Youth Employment Scenarios for South Africa in 2035

An Interdisciplinary Approach Combining Anthropology, Economics, and Systems Theory

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Abstract

Youth unemployment in South Africa is a ticking time bomb: about half of the working-age population under the age of 34 does not have a job. Without a job, there is no income. Without an income, there is no way to build a future. The *Arab spring* vividly illustrated the consequences of widespread dissatisfaction amongst socio-economically desperate young people. The *Arab spring* has also taught us that the future is anything but predictable. What does the future of South Africa look like considering its masses of desperate, unemployed, and unskilled youth? Is there the possibility of disarming this ticking time bomb, and how would we prepare for the event of its detonation?

This research project illustrates four possible future states of youth employment in South Africa in the year 2035. Utilizing scenario analysis rooted in complex systems theory while building on statistical and field research, allows us to identify the status quo, the drivers for employment, and the future scenarios.

90 expert interviews, along with interview data from 20 municipalities in South Africa with the highest absolute youth unemployment rate, fieldwork in six townships, and a scenario sounding board of 27 experts, ranging from teachers, social workers, academics, business representatives, policy makers to affected youth, allowed for identifying the current challenges, the eleven key drivers for employment, and the scenarios for 2035.

The 13 current challenges are: (a) 48% of youth not having work while the biggest issue is among job entrants, (b) job prospects being best in urban areas and the Western Cape, and worst in rural areas and the Eastern Cape, (c) *black* Africans being disproportionately affected by unemployment compared when to other ethnic groups in South Africa, (d) a direct correlation between increased educational attainment and lower levels of unemployment and desperation, (e) university graduates having a 95% chance of finding a job, (f) 3/4 of unemployed youth never having worked before, (g) 1/3 of the employed youth with an informal job, (h) most jobs being paid labour, (i) little extant entrepreneurial activity amongst youth, with just 9% engaged in entrepreneurial activities, (j) youth hustling for low paid day jobs, not utilising third-party support, (k) the challenges in finding a job being varied, but largely based lacking technological, social and physical access, (l) a lack of role models in the social environment, (m) level of contentment is low and the willingness for violent protest is high.

The eleven drivers are: (1) number of available jobs (most impactful driver), (2) access to entrepreneurship capabilities, (3) demographic shifts, (4) migration patterns, (5) schooling system,

(6) skills development, (7) health, (8) access to jobs, (9) structural employment barriers, (10) social and cultural environment, and (11) perceived inclusion of youth into society (most uncertain driver).

The four scenarios of *Spring*, *Summer*, *Fall*, and *Winter*, span extremes that could possibly befall youth in South Africa, namely the South African version of the *Arab spring*, where young people riot or agitate for extreme political and social change due to the belief that access to education and jobs is only possible through social status or corruption (*Spring*), fair access to a high number of jobs (*Summer*), a decline in the number of jobs where merit-based access for youth is granted (*Fall*), and the collapse of the economy, and youth falling into desperation (*Winter*).

Five proposals for fighting youth unemployment are presented to avoid an impending *Winter* in South Africa: (1) boosting of the economy in targeted geographies and industries, (2) training of youth to start a business, (3) stimulating small and medium-sized enterprises, (4) sending unemployed, unskilled youth abroad for skills development and to where their labour is in need, and (5) an employer-demand-led training model.

Key words

Youth, employment, unemployment, scenario analysis, complex systems, South Africa, education, employment drivers, employment initiatives, solutions for unemployment, job availability, Factfulness

Abbreviations

AI	Artificial intelligence
ANC	African National Congress, political party
B-BBEE	Broad-Based Black Economic Empowerment
BEE	Black Economic Empowerment
CDE	Centre for Development and Enterprise, think tank
COSATU	Congress of South African Trade Unions, union federation
DA	Democratic Alliance, political party
DHET	South African Department of Higher Education and Training
GDP	Gross domestic product
EFF	Economic Freedom Fighters, political party
EPZ	Export processing zones
IDZ	Industrial development zone
OEM	Original equipment manufacturer
RDP	Reconstruction and Development Programme, housing programme
SACP	South African Communist Party, political party
SADTU	South African Democratic Teachers Union
SETA	Sector Education and Training Authorities
SEZ	Special economic zone
TVET	Technical and Vocational Education and Training
UBI	Universal basic income

Main part

"Nothing is ever for sure and everything is always changing."
Fukunaga, 2015

"The world cannot be understood without numbers.
But the world cannot be understood with numbers alone."
Rosling, Rosling, & Rönnlund, 2018

1. The 'ticking time bomb' of youth unemployment in South Africa

Youth unemployment receives wide discussion in South Africa, most often referred to as a "ticking time bomb", due to the devastating rate of youth unemployment in the country. It is a term frequently used in print and electronic media (Baje, 2018; Bizlink, 2018; Business Report, 2017; Maimane, 2018) as well as in various conferences (Koseff, 2018; Naude, 2018; Nxasana, 2018; Pityana, 2017a; Sonn, 2017a). The phrase time bomb implies fear and uncertainty, and the following questions pertain to such a situation: Why is there a bomb with a ticking detonator? What happens when it explodes? When will the timer have run out and trigger the detonation? Can it be defused? How? By whom? The problem poses many questions. Many people talk about the issues and scratch their heads. However, no one presents comprehensive answers (Matschke, 2019).

Why is this the case? Those that discuss the matter in the public sphere understand that there is a problem, but they are too far away from the causes to understand the immense complexity of this issue. On average, the debaters are: *white*, male, 50 years plus in suits and ties, academic degree holders and affluent to wealthy. There has never been a debater participating in a conference attended by the author that was *black*, female, in her 20s, a school dropout, from a disadvantaged background and poor, the profile of the average unemployed youth in South Africa. Policy makers can also be regularly found not to attend. Neither of these seem to be invited to such debates, or indeed interested in contributing to them.

Consequently, the debates are simplified: reasons include the broken education system (Nxasana, 2018), or more recently, students destroying the universities (Pityana & Canca, 2017),

the economy (Koseff, 2018), or the government incompetency (Bernstein, 2017). All of these concerns contribute to the issue, but none is a singular cause. They are certainly not resolvable in isolation. The discussions tend to be isolated, however, failing to address the manifold root causes. Even in cases where youth are involved, as in the large study conducted by the *Centre for Development and Enterprise* (CDE) in which all 20 municipalities with the highest absolute youth unemployment were visited, and in which several local stakeholders had become involved, the more stimulating insights were omitted from the publication on its findings, and the solution reduced to the question of economic growth (Altbaker & Bernstein, 2017; Schirmer & Bernstein, 2017). Another example for involving youth in the discussion was the highly regarded and prominently backed National Foundations Dialogue Initiative (supported by the foundations of Umlambo, Thabo Mbeki, Kgalema Motlanthe, Jakes Gerwel, Helen Suzman, FW de Klerk, Desmond and Leah Tutu Legacy, Chief Albert Luthuli, and the Robert Mangaliso Sobukwe Trust), which brought deep insights to light, but led to neither expanded discussion nor intervention (Canca, 2017; Pityana & Canca, 2017).

Africa and its perception

The perception of Africa in the western world is changing. In 2000, the *Economist* published a leader entitled *Hopeless Africa* that highlighted a general lack of trust in Africa's political stability, underlined by perceptions of poverty, war, famine, and disease. A decade later, the tone had changed. Reports entitled *Rising Africa* (The Economist, 2011) and *Aspiring Africa* (The Economist, 2013) sketch far more positive expectations for the future of the continent.

However, the African economy has not yet gained global visibility. Postcolonial stigma prevails in Western perceptions of the continent (Sieren & Sieren, 2015). Efforts to change exist, but views change slowly. *McKinsey & Company*, a management consultancy, published a report entitled *Lions on the Move* on the state of Africa to shine some light on its economies, and to illustrate the opportunities in the region and Africa's potential (McKinsey Global Institute, 2010, 2016). In 2000, 2011, 2013, and 2016b *The Economist* published special reports on Africa, with increasingly positive tone and outlook. It concluded by titling that Africa's "future depends on people, not resources."

Youth can well be considered to be the driving force of the societies they inherit. Young people tend to step up and create change when they are discontent with their circumstances. Northern African countries were considered more stable than Sub-Saharan African countries until, particularly, the young people led these countries into the *Arab spring* and overthrew regimes in

multiple countries in the region (Cronje, 2014). This raises a crucial question as to if and how youth in Sub-Saharan Africa might create substantive change. Will youth be vanguards or vandals (Abbink & van Kessel, 2005), makers or breakers (Honwana & Boeck, 2005)?

Further questions proliferate in this regard, namely: what if all unemployed youth started working tomorrow (ILO, 2016)? Would the gap between the poor and the rich decrease? Would African countries move closer together in a scale of wealth and inclusion? What would be the impact on migration to countries outside the African continent (Asche, 2018)? What if the youth got increasingly disillusioned and unhappy? Would they forcefully redistribute wealth? Would that be a sustainable economic path? Would the African countries be driven apart from each other rather than integrated into a united, more equal Africa?

Unemployment is Africa's biggest challenge according to Helen Zille, a leading South African politician (2016). This is worth being considered with a closer look:

Sustainable growth on the African continent is dependent on economic inclusion. Growth cannot sustainably come from exporting natural resources. Africa's working-age population is the fastest growing globally, and by 2035 the continent will host the world's largest working population at ~1.1 billion (McKinsey Global Institute, 2016). But the preconditions today are set on "challenge" (Zille, 2016), where the rate of youth unemployment is tremendous, reaching highs of up to 53 percent in South Africa (World DataBank, 2015), African education lags behind other emerging markets, with an ever-increasing gap in recent years (McKinsey Global Institute, 2016), only just over a third of the Sub-Saharan African population finishes high school, and under 10 percent attend university, the willingness to migrate for economic reasons amongst the youth reaches up to 75 percent in Sierra Leone, shifting the problem geographically, but not solving it, and even when working, two thirds of young employees make up less than USD 3.10 PPP (purchasing power parity) a day, which means they are in working poverty, women earn less and are more likely to be unemployed (ILO, 2016), socially excluded youth that have lost or are at risk of losing parental care face even bigger employment challenges.

The relevance of employment for the well-being of the world becomes visible in the *United Nations Sustainable Development goals* (United Nations, 2015). Five of the 17 goals are linked to employment, as follows: *No poverty* (Goal 1), *quality education* (Goal 4), *gender equality* (Goal 5), *decent work and economic growth* (Goal 8), and *reduced inequality* (Goal 10). Furthermore, the *African Union Agenda 2063* highlights employment matters in *Aspiration 6*: "An

Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children" (African Union, 2015, p. 2).

Research aim: Framing future employment for South African youth

Youth underemployment, unemployment, gender differences, skill shortages, lacking aspirations, and success dependent on social background are all issues in South Africa today. As the young population is growing rapidly, the economy cannot keep pace with the implications, and is unable to grow at a speed that can supply a sufficient number of jobs. Economic development is dependent on resources, existing growth is not necessarily inclusive, populations do not benefit from growth, where growth often comes from financial investments, and does not create jobs at a large scale. There are not enough jobs today, while the jobs that do exist are often underpaid, or are not accessible to young people.

With a growing youth population and a lagging economy, the current challenges become even more dramatic. The gap between the poor and wealthy and the gap between South Africa and other emerging and developing regions are both at risk of widening. The implications on the way of living for today's youth and their children are not foreseeable. Change is not unlikely to happen. However, there is a question as to whether it will be a moderated change, driven by sound policies, or whether it will be revolutionary change, driven by poor, and disregarded as in Northern Africa. The key to bridging this gap is certainly the youth, who, having an income, a purpose, a perspective for the future, will be more likely to narrow the gap.

Considering such questions, along with the ticking of a socio-economic time bomb, the objective of this research is to address what happens when it explodes, when precisely the timer will have run out, triggering some manner of detonation, why the bomb exists, can it be defused, how, by whom, by (1) understanding the status quo of youth unemployment in South Africa, (2) identifying the drivers of employment, (3) describing scenarios on how the youth employment situation might look like by 2035, (4) highlighting existing initiatives and ideas for addressing the matter, and (5) proposing original solutions. Only a holistic view on youth unemployment using data, experts, and field work, cutting across economic, system thinking, sociological, and anthropological fields will shed the necessary light from different angles, such that a proverbial tangent may lead to a solution elsewhere.

The questions this research clarifies therefore is:

1. What is the status quo of youth unemployment in South Africa considering facts, figures, and perceptions?

2. What are the drivers inhibiting employment creation?
3. What is the path to youth employment in South Africa?
4. How can youth employment be like in South Africa in 2035?
5. Which measures will help to support youth employment?

Youth employment is the most pressing issue in Sub-Saharan Africa, and in South Africa. It is also an immensely wide topic to investigate. This research aims to draw up a holistic picture of the current situation, and its future development. In order to tackle the sheer size and variety of this topic, and to illustrate its dynamics over the next 17 years, while still being comprehensive, certain parameters are necessary. These need to provide a strong structure and the capability to embed quantitative information, such as statistical data, as well as qualitative data, including implicit knowledge, observations, and opinions. Further, the framework needs to allow for a projection into the future. The results of the research need to be easily illustratable and comprehensible. The framework used often for developmental issues, policy making, raising awareness, and eventually triggering actions is scenario analysis, will form the foundation of this work.

2. Points of departure and supportive literature

This research investigates what youth unemployment might look like in 2035. To gain an understanding of possible outcomes, it becomes necessary to comprehend what gears are in place, and how they interlock to drive the job engine in South Africa. Economic views will allow for an understanding of the functioning of the system, both now and in the past. Systems theory highlights the complexity and interdependency of the way in which a system works. Scenario planning incorporates the learning from economics and systems thinking, to allow for illustrating possible future states. The most basic question, namely that which cannot be addressed in a mechanical structuralist way, is what the proverbial fuel for the motor might be. That is, why do young people in South Africa want to work? Anthropological perspectives will provide us insights.

2.1. Economic views on unemployed youth

This research investigates youth employment in South Africa. To answer this question requires an operative definition of employment itself. Employment status cannot easily be split into employed, and unemployed. Unemployment is defined as the proportion of the workforce that is not employed. The workforce includes everyone that is able to work. The lower boundary limitation is the legal age to work, preventing child labour, while the upper boundary is retirement age, the age that qualifies one to receive a pension. The intention to work also plays a role. Excluded from the workforce are those that actively choose not to work e.g., by either being in education and training, or by heading a household and taking care of the family.

This work adopts the most common definition for what is colloquially referred to as "unemployment", or "neither employed, nor in education or training" (NEET). In South Africa, there is an additional split between actively searching for and discouraging job seekers, highlighting those that have given up searching for employment, although they would want to be employed (Statistics South Africa, 2008).

This research focuses on the youth and their movement between education, employment, unemployment, discouragement, and non-activity, as illustrated in *Figure 1* (p. 7). The colours in the bubbles align with the colours used for the respective categories later in this paper, starting in *Chapter 4.1 Statistical insights on youth unemployment* (pp. 74 ff.).

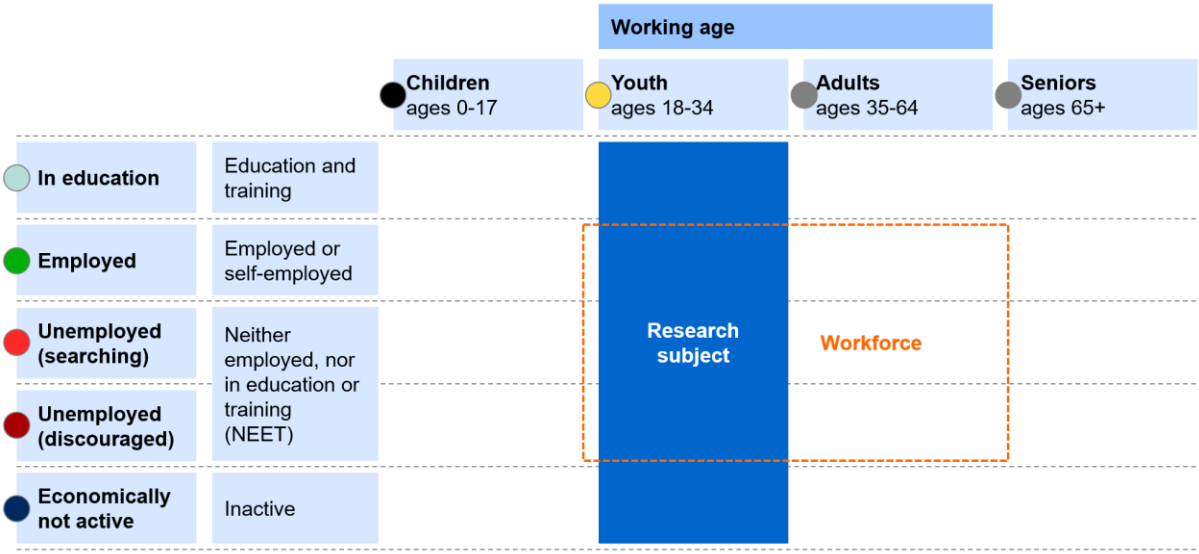

Figure 1: Research subject

Source: own illustration

2.1.1. Reasons for unemployment and its types

Unemployment is characterised as both voluntary and involuntary unemployment. Voluntary unemployment is based on the individual's decision not to pursue work, e.g., time off between employment or rejecting low-paid job, such as frictional unemployment. The other forms of unemployment, classical, structural, and cyclical, are considered involuntary. There are also discussions on the labour market in South Africa in particular (see Maree, 1978).

Classical employment

Classical unemployment describes the employment arising from real wages being above the market clearing equilibrium. Government intervention can lead to an increase in classical unemployment, as the real wage is set artificially above equilibrium, such as when, due to a minimum wage or unemployment, support makes entering the labour market unattractive. Alternatively, stricter laws for laying off workers technically leads to an increase in unemployment, and workers are not hired as quickly (Anderton, 2006). Vedder and Gallaway (1997) validate the theory of classical unemployment, by empirically proving the correlation of wage rates, production, and unemployment in the USA.

Cyclical unemployment

Cyclical unemployment occurs in times of economic downturn. Reduced demand for goods leads to a reduced demand for labour. As the wages do not fall to the new technical equilibrium,

unemployment results. This theory was developed based on the mass unemployment during the Great Depression (Keynes, 1936).

Structural unemployment

Structural unemployment is the result of a mismatch of the skills-set of unemployed job seekers and the skill-set employers demand. The unemployed, although they intend to work, cannot find an occupation. Seasonal unemployment e.g., workers in construction or farming that do not have work in the winter, can be included in structural unemployment, as their skills are not needed in the off-season. Also, technological advancement can be seen as a source for structural unemployment as workers having skills that are replaced by machines, e.g., automotive assemblers replaced by robots are no longer demanded by the market (Prachowny, 1993).

Frictional unemployment

Frictional unemployment covers the workers that are in-between jobs, have left their previous occupation, and are searching for a new one. The matching between employers and workers is not instant, causing a delay in employment, and thus frictional unemployment. This is economically justified as the right allocation of worker to a job is beneficial for the output (Diamond, 1981).

Target state

According to Snowdon, Vane, and Wynarczyk (2005), frictional-structural unemployment is in a healthy state at five to six percent of the workforce. Any value higher than that would indicate a recession. The difference between a healthy state and the actual state would be an indication for cyclical unemployment.

This view is technical and based on a state in which employment levels are healthy, only dipping in a recession. In the case of South Africa, the cyclicality is not an applicable sign for recession, as the economy might still be growing, or even in a state of mass unemployment. On the contrary, the cyclical unemployment can be seen as the upside growth potential, as a relative and not an absolute recession.

2.1.2. Schools of thought

Perspectives on the economy and economic development have developed over centuries, emerging from one another and often contradicting each other in how an economy works, and which mechanisms apply at which point in time (Woodford, 2000). Mostly economic systems

have been simplified (e.g. rational behaviours by a *homo economicus*) and certain effects isolated to be explained (e.g. the principal-agent problem cause by rationally acting players with different interests). This simplification is required to analyse specific behaviours and mechanisms.

However, an economy, in the form of the interaction of government, corporates, and people, is a system with numerous interrelations that are not necessarily explicable by splitting it into all its smallest elements, and interpreting those in isolation. Instead, the economy, both regionally and globally, can be seen as a complex system, as defined in *Chapter 2.2.1 Characteristics of complex systems* (pp. 25 ff.).

Many renowned economists have built theories on how an economy operates and its implications for the labour market. The most famous groups of economists are: (1) the Marxist school, (2) the classical school, (3) the Keynesian school, (4) the neo-classical schools e.g., the Austrian, Chicago, and monetaristic schools, and (5) the institutionalist schools.

Marxist economics

As most economic theories, Karl Marx's "Das Kapital" (1867) was also a counter-reaction to the prevailing political and economic system. Marx, being involved in the communist movement in Europe at a young age, saw the necessity to overthrow the classist, monarchist, and capitalist system suppressing the working class.

Marx's key criticisms were that modern work is: (1) alienated, and (2) insecure, (3) workers are exploited, benefitting the capitalists, capitalism is (4) unstable, (5) and self-destructive.

Alienation of work refers to the detachment of workers from the outputs they produce. Historically, a craftsman would build an item with which he could identify himself. Industrialisation caused workers to specialise and process small tasks that become part of the item. This leads, so Marx argued, to a lack of externalisation of the worker, and thus a lack of intrinsic motivation to work.

What Marx does not explicitly discuss is the adaption of alienation to those that do not have an occupation at all. Particularly in environments with high unemployment, not contributing to a cause and not seeing the greater good of the individual's role in society may well lead to alienation beyond Marx' definition.

The insecurity of work refers to the easy replacement of workers, due to the condensed skillset a worker needs for contributing to the output. The replacement can be caused by technological

advances and cost pressure. As a result, workers are terrified of being made redundant because of losing their possibility to contribute to society.

Most prominently, Marx identified that workers get paid as little as feasible. He concluded that there is a discrepancy of value of work and the wages paid to the workers, eventually exploiting the workers by paying them less than what they receive from selling the goods the workers produce. Capitalists bank this surplus value.

Marx argues that economic crisis in the then modern world was caused by an abundance of goods, resulting from overproduction, rather than from a shortage of goods. The efficiency of an industrialised society is so high that workers do not need to work as much as they used to, creating unemployment. Marx argues that the rich capitalists should distribute their wealth amongst the society.

The ruling bourgeois class (or Bourgeoisie), according to Marx, suffers from their wealth, creating commodity fetishism, ascribing value to things that do not have value.

Marx also discussed Malthus (1798), arguing that capitalism generates a crisis of overproduction, resulting in falling profits. Declining profits trigger decreasing investment. The logical result of capitalism would thus be a *boom and bust* cycle, first creating employment, and then causing unemployment.

The resulting view on unemployment is that it is a necessity for the capitalist system to survive: workers cannot be replaced if there is full employment, so the capitalists keep a "reserve army of labour". This again allows wages to be kept low, as there are unemployed willing to work at a lower rate than the employed.

Marx and Engels propose a solution to the wrongs of the capitalist society in their Communist Manifesto: (1) no private property or inheritance, (2) centralised control of economic organs, e.g., banks, communication, transport, (3) high income taxes, and (4) free education (Marx & Engels, 1848).

Despite not being a popular figure during his lifetime, Marx' work became the intellectual foundation for communist societies around the world (Snowdon et al., 2005). Communism in its pure Marxist form, however, did not prevail successfully in any country, some countries have shown successful socialist policies, including Hungary, during UDSSR reign, and China, Cuba, or Vietnam today (Verdery, 1996). "However, the only general model of socialism developed by an anthropologist was based on the case of Romania, an exceptionally repressive variant under the dictatorship of Nicolai Ceausescu" (Hann, 2018, p. 9).

Classical economics

The classical school typically includes Adam Smith (1776), David Ricardo, and John Stuart Mill. Sometimes their followers are also considered classical economists (Keynes, 1936, p. 3). Their fundamental idea is that a market economy will eventually find its equilibrium for production and full employment, without government interventions. They built their theories on five assumptions: (1) all actors are rational in aiming to maximise their own profits, (2) markets are perfectly competitive, (3) actors have perfect knowledge of the market, (4) transactions happen at fair prices, and (5) actors have constant expectations (Snowdon et al., 2005).

The result of perfect market economies and their self-regulation is full employment. Keynes however, points out that the classical model does not allow room for involuntary employment (1936, p. 6). The classical school did understand unemployment as a distortion of the equilibrium. In the case of wages being above the equilibrium, due to a real minimum wage or union power, there is what is known as "classical unemployment".

Keynesian schools

The Keynesian schools, that is, the orthodox Keynesian school, as well as all its followers e.g., the *New Keynesian school* or the *Post Keynesian school*, built on Keynes' 1936 published *The General Theory of Employment, Interest, and Money*. Keynes built his approach on the failure of the capitalist economy, described by the classical school, leading to the Great Depression. It caused "arbitrary and inequitable distribution of income" and failed "to provide for full employment", thus not allocating resources effectively amongst its players (Keynes, 1936, p. 372). In effect, it was unveiled that involuntary unemployment can continuously persist in an unregulated economy, where there is failure to provide for everyone in society. Besides leading to the Great Depression, this failure is also attributed to the rise of the National Socialists in Germany during about the same time (Mundell, 2000). Although Europe was largely democratic after the 1919 peace treaty of Versailles, when liberal economies were established, it failed to provide effectively for everyone. As a result, by 1939, three of the five largest European economies, namely Germany, Italy and Spain, had established fascism to impose order caused by liberal "laissez-faire" (Brendon, 2016; Snowdon et al., 2005).

Keynesians reject the labour market theory of the classical school, claiming self-regulating full employment, based on assuming perfectly flexible wages, leading to a market clearance. Keynes' (1936) answer was to reduce real wages to tackle unemployment. This can be achieved through two possibilities: Reducing the wages or increasing the price level. He rejects option

one, and favours option two, as wage cuts are not feasible in a democracy. However, Keynes and modern Keynesians allow for some unemployment, not only in recessions for new entrants into the job market that have not found a job yet, and those that are in-between jobs (Snowdon et al., 2005).

To prevent the economy failing its participants, the Keynesian school proposes stabilisation mechanisms in times of economic downturn, basically involving government spending to overcome the crisis and absorbing the shock and government saving in strong market environment.

The followers of the Keynesian thought, Tobin, Klein, Solow, Modigliani, Meade, Kicks, and Samuelson, consequently were of the first economists to link the failure of an economy to provide for everyone to a shift in societies, as experienced in the global recession in the late 1920s and early 1930s. This paper explains the relevance of employment to social justice and illustrates how an economic failure might lead to a depression in South Africa in the future.

Austrian, Chicago, and monetaristic schools

The Austrian school sparked in the late 1800s and was driven by Carl Menger (Menger, 1871), Eugen Böhm von Bawerk, and Friedrich von Wieser. Their contribution to economic thinking include opportunity cost (Wieser, 1884), capital and interest (Böhm-Bawerk, 1890), and inflation. Friedrich Hayek and Ludwig von Mises, representatives of the modern Austrian school, argued that regulation and government interventions causes market distortions (Mises & Hayek, 1935).

