumption contributed more to overall poverty reduction while changes in inequality (redistribution component) had a negative impact on the extreme poverty. Figure 86 decomposes poverty reduction into two components: a change in the average per capita consumption expenditure and a change in distribution of consumption expenditure around the average (the redistribution component). At the LBPL, growth contributed 10.4 percentage points compared to 1.8 percentage point contribution from the redistributive component. In urban and rural areas, growth reduced poverty by 7.6 and 10.6 percentage points. Redistribution reduced poverty by 2.2 percentage points in urban areas but increased it by a slight 0.3 percentage points in rural areas. In contrast, the finding at the FPL shows that growth drove poverty reduction while inequality slowed the process. The slowdown in poverty reduction due to redistribution was more pronounced

in rural (9.7 percentage points) than urban areas (4.3 percentage points). The 2011–2015 period was the only period in which redistribution contributed to poverty reduction, specifically easing the increase in poverty while the growth component contributed more and positively to poverty rates.

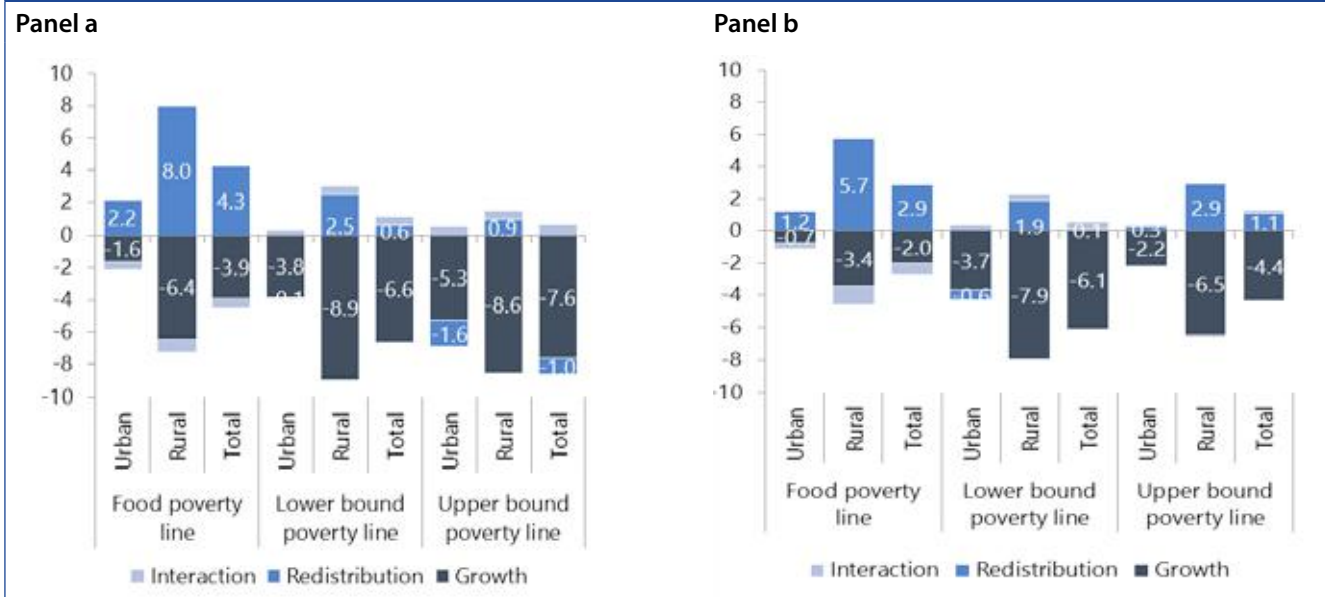
Figure 86: Decomposing changes in the poverty headcount ratio into growth and redistribution



Source: Authors' calculations based on the IESs for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

Use of the poverty gap and the squared poverty gap further confirms the slowing effect of inequality on the welfare of the poor. The poverty gap, measured at the LBPL, indicates a slowdown of reduction of depth of poverty due to redistribution in rural areas as well as at the national level (Figure 87, panel a). This also holds when considering the severity (squared poverty gap) of poverty: inequality dampened poverty reduction both in urban and rural areas as well as at national level. Overall, these measures suggest inequality had a much stronger negative impact on poverty reduction in rural areas.

Figure 87: Decomposing changes in poverty into growth and redistribution, 2006–2015, poverty gap and squared poverty gap



Source: Authors' calculations based on the IESs for 2005/06 and 2010/11 and the Living Conditions Surveys for 2008/09 and 2014/15.

SUMMARY

South Africa is the most unequal country in the world by any measure. With a consumption expenditure Gini coefficient of 0.63 in 2015, South Africa is the most unequal country in the world and incomes are highly polarized. Wealth inequality is even larger than consumption expenditure inequality and the country is also the most unequal based on wealth distribution. A significant determinant of this inequality is inequality of opportunity. Analysis in this chapter confirms earlier estimates by Piraino (2015) that very low intergenerational mobility paints a rather pessimistic scenario, suggesting that current levels of inequality are likely to persist in the future. These inequalities appear to be passed down from generation to generation, implying little change in inequality over time and perhaps even a worsening of the situation. An empirical assessment of key trends and movements in wage levels and wage inequality in the labor market suggests further polarization of wages.

Not only does South Africa lag its peers on level of inequality and poverty, it lags peers on the inclusiveness of consumption growth. The expenditure growth of the bottom 40 percent is consistently lower than the average income or consumption expenditure growth of the total population and below growth in other middle-income countries. Also, changes in inequality had an adverse impact on the extreme poverty reduction.

CHAPTER 4
DRIVERS OF POVERTY AND INEQUALITY IN SOUTH AFRICA

Consumption-based poverty declined considerably between 2006 and 2015. The largest explanatory factor in that decline was increased labor income. Government social grants and pensions were also important and contributed 24 percent to poverty reduction and 44 percent to reducing the poverty gap. Improvement in education endowments, urbanization, demographic changes, and expansion in the provision of services, also contributed to improved household welfare. However, returns to education now are lower than they have been in the past. While race continues to determine poverty and inequality, it has been declining in importance and the skills and labor market is an increasingly important determinant of inequality. South Africa has made progress toward creating an efficient social protection system, but further expansion is likely to be fiscally unsustainable under the current low growth and financially constrained scenario. The challenges of high inequality should be solved by the creation of productive jobs and further improvement in the efficiency of services delivery.

A. WHAT DRIVES CHANGES IN POVERTY IN SOUTH AFRICA?

The findings presented in this chapter are based on three decomposition methods, as described in Box 8.

Box 8: Three methods for decomposing changes in poverty

The non-linear Oaxaca-Blinder (1973) quantifies how much poverty reduction can be accounted for in changes in the characteristics of households ("endowments") compared to the changing relationships between poverty and households' endowments ("returns to endowments"). The second method uses Recentered Influence Functions (RIF, Firpo et al. 2009) in which the traditional Oaxaca-Blinder used in the first method is applied to different quintiles of the consumption distribution. Finally, the microsimulation approach proposed by Azevedo, Inchauste, and Sanfelice (2013) is used to understand the role of different sources of income in changes in the welfare of households.

All decomposition methods rely on defining a counterfactual scenario and estimating what would have happened to poverty had the counterfactual scenario occurred. The Oaxaca-Blinder and the RIF analyses focus on a counterfactual scenario of a constant relationship between endowments and poverty in South Africa between 2006and 2015. This counterfactual scenario is used to determine the changes in endowments that have been important to poverty reduction and the amount of poverty reduction that could have been different due to the changes in returns to endowments. In these two decomposition methods, an interaction effect also exists and can be interpreted as a measure of the correlation between changes in endowments and returns to endowments. This interaction term is relatively small in the analyses.

The third decomposition method introduced by Azevedo, Inchauste, and Sanfelice (2013a) focuses on four factors that could have a potential impact on changes in poverty: (i) a decline in household size could lead to higher levels of consumption per capita; (ii) growth in labor income could imply higher consumption; (iii) growth in non-labor income could also lead to higher consumption; and (iv) changes in the ratio of consumption to income. This approach constructs each counterfactual scenario by keeping one factor constant. Thus, poverty measures for each counterfactual distribution can be interpreted as the poverty that would have been realized in the absence of a change in that factor.

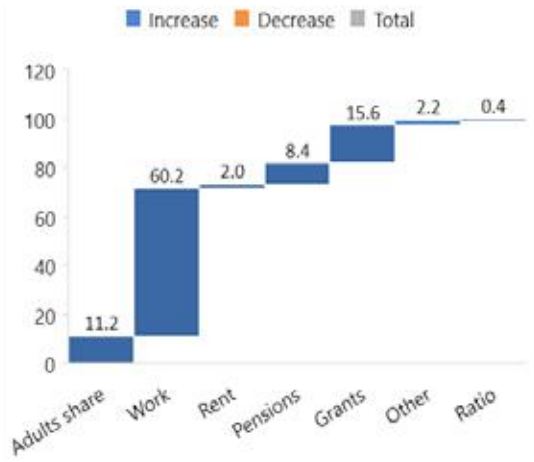
Labor income remained the most important source in reducing the level and depth of poverty over 2006–2015, while income from social grants was the second. Labor income contributed 60.2 percent to the decline in poverty headcount and poverty gap (Figure 88a and b), using the UBPL. The impact of transfers was also significant. Incomes from grants and pensions together contributed to 24.0 percent of the upper bound poverty reduction. The impact of grants was even more pronounced on the upper bound poverty gap. Expansion of grants contributed 36.2 percent of poverty gap reduction and pensions contributed to an additional of 8 percent. Analysis of the lower bound of poverty reduction suggests generally similar pattern with even stronger impact of the grants (Figure 88c and d).

In rural areas, income from grants was by far the largest contributor to reducing the poverty gap. Sixty-nine percent of the decline in rural poverty gap can be explained by income from grants alone. This observation may highlight the success of social assistance programs in targeting poor residents in rural areas, and the impacts of such programs on reducing rural poverty have been encouraging.

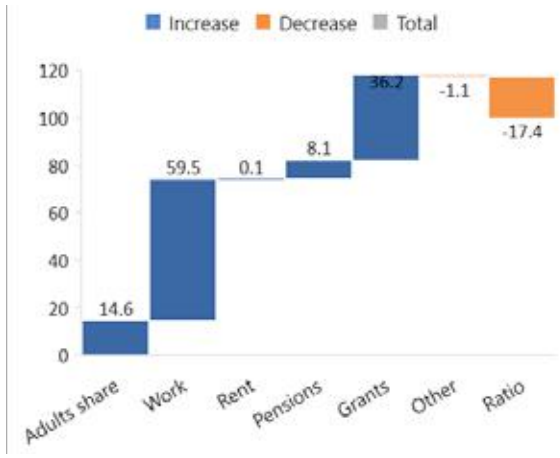
Figure 88: Contribution to poverty reduction by income sources over 2006–2015

Upper bound poverty line

a. Reduction in poverty headcount

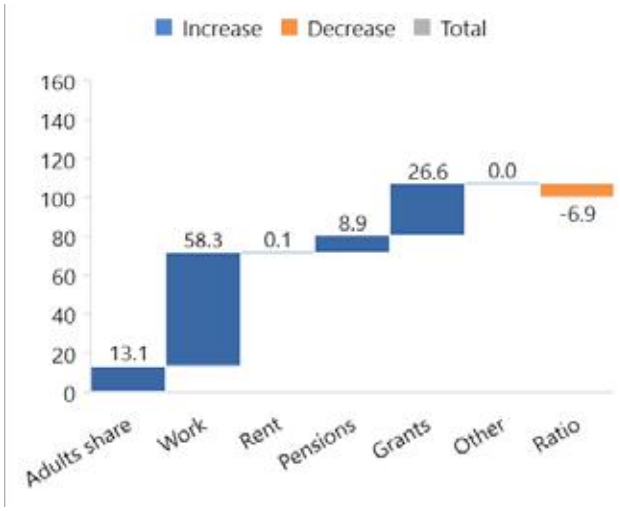


b. Reduction in poverty gap

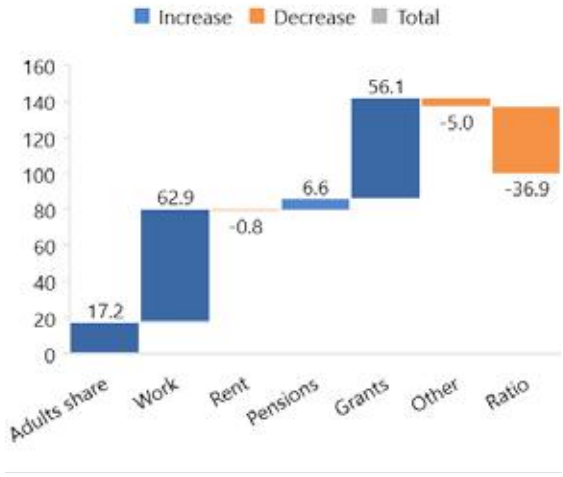


Lower bound poverty line

c. Reduction in poverty headcount



d. Reduction in poverty gap

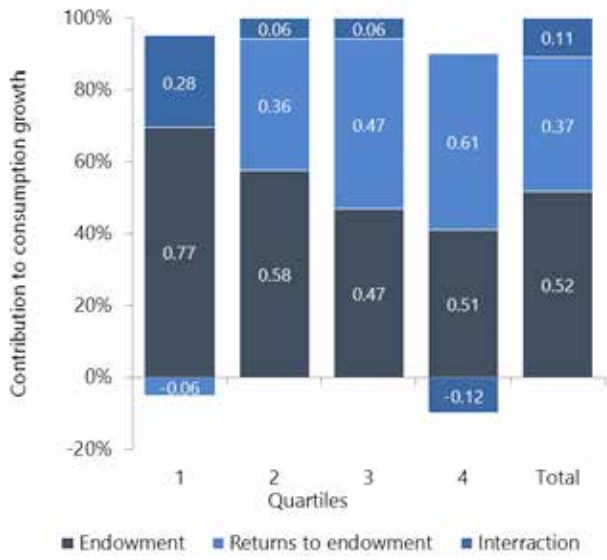


Source: Author's calculations based on the Income and Expenditure Surveys for 2005/06 and the Living Conditions Surveys for 2014/15.
Note: Uses the methodology developed by Azevedo, Inchauste, and Sanfelice (2013). The methodology quantifies the contribution of the share of working-aged population and sources of income to poverty reduction. The ratio between consumption and income is an important component to link a change in poverty status with change in household income. In most African countries, poverty estimates are based on consumption. Meanwhile, changes in household consumption do not always align with changes in income.

To further explore poverty reduction, the changes in consumption have been decomposed using a range of factors associated with the demographics, location, education, work, and access to services for households. Distinction is made between the impact of endowments (composition of the respective characteristics) and returns to endowments (changes in remunerations). The results of the decomposition are presented in Figure 89.

Improvement in endowments accounted for about half of the average consumption growth over 2006–2015, but the results varied substantially by level of income. Changes in endowments represent changes in composition of the population by factors such as education, location, demographics, and labor. Changes in endowments of the poorest households, defined as those in the bottom quartile of the consumption distribution, explain 77 percent of growth in consumption. However, the contribution of endowments was much lower for the richer quintiles—47 percent and 52 percent for a household in the top two quintiles, respectively.

Figure 89: Endowments and Returns. The contribution of demographics, location of residence, education, access to services and labor to consumption growth, in %, LCS 2004/05–2014/15



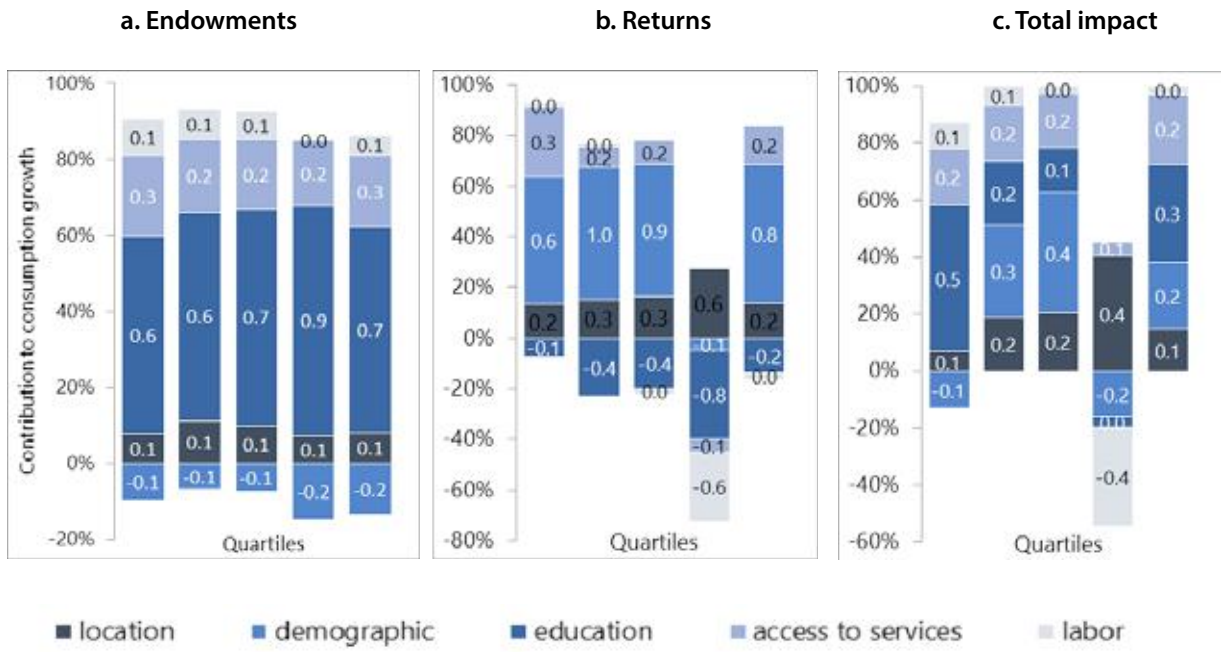
Source: Authors' calculation.
Note: Interaction is the change in the consumption that could not be attributed to either endowments or returns.

Changes in returns to endowments contributed to 37 percent of the average consumption growth but mattered more for the rich. Returns to endowments represent remuneration on the endowments. For example, returns to education is a remuneration from getting higher education. The role of the returns differed significantly across quartiles of the consumption distribution. Changes in returns had almost no impact on the change in welfare of the bottom quartiles, while it constituted 61 percent of the growth of the consumption for the top quintile.

Improvements in education, followed by improvements in access to services and internal migration, accounted for a majority of the welfare improvements between 2006 and 2015. Figure 90 (panel a) presents the decomposition results for the contribution of the changes in endowments of location, education, demographics, labor, and access to services on households' consumption growth (as a share of total endowment effect). Seventy percent of total endowment effects came from improvements in education. Improved access to services and reallocation of population from rural to urban areas each explained 30 percent of the total endowments. Improvements in employment had a small contribution to the total endowment.

Decomposition analysis of returns suggests a negative impact for returns to education but a positive effect for demographic returns. Decomposition of the returns on endowments is shown in Figure 90 (panel b). Changes in returns to education endowments contributed negatively to welfare growth, particularly for wealthier households. Acquiring some secondary education no longer obtained the same increase in consumption in 2015 as it did in 2006. While demographic endowments made relatively little contribution to welfare improvements, the returns on demographics have improved significantly, especially among poorer households. Most of the increase in returns on demographics was driven by changes in the returns to household size. In other words, larger households became better off in terms of consumption in the later period, which is generally associated with the increase in the non-labor sources of income due to the expansion of the social and children grants that benefit larger households. Returns to access to services have a smaller but positive welfare effect for the poorest. Also, returns to location were positive.

Figure 90: Causes of welfare changes, 2006–2015, in percent



Source: Authors' calculations based on the Income and Expenditure Surveys for 2005/06 and the Living Conditions Surveys for 2014/15.
Note: The numbers do not add up to 100 percent because of negative demographic effect (-20 percent).

Combining both the endowment effects and the returns to endowments effects, education was the most prominent contributor to improvement of welfare among the poorest, followed by location and access to services. The combined impact of the endowments and returns to endowments of all the analyzed components is shown in Figure 90c. The overall impact of education on the welfare improvement was significant: 50 percent of consumption growth of the poorest quartile was associated with education. Education was also the main factor explaining improvements in welfare of the total population, accounting for 30 percent of the overall welfare improvements. Access to services, location, and demographics each contributed 20 percent to welfare improvements for the total population. However, for the poorest, the impact of demographic factors was negative. While the foregoing analysis focused on the drivers of poverty between 2006 and 2015, which allows for a long-term perspective on the drivers of poverty in South Africa, of interest could be to understand what factors explain the increase in poverty between 2011 and 2015 as discussed in Chapter two and presented in Statistics South Africa (2017). According to the Stats SA's 2017 poverty trends report, the increase in the poverty levels between 2011 and 2015 is associated with "a combination of international and domestic factors such as low and anemic economic

growth, continuing high unemployment levels, lower commodity prices, higher consumer prices (especially for energy and food), lower investment levels, greater household dependency on credit, and policy uncertainty." (Statistics South Africa 2017, pp 16). Rather than focus on the most recent trends, this study takes a longer-term perspective with the aim of understanding the causes and consequences of polices and sources of poverty reduction. This requires a longer-term perspective and makes it possible to better capture and explore factors and polices affecting inclusive growth and poverty in South Africa.

B. WHAT DRIVES CHANGES IN INEQUALITY AND INTERGENERATIONAL MOBILITY IN SOUTH AFRICA?

i. Drivers of inequality of consumption

Race, household size, education, and location are the biggest contributors to inequality. Of these factors, the influence of race and education appears to have declined over time while the others stay relatively constant. Figure 91 shows that the contribution of race and education both fall by sizable amounts while the other factors stay relatively constant.

Race has become the main factor determining inequality of opportunity.[27] A Fields (2003) decomposition suggests race, education, and the labor market outcomes are dominant factors explaining overall inequality. The influence of race fell over time, while that of education rose. Incorporating more detailed labor market information from NIDS raises the contribution of the labor market (from 6 to 19 percent using NIDS data combined across all waves) and lowers that of education (from 42 to 33 percent). Within education, the categories that contribute most to inequality are at the higher end: finishing high school and getting a college degree.