Austrian school economists differentiate frictional, structural, and cyclical unemployment, highlighting that structural and cyclical unemployment may not be mutually exclusive (Snowdon et al., 2005).

As Keynesians emerged and their principles influenced policies around the world e.g., John F. Kennedy in the 1960s, the first significant worldwide post WWII economic crisis arose, driven by fuel price hikes. The resulting stagflation, a stagnating economy in line with inflation, was not explicable using the Keynesian model. Following the Austrian school, the Chicago school or monetarist school, most famously represented by Milton Friedman, therefore rejects Keynesianism. The Chicago school economists argue that the reason for the Great Depression and the 1970s crisis was the ineffective monetary policies of the American Federal Reserve Bank, promoting a laissez-faire system, with deregulation in which the central bank controls the amount of money in circulation in order to allow for economic growth (Friedman, 1962; Friedman & Schwartz, 1963).

Monetarists argue that all unemployment is voluntary (Snowdon et al., 2005). Friedman defines a permanent income hypothesis (PIH) thus, as the reduced purchasing power that follows unemployment results in lower anticipated wages, self-correcting employment without affecting real outputs (Friedman, 1957). This is in clear contrast to Keynes, who argues unemployment is fought by decreasing real wages through increasing prices.

Monetarists also introduced the concept of "Non-Accelerating Inflation of Employment" (NAIRU), a theory which postulates that inflation will increase rapidly under full employment and that consequently, a certain level of unemployment is beneficiary for the economy (Hayek, 2001). This theory got overthrown in the 1970s, when the oil crisis resulting from the OPEC countries raising oil prices as a reaction to the in which the USA supported Israel, led to steep increase in both inflation and unemployment leading to a stagflation. A new, thorough approach was needed, able to explain more complex interrelations.

Institutionalism and neo-institutionalism

Institutionalism views the socio-economic environment through the lens of human interaction, and therefore places human interactions at the centre of its theory at the intersection of sociology and economics. It arose as a third school critiquing Marx, besides structuralist classical economics, and the Keynesian school. As institutionalism builds on Marx' theories and does not per-se reject them, Marx can be viewed as an institutionalist, although the school was only established later by Thorstein Veblen (1898, 1904, 1907) and Walton Hamilton (1919). Institutions define the interaction of humans in a social, political and organisational environment. Institutions include government structures, and social rules and norms (Sawyer, 2015; R. Scott, 2008).

New institutionalism, started by Meyer and Rowan (1977), is a response to new classical theories incorporating rational choice. It assumes actors to be maximising their self-interest, and thus allows for understanding actions in larger groups. New institutionalism further explains the development of institutions, contrasting classical institutionalism seeing institutions as stable, incorporating: (1) transaction costs, the intent to reducing costs for processing economic goods, (2) principal agent theory, assuming unaligned interests of owners and managers or voters and politicians, and (3) path-dependency, incorporating sunk cost and increasing returns, explaining why inefficient paths can be stable e.g., in a political or economic environment.

Daron Acemoglu, Simon Johnson, and James Robinson describe the evolvement of societies build on neo-intuitionalism. They developed their theory of transition of power from elites to

common citizens and societal success originating in inclusive institutions, most famously portrayed in *Economic origins of dictatorship and democracy* (Acemoglu & Robinson, 2005) and *Why nations fail* (Acemoglu & Robinson, 2013). *The Colonial Origins of Comparative Development* (Acemoglu, Johnson, & Robinson, 2001) describing the effect of European settler mortality in colonialising efforts highlights that high mortality rates lead to the setup of more extractive institutions, which then lead to a less successful economy (GDP/capita PPP) today. This paper set the cornerstone for developmental economics (and *Why nations fail*) being based on neo-institutionalism.

2.1.3. Labour market interventions and their effects on youth

There are several labour market interventions mediating between employers and workers, such as: (1) minimum wages, (2) employment protection, (3) union power, and (4) mandated benefits. It is questionable as to how these affect: (1) living standards - mostly household earnings, (2) productivity of the labour force, and (3) social cohesion e.g., equality, youth participation, employment of immigrants. Betcherman (2012) conducted a meta survey, analysing 150 empirical surveys investigating these effects, which are discussed below.

Minimum wages

Many countries have subscribed to minimum wages. They are mostly on a national level, but exceptions exist where for example there are certain exclusions, namely interns, or certain industries, like farm or domestic workers. Minimum wages root in institutionalism, providing a "fair" wage, as a rights-based framework, and preventing poverty, as a social policy (Bhorat, Cassim, Kanbur, Stanwix, & Yu, 2016; Bhorat, Kanbur, & Stanwix, 2014; Neumark & Wascher, 2007). On the other hand, the distortionist view is that minimum wages, as discussed earlier, are a market inefficiency lifting the wages above the equilibrium wage. This creates classical unemployment, and therefore contradicts the institutionalist view.

In emerging economies, which have not been subject to research until the late 1990s, a minimum wage should theoretically not have the same effect as in a developed economy. The introduction of a minimum wage in an emerging economy ought to push workers out of the formal sector into the informal, unregulated sector, undermining the intended effect. However, studies have shown that the minimum wage can have a lighthouse effect for wages in the informal sector. The lighthouse effect describes that the minimum wage acts as an anchor and is used as benchmark, even in informal business environments. The minimum wage thus does not only

affect the regulated, but also the unregulated environment (Lemos, 2009; Maloney & Nunez, 2000).

Minimum wages have been proven to have a negative effect on employment, particularly youth employment, as they enter the workforce typically at lower incomes. The elasticity was -0.1 to -0.3: a 10% increase in minimum wages would lead to a reduced youth employment of minus one to minus three percent, an effect that is now commonly recognised amongst economists, although a few studies have shown contradicting effects (Brown, Gilroy, & Kohen, 1982; Neumark & Wascher, 2004; Neumark & Wascher, 2007). In emerging economies e.g., South Africa, minimum wages have been proven to reduce the employment level, particularly amongst youth (Bhorat et al., 2014).

The positive effect on wage levels of workers in the formal sector is, not surprisingly, proven. However, there is also proof for increased wages in the informal sector. Still, it is not obvious that minimum wages decrease poverty, as studies have shown contradicting results (Lustig & McLeod, 1997; Neumark, Cunningham, & Siga, 2006).

Minimum wages can have two effects on the productivity of enterprises: (1) substituting low-skilled workers with higher skilled workers, and (2) investing in training for the lower skilled workforce to increase their productivity, compensating for higher labour cost. There is supportive evidence that both effects have a positive impact on productivity, but these effects, however, cannot be split and investigated independently (Bassanini & Venn, 2007). Minimum wages seem to negatively impact small companies, as they have limited resources for training (Del Carpio, Nguyen, & Wang, 2012).

The effects of minimum wages on social cohesion are not thoroughly investigated. It is, however, a common opinion that the minimum wages contribute to a perception of fairness and inclusion into mainstream consumption (OECD, 2011). The effects on youth are also positive, as they participate less in criminal activities (Freeman, 1996).

Employment protection rules

Employment protection is mostly regulated by labour laws. This research focuses on the effects of job security rules, and the initiation and termination of employment contracts. These rules intend to grant security to workers e.g., for taking a mortgage, and to increase the employers' social commitment towards their employees.

Typically, countries with civil laws have stricter labour protection laws than countries using common law such as South Africa, while the countries' development level is not significant (Botero, Djankov, La Porta, Lopez-de-Silanes, & Shleifer, 2004). The trend has been the relaxation of labour protection laws (ILO, 2012). Still, South Africa, being a country following common law, their labour protection laws are extensive.

The effect of employment protection seems to be slightly negative, toward employment levels (Heckman & Pagés, 2000). In emerging economies, measured in India, this seems to result in pushing workers from the formal to the informal sector (Ahsan & Pagés, 2009; Besley & Burgess, 2004; Gupta, Hasan, & Kumar, 2009). One study showed a positive effect of easing protection regulation on employment. In Columbia, the level of unemployment was reduced at the cost of shortened employment tenure (Kugler, 1999). Employment protection has a negative effect on women, youth, and the less-skilled (Montenegro & Pagés, 2003).

The impact of labour protection on productivity is unclear. Some studies have shown that labour protection has a positive effect on productivity (Belot, Boone, & van Ours, 2007), while others show a negative effect as high as two to four percent of labour productivity (Bassanini & Venn, 2008). The difference seems to lie in the increased training of employees in case of stricter regulations (Belot et al., 2007).

The effect of employment protection rules on social cohesion is positive, as perceived inclusion, fairness, security, and belonging are increased. Job security can improve family planning, as job security builds the basis for future planning. However, this only holds true in a context where the "outsiders" are a small proportion of the "insiders". South Africa, a country with strict employment protection, might see a challenge, due to its high outsider rates as unemployment is high. This challenge worsens as youth are often part of the outsiders' group (OECD, 2011).

Unions and collective bargaining arrangements

Trade unions are fairly common institutions. They however vary in power and influence. Traditional economists see unions as organizations negotiating higher wages and better working conditions than in a free market, causing efficiency losses in the economy. This would be in line with minimum wages, but unions contribute more than that: unions have a social voice, making "a positive contribution to efficiency by improving workplace communication, enhancing cooperative relations, and reducing labour turnover" (Betcherman, 2012, p. 27) and a political

voice contributing to policy making and improving labour regulations. In considering the bargaining power of unions, the share of unionized members of the workforce is considered.

It is empirically proven, that unionized workers earn five to 15% higher wages than non-unionized workers in developed countries (Aidt & Tzannatos, 2002). In developing countries, the difference is even larger. In South Africa the gap amounts to ten to 20% (Freeman, 2010).

Unions certainly affect employment, increasing tenure on the job and reducing voluntary turnover. However, layoffs are more prevalent in unionized environments (Aidt & Tzannatos, 2002). Still, it is not clear, if unions have a negative effect on employment overall. Some studies do find a negative effect on overall employment, some do not find an effect explained with the positive spill-over effects unions have (Baccaro & Rei, 2005).

The effects of unions' influence on the society, the voice theory, and the idea that unionized companies invest more into training, should show a positive productivity effect. This can, however, not be proven. A reason for this might be the lacking incentive for management to introduce new technologies making workers redundant (Aidt & Tzannatos, 2002).

The effect of unions on the society is manifold: Firstly, unions cause a more equal wage distribution in the society overall (Hayter & Weinberg, 2011), but not necessarily between unionized and non-unionized members (OECD, 2011). Secondly, unions increase job security through extended job tenures, providing social protection. Thirdly, unions allow workers to have a lobby in politics and business. Fourthly, unions raise social issues and give them a platform before exploding uncontrolled (Betcherman, 2012).

Mandated benefits

Benefits can be incorporated by government and include unemployment insurance, government pensions, health care. Alternatively, benefits can be induced by government onto employers and include a 13^{th} or 14^{th} salary, paid vacation time off, over-time pay, or parenting leave. The benefits are so heterogeneous between countries that comparisons are difficult to evaluate.

However, mandated benefits, particularly parental leave, seem to have positive effects on living standards, proving the possibility, mostly researched for women, to return to the workplace and not to leave the workforce (Gornick & Hegewisch, 2010). Parental leave can, if it is designed for women only, cause a gender wage difference as women stay out of the workforce and are therefore overtaken by the men not being on parental leave (Mandel & Semyonov, 2005).

Mandated benefits do have a positive and statistically significant, but small effect on productivity. An additional week of unpaid holiday, although working less, has a positive effect of 0.005 to 0.001 percentage points on productivity (OECD, 2007). It is assumed that an additional week of paid holiday has a higher positive effect (Bassanini & Venn, 2007).

Benefits have a positive impact on social cohesion. Parental leave fosters family formation by not additionally adding financial stress onto the parents. As a result, in aging developed countries, fertility rates increase statistically in countries with parental leave policies (Gornick & Hegewisch, 2010). Since women are more likely to re-join the workforce in the case of parental leave policies, the income security for the households is higher.

2.1.4. Dynamics in unemployment

The previous chapters described the labour market from today's point of view, looking onto the status quo and historical developments. As this research is specifically looking into the future of the labour market, the question arises which the key driving force for change might be besides those identified historically. Themes picked up in recent literature are the impact of automation, artificial intelligence in particular raising the question for a universal basic income (UBI). Looking into the emerging world, predominantly Africa, the question arises whether countries can build on a demographic dividend.

Automation and artificial intelligence

Will all jobs vanish as self-driving vehicles make Uber and truck drivers obsolete, and self-learning computers replace doctors, accountants, journalists, and bankers? Mark Zuckerberg proclaims that "technology and automation are eliminating many jobs" (Zuckerberg, 2017). In just 13 years nearly all New Yorker horses seem to have become unemployed as famously illustrated in two photos taken on 5th Avenue just over a decade apart in 1900 and 1913. *Figure 2* (p. 19) shows one motor vehicle amongst numerous horse carriages on the left while there is only one carriage left in-between cars on the right. After the second World War, 42% of all jobs in the U.K. became redundant, while British government maintained high employment levels. Looking into the future, is there a need to worry?

McGaughey (2018) illustrates socio-economic ways, which are forward building on historic examples highlighting that AI is a challenge for employment that can be overcome now by making the called-for UBI the preferred solution.

Figure 2: Innovation making horses unemployed

Source: Buildingcontext (2017)

As mentioned above, about 9m Brits were directly involved in the second World War, either in the military or producing for the military, equating to 42% of the labour force (Miller, 1946). These people needed to find a new occupation as they became redundant at the end of the war. "Demobilisation was an infinitely greater challenge, in size and social complexity, than any credible prediction about the effect of automation. Hundreds of thousands of people were disabled as a result of war, both physically and psychologically. Entire economies had to shift, but not over decades as technology was rolled out" (McGaughey, 2018, p. 21). This transition was achievable by shifting the focus of the economy radically in a short period of time by re-building houses, transforming factories, or growing the export produce.

McGaughey (2018) argues that the replacement of jobs in a technological transition is a continuous, but slow process. With the success story of the automobile, horses became obsolete, as illustrated above. The horse population in the USA shrank from 26m in 1915 to 19m in 1930, to 3m by 1960 (Kilby, 2007). This 88% reduction took 45 years and is certainly an illustration of how jobs can be replaced by technology. However real and mighty this change is, the time span is also long enough to adjust. Also, is the horse example comparable with driverless vehicles replacing Uber or truck drivers? It might be an indication for job replacement, but does it mean that drivers will be unemployed? Horses could not adjust and simply become car drivers, but humans can. So, the answer whether most drivers will be unemployed is most certainly "no" following McGaughey (2018), but they will have other professions than drivers. Humans can adjust unlike horses. And, humans make laws that are beneficial for them.

It is questionable (1) whether artificial intelligence replaces human intelligence and (2) based on the finding of the former, how many and which of the existing jobs artificial intelligence will replace.

First, McGaughey (2018) arguers that data is not knowledge. Intelligence is knowledge. Although computers have stronger and quicker processing power, they cannot compete with human cognitive power, which is more than processing rules. Thus, human intelligence is beyond artificial intelligence (Bessen, 2016). "Artificial" intelligence is literally that: fake intelligence, not real. […] Technology's true value is to accentuate and empower the uniqueness of the human mind" (McGaughey, 2018, p. 26).

Second, about 45 % of jobs can be replaced by technology already illustrated as identified by McKinsey. In line with the above, jobs that require a higher level of conceptual thinking, are less likely to be replaced. There is a negative correlation of hourly wage and the chance of being replaced by technology, e.g., a CEO earns more than a file clerk, who is more likely to be made redundant than the CEO. At the same time, about half of the jobs we will have in the future are said not to have been invented yet (Balliester & Elsheikhi, 2018; Chui, 2018; Chui, Manyika, & Miremadi, 2015).

Universal basic income and other measures to tackle AI

What is the solution to tackle job replacements? Is it a universal basic income? Or might it be universal fair incomes, economic democracy, or enterprise liability?

Universal basic income (UBI) is an equal payment going to every citizen of a country, regardless of their age, socioeconomic status, wealth, or if they work. The driving idea behind a UBI is to reduce bureaucracy, reduce social stigma for grants, and most importantly, provide a solution for potential mass unemployment as jobs get presumably substituted by technology. The idea for such a universal income dates back to the late 1700, when Thomas Paine first introduced the thought (Paine, 1795). Even Friedman (1962) picked up the idea seeing it as a possibility to correct inequalities created by the free market. Critics state that a UBI does not carry the value to human work, disincentivising work (Tanner, 2015). There have been several trials for a universal basic income, e.g., in Ontario, Canada, Kenya, and Finland, or even a smaller trial in Namibia. Also, there is a call for a "basic income grant" in South Africa (Barchiesi, 2007; Standing & Samson, 2003). The trials were either not set up to be a real UBI, e.g., only including unemployed as in Finland, have not been academically sound, lacked a control group,

or have not published results yet. It therefore is not clear whether a UBI will work in practice (Balliester & Elsheikhi, 2018; The Economist, 2016a, 2017c, 2018a).

Universal fair incomes are in contrast to the universal basic income set up to provide social security for those in need, i.e., children, sick, parental care, or retired, and not a basic income to everyone that is financed out of (income) taxes (McGaughey, 2018).

Economic democracy means that the government ensures full employment by taxing companies adequately to reallocate wealth, e.g., with ownership participation, even when human work is reduced, e.g., by introducing an extended weekend. Humans can use their right to vote and vote for labour regulations that are beneficial for them, not making them redundant, so McGaughey (2018).

Enterprise liability argues that companies bare the responsibilities for robots and that "electronic personality", that e.g., can be taxed or held accountable for accidents, is not applicable (McGaughey, 2018). There are proposals, e.g., by Bill Gates to tax robots, but enterprise liability contradicts this approach (Delaney, 2017).

These ideas are fairly close to Marx' proclaiming redistribution from capitalists, here robot owners, to workers, allowing them more free time while still having a fair income.

The demographic dividend

Besides the risk for employment originating in artificial intelligence, there is another major force for change in the labour force: demographic shifts. Besides the overall size of the population, the share of the working age population (SWAP) is the key driver of economic development (Bloom, Canning, & Sevilla, 2003). With decreasing dependency ratios (children and elderly to working age), the share of economic participation increases. This effect is driven by declining childhood mortality and fertility rates (IMF, 2015). A *demographic dividend* results that entails an increase in output, saving, and investment driven by higher economic participation rates (Galor, 2005) and equals to a "extra boost to the economy" (Canning, Raja, & Yazbeck, 2015, p. 4).

On the contrary, a *youth bulge* can occur, a situation with a high number of youth as part of the overall population. This can lead to a massive disruption, ranging from disputes to war and anarchy. Some academics argues that the *Arab spring* is a consequence of a youth bulge (Asche, 2017).

By 2035, the point of time this research builds its scenarios on, Sub-Saharan Africa will have a working age population (aged 15-64) that exceeds the rest of the world combined (Drummond, Thakoor, & Yu, 2014; Lee & Manson, 2006).

Will a demographic dividend benefit Sub-Saharan Africa? To be able to harness a demographic dividend, a country will pass through several stages (Galor & Weil, 2000): before the transition shows its fruit, population growth has negative effects due to the increased dependency rate of the high number of children. Higher life expectancy triggers investment in human capital increasing, locally and internationally. This transition incentivises savings, a higher labour participation rate of women, and eventually lower fertility rates, allowing an increased focus on the children's health and education.

These shifts need to be accompanied by supportive policies in order to show effect: inclusive and efficient government institutions, labour market regulation, macroeconomic management, free goods and monetary access, and education (Bloom et al., 2003; Bloom, Canning, & Fink, 2007; Drummond et al., 2014).

Drummond et al. (2014) identify that the peak in the share of the working age population of the total population in Africa is only reached by 2090 at around 64%. This is lower than in Europe, Asia, North Africa, and Latin America, all peaking around 66-68%. However, Africa will surpass these regions, the last one to be Asia around 2050, meaning that the working age population in other regions is declining. An integration of the rising working age population in Sub-Saharan African will most likely be beneficial, if not required (IMF, 2015). This does not incorporate the vast diversity of African countries.

Drummond et al. (2014) developed an empirical model drawing conclusions on the demographic dividend in Sub-Saharan Africa. They find that (1) an increase of one percentage point in population leads to a 0.5 percentage point increase in GDP, (2) countries with better education benefit more form a demographic dividend than those with a weak education system, (3) the benefits of a demographic dividend only pays out till a GDP per capita of about USD 5,100 as low-income countries have a different labour contribution than middle-income countries, and (4) in African low-income countries, the demographic dividend will contribute to 56% of the GDP by 2100 compared to a stagnant working age population, based on 2010 figures.

Similarly, the Wakeman-Linn, J., Anand, R., Drummond, P., Erlebach, Roch, Thakoor, and Treviño (2015) finds a huge potential in the Sub-Saharan African demographic dividend. If approached correctly, most African low-income countries would be able to migrate upwards to

middle-income countries. In order to achieve this, (1) 18m jobs need to be created annually until 2035, (2) the transition has to happen quickly, i.e., the childhood mortality and fertility rates need to drop, and (3) policies have to allow for growth, mostly through trade openness.

However, typically demographic dividends consider the development of the working age population and use this as a proxy for economic participation. In reality, the share of the working age population actually participating, i.e., being employed, is not sufficiently considered. In countries with high unemployment, especially youth unemployment, such as South Africa, the positive effects of decreasing dependency ratios and resulting productivity gains, fail to appear. Consequently, if the employment rate amongst the working age population is not considered, harnessing the demographic dividend is not possible.

Consequently, arguing that a demographic dividend is a hope for Africa is a political hoax. Only very few countries would qualify demographically for developing a dividend, a working age population growing over-proportionally to the dependent groups, i.e., children and seniors. Yet, this potential for a dividend can only be harnessed if the employment levels are sufficient, which they are not in most cases (Asche, 2017).

In *Chapter 4.3.4, entitled Demographic shifts* (pp. 124 ff.), this thesis will have a detailed look at South Africa. As stated by the IMF (2015, p. 26), the “failure to create sufficient jobs could result in severe economic and social problems.” This challenge will lead us directly to employment scenarios in *Chapter 5* (pp. 156 ff.).

2.1.5. Employability and employment

Besides employment, which is covered in the previous chapters and reasonably easy measurable, employability, the process of "gaining, sustaining and progressing in employment" (Hoyos et al., 2013, p. 11), is not trivial to measure. Issues in employability are mostly reflected in structural unemployment, as there are unemployed and open positions at the same time.

Employability is the mediating factor, merging jobs with people. Whereas job availability and labour supply look at the employment topic for a macro viewpoint, employability looks at the individual and its capabilities and challenges. Employability includes (a) individual factors, e.g., skill level, gender, motivation, demographic characteristics, health, well-being, job seeking knowledge, adaptability and mobility, (b) individual circumstances, e.g., household circumstances, household work culture, access to resources, (c) employer practices, e.g., organisational culture, working practices, recruitment and selection practices, (d) local contextual

aspects, e.g., features of local employment, local work culture, local labour market operation and norms, (e) macro level aspects, e.g., regulatory regime, welfare regime and institutional factors, employment policy, macroeconomic factors, (f) enabling support aspects, e.g., support for individuals, support for employers, influencing local training and skills policy (for full list see *Figure 72: List of employability factors*, pp. 248 ff.; Hoyos et al., 2013).

Employability aspects are particularly relevant for youth as they enter the workforce. Understanding the "education-to-employment" process allows for addressing each of the arising employability issues (McKinsey & Company, 2013).

In order to understand the root causes for structural unemployment in a country, employability factors need to be investigated and considered. This research investigates these for South Africa in the *Chapters 4.2 Field insights on youth employment* (pp. 91 ff.) and *4.3 Eleven drivers for youth employment in South Africa* (pp. 115 ff.).

2.2. Complex systems theories

"When a butterfly flaps its wings on one side of the world, it could cause a storm on the other side" (Cronje, 2014, p. 24). This metaphor, called butterfly effect highlights the uncertainty of complex systems.

This research builds on complex systems theory. Systems are so complex that their behaviours cannot be predicted in a straightforward way. The magnitude of actors and their behaviours, particularly dependent on each other's actions, builds a complex system. The contribution and interaction of players is unpredictable. Their individual actions do not add up to linearly, but their results are greater than each individual's contribution (Morel & Ramanujam, 1999; Thietart & Forgues, 1995).

The difference of complex systems versus linear systems can be illustrated in a very simplified way with a mathematical equation. Assuming a simple system in which everyone contributes two:

$2 + 2 + 2 = 6$

Now, the players do not add, but multiply:

$2 \times 2 \times 2 = 8$

The outcome increases by a third. Now, one contributor can only supply one instead of two:

$2 + 2 + 1 = 5$, or

2 x 2 x 1 = 4

With only a minor change in this simple system, the outcome can vary between 4 and 8, giving a 100% difference (Cronje, 2014, 2017).

2.2.1. Characteristics of complex systems

Complex systems have three characteristics: (1) a large number of actors, unemployed youth, politicians, employers, foreign investors, employed youth, adults, and elderly, adding up to more than 50 million in South Africa alone (Dominici & Levanti, 2011; Snowden, 2011), (2) an emergent characteristic, explaining that the actions of the participants add up to a sum greater than individual contributions (Kondraske, 2011; Morel & Ramanujam, 1999), and (3) feedback mechanisms, pressure on the system to either change the system (*positive feedback*) or maintain the system (*negative feedback*) (Ellis & Herbert, 2010; Jennings & Wattam, 1998; Rhee, 2000). *Positive feedback* pushes the system towards non-stable behaviour, whereas *negative feedback* aims to maintain the status quo. An example of *positive feedback* could be electing a new party into power, or even a terrorist attack. *Negative feedback* could be the re-election of the party in power (Cronje, 2013).

Positive and *negative feedback* are counterplayers, continuously affecting the system. As a consequence, the system can be in five difference stages: (1) equilibrium, (2) instability, (3) periodic stability, (4) chaotic behaviour, and (5) self-organisation (Kiel & Elliot, 1996; Thietart & Forgues, 1995).

The first behaviour is the equilibrium or stability. In this state, *negative feedback* predominates *positive feedback*. The system is in a stable state (Ward, 1995),where, as soon as *positive feedback* overrides *negative feedback*, one of the other four stages occur.

The second state is instability. *Positive feedback* overcomes the reinforcing *negative feedback*. As a result, the system changes rapidly (Parker & Stacey, 1994).

The third state is periodic stability. *Positive feedback*, like protests, overwhelms *negative feedback* for a period of time, before *negative feedback* regains dominance e.g., the suppression of protests. In this behaviour, positive and *negative feedback* fluctuate, creating periods of stable and unstable states (Kiel & Elliot, 1996).

The fourth state is chaotic behaviour. The interrelation of cause and effect cannot be clearly identified, although they still exist. Rapidly changing events appear to occur randomly and uncontrollably, making predictions impossible. An example for such a state might be an ousted

dictatorial regime, after which several players try securing power for themselves, as happened in Zimbabwe in 2017, after Robert Mugabe was forced to step down (Cronje, 2013; Jennings & Wattam, 1998; Kiel & Elliot, 1996; Morel & Ramanujam, 1999; Stacey, 1996).