27 The Theil-L measure of inequality is used to investigate the possible factors behind inequality. The advantage of this measure is that it can be broken into between-group and within-group contributions. Grouping observations by various factors, permits assessment of which factors appear to contribute the most to inequality by dividing the between-group contribution by total inequality.

Figure 91: Factor wise contribution to inequality (Theil-L Measure)

Source: NIDS 2008–2015, authors' calculations.

Race and gender are becoming less important factors by themselves in determining the extent of inequality (Figure 92). The gender of a child contributes appreciably to inequality only in finishing primary school (seventh grade) on time and in youth school attendance. Race contributes to inequality in all opportunities but does not rank among the top two contributors for any indicator. Race and gender correlate to other factors, such as education and socioeconomic characteristics and have impact through these circumstances.

Figure 92: Decomposition of inequality by contributing factors

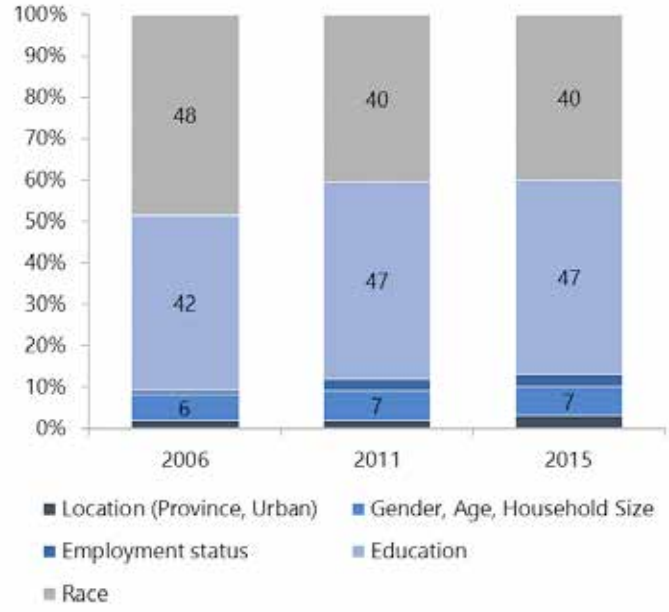
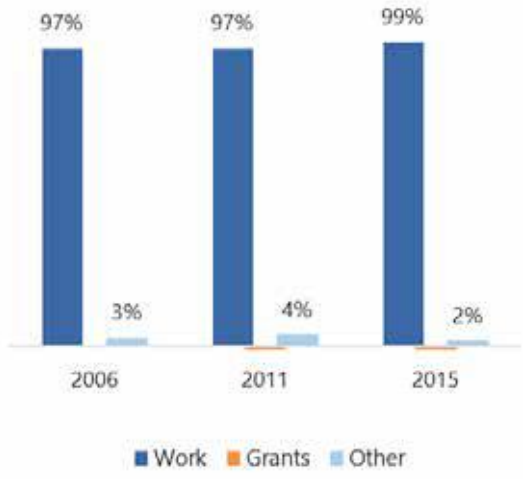


Figure 93: Inequality by income sources



Source: IES/LCS 2005–2015, authors' calculations.

A detailed breakdown of the various factors affecting inequality suggests that education and labor market affiliation are primarily responsible for overall inequality. Within race, white contributes 38 percent. Within education, tertiary education contributes 40 percent. The bulk of inequality from education comes from those completing a college degree, which indicates that education provides a path to a high-paying job. Indeed, from the NIDS labor market data, after race and education, high-skilled jobs contribute the most to inequality (17 percent), not job formality or sector.

Employment income contributes almost entirely to income inequality. Decomposing income inequality by sources provides further evidence of the role of the labor market in driving inequality. Figure 93 shows that the contribution of employment income is steady and at a very high level.[28] The contribution of employment incomes to inequality is much greater than its share in total income.

ii. What drives intergenerational mobility?

The existing literature uses six factors as correlates of mobility: education, labor markets, race, family structure, migration, and location. The analysis here uses these factors and controls for the poverty status of fathers,[29] the level of inequality of the fathers' incomes, and absence of the father. Inequality is measured by the Gini coefficient on fathers' incomes calculated separately for each province. Recall information on fathers' education,

28 This analysis is carried out at the household level. Employment income includes wage and business income in 2006, wage income in 2011, and wage and household business income (farm and non-farm) in 2015. Grants include disability, worker's compensation, and other grants (in 2006); disability, child support, dependency, foster care, grant-in-aid, grants for veterans, and other grants (in 2011); disability, child support, dependency, foster care, grant-in-aid, social relief grants, grants for veterans, and other grants (in 2015). Other includes alimony, pensions, and annuities (in 2006); other income and pensions (in 2011); other income, financial income, and pensions (in 2015). If total income was zero, these observations were deleted in calculating both the source-wise contribution to inequality and the shares.

29 Poverty status of the father is the same as that for the household, but is used as predicted income of the fathers.

occupation, and province lived in 1994 is used to predict father absenteeism.[30] In identifying causes of upward mobility, the factors can be weak or strong. Weak factors are those that correlate with the son being in the top 60 percent, but this takes place irrespective of the father's background. Strong factors both correlate with sons being in the top 60 percent, and they operate only over sons of fathers who were in the bottom 40 percent. Strong factors are the focus of the analysis, as this is a true representation of upward mobility. Education, labor, demographics, location, and neighborhood factors associated with upward and downward mobility are systematically examined. The analysis results are summarized in Table 7.

30 The PSLSD records information on whether fathers are present or absent from the household. A probit model estimates coefficients on father education, occupation, and province, which are then used to predict father absenteeism for sons from the NIDS data.

Table 7: Summary of regression results—upward mobility

	Upward mobility	Downward mobility
Education	+, s	-, w
Labor market (occupation skill level)	+, s	-, s
Race	+, s	-, s
Location (urbanization, province)	0	0
Family structure	0	0
Migration	+, s	0
Neighborhood variables	+, s	-, s

Source. Authors' analysis.
Note: "s" denotes a strong factor; "w" denotes a weak factor.

Education has a positive effect on upward mobility. Education is measured by the highest level of education the son achieves. This can have one of five values—no education, primary education (up to grade 6), secondary education (grade 10 or equivalent), matriculate (grade 12 or equivalent), and tertiary (a college degree or equivalent). Higher levels of education are associated with higher probability that the son will be in the top 60 percent. These effects, however, operate even for sons whose fathers were in the top 60 percent. Completing secondary education is associated with a 17 percent increase, matriculation with a 34 percent increase, and tertiary education with a 40 percent increase in the likelihood of the son being in the top 60 percent.

Increasing educational attainment implies a lower probability of moving downward. Completing secondary education lowers the possibility of being in the bottom 40 percent by 25 percent, matriculating lowers the probability by 30 percent, and completing tertiary education lowers the probability by 34 percent. Completing tertiary education also lowers the likelihood of downward mobility but for sons of all fathers.

Higher-skilled occupations are more likely to result in upward mobility. Compared to the lowest-skilled jobs, having a high-skilled job raises the probability of being in the top 60 percent by 13 percent. For semi-skilled jobs, this effect does not operate for sons of fathers who were in the top 60 percent. Access to formal jobs raises the probability of the son belonging to the top 60 percent by 22 percent. However, the hypothesis that the effect is null for sons of fathers who belong to the top 60 percent cannot be rejected. Access to a formal job results in a 19 percent lower chance of being in the bottom 40 percent. Again, the latter effect operates over sons of fathers who are in the top 60 percent, while it is not possible to reject a null effect for the former.

White South Africans and South Africans of Indian/Asian descent are more likely to rise upward than black South Africans. Being white increases the probability

of being in the top 60 percent by 69 percent relative to being black. Being of Indian/Asian descent increases the probability of being in the top 60 percent by 38 percent. These effects are concentrated among those with a poor father. Colored South Africans are 13 percent less likely to show downward mobility; Indian and white South Africans show a similar result, but the effects are not concentrated on only sons of rich fathers.

Geographical location—being in an urban or rural area, or in any province—is not strongly associated with upward mobility. This is a particularly striking result, but ought to be cautiously interpreted for two reasons. First, the location information refers to present-day status. People may have chosen to move in the past. Second, this information is at a relatively high level of aggregation. If segregation operates at a more disaggregated level, this will not be captured. Areas with higher teenage unemployment rates tend to be less likely to have sons moving upward. That higher teenage unemployment rates, and not adult unemployment rates, negatively affect upward mobility indicates that differences in mobility arise much before sons formally join the labor force. At the mean, one standard deviation increase in cluster teenage unemployment rate reduces the probability of upward mobility by 6.3 percent. Downward mobility is lower for areas with a higher proportion of black South Africans, with a single standard deviation increase corresponding to an 8.2 percent decline in the probability of moving downward. This effect operates solely on those with fathers in the top 60 percent.

Sons who move and sons who live in a province different from their parents are likely to move upward. Changing provinces is defined using recall information on the province lived in in 1994: for this analysis an indicator variable was defined that equals one if the present-day province of residence differs from that reported under the recall question.[31] "Moving" is defined as having lived in another suburb, town, or village. Those living in provinces different from the one they were in 1994 are 13 percent more likely to move upward. Similarly, sons who report having lived in another suburb, town, or village are 13 percent more likely to be in the top 60 percent. This latter effect is estimated with the inclusion of province indicators. Both cross- and within-province movements appear to be relevant in explaining upward mobility. Downward mobility is unaffected by migration. The length of stay at the current residence is correlated with neither upward nor downward mobility.

C. ACHIEVING A MORE EQUITABLE SOCIETY THROUGH EFFICIENT SOCIAL PROTECTION

South Africa has a long history of designing and implementing social protection programs. The first grants were implemented during the early 1900s, although they were, like other aspects of South African life, characterized by race-based differences in eligibility or value (Van der Berg, Siebrits, and Lekezwa 2010). Such differences have now been abolished and the social protection system is an important means of addressing poverty and cushioning vulnerable households from economic shocks.

The social protection system is relatively extensive, given the level of development in South Africa (Box 9). This is a result of the system having initially developed during the twentieth century for the benefit of the white population, and gradually expanding to cover other groups (Van der Berg 1997). Expenditure on public social protection, excluding health care, was estimated at almost 5.1 percent of GDP in 2010, sixth highest in Africa, and comparable to spending in Republic of Korea (5.1 percent), Thailand (5.0 percent), and Mexico (5.0 percent) (ILO 2014).

31 This is the answer to question B12 "In which province were you living in 1994?"

Box 9: Elements of the South African social security framework

South Africa is characterized by well-designed, means-tested social assistance covering children, working age people, and the elderly. The system is a life-course social security framework, typically associated with European social protection systems, that provides different types of assistance at different stages of an individual's life. The key elements of the system are shown in Table 8.

Table 8: Elements of the South African social security framework

Childhood	Working age	Old age
Means-tested child support grants	Work-related injury compensation	Means-tested social pensions
Means-tested care dependency grants	Means-tested disability grants	Means-tested grant for war veterans
Foster care grants	Temporary unemployment benefits	Occupational pensions

Source: Van der Berg, Siebrits, and Lekezwa 2010.

The Unemployment Insurance Fund (UIF), the Compensation Fund, and the Road Accident Fund (RAF) are the three key social insurance programs. The UIF is the largest of the three, typically receiving between 700,000 and 800,000 claims annually.

The Expanded Public Works Programme (EPWP) aims to provide those of working age with income, work experience, and training for the unemployed. Work opportunities are provided in four sectors: infrastructure, non-state, environment, and culture and social. In 2015/16, the EPWP provided 742,000 work opportunities or 285,000 full-time equivalent jobs.

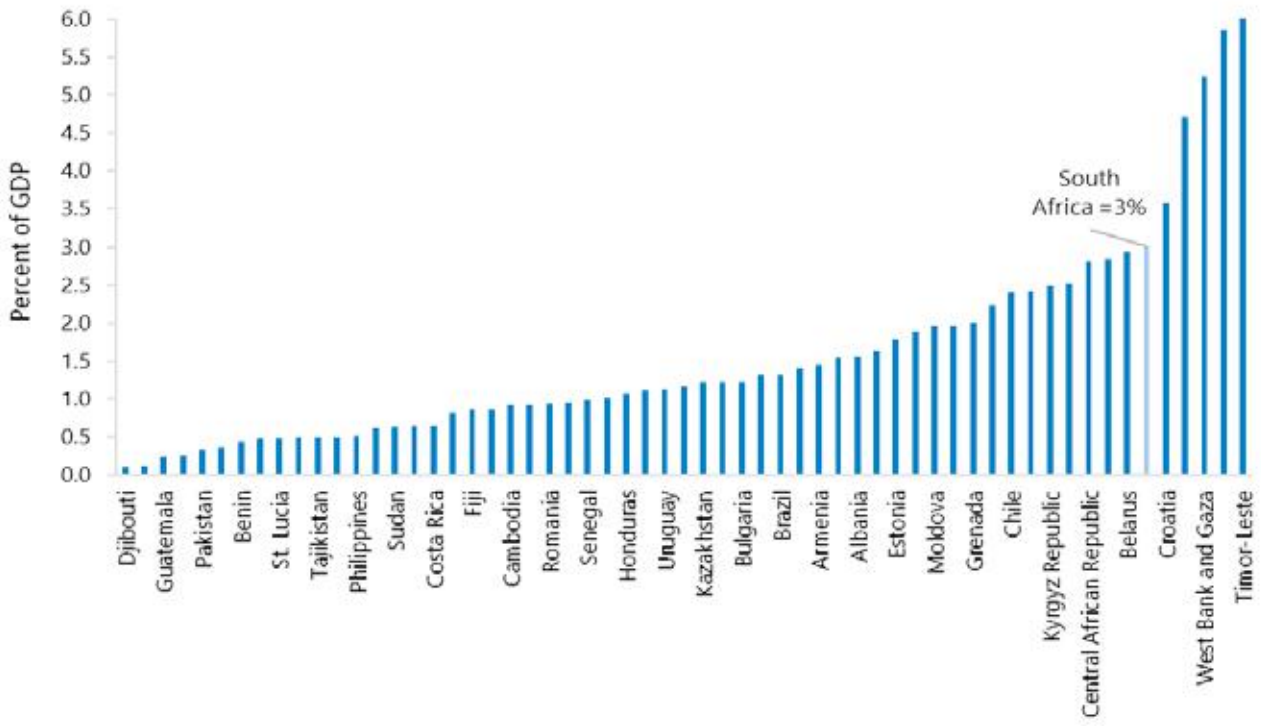
These programs are dwarfed by social grants. With almost 17 million recipients in 2015/16, social grants are the largest intervention in the social security system. Social assistance grants are funded from general tax revenue and are non-contributory.

Pension and provident funds and medical schemes are voluntary insurance schemes regulated by the state. Data on membership in pension and provident funds is limited, but it is estimated that in 2011 there were close to 10 million active members. Approximately 8.9 million individuals are covered by South Africa's various medical schemes in 2016. This number consists of 3.9 million members and their 4.9 million dependents. The population covered by medical schemes grew by 2.2 percent annually between 2007 and 2016, but between 2010 and 2014 it grew slightly slower at 1.5 percent annually.

South Africa devotes substantial resources to the social assistance system (Figure 94). In 2015, spending on social assistance in South Africa was equivalent to 3.0 percent of GDP. This figure places the country within the top 15 percent of countries for which there is data in the World Bank's Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE), ahead of countries such as Brazil (1.3 percent), the Russian Federation (1.9 percent), Colombia (2.4 percent), and Kenya (2.5 percent).

Compared with other African countries, South Africa allocates more to social assistance as a proportion of GDP than any other country for which there is data. Within Sub-Saharan Africa, the median proportion is 0.8 percent of GDP and among upper middle-income countries the proportion is 1.4 percent. Thus, relative to GDP, South Africa spends almost four times the Sub-Saharan Africa median and 2.2 times that of upper middle-income countries. Relative to other Sub-Saharan African countries, South Africa is an outlier in terms of its spending on social pensions, which is almost 30 times higher as a proportion of GDP, and on cash transfers (6.8 times the Sub-Saharan Africa median). In comparison with other upper middle-income countries, South Africa devotes a relatively large amount of resources to public works programs (9.7 times the upper middle-income country median), cash transfers (3.4 times), and social pensions (3.1 times).

Figure 94: Spending on social assistance as percent of GDP

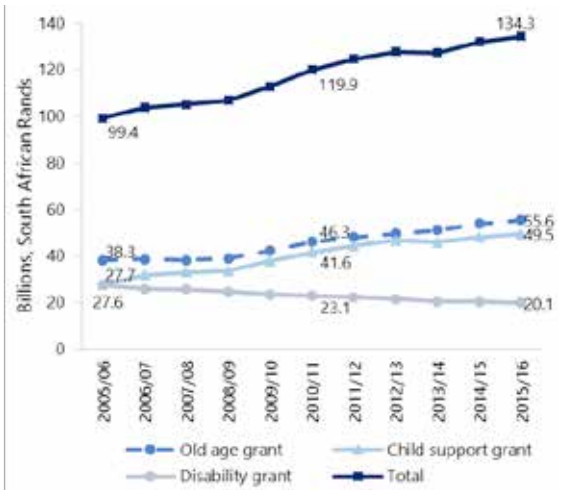


Source: World Bank (2017a).

Notes: Most recent estimates, 2010–2015.

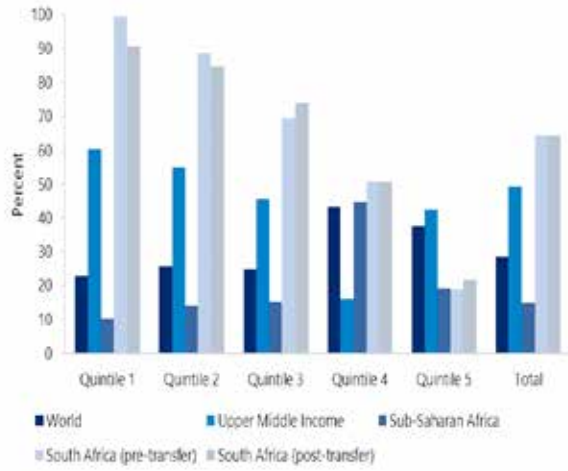
Spending on social grants has grown over the past decade due to an increase in coverage (Figure 96). Between 2005/06 and 2015/16, total spending on social grants grew from R99.4 billion to R134.3 billion (2016 prices). This is equivalent to a real growth rate of 3.1 percent per year, with higher growth during the first half of the period (3.8 percent). Thus, real spending on the Child Support Grant (CSG) rose from R27.7 billion to R49.5 billion (2016 prices) over the period. Growth in spending on the old age grant was less rapid, although it still averaged 3.8 percent per year in real terms over the full period. In contrast, though, real spending on the disability grant fell by an average 3.2 percent per year, while total spending on all other grants grew by 4.2 percent per year in real terms. Thus, the composition of spending on grants changed, as the old age and child support grants grew within total spending at the expense of the disability grant. By 2015/16, the old age grant accounted for 41.4 percent of spending on social grants, followed by the CSG at 36.9 percent and the disability grant at 14.9 percent. All other grants accounted for just 6.8 percent of total spending.

Figure 95: Real expenditure on social grants, 2005/06–2015/16



Source: Authors' calculations, SASSA (2016) and S Statistics South Africa (2017).
Notes: Figures in are expressed in 2016 prices (CPI 2016=100). Full details can be found in the background note.

Figure 96: Social assistance coverage rates across quintiles



Source: Authors' calculations and World Bank (2017a).
Notes: Includes direct and indirect beneficiaries of social assistance programs. An individual is covered if they reside in a household in which any member receives social protection transfers.

Official SASSA data indicate that the system of social assistance expanded its number of beneficiaries even more rapidly. Between 2005/06 and 2015/16 the number of grant beneficiaries increased by 4.7 percent per year from just under 11.0 million to just under 17.0 million. Given the mid-year population estimate for 2015 of just under 55 million (Statistics South Africa 2015), this implies a coverage rate of just under 31 percent. In terms of the number of beneficiaries, the CSG is the largest, with 11.97 million beneficiaries in 2015/16, 70.3 percent of the total. This is followed by the old age grant, with 3.19 million beneficiaries (18.5 percent of the total), and the disability grant with 1.09 million beneficiaries (6.7 percent). Together, these three grants account for 95.6 percent of all beneficiaries. The overall expansion in the number of beneficiaries was driven by the CSG, which accounted for eight out of ten new beneficiaries over the decade.