The fifth and final statue is a system that is self-organising or evolutionary. Organising actors, such as a government, realise that *positive feedback* increases for example through protests, but proactively react with new policies or other means, to convert the actors emitting *positive feedback* changing to *negative feedback*, where they may, say, support the government after initial disagreement (Argyris & Schön, 1997; Morel & Ramanujam, 1999; Rhee, 2000).

2.2.2. Socio-economic issues as complex system

This research investigates youth unemployment and its future development. In order to apply the theory of complex systems, it is required to establish that youth unemployment, a socio-economic issue, is a complex system by testing against the three requirements for characteristics.

(1) A large number of actors and (2) feedback mechanisms apply thus: firstly, there is a large number of unemployed youth in relative and absolute terms in South Africa (see *Chapter 3.2 Statistical data*, pp. 61 ff. and *Chapter 4.3.4 Demographic shifts*, pp. 124 ff.). Secondly, there are numerous actors, institutions represented by individuals, along the youth employment journey including employers (see *Chapter 4.3.2 Number of available jobs*, pp. 117 ff. and *Chapter 4.3.3 Access to entrepreneurship capabilities*, pp. 122 ff.), foreigners coming into South Africa (see *Chapter 4.3.5 Migration patterns*, pp. 129 ff.), schools (see *Chapter 4.3.6 Schooling system*, pp. 133 ff.), training facilities (see *Chapter 4.3.7 Skills development*, pp. 137 ff.), families and social environment (see *Chapter 4.3.11 Social and cultural environment*, pp. 146 ff.), as well as mediating entities (see *Chapter 6.1 Existing initiatives for addressing youth unemployment*, pp. 184 ff.). All of these have actors, who can execute positive or *negative feedback* mechanisms on youth. Additionally, mediating factors (see *Chapter 4.3.8 Health of youth and families*, pp. 139 ff., *Chapter 4.3.9 Fair access to* job opportunities, pp. 141 ff., and *Chapter 4.3.10 Structural employment* barriers, pp. 144 ff.) deploy feedback on the youth employment journey. All of the above then influence the behaviours of the youth on their environment, basically self-induced feedback unfolding in their perceptions (see *Chapter 4.3.12 Perceived inclusion in society and opportunities*, pp. 149 ff.).

As for the (3) emergent characteristic, the collective actions of youth and of the other players add up to more than what each individual could contribute. The *Arab spring* is an illustrative example. The magnitude of millions engaging in co-ordinated protest action brought long-

standing autocratic governments to fall. This could never have been achieved by individuals protesting by themselves. Consequently, as the socio-economic characteristics of youth employment qualify as a complex system, this research utilises complex systems to further analyse youth employment and its development.

2.2.3. Scenario analysis as a navigator for complex systems

Predicting socio-economic and political futures is difficult. Most major social, economic, and political shifts have not been anticipated by the broader public e.g., the terrorist attacks in the USA on the 9th of September 2011 (Kennedy, Perrottet, & Thomas, 2003) or the *Arab Spring* (Cronje, 2014). In 1966, American researchers developed future states, based on extrapolated predictions. Out of the 355 predictions, each proved to be incorrect (Ringland & Schwartz, 1998).

The reason, therefore, is simply that complex systems are not predictable by extrapolation based on the past. Complex systems require an analysis that shows extremes and not the presumably most likely future state ignoring less likely, but much more disruptive scenarios. However, there were scenario planners accurately describing the chance of disruptive events. Clem Sunter and Chantell Ilbury anticipated a terrorist attack in a Western city in their work (Ilbury & Sunter, 2001, 2007), which indicates that there are indeed ways to cut through uncertainty of prognosis.

2.2.4. Emergence of complex system theories

"Newtonian" science explains cause and effect based on physical laws, the equilibrium of forces in which force and counterforce balance one another, explaining concepts such as gravity. The Newtonian worldview allows for breaking every problem down into sub-problems, also non-physical, that then can be solved and explained. Consequently, each system, as complex as it might appear, can be solved analytically by decomposing it into pieces and explaining the sum its parts.

Complex systems theory is a contradiction of the Newtonian view, as the emergent characteristic of complex systems, highlighted in *2.2.1 Characteristics of complex systems* (pp. 25 ff.), states that the combination of the elements adds up to more than their sum (Kiel & Elliot, 1996).

This being the case, how did the complex systems theory emerge as a contradiction to the Newtonian system? Scientists struggled in explaining some phenomena with the Newtonian principle. The growth of a plant cannot be explained by breaking down the organism to a molecular

level. The plant's components, from roots to leaves interact with the plant's environment, such as water, light, temperature, soil, or animals, causing growth. This growth can be very different from that of the plants close by. The Newtonian approach fails, as it argues that the growth can be broken down into single events and therefore explain the exact growth process for this and any other similar plants. However, an exact prediction for plant growth is not possible (Chen & Stroup, 1993; Laszlo, 1975; Simon, 1990; Svyantek & Brown, 2000). Thus, predictions work in Newtonian systems, but not in complex ones.

A new way of addressing systems was needed. In the twentieth century, uncertainty became a daily worry. Not only the two world wars, but in particular, the cold war, confronted the world with a nuclear threat in the balance of powers between the UDSSR and the USA (Schwartz, 1991). During this period of rapid technological change, researchers from different disciplines, including logicians, mathematicians, physicists, and physiologists, combined their experiences to gain insights outside their own discipline. This interdisciplinary approach became the basis for deriving future states in complex systems, which was then adopted by businesses for decision making processes (Millett, 2003; Ringland & Schwartz, 1998).

During this period, the Rand Corporation was founded. Its researcher Hermann Kahn first described future states, written as if they are unfolding. These descriptions depicted the possible results of a nuclear war, which he published in order to provoke public opinion. He called his descriptions scenarios, a term used by Hollywood for screenplays (Kahn, 1984; Millett, 2003; Ringland & Schwartz, 1998; Schoemaker, 1993, 1995; van der Heijden, 2005).

In the late 1960s, the scenario planning approach was adopted by business. Royal Dutch Shell first identified this methodology as suitable for long-term planning that became relevant due to fluctuating oil prices and increasing political uncertainties (Ringland & Schwartz, 1998). Efforts led by Pierre Wack (1985a) built two scenarios, looking as far ahead as the year 2000. One was the commonly identifiable stability of oil prices, while the other predicted a significant increase in prices due to a shift from oil companies to oil producers. In 1973, the *Yom Kippur war* took place between Israel and Middle Eastern countries. This led to a spike in oil prices as the OPEC intended sending a strong warning signal towards Israel, giving Shell a competitive advantage over its competitors, based on their foresight utilising scenario planning over traditional forecasting (Schwartz, 1991).

Based on this success, most Fortune 100 companies adopted scenario planning for determining future states (Ringland & Schwartz, 1998). Over three generations, first Ted Newland of Shell,

Pierre Wack (1985a, 1985b), Peter Senge (1991), and Peter Schwartz (1998; 1991); second Arie de Geus (2002, 2011) and Kees van der Heijden (2003; 2005, 2011); and third George Burt (2003), Ged Davis (2002; 2004), and Louis van der Merwe (2006; 2003; 2008), scenario planning has become an essential part of the strategy of finding and risk mitigation process of governments and corporates.

2.3. Scenario analysis

Everyone is keen to look into the future on a daily basis. There are two elementary ways to do so: (1) extrapolation of the known; and (2) considering the extremes that could happen. The first method is prognosis or forecasting, and the second is scenario analysis.

Imagine leaving the house. It is sunny. Three hours later, you come back completely soaked. You did not expect any rain based on the weather you observed before you left. You made the mistake of expecting the weather to stay as it is. You can be more advanced, and check the weather forecast, which might trigger you to take a jacket, or an umbrella. You rely on somebody else's forecast, who is an expert and who has access to better techniques. The weather forecast is very accurate, even over days.

Figure 3: Weather forecast in Cape Town

Source: screenshot from iPhone weather application

But what happens if you travel? Imagine you fly to Cape Town. You check the weather forecast on your phone (*Figure 3*, p. 29). It is forecast to rain at 17 degrees Celsius. You are likely to

wear something warm, like a sweater, and bring something to guard against the rain, such as an umbrella (*Figure 4*, p. 30).

Figure 4: One-day packing list

Source: own illustration

If you are staying for nine days or less, the forecast gives you an impression of what else to pack. Shorts and a shirt for the sunny and dry days (Figure 5, p. 30).

Figure 5: Nine-day packing list

Source: own illustration

Now, imagine you are planning a trip to South Africa coming from farther away. You will only be in Cape Town for 10 days. So, you do not have any weather forecast indicating how you should pack. You ask a friend who is in Cape Town now and she tells you it is sunny now, nothing to worry about. However, you do not want to end up soaked and ask another friend who travels to Cape Town regularly. She tells you that Cape Town can have four seasons in a day. It can be hot or cold and dry or wet any time. You now know that you should pack for: (1) dry and cold, (2) dry and hot, (3) hot and wet, and (4) cold and wet. You have just done a scenario analysis (Cronje, 2013, 2014; van der Merwe, 2016a, 2016b).

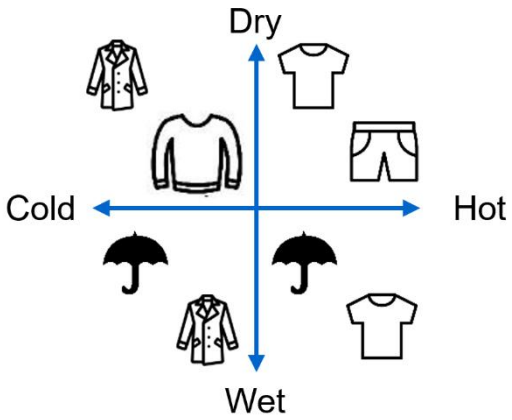

Figure 6: No forecast packing list

Source: own illustration; adapted from Cronje (2014), van der Merwe (2016b)

Scenarios analysis, compared to prognosis, does not rely on historic data to aim at drawing an accurate picture of a single scenario in the future, but spans the room to show several alternative future worlds that require a change of past directions.

2.3.1. A possibility to preview potential futures

Scenarios describe possible future states, including the pathway towards them. A scenario therefore is not a prediction of the future but allows for highlighting critical developments in order to draw attention to essential drivers.

Thereby, scenarios can be used for a variety of applications, ranging from macro-economic developments over the future state of a company up to implementation of products (Geus, 2002, 2011). One of the most renowned examples in the African context is Clem Sunter's discussion on the state of South Africa in the post-apartheid era (1987). Frans Cronjé followed Sunter with a perspective on South Africa in the 2020s (2014). Shell, an oil and gas company, is famous for using scenarios (van der Merwe, 2008).

Using scenario analysis allows for: (1) generating knowledge on the status quo and the possible future status, (2) discussing potential developments with experts and thereby combining different opinions, and (3) illustrating threats and opportunities to the public and policy makers (Kosow & Gassner, 2008).

Scenario analysis follows four major phases to draw scenarios plus one to discuss the implications and measures. The Phase One: (1) 'determination of the scenario field' targets asking precise questions, in order to adequately survey the study. Ideally, scenarios have a clear scope regarding topic, geography, and time. In Phase Two: (2) 'identification of key factors', the major influencing factors for determining future developments are collected. Phase Three (3) 'analysis of the key factors', illustrates the variety of possible developments of each factor. The Fourth phase (4) 'scenario generation', combines different developments of the key factors to build scenarios that are specific and distinguishable. The fifth and additional phase (5) is 'scenario implications'. This concludes by drawing up strategies to either achieve a scenario, or how to tackle a scenario with mitigating measures (Kosow & Gassner, 2008).

How good scenarios are, is "judged by their plausibility, internal consistency, comprehensibility and traceability, distinctness, and transparency" (Kosow & Gassner, 2008, p. 2).

2.3.2. Schools of scenario analysis

There are three categories of scenarios techniques, each following a different logic on how factors are extrapolated, and scenarios are built, while still following the five steps described above.

Trend extrapolation

The first scenario technique is based on trend extrapolation. Key factors, trends, are linearly projected into the future by relying on quantitative data such as for developmental status and qualitative data such as social trends. The most likely scenario is used as a reference scenario. Using trend impact analysis, then, allows for deriving a funnel of possible outcomes per trend. The combination of trends then spans the scenarios. The advantage of this technique is a linear, verifiable, and quantifiable approach. Disadvantages include the illusion of certainty and the requirement for quantitative data (Kosow & Gassner, 2008).

Formalised scenarios

The second scenario technique is systematic-formalised (F. E. P. Wilms, 2006). Based on strictly defined key factors that are varied and combined with one another, it allows for a widened scenario funnel compared to the trend extrapolation. Data for the key factors can be quantitative or qualitative. Similar to trend exploration, the key factors can be trends but also events, happenings, or people. In a way different to technique one, these key factors are considered by their overall effect. This allows for deriving the effect of key factors on each other. The systematic-formalised approach follows a three-step process.

The impact analysis, the first process step used, utilises a matrix with all key factors on both axes. Numbers are used to show the influence of each factor on the other. The importance of the key factors then results in four categories: 1) impulse factors that have a strong influence on other key factors, thus acting as levers; 2) reactive factors that are being influenced by other key factors, acting as indicators; 3) dynamic factors that strongly influence and strongly are influenced by other factors, indicating a central role as key factor, and finally 4) lazy factors, that neither influence nor are influenced majorly, and thus take a minor role.

The second process step is the consistency analysis. For each factor, two values are formed. For each pair, the likelihood is determined in order to rule out impossible or unlikely combinations.

The third step, the cross-impact-analysis (Gordon & Glenn, 1994), is used for including probabilities to the combination of likely variables of key factors, called events. Subsequently the

probability of occurrence of another event based on the occurrence of the initial event is determined. This allows for a combined probability of both events taking place.

Finally, the combination of probable events allows the planner to draft potential scenarios. The advantage of this method is its structural approach. However, as several dependencies are necessary, where validity and thus credibility can suffer (Kosow & Gassner, 2008).

Creative-narratives scenarios

The third scenario technique is based on creative narratives. This approach is less formalised than the above as it follows creative, implicit knowledge allowing for normative and explorative techniques. Still, this technique follows the same basic steps in the process of developing scenarios. Three basic approaches are ‘Intuitive Logics’, ‘Morphologic Analysis’, and ‘Normative Narrative Scenarios’ (Kosow & Gassner, 2008).

Intuitive logics

Intuitive logics rely on the intuition of experts on the respective field and are used for decision making. Factors are categorised in predictability and impact allowing for easily discussable variations. The advantage is that new and creative ideas are developed. The disadvantages are the limited number of people and opinions involved and thus a potential biased perspective (Kosow & Gassner, 2008; Mietzner & Reger, 2004).

Morphological analysis

Morphological analysis builds on the morphologic box, where all factors and potential variations are plotted in the morphologic box, providing different exclusive qualitative options along various dimensions. The combination of individual boxes then draws up the scenarios (Ritchey, 2005; Wehnert, 2007). The advantages are distinguishable and easily comprehendible scenarios. On the other hand, arbitrariness of combinations based on hypotheses contradict their credibility (Kosow & Gassner, 2008).

Normative-narrative scenario

The third creative technique is the normative-narrative scenario. The narrative process follows seven steps, each involving a group of twelve to 24 experts: 1) scenario workshop, 2) scenario expose, 3) story board, 4) scenario writing, 5) optimisation, 6) evaluation of scenarios, and 7) publication. The advantage is a holistic process, embedding a larger number of characteristics and the interdisciplinary of opinions in the development of scenarios. Further, no factors need

to be excluded, and even fine variants can be considered. This process, however, can show a bias toward ‘wish-scenarios’ (Kosow & Gassner, 2008).

Mixed approaches

Creative/narrative approaches can be combined to increase advantages and reduce disadvantages. Cronjé (2014) combines intuitive logics and normative-narrative scenarios, using a predictability and certainty matrix to classify key factors and then building a two by two matrix to receive four scenarios. He follows ten steps: (1) decide what you want to achieve, (2) determine the level of contentment with the status quo, (3) establish whether major political and economic role players are able to change the future, (4) analyse the policy environment, (5) develop a structured list for trends, (6) identify highways to the future, (7) identify road signs and route markers, (8) rank trends by impact and uncertainty, (9) produce a matrix, and (10) write the scenarios.

2.3.3. Scenarios on South Africa

The world and South Africa in the 1990s (1987)

Clem Sunter pioneered scenarios in South Africa, trying to shed light on the political transition from the oppressive apartheid to a post-apartheid regime. In 1987 when he published the scenarios, South Africa’s position in the world and the global perception of South Africa was very different. The international community pursued a policy of isolation and sanctions against the apartheid regime, including former colonial powers. He identifies (1) the rules of the game (e.g., operational assumptions), (2) key actors (namely the US, Japan, and the then USSR internationally and the South African government and its opponents locally), and (3) the key or pivotal uncertainties (interaction between the actors). Sunter derives two scenarios for South Africa based on the possible interactions between the actors: (1) the high road, and (2) the low road. The High road involved “Minimal sanctions, small government, decentralized power and joint negotiation,” and the Low road: “increasing sanctions, controlled economy, centralized government and eventual confrontation and conflict” (Sunter, 1987).

Mont Fleur Scenarios (1992)

The Mont Fleur Scenarios, named after the farm in the Cape winelands at which they were developed, were published in 1992, in the middle of the political transition happening in South Africa. The scenarios, named after birds, and a winged mythical figure, alluding to their flying

capabilities, aim to understand the path through the transition negotiations and highlight four scenarios derived in a stepwise approach: the result of no settlement being negotiated is (1) the Ostrich. If the transition after a successful negotiation is too slow and indecisive, (2) the so-called Lame Duck results. Where the transition is bold and decisive, but the government's policies are not sustainable, (3) the Icarus scenarios occurs. Lastly, if all of the intersections are followed on the positive, the 'yes' path, (4) the flight of the flamingos will take place, as seen in *Figure 7 Mont Fleur Scenarios* (p. 35). The following excerpts provide more detail of these respective scenarios:

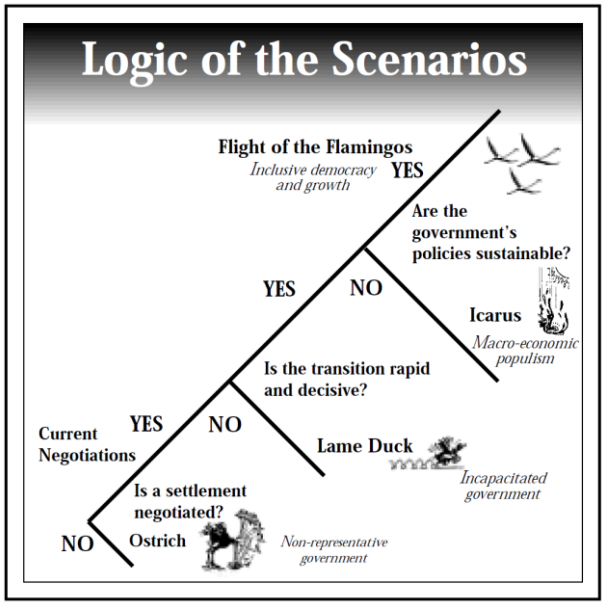

Figure 7: Mont Fleur Scenarios

Source: Kahane, Le Roux, and Maphai (1992, p. 9)

Ostrich: "The first scenario, Ostrich, depicts a government that does not want to face realities. An ostrich supposedly hides its head in the sand when danger threatens. The ostrich does not want to see, cannot fly, but has to lift its head in the end" (Kahane et al., 1992, p. 11).

Lame Duck: "The second scenario, Lame Duck, envisages a formal, protracted transition lasting for most of the coming decade. The image is that of a bird with a broken wing. No matter how hard it tries, it cannot get off the ground, and thus has an extremely uncertain future" (Kahane et al., 1992, p. 13).

Icarus: "The third scenario is one of macro-economic populism. The team called it Icarus, after the Greek mythical figure. This is the scenario of a popularly elected democratic government which tries to achieve too much too quickly. It has noble origins and good intentions but pays insufficient attention to economic forces" (Kahane et al., 1992, p. 14).

The flight of the Flamingos: “This is the scenario of inclusive democracy and growth. Flamingos characteristically take off slowly, fly high, and fly together” (Kahane et al., 1992, p. 17).

Dinokeng Scenarios (2009)

The Dinokeng scenarios, named after the game farm Dinokeng near Pretoria, were published in 2009, examining the state of South Africa in 2020. This research also draws a two-by-two matrix to illustrate its three scenarios. However, the matrix is based on the analysis of the status quo “Where are we today?”, based on accomplishments “What are our achievements” and on barriers “What are our challenges”. The achievements and challenges section cover the five drivers, namely: politics, economy, social status, education, and health. The axes of the derived matrices are the “character of civil society”, ranging from engaged to disengaged on the *y* axis and “capacity of the state”, ranging from effective to ineffective. The three scenarios are: (1) walk together (engaged and effective), (2) walk behind (disengaged and effective), and (3) walk apart (disengaged and ineffective), as illustrated in *Figure 8 Dinokeng Scenarios* (see p. 37).

Walk together: “This is a scenario of active citizen engagement with a government that is effective and that listens. It requires the engagement of citizens who demand better service delivery and government accountability. It is dependent on the will and ability of citizens to organise themselves and to engage the authorities, and on the quality of political leadership and its willingness to engage citizens. It entails a common national vision that cuts across economic self-interest in the short-term. This is not an easy scenario. Its path is uneven - there is robust contestation over many issues and it requires strong leadership from all sectors, especially from citizens” (Ramaphele et al., 2009).

Walk behind: “This is a scenario where the state assumes the role of leader and manager. State planning and co-ordination are seen as central mechanisms for accelerating development and delivery to citizens, especially poor, unemployed and vulnerable people. The ruling party argues that strong state intervention in the economy is in accordance with global trends, and the electorate, concerned about the impacts of the global economic crisis, gives the ruling party a powerful mandate. Strong state intervention crowds out private initiative by business and civil society. The risks of this scenario are twofold: one is that the country accumulates unsustainable debt, the other is that the state becomes increasingly authoritarian” (Ramaphele et al., 2009).

Walk apart: “This is a scenario of ‘musical chairs’ or ‘reshuffled elites’. It is triggered by the failure of leaders across all sectors to deal with our critical challenges. This failure is the result of political factionalism and weak, unaccountable leadership, weak capacity in government

departments, and tightening economic constraints that are not depart with realistically or inclusively. Civil society increasingly disengages as public trust in public institutions diminishes. The state is increasingly bypassed by citizens, resulting in unaccountable groupings assuming power over parts of society. The gap between the leaders and the led widens. Citizens eventually lose patience and erupt into protest and unrest. The government, driven by its inability to meet citizens' demands and expectations, responds brutally, and a spiral of resistance and repression is unleashed. Decay and disintegrations sets in" (Ramaphele et al., 2009).

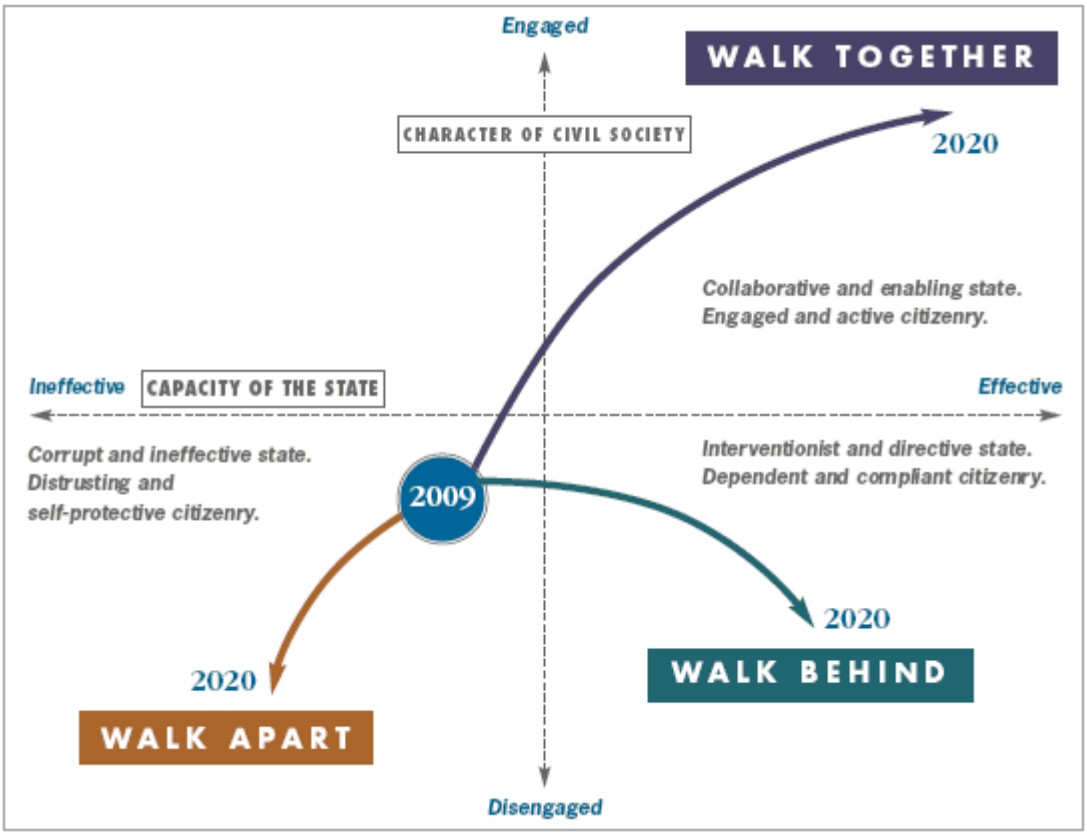

Figure 8: Dinokeng Scenarios

Source: Ramaphele et al. (2009, p. 32)

Today, at about the time the scenarios are set, the scenario "walk apart" scenario seems to have unfolded in several of its elements. The current status of South Africa can be described as ineffective government, and disengaged civil society (Ramaphele et al., 2009).

A Time Traveller's Guide (2014)

Frans Cronje published two sets of scenarios in the book series "a time traveller's guide". The first set published in 2014 looks at South Africa in 2024 and the second set, published three years later in 2017 interprets the status of South Africa by 2030.

The first set alludes to Sunter's road metaphors. Cronje identifies five key drivers, he calls highways: (1) The future of the ruling party, (2) citizen's ability to change the government, (3) the future of the South African government, (4) the capability of the state to continue social welfare, and (5) economic policy. He identifies the economic development and the citizen's ability to change the government (give feedback) as the two key drivers, spanning the field for four scenarios: (1) the narrow road (good economy but weak feedback mechanisms), (2) the wide road (good economy and good feedback mechanisms), (3) the toll road (good feedback mechanisms but weakened economy), and (4) the rocky road (weak feedback mechanism and weak economy).