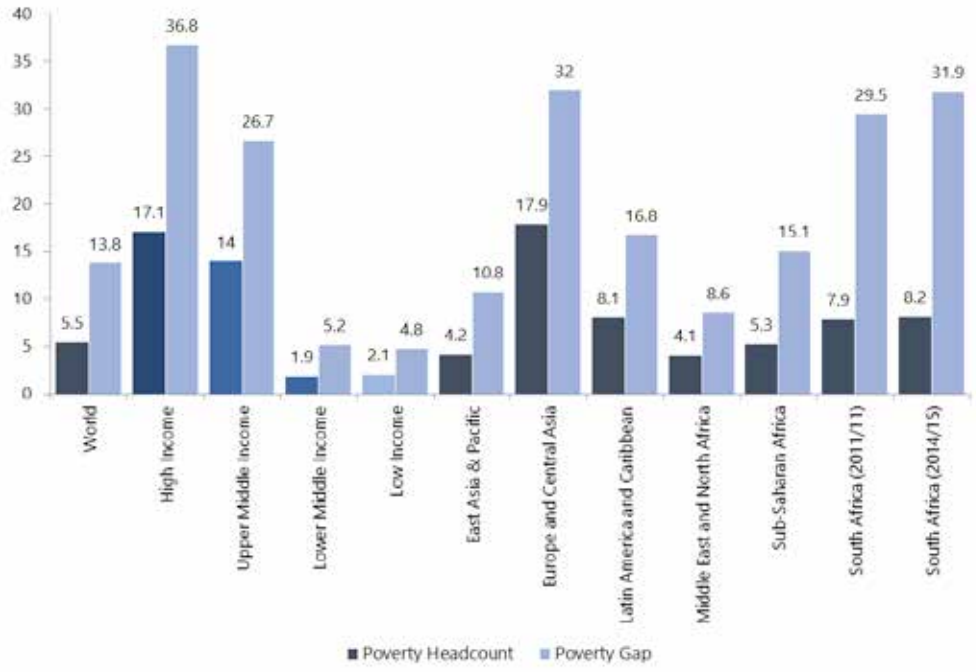
For the poorest pre-transfer quintiles, grant income represents a substantial boost to total household resources: grant income accounts for 71 percent of total income in quintile 1, compared with just 9 percent for wage income. Thus, total grant income is more than seven times the size of total wage income for the poorest 20 percent of the population. Quintile 1 households are, therefore, extremely reliant on social assistance transfers, with wage income playing a very small role in enabling the poorest households to support themselves. For quintile 2, grant income is more than one-third of total income and is only slightly less important within total income than wages (37 percent of total income). At the upper end of the distribution, grant income represents just 0.5 percent of total income, compared with 67 percent for wage income.[32]

In 2015, social assistance transfers are estimated to have reduced the poverty headcount rate in South Africa by 8 percent and the poverty gap by about 30 percent (Figure 97). These reductions are similar in magnitude to those in 2010/11. In an international context, though, South Africa does not perform particularly well in terms of the ability of the social assistance system to reduce the poverty rate. South Africa's reduction is slightly above the global and Sub-Saharan African average and is similar to that of Latin America and the Caribbean (8 percent), but it is significantly lower than the reduction observed among upper middle-income countries (14 percent). However, if

32 This pattern—of the poorest households being extremely dependent on social grants and relatively isolated from wage earners—has been previously documented in South Africa (Klasen and Woolard 2009 and Leibbrandt et al. 2010a) and highlights the critical role of social protection.

weight is attached to individuals further below the poverty line, South Africa's performance is better. In reducing the poverty gap by 32 percent, the poverty-reducing impact of South Africa's social assistance system ranks ahead of the average upper middle-income country (27 percent) and far ahead of the average Sub-Saharan African country (15 percent). Interestingly, while the impacts on the poverty rate in South Africa and in the average country in Latin America and the Caribbean are similar, the impact on the poverty gap is almost twice as strong in the former than in the latter (32 percent compared with 17 percent). This suggests that where the South African system is particularly successful is in reaching the poorest individuals.

Figure 97: Simulated poverty reduction associated with social assistance programs

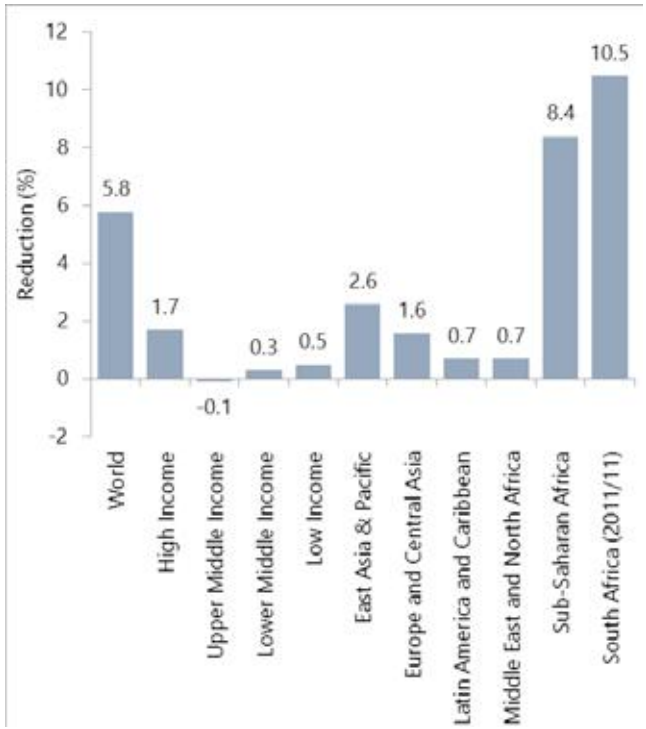


Source: Authors' calculations and World Bank (2017a).

Notes: Poverty reductions are simulated assuming the absence of social assistance programs and are expressed as a proportion of the pre-transfer poverty measure.

The inequality-reducing impact of social assistance is significant (Figure 98). In 2014/15, social assistance transfers reduced the Gini coefficient in South Africa by an estimated 10.5 percent, a slightly stronger impact than in 2010/11. No other regional or income grouping average effect comes close to this level of impact: in upper middle-income countries, the Gini coefficient is reduced by 1.7 percent by social assistance transfers, while the reduction is 0.7 percent in Sub-Saharan Africa and 1.6 percent in Latin America and Caribbean countries. This is clearly an area where the South African social assistance system is very effective.

Figure 98: Simulated inequality reduction associated with social assistance programs



Source: Authors' calculations and World Bank (2017b).

Notes: Inequality reductions are simulated assuming the absence of social assistance programs and are expressed as a proportion of the pre-transfer inequality measure, in this case the Gini coefficient.

SUMMARY

South Africa experienced significant reduction in consumption-based poverty between 2006 and 2015. A combination of demographic, location, education, and employment attributes contributed to poverty reduction. Decomposition of changes in the incidence of poverty for the period suggests growth contributed more to overall poverty reduction compared to redistribution. Labor income is the largest contributor to improving the lives of people at a national level and in urban settings, but less so in rural areas. Grants and pensions contributed 24 percent to poverty reduction but 44 percent to reducing the poverty gap. This finding confirms the targeting effectiveness of South Africa's social safety net programs. While improvement in skills and education are key elements to significant poverty reduction, over time, returns to education have decreased. In other words, the overall population has been more educated since 2006, and that has helped reduce poverty; however, returns to education are lower now than they were in the past. Urbanization, demographic changes, and expansion in the provision of services all contributed to improvement in the welfare of households.

While racial lines continue to determine poverty and inequality levels, the skills and labor market incomes are an increasingly important determinant of inequality. The role of race is falling while skills and labor related factors are growing in explaining inequality. Like the inequality of outputs, race, education, labor are the main factors explaining inequality of opportunity. Black South Africans are less likely to be upwardly mobile and more likely to remain at the bottom. However, racial differences

are not the only reason for low mobility. Education, labor markets, spatial segregation, and migration strongly affect chances of upward mobility. Skill and education matter for intergenerational mobility. Higher-skill occupations are likely to give rise to greater mobility, as does a higher level of education. Similarly, neighborhood and labor effects are important in upward mobility.

South Africa's social protection system is a major intervention aimed at ameliorating poverty and helping vulnerable households deal with unforeseen shocks. Close to 17 million low-income individuals got access to the means-tested direct transfers. In 2015, social assistance transfers are estimated to have reduced the poverty headcount rate by about 8 percent and the poverty gap by 30 percent. Despite the stagnation of inequality, the inequality-reducing impact of social assistance was significant when inequality estimates were calculated without the transfers. In 2015, social assistance transfers reduced the Gini coefficient by an estimated 10.5 percent, a slightly stronger impact than in 2011. Introducing redistribution polices related to wealth and land management could further reduce inequality. South Africa has made progress toward creating an efficient social protection system, but further expansion is likely to be unsustainable due to the low growth and financial constraints. The challenges of high inequality should be solved by the creation of productive jobs and further improvement in the efficiency of services delivery.

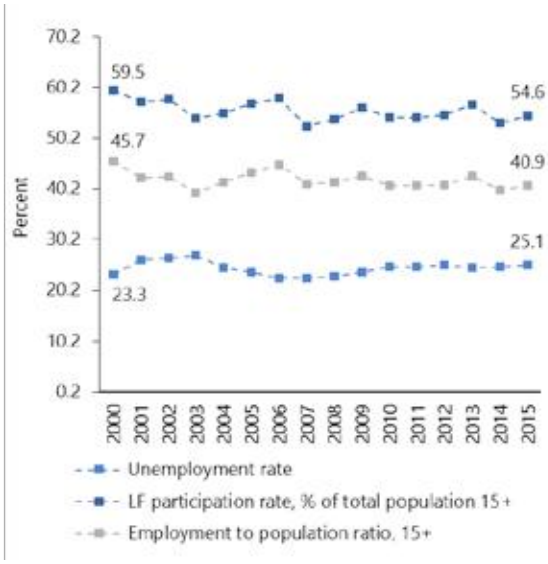
CHAPTER 5
LABOUR MARKET DYNAMICS AND POVERTY

Having an employed household head is not necessarily associated with a lower vulnerability to poverty—a large proportion of the population consists of the working poor who earn very low wages. To unlock the full potential of labor markets to accelerate the reduction of poverty and inequality, jobs need to be created and wages increased at the same time. This would include reducing the current persistent high level of unemployment. Race still affects the ability to find a job, as well as the wages received once employed. Although more women now participate in the economy, female participants find it harder to find a job, and earn less than men when they do. There is strong evidence of structural mismatch between labor demand and labor supply for unskilled workers. Moreover, despite extremely high and rising unemployment, skilled labor can be difficult to find. Location matters for labor market outcomes, with people in urban areas having better prospects of getting a job and a higher probability of getting a formal job. Location has implications for travel costs, which can be a burden for getting jobs.

A. DYNAMICS AND CHALLENGES IN LABOR MARKET OUTCOMES

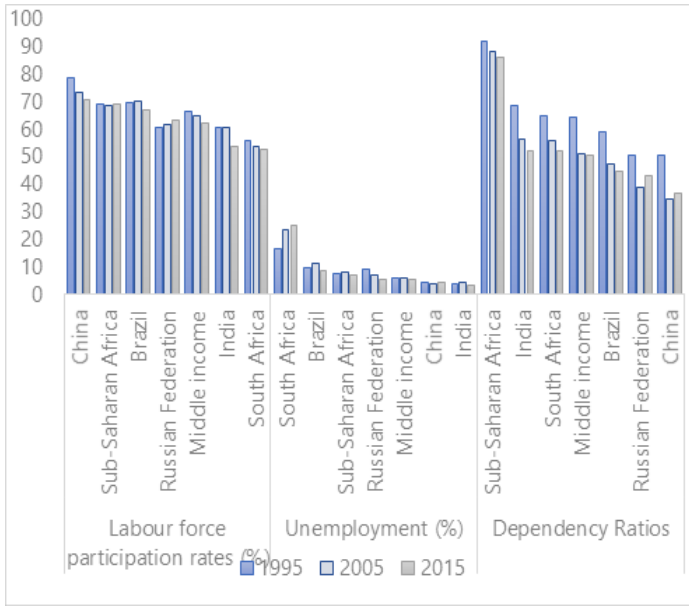
The South African labor force is characterized by high levels of unemployment, low participation, and many discouraged work-seekers and non-seekers. The spatial separation of the country and the inaccessibility of jobs to much of the working age population in rural and remote areas has resulted in many discouraged work-seekers and non-seekers. While employment has increased in absolute terms since the onset of democracy, employment growth has not matched either population growth or the rate of growth of worker supply. Consequently, employment rates as a share of the population aged 15 or older fell as share of labor force participation from 2000 to 2015 (Figure 99).

Figure 99: Key labor market trends 2000–2016



Source: World Bank Indicators, http://data.worldbank.org/indicator/, 2017.

Figure 100: Labor force participation rates, unemployment, and dependency ratios, by country (selected years)



Note: The dependency ratio is the ratio of the non-working age population to the working age population, represented as the proportion of dependents per 100 working-age population.

The unemployment rate has been high and persistent. The narrow measure of the unemployment rate remained consistently high (21–26 percent) throughout the 2005–2015 period. The unemployment rate increased from 22.5 percent in 2008 to 25.1 percent in 2015, and to 27.7 percent in the first half of 2017. Unemployment, in the narrow sense,[33] has therefore increased by about 5 percentage points. The labor force participation rate was virtually unchanged at the end of 2015 compared to early 2005, at just over 53 percent. The broader unemployment rate, which includes those in the labor force who were discouraged and no longer searching for jobs, was between 10 and 15 percentage points higher than the narrow rate, depending on the period considered. Accounting for non-searching unemployed, the proportion of the labor force employed dropped to 68 percent in 2015. Including those discouraged workers, South Africa's unemployment rate reached 36.6 percent in the first half of 2017.

33 Narrow unemployment is defined as unemployed, willing to work, and having actively searched for a job in the last four weeks.

Economic growth is too low to generate sufficient jobs. According to the World Bank's South African Economic Update of September 2017a, since 2008, 3.5 million people have entered the labor force, but only 1.6 million additional jobs have been created. Nearly 6.2 million people are unemployed, or 9.3 million if those who have stopped looking for work are included. Of those looking for employment, 3.5 million (57 percent) have not worked in the past five years. This number has increased by nearly 34 percent since 2008.

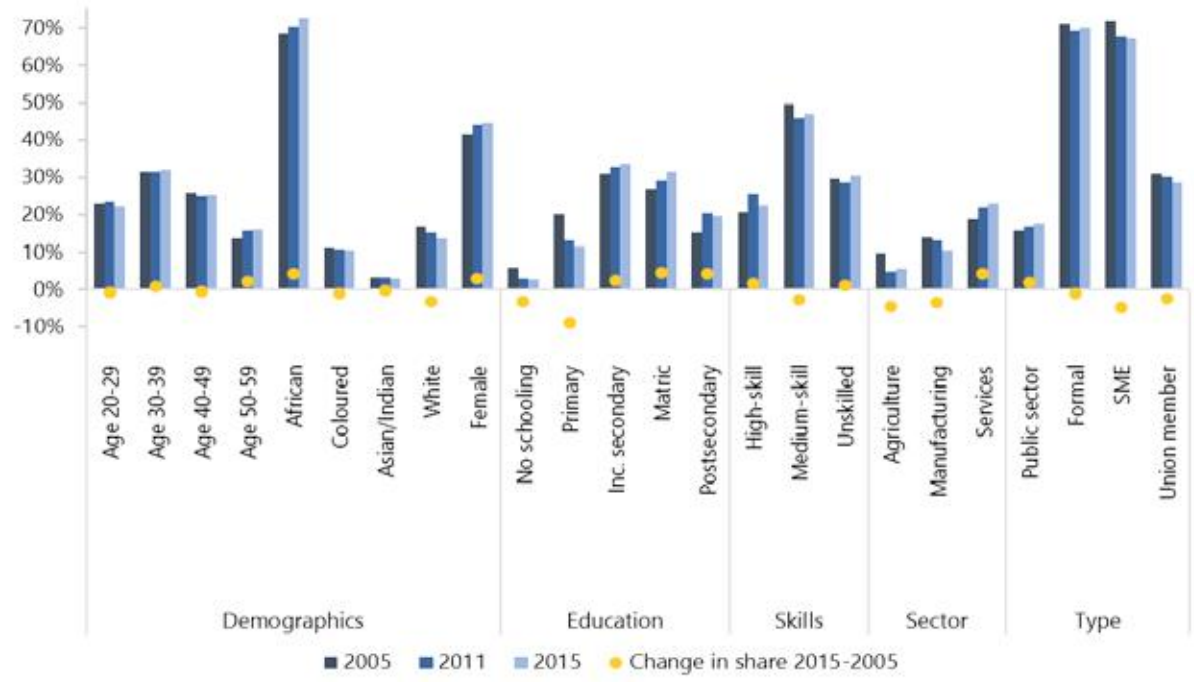
South Africa has a very high unemployment rate compared to its peer economies or those within the region. Figure 100 puts these figures into context by presenting labor market indicators for South Africa alongside international comparators. A potential reason for this is South Africa's high proportion of discouraged work-seekers (non-searching unemployed). As was observed in the expanded unemployment rate, while the unemployment rate in comparator regions has generally decreased over time, South Africa's unemployment rate has increased by more than 8 percent. South Africa also

has a high proportion of dependents relative to those who can participate in the labor market, and this proportion decreased by almost 13 percent between 1995 and 2015.

Youth joblessness was extremely high throughout the period, and post-secondary education became less of a buffer against unemployment. According to the narrow definition of unemployment, 40 percent of those between ages 20 and 29 were unemployed throughout the 2005–2015 period. Unemployment rates were lower for the older age cohorts, generally around 22 percent for the 30–39 cohort and 15 percent for the 40–49 cohort. The relationship between education and unemployment changed over the period. The unemployment rate for those with post-secondary education was 7.2 percent at the end of 2005 and rose to 11 percent by the end of 2015. Very large racial differences in unemployment were evident in each year, with the unemployment rate among black South Africans the highest at around 28 percent, and unemployment among white South Africans the lowest at 5–6 percent. Finally, although the male narrow unemployment rate increased by about 1 percentage point over the period, the female narrow unemployment rate dropped. In the final quarter of 2015, the male unemployment rates were 22.3 percent compared to a 26.3 percent rate for females.

The employment rate, defined as the employment-to-population ratio for those aged 15 and above, remained around 40 percent throughout the period. Some of the main changes in the composition of the labor market are highlighted in Figure 101.

Figure 101: Trends in South African employment



Source: LCS surveys, staff calculations from PALMS V3.2 data.

The employment outcome is worse for females than for males; however, the gender-employment gap has been closing. In 1995, females were 9 percentage points less likely to be employed than males, but in 2015 the figure had decreased to 5 percentage points. As expected, labor market outcomes are also better for individuals with a high level of education, although the gap in employment outcomes between those with no education and those with tertiary education has decreased.

The share of black South African workers in the labor force increased, as did the share of women. In 2005, about 69 percent of workers were black South Africans, but this had increased to 73 percent by the end of 2015. Simultaneously, the proportion of colored South African workers decreased in both the number and proportion to white South African workers over that period. Just under one million more men were employed in 2015 compared to 2005, while the corresponding increase for women was just under 1.5 million. It resulted in an increase of the female share of the labor force from about 42 percent to 45 percent over the period.

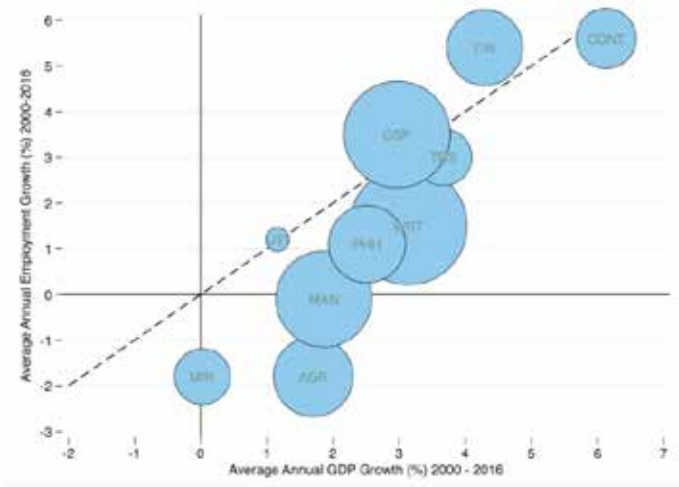
There was a shift to a more educated labor force, leading to an increasing share of high-skilled jobs in the economy. The proportion of workers with post-secondary education rose by 4.5 percentage points over the period, but almost all the gains took place between 2005 and 2010. There was also an increase in the share of workers who completed secondary school but did not go on to post-secondary education. This increase—from 27 to 31 percent—was spread quite evenly over the full period. In line with this increase in the supply of more highly educated labor force participants, the share of those working in high-skilled jobs increased by 5 percentage points from 2005 to 2010, mainly due to a relative shift out of medium-skilled jobs.

The public sector added about 700,000 jobs, and there was a decrease in the proportion of the labor force employed in small and medium enterprises (SMEs). Just under 72 percent of jobs in 2005 were in SMEs (enterprises with fewer than 50 workers), which dropped to 68 percent in 2010, and to 67 percent in 2015. The nature of work changed over the period as well, as measured by hours worked per week. In 2005, the median and mean number of hours worked per week was 45. This decreased to a median of 40 and a mean of 43 in 2010, and both remained at this level in 2015.

The structural transformation in the economy saw significant increases in jobs in the service and finance sectors, but large drops in the number of agriculture and manufacturing jobs. Services added more jobs than any other sector. The finance sector added just under 800,000 jobs and made up 14 percent of the labor force in 2015 compared to 10 percent in 2005. A huge fall occurred in the number of manufacturing jobs, while the number of workers in the construction sector rose. The closing gap between the number and share of workers in these two sectors over the period is notable. The number of workers in agriculture dropped almost by half between 2005 and 2010. The sector recovered over the next five years by adding about 170,000 jobs, but overall there was a 4 percentage point drop in the share of the agricultural labor force. Although the number of jobs in the mining sector was relatively stable, the share of mining in the total labor force decreased as the overall number of jobs.

Labor market productivity has increased in all sectors but one; financial services had lower employment growth relative to the growth of the sector. Figure 102 estimates the value-added growth between 2000 and 2016 and the corresponding change in sectoral job creation. Each bubble represents the relative size of employment in that sector in 2016. Bubbles above the 45-degree line are sectors where employment growth exceeded their output growth. The exception to this is the financial services sector, although this result is driven by the rapid expansion of the temporary employment services. The retail; utilities; and community, social, and public (CSP) services (including government services) sectors have been important in increasing their ability to create employment.

Figure 102: Sectoral gross value-added and employment growth, 2000–2016



Source: Labour Force Survey, South African Reserve Bank, 2017; authors' calculations.
Notes: AGR = agriculture; MAN = manufacturing; MIN = mining; WRT = wholesale and retail trade; TRS = transport; PHH = private households; UTI = utilities; CSP = community, social, personal services; FIN = financial services; CONT = construction.

Mining and agriculture performed poorly over the period. Growth averaged 0 percent for mining between 2001 and 2016, coupled with a decrease in employment of 2 percent on average. Agriculture grew by a diminutive 1.9 percent and faced an employment contraction of 2 percent. While the construction sector is the fastest-growing sector in employment and GDP terms, it is one of the smaller sectors.

Skills intensity increased in most sectors. Figure 103 and Figure 104 show the proportion of skilled, semi-skilled, and unskilled labor by sector and their growth between 1995 and 2015. In the post-apartheid era, every major sector has witnessed an increase in skills intensity, pointing to a labor demand trend that has become skills-intensive over time. Excluding domestic work, the highest increases in skills intensity are in the financial services, construction, and agricultural sectors.