Narrow road: "The state restricts citizens' access to feedback mechanisms in order to introduce unpopular economic reforms, such as deregulating the labour market. South Africans are more prosperous but less free" (Cronje, 2014, p. 148).

Wide road: "Rapid economic deregulation boosts private investment and economic growth. Citizens reward ruling party at the polls. South Africans are prosperous as well as free" (Cronje, 2014, p. 148)

Toll Road: "The government fails to reform the economy, which contributes to languish. Citizens remove the ruling party from power. South Africans are poor but free" (Cronje, 2014, p. 148).

Rocky road: "State intervention in the economy undermines investor confidence and growth. To avoid losing power, the government restricts citizens' access to feedback mechanisms. South Africans are poor as well as unfree" (Cronje, 2014, p. 148).

A Time Traveller's Guide (2017)

In Cronje's 2030 scenarios, he finds meeting popular expectations, ranging from expectations unmet to met, as the most uncertain driver and the role of the state, ranging from dominant state to weak state, as the most impactful driver. This spans the four scenarios: (1) rise of the right (dominant state and popular expectations met), (2) rise of the rainbow (weak state and expectations met), (3) the break-up (weak state and expectations unmet), and (4) tyranny of the left (dominant state and unmet expectations).

Rise of the right: "It has been ten years since South Africans went to the polls in their 2019 national and provincial elections. Over the past decades, tumultuous change has taken place in the country. South Africa is governed by an authoritarian state that has suppressed civil rights

in order to force a very successful set of economic reforms into the country. Constitutional rights and freedoms have been eroded but living standards are up. The economy is performing strongly. South Africa stands as the leading example of a new breed of authoritarian African capitalist economies" (Cronje, 2017, p. 125).

Rise of the rainbow: "The elections of 2029 delivered another endorsement for the now decade old ANC-DA coalition. Economic growth rates have recovered and living standards are rising. Radical and destructive populist politicians have been isolated and South Africans are united in building a free and prosperous country" (Cronje, 2017, p. 147).

The break-up of South Africa: "After the chaotic 2029 elections, South Africa has fractured, perhaps irreparably, along race, class and ethic lines. The state is severely weakened, and economy has stagnated. Many South Africans remain very poor. Without any effective political leadership, the country has become a society divided against itself. Against the odds, some small bands have built enclaves in which they maintain a largely normal life" (Cronje, 2017, p. 160).

The tyranny of the left: "It has been a year since South Africans dejectedly went to the 2029 polls in what independent observers widely regarded as rigged set of elections. An all-powerful, and once popular, socialist government has destroyed South Africa's democracy. The economy continues its decline and no end appears in sight to the hell that South Africans have lived through over the past decade" (Cronje, 2017, p. 142).

Fate of the Nation (2017)

Jakkie Cilliers draws three scenarios for South Africa set in 2034. Cilliers does not build on driving forces forming a scenario matrix, but makes short-term predictions about the 2019 elections, and what effects could follow as a consequence. This includes prognosed exact results for the elections in 2019, 2024, and 2029. Three scenarios are drawn up: (1) Bafana Bafana, (2) nation divided, and (3) Mandela magic.

Bafana Bafana: "In the Bafana Bafana scenario, ANC members elect a mix of traditionalists and reformers at the December 2017 conference. An example of such a mixed ideological bag would be Ramaphosa as president and Dlamini-Zuma as deputy president, although there are various other contenders who could fill these roles. Such a mix my also result from the choice of a compromise candidate should the competition between Ramaphosa and Dlamini-Zuma end in stalemate or threaten the unity of the party" (Cilliers, 2017, p. 78).

Nation divided: “A worst-case scenario for the country in one where Zuma continues as South Africa‘s president to 2019 […], or where at traditionalist slate, who are committed to a vision of fiscal populism, gain key positions at the December 2017 national conference, after which Zuma steps down and hands the reins over to a grouping that is intent on frustrating any prosecution of the former president and committed to fiscal populism” (Cilliers, 2017, p. 85).

Mandela magic: “Given the burden he has become to the ANC, the early departure of Jacob Zuma as president of both the ANC and South Africa could point the country towards the Mandela magic scenario, if it is accompanied by a rapid transformation to need a new leadership dominated by reformist grouping” (Cilliers, 2017, p. 93).

Indlulamithi South Africa scenarios (2018)

The most recent example for scenarios on South Africa are the Indlulamithi, the “giraffe looking above the trees” scenarios, being published in 2018, looking at South Africa in 2030. The researchers identified three key driving forces: (1) social inequity, (2) resistance, resentment and reconciliation, and (3) institutional and leadership capacity. The researchers came up with three scenarios: (1) *iSbhujwa*, an enclave bourgeois nation, (2) *Nayi le Walk*, a nation in step with itself, and (3) *Gwara Gwara*, a floundering, false dawn (Business Tech, 2018a; Indlulamithi, 2018).

iSbhujwa:

- “A rapid escalation of social protest
- Growing separation of poorer and mostly *black* South Africans, and a wealthier and increasingly cross-racial middle class
- Implementation of market-lead interventions in education, health, services of state-owned enterprises – with mixed results
- Faster land reform is implemented, but under-investment in agriculture causes longer-term declines in food production and food security
- Some improvements in schools and overall educational performance
- Further erosion of trust in key societal institutions, even as many improve their capacity and competence
- Moderate increase in foreign direct investment and higher levels of domestic capital formation
- Slow but relentless currency depreciation and increased sovereign debt risk

- Social grant recipient numbers increase substantially
- GDP growth averages 2.2% to 2030
- Unemployment reduced to around 22% South Africans feel less and less part of a single nation united by a common national vision" (Indlulamithi, 2018, p. 25).

Nayi le Walk:

- "Early childhood development programmes are expanded, and more resources devoted to first six years of education
- Increased promotion of civic values and conceptions of Ubuntu and other communitarian ethics – start to pay off
- TVET colleges are overhauled to produce many more artisans and university education is made more affordable
- Young people are increasingly entrepreneurial and – keen to pursue livelihoods independent of the government and big corporations
- Various social compacts, civil society initiatives and new programmes connect people and social and political processes
- More social housing and multi-income 'blended' suburbs are developed, and rapid urban transport systems are expanded
- National health insurance is implemented in the face of steep opposition by those with some access to private medical care
- The country recalibrates its multilateral alliances to achieve a better balance between BRICS and traditional growth partners
- Intra-African trade increases as the economies of our close neighbours improve at more rapid rates than ours
- Prosecutions are more successful and the sense of impunity in South Africa decreases
- Better recruiting, training and support create a more capable and productive public service and public trust in key societal institutions grows
- There is higher domestic economic confidence and investment
- South Africa is upgraded by global credit rating agencies as foreign investment levels improve
- Faster urban and rural land redistribution and better support for emerging farmers boost agricultural production, food security and urban integration
- From 2020, economic growth is more solid and predictable: GDP growth averages 4.5% to 2030

- The unemployment rate is reduced by about a percentage point a year between 2020 and 2030, to reach 16% by 2030" (Indlulamithi, 2018, p. 35).

Gwara Gwara:

- "Social cohesion is in steep decline as people retreat to their linguistic and cultural identities
- Rising xenophobia, and South Africa's low-level gender civil war deepens as women become more empowered – and more targeted by men who feel left out of the mainstream
- Trust and belief – in fellow South Africans, immigrants and the state and social institutions – declines to new lows
- Many institutions are only partially 'liberated' – and some quickly get 'recaptured' by newly emerging elites
- Internecine battles within ANC continue – and other parties also fray, but retain enough coherence to form a coalition government between 2024 and 2029
- Foreign investment dries up and inflation increases steadily over the 2020s
- After prolonged debate and fierce contestation, the number of provinces is reduced to six
- Capacity declines in key areas of governance, and the reduction of provinces and the consolidation of municipalities into fifty administrative areas only partially alleviates the decline in services at local levels
- Ethnic and inter-generational tension and conflict increase
- Land grabs and highway blockades become regular occurrences and illegal mining spreads
- Unemployment never recedes below 25% – and then increases towards the end of the 2020s
- GDP growth averages 1.5 % over the decade with some periods of recession
- Attempts to improve state revenue through tax increases results in declining tax morality and compliance
- Debt to GDP increases to 80% by 2030 and South Africa's debt is downgraded to junk status" (Indlulamithi, 2018, p. 43).

2.3.4. Scenarios on African youth

The KEYS, Kenyan Youth Scenarios, were published in 2011, looking forward 19 years ahead, into the year 2030. They are a lucid example of how scenario planning can be applied in the African context highlighting the dynamics the large young population bears. This research applies the same methodology as this paper does, by identifying drivers, ranking them according to impact and uncertainty, and describing the four scenarios spanned by a two by two matrix. The researchers have investigated the drivers per province before they aggregated national scenarios. The most impactful driver was identified as participation and the most uncertain driver as equality. They selected water as their guiding theme, resulting in: (1) the Tsunami scenario (active participation and inequality), (2) the Ocean scenario (active participation and equality), (3) the Waterfall scenario (passive participation and equality), and (4) the Pond scenario (passive participation and inequality).

Tsunami: “Like a tsunami (which is a series of water waves caused by disturbances from earthquakes, volcanic eruptions or underwater explosions above or below water to generate rapidly rising tides) whose destructive power is enormous, this is the story of high inequality in the country due to bad leadership, high unemployment levels, slow implementation of the constitution and the global financial crisis. Young people are the most disenfranchised lot and as a result, form a revolutionary front, strongest in Coast and North Eastern Provinces to fight for secession. By 2031, a state of emergency is declared” (Sivi-Njonjo & Mwangola, 2011, p. 55).

Ocean: “Like an ocean which has a continuous body of water with relatively free interchange among its parts that occupies 70% of the earth’s surface, the ocean scenario is a story of a leadership that adequately invests in the bulging youth population through social programmes. The country taps into the opportunity that this demographic structure provides and is able to avert a crisis. By 2031, the leadership begins to prepare the country for a transition to a mature population structure, determined to reap the best this opportunity has to offer” (Sivi-Njonjo & Mwangola, 2011, p. 66).

Waterfall: “After a long period of being fully formed, the water falling off the ledge in a waterfall retreats, causing a horizontal pit parallel to the waterfall wall. Eventually, as the pit grows deeper, the waterfall collapses to be replaced by a steeply sloping stretch of riverbed. This is the case with the water fall scenario. After intense demands by young people for jobs to be created and the country’s economy grows young people retreat from political participation and pursue economic success” (Sivi-Njonjo & Mwangola, 2011, p. 85).

Pond: “Like a pond (which is a body of stagnant water ideal for infestation and not ideal for providing drinking water), the pond scenario is the story of inertia by most youth except those leading the secessionist movement. Bad governance, human rights abuses, impunity etc. breed an ungovernable country that eventually fails” (Sivi-Njonjo & Mwangola, 2011, p. 75).

2.4. Anthropological views on unemployed youth

Aspiring to understand cultures, anthropology came into vogue driven by two developmental aspects: some anthropologists argue that the period of the *German Enlightenment* triggered comprehensive studies of cultures, *Völkerkunde* (Vermeulen, 2015), others argue when the *New World* had been discovered and the *Old World* became curious about its inhabitants (Hall, 1992; Hann, 2018; Hulme, 1986). Later, in the ages of colonialization and missioning, reports about “primitive” or “savage” cultures, e.g., the Cape Hottentots in the mid-1600s, built a foundation for ethnographic reviews (Coetzee, 1988; Rhijne & Grevenbroek, 1933). The descriptions were fuelled by ethnographic writing. Thus, the rise of anthropology and the beginning of colonialization go hand-in-hand (Bates, Mudimbe, & O'Barr, 1993; Bierschenk & Spies, 2012).

The origin and history of anthropology is discussed extensively, e.g., by Wolf (2010) or Bierschenk, Krings, and Lentz (2013). This introduction and the subsequent overviews on *Economic anthropology* (pp. 44 ff.), *Social anthropology of work* (pp. 46 ff.), *Ethnographies of work* (pp. 49 ff.), and *Youth and work in South Africa* (pp. 50 ff.) do not claim to be a comprehensive overview, but a short preamble leading to the ethnographic elements ultimately relevant to this thesis.

2.4.1. Economic anthropology

Economics and Anthropology are closely related as both disciplines try to understand interactions and functioning mechanisms, however from very different angles. Marx builds his theories on his analysis of the society and thus incorporates both views. Later, typically anthropologists tried to shed light on economic contexts, such as Plattner (1989) or Chibnik (2011). Historically economic anthropology aimed at understanding how the economy in societies without markets worked following a comparative approach. Nowadays, economic anthropology researches the embedding of cultural traits in economic interactions. The comparative aspect of modern economic anthropology differentiates it from economic sociology (Smelser & Swedberg, 1994).

Gudeman (2016) summarises his anthropological findings on the economy. He thereby critiques economic models more than most anthropologists, highlighting the abstract spheres of house, community, commerce, finance, and metafinance, creating a tension between social engagements and rationality.

Hann (2018) depicts the elements of economic anthropology thus: (1) modes of livelihood, (2) consumption, (3) the gift, (4) trade, (5) money, (6) credit and debt, (7) property, (8) socialism, (9) moral economy, (10) globalisation, (11) households, and most essentially, (12) work.

The category of modes of livelihood classifies societies according to the means with which it satisfies its livelihood. This can be through hunting and gathering, peasantry, in the informal sector, as industrial worker, or in the service sector gaining either subsistence or contributing to a cash economy.

Consumption is often viewed as social reinforcement mechanism, explaining a society based on a monetised economy (Gregory, 2015). Consumption can be tangible, such as in the form of food, weapons, or electronics, or intangible, such as in the form of information on the internet. It is an expression of preferences formed by cultural habitus and thus can vary distinctively between different cultural, geographic, and temporal settings, according to the value that is transcribed onto the good (Appadurai, 1986).

The gift is an integral part of understanding human interaction, as a gift contradicts the notion of a rationally acting *homo economicus* by inseparably combining the individual with the good (Mauss, 1925, 1954).

Trade is an integrative element to an economy. It can be divided into long-distance and local trade. Markets are determined by cultural traits, such as price-building through negotiation, which can vary vastly, and differentiate the insiders from the outsiders.

Money is understood as the medium storing value beyond just an auxiliary exchange medium in the immediate moment of transaction. It can include elements besides what we commonly understand as bank notes, coins, or cards, such as shells.

The modern concepts of credit and debt have surpassed the historical and literal understanding to lending and borrowing money. Gudeman (2016, p. 19) claims that recent crises have shown this development from historical meaning to modern interpretations as the “meta-financial circuit” does not build on the “real economy”. This detachment form of real value, the dependency of the debtor on the lender raises anthropological interest, e.g., the perceptions of “Southern” societies being dependent on “Northern” societies (Gudeman, 2016).

Property, modern economists argue, is the fundamental basis for an economy to function effectively, driving production and consumption. Although ethnographic research on economies has shown that property rights are not mandatory for the functioning of a society, the Marxist systems of common property proved to be dysfunctional at a country-wide scale. Property today can include more than land and tangible assets, such as intellectual property, or brand names (Hann, 2007).

The moral economy describes interpersonal drivers impacting the economy, such as favouritism, emotions, envy or greed acting in support or obstruction of the economic system embedding culture into the economy (Thompson, 1971).

Economies and their anthropological interpretation need to be seen in a global interlinked context. Only then can phenomena such as cultural shifts originating in colonial suppression be understood.

Household describes an entity whose members participate in economic transactions within and outside the "house". It opens the discussion on gender roles and responsibilities and power domination.

Each culture has an activity that translates to the Western-coined idea of work, ranging from individual Bushmen, to societies internalising work as social contribution, relating work, ritual, and consumption. Anthropologists often default back to Marxist theories studying the "extraction of surplus value" ranging from tribesmen, farmers to factory workers, and more recently the "global precariat" (Spittler, 2008). Work can be described form the perspective of rationality of collaboration, increasing ones returns, e.g., a structuralist and neo-institutional view, or as a culturally embedded sharing and values community, e.g., from a substantivist culturalist view.

2.4.2. Social anthropology of work

Social anthropology describes work and the interaction with the person and its environment in more detail. Wallman (1979) identifies four views that social anthropologists hold on the human-work relationship: (1) a comparative view, explaining differences between individuals and cultures, (2) a contextual view, explaining events based on the environment and the path of the individual or culture, (3) a spherical view, explaining sub-systems and their interactions, and (4) a values view, explaining contradictions and anomalies within the everyday life.

Work is not purely the physical process of labour. It is embedded, rather, in a physical, psychological, social, symbolic, and evaluative environment and therefore needs to be understood in its context. Work goes beyond the redistribution of resources, and is more specifically seen as a social relationship mechanism (Firth, 1967). Parkin (2006) explains the value of paid and unpaid work. Differentiating between work and non-work can be tricky: some see work as self-actualisation and less as a way to earn money in line with Marx (1867), whereas others describe the perception of work solely meant to generate income (Murray, 1979). Clearly, there is no singular understanding of work, and there cannot be, as work is contextual.

Therefore, social anthropologists have parsed work into its elements to obtain a better understanding. Common elements are: (1) energy, (2) incentives, (3) resources, (4) value, (5) time, (6) place, (7) person, (8) technology, (9) identity and alienation, and (10) domains, spheres, and systems. Humans directs energy towards work, and therefore create value. Arguably, this value however, cannot be measured by its "use value" (Firth, 1979), nor its physiological value (Harrison, 1976), but must be understood as the result of goal-oriented energy (Wallman, 1979).

A purely rationalist view is that work aims at maximising personal resources. Godelier (1972) argues that there needs to be more reasons for work. These reasons can be found in cultural norms, e.g., being amongst other people (Beynon & Blackburn, 1972). Consequently, fully understanding unemployment requires comprehension of the non-monetary social incentives attached to work, of which unemployed are deprived.

On the same note, the loss of work entails the loss of access to resources, the monetary incentive of work. Without resources, having food, building a life, a home, obtaining education, or travelling is not possible (Letkemann, 2002). Barth (1966) defines the resources necessary for livelihood: land, labour, capital, time, information, and identity, which all interrelate, creating a value of work.

Value originates in the "management of resources and the ascription of value to those resources" (Current Anthropology, 1980, p. 302). Value can also be seen in relation to opportunity cost: How would I value resources alternatively? The value of work can vary, depending on personal preferences and circumstances, cultural prescriptions, and also on which point in time. The other time-bound aspect of value is when the crops of one's work shall be harvested, that is, now or in the future (Kosmin, 1979; Willis, 2017). Some authors claim, that migrant workers tend to work harder, and under worse conditions than local workers. Murray (1979) sees their orientation towards the future as reason.

Time can entail different aspects: the value of time reflected in an hourly wage, which might change depending on the time of the day or week. Work time as a proportion of lifetime. Time is also a matter of perception: time can go by fast or slowly; it can be structured or unstructured. The unemployed, who technically have more time than employed, often struggle managing their time. Time, therefore, is not binary, not just work or leisure (Wadel, 1979).

The workplace is a relevant component to work. On the one hand, it can become the means of work. On the other hand, the place can be a required necessity for performing work e.g., farm workers need farms. Workers need to find to their place of work, either by a daily commute, by moving from home, or even abroad. The place for work can also be at home. If the place of work closes such as in the case of mines, for example, then the workers associated with this place lose their livelihood (Wallman, 1979).

The person performing the work can be relevant to cultural environment. Placing the person at the centre of work, rather than their merits, can lead to discrimination, based on hereditary perception e.g., cast or ruling class (Firth, 1979), race (Loudon, 1970), gender (Murray, 1979; Parkin, 2006), age (Schildkrout, 1979), or nationality (Fred, 1979). Additionally, a person also holds skills and talents relevant to the work performed (Firth, 1979; Ortiz, 1979; Schwimmer, 1979). A person can choose which work to do, within limit, as well as how well he/she performs at work (Cohen, 1978).

Technology provides tools to humans to perform their work more efficiently (Harrison, 1976). This concept becomes questionable, with technology replacing human work for example, with artificial intelligence (see *Chapter 2.1.4 Dynamics in unemployment*, pp. 18 ff.).

Individual identification with one's work is a central element of Marx' analysis. The lack thereof, driven by specialisation and division of labour, leads to alienation. Changes in the work environment, including all the above listed, can lead to an identity crisis, causing the fear of losing the safety contained in a stable environment (Willis, 2017). The level of identification of the person with their work determines the performance e.g., how well the work is conducted, as well as whether it is done with or without remuneration (Schwimmer, 1979).

Work is set in the context of a society defined by domains, spheres, and systems. These can influence work by organisational principles and can result in support e.g., using social ties to improve in working, or self-actualisation. Eventually, the context in which work is set will decide on who gets what (Wallman, 1979). The domains, spheres, and systems perspective of

societal context is closely related in institutional economics (see *Chapter 2.1.2 Schools of thought*, pp. 8 ff.).

2.4.3. Ethnographies of work

There have been innumerable ethnographic studies of work, spanning over numerous sectors, from service workers (Paules, 1991; Rollins, 1987; Spradley & Mann, 1975), to farm workers (R. Thomas, 1992; Wells, 1996), to industrial workers (Burawoy, 1982; Chinoy, 1992; Gamst, 1980; Laurie Graham, 1995; Juravich, 1988; Salzinger, 1997), to white collar workers (Bosk, 1992; Kanter, 2010; Kleinman, 1996; Kunda, 2009; Simonds, 1996), police officers (Hornberger, 2004, 2007; Martin, 1982), and even sex workers (Chapkis, 2013; Flowers, 2010). Besides these different fields of work, a lack of work has also been discussed (Howe, 1998; Howe & Howe, 1990; Mains, 2012; Munger, 2002). However, the understanding of working is greater than the understanding of not working, which is why this thesis takes a closer look at the characteristics of unemployment.

Although ethnographies are limited in their number of observations, and thus cannot claim universal applicability, no other approach allows for such deep insights, revealing "tacit skills, the decision rules, the complexities, the discretion and the control in jobs that have been labelled routine, unskilled and deskilled, marginal and even trivial" and an understanding for "how workers do their jobs: the conceptual tools and the strategies workers use to accomplish their work when faced with mechanical failures, bottlenecks, speedups, defective materials, or the need to take shortcuts to finish their work in a timely way, how they reconcile the contradictory demands between efficiency and quality, and the individual and group-level processes by which workers maintain dignity and control over and against supervisors and customers" (V. Smith, 2001, p. 221).

Ethnographies shed light on the decision-making and acting processes, the interaction between workers or between workers and managers, or the re-enforcement of social inequalities caused such as by patriarchy, sexism, or racism.

Ethnographers can approach participant observations on different time scales, from discontinuous part-time field observations to full-time fieldwork over months and years. Often times, frequency and intensity are determined by limitations, mostly by not gaining access or permission. The path, which the field work in this research followed is explained in *Chapter 3.5 Youth field research* (pp. 67 ff.).

2.4.4. Youth and work in South Africa

It is questionable as to whether youth and work in Africa, and in South Africa in particular, differs from other, more closely researched parts of the world.

Ferguson (2013, 2015) argues that work in South Africa is different from work in Western or Northern countries. Based on its colonialist-capitalist conquest, traditional institutions have shifted. He alludes to the fact that African institutions have changed e.g., chiefs have become colonial bureaucrats, and cattle a saving vehicle for the proletarians being dependent on wage labour.

This phenomenon of traditional African institutions being refitted to Northern institutions continued during apartheid (van Onselen, 1992), and even thereafter (White, 2004). The question arises as to how today's society in Africa sees personhood (Comaroff & Comaroff, 2001), in particular the role of the man and the woman in society, along the ethnic lines apartheid had drawn, when considering the shift of traditional institutions to colonial institutions.

Hunter (2010) describes the rise and fall of wage labour in South Africa in the context of sexuality, AIDS transmission, and South Africa's history. Colonialism, Christianity, and capitalism, so says Hunter, have all transformed the South African socio-economic sphere. These Western influences transformed the working culture towards the dependency on wage labour.

Traditionally, the head of a household married polygamously, providing a stable social and economic structure, as the head of the family was responsible for cattle herding and his wives and children, for farming. This construct also allowed young men to fight in the army, allowing the AmaZulu to stand up to the colonial intruders for an extended period of time. Only with the king's permission could a couple get married, involving *ilobolo* (bride price, where the husband's family pay cattle to the wife's family according to the wife's childbearing abilities) in the establishment of the new household.

The discovery of first diamonds (1867 in Kimberly), then gold (1886 in Johannesburg) meant a radical change to the traditional family and work routine, as colonial powers gained interest in this valuable land, where the autochthon were dispossessed and resettled, diminishing farming and cattle-rearing, and taxes were introduced. Both measures dramatically reduced the families' ability to pay *ilobolo* for his sons. The only alternative to raising the funds for *ilobolo* so as to be able to get married was wage labour.

As a result, the native South African settlers were introduced to the concept of migrant wage labour, mostly working in the mines. Young men migrated from these settlements to work in

mines, often for several months. This labour-induced migration also put strain on marriage. The spreading of Christianity and its perception of being "modern" reduced the historically prevailing polygamy to mostly monogamous marriages. This means that there is a current shift, although not complete, from traditional marriage, which depends on the respective families' wealth, to modern marriage, defined by the capacity and need to work.

Over the decades, wage labour became part of African manhood, as it enabled starting a family, being able to pay *ilobolo*, building a house, and nurturing the family. Standing in direct opposition to this stereotype of manhood is the phenomenon of unemployment. Not having a job results in not being able to start a family, to become a man, to live up to the expectations of society, and thus not being part of it. The term *Waithood* summarizes his structural issue of waiting for leaving childhood and becoming an adult that is caused by the lack opportunities for wage labour (Honwana, 2012). Unemployed youth are named *umnqolo*, a term traditionally used for "an un-masculine rural man so timid that he won't even herd cattle" (Hunter, 2010, p. 155). Unemployment means the downfall of traditional manhood in this way, and with it, exclusion from traditional social categories (Honwana, 2014; Honwana & Boeck, 2005).

White (2012) conducted a multi-year ethnographic study in rural KwaZulu-Natal gaining insights into the drivers for youth to pursue work. In line with this research (see *Chapter 4.2.2 Snippets of the lives of young unemployed*, pp. 100 ff.), he finds building a home for the family to be the main motivator. A house is not simply a shelter, but an affirmation of social ties, particularly to the (future) in-laws. Further to this, generating an income allows for paying for the future wife and paying tribute to the deceased, both of which are costly endeavours. Today's mass unemployment, particularly in rural areas (see *Chapter 4.1 Statistical insights on youth unemployment*, pp. 74 ff.) has impacted these social structures, where marriage rates have declined drastically, indicating that marked socio-economic adjustments are taking place. White sees the reason for this less in the lack of access to funds but interprets it to be much more to do with the social exclusion originating from inequality, and attendant frustration.