Figure 103: Growth of employment shares by sector and skills level, percent share: 1995–2015

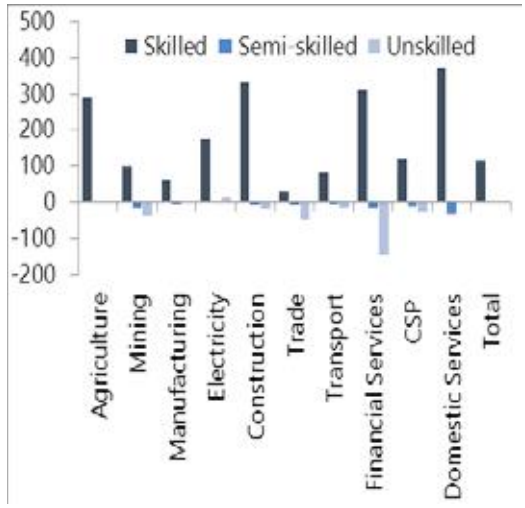
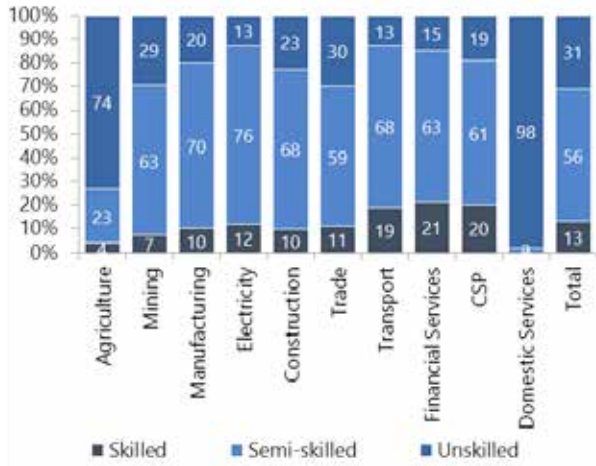


Figure 104: Composition of employment by sector and skills level, percent share: 2015



Source: Labour Force Survey, 1995, 2015, authors' calculations.

This increase has been at the expense of semi-skilled and unskilled workers: the share of semi-skilled work decreased for all sectors except agriculture between 1995 and 2015. This decreasing share of semi-skilled labor across all non-agricultural industries is in part a function of the growth of capital intensity, the adoption of advanced technologies, and possibly an avoidance of perceived regulatory burdens. The shrinkage of semi-skilled employment points clearly to the existence of a "missing middle" in the labor market. That is, the rise in skills-intensive employment has hollowed out the middle of the distribution and is a likely contributor to increased labor market inequality.

B. EXPLAINING LABOR MARKET PARTICIPATION AND EMPLOYMENT

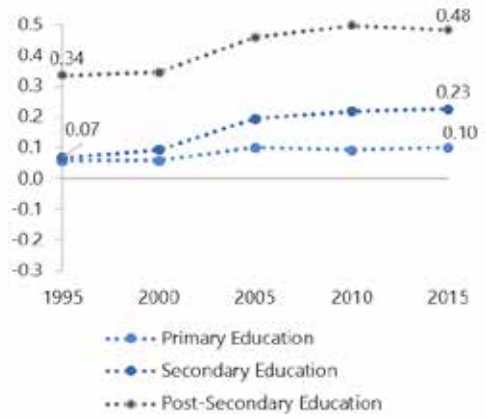
Pre-labor market differences affecting the way individuals choose to participate in the labor force are widespread. Differential provision of education, training, and access to public services for different race groups all affect the labor market participation outcome, which precedes the employment outcome (Knight and McGrath 1987, Moll 1991, Case and Deaton 1997). With the widespread incidence of discouraged workers, modeling participation outcome is important to understanding the South African labor market.

Education has a strong influence on the probability of labor market participation. Figure 105 shows that education is strongly associated with labor force participation and the probability of participation increases with education level. In 1995, those with post-secondary education were 34 percent more likely to participate in the labor market than those with no education. In 2015, this probability increased to 48 percent. Similarly, people with secondary education have increased their probability to participate from 7 percent in 1995 to 23 percent in 2015.

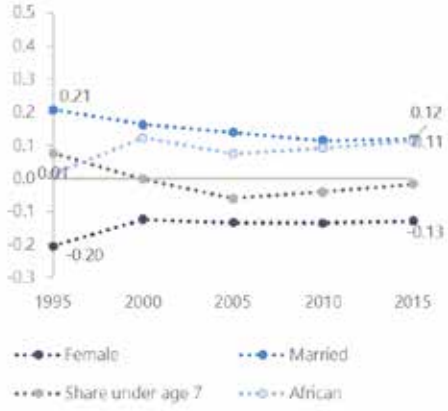
Females participate less than males, but black South Africans and married individuals have higher participation rates. For an individual in a household with a higher number of children under age 7, and between 8 and 15, there is a negative impact on the probability of labor market participation. The same applies for individuals in households with at least one pensioner. Women are less likely to participate in the labor market compared to men, but this probability decreased from 20.4 percent in 1995, to 12.8 percent in 2015. Married individuals are more likely to be labor force participants, but the probability is falling over time.

Figure 105: Determinants of labor force participation outcome, marginal effects for selected years

a. Effect of education



b. Gender, race, and family structure



Source: Post-Apartheid Labor Market Series, authors' calculations.

Notes: To understand the determinants of labor force participation, logit models were estimated with labor market participation as the dependent variable, taking on a unitary value if an individual is either employed or unemployed, and a zero value if an individual is not economically active. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$. Controls include province and urban status not reported here, urban/rural status not reported in survey between 2005 and 2007.

Like labor force participation, employment depends on human capital characteristics.[34] Following existing literature,[35] age, education, gender, marital status, race, and location are all assumed to be correlated with employment outcomes in South Africa. After controlling for location and human capital characteristics such as education and age, race remains a significant determinant of employment outcomes. In 1995, black South Africans were 15 percent less likely to be employed than white South Africans. The gap between white and colored South Africans was smaller but still significant, at 9 percent. By 2015, the difference in employment probability due to race had increased, with black South Africans facing a 17 percent lower likelihood of employment than white South Africans. Similarly, colored South Africans were 14 percent less likely to be employed than white South Africans in 2015.

South Africa's path of structural transformation has been unique. Unlike other Sub-Saharan African countries, the proportion of employment created by subsistence agriculture in South Africa has always been small. For example, in 2001 the agricultural sector contributed only 10 percent to the total employment share. Therefore, in estimating structural transformation models, the primary sectors (mining and agriculture) was considered as the base against which transformation would be measured, instead of just agriculture. Models estimating the probability of working in the non-services versus the services sectors are estimated to identify what it takes for an individual to obtain a job in the fast-growing services sector (Box 10).

34 A probit model is used to analyze the discrete states "employed" and "unemployed" among labor force participants, with "unemployed" as the reference category. The employment outcome is estimated separately in five-year intervals between 1995 and 2015.

35 See, for example, Bhorat and Goga 2013, and Kingdon and Knight 2004.

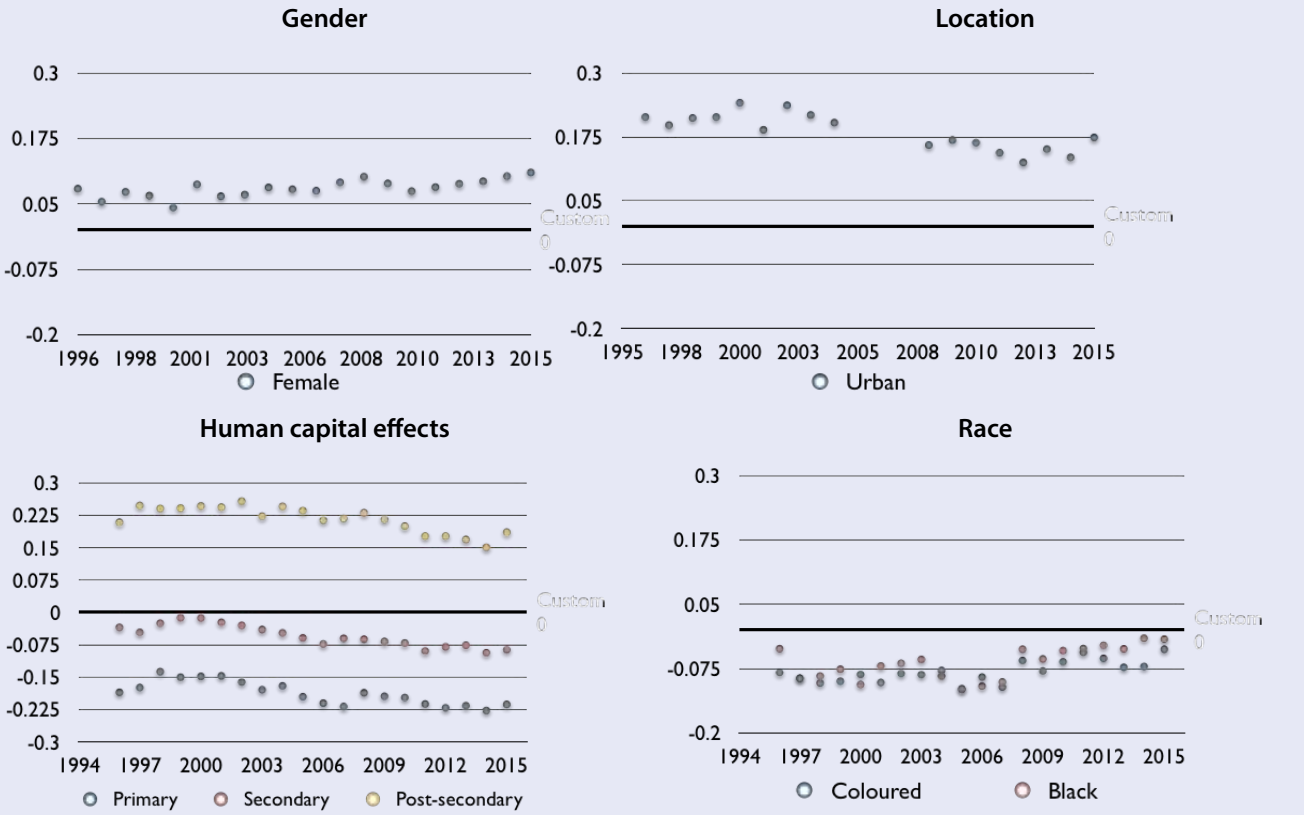
Box 10: What does it take for an individual to obtain a job in the fast-growing services sector?

Following the methodology posed by (Paci 2016) this section adopts models to focus on the determinants of economic transformation. The model exploits the heterogeneity in individual micro- and macro-level endowments to identify the drivers of structural transformation. To explore the relationship between individual and household characteristics and whether an individual is likely to be employed in the services versus the non-services sector, the following model is estimated:

$Pr(y_{i,t} \mid X_{i,t}) = G(\beta_0 + X_{i,t}\beta)$ where G is a logistic function

Where $yi,t = 1$ if the individual is employed in the services sector, including retail and wholesale trade, transport, financial services, or the CSP sector. Similarly, $y_{i,t} = 0$ if the individual is employed in any non-services sector, which includes agriculture, mining, manufacturing, electricity, and construction. The vector of explanatory variables $X_{i,t}$ consists of individual and household characteristics that control for sex, age, age squared, marital status, and highest level of education attained (no schooling, primary schooling, secondary schooling, or post-secondary education). $X_{i,t}$ also contains household-level controls, including the proportion of the household under age 7, between 8 and 15, between 16 and 65, and over 65, and dummies for residence in urban areas, province, and a set of interaction variables between province and geographical location.

Figure 106: Probability of services sector employment, individual effects: 1994–2015



Source: Post-Apartheid Labour Market Series, authors' calculations.

Women are more likely than men to be employed in the services sector. Figure 106 shows that the probability of working in the services sector is higher for already employed females relative to males, and for those who reside in urban areas. The probability of finding a job in the services sector, conditioned on already being employed, has increased over time for females. This coincides with the gendered structure of the primary and secondary sectors.

The probability of being employed in the services sector is only positive for those who have post-secondary education. The returns to primary and secondary education measured by the probability of employment in services (conditional on being employed) is negative, and these probabilities have been decreasing over time. This reinforces the descriptive evidence that the services sector, which corresponds to 71 percent of the employment share of the country, is highly skills-biased. At the same time, in 2015 the median employed individual had 12 years of education (corresponding to secondary education), alluding to a large skills mismatch between employment and potential labor absorption.

Conditioned on already having a job, black and colored South Africans face a lower probability of working in the services sector as opposed to white South Africans. Put differently—the services sector in South Africa is a disproportionate employer of white workers, showing that the economic gains of job security and the higher pay associated with working in the services sector belongs to a population group that is still in the minority, significantly perpetuating a specific pattern of inequality observed in the labor market.

Notably, however, the probability of black or colored workers in the services sector has increased since the mid-1990s. The figure also shows that colored individuals, who constitute about 11 percent of the labor force, are the

most marginalized group, facing even lower probabilities of employment in the services sector than the black African population, which accounted for over 70 percent of the labor force in 2015.

C. STRUCTURAL MISMATCH BETWEEN LABOR DEMAND AND LABOR SUPPLY FOR UNSKILLED WORKERS

Using four waves of the NIDS survey data, this section investigates factors associated with getting a job, labor force participation, and wage levels. These data span eight years and attempt to follow the same people over time. The panel nature of the data is used to analyze what leads an individual to find employment over time. The results of the logistic multinomial analysis are presented in Table 9.

A structural mismatch between labor demand and labor supply for unskilled workers is strongly evident in the South African economy. Sectoral growth has primarily been serviced-based, and the growth in the services sector has driven the demand for skilled labor. However, skilled labor makes up only a small proportion of the labor force, implying that the largely unskilled and semi-skilled workers who have found themselves without work because of the contracting primary sector, have not been able to enter jobs offered in the services sector. This structural mismatch between labor demand and the supply of unskilled workers remains a key marker of South Africa's skills-biased labor demand trajectory.

Education is important in transition to labor force participation, but less affiliated with finding employment. As Table 9 shows, a higher level of education is associated with a higher probability of being part of the labor market (either employed or unemployed). However, only tertiary education gives higher probability of finding employment in general. Other coefficients are insignificant suggesting low correlation with ability to find a job.[36]

36 The result is generally in line with a recent study by the International Monetary Fund that suggested "previous experience is an important determinant of job-finding rates, while education has almost no effect." The study based the conclusion on the QLFs panel data and suggested that the job-finding rate does not differ substantially across different education groups and race.

Table 9: Determinants of labor force participation and employment transitions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable	Participate in LF	Find employment					
	Overall	Overall	Skill level 1	Skill level 2	Skill level 3	Informal	Formal
Race (black=base)							
Colored	0.024	0.028*	-0.015	0.017	0.019	0.009	0.004
Indian	-0.099***	-0.046	0.0394	-0.181***	0.022	-0.049	-0.076
White	-0.047*	0.007	-0.137***	-0.077	0.015	-0.034	-0.150*
Marital Status (married=base)							
Living with partner	0.071***	0.029	0.0732***	-0.014	-0.010	0.028	0.018
Widow/widower	0.037	0.028	0.0163	-0.031	-0.019	-0.060	0.049
Divorced/separated	0.056	0.063	0.0653	0.034	-0.063	0.094	-0.039
Never married	0.056***	0.020	0.0753***	0.032	0.021	0.069***	0.042*
Education (no education=base)							
Primary education	0.044**	-0.007	-0.0258	-0.026	-0.009	-0.051	0.011
Secondary education	0.088***	0.007	-0.166***	0.102***	-0.018	-0.068	0.015
Matric	0.130***	0.025	-0.164***	0.127***	0.0174	-0.066	0.073***
Tertiary	0.294***	0.189***	-0.207***	0.137***	0.275***	-0.093*	0.254***
Demographics location							
Male	0.094***	0.109***	0.012	0.146***	0.014	0.102***	0.078***
Urban	0.026***	0.023***	0.005	0.006	0.021**	-0.007	0.035**
Household size	0.000	-0.002	-0.004*	-0.007***	-0.001	-0.008***	-0.002
Household head	0.089***	0.100***	0.061***	0.089***	0.014	0.085***	0.063***
Age	0.072***	0.050***	0.017***	0.025***	0.001	0.022***	0.019***
Age squared	-0.0009***	-0.0006***	-0.0002***	-0.0003***	0.000	-0.0003***	-0.0002***
Transfers and other							
Log (state transfer)	-0.005**	-0.008***	0.001	-0.003	0.002	0.003	-0.006
Poor	-0.05**	-0.200***	-0.071**	-0.219***	-0.037*	-0.112***	-0.219***
Poor X log transfer	-0.003	0.003	-0.008*	0.004	-0.003	-0.011**	0.006
Log (transport)	0.009***	0.010***	0.014***	0.017***	0.006**	0.015***	0.017***
Constant	-0.942***	-0.593***	-0.0675	-0.274**	0.000	-0.114	-0.204**
Observations	23,763	30,945	5,595	6,123	5,040	6,266	5,704
R-squared	0.192	0.208	0.095	0.163	0.181	0.102	0.186

Source: Authors' estimation based on NIDS panel data. Logistic multinomial.

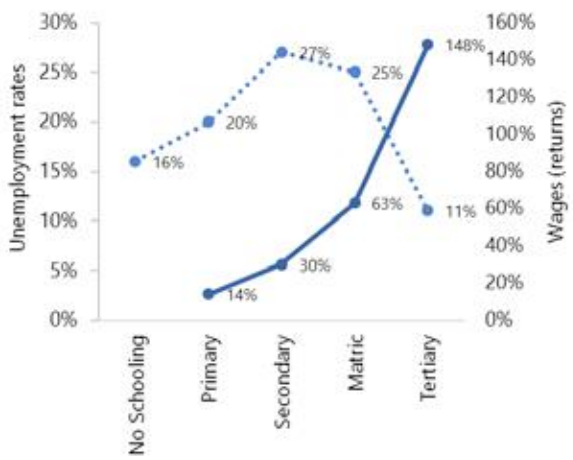
Low correlation between education and the probability of finding employment masks heterogeneity in the role of education in finding jobs in different skills requirement categories. People at different levels of education compete for different types of jobs. It is not surprising that the probability of getting low-skill jobs is negatively associated with the level of education. The probability of entry into jobs requiring low or intermediary skills is higher for people with lower levels of education. However, highly skilled jobs are associated with tertiary education. Jobs that require low and intermediate skills are not attractive enough for people who have invested in education, who prefer to wait for jobs appropriate to their training. Having secondary or matriculate education

helps in getting low- and mid-skill jobs but not enough to get highly skilled positions. Having tertiary education gives a better chance of getting highly skilled job, but the number of these positions is relatively small. In other words, secondary and matriculate education does not necessarily give a better chance of getting a high-skill job in South Africa. Tertiary education gives higher probability of getting mid- and high-skilled job, but the number of these positions is low, keeping high proportion of highly educated people unemployed.

Once employed, education and skills result in substantial wage increases. Wages are higher for each successive level of education: by wave 4, a college degree results in a 148 percent increase in wages relative to no education, while matriculating implies a 63 percent rise. Figure 107 (panel a) shows coefficients from Mincer regressions of log wages on education levels: these coefficients are estimated relative to no education. A similar pattern exists with skills levels: by the fourth NIDS wave, jobs at the highest skill level have wages that are 80 percent higher than jobs for the lowest skill level.

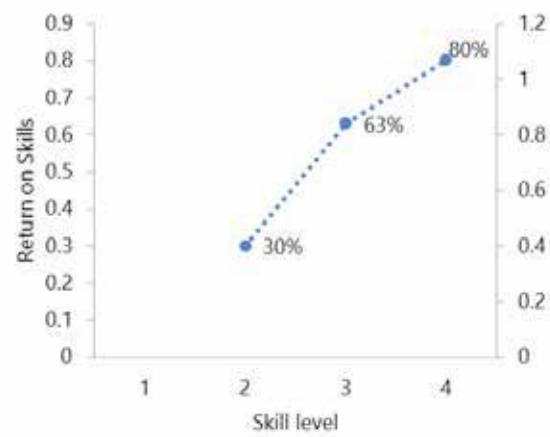
Figure 107: Skill mismatch

a. Returns on education and composition of unemployment



Source: NIDS, base = no education for wage regressions. Coefficients from Mincer regression with log wages dependent variables, education, skills, sectors, skills, and other repressors are included.

b. Returns on skills



Source: NIDS, base = skill level 1 for wage regressions. Coefficients from Mincer regression with log wages dependent variables, education, sectors, skills, and other repressors are included.

D. RACIAL AND DEMOGRAPHIC FACTORS DEFINING EMPLOYMENT

One of the more distinct features of South Africa is its legacy of apartheid, a system designed to exclude black South Africans from full participation in the labor force. Even 24 years after the end of the system, race still affects the ability to find jobs, as well as the wages received once employed.

Racial differences alter the probability of finding employment for low-skill and formal jobs. Black South Africans are 16 percent more likely than white South Africans to enter low-skilled jobs and 18 percent more likely to enter formal sector employment. Wages show a distinct racial divide across all job categories. Black South Africans earn much less, on average, than white South Africans, who earned 87 percent higher wages in wave 4.

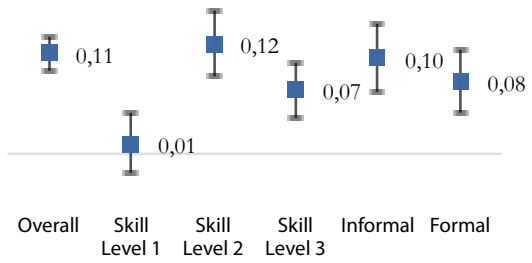
The dichotomy in finding employment can be explained by rising disparity within the black South African group (Leibbrandt et al. 2010b, Bhorat 2004), with some black South Africans earning substantially higher incomes. The coefficient of variation for wages of black South Africans has risen substantially over the four waves (from 3.83 to 6.37, a 66 percent rise), while it has fallen for white South Africans (from 8.36 to 6.44, a 23 percent fall).

Although an increased number of women participate in South Africa's economy, female participants have a harder time finding a job and earn less than men when they do. From 1993 to 2008, the participation rate for women increased by 38 percent (Leibbrandt et al. 2010b) and has remained constant since then. Despite this, men are 11 percent more likely to transition into employment.[37] When employed, women earn substantially less than men: wages for men are 28 percent higher than for women in wave 1. Men and women are on an equal footing only for low-skilled jobs: for these jobs, there are no statistically significant differences by gender in the probability of finding a job. Figure 108 lays out these results: panel A shows the elasticities of entering employment across different job categories, and panel B shows estimated coefficients from a Mincer regression on an indicator variable for whether the individual is male.