Seekings (2012) researched the success youth have in their journey to finding work. He interviewed youth over several years to draw his conclusions. Thereby, he found that 18-year-old youth, particularly from less advantaged *black* and *coloured* communities, despite very high job aspirations, were not overly successful. Half of the men were unemployed five years later, with little less than half in the case of women. Most were struggling to find a job, in keeping the job, and in finding a new one. Participants blamed not having completed school as a key reason for their struggle, which constitutes a reoccurring experience of failure. Additionally,

disadvantaged youth seem to lack an understanding of realistic job opportunities. Occupations they might get without having completed their matric, such as becoming a domestic worker, would not be paid as high as they expected, where therefore, they would not take that job.

White (2012) identifies the root cause in the fact that youth cannot see themselves ever being able to pay for the social obligations placed on them by their community, such as paying *ilobolo*. This interpretation is based on the value a man used to possess, either as eagerly fought as soldier, later as wage labourer, and now as unemployed and out of role. The women's traditional role of bearing children as future soldiers and labourers loses its relevance as the workforce cannot absorb these children, the "surplus people" (Platzky & Walker, 1985), nor does it require soldiers (Ferguson, 2013).

This research cannot necessarily confirm these conclusions, but anecdotally finds that youth would be willing to work on any job before being idle (see *Chapter 4.2.2 Snippets of the lives of young unemployed*, pp. 100 ff.). Jeske (2016) investigates the question of laziness amongst young South Africans, finding that the strive for 'the good life' does motivate youth to seek employment. Still, narratives around responsibility, morality, respect, and style, are often contradicting companions on the individuals' struggle to find their place. Due to the hegemony of people's social conditions and the way they tackle their challenges, their behaviour can appear as laziness to outsiders. Seekings adds that disadvantaged youth overestimate their chances of finding (re-)employment and underestimate the expectations employers have towards them.

However, Seekings (2012) finds that *white* urban South African youth start working after completing secondary school, mostly in parallel to their tertiary education. They did find work, as they were not overly selective in the jobs they chose, following a "rags to riches" mentality. However, many explain to have found their jobs through social ties. Those young *white* participants in Seekings' study that could not build on their network, expressed savviness by seeking out a personal conversation, rather than merely sending in a curriculum vitae. Alternatively, *white* youth started running their own business. In either case, "selling" their labour helped them to enter the job market and work their way up. Seekings terms this savviness "work ethic".

Another interesting, because unintuitive, link between labour and food insecurity is that farm workers preferred bringing home money, rather than food. Ledger (2015) researched a groups of community gardeners, who sold their produce, contributing money to the household, rather than food, even though food was often scarce in their families. Economically, this decision is irrational, due to the fact that food bought in supermarkets is more expensive than the produce

sold. On the contrary, this example illustrates that in South African society the value of money is perceived to be higher than the value of even scarce goods.

2.5. How the different disciplines interlock to unveil our future

Economists and anthropologists are not aligned on the validity of each other's research. Economists believe in a large number of data points that can be statistically evaluated, while anthropologists trust in the deep insights drawn from spending time with a limited number of individuals. As a result, economists often struggle arguing for validity, while anthropologists for representativeness (Lentz, 1992). This clash of quantitative and qualitative research can be harmonised in a complex system view, by quantitatively understanding the magnitude of the challenge and qualitatively understanding the context of the challenge.

2.5.1. A complex world and how to understand it

The world we live in is complex. Over centuries, researchers have tried to dissect it into its singular elements, to explain overarching systems by combining the understanding of their constituent parts. However, these approaches have failed to describe the world in its entirety. As previously noted, the *Great Depression* was the first earthquake to scatter classical economic theories, while the *Yom Kippur War*, or rather its consequences, brought about a revision in thought (see *Chapter 2.1.2 Schools of thought*, pages 8 ff. and *Chapter 2.2.4 Emergence of complex system theories*, pages 27 ff.). The oil price shock and the resulting global economic crisis gave birth to complex systems thinking, which claimed that the world could not be understood simply by understanding individually and then adding each piece together, as well as to neo-institutional thinking, allowing the notion of multi-layered interactions and path-dependency to emerge. This is close to anthropological thought, which stresses the contextuality of events (Asche, 2011).

All three schools of thought, classical economics, complex system theory, and neo-institutionalism, admit that one singular rationality cannot be assumed (Evans-Pritchard & Gillies, 1988), opening the door to allow for non-intuitive approaches, where we know it to be the case that the largest part of an iceberg is underwater (van der Merwe, 2008), and not visible without diving. There needs to be a new way of thought to dive deep and iterate the insights back. Ethnography allows for precisely this manner of deep dive, reading between the lines to understanding that which is not obvious. Despite this, ethnography has not been the methodological choice for economists, nor for complex system researchers. This research claims that the

combination of these opens the door to holistic insights, leading to the understanding of the grand structure, but so too, to an understanding of smaller, more covert context.

2.5.2. Why Marx is still alive in South Africa

Karl Marx provided a critique of the capitalist society, e.g., the huge divide between the capitalist bourgeoisie and the poor working class, living in the mid-19th century. Although his communist model for a brighter future eventually failed in every single country that attempted governance according to its principles, even today Marxist theories are in vogue – particularly in South Africa – where Marxist discourse is ever-present.

Even the ruling *African National Congress* (ANC) founds its principles on Marxist ideology (although it does not live these out). While in Western countries, Marx and communism provide a chapter to the history books, his analyses still appeal today in societies that are as unequal as Europe was in the 1800s. South Africa is the most unequal society in the world, according to the GINI index (see *Chapter 4.1 Statistical insights on youth unemployment*, pp. 74 ff.).

It therefore is not surprising that Marx's analysis still seems relevant today. As South Africa faces huge unemployment, it is understandable that the concept of alienation is still relevant, even though in a context wholly different from than initially intended by Marx. What also seems contemporary, is his effort to understand the human in the context of the society and technological change. While Marx faced the first industrial revolution, today the industry in revolutionising again in the form of *industry 4.0*, as advanced systems and artificial intelligence gain traction. This constitutes an effort that is arguably required to understand complex contexts and the world today, particularly looking into the future.

Further, Marx' ideal of the working class having access to the wealth the society has to offer is in line with the neo-institutional analysis that inclusiveness is a success factor for society, although the two theories' proposals of arriving at this significantly diverge. Both schools agree however, that social cohesion is key. This work will go a step further, claiming that beyond this, the perception of inclusiveness is key. Ethnographic field work in South Africa illustrates that beyond mere theoretical 'access', that it is instead the perception of access. It is the access to society, to education, and to jobs, that matters to the people (see *Chapter 4.2.2 Snippets of the lives of young unemployed*, pp. 100 ff.).

2.5.3. Drivers for employment

Based on the literature on (un)employment and work, drivers for employment can be derived. For economists, employment is the result of the dynamics between the supply and demand for labour which can be drawn in a curve. These curves move in accordance with a change in the environment, which would impact employment. On the labour demand side, the number of open positions is the key determinant. Further, self-employment can be a driver as employment is induced though creating one's own job. On the labour supply side, the number of workers can change based on demographic shifts or on migration into or out of the country.

The concept of employability and the anthropological view of a person go hand-in-hand, as both aim to understand the individual and their agency as well as hindrances to work, even though from slightly different angles. They illustrate that education, the school, hard and soft skills, taxpersons' health, access to networks and knowledge, barriers induced by the government and society, and the cultural and societal context, matter on the path to employment and staying in employment (see *Chapter 2.1.5 Employability and employment*, pp. 23 f. and *Chapter 2.4 Anthropological views on unemployed youth*, pp. 44 ff.).

Lastly, inclusiveness and its perception, based on Marx' and neo-institutional schools of thought, matters for the employed and unemployed.

The drivers identified, and to be tested in this thesis, are illustrated in *Figure 9: Employment drivers* (see below).

2.5.4. Novelty of this research

Youth employment scenarios in South Africa are a novelty in three regards. Firstly, youth (un)employment, although the most pressing issue of the country's future, has not been researched with the holistic prescience that is required to fundamentally understand and tackle the issue. Secondly, ethnography has not yet been the methodology of choice for scenario planners to understand the contextuality and path-dependency that is required to derive and illustrate future states. Thirdly, the framework developed for understanding youth employment is universal and can be applied in any country to understand the dynamics originating from its youth (see *Chapter 4.3 Eleven drivers for youth employment in South Africa*, pp. 115 ff.).

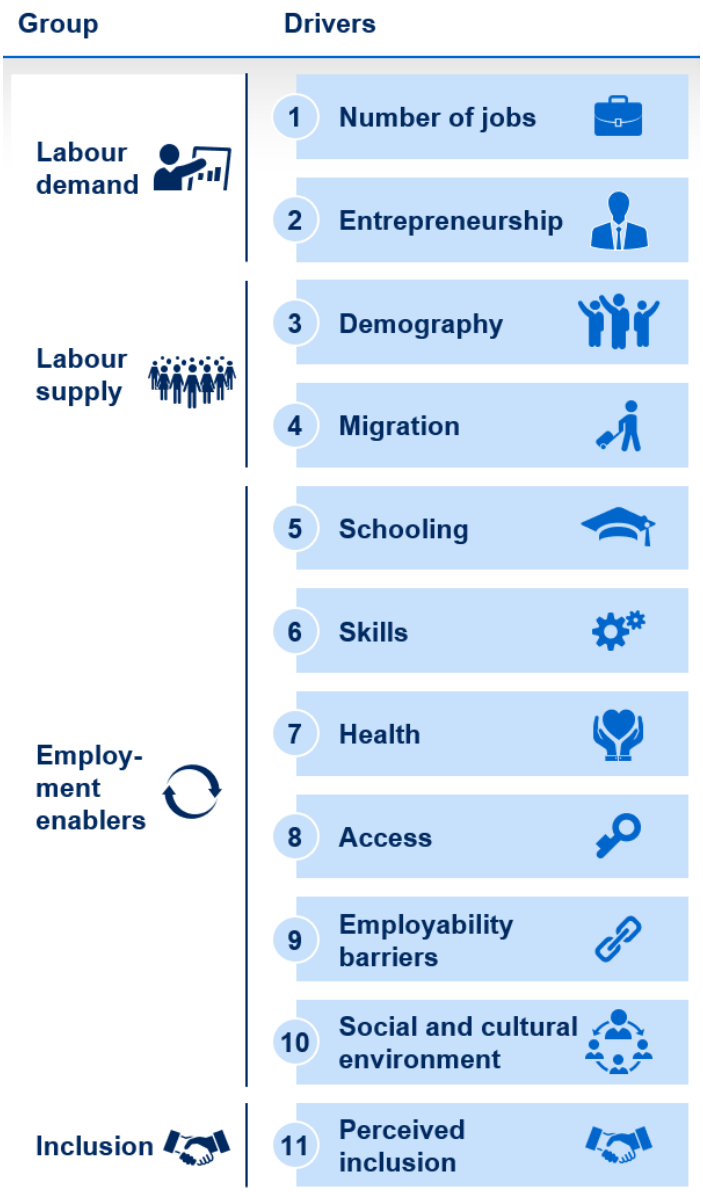

Figure 9: Employment drivers

Source: own illustration

3. Study setup: Mixed methods for context-based insights

The aim of this research is to provide a holistic overview of the youth employment situation in South Africa today, and in 2035. Thereby all relevant themes and elements shall be addressed, however, the depth will vary depending on the relevance for the overall picture. To achieve this, a combination of quantitative and qualitative research methods is applied.

The quantitative element includes statistical data analysis, providing the frame for understanding the problem of unemployment, highlighting demographic, gender, and geographic, ethnic, and educational elements.

Qualitative research provides context to the statistical frame. As Auerbach and Silverstein (2003) argue, qualitative data, even if not representative, allows for deep insights that are crucial for comprehending that under scrutiny. Based on the insights from the quantitative research, the qualitative part focuses on understanding cases of youth most affected. This part of the research is designed along anthropological lines, interacting with experts and unemployed youth in the field (Marshall & Rossman, 2015).

3.1. Scenario analysis applied

Sunter (1987) and Cronje (2014) have adapted the usage of narrative scenarios in the African context triggering discussions on a political, economic, and social level. Their success shows the impact scenarios can have as a method of indicating possible future states and enable discussions. Therefore, scenario analysis is a capable instrument to also describe the possible future states for youth employment, which constitutes South Africa's biggest challenge.

The setup chosen for the youth employment scenarios for 2035 in this research aligns with Cronje's (Cronje, 2013; 2014, 2017) scenario setup for South Africa, looking towards 2024 and 2030, following four major steps.

The first step is establishing an understanding of the status quo of youth employment in South Africa, using statistical data (see *Chapter 3.2 Statistical data*, pp. 61 ff. and *4.1 Statistical insights on youth unemployment*, pp. 74 ff.), expert interviews (see *Chapter 3.3 Expert interactions*, pp. 61 ff. and *Chapter 4.2 Field insights on youth employment*, pp. 91 ff.), and field research (see *Chapter 3.5 Youth field research*, pp. 67 ff. and *Chapter 4.2 Field insights on youth employment*, pp. 91 ff.).

The second step is identifying the drivers and underlying forces that determine the development of youth employment in South Africa (see *Chapter 4.3 Eleven drivers for youth employment in South Africa*, pp. 115 ff.).

The third step is to rank the drivers by impact, and uncertainty. Based on the lived experience of the expert panel (see *Chapter 3.4 Sounding board*, pp. 65 ff.), the expert participants discuss and decide on the relative importance of the employment drivers amongst one another. This approach of *naturalistic inquiry* (Lincoln, 2007) results in a ranking of all drivers along their relative ranking along the two independent dimensions impacting on employment and uncertainty.

Both dimensions are then combined into a scatter diagram, as illustrated in *Figure 10: Trend prioritisation scatter* (p. 59), illustrating their relative impact and relative uncertainty.

Impact, as the first dimension, describes the effect each driver is likely to have on youth employment in South Africa by 2035. The effect can be either positive or negative. For both cases, the net effect is illustrated along the positive values along *y*-axis.

The second dimension, that of uncertainty, describes the likelihood of appearance. A driver that is more certain to have an effect on employment lies further to the left of the scatter diagram, while a driver that is more uncertain to have an effect on employment lies further to the right along the *x*-axis.

This process is similar to solving for a regression model. The drivers compare to independent variables, while youth employment would be the dependent variable. The impact dimension of drivers in scenario planning corresponds to the significance description of variables in a regression model. Similarly, uncertainty in scenario analysis can be compared to variance in a statistical model. While regression models focus on significance and aim at reducing variance to predict a future value as accurately as possible, scenario analysis incorporates uncertainty/variance next to impact/significance, in order to show a range of very diverse future states. This is not a perfect comparison, but an approximation of analysing quantitative-qualitative data, as if it was purely quantitative.

The data set of this study, as well as the quantitative-qualitative methodology, do not allow for a typical regression analysis, as scenario analysis is forward-looking, and not exhaustively reliant on historic data. Therefore, the classification of drivers/variables along impact/significance and uncertainty/variance is conducted by an expert interdisciplinary panel.

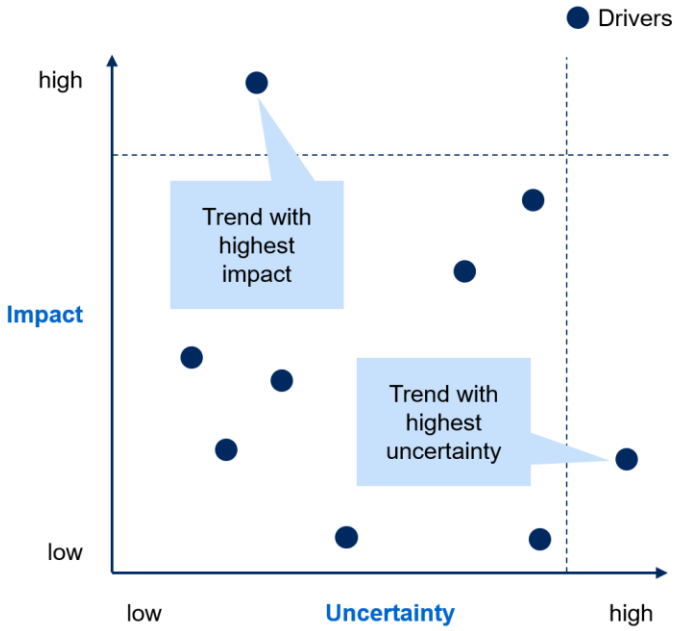

Figure 10: Trend prioritisation scatter diagram

Source: adapted from Cronje, 2014, p. 49

From this scatter diagram the driver with the highest impact and the driver with the highest uncertainty are selected, as they are the most relevant to span future scenarios (see *Chapter 4.4 Prioritisation of employment drivers*, pp. 154 ff.).

The fourth and final step is to create a two-by-two four-field matrix and design the four scenarios (see *Chapter 5 Youth employment scenarios for South Africa in 2035*, pp. 156 ff.).

The most impactful and the most uncertain diver are selected as axes for the matrix. The most impactful driver is drawn as the *y*-axis of the matrix, and the most uncertain driver is plotted as the *x*-axis of the matrix. The positive development of the most impactful driver sits atop the matrix (positive *y*-values), a negative development on the bottom (negative y-values). Similarly, a positive development of the most uncertain driver I found on the right (positive *x*-values) and a negative development on the left (negative x-values, see *Figure 11: Scenario matrix*, p. 60).

The four resulting fields are where the four scenarios are situated. The two axes delineate a frame. The other drivers that are neither the most uncertain, nor the most impactful, will be considered in the description of the scenarios.

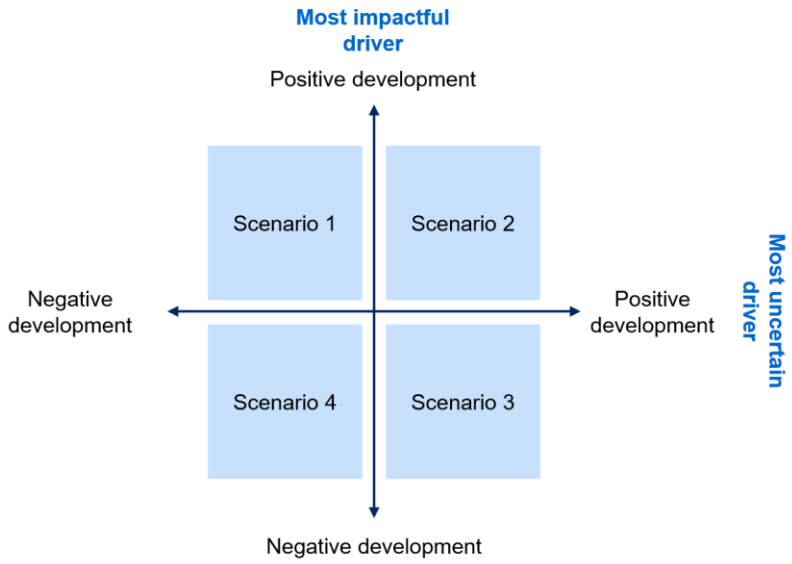

Figure 11: Scenario matrix

Source: adapted from Cronje, 2014, p. 50

The scenarios are located at the ends of the axes. Thus, the scenarios illustrate the extreme states in which the world, here youth employment in South Africa by 2035, could find itself. The likely scenario for 2035 will be in the area between these four extreme scenarios (see *Figure 12 Possible scenarios*, p. 60). This development does not only occur within the two main drivers – most impactful and most uncertain – but also within all supporting drivers that are not illustrated in the two-dimensional matrix. The scenario in the centre occurs when there is no change of the status quo until 2035, which is unlikely to happen. Also, it therefore contradicts the applied logic to attribute likelihoods to each scenario. Consequently, as the scenarios are not the extrapolated status quo, a regression analysis is not a feasible method.

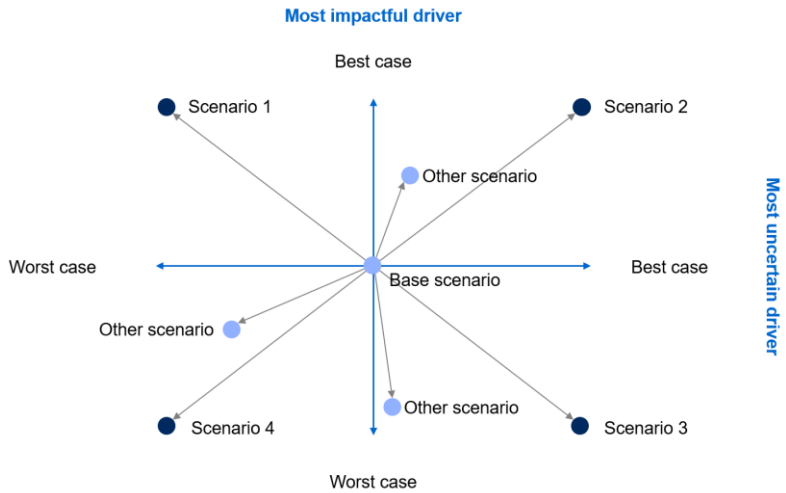

Figure 12: Possible scenarios

Source: own illustration

3.2. Statistical data

Statistical data will provide the foundation for building scenarios. Visualised data explains the status quo of the youth employment situation in South Africa, illustrating employment status differentiated according to age, gender, ethnicity, education, urban and rural areas, provinces, formality, as well as its development over time.

In order to produce a reliable frame, the quality of data needs to be sufficiently comprehensive. South Africa has a reliable statistics institution, Statistics South Africa (StatsSA), as well as several think tanks that provide in-depth data, like the South African Institute of Race Relations (short IRR). Further to this, the World Bank's database (World DataBank), Gapminder, the Economist, and the United Nations provide aggregated additional socio-economic data.

The main source used for the analysis of the youth employment status quo is the labour survey conducted quarterly by StatsSA. StatsSA provides an online database to access and export the most current and historical data. It covers private households including workers' hostels on a national level of a civilian population aged 15 years and above. Based on the 2011 census conducted in South Africa, 33.000 dwelling units were defined that serve as the base for the quarterly surveys. They are split in provinces and metro vs. non-metro areas. Metro areas are further differentiated according to urban, tribal and farms. The sample is divided into four equally sized and structured groups, of which each gets observed quarterly on rotation. Weighing allows for estimations for the total population. The survey results are subject to sampling, as well and non-sampling errors. The quality of the data is checked by the variances of survey estimates. The BRR method is used for variance estimations, and interviews are conducted face-to-face (Statistics South Africa, 2018c).

3.3. Expert interactions

Statistical data provides deep insights into the unemployment situation in South Africa, particularly when digging deeper, and examining dependencies. However, data provides solid information, like a frame, but it is not telling a story by giving explanatory context. Also, statistical data does not provide insights into drivers and possible future development. Therefore, expert opinions are crucial.

This research utilises three forms of expert interactions: (1) expert interviews, (2) expert presentations, and an (3) expert sounding board called scenario board. In total, 90 interactions took

place with 76 experts in 90 interviews and presentations. Additionally, two sounding board discussions took place. The interactions happened between August 2015 and August 2018.

The purpose of these interactions was to understand the root causes and drivers for youth employment. To allow for a wide range of insights and reduce biases (King, Keohane, & Verba, 1994) it was the aim to cover experts from different social and professional backgrounds. Contacts were gained through the researcher's previous private and professional contacts, through referrals, visiting events and conferences, and lastly through approaching relevant institutions.

The aim was to include experts from politics, policymaking, business, and social institutions or NGOs interacting with youth. To further reduce bias, at least two different organisations in each field were approached for interviews: there were at least two human resources perspectives, at least two NGOs working with youth, etc. This approach worked well except for one instance, as detailed below.

There are interviewees that held a political office or occupied a government function. They were either from the ruling *African National Congress* (ANC) or the largest opposition party *Democratic Alliance* (DA). Although reaching out to the third major party, the *Economic Freedom Fighters* (EFF), representatives of this party were not available for an interview.

To decrease bias further, the number of interactions, and therefore impressions, was increased to 90, see *Figure 13: Expert interactions*, p. 63 (Adams, 2017; Allais, 2017; Anestidis, 2016; Ben-Zeev, 2017; Beyers, 2016; Bhorat, 2017; Blecher, 2017; Bottenbruch, 2016; Canca, 2017; Chance, 2019; Chinhimba, 2016; Cronje, 2019; Diesel, 2016; Dinake, 2017; Ebrahim, 2019; Fourie, 2016; Gosalamang, 2016; Hadfield, Foley, & Gewers, 2017; Hattingh, 2016; Hess, 2016; Hlabangu, 2017; Jacobson, 2016; Jali, 2016; James, 2016; Kaempffer, 2016; Klier, 2016; Landman, 2019; Maloma, 2017; Mangoma-Chaurura, 2016; Maree, 2017b; Maree & Zille, 2018; Masilo, 2016a, 2016b, 2017; McCrea, 2015; McTavish, 2016a, 2016b; Monga, 2018; Moonilal, 2017; Muzvidziwa, 2017; Ngwenya, 2017; Okelo, 2016; Pityana, 2017b, 2017b; Pityana & Canca, 2017; Prinsloo, 2018a, 2018b; J. Ramokgopa, 2017; Roberts, 2016; Sarupen, 2017, 2018a, 2018b; Schaffranek, 2016; Schirmer, 2016; Schmeling, 2017; Schmitz, 2016; Schoer, 2016; Schreuder, 2016; Seyni, 2016; Sieren, 2016; Sinaceur, 2017; W. Smith, 2016; Sonn, 2017b; Steuart, 2016; Storme, 2016a, 2016b; Swartz, 2016a, 2016b; A. Thomas, 2016; Urquhart, 2017; van der Merwe, 2016a, 2016b, 2019; Vaughan, 2016; Webber, 2016; S. Wilms et al., 2016; Winnie, 2018; Woods, 2017; Zille, 2017b; Zindler, 2016; Zucchi, 2016).