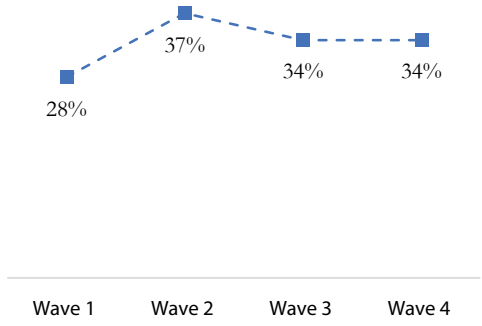
37 In the NIDS data, 54 percent of men are employed compared to 39 percent of women. Of those women who are employed, 42 percent work low-skill jobs, while only 27 percent of employed men work low-skill jobs.

Figure 108: A gender gap holds except for low-skill jobs

a. Elasticity of entering employment to wage increase; male relative to female (base = female)



b. Wages for men, relative to women, percent difference (base = female)



Source: NIDS wave 4. Results from logistics multinomial regressions and Mincer regressions. Authors' estimations.

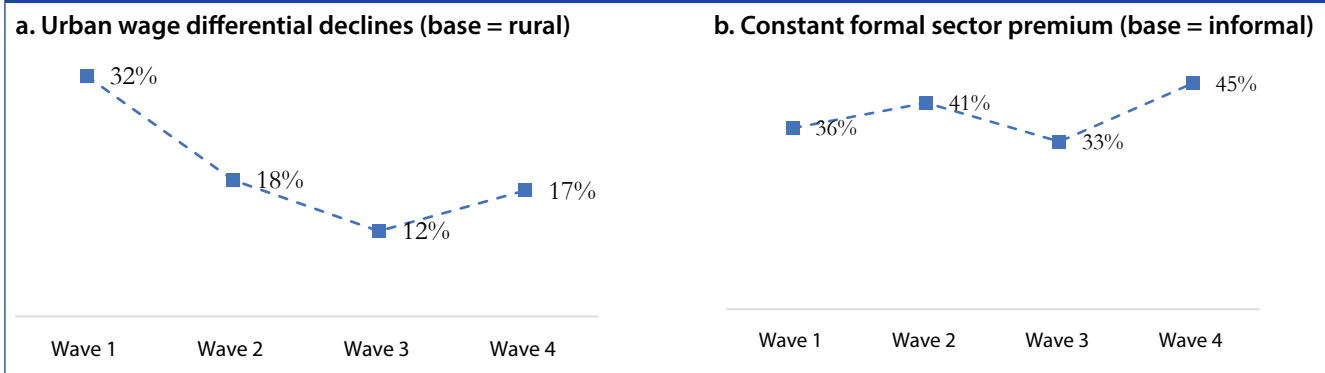
Males have a higher probability of getting skilled employment. Males are 11 percent more likely to get employment than females. The highest probability for males are in informal (11 percent) and mid-skills occupations (12 percent). Age is a proxy for experience and older people have a higher probability of getting jobs than young counterparts. The probability to get employment is increasing by almost 5 percent per year. This means people with 20 years of experience have almost a 50 percent greater chance of getting employment than young new entrants to the labor market. The middle-aged have the highest probability of getting jobs.

E. GEOGRAPHICAL SEGREGATION AND ROLE OF INTERNAL MIGRATION

People in urban areas have better job prospects and higher probability of getting a formal job, but there is no significant difference across provinces. Generally, urban areas have a 3 percent higher probability of finding a job, and especially formal jobs. There are no significant differences across provinces in terms of probability of finding employment.

A transition from rural to urban areas would also accompany structural change in South Africa. It is easier to find jobs in urban areas: the probability of finding an urban job is 3 percent higher compared to rural areas. Urban jobs pay more, but the differential falls over time. In wave 1, wages for urban jobs were 32 percent more than rural jobs. By wave 4, however, the gap between urban and rural wages was reduced to 17 percent (Figure 109). Consistent with this trend, from the Oaxaca-Blinder decomposition, returns on jobs in urban areas also fall over time.

Figure 109: Urban wage differentials and formal sector wages



Source: NIDS waves 1–4.

High travel cost is a burden for getting jobs. In South Africa, workers travel long distances for work and spend significant time and money commuting, with a large share of resources spent on taxes, work uniforms and clothes, and child care. Workers, especially in the townships, commute far to work and high travel costs are a necessary burden of having a job. Such costs are burdensome for all forms of employment, including formal and high-skilled occupations, and are negatively associated with the probability that a person will accept a job. For the working poor, these costs consume a large portion of their earnings. The unemployed, especially youth, tend to lack resources and mobility for a job search or the ability to relocate for a distant job. In some cases, underdeveloped transport systems, high cost of commuting, and crime makes the job search more difficult and raises associated expenses and reservation wages.

Poor people generally have a significantly lower probability of getting a job. Controlling for other factors, being poor reduces the probability of getting a job by 20 percent. The probability has especially low association with formal jobs and skilled professions.

Government transfers have a very small impact on employment. The impact of the transfers on the decision to participate in the job market was estimated by inclusion of the level of transfers to households in the logistic regression.

F. DIMINISHED ROLE OF SMALL, MEDIUM, AND MICRO ENTERPRISES IN EMPLOYMENT GENERATION

Small, medium, and micro enterprises (SMMEs) have been identified as a key component to advancing inclusive growth and development in South Africa. The NDP highlights the importance of these businesses for job creation, innovation, and competitiveness, with the goal that 90 percent of new jobs will be created by SMMEs in South Africa by 2030. The successful entry and growth of an SMME may create a sustainable mechanism through which the wages of those at the bottom of the distribution can be increased and the level of inequality reduced. Entrepreneurship has often been presented as an alternative for the unemployed who are unable to be absorbed into formal employment. This view is supported by the international literature. For example, van Praag and Versloot (2007), in a systematic review of 56 studies, finds that entrepreneurs are an important source of job creation and that there are positive, long-term spill-over effects to entrepreneurship that increase employment growth rates. Furthermore, supporting the growth of existing SMMEs could encourage innovation and employment creation in these businesses.

The extent to which SMMEs,[38] and entrepreneurship more generally, have been harnessed to increase employment and reduce inequality in South Africa has been disappointing. In low-income countries, formal and informal SMMEs contribute more than 70 percent to employment and 60 percent to GDP. In middle-income countries, the SMME contribution to employment and GDP is higher, at 95 and 70 percent respectively (Ayyagari et al. 2007). Conversely, South African SMMEs employ around 56 percent of the labor force (DTI 2008) and contribute an estimated 45 to 50 percent to GDP (DTI 2004). Forty-five percent of firms are small in South Africa—considerably lower than any of the regional averages. Furthermore, South Africa has a relatively large share of large firms.

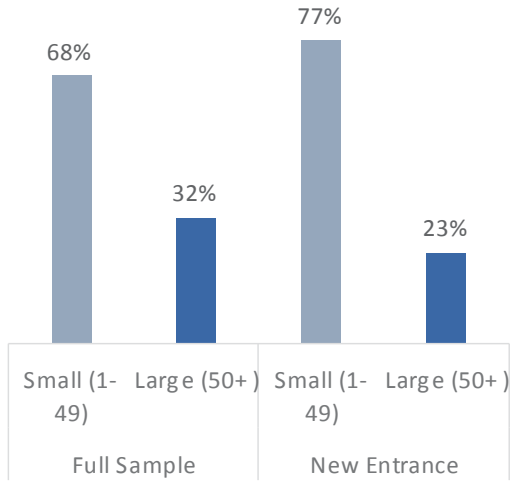
The SMME sector has declined over the 2005–2016 period last decade and tends to focus on low-skill wholesale operations. Based on Quarterly Labour Force Survey (QLFS) data, the share of employment in the SMME sector declined from 68 percent in 2005 to 62 percent in 2016. Over 70 percent of SMME employees are functioning in low- to medium-skill level occupations. The largest share of them is in wholesale and retail (30 percent), followed by community and social services (23 percent), financial (14 percent), and construction (11 percent). The breakdown of SMMEs to more disaggregated firm sizes reveals that more than 50 percent of own-account workers operate within the wholesale and retail sector, a proportion that decreases as the size of the SMME increases. These SMME wholesale and retail jobs are typically categorized as low-skill occupations, such as shop salespeople, petrol attendants, street vendors, and cashiers. Of the elementary workers, most report functioning as farm hands and laborers, street food vendors, and helpers and cleaners in offices. Other major job functions reported among SMME workers were shop salespeople and petrol attendants, other protective service workers (rangers and game wardens), cooks, bricklayers and stonemasons, and motor vehicle mechanics.

The unemployed are more likely to find a job in small firm than in a large firm. Figure 110 (panel a) shows that more than two-thirds of those working are in small firms, a trend that is more pronounced for new entrants. The probability of finding employment in a small firm from being inactive or unemployed is more than three times that of finding employment in a large firm. Further, Figure 110 (c) suggests those of prime working age (between 24 and 55 years old) newly entering the labor force are 10 percent more likely to enter small firms.

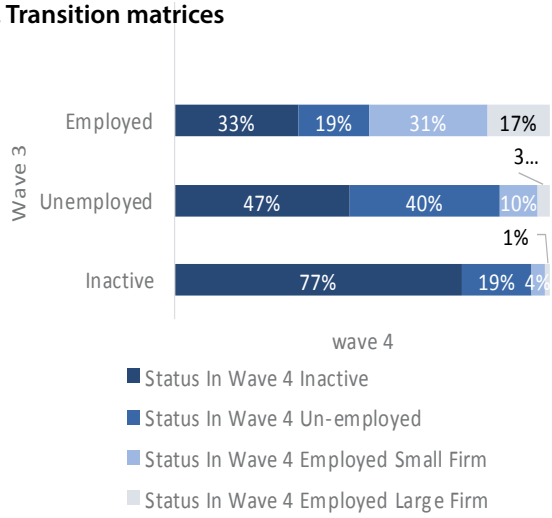
38 SMMEs are defined as follows: Businesses made up of the entrepreneur only and employing no workers, known as "Own-account"; businesses with 1–4 employees (excluding the owner) are "Micro"; businesses with 5–9 employees are "Small"; businesses with 10–49 employees are "Medium"; and businesses with 50 employees or more are "Large."

Figure 110: Employment probabilities, comparing small and large firms

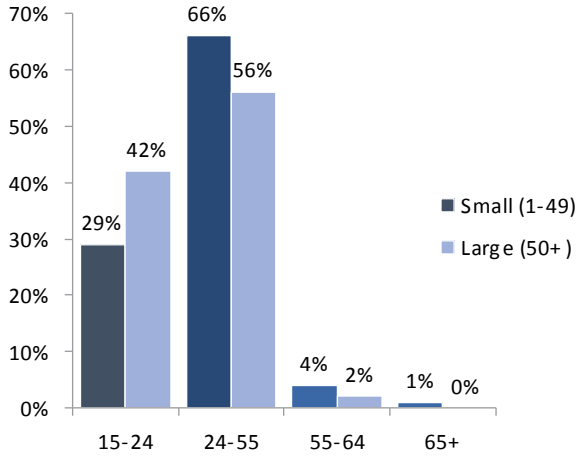
a. Frequency of employment



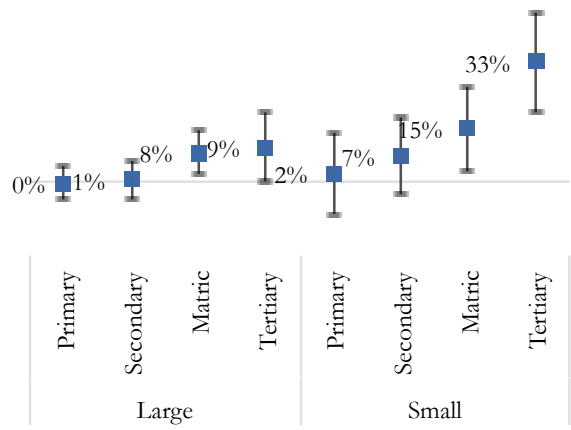
b. Transition matrices



c. Frequency of employment by age group



d. Probability of finding employment, regression estimates

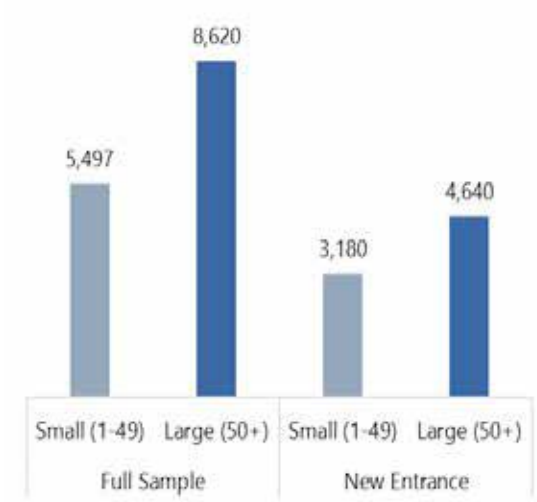


Source: Panel A: NIDS wave 4. Panel B: NIDS wave 3 and 4. Panel C: NIDS wave 4.

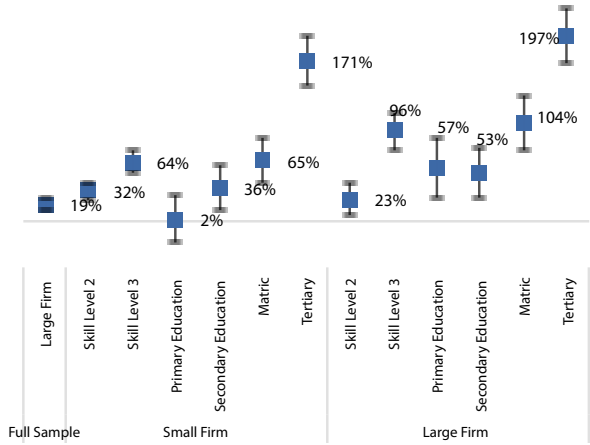
Wages in larger firms are higher and an incremental increase in wages with an increase of skills or education levels greater for larger than smaller firms. On average, wages in large firms are one and a half times more than that of small firms. For new entrants, this large firm premium drops a little to 1.45 times. Estimates suggest wages in large firms are 19 percent greater than those in small firms. In addition, the incremental increase in wages as skills or education levels increase is greater for larger than smaller firms. In small firms, the relative increase in wages for a matriculate level of education from a base of no education results equals 65 percent, while for a tertiary level of education it equals 171 percent. Similar figures for large firms are 104 percent and 197 percent, respectively. Similarly, for highly skilled jobs, the relative increase in wages for small firms from a base of low-skilled jobs equals 64 percent while for large firms it is 96 percent.

Figure 111: The large firm premiums

a. Wages by firm size



b. Mincer regressions showing the large firm premium



Source: Panel A: NIDS save 4. Panel B: NIDS wave 4.

The analysis showed that SMMEs pay significantly less than larger firms and their shares are falling. However, SMMEs are very important for absorbing younger, less skilled, and less productive people. The general trajectory to obtain a job in the formal sector goes through the initial employment in SMMEs. The NDP highlights the importance of these businesses for job creation, innovation, and competitiveness. The unemployed are more likely to find a job in small rather than large firms. At the same time, wages in larger firms are prominently higher. In addition, the incremental increase in wages as skills or education levels increase is greater for larger than smaller firms

This bifurcated market for SMMEs requires a nuanced set of policy solutions for each component of the SMME cohort to achieve a more inclusive and equal growth agenda. Assistance to smaller firms, which are more likely to be in the informal sector and be survivalist, may primarily be viewed as part of a poverty reduction strategy.

G. THE ROLE OF LABOR UNIONS IN WAGE DETERMINATION

A debate in South Africa academic and policy research is focused on the role of institutions on labor market outcomes. Labor market institutions and a rigid regulatory environment are often said to contribute to the high level of unemployment and wage disparities. Among the factors generally mentioned are the rigid labor market, the extent collective bargaining, the prevalence of labor brokering, and problems with the implementation of minimum wages, which are set at a regional level.

Union membership is integral to the structure of the South African economy. Unions played an important sociopolitical role in the movement toward democracy. For the better part of the twentieth century, black South African workers were disenfranchised and excluded from many jobs. Union membership, as allowed for under the Industrial Conciliation Act of 1910, was not extended to black African workers until the amendment act of 1979 (Bhorat, Jacobs, and Yu 2013). With this history, trade unions in were inextricably political, acting as the voice of the African working class in opposition to apartheid. In the late 1980s, African trade unions successfully managed to lobby for the creation of a national bargaining council (Godfrey, Clark, and Theron 2005), which led the way toward more centralized collective bargaining from the 1990s onward (Bhorat, Naidoo, and Yu 2014). As of 2016, there were 195 registered trade unions in South Africa (Department of Labour 2016).

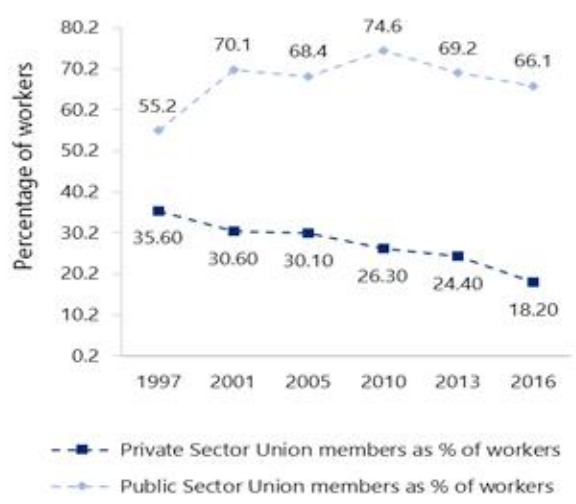
The union density estimates for South Africa are not an outlier when compared to other OECD countries. The average union density for OECD countries was 30 percent in 2013 while South Africa's was 37 percent (Bhorat, Naidoo, and Yu 2014). Using a dataset from the 1990s, Botero et al. (2004) shows that South Africa's relative union power, measured by a labor union power index, is much higher than the mean value of other countries. In turn, its protection of workers index, capturing how the country fares during collective disputes, shows that South Africa falls below the global average in all income classified country categories. The authors argue that while South Africa exhibits a strong legal right to unionize, the levels of union power are not disproportionately high when measured by the collective dispute index (Bhorat, Naidoo, and Yu 2014).

There is wide union coverage among employees, and the premiums associated with union membership are substantial. There are close to 200 registered trade unions in South Africa, covering around one-fifth of private sector workers, and two-thirds of public sector workers. Private sector unionization has been trending downward since the early 2000s, while public sector unionization has increased over the same period. Unions can negotiate substantial gains for their members within the bargaining council system. Bhorat et al. (2012) estimates a wage premium of 22 percent for unionized workers within a bargaining council, while Bhorat, Goga and van der Westhuizen (2012), estimates that the unionization premium outside of bargaining councils is about 7 percent. The wage gains from unionization are particularly large in the middle of the wage distribution, and the level of the union premium is not excessive compared to other developing countries such as Brazil, Ghana, and Mexico.

Public sector union membership as a percentage of public sector workers increased between 1997 and 2016. On the other hand, there has been a trend of decreasing private sector union membership as a percentage of total workers in the private sector. These trends show possible segmentation between public and private sector workers in the South African labor market.

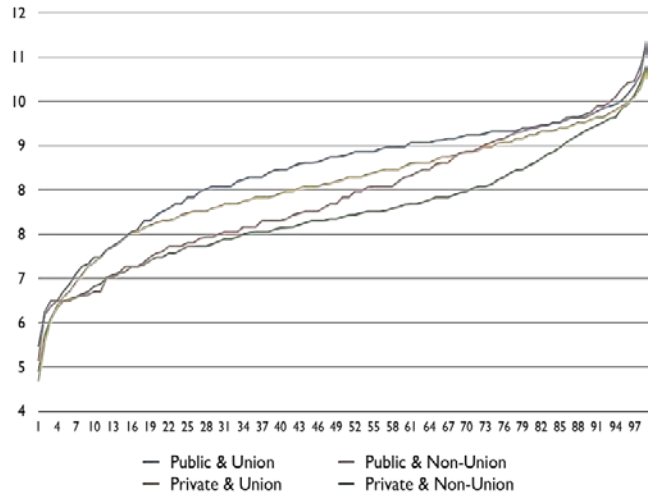
Across the income distribution, unionized workers earn more than non-unionized workers, with public sector unionized workers earning the highest wages. The impact of this trend of separation between the public and private sector union membership on the distribution of wages is captured in the distribution of wages by sector and union status presented in Figure 112. This segmentation is cemented by the modes of the non-union wage distributions—these modes are significantly to the left of the modes of the unionized workers' wage distributions.

Figure 112: Trade union membership of formal sector employees by public and private sector status, selected years



Source: Adapted from Bhorat, Naidoo, and Yu, 2014; 2016 Figures from Quarterly Labour Force Survey, Q3 2016.

Figure 113: Percentile distribution of log wages by union status and public/non-public sector status, 2014



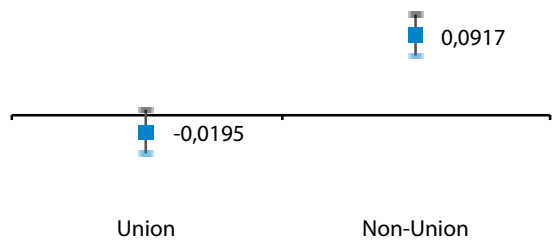
Source: LMDS, Q4 2016, authors' calculations.

The gap between public union wages and private non-union wages is the largest toward the middle of the distribution (Figure 113). At the bottom of the distribution, the minimum wage seems to be at work protecting the earnings of workers irrespective of union status, while the skills premiums at the top of the distribution remunerate workers equally, irrespective of union status or sector. However, between the 20th and 80th percentiles of the wage distribution, a clear ranking of earnings is visible. Unionized workers in the public sector earn the most, followed by unionized workers in the private sector. This is followed by non-unionized public sector workers and those who earn the least, private non-union workers. This is further evidence of the hollowing out of the middle of the distribution, suggesting that those who are not unionized and in the private sector have lost the most in the labor market, and thus presenting a key channel through which rising wage inequality has manifested in the domestic labor market**.** In terms of the data estimates, it is at the middle of the distribution that the gap between the wage for public sector unionized work and private sector non-unionized work is the largest, showing that, of the missing middle, it is the private non-unionized workers who have lost out the most. At the lower percentiles, the ratio of public union wages to private non-union wages are the smallest, most likely because the minimum wage protects the earnings of all workers at this end of the distribution.

Unions appear to restrict supply, but they offer substantially higher wages. Even controlling for other factors, wages for union jobs are 42–49 percent higher than wages for non-union jobs (Figure 114). In addition, the returns on union jobs, estimated by the Oaxaca-Blinder decomposition, rise over time. These results imply that unions introduce some rigidity in the labor market. Firms may see such workers as too costly and thus job offers may be restricted. For instance, the number of hours worked by non-union workers tend to be nearly the same as those in unions; yet the wages for union workers are much higher. At the same time, Casale and Posel 2010 have argued that unions tend to provide more equitable wages.

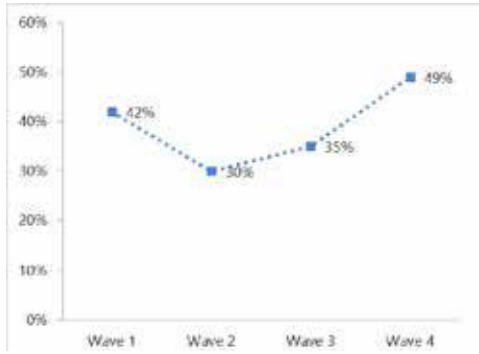
Figure 114: Union restrict supply but raise wages

a. Wage elasticity of union



Source: NIDS wave 4.
Note: The coefficients are labor demand elasticities from panel regressions suggesting percentage increase in labor supply to increase in wages.

b. Size of the union premium (base = non-union job)



Source: NIDS waves 1–4.
Note: Coefficient from Mincer regression that are premium to union membership.

Sectoral centralization of the collective bargaining instituted in South Africa is generally larger among former employers resulting in greater incidence of fixed wages across sectors unrelated to the firm or individual productivity level. Trends in unionization levels show the stark segmentation between public and private sector union membership. This has had the strongest impact on individuals in the middle of the distribution, as the wage premiums between public sector unionized and private sector non-unionized workers have produced wage gaps that are the largest in the middle of the distribution. Ultimately, those workers who have lost out the most on wage returns are not only in the middle of the income distribution, but generally work in the private sector, and are non-unionized.

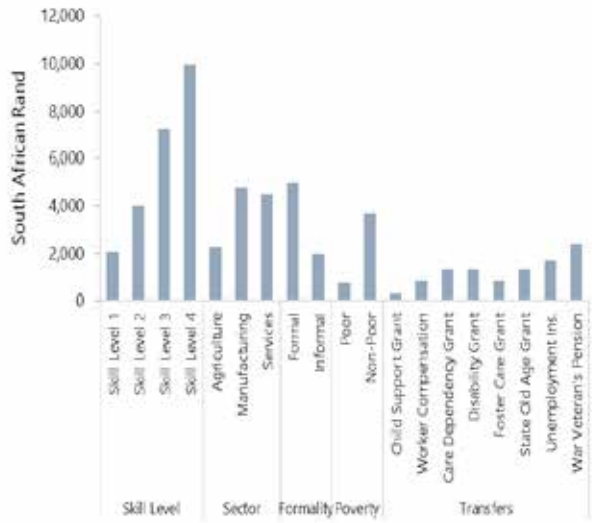
H. HIGH RESERVATION WAGES AND VERY HIGH WAGE DISPARITIES

The wages of the unskilled and informally employed are extremely low. Figure 115 shows that the wages of the poor, those with low skills, and those employed in agriculture are very low compared to the average grants some households are receiving. This level of wage is unattractively low. The data clearly indicate that wages for workers with scarce skills are too low compared to wages for workers with a more abundant skill set. The reservation wages are too high for many people to enter the current labor market.

South Africa has a highly unequal distribution of wages. The labor market is polarized into two extreme job types, giving it a dual structure. A small number of people can access highly paid jobs while the majority works at less well-paying jobs. The highly paid jobs also are highly sticky: once found, people are unlikely to give them up. The less well-paying jobs are fluid by contrast, being more likely to employ new entrants into the labor market and more likely to witness exits from employment. As noted earlier, race may affect the ability to find jobs, as well as the wages received once employed. The employment outcome is worse for females than for males, however the gender-employment gap has been closing over time.

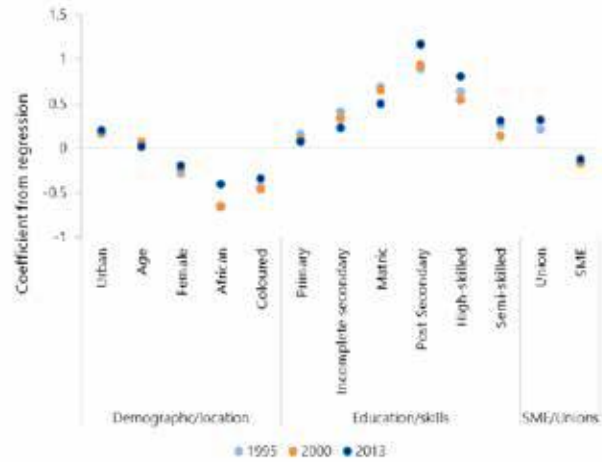
Figure 116 shows the estimated returns to various factors based on a standard log-linear wage equation. These factors may be affecting wage levels and indirectly, wage inequality, in the South African labor market.

Figure 115: Average wages and transfers



Source: NIDS wave 4.

Figure 116: Returns from Mincer regression



Source: Authors' calculations from QLFS data 1995, 2000, and 2013. Selected variables presented. Dependent variable log of monthly wage. Independent variables include demographic, location, sector, and education variables.

Wage gaps in race and gender are still prominent but falling. The results indicate, in the first instance, that all else constant, older workers are likely to earn more than younger workers with approximately 6 percent increase per year. Non-linearities in this age-earnings relationship are observed. Race and gender effects continue to predict earnings in the South African labor market. Hence, the conditional mean gender wage gap stood at about 29 percent in 1995. More recent estimates, with the data caveat noted above, have seen this gender penalty decline to about 20 percent. The mean racial wage gap has declined from 65 percent for African workers to about 40 percent in 2013. The results indicate that living in an urban area continues to afford wage premiums ranging from 16 to 20 percent over the 1995–2013 period.

The results reinforce the pattern of skills-biased labor demand in the South African economy. Together, the education and occupation coefficients suggest that labor demand is, and has increasingly become, skills-intensive. Individuals with secondary education earn significantly more than those with no schooling or only primary schooling, while those with post-secondary education earn a greater premium than those employed with some form of secondary schooling. There is clearly a monotonic return to human capital across the entire 1995–2013 period. In 2013, for example, a post-secondary educated worker earned on average about 116 percent more than an individual with no or only primary schooling, rising from 89 percent in 1995. This return on tertiary education is consistently growing. However, returns on semi-skilled or matriculation education is falling over time. Similar patterns are observed in terms of skills variables—returns to high-skills professions are increasing.

Returns to formality and unions are growing. As expected, formality yields a higher average return, as does possession of a formal written contract. The union wage premium stands at about 32 percent in 2013, above 1995, although more detailed analytical work, with more careful controls around bargaining council membership and trade union representation provides a union wage premium of about 7 percent (Bhorat, Goga, and van der Westhuizen 2012). Being unionized remains a key predictor for higher conditional earnings across the entire distribution, relative to non-unionized workers in the private sector.

The sectoral wage premium results confirm that all industries pay significantly higher wages than the agricultural sector (the base category), although in most cases this difference is decreasing. This supports the econometric evidence showing a rise in mean farmworker wages arising out of the minimum wage in the sector (Bhorat, Kanbur, and Stanwix 2014). The results for 2010 suggest that the mining industry, followed by the public sector and transport sector—continue to offer the highest sectoral mean wage premiums.

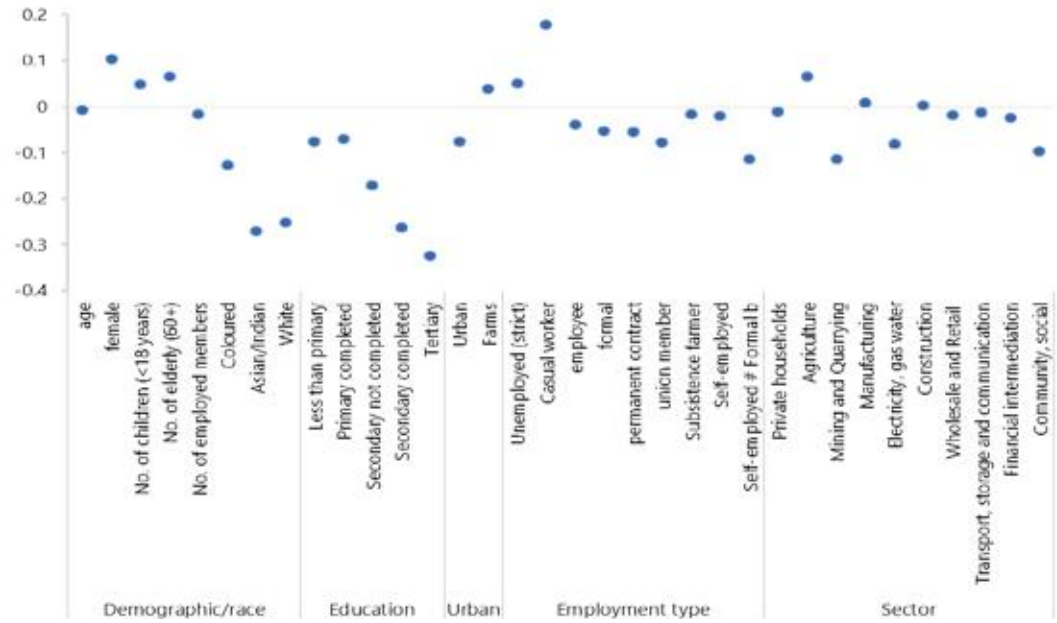
I. LABOR FACTORS AFFECTING TRANSITIONS INTO AND OUT OF POVERTY—RESULT OF PANEL ANALYSIS[39]

This section examines the factors that correlate with risks to poverty during 2008/9–2014/15. NIDS panel data are used to analyze factors contributing to the transition of households into and out of poverty. The results of the probability of falling into poverty are illustrated in Figure 117.

Demographic factors matter for the risk of falling into poverty. Female-headed households, black South Africans, and youth have a higher risk of falling into poverty. For those living in initially non-poor households, the risk decreases with the age of the household head. Members of female-headed households are up to 10 percent more likely to slip into poverty and 2 percent less likely to escape poverty than members of households with male heads. Race remains a strong predictor of poverty, with black South Africans at the highest risk of being poor. In comparison, white South Africans are about 25 percent less likely to fall into poverty and more than 50 percent less likely to remain poor, even after controlling for other characteristics.

39 The analysis is based on the upper bound poverty line.

Figure 117: Marginal effects for transitioning into poverty



Source: Authors' calculations. Compilation of the results from panel regressions.
Note: The figure reports the average marginal effects of a probit regression with the individual poverty status at time t as the dependent variable. That is, the dependent variable is one if an individual is classified as poor at time t and zero otherwise. The explanatory variables include characteristics of the household that the individual lived in at time t-1. All explanatory variables were measured with a time lag (that is, prior to a potential poverty transition) and, in line with most of the poverty modeling literature, are assumed to be predetermined.

The impact of having a working head on risk to falling into poverty vulnerability depends on the type of employment that the head engages in, especially regarding its stability and duration.

- Persons living in a household where the head is unemployed face a similar risk of poverty as those with an economically inactive head or a head who engages in subsistence farming.
- Those living in households where the head is casually employed or helps others with a business are 3.8 percent more likely to remain poor than those with inactive heads. More substantial is the difference among the presently non-poor, where such an unstable job position of the household head is associated with an 18 percent higher risk of falling into poverty, making this an important vulnerability factor.
- Self-employment of the household head can provide an avenue out of poverty. However, while self-employment of the household head in the informal sector is associated with a 2 percent higher chance of exit out of poverty, those living in households where the head runs a formal sector business (registered for income tax and/or VAT) face an 11 percent higher chance of making it out of poverty. Similarly, among the non-poor, self-employment of the household head in the informal or the formal sector is respectively associated with a 6 or 12 percent lower risk of poverty entry.
- Persons living in a household where the head works as an employee face a 3 percent lower risk of remaining in poverty and 4 percent lower risk of transitioning into poverty. The effect is mainly driven by those who have a permanent work contract, which is associated with an about 5 percent lower vulnerability to poverty. Among the non-poor, the strongest effect is estimated for those where the head is a member of a trade union, related to about an 8 percent lower risk of slipping into poverty. This effect is likely explained by higher wages and higher job security associated with union membership.

- Persons living in a household with the head employed in the services and especially in higher-skilled occupations, such as professionals, technicians, or clerical support workers, are considerably less vulnerable to poverty. This applies to jobs in electricity, gas, and water supply, as well as community, social, and personal services, where public sector employment tends to be an important contributor. In fact, there is a strong and significant relationship between the average share of employment in the public sector and reduced poverty risks.[40] In addition, mining sector jobs are associated with a 16 percent lower chance of remaining poor and an 11 percent lower risk of falling into poverty. By contrast, households with the head working in agriculture generally face a higher vulnerability to poverty.

Higher levels of education of the household head are strong predictors for lower vulnerability to poverty. Living in a household whose head has attained some tertiary education reduces the average risk to poverty by about 30 percent compared to those living in households with a head who has no schooling. The effect of primary and secondary schooling, by contrast, differs considerably between initially poor versus non-poor households. Specifically, those living in households where the head has attained at least some secondary education are, on average, 4 percent less likely to remain poor, whereas the risk of falling into poverty is reduced by 17 percent. For those where the head has completed secondary schooling, the average poverty risk is reduced by 10 percent if initially poor and 26 percent if initially non-poor. Primary schooling of the household head is associated with a 7 percent lower average risk of falling into poverty compared to those with no schooling, whereas there is hardly any statistically significant difference with respect to the likelihood to remain in poverty.

Presence of economically dependent household members causes an elevated vulnerability to poverty. The number of employed household members has an important effect on reducing vulnerability although it is smaller for the initially poor than the non-poor. In addition to the explanations suggested earlier, it can be argued that being poor can bring difficulties in finding good quality jobs—through social network effects for example—reducing the probability of exiting poverty.

Data suggest that urban and initially richer provinces had lower vulnerability to poverty. The risk of falling into poverty is about 7 percent lower in urban than in traditional areas, whereas the chances to escape poverty are not significantly different between regions. Everything else being equal, mobility out of poverty and especially mobility into poverty is highest in the Western Cape (although the difference in not statistically significant for all provinces). Poverty persistence is highest in KwaZulu-Natal, followed by the Eastern Cape. Here, both movements into and out of poverty are comparatively infrequent, which may indicate lower volatility, but may also be due to a more rigid social structure.

SUMMARY

The South African labor force is characterized by high levels of unemployment, low participation, and many unemployed and discouraged work-seekers or non-seekers. The two decades following the end of apartheid have yielded a growth path characterized by a rapid relative expansion in the services (or tertiary) sector. A simultaneous shift to a more educated labor force led to an increasing share of semi-skilled and high-skilled jobs. Labor market productivity increased in sectors other than the financial services sector, which had growth in employment that was lower than growth in the sector. Skills intensity increased in in most sectors.

Having an employed household head is not necessarily associated with a lower vulnerability to poverty. A large proportion of the population consists of working poor who earn very low wages. The effect seems to depend on the type of employment that the head engages in, especially regarding its stability and duration. To unlock the full potential of labor markets in accelerating the reduction of poverty and inequality, it is important to create jobs and increase wages at the same time.

40 Public sector employment is not reported in NIDS. The sector level shares have been calculated from the Quarterly Labor Force Surveys (QLFS) by sub-period (2008, 2010/11, 2012, 2014/15) and imputed to NIDS data.

South Africa has a highly unequal distribution of wages and relatively high reservation wages. The labor market is polarized into two extreme job types, giving it a dual structure. A small number of people can access highly paid jobs while the majority work at less well-paying jobs. The high-skill jobs are very sticky: once found, people are unlikely to give them up. The less well-paying jobs are fluid and more likely to employ new entrants into the labor market and more likely to witness exits from employment. One of the more distinct features of South Africa is its apartheid legacy. Race may still affect the ability to find jobs, as well as the wages received once employed. The employment outcome is worse for females than for males, though the gender-employment gap has been closing over time.

A structural mismatch between labor demand and labor supply for unskilled workers is strongly evident. Education is important in transition to labor force participation, but less affiliated with finding employment. Low correlation between education and the probability of finding employment masks heterogeneity in the role of education in finding jobs in different skills requirement categories. Once employed, education and skills result in substantial wage increases. Racial differences alter the probability of finding employment for low-skilled and formal jobs. The dichotomy in finding employment can be explained by rising disparity within the black South African group. Although an increased number of women participate in the economy, female participants have a harder time finding a job and earn less than men when they do. People in urban areas have better job prospects and higher probability of getting a formal job, but there are no significant differences across provinces. High travel costs are a burden for getting jobs.

There is stark segmentation between public and private sector union membership in South Africa. This has had the strongest impact on individuals in the middle of the distribution, as the difference in wage premiums between public sector unionized and private sector non-unionized workers have produced wage gaps that are largest in the middle of the distribution. Ultimately, those workers who have lost out the most in terms of wage returns are not only in the middle of the income distribution, but generally work in the private sector and are non-unionized.

CHAPTER 6

GOOD JOBS ARE THE KEY TO FUTURE REDUCTIONS IN POVERTY AND INEQUALITY

Absent new policy interventions, the prospects for reduced poverty and especially for reduced inequalities are very limited but would benefit from progress in access to education. Poverty rates (at the lower bound national poverty line) are projected to decrease from 40 percent of the population in 2016 to 33 percent in 2030, and inequality would fall, with a Gini coefficient dropping from 62.8 in 2017 to 59.5 in 2030. Interventions that simultaneously stimulate growth and reduce inequalities are likely to have much more impact than interventions that only stimulate growth or reduce inequalities. Analysis of current policy interventions, such as the employment tax incentive and the national minimum wage, suggests that their impact on inequality, and thus on poverty, is very modest. Creating good jobs for the poor will have a much larger impact on inequality and poverty.

A. PROJECTING POVERTY REDUCTION THROUGH 2030

The complex nexus between growth and inequality in South Africa is illustrated through the projections of poverty trends until 2030 under different scenarios. These projections were done using the dynamic World Bank Computable General Equilibrium (CGE) model for South Africa, which includes a microsimulations module to measure the poverty impact of demographic variables (composition of the population by age and education), labor market variables (employment by sector, wages, and firm profits), and exogenous income variables (public transfers and taxes, private transfers).[41]

Long-term policy impacts are measured by comparing a baseline scenario to alternative policy scenarios. The baseline scenario is developed to project the economy until 2030 in the absence of any major shock or radical shift from the current policy stance. This scenario should

41 The CGE model is described in detail in forthcoming SCD analysis. The model aims to provide a consistent framework to explore medium-term developments, based on the main structural features of the economy. The model is calibrated for the year 2012, based on a Social Accounting Matrix (SAM) built by Chitiga-Mabugu (2016). The SAM and the model cover 55 sectors of activity (and corresponding products), 10 household types (corresponding to the 10 income deciles), 12 trading partners, and 7 factors of production: informal labor, formal unskilled, formal semi-skilled, formal skilled, capital, mineral resources, and water resources.

not be considered a projection, but a possible future, from which the impact of alternative policy stances can be evaluated. It does not either prejudge the political feasibility of such a future, which can be considered uncertain given the persistent high level of inequalities, combined with people's high access to political and judicial instruments to redress them. The baseline scenario is influenced by several exogenous drivers, including world prices (slowly rebounding mining prices), water scarcity and need to contain carbon emissions (through taxation of carbon content), and the changing composition of the labor force (in terms of skills) with past and ongoing education efforts.[42] Rebounding from the low levels of 2016 and 2017 (0.3 percent and 0.8 percent, respectively), real GDP would grow at the annual average rate of 1.4 percent between 2018 and 2030 (slightly above population growth, 1.1 percent), generating 215,000 new jobs per year, two-thirds of them among skilled and highly skilled workers. From 27.3 percent in 2017, the unemployment rate would go down to 26.7 percent in 2030. The improvement in the employment rate, that is, the proportion of the working age population that is employed, would be more pronounced, from 42 percent in 2017 to 43 percent in 2030, reflecting education progress discussed below.

Absent new policy interventions, the prospects for reduced poverty and inequality are very limited, but would benefit from progress in access to education.

In the event, poverty (lower bound) would decline from 40 to 33 percent of the population despite low per capita income growth, as inequalities would narrow. The Gini coefficient would drop from 0.63 in 2016 to 59.5 in 2030, and the share of real disposable income accruing to the poorest four deciles—the "bottom 40"—would increase from 8.6 to 10.3 percent (Table 10).

42 The baseline scenario includes several assumptions. Population is set to grow at the annual average of 1.1 percent from 2018 to 2030 (from 57 to 65 million based on UN population projections). Keeping constant pass rates (matriculation and tertiary education) at their 2016 levels, the supply of skilled and highly skilled labor is projected to grow faster (1.6 and 2.0 percent annually, respectively) than that of formal and informal unskilled labor (0.7 percent) between 2018 and 2030 (a total labor supply growth of 1.3 percent). Water supply is assumed to stay constant at its current level until 2030, as all possible water reserves are already being exploited. In contrast, mineral reserves (coal, gold, other mining) are considered infinite, and their depletion rate is being driven by world prices (using World Bank projections, foreseeing a modest rebound in prices) versus production costs. Technological progress is (optimistically, given recent trends, and after accounting for the projected change in the skills mix, and factor reallocation), set to stagnate over the period 2018–30. Net foreign financial flows are set to grow at 2 percent annually. But the progressive introduction of a carbon tax, all direct and indirect tax rates (including import tariffs) are assumed to stay unchanged from 2017 in the baseline scenario. Public consumption and public transfers (social assistance) to households are assumed to stay constant in real per capita terms over the period 2018–30.