	Title	Name	Surname	Occupation	Location	Date of interview
1	Dr.	Jackie	Mangoma-Chaurura	Senior Manager: Programme Measurement and Design at LoveLife	Johannesburg, South Africa	15.08.2015
2		Marie	McCrea	Partner at Centre for Innovative Leadership	Johannesburg, South Africa	15.08.2015
3		Coenraad	de Beer	Care & Protection Team Leader at SOS Children's Villages	Innsbruck, Austria	29.04.2016
4		Douglas	Reed	Head of Research, Innovation & Development at SOS Children's Villages	Innsbruck, Austria	29.04.2016
5		Salma	Soliman	Global Project Manager: Gender Equality Policy Piloting at SOS Children's Village	Innsbruck, Austria	29.04.2016
6		Christine	Tavernier-Gutleben	Care & Protection Advisor at SOS Children's Villages	Innsbruck, Austria	29.04.2016
7		Stefan	van der Swaluw	Programme Strategist in Child- and International Development at SOS Child	Innsbruck, Austria	29.04.2016
8		Stewart	Wilms	International Director of programme and strategy SOS Children's Villages	Innsbruck, Austria	29.04.2016
9		York	Zucchi	Chief Coffee Drinker at Join The Equation	Johannesburg, South Africa	09.07.2016
10		Fiona	James	Fund Development and Communications Director at SOS Children's Villages International	Johannesburg, South Africa	20.07.2016
11		Cisse	Seyni	SOS Children's Villages International	Johannesburg, South Africa	21.07.2016
12		Julia	Klier	Partner at McKinsey & Company	phone	27.07.2016
13		Anthony	Diesel	Country Director at South Africa Partners	Johannesburg, South Africa	29.07.2016
14		Wesley	Smith	Associate Partner at McKinsey & Company	Johannesburg, South Africa	01.08.2016
15		Volker	Schoer	Lecturer at University of the Witwatersrand	Johannesburg, South Africa	03.08.2016
16		Janine	Schreuder	Research and Investigation Team Leader at McKinsey & Company	Johannesburg, South Africa	08.08.2016
17		Tasso	Anestidis	Attorney at Eversheds SA	Johannesburg, South Africa	10.08.2016
18		Paul	Jacobson	Author of Lions on the Move 2 at McKinsey & Company	Johannesburg, South Africa	16.08.2016
19		Anke	Schaffranek	Founder at Lioness - Management Consulting	Johannesburg, South Africa	17.08.2016
20		Michael	Schmitz	Head of Human Resources Segment Power Bilfinger	Johannesburg, South Africa	22.08.2016
21		Karin	Kaempffer	GM: Human Capital Management at Bilfinger Power Africa	Johannesburg, South Africa	23.08.2016
22	Prof.	Louis	van der Merwe	IRR Policy Fellow	Midrand, South Africa	23.08.2016
23		Stacy	McTavish	Head of Procurement at Dimension Data Middle East and Africa	Johannesburg, South Africa	24.08.2016
24		Andreas	Sieren	Author	Johannesburg, South Africa	24.08.2016
25		Mmabatho	Gosalamang	Senior HR Practitioner at Mitsubishi Hitachi Power Systems Africa	Johannesburg, South Africa	29.08.2016
26		Mary	Webber	Job Coach at Sparrow FET College	Johannesburg, South Africa	29.08.2016
27		Alex	Beyers	Consultant at Harambee	Johannesburg, South Africa	30.08.2016
28		Hess	Fourie	Head of HR Strategy at BMW SA	Midrand, South Africa	30.08.2016
29		Tyron	Fourie	Director at Eversheds	Johannesburg, South Africa	31.08.2016
30		Stacy	McTavish	Head of Procurement at Dimension Data Middle East and Africa	Johannesburg, South Africa	31.08.2016
31		Ian	Steuart	Senior Manager, Policy and Advocacy Jobs and Growth at Centre for Development and Enterprise	Johannesburg, South Africa	31.08.2016
32		Evelien	Storme	Researcher and project coordinator at Centre for Development and Enterprise	Johannesburg, South Africa	31.08.2016
33		Leigh	Swartz	Marketing & Communications Manager at DHL Supply Chain South Africa	Johannesburg, South Africa	31.08.2016
34	Prof.	Stefan	Schirmer	Associate Professor at University of the Witwatersrand	Johannesburg, South Africa	07.09.2016
35		Faith	Masilo	Human Resources Director at Roche SA	Johannesburg, South Africa	08.09.2016
36		Alun	Thomas	Resident Representative at the International Monetary Fund IMF	Kigali, Rwanda	16.09.2016
37	Prof.	Louis	van der Merwe	IRR Policy Fellow	Midrand, South Africa	05.10.2016
38		Pumla	Jali	Economist at eThekwini Municipality	Durban, South Africa	19.10.2016
39		Suzanne	Hattingh	Principal Consultant at Learning for Performance Improvement	Midrand, South Africa	21.10.2016
40		Philipp	Zindler	Managing Director Sub-Saharan Africa at Detecon International GmbH	Johannesburg, South Africa	24.10.2016
41		Benter	Okelo	Senior Project Manager for BRIDGE's Learner Support	Johannesburg, South Africa	28.10.2016
42		Leigh	Swartz	Marketing & Communications Manager at DHL Supply Chain South Africa	Johannesburg, South Africa	15.11.2016
43		Evelien	Storme	Researcher and project coordinator at Centre for Development and Enterprise	Johannesburg, South Africa	23.11.2016
44		Helen	Vaughan	Michael & Susan Dell Foundation: Programme & Partnerships Manager	Cape Town, South Africa	23.11.2016
45		Michael	Roberts	CEO at Khonology	Johannesburg, South Africa	24.11.2016
46		Christa	Bottenbruch	General Manager at GROUPE SEB SA	Johannesburg, South Africa	30.11.2016
47		Perpetual	Chinhimba	Norad Grant Advisor for SOS Kinderdorf International, ESAF Region	Johannesburg, South Africa	05.12.2016
48		Faith	Masilo	Human Resources Director at Roche SA	Johannesburg, South Africa	06.12.2016
49		Isabella	Hlabangu	Head of the Training and CSR department at the German Chamber of Commerce and	Johannesburg, South Africa	01.02.2017
50	Prof.	Johann	Maree	Professor Emeritus for Sociology at University of Cape Town	Cape Town, South Africa	10.02.2017
51		Helen	Zille	Premier of the Western Cape	Cape Town, South Africa	10.02.2017
52		Ann	Bernstein	Executive Director of the Centre for Development and Enterprise	Johannesburg, South Africa	16.04.2017
53		Jimmy	Ramokgopa	Junior Engineer at Aveng Grinaker-LTA	Johannesburg, South Africa	15.07.2017
54		Travis	Schmeling	General Council at SPX and head of restructuring	Johannesburg, South Africa	15.08.2017
55		Nomhle	Canca	Chairperson of the National Foundations Dialogue Initiative	Cape Town, South Africa	30.08.2017
56	Prof.	Barney	Pityana	Human rights activist and former Vice Chancellor at University of South Africa	Cape Town, South Africa	30.08.2017
57		Crisoin	Sonn	Executive Director: Gamiro Investment Group	Cape Town, South Africa	30.08.2017
58		Penny	Foley	Harambee Youth Employment Accelerator	Johannesburg, South Africa	04.09.2017
59	Dr.	Anthony	Gewer	Harambee Youth Employment Accelerator	Johannesburg, South Africa	04.09.2017
60		Robert	Urquhart	Executive Knowledge and Impact at Harambee Youth Employment Accelerator	Johannesburg, South Africa	11.09.2017
61	Prof.	Victor Ngonidzashe	Muzvidziwa	Vice Chancellor at Midlands State University	Gweru, Zimbabwe	14.09.2017
62		Nomhle	Canca	Chairperson of the National Foundations Dialogue Initiative	Johannesburg, South Africa	18.09.2017
63		Shemona	Moonilal	Director; Baha'i Office of Public Affairs	Johannesburg, South Africa	18.09.2017
64	Prof.	Barney	Pityana	Human rights activist and former Vice Chancellor at University of South Africa	Johannesburg, South Africa	18.09.2017
65	Prof.	Stephanie	Allais	Associate Professor at Centre for Researching Education and Labour, University of the Witwatersrand	Johannesburg, South Africa	19.09.2017
66		Keren	Ben-Zeev	Deputy Director for Democracy & Social Justice Programme at Heinrich Böll Foundation	Cape Town, South Africa	09.10.2017
67	Prof.	Haroon	Bhorat	Director - Development Policy Research Unit at University of Cape Town	Cape Town, South Africa	09.10.2017
68		Nomfanelo	Magwentshu	Partner at McKinsey & Company	Johannesburg, South Africa	10.10.2017
69		Faith	Masilo	Human Resources Director at Roche SA	Johannesburg, South Africa	11.10.2017
70		Mehdi	Sinaceur	Partner at McKinsey & Company; responsible for GENERATION Kenia	phone	11.10.2017
71		George	Woods	CEO of the Order of St. John in South Africa; Director at Ralehong	Johannesburg, South Africa	11.10.2017
72	Dr.	Taddy	Blecher	CEO Community Individual Development Association and Maharishi Institute	Johannesburg, South Africa	01.11.2017
73		Lucky	Dinake	Councillor in the City of Ekurhuleni: Gender, Youth, children Standing Committee	Johannesburg, South Africa	06.11.2017
74		Ashor	Sarupen	Spokesperson on ICT, Finance and Education in the Gauteng Prov. Legislature	Johannesburg, South Africa	13.11.2017
75		Gwen	Ngwenya	Economic Policy and Political Risk Advisor, Chief Operating Officer at the Institute	Johannesburg, South Africa	21.11.2017
76		Tiisetso	Maloma	Entrepreneur, author and expert on the township economy	Johannesburg, South Africa	30.11.2017
77	Dr.	Florus	Prinsloo	Department of the Premier of the Western Cape: Delivery Support Unit: TVET	phone	09.02.2018
78		Michael	Chui	Partner at McKinsey & Company, Digital practice	phone	04.04.2018
79		Ashor	Sarupen	Spokesperson on ICT, Finance and Education in the Gauteng Prov. Legislature	Johannesburg, South Africa	04.04.2018
80		Sister	Winnie	Head nurse for the social care in Langa; Order of St John	Cape Town, South Africa	05.04.2018
81		Deepa	Mahajan	Associate Partner at McKinsey & Company, Digital practice	phone	16.04.2018
82		Ashor	Sarupen	Spokesperson on ICT, Finance and Education in the Gauteng Prov. Legislature	Johannesburg, South Africa	23.08.2018
83		Johann	Maree	Professor Emeritus for Sociology at University of Cape Town	Cape Town, South Africa	24.08.2018
84	Dr.	Florus	Prinsloo	Department of the Premier of the Western Cape: Delivery Support Unit: TVET	Cape Town, South Africa	24.08.2018
85		Helen	Zille	Premier of the Western Cape	Cape Town, South Africa	24.08.2018
86		Louis	van der Merwe	IRR Policy Fellow	Midrand, South Africa	31.01.2019
87		Toby	Chance	Member of Parliament, Shadow Minister for Small Business Development	Johannesburg, South Africa	13.02.2019
88		Frans	Cronje	CEO at Intitute of Race Relations (IRR)	Johannesburg, South Africa	15.02.2019
89		Hanief	Ebrahim	Director at the Presidency	Johannesburg, South Africa	25.02.2019
90		JP	Landman	Member of the National Planning Commission	Johannesburg, South Africa	25.02.2019

Figure 13: Expert interactions

Source: own illustration

The setting for these interviews was usually a one-on-one interview situation. In a few cases, the discussions happened in a group setting, or via the phone. The discussions typically took about 0.5 hours to 1.5 hours.

The interviews were in-depth, semi-structured conversations. This approach was selected over structured and unstructured interviews, as semi-structured interviews allow to follow the interviewees' guidance and expertise to gain insights into the interviewees' area of expertise as deeply as possible. Further to this, semi-structured interviewing allowed for tapping into areas of novel insight. This helped to explore the unemployment theme from various angles, extending the ability for the research to present a holistic view.

Guiding questions included those such as: how does youth employment or unemployment in South Africa affect you in your role: What are your experiences with unemployed youth, what do you believe are the drivers for youth employment, and, how do you think unemployment can be tackled? Building on these questions, the researcher let the interviewee guide the direction, while the interviewer aimed to fully understand the interviewees' reasoning to determine whether the content is based on experiences or assumptions (Rubin & Rubin, 2012; Seidman, 2013; Spradley, 1979).

Originating in the social sciences, Grounded Theory, developed by Glaser and Strauss in 1967, allows for making qualitative data such as form interviews quantitative, and thus tangible. By coding the qualitative data, the researcher can identify common themes, contradictory statements, even moods.

The analysis of data applying Grounded Theory follows five steps: (1) organising and preparing the data, (2) coding and describing the data, (3) conceptualising, classifying, categorising the data and identifying themes, (4) connecting and interrelating the data, and (5) interpreting the insights, creating explanations, and ascribing a meaning (Corbin & Strauss, 2008; Glaser & Strauss, 1967; Hallberg, 2006; Hoyos & Barnes, 2012; Ritzer, 2007; Rosenbaum, More, & Steane, 2016; Sbaraini, Carter, Evans, & Blinkhorn, 2011; Walsh et al., 2015; Willig, 2013; Willig & Stainton-Rogers, 2013).

Through expert interactions and eleven major themes, the drivers were identified, which were underpinned by 36 minor themes, namely the supporting factors (see *Chapter 4.3 Eleven drivers for youth employment in South Africa*, pp. 115 ff.).

3.4. Sounding board

To decrease bias additionally, and to receive feedback on the research, the sounding board was installed to bring 17 experts together as a panel. This setting allowed for challenging the research findings, as well as each other's opinions. The panellists were selected based on previous interviews, their depth of relevant expertise, and availability.

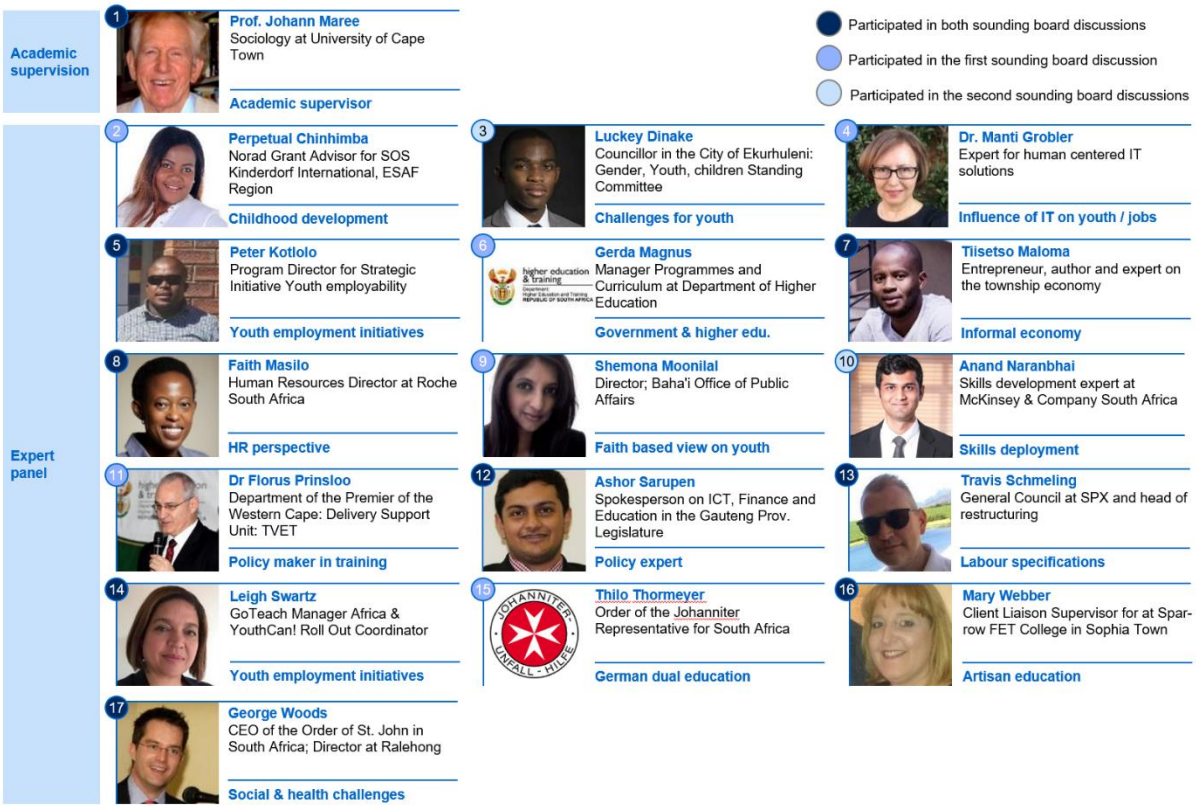

Figure 14: Sounding board members

Source: own illustration, photos provided by penalises

The sounding board convened twice to discuss different stages of the research progress. The Order of St. John offered to host the discussions at their South African headquarter Glenshiel in the Johannesburg suburb of Westcliff.

The first interaction occurred on 30 November 2017 covering the presentation of the field research and statistical insights, followed by the discussion and iteration of key drivers. Finally, the drivers were ranked according to impact and uncertainty (see *Chapter 4.4 Prioritisation of employment drivers*, pp. 154 ff.) (Sounding Board, Maree, Chinhimba et al., 2017).

Figure 15: Sounding board meeting 30 November 2017

Source: photos by Tafadzwa Sihlahla

The second interaction took place on 01 March 2018 addressing the four scenarios *Spring*, *Summer*, *Fall*, and *Winter* (see *Chapter 5 Youth employment scenarios for South Africa in 2035*, pp. 156 ff.), where discussion centred on which development might drive South Africa in the direction of each of the seasons. Further to this, the participants discussed mitigation measures in breakout sessions (Sounding Board et al., 2018).

Figure 16: Sounding board meeting 01 March 2018

Source: own photos

3.5. Youth field research

Besides the numerical context and expert opinions, conducting field research is an essential element to this research, aiming to gain a holistic perspective on youth employment, and the situation of these youth.

The field research consists of three elements. Independent research, collaborative research, and collaborative third-party research.

Independent research in townships

Independent research was conducted in areas with mostly disadvantaged backgrounds, namely the townships of Katlehong, KwaThema, and Thokoza in Gauteng, and Langa, Nyanga, and Knysna in the Western Cape.

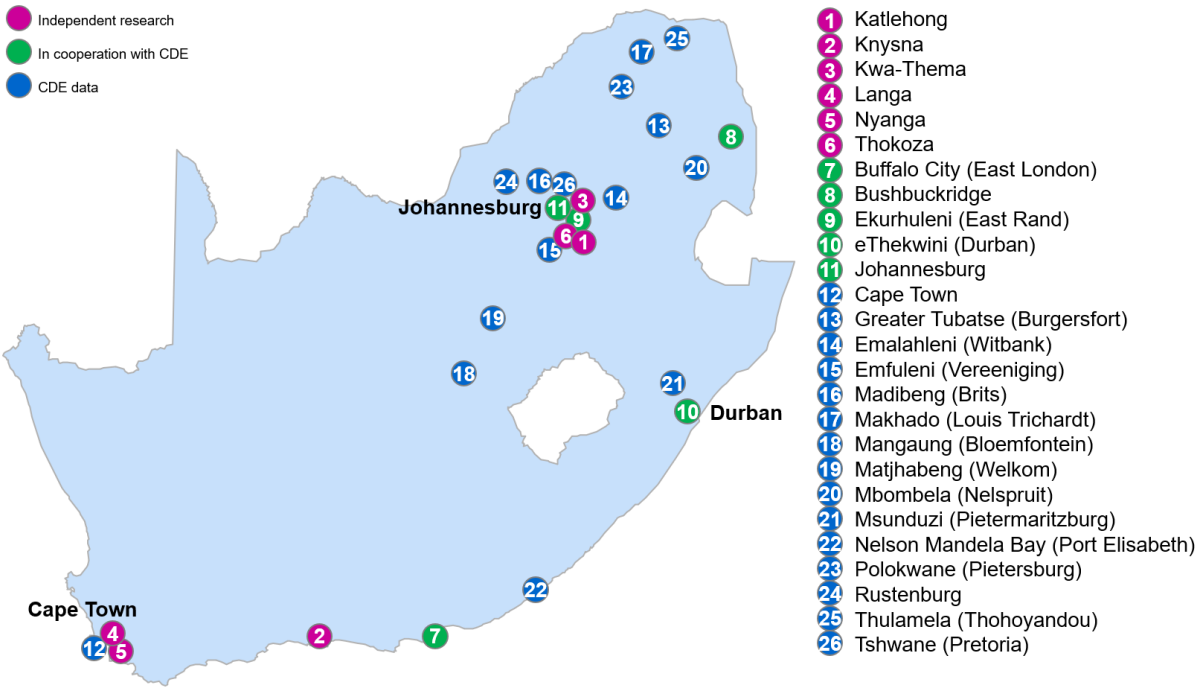

Figure 17: Field research locations

Source: own illustration

The approach contained ethnographic elements like participant and environment observations, key informant interviewing, and gathering of cases, but is not a longitudinal full ethnography. The findings are documented as recordings and transcription, and only if informants agreed, field notes in form of jottings in a notebook, later enriched with memos, highlighting non-verbal observations that were not captured by the recording. In cases of interviews without recordings, the responses were captured in written notes. In several instances, photos were taken to set the scene, and illustrate the environment to the reader.

The selection of the key informants followed in principle three steps: (1) selection of a geographic hub in which to find unemployed youth, (2) using existing ties to obtain introduction, or randomly asking apparently young and unoccupied people in this environment, and (3) snowball sampling, asking the key informants for further introductions. The researcher did not go alone to conduct research in townships, but did so in each case with someone with local geographical expertise and language skills, to overcome limitations to the level of insight implied by the language barrier, and to reduce personal exposure to crime.

Interviews took place in one-on-one settings or as group interviews. The group interaction proved to be more engaging, as several people answered one question, building on what was previously said. In order to prevent the exclusion of intrinsically more quiet personalities, some questions were directly addressed to the participants having said less.

The interviews were in-depth and semi-structured (see *Chapter 3.3 Expert interactions*, pp. 61 ff.), allowing for multi-layered insights, while giving the interview a sense of direction. Typically, the key informants needed some time to accommodate to the interviewing situation, being led by questions and typically opened up throughout the conversations needing less direction. (Auerbach & Silverstein, 2003; Emerson, Fretz, & Shaw, 2011; Rubin & Rubin, 2012; Seidman, 2013; Spradley, 1979, 1980).

The interview guideline was either a life history interview, typically used for one-on-one interactions, or a set of questions, mostly used in group settings. These guiding questions, that deviated and were rephrased based on the flow of the interview and the level of English skills of the interviewee were:

1. What is your name and age? Where are you from? What is your educational level and why did you stop your educational path there? Do you have dependents? What is your living arrangement?
2. What do you do for a living?
3. What does a typical day look like?
4. I often hear the South African youth are lazy, is that true?
5. Why do you want to work?
6. Which job would you like to have?
7. Which would be the lowest level of job or lowest income you would work for?
8. What are the challenges you are facing when looking for a job?
9. Who do you look up to and why?

10. Who in your family works?
11. Who do you know that got a job recently, and what changed for them?
12. What makes you happy?
13. What makes you angry?
14. Do you feel like being part of society?
15. If you could ask an oracle one question, which would it be?

Cooperative research with the CDE

The second and third element of the field research was conducted in collaboration with the *Centre for Development and Enterprise* (CDE, 2016), a South African think tank. The CDE conducted a research project on youth unemployment, named Bambisanani, in a study funded by the EU. The key element of this project was to host discussion fora to bring government, learning and employment bridging institutions, employers, and unemployed youth together to discuss solutions for fighting unemployment. As locations for these forums, the 20 municipalities with the highest absolute youth unemployment were selected. In total, 23 fora took place between December 2015 and November 2016, revisiting some of the municipalities for further discussions. The researcher attended five of these fora in person, and received data in form of transcribed interviews (Altbaker & Bernstein, 2017; Bernstein, 2016, 2017b; Schirmer & Bernstein, 2017; Schirmer, Steuart, & Storme, 2017).

The fora in which the researcher participated were located in:

- Buffalo City (East London) (Bangiso, Beck-Reinhardt, Hlangu, & Hlopekazi, 2016)
- Bushbuckridge (Lubisi, Makamu, Malamule, & Mashaba, 2016)
- Ekurhuleni (East Rand) (Dinala et al., 2016)
- eThekwini (Durban) (Dasa et al., 2016; Jali, 2016; Jali, Mkhize, O'Farrell, Phakathi, & et al., 2016) and
- Johannesburg (Benjamin, Burroughs, Bruyn, & Mabisane, 2016; M. Ramokgopa, 2017).

The fora in which the researcher did not participate in person were held in:

- Johannesburg-Alexandra (Cassim, Kebinelang, Modiba, Mogotsi, & et al., 2016)
- Cape Town (Storme, 2015)
- Greater Tubatse (Burgersfort) (Moela, Molapo, Raphela, & Ratau, 2016)
- Emalahleni (Witbank) (Buthane, Mathebula, Mkhonto, & Palmer, 2015)
- Emfuleni (Vereeniging) (Molaoli, Mputhing, Nheke, & Radebe, 2015)

- Madibeng (Brits) (Dingiswayo, Motswatswe, Lamoa, & Tsogang, 2016)
- Makhado (Louis Trichardt) (Mathonsi, Muthambi, Phathutshedzo, & Phumudzo, 2016)
- Mangaung (Bloemfontein) (Kobese, Matlole, Mohlakoana, & Pogisho, 2016)
- Matjhabeng (Welkom) (Klaas, Mosoeu, Nxumalo, & Phukuntsi, 2016)
- Mbombela (Nelspruit) (Mashigo, Mbuyane, Schoeman, & Sibanyoni, 2016)
- Msunduzi (Pietermaritzburg) (Dugmore, Mbatha, Mtungwa, & Nene, 2016)
- Nelson Mandela Bay (Port Elisabeth) (Bangani, Beattie, Mcwabeni, & Vantyu, 2016)
- Polokwane (Pietersburg) (Mkhabela, Raphela, Raseluma, & Sewela, 2016)
- Rustenburg (Mokwena, Nyenes, Phokela, & Taukobong, 2016)
- Thulamela (Thohoyandou) (Kudzingana, Marivate, Mushaphi, & Vhulenda, 2016) and
- Tshwane (Pretoria) (Joubert, Magubane, Msiza, & Mtshweni, 2016).

The fora were held as moderated group discussions, similar to in-depth semi-structured interviews. Topics covered included initiatives and actions the participating parties undertake to foster employment, proposals to improve employment, and challenges on the path to employment. The questions were adjusted to the audience and the time available. The fora were typically half-day events in a formal setting, such as a boardroom.

For both data sources, the transcripts went through an iterated coding loop in the pursuit of finding common themes and interrelations. After the themes were identified, the transcripts were coded again as focused coding. This ethnographic approach illustrated by Emerson et al. (2011) is very similar to Grounded Theory as summarised by Willig (2013), and is used for expert interviews (see *Chapter 3.3 Expert interactions*, pp. 61 ff.).

The most valuable field insights were derived from the first set of data, the independent research in the environment where the youth live. This was to provide contrast to the formal and unfamiliar setting to which the participants were invited, and thus did not provide as deep and facetted insights. The collaborative research in the formal setting enriches the insights from the first part, provides validation of information found in singular events, and provides a country-wide overview.

3.6. Ethical dilemmas

Ethical dilemmas and challenges arise when conducting fieldwork. This applies particularly in this study, in which the research environment and the researcher’s background differ in terms of ethnicity, particularly complexion, origin, habits and culture, level of education, access to

information, level of income, as well as social status and wealth. These discrepancies can raise critical dilemmas when conducting field research.

Anthropology Southern Africa (2005, 142 f.) proposes ethical guidelines while interacting with research participants. They cover “protecting respondents and anticipating harm”, “informed consent”, “vulnerable persons/groups”, and “information dissemination, intellectual property and returns from research”.

Anonymity is an imperative when the obtained information is very personal or could lead to criminal charges. Participants could choose to leave their names, or to rather stay anonymous. Most interviewees did share their credentials including name, age, gender, origin, and educational background. In some conversations, illegal practices (even if generalised), such as murder, drug consumption, or gambling came up. It is noted here that even though the participants agreed to use their names, references to these practices were not linked to individuals in the way the research is recorded.