Table 10: Projected poverty and inequality rates - baseline scenario

	Food	Lower bound	Upper bound	$1.9 a day	Gini coefficient
2017	24.7	39.8	55.5	18.6	62.8
2030	18.8	32.7	51.3	12.7	59.5
Change 2030–2017	-5.9	-7.1	-4.2	-5.9	-3.3

Source: World Bank staff calculations.

As public transfers to the poor are assumed to remain constant in per capita terms, most of the projected reduction in inequalities can be attributed to a reduction in inequalities of education. Analysis of enrollment and attainment across deciles suggests that progress in education among the poorest deciles could be faster than among richer ones, contributing over time to a redistribution of skills (and related labor incomes) across deciles. At current pass rates, and accounting for the slow renewal of generations and the long time it takes for youth to enter labor markets, the proportion of semi-skilled labor (matriculation level) incomes accruing to the bottom 40 percent would rise from 4.5 percent in 2012 to 11.2 percent in 2030 (while 23 percent of the students

eventually matriculating currently originates from the bottom 40 percent); likewise, the proportion of highly skilled labor (university degree level) incomes accruing to the bottom 40 percent would rise from 0.5 percent in 2012 to 3.6 percent in 2030 (while 11 percent of the cohort eventually getting a degree currently originates from the bottom 40 percent). Such progress is consistent with the observation of a reduction in inequalities of opportunity in the last decade, which is eventually affecting labor markets with a delay.

B. POLICY INTERVENTIONS TO GAIN FURTHER POVERTY AND INEQUALITY REDUCTION

Employment and labor earning is a strong avenue out of poverty. The importance of the labor market in lifting a household out of poverty can be seen when examining the drivers of escaping poverty (Figure 118). Movement out of poverty is more likely to take place if the share of employment income in total income increases; finding a job has nearly as strong an effect. A change in job skill levels also increases the chance of movement by a relatively smaller amount, while an increase in the share of children in a household lowers the probability of escaping poverty.

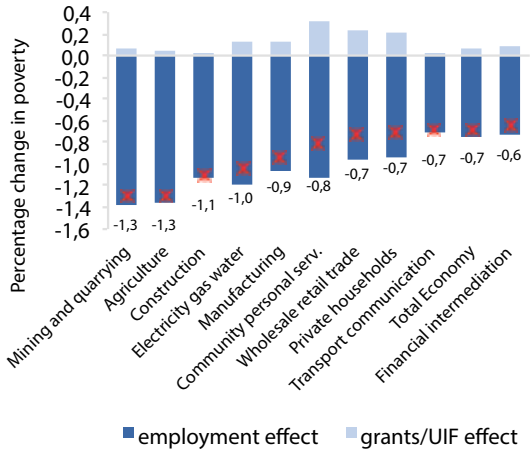
Figure 118: Moving out of poverty: contributing factors

Source: Authors' calculations based on NIDS 2014/15 data.

Labor market participation is important to reduce poverty, but as the labor chapter of this report recognized, the lack in aggregate demand is complimented by the supply side deficiency. South Africa has a skills mismatch and a structural unemployment problem; many workers do not possess the skills employers demand. Demand is low for low- and semi-skilled workers, while high demand for high-skilled workers led to tremendous wage polarization and the emergence of a missing middle. This is associated with the very low earnings for less skilled informal workers making scarcely available low-skill jobs unattractive. A large proportion of the population consists of the working poor who earn very low wages. Improvement of the lives of the poor could be achieved through creating jobs and providing better earning opportunities through developing skills and raising labor productivity.

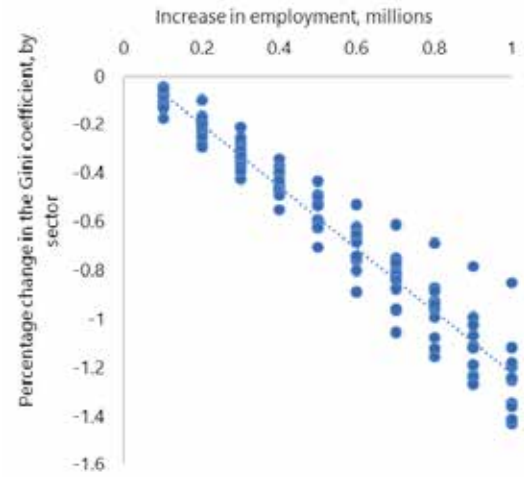
Generating employment will reduce poverty. Figure 119 shows the results of a microsimulation exercise assessing the impact of hiring people out of unemployment on the total economy and for various economic sectors. On average, moving 10 people from unemployment to employment reduces poverty for 7 people, but the effect varies by sector. Thus, adding 10 workers in mining and agriculture will reduce poverty for 13 people (the effect is greater than 10 as wages affect not just workers, but also their households). Increasing employment in construction and manufacturing sectors also significantly affects poverty, though in these sectors the exchange is almost 1 to 1. Getting people into trade, financial services, and community services has a smaller impact. Employment in financial intermediation is geared toward the relatively better-off educated population, so the impact on poverty is smaller than for other sectors. In some sectors, such as employees of private households, the impact on poverty is small because of low wages paid in these sectors and the impact of the loss in transfers on poverty is significant.

Figure 119: Change in poverty due to employment generation



Source: Estimations based on NIDS 2014/15 data. Low bound poverty line adjusted for inflation is used.
Note: The figure shows two effects on poverty that work in opposite directions: potential reduction in poverty due to the increase in employed income (above the zero line), and potential increase in poverty due to the loss of unemployment insurance or means-tested child support grants (below the zero line). The analysis was done first for the whole economy, disregarding sectoral affiliation, and second by targeting employment to each sector.

Figure 120: Change in the Gini coefficient due to employment generation



Source: Authors' calculation based on NIDS 2014/15 data.

The impact of job creation on inequality depends on the magnitude of the increase in employment and sector affiliation of the employment growth. As presented in Figure 120, an increase in employment by 500 thousand individuals will reduce the Gini index by 0.6 percent. The range of the Gini index reduction is 0.4 to 0.7 percent, depending on the sector where employment is growing. The increase in employment in the sectors with higher wages has more pronounced results on the reduction of income inequality. The highest impact on the Gini index is due to the increase in employment in financial intermediation, mining, transport, and electricity sectors. A smaller impact on inequality is associated with an increase in employment in community services, agriculture, and private households.

An increase in wages for the working poor has positive, but relatively small impact on extreme poverty as employment income is not the main source of income for the poor. Figure 122 shows the poverty reduction associated with a 10 percent increase in sectoral wages. A 10 percent increase in wages will, on average, decrease poverty by 3.7 percent. The impact is stronger for the wage beneficiaries, where a direct impact of 10 percent increase in wages results in 7.3 percent poverty reduction. The impact of wages varies by sector. The strongest impact on poverty is observed due the increase in manufacturing and trade sectors.

Figure 121: Changes in simulated poverty rates due to increase in total wages, all economy and beneficiaries

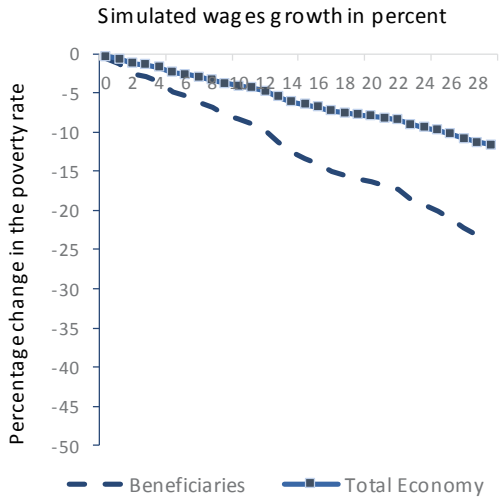
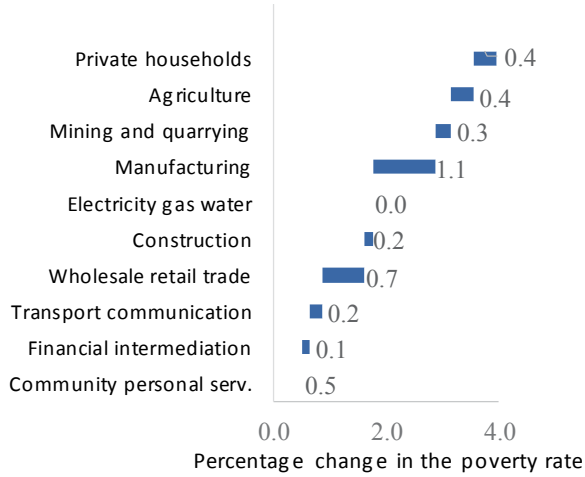


Figure 122: Percent reduction in poverty rates following 10 percent wages growth



Source: Simulations are based on NIDS 2014/15 data. LBPL adjusted for inflation is used for the analysis. In the above simulations, employment elasticity is not assumed, thus the increase in wages is not associated with decrease of employment. Figure 122 suggests a poverty reduction of 1.27 percentage points, which is 3.8 percent of the lower bound poverty rate.

Both employment generation and wages for the poor are important for reducing poverty and inequality. Raising labor demand will ultimately be the driver of rapid reductions in poverty and inequality. As in the baseline scenario, the ability of poor South Africans to eventually get skilled jobs is the most promising avenue to reduce poverty and inequality. However, long-term economic growth prospects are grim and projected labor demand is unlikely to be high enough to create the quantity and quality of jobs needed to reduce poverty and inequality. Thus, the access of the poor to skilled jobs needs to be accelerated to improve inequality, in raising labor demand through structural reforms, and in preparing the labor force to meet the new needs of the South African economy, as its comparative advantages evolve over time. The following sections in this chapter explore a few policy options in this regard.

C. DISTRIBUTIONAL IMPACT OF LABOR MARKET POLICIES AND LEGAL INSTITUTIONAL CHANGES IN RECENT YEARS

This section analyzes the current set of labor policies and their projected impact on wages and poverty and then focuses on interventions that would potentially have stronger impact on poverty. Box 11 summarizes the aims of the various amendments to the Labour Relations Act (LRA).

Box 11: Policy, legal, and institutional changes

The purpose of the Labour Relations Act of 1995 was to advance economic development, social justice, labor peace, and the democratization of the workplace by complying with labor standards set by the ILO (Oosthuizen et al. 2016). The act provides a framework within which employees and their employers can bargain collectively on wages and terms of employment and that supports the formulation of industrial policy. Over time, amendments have been passed to allow for the organizational rights of trade unions, the provision of pension and medical scheme coverage of employees, and the power of bargaining councils to provide industrial support.

Table 11: Amendments to the Labour Relations Act

1996	1998	2000	2002	2014
To facilitate and regulate the organizational rights of trade unions. To promote and facilitate collective bargaining.	Provisions for pension and medical schemes. To adjust the requirements for extending any collective agreements concluded in a bargaining council to non-parties.	Specified the laws around bargaining council registration, extension agreements, and council agents. Gave bargaining councils the power to provide industrial support services to participating parties.	To enhance the enforcement of collective bargaining agreements. Extended services and functions of bargaining councils to the informal sector.	To provide greater protection for workers placed by temporary employment services by: Regulating the employment of fixed-term contracts and earnings of part-time employees below the earnings threshold; Specifying the liability for employer obligations; Limiting temporary employment to work that does not exceed six months.

Source: Oosthuizen et al. 2017.

i. The Labour Relations Amendment Act of 2014, labor brokering, temporary employment services

The LRA Amendment Act 6 of 2014 provided greater protection for workers in temporary employment services (TES). This amendment was introduced due to growth in the number of TES workers being employed, as well as the prevailing view that working conditions for these workers were worse than for permanently employed individuals. Under TES employment third-party companies provide workers to fill various jobs in formal sector firms. In South Africa, these are called labor brokering services. The occupations they fill include cleaning, accounting, secretarial services, security services, and others. The distinguishing factor of TES arrangements is that the firm that receives the service does not directly hire the individual providing that service. The services provided by TES employees range in skill level, but as noted, TES employees are usually more vulnerable, consisting of either youth, or individuals from households close to the national poverty line (Bhorat, Cassim, and Yu 2014).

The LRA Amendment Act specified that workers who earned less than an annual threshold were deemed permanent employees after three continuous months of employment. As a result, the amendment made it illegal to employ temporary staff for a duration of longer than three months. The amendment also states that all

temporarily employed persons must receive the same wage and non-wage benefits as permanently employed persons.

The employment growth in TES has exceeded the national employment growth rate of most sectors, including the financial sector. TES employment, as a proportion of financial employment, increased from 27 percent in 1996 to 47 percent in 2014 (Bhorat et al. 2015), and as a proportion of total employment it went from 2.2 percent to 6.44 percent in the same period. The TES sector has been instrumental in maintaining, and arguably raising, employment levels. In its attempt to protect vulnerable workers, the conditions presented by the LRA Amendment Act of 2014 may thus have had adverse effects on the pattern of employment levels in the TES sector. The extent to which firms are compliant with basic employment condition legislation, such as paying unemployment insurance, is an important determinant of the way TES workers are treated (Bhorat, Cassim, and Magadla 2015). Nonetheless, the LRA Amendment Act, which is an attempt at creating permanent employment, is targeted at all firms irrespective of compliance with legislation.

The unintended consequences of this amendment may be an increase in labor shedding as firms try to shirk the responsibility of having to permanently employ more workers. The impact of this amendment was evaluated by Bhorat, Magadla, and Steenkamp (2015) using data from a survey conducted by the confederation of associations in the private employment sector. Using data from the post-legislation period, the authors show that the LRA Amendment Act had the effect of reducing jobs across the TES industry, notwithstanding the effects of external shocks to each of the industries (Bhorat, Magadla, and Steenkamp 2015). The authors show that the dominant firm response to the LRA Amendment was to terminate employment, with a very small proportion of total jobs ending in permanent employment. The negative effects were largest in the metal and engineering, public, manufacturing, healthcare, white collar, and education industries.

ii. The Employment Tax Incentive

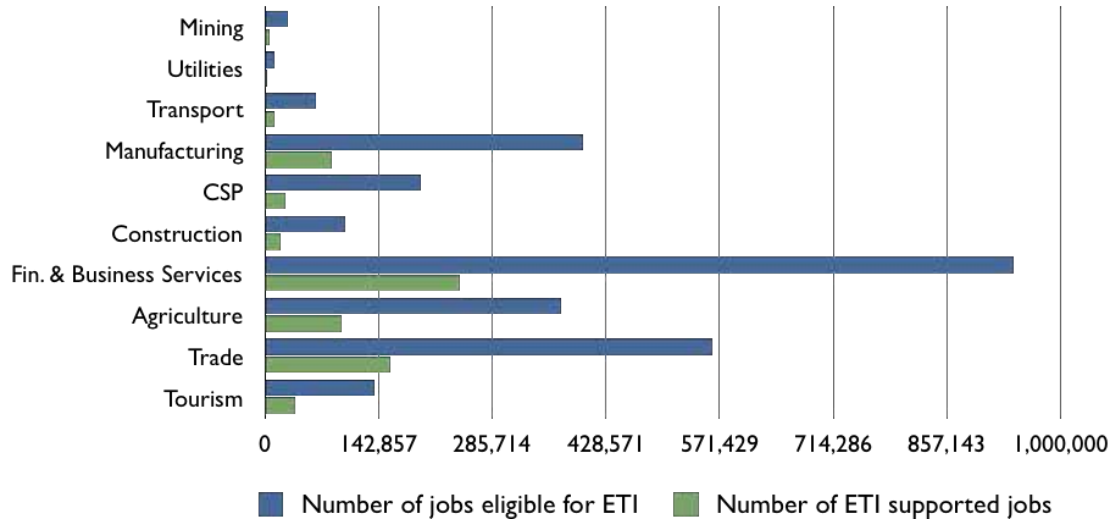
The Employment Tax Incentive (ETI) is a demand-side policy intended to counter the structurally high youth unemployment rate. The policy was signed into law in 2013 and was to last two years, from January 2014 to December 2016. The rationale of the policy was to offset the costs of hiring young, typically inexperienced workers in a country where education is not always a reliable indicator of job readiness (National Treasury 2016). The policy consists of a tax incentive to firms to stimulate youth employment.[43]

The ETI is currently the only demand-side incentive the government employs to absorb excess labor supply. Between the introduction of the incentive to the end of 2015, over R2.26 billion in tax incentives were claimed by firms, supporting a total of 686,402 jobs, which equates to 5 percent of total jobs on the labor market. In general, workers supported by ETI were not highly experienced and 57 percent of them were not registered for tax before acquiring their job at the ETI-claiming firm. On the caution side, the natural job turnover rate for youth in the South African labor market is high. The ETI does not require a new job to be created, it only requires a position to be filled by a young person. The natural turnover rate of jobs is sufficient to generate enough positions (without creating additional jobs) to exhaust the budget of the ETI.

Bhorat and Thornton (2016) show that the ETI had differing impacts across sectors. Figure 123 shows the eligible and supported jobs by sector, with the highest numbers of potential or eligible workers in the financial and business services sectors, wholesale and retail trade, and manufacturing. Actual uptake of the incentive was highest in the sectors with high eligibility—first financial and business services, followed by retail and wholesale trade, then agriculture and manufacturing. The highest number of claiming firms came from manufacturing, followed by financial and business services. The uptake rate was highest in tourism, with a rate of 26 percent of firms.

43 Firms are meant to pay less income tax per eligible employee between ages 18 and 29 who was hired after October 1, 2013, and earns less than R6,500 per month. Firms have 24 months (or until December 31, 2016) to claim a rebate for these workers, by which time, the workers are expected to have accrued enough experience to either keep their current job or qualify for a new one. The incentive is structured so that for the first year the full tax rebate is due to the employer, and in the second year of employment the rebate halves. The incentive is designed to discourage a "race to the bottom" whereby employers stand to benefit by paying lower wages to prospective candidates. To this end the size of the incentive is designed to rise then fall as monthly wages increase.

Figure 123: ETI eligible and supported jobs by sector



Source: Bhorat and Thornton 2016.

Displacement of older workers and wage depression are the main concerns for the efficiency of the program. Econometric evidence by MacLeod and Rankin (2016) found a drop in the growth of full-time equivalent jobs for workers age 30–35 for the firms that claimed ETI, but the absolute number of this drop was small. This kind of displacement is an adverse effect of the tax incentive, as employers substitute younger subsidized labor for older workers. Aside from displacement, another concern regarding the ETI would be that wages would be depressed, or destructive churn would be created around firms shuffling employees to maximize benefits obtained from the incentive.

iii. Expected poverty impact of national minimum wage legislation

In February 2017, representatives of government, business, the community sector and two of the three labor federations signed the national minimum wage agreement. According to agreement, workers will receive a minimum of R20 per hour, which translates into a monthly wage of about R3,500 for a 40-hour week, and about R3,900 for those who work 45 hours a week. This section analyzes short- and long-term implications of this agreement.

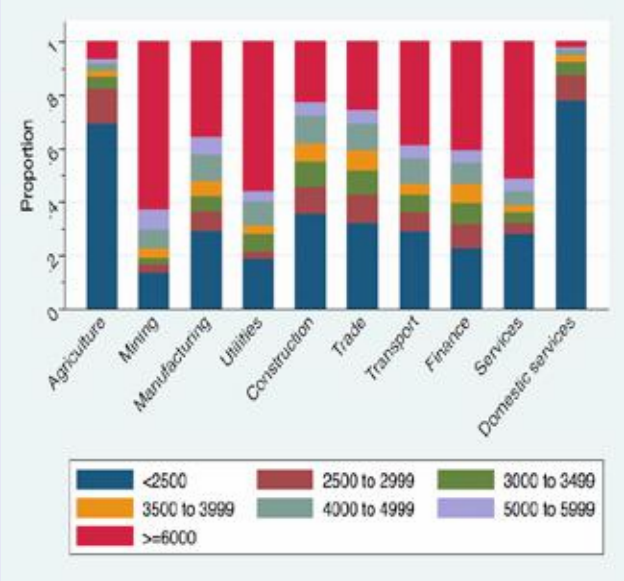
Minimum wages in South Africa are covered by the LRA and the Basic Conditions of Employment Act (BCEA). The LRA guarantees the right to collective bargaining and is negotiated between unions and employers. The Minister of Labor can extend wage agreements to cover all employers and workers in a sector, regardless of whether those workers are part of the relevant bargaining council (see Box 12). There are currently 47 bargaining councils, of which 38 are private, 6 are public, and 3 are statutory. The BCEA outlines the work conditions for all employees in the country, as well as the process for the sectoral determination (SD) of wages. The SD mechanism is aimed at vulnerable workers, and at sectors that are not represented by workers' organizations. South Africa has 11 SDs, with over 120 different wage rates.

Box 12: Application national minimum wage

A national minimum wage (NMW) will be applied to all sectors of the economy from May 2018. The value of the NMW has been set at R3,500 per month, or R20 per hour (equivalent to R2,976 in 2015 rand). Exceptions have been made for various sectors, with the agriculture and domestic service minimum set at 90 percent and 75 percent of the NMW, respectively. The NMW uses the definition of economic vulnerability set out in the BCEA to determine the initial subsample of workers to whom the NMW could apply. That is, the BCEA sets an income threshold below which workers are considered economically vulnerable, in the sense that their bargaining power is compromised. Figure 124 presents the typology of workers below this threshold in 2014. Of the economically vulnerable in the labor force, more than half are covered by a sectoral determination (SD), 10 percent belong to a private trade union, 8 percent to a private bargaining council, and 14 percent to the public sector, and 22 percent are uncovered.

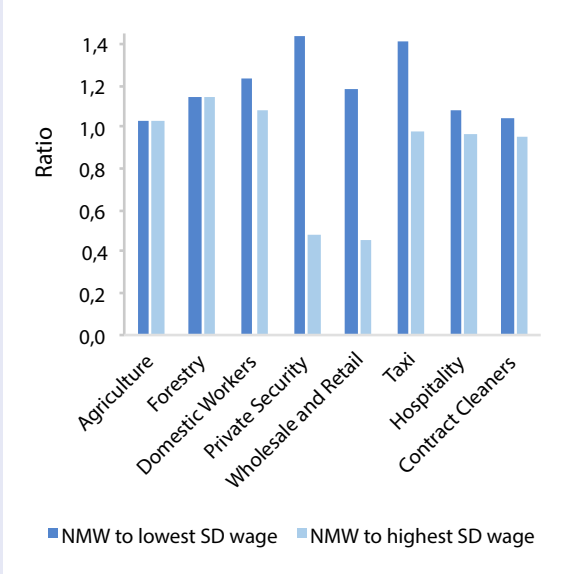
Approximately 40 percent of full-time workers (at least 35 hours per week) would be covered by a NMW of R2,976 in 2015 rand, but the coverage varies significantly by sector. The two sectors in which more than half of workers earn less than the proposed NMW are domestic services and agriculture, where 87 percent and 82 percent of workers earn less than R2,976. Wages in the construction and trade sectors are very similar, with just over 40 percent of workers earning below R3,000 a month. The percentages shown here do not indicate the extent of the distance that workers are below each line. For example, while the percentages affected at various levels in agriculture and domestic services are similar, the extent to which they impact will vary, as 50 percent of full-time workers in agriculture earn below R2,253 per month, compared to the 50 percent who earn below R1,577 per month in domestic services.

Figure 124: Earning bands by sector (2015 rand)



Source: Finn 2015.

Figure 125: Ratio of NMW to lowest and highest SD wages



Source: Adapted from Bhorat et al. 2016.

The relationship between the NMW and the current SD minimums differ widely by sector. The figure above presents the ratio of the NMW to the lowest and highest legislated minimum wages for eight sectors. The complexity of the current SD regime means that there are some large within-sector differences in minimum wages. For example, the lowest minimum wage in the taxi industry is R2,113 per month, while the highest legislated minimum is R3,021 per month. In contrast, the agriculture and forestry sectors have no within-sector minimum wage variation. The private security sector shows the

biggest differences between existing minimums and the NMW. The NMW is over 40 percent higher than the current lowest minimum wage in private security but is less than half of the highest minimum in that sector. The overall impact will, of course, depend on the within-sector distribution of wages. The ratios for the lowest and highest SDs for contract cleaners are much closer, with the NMW being just higher than the lowest SD minimum, and just lower than the highest SD minimum in that sector. Lack of compliance by employers drives a wedge between wages that are legislated and wages that workers receive. Given the complexity of the existing SD wage setting mechanism, it is possible that the simplicity of an across-the-board NMW will have positive implications for compliance.

A microsimulation was used to assess the first order effect of the distributional impact of the proposed minimum wage on poverty and inequality. A modified version of the Bhorat et al. (2016)[44] methodology was followed by evaluating the impact of the minimum wage on sectoral wages. Sector-level increases in wages are assumed as a difference between current and proposed legislation. Three wage elasticities were used to generate a set of employment effects for these NMW scenarios: 0.1—low level elasticity suggesting maximum impact on incomes and minimal impact of employment, -0.3—moderate level of elasticity, and -0.5—a relatively high elasticity suggesting a higher level of employment adjustment. In addition to adjustment of total employment, the adjustment in individual hours worked was also simulated. The results obtained from adjustment in employment and changing work hours were not significantly different. Counterfactual wage, employment, and total household income were estimated based on the proposed methodology using NIDS 2014/15 data. To understand the extent to which the minimum wage has the potential to affect the distribution of wage inequality in South Africa, the income Gini coefficients, poverty rates, and growth in incomes were calculated.

44 Job losses of those who were employed at the time the survey was conducted were derived using a probability distribution of those most likely to lose their jobs. The probability distribution was estimated using a two-step Heckman model of employment equation, considering sample selection bias of those who will keep their jobs, based on five characteristics: race, gender, education, location, and age. This probability was then appended to the "wage gap"—the "distance" between an employee's current wage and the new legislated wage—as a weight, and thus jointly determined a ranking or queue of those individuals most likely to lose their jobs following a minimum wage introduction. This was then used to estimate the impact on household inequality for households with at least one wage earner, then for all households including those with no wage earner.

Figure 126: First order effect: impact of projected minimum wage legislation on poverty and inequality

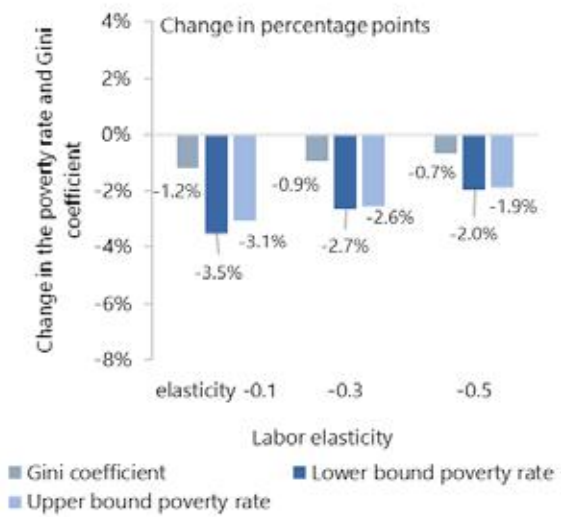
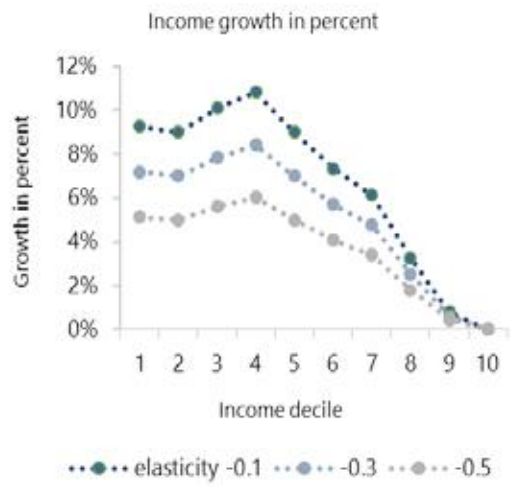


Figure 127: First order effect: impact of projected minimum wage legislation on income, by decile



Source: Authors' calculations based on NIDS 2014/15 data.

Implementation of the NMW would have uncertain, and at best relatively marginal impact on poverty and inequality. As expected, the lower the impact of the minimum wage on job shedding, the higher its impact on poverty and inequality reduction: a small labor demand to wage elasticity (-0.1) would generate a 1.2 percentage point decline in the Gini coefficient, and a 3.5 percentage point decline in the lower bound poverty rate. At the other extreme, a large labor demand to wage elasticity (-0.5) would generate a 0.7 percentage point decline in the Gini coefficient, and a 2.0 percentage point decline in the lower bound poverty rate. These mechanical estimates remain subject to a number of uncertainties, as many other second order effects could come to play, including imperfect enforcement of the minimum wage and greater resort to informality, impact on workers' additional level of effort with higher wages, impact on the price of goods disproportionally consumed by the poor, agricultural goods notably, impact on the wage of unskilled labor whose remuneration is already above the minimum wage, possible shift in labor demand toward skilled labor, and deepened capital intensity at the expense of unskilled labor.

This stickiness of the Gini coefficient points to a larger problem with addressing the extent of inequality. While the NMW has the potential to positively affect many low-wage earners and employed households, the impact that the NMW has on the broader inequality of the population becomes negligible. Tackling inequalities calls for solutions that would increase the participation of the poor in a more rapidly growing economy—that is, promoting inclusive growth in a meaningful way.

D. FUTURE POLICY MEASURES THAT COULD HELP REDUCE POVERTY AND INEQUALITY

Authorities acknowledge the need to accelerate growth to address poverty and inequality. Recognizing the need to accelerate GDP growth from a low potential, authorities underlined in the Budget Review 2018 put before the Parliament in February the need to undertake structural reforms to forge a new compact between the social partners and provide investors with the certainty required that would encourage increased investment. Raising the level of investment and improving the ease of doing business in the country will support job creation. The government aims to finalize many outstanding policy

and administrative reforms in sectors with high growth potential. The government envisions mining sector policies that support investment and transformation, telecommunication reforms, lowering barriers of entry and anticompetitive practices, supporting agriculture and tourism sectors, and increasing skill levels across the country. The National Treasury estimated that, if the international environment remains supportive, effective implementation of the reforms could boost economic growth in the coming decades (Figure 130)

The World Bank CGE model was used to assess the effect of higher growth on poverty and inequality in the medium- to long-term. As suggested in the Budget Review, improvement in confidence, telecommunications reforms, the reduction of barriers to entry, transport reforms, and support to tourism and agriculture would encourage investment and raise productivity to eventually raise GDP growth potential by about 2 percentage points (Figure 130). The World Bank CGE model reflects this growth acceleration though higher productivity, domestic savings, and investment, and measures its impact on jobs, poverty, and inequality by 2030, in comparison to the baseline scenario discussed earlier. The results of this simulation (TFP1) are presented in the column 3 of Figure 131. Such higher growth results having significant impact on poverty, but not on inequality. As reflected in the table, the low bound poverty rate would be 23 percent in 2030 (column 3, TFP-2030) in comparison to 33 percent in the baseline scenario (column 2, BS1-2030). Inequality, however, will remain at the same level. The scenario also suggests slight improvement in labor indicators—a fall of unemployment to about 24 percent in comparison to the 27 percent in the baseline and some improvement in the employment rates. This is because of the currently weak labor supply response to new economic opportunities discussed in previous chapters, including the skills mismatch.

Box 13: Growth to poverty elasticity in South Africa

The poverty reduction response to growth differs substantially across countries. The percent of poverty reduction due to average growth is measured by the growth to poverty elasticity. Growth to poverty elasticity is the percentage reduction in poverty rates associated with a percentage change in mean per capita consumption. Generally, increases in per capita consumption decrease the poverty rate, hence the elasticity is negative.

Growth to poverty elasticity ranges from -1 to -6 in developing countries, with a median estimate of around -3. Thus, on average in developing countries, a 1 percent increase in per capita consumption is associated with a 3-percentage point decrease in the poverty rate. Several factors affect the growth to poverty elasticity, the most important of which are the initial income distribution and the poverty line. Generally, countries with a more equal distribution of income have a higher elasticity and thus greater reduction in the poverty rate for a given increase in per capita consumption.

South Africa has very low growth to poverty elasticities due to the extremely high levels of income inequality. The country's growth to poverty elasticity in 2014/15 was -1.22 for FPL, -0.58 for the LBPL, and -0.97 for upper bound poverty (Figure 128). The growth to poverty elasticity in rural areas is the lowest, ranging from -0.33 to -0.71, depending on the choice of the poverty line. A relatively high proportion of the population lives far below the poverty line, and economic growth leads to relatively slow poverty reduction.

Figure 128: Elasticity of poverty to consumption growth, 2014/15

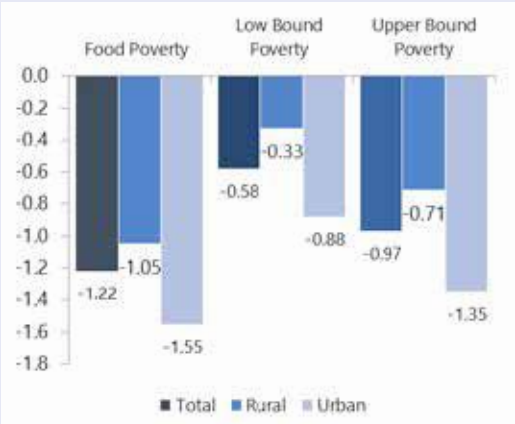
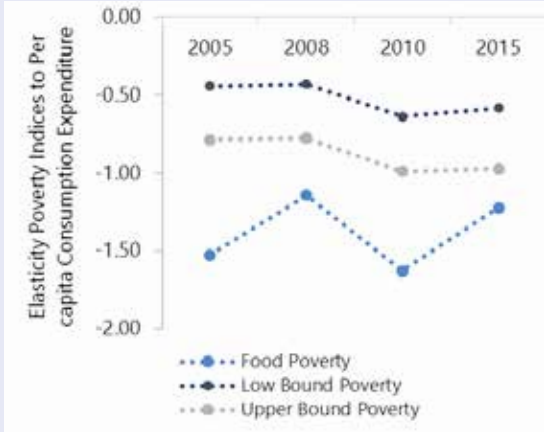


Figure 129: Elasticity of poverty to consumption growth, 2005–15



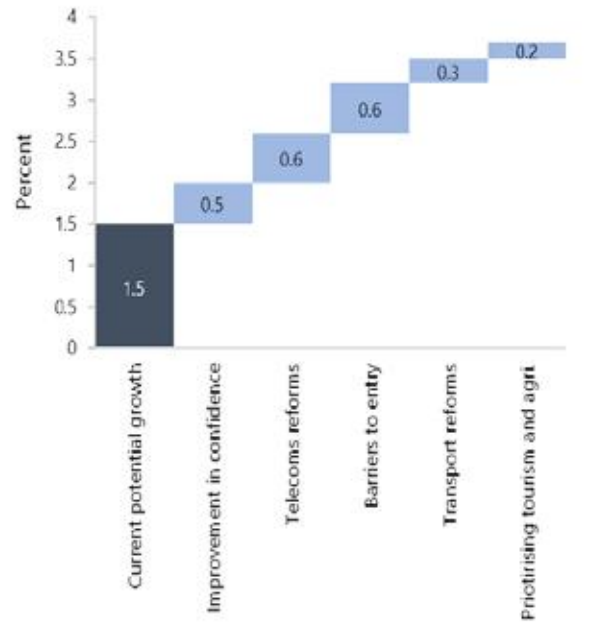
Source: Authors' calculations based on IES and LCS survey 2005–2015.

South Africa's low growth to poverty elasticities underline the critical importance of reducing inequality by developing social and economic policies that foster pro-poor growth. South Africa's growth to poverty elasticities are lower than in most of the middle-income countries worldwide, but comparable to that of other highly unequal African countries. For instance, the elasticity in the relatively equal Mauritius is -3.2, while elasticity in Botswana is -1 and in Namibia -2. Over 2005–2015 growth led to a reduction in poverty (Figure 129), but it remained insufficient to make a significant dent in poverty, given the high inequality levels. Thus, future interventions that stimulate growth and reduce inequalities are likely to be much more effective than interventions that only stimulate growth or reduce inequalities.

Coupling growth-acceleration reforms with efforts to narrow the skills gap would generate synergetic effects, and help South Africa attain the goals articulated in the NDP. Higher growth should provide the fiscal space to generate more job opportunities for the poor through education and provide a dignified life to those unable to reap growth opportunities through more generous social assistance. TFP2 simulation adds to TFP1 improved basic education and financial support to access university for the bottom 40 percent,[45] and increased social assistance. Accelerated efforts to improve the quality of basic education and access to tertiary education would be rewarded by a significant reduction of inequalities by 2030—with a Gini down to 58, significantly amplifying the poverty-reducing impact of accelerated growth. As with strengthening the social compact through reduced inequalities, combined efforts would also likely improve the confidence of investors. Hence, costs to narrow the skills gap (of about 1 percent of GDP by 2030, comparing TFP1 and TFP2) could be partially offset by higher growth.

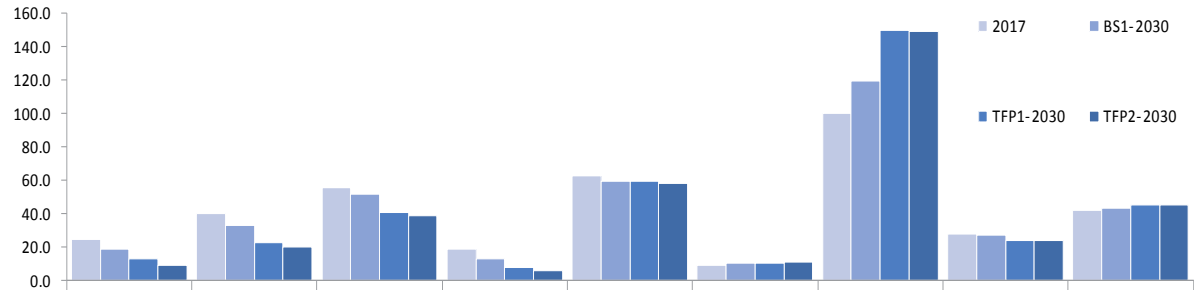
45 Two broad policy sets can be envisaged to improve the skills of youth from poor backgrounds: improving teachers' capacity and accountability to raise primary and secondary school achievements among the poorest deciles; and facilitating access to university for poor eligible students through financial support.

Figure 130: Potential impact of selected NDP reforms on GDP growth



Source: National Treasury, February 2018.

Figure 131: Projected impact of the policies on poverty and social indicators



	Food	Lower Bound	Upper Bound	US$1.9 day	Gini Coefficient	Bottom 40 share of real disposable income	Real GDP index (2016=100)	Unemployment rate	Employment rate
2017	24.7	39.8	55.5	18.6	62.8	8.6	100.0	27.3	42.1
BS1-2030	18.8	32.7	51.3	12.7	59.5	10.3	119.5	26.7	43.1
TFP1-2030	12.9	22.6	40.8	7.4	59.4	10.2	149.8	23.5	45.0
TFP2-2030	8.9	19.9	38.7	5.7	58.0	11.1	149.0	23.8	44.9

Source: Authors' calculations.

SUMMARY

Poverty reduction prospects by 2030 will depend on GDP growth and the reduction of income inequalities, the former being affected by access of the poorest groups to economic opportunities, and fiscal redistribution. South Africa has slow growth to poverty elasticities due to the extremely high level of income inequality. Projected sluggish growth, coupled with recorded improvements in access of the poor to education (and eventually, skilled jobs) is likely to somewhat reduce inequality and poverty in the coming years (baseline scenario). Poverty rates (at the lower bound national poverty line) are projected to decrease from 40 percent of the population in 2016 to 33 percent in 2030 despite slow growth, as inequality would fall, with a Gini coefficient dropping from 62.8 in 2017 to 59.5 in 2030.

Future interventions that simultaneously stimulate growth and reduce inequalities are likely to be much more effective than interventions that only stimulate growth or reduce inequalities. Analysis of current policy interventions, such as the ETI and the NMW, suggests that their impact on inequality, and thus on poverty, is very modest. Creating good jobs for the poor will have a much larger effect on inequality and poverty. The social impact of reforms currently envisaged by authorities to boost growth would be significantly amplified with reforms to equip the poor to reap growth opportunities through the acquisition of skills. In doing so, the social compact would be further strengthened, with a likely positive impact on investment. Nonetheless, recognizing the time needed to increase the economic participation of the poor over future generations, such a package of reforms would still need to pay attention to maintain social assistance to the poor and vulnerable. Higher fiscal revenue from accelerated growth would provide the fiscal space to do so.

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ANNEX

Technical background papers produced for this report

Non-Income Dimension of Poverty, The nexus between food security and nutrition, and income poverty in South Africa, by Julian May and Coretta Jonah.

Understanding changes in welfare: The case of South Africa 2005 – 2014, by Nga Thi Viet Nguyen and Victor Sulla.

Structural Change and Patterns of Inequality in the South African Labour Market, by Haroon Bhorat, Safia Khan.

SMMEs in South Africa. Understanding the Constraints on Growth and Performance, by Haroon Bhorat, Zaakhir Asmal, Kezia Lilenstein, Kirsten van der Zee.

Social Assistance in South Africa, by Morné Oosthuizen.

The Structure and Evolution of Inequality in South Africa from 2005 to 2015, by Kanishka Kacker.

Something in the way they move? Patterns of labor mobility and earnings mobility in South Africa, by Kanishka Kacker.

The Structure and Evolution in South African Inequality 2005 – 2015, by Kanishka Kacker.

The Dual Nature of the South African Labor Market, by Kanishka Kacker.

Assessing the Extent and Nature of Chronic Poverty, Poverty Dynamics, and Vulnerability to Poverty in South Africa, by Simone Schotte, Rocco Zizzamia, and Murray Leibbrandt.

SOCIAL STRATIFICATION, LIFE CHANCES AND VULNERABILITY TO POVERTY IN SOUTH AFRICA, by Simone Schotte, Rocco Zizzamiab and Murray Leibbrandt.

How useful is the South African National Income Dynamics Survey for dynamic social welfare analysis? by Kanishka Kacker.

How does the Son Rise in the Rainbow Nation? Intergenerational Mobility in South Africa, by Kanishka Kacker.

Background Note on Household Capability and the Distribution of Households Wealth with a Specific Focus on Wealth Inequality, by Carel van Aardt, Bernadene de Clercq, Johann van Tonder.

NOTES:

This report documents the progress South Africa has made in reducing poverty and inequality since the end of apartheid in 1994, with a focus on the period between 2006 and 2015. The main conclusions are as follows: First, by any measure, South Africa is one of the most unequal countries in the world. Inequality is high, persistent, and has increased since 1994. Second, although South Africa has made progress in reducing poverty since 1994, the trajectory of poverty reduction was reversed between 2011 and 2015, threatening to erode some of the gains made since 1994. High levels of inequality and low intergenerational mobility act as a brake on poverty reduction and as a result poverty is high for an upper middle-income country. Poverty is consistently highest among black South Africans, the less educated, the unemployed, female-headed households, large families, and children. Further, poverty has a strong spatial dimension in South Africa, a demonstration of the enduring legacy of apartheid. Poverty remains concentrated in previously disadvantaged areas, such as the former homelands – areas that were set aside for black South Africans along ethnic lines during apartheid. Third, high levels of income polarization are manifested in very high levels of chronic poverty, a few high-income earners and a relatively small middle class. Fourth, the role of skills and labor market factors have grown in importance in explaining poverty and inequality while the role of gender and race, though still important, has declined, presenting an opportunity for policy to influence poverty and inequality outcomes. Social protection remains important in reducing extreme poverty, but the fiscal space for further expansion is limited.

Low growth perspectives in the coming years suggest poor prospects of eliminating poverty by 2030 as envisaged in the National Development Plan. Looking ahead, accelerating poverty and inequality reduction will require a combination of policies that seek to unlock the full potential of labor markets and promote inclusive growth through skilled job creation.

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