The guidelines cover the theme of compensation of participants. Interviewees should not be exploited. In the field work conducted participants were not paid, whether they were youth or experts, as a compensation for their time, although it is noted that youth being interviewed did not suffer opportunity costs, like missing out on paid work. Still, there were a few cases in which the participants received money from the researcher. This happened in cases in which contributors either ask for a little financial support to buy food, where the contributors explained their struggle to eat. The maximum amount paid to an individual in these cases was ZAR 100 (approximately ±EUR ~6.50).

Gaining the explicit consent of the interviewee is important to ensure that he or she is willing to participate and is aware that the conversation content will be processed and published. During the field research, the researcher explained that the purpose of the conversation is to contribute to a PhD research project on youth unemployment in South Africa. As most conversations with youth were recorded, participants were asked, if they agreed to such. Some participants preferred not to be recorded. In these instances, the researcher explained that he would take notes for future reference. In formal settings, consent forms were signed.

Protection of vulnerable groups, particularly under-aged, elderly, and disabled, is a core element of the ethics of research. For this reason, the participants need to be legally able to give consent and need to have the possibility to withdraw from conversations without any form of

punishment. Keeping in mind that the research topic of this project is the youth themselves, care was taken for the participants to all be of age. No participant was seemingly disabled.

However, the group of unemployed youth is per se a disadvantaged group. As a significant proportion of unemployed and underprivileged South African youth suffer from *Post-Traumatic Stress Disorder*, it is not advisable to ask for events potentially causing traumata. Sharing of these events, however, is essential to gaining a holistic picture of the social environment in which youth live. Therefore, the questions asked were questions related to the participant's family and friendship circle, but not directly to him- or herself.

Providing the correct content communicated in conversations is crucial. The participants left their contact details, mostly cell phone numbers, in order to reach out to them in cases the content was unclear, e.g. an unclear recording or inapprehensible words (Anthropology Southern Africa, 2005).

Besides the guidelines provided by Anthropology Southern Africa, the question of "Northern views" is discussed frequently in ethnographic contexts. Due to its colonial and missionary history, ethnographies on "Southern", particularly African, individuals by "Northerners" require special attention, as methods were developed by European and American academics to suit "Northern" circumstances. The dilemma now is as to whether, or how these methods can be applied to doing research with "Southerners" (Burawoy, 2010). Côté (2014) argues that this dilemma can cause hidden descriptive and analytical assumptions. The researcher's positionality or bias is influenced by his/her age, gender, race/ethnicity, social class, language skills, or explicit and implicit knowledge. These can include the researcher's perception of what is normal, such as assuming life concepts, standards, or values. It is therefore relevant to position the researcher, who is an imprint of his past and culture, in contrast to that of his participants, and highlight the difference between statistical facts, observed elements, and opinions (Cooper, Swartz, & Mahali, 2018).

This research clearly highlights facts, backed up by figures, observations, descriptions, and opinions, by relating to the researcher or interviewee. Further to this, the researcher relocated to South Africa, not only for fieldwork, but for the full duration of the research, in order to understand cultural contextualities better.

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4. Setting the context for South African youth scenarios

Youth employment, mostly framed the negative way as youth unemployment, is a prevalent issue around the globe. South Africa, competing with Nigeria to be the largest economy in Africa, has a much more diverse economy compared to Nigeria, which is largely dependent on oil and gas. South Africa has several economic powerhouses, namely the Johannesburg-Pretoria Gauteng metro-area, the Cape Town metro, and the Durban metro, followed by second tier cities like Port Elizabeth, East London, or Bloemfontein. Despite economic hubs, South Africa has extremely rural areas, with close to little access to resources and opportunities, as well as very poor neighbourhoods, where the townships often with tin huts and no running water, exist adjacent to the urban powerhouses. This disparity of first world and third world does not blend easily into a developing country. South Africa, as the least equal society in the world (World DataBank, 2015), experiences significant structural issues, the most major of which being its exorbitantly high youth unemployment rate.

Employment being the path to closing a social gap, allowing all citizens to participate, earn income, start families, and eventually move up the social ladder. Unemployment, however, widens the social gap, particularly as young citizens without work cannot embark on their life journey, but get stuck in their challenging social environment.

Employment scenarios for South African youth will therefore illustrate how the journey will look for young South Africans, as well as whether they will achieve to or fail to participate in opportunities. The scenarios are set in 2035, 17 years from publication. Four elections will take place in South Africa, in 2019, 2024, 2029, and 2034, which constitute four major opportunities to trigger change. A South African born in 2000, who turns 18 in 2018, and considered youth today, will be 35 by 2035, and will just have left the youth bracket. The scenarios will illustrate whether the youth years of these individuals have created changes, created opportunities, and whether society has moved closer together, or on the contrary, drifted apart even further.

The youth employment challenge in South Africa is manifold. To gain a full overview of the youth employment situation in South Africa and build scenarios, as illustrated in *Chapter 2.3 Scenario analysis* (pp. 29 ff.) and in *Chapter 3.1 Scenario analysis applied* (pp. 57 ff.), four steps are necessary: (1) *Statistical insights on youth unemployment* (pp. 74 ff.), (2) *Field insights on youth employment* (pp. 91 ff.), (3) *Eleven drivers for youth employment in South Africa* (pp. 115 ff.), and lastly (4) *Prioritisation of employment drivers* (pp. 154 ff.). Numbers

will lay the foundation of inevitable facts, experts build on it with opinions and expertise, while field insights reveal stories.

4.1. Statistical insights on youth unemployment

The quality of statistical information on South Africa is quite high compared to most African countries, as the South African statistics bureau, Statistics South Africa (short StatsSA) conducts regular representative surveys. When it comes to employment figures, the surveys are conducted quarterly. The South African Institute of Race Relations (IRR), the World Bank's database (World DataBank), Gapminder, the Economist, and the United Nations provide aggregated additional socio-economic data.

Going forward, the age groups are color-coded: children aged 0 to 14 including are represented in *black*, youth aged 15 to 34 are represented in yellow, and adults aged 35 and older are represented in grey.

Population overview

Figure 18 (p. 75) illustrates South Africa's population pyramid on the left, and the most relevant population data on the right.

The South African population of 55.9m has an average life expectancy of 62.4 years. It produces a gross domestic product (GDP) of USD ~13,400 per capita on purchasing power parity or USD 6,100 per capita nominally, leading to a global ranking in the mid to high 80s. The GINI coefficient, describing the inequality of the society on a scale from 0 (totally equal income distribution) to 100 (totally unequal income distribution), ranks South Africa to be worst in the world at 63.4, highlighting the economic divide between rich and poor. In other words, the South African population is unevenly split into first and third world cohorts. The fact that 46% of the households live on social grants underlines this stark divide. In comparison, Germany has a GINI coefficient of 31.4, the USA of 41.0, and Norway as one of the most equal societies of 26.8.

28% of the South African population are children, and 34% are youth. This leads to a population pyramid shaped like an actual pyramid from the mid-20s onwards, and a rather constant vertical shape for mid-20s to new-borns.

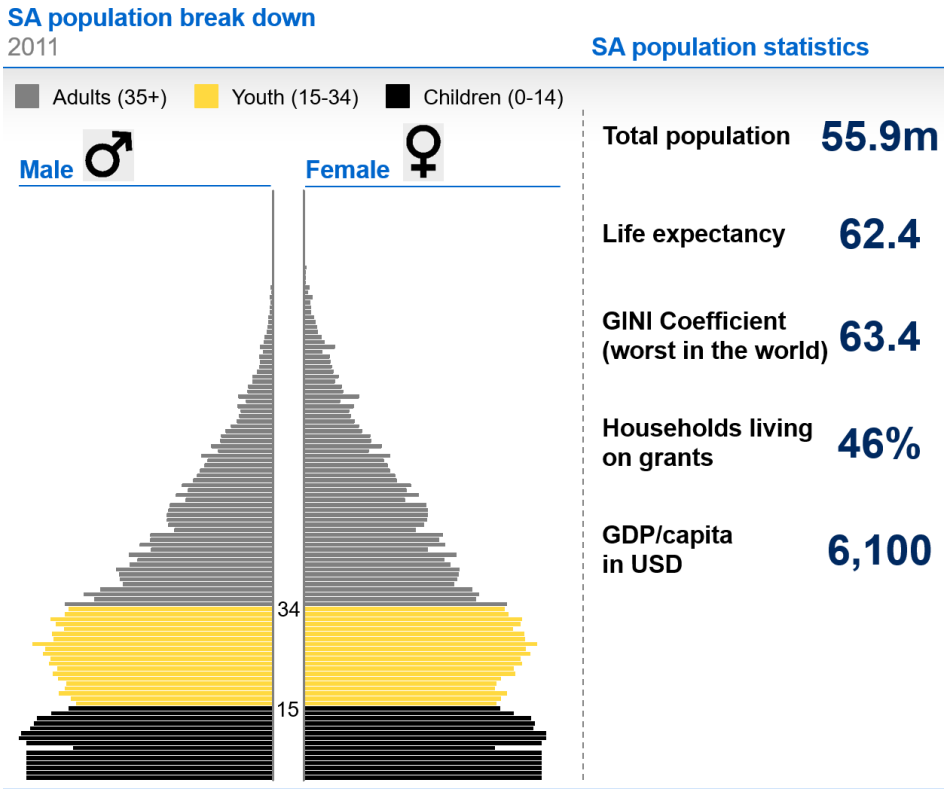

Figure 18: South African population break down

Source: Statistics South Africa (2016b, 2017b), World DataBank (2017), IRR (2016, p. 423); own illustration

The pyramid shape is quite typical for an emerging country, where there is a wide base with many children, narrowing to a pike on the upper end. The causes for this shape are typically a high fertility, low child survival rates, and poor health, leading to low life expectancy.

South Africa sees a bend in the population in their mid-20s, with a decrease in childbirth, which evens out at a population aged around 15. These bends are typical for developing countries, as women start participating in the economy more, giving them an occupation besides that of childbearing and domestic work. In South Africa, the change from Apartheid to post-Apartheid happened in 1994, with Nelson Mandela being elected president. In modern South Africa, the end of apartheid opened the doors for the previously disadvantaged population, mostly *blacks*, but also *coloureds* and *Indians*, to participate more actively in social and economic life. Children born after 1994, the population aged 24 or younger, are commonly referred to as a "born free" generation. The political and socioeconomic changes 24 years prior thus impacted population development in South Africa.

Today, the country has a fertility rate of ~2.4 children per woman (Gapminder, 2018), a child mortality of ~4%, and an average life expectancy of 62.4 years.

Population growth

This leads to a growing South African population, as shown in *Figure 19*. From 2015 to 2035, the point of time our scenarios take place, the population will have grown by 20% in just 20 years. Interestingly, the proportion of adults aged above 35 will increase dramatically from 34% in 2015 to 43% in 2035, while the proportion of youth and the children decreases, despite being constant in absolute terms. This means that the population growth comes from adults, and not children and youth. Consequently, the population ages and the growth rate declines. This highlights the burden on the youth to gain access to employment in order to supply for their parents and their children.

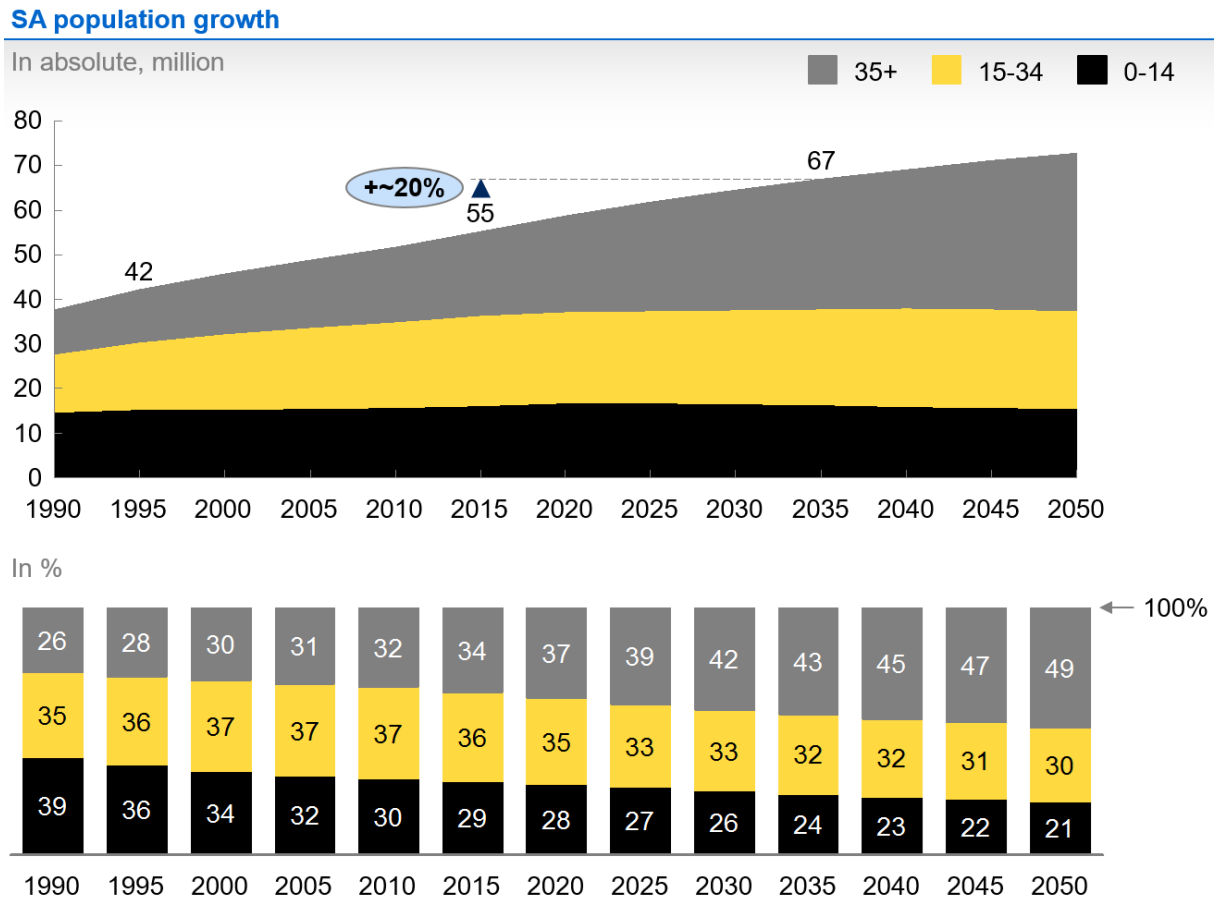

Figure 19: South African population growth

Source: Capazorio (2017), World DataBank (2017); own illustration

Looking at the employment breakdown for the entire South African working-age population in *Figure 20*, we find only 39% employment. 61% of the South African population does not participate in working activities, regardless of formal or informal work. StatsSA defines unemployment as "persons […] who: a) were not employed in the reference week, b) actively looked for work or tried to start a business in the four weeks preceding the survey interview, c) were

available for work i.e., would have been able to start work or a business in the reference week" (Statistics South Africa, 2008, p. 6) and discouraged as "a person who was not employed during the reference period, wanted to work, was available to work/start a business, but did not take active steps to find work during the last four weeks, provided that the main reason given for not seeking work was any of the following: no jobs available in the area, unable to find work requiring his/her skills, lost hope of finding any kind of work" (Statistics South Africa, 2008, p. 1). Both are commonly referred to as unemployed. 'Not economically active' refers to, for example, people in education, or women raising children ("Persons aged 15-64 years who are neither employed nor unemployed in the reference week" (Statistics South Africa, 2008, p. 4)). Out of the 61% of the population without a job, 15% (of the total working age population) are considered to be unemployed, 6% are discouraged, and 40% are not economically active. About one third of the unemployed 21% has given up looking for a job.

Employment breakdown

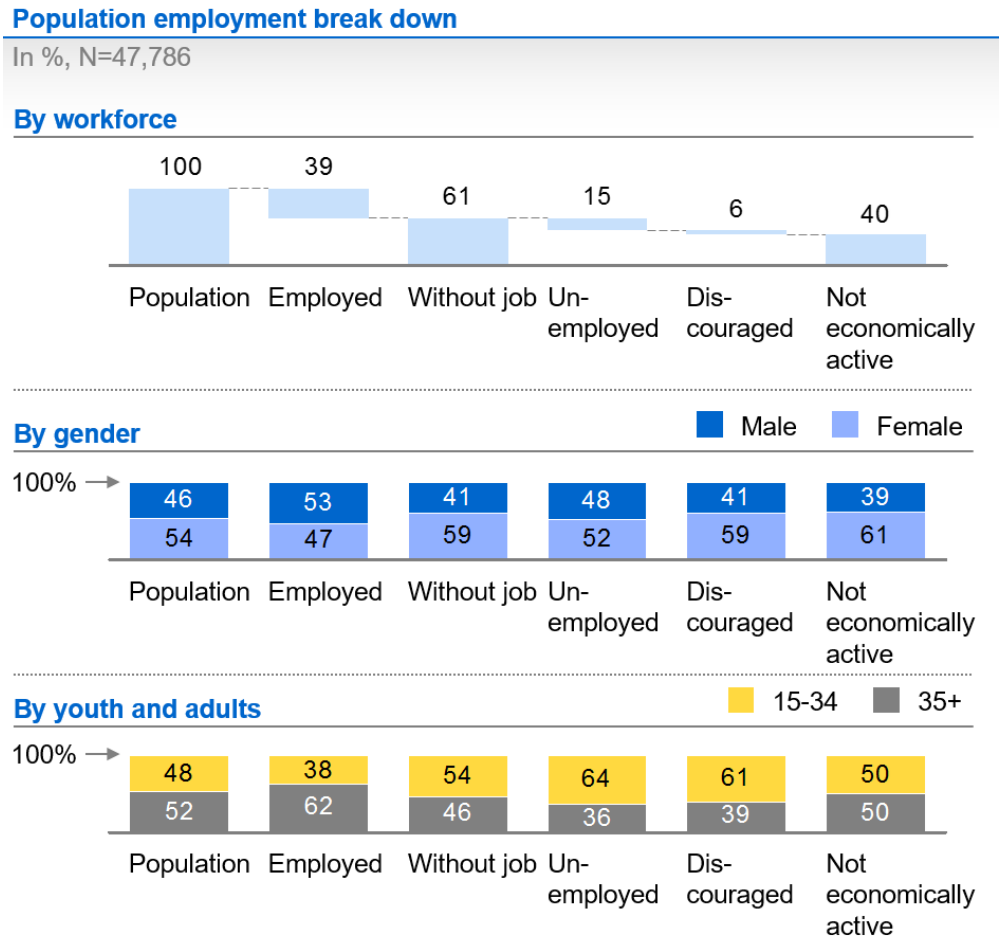

Figure 20: Population employment break down

Source: Statistics South Africa (2017b); own illustration

The second part of *Figure 20* shows the split per group by gender. The total population has slightly fewer men than women (46% vs. 54%). However, more men are employed than women (53% vs. 47%). 59% of the population without a job are women. This bias against women carries throughout unemployment, where 52% of those who are jobseekers, 59% of those discouraged, and 61% of those not economically active are women.

The third part of this graphic shows the same split by age group: youth vs. adults. Although the proportion of the population between youth and adults is about the same (48% vs. 52%), youth are underrepresented in the group of employed and significantly overrepresented in the group of unemployed. Unemployment and discouragement are associated with youth, representing nearly two thirds. Non-economically active youth are found mostly in education.

Both splits highlight that unemployment in South Africa is statistically a larger issue for women than it is for men, and a larger issue for youth than for adults.

Age and gender breakdown

Having established that out of the total population, youth statistically struggle most in finding employment, *Figure 21* takes a closer look at the development of the employment status according to age and gender on a normalised scale.

This overview opens several insights into the dynamics of finding a job and into gender differences. For men and women, this perspective allows a split of employment category into two subsets, namely: (1) “in education” and “employed”, and (2) “discouraged job seeker”, “unemployed”, and “other not economically active”. Until the age of 19, there is a dynamic happening in which youth “in education” move into all other categories, while “in education” still is the largest category, with over a 50% share.

From 20 upwards, the share of “in education” decreases to less than half, while sum of the categories of “in education” and “employed” stays more or less constant. Also, the share of “non-active”, “unemployed”, and “discouraged” remains stable. What does this tell us? Firstly: from 20 years onwards, education is transferred to employment, and secondly, if you are in any of the categories “non-active”, “unemployed”, or “discouraged” at the age of 20, it does not seem that you are likely to change your category as you grow older. At the age of 26, for males and 25 for females respectively, the proportion of employment increases at the cost of unemployment, not discouragement nor non-activity.

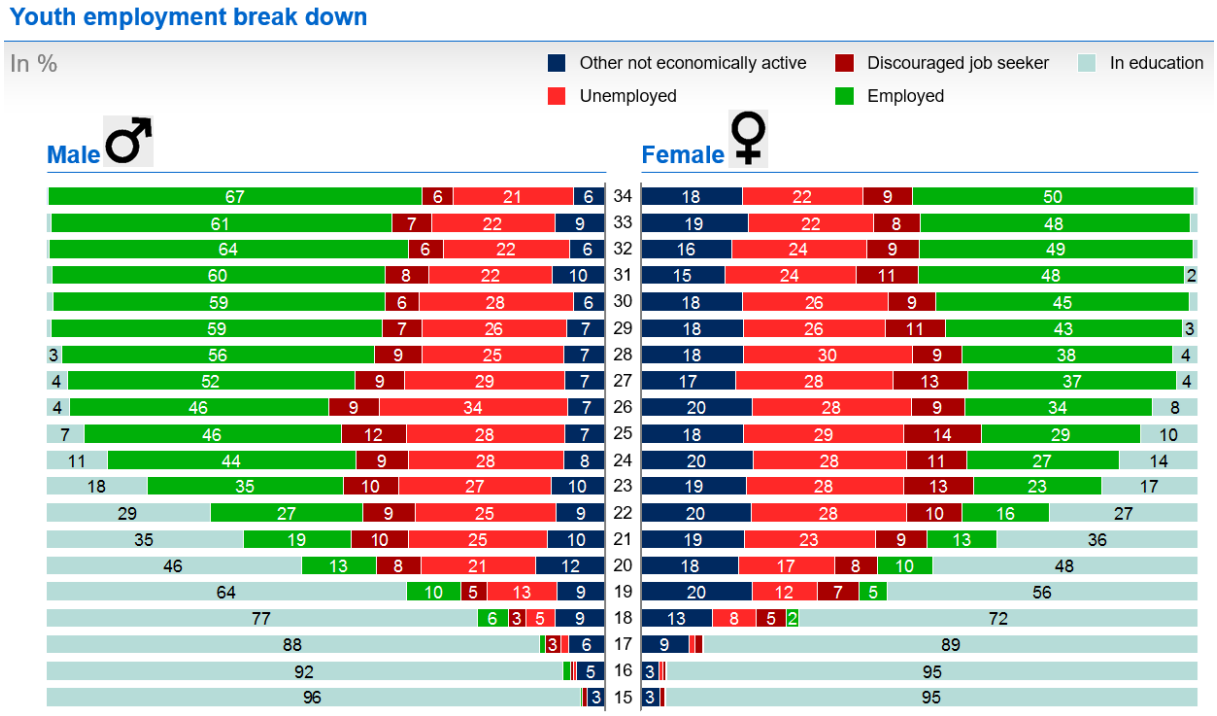

Figure 21: Youth employment by gender and age

Source: Statistics South Africa (2017b); own illustration

The overall shape of the share of categories by age looks similar for men and women. Also, the overall proportion of "in education", "unemployed" and "discouraged" is similar. However, the share of non-activity is about double to triple that from age 21 for women, compared to men. This happens at the cost of employment.

So why is the proportion of non-activity for women at one fifth so high? Assuming that the male share for economic inactivity is mostly caused by health concerns, and applying the same share to women, the share for non-active women without health concerns is about one sixth. This can be explained by pregnancy, and the social bias towards women being expected to take care of a household and children (James, 2016; Klier, 2016; van der Merwe, 2016a; S. Wilms et al., 2016).

Unemployment and NEET rates

This overview spans several possibilities to interpret the share of unemployment, where (1) the unemployment share can be calculated for NEETs (The neither employed, nor in education or training – "NEET rate"), including non-active or (2) excluding the non-active, giving a more accurate perspective of unemployment ("unemployment rate"), as those who cannot work due to health or family reasons are not considered. In any case, the significant proportion of the

youth aged 17 and below being in education (>88%) and considering they are supposed to attend school, these age groups are excluded in the unemployment calculation.

The NEET rate (*Figure 22*, p. 80 and *Figure 69*, p. 245) for 18-34-year-old is 56%. According to certain international statistics, youth unemployment refers to the age range of 18-24-year-old. The NEET rate for them is 71% and for the age group 25-34 it is 49%. The unemployment rate (*Figure 70*, p. 246) is in any case lower than the NEET rate, which is logically the case, as the unemployment rate does not incorporate the non-active. The overall youth unemployment rate is 48%, that is, 62% for the 18-24 cohort, and 42% for the 25-34 cohort.

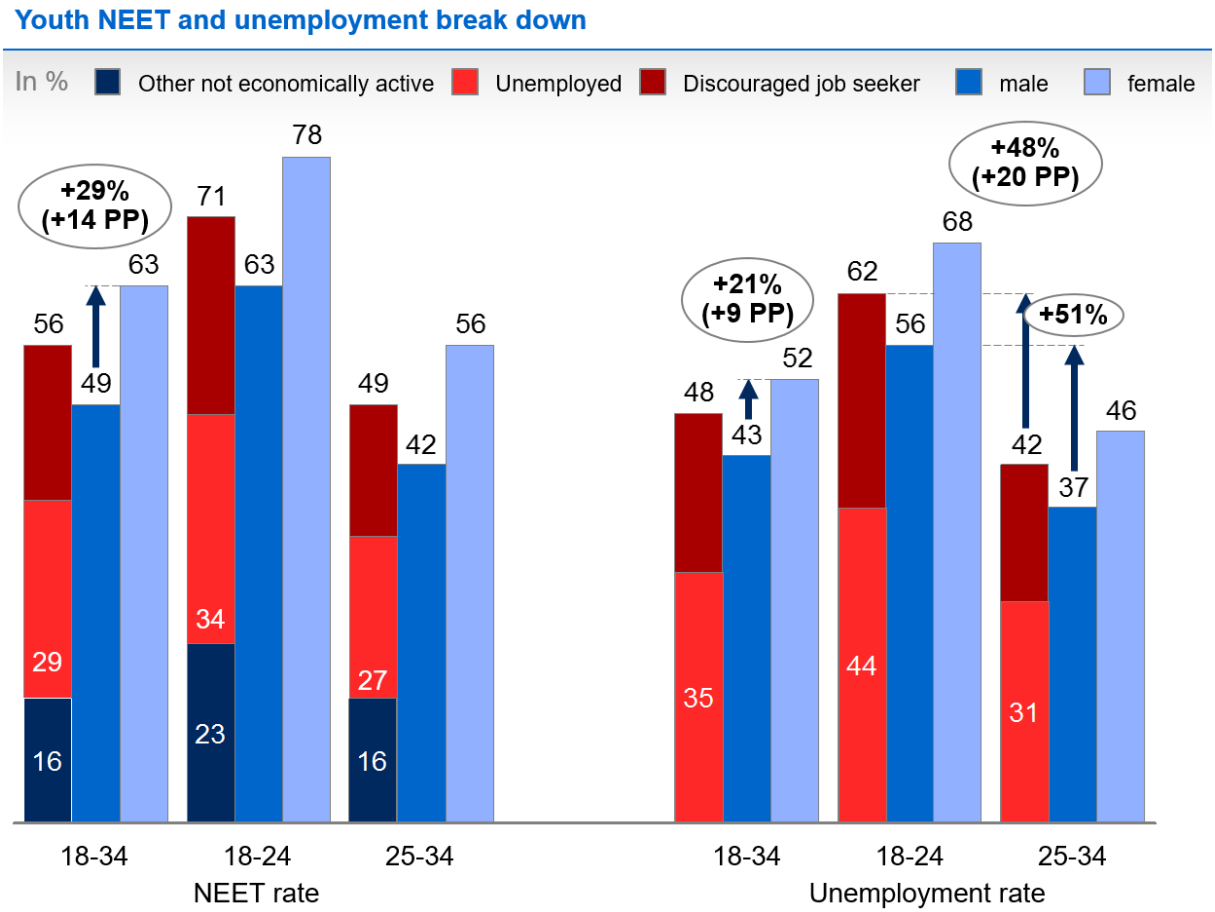

Figure 22: Youth NEET and unemployment rates by age

Source: Statistics South Africa (2017b); own illustration

Women have a higher NEET and unemployment rate than men, 14 percentage points higher than men. This translates to a 29% higher NEET rate for women than for men. The picture for unemployment is similar: women are worse off by nine percentage points, translating into a 21% difference.

While women are worse off than men, the younger age group (18-24) is also disadvantaged over the older youth group (25-34). The difference in the unemployment rate between the age groups is 20 percentage points or 48%. The largest difference is for men, where 51% more of 18-24-year-olds are unemployed compared to 25-34-year-olds.

By way of conclusion, (1) the overall youth unemployment rate is 48%, (2) women are worse off than men (by about 21%), and (3) the unemployment rate for 18-24-year-old is 62%, nearly 50% over the rate of 25-34-year old.

Going forward, this paper will refer to unemployment as 48%, reflected in the overall unemployment in the age group 18-34. The 49% split in 13% discouraged job seekers and 35% unemployed, leaving 52% employed. Out of the about eight million youth, 48% leaves us with just under four million unemployed youth, which constitutes about 7% of the total population (Statistics South Africa, 2015).

Employment rates over time

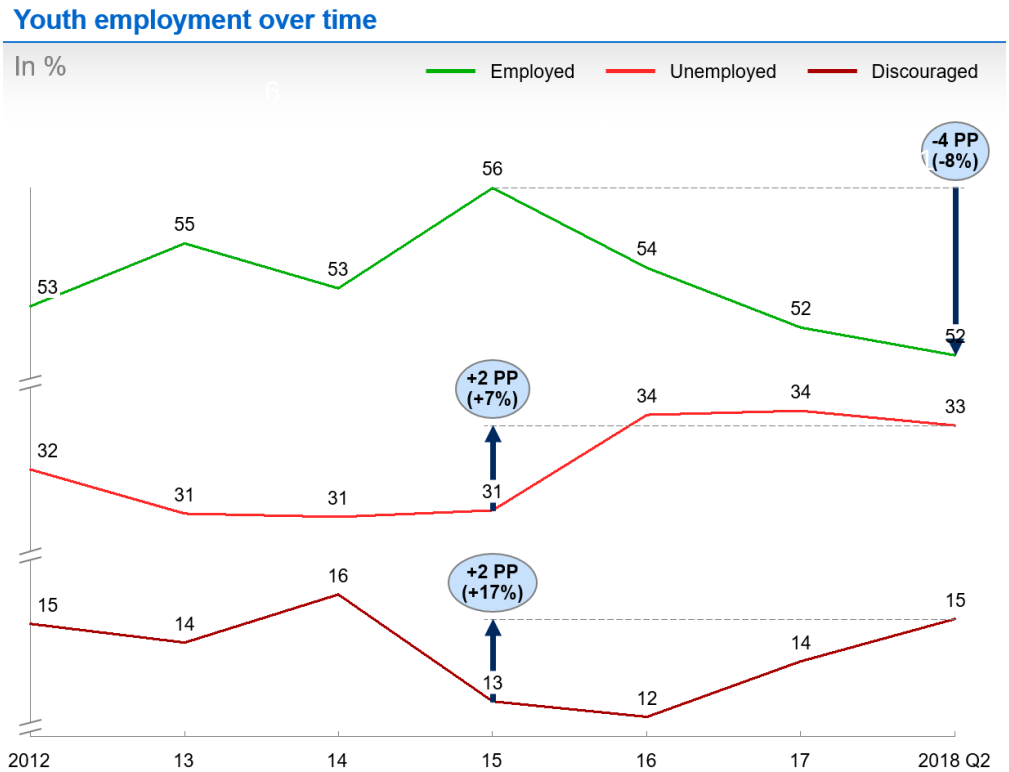

Figure 23: Youth employment over time

Source: Statistics South Africa (2017b, 2018a); own illustration

Historically (*Figure 23*, p. 81), the unemployment rate has fluctuated between 44% and 48% since 2012. The highest rate of employment was in Q4 2015, at 56%. From then on, until 2018, the employment rate has been decreasing. The largest increase since 2018, 17% happened in the field of discouraged job seekers.

This trend shows that youth unemployment has been increasing, particularly when it comes to the share of those discouraged.

Geographical breakdown

The question stands as to where to find the unemployed geographically. Consequently, we differentiate into urban and rural areas, along the nine provinces Eastern Cape, Free State, Gauteng, KwaZulu-Natal (KZN), Limpopo, Mpumalanga, Northern Cape, North West, and Western Cape. Not all provinces have areas large enough to be considered urban. Gauteng is the home to the municipalities of Johannesburg (population ~5m), Ekurhuleni (Germiston, ~3.4m), Tshwane (Pretoria, 3.3m), and the Western Cape, which is home to Cape Town (~4m), KZN, which is home to eThekwini (Durban, ~3.7m), the Eastern Cape, which is home to Nelson Mandela Bay (Port Elizabeth, ~1.3m) and Buffalo City (East London, ~840k), and the Free State is home to Mangaung (Bloemfontein, ~790k) (SA Government, 2016).

In urban areas, the employment level is at 57%, which is five percentage points above the national average, and eight percentage points above rural areas, equating to 16%. The big difference, however, is the rate of discouragement between urban and rural areas, where in rural areas, five times more youth are discouraged than in urban areas, where the rate is four percent.

On a provincial level, the picture is similar, where urban areas throughout the country have a higher employment rate than do rural areas, except for the Western Cape where the rates are similar. However, there is a large disparity amongst provinces. While the Western Cape has an employment rate of about two thirds, the Eastern Cape has the lowest at 45%.

In urban areas, the level of discouragement is persistently low, ranging from one percent in the Eastern and Western Cape, to nine percent in KZN. In rural areas, however, the spread is larger, ranging from as low as four percent in the Western Cape, to 32% in KZN.

The smallest difference in urban and rural employment is in the Western Cape, where it does not matter if a youth lives in an urban or rural area, as the shares of employment and discouragement are quite similar. On the other hand, it matters dramatically where you live in the

Eastern Cape. It is 50% more likely to be employed in the city than in the countryside, while it is 27 times more likely to be discouraged in a rural area.

By way of summary: (1) youth in urban areas are better off than they are in rural areas, (2) rural youth in the Eastern Cape and KZN are statistically in the worst position in South Africa, where less than half have a job and a quarter to a third have given up looking for one, (3) the Western Cape has achieved a high level of employment, and a low level in discouragement in urban and rural areas alike.

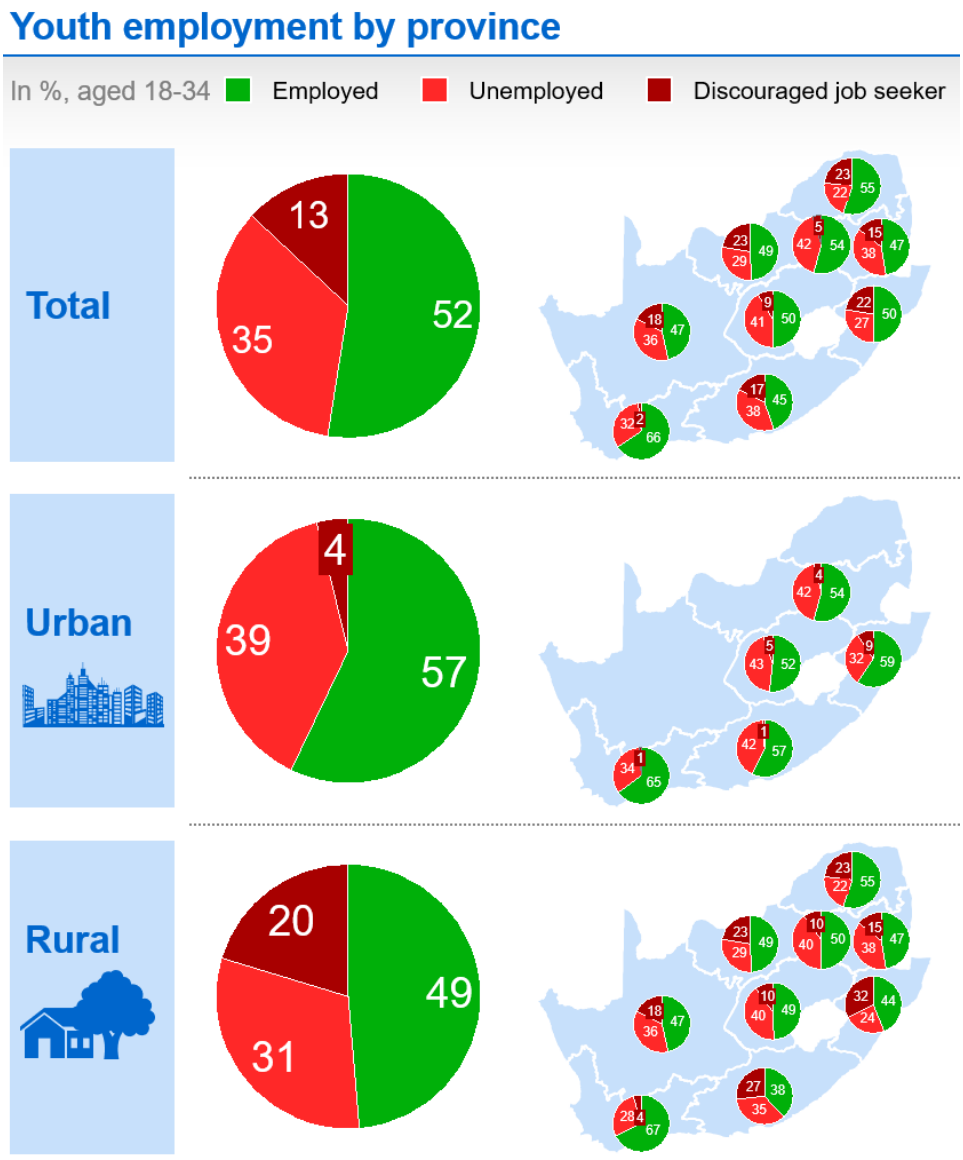

Figure 24: Youth employment by province and urbanization

Source: Statistics South Africa (2017b); own illustration

Ethnicity breakdown

The South African population culturally and legally differentiates between ethnicities. Typically, the classifications are *black*, *coloured*, *Indian*, *Asian* (occasionally combined as *Indian/Asian*), and *white*.

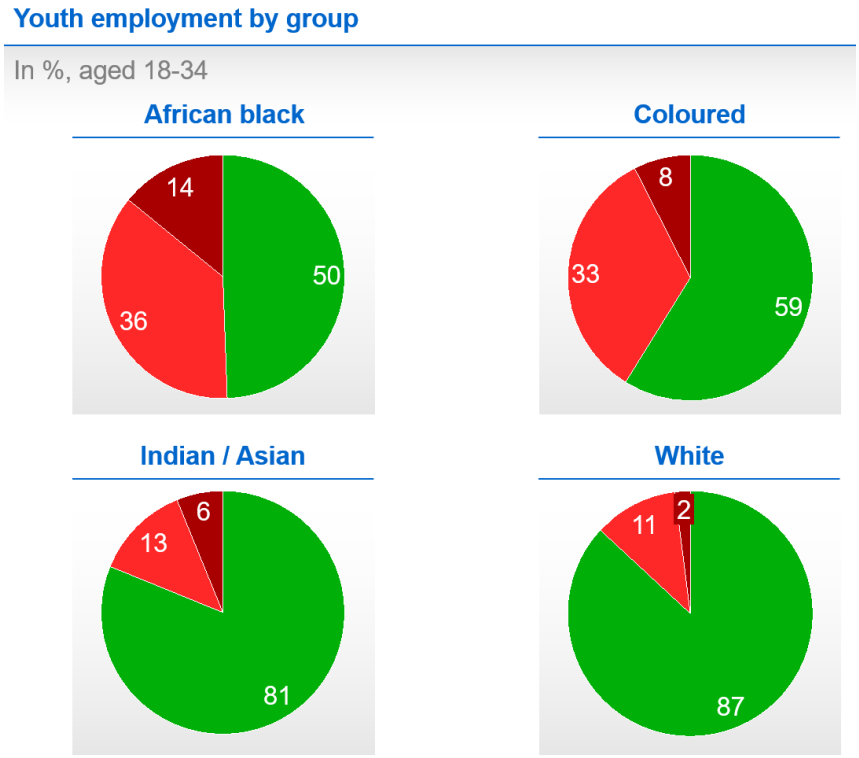

Figure 25: Youth employment by ethnicity

Source: Statistics South Africa (2017b); own illustration

Still today, there is legal discrimination according to ethnicity, for the purposes of redressing apartheid's legacy of racial inequality, for example through *broad-based black economic empowerment (B-BBEE)*, which is a formal regulation governing hiring and structuring of local institutions in order to economically advance previously disadvantaged ethnicities.

The statistics reveal a significant gap between ethnicities that persists today, which is also reflected in employment figures. *While* only 50% of *black* youth have a job, most (87%) of *whites* enjoy employment. In-between these are however *coloured* at 59% and *Indian/Asian* at 81%. In addition, the level of discouragement is seven times higher for *blacks* than it is for *whites*.

Black Africans have the worst starting point regarding employment. Only half of the youth have a job and the level of desperation is high, where every seventh *black* youth has given up on finding a job.

One in three *coloured* youth are looking for a job, while every twelfth has given up looking for one. Eight out of ten *Indian/Asians* have a job, of those that do not have a job, about half have given up. Nearly nine out of ten young *whites* have a job, while the level of desperation is very low, at two percent.

Qualification breakdown

Figure 26 shows the proportion of employment and the educational levels of unemployed youth. 52% of youth are employed, which also includes informal or unpaid employment, leaving 48%, where about half of the youth are unemployed. Of those, 35% are looking for a job, while 13% are discouraged (see *Figure 22*, p. 80). In absolute terms, the number of non-working youth amounts to just under four million.

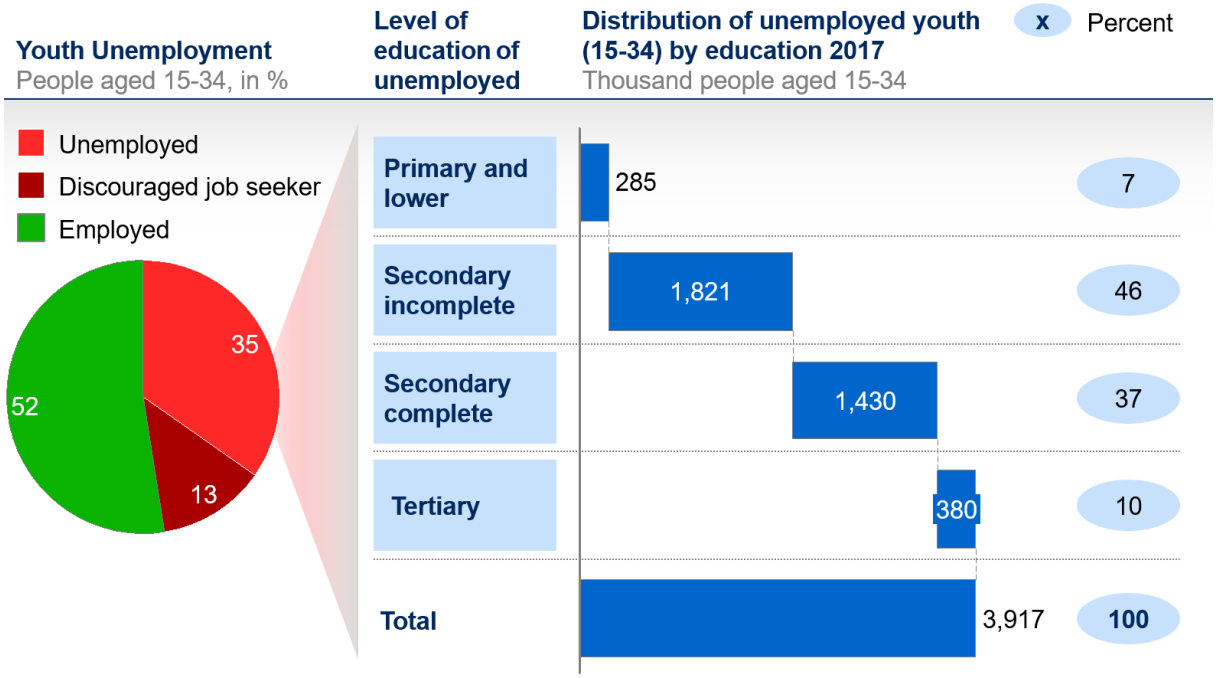

Figure 26: Youth unemployment by qualification

Source: Statistics South Africa (2015, 2017b); own illustration

Amongst unemployed youth, more than half, that is 53%, dropped out of school before completing matric, the qualifying high school degree. Seven percent dropped out during primary education or just finished primary school. The largest proportion, 46%, has not finished secondary school. 37% completed secondary school, while ten percent of unemployed youth have a tertiary qualification.

This highlights that the educational levels amongst South African youth are very low. More than half do not have a secondary school qualification.

Figure 27 (p. 86) looks at the chances of employment, based on the educational levels identified in *Figure 26*.

In the group of primary and lower education, less than half are employed, with a 22% level of discouragement. Amongst the group of secondary school dropouts, the employment level is similar, however, with a lower discouragement rate of 16%. The percentage of employment increases by seven percentage points for the youth that have completed secondary school. The employment rate of tertiary graduates, including universities (youth with degrees) or vocational institutions (youth with diplomas), is at nearly three quarters, with a low desperation rate of only five percent.

The longer youth attend school, the higher their likelihood of them being employed, and the lower their level of desperation.

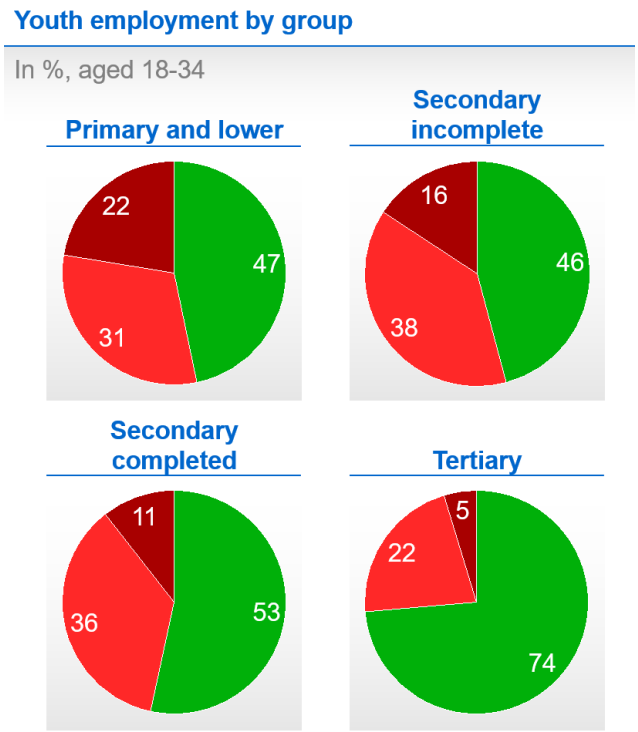

Figure 27: Youth employment by schooling

Source: Statistics South Africa (2017b); own illustration

When having a closer look at the youth with tertiary education, *Figure 28* (p. 87) illustrates the level of employment according to university graduates (degrees), and vocational diplomas. Although the data is dated, and not only refers to youth, the level of employment for the South African population with tertiary education is very high, at an average of 95% for degree holders, and an average of 85% for diploma holders. Interestingly, the graduate employment rate is about the same level as it was in 1995, just after the end of apartheid.

Figure 28: Youth employment by academic degree

Source: van Broekhuizen and van der Berg (2013); own illustration

Experience breakdown

The following graphics delve deeper into the different elements of unemployment, and employment, according to age, and give insights on work experience, formal and informal employment, paid labour, and entrepreneurial activities.

The first view is on the 48% of unemployed youth investigating their previous work experience. This is relevant as previous employment typically eases finding an occupation (Hadfield et al., 2017). An exorbitant share of 72% of unemployed youth have not worked before. Even with increasing age, this proportion does not improve.

This highlights that already unemployed youth is becoming anchored in unemployment, as the chance of finding a job without previous work experience and increasing age is increasingly difficult.

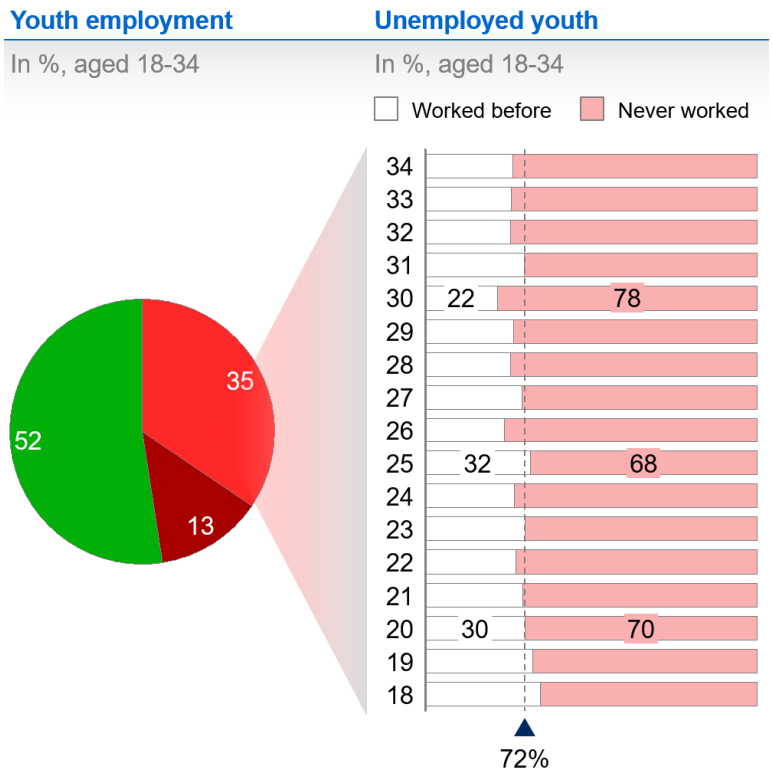

Figure 29: Youth unemployment by work experience

Source: Statistics South Africa (2017b); own illustration

Formal and informal employment

The upcoming figures examine the type of employment. *Figure 30* (p. 89) illustrates the share of formal and informal employment. Statistics South Africa defines informal employment as follows:

> "This indicator is intended to identify persons who are in precarious employment situations. It includes all persons in the informal sector. Employees in the formal sector and persons employed in private households who are NOT entitled to basic benefits such as pensions or medical aid and who do not have a written contract of employment" (Statistics South Africa, 2008, p. 2).

On average, 32% of employed youth are employed in precarious situation, where the greatest share of informal employment is amongst the young. Half of 18-year-olds are employed informally. This share lightly decreases with increasing age to around 30%.

By way of summary, the definition of employment can be expanded: while 13% of the South African youth want to work, but have given up searching, 35% are actively looking for a job,

17% are precariously employed, and a mere 35% are formally (‘properly’) employed. The same number of youth are searching for a job as the number of youth that have a formal job.

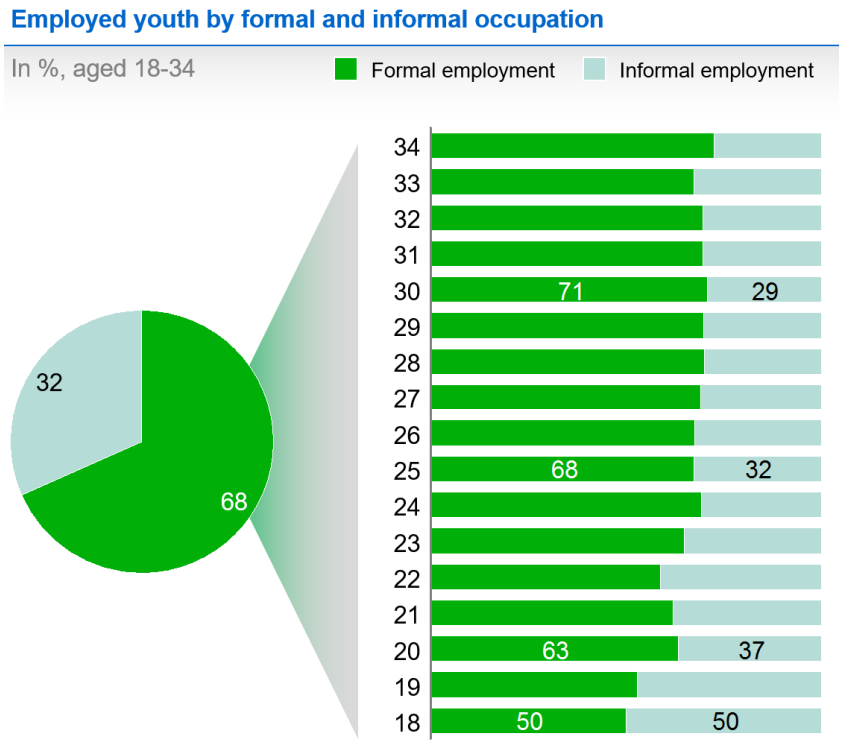

Figure 30: Youth employment by formality of work

Source: Statistics South Africa (2017b); own illustration

Paid and unpaid employment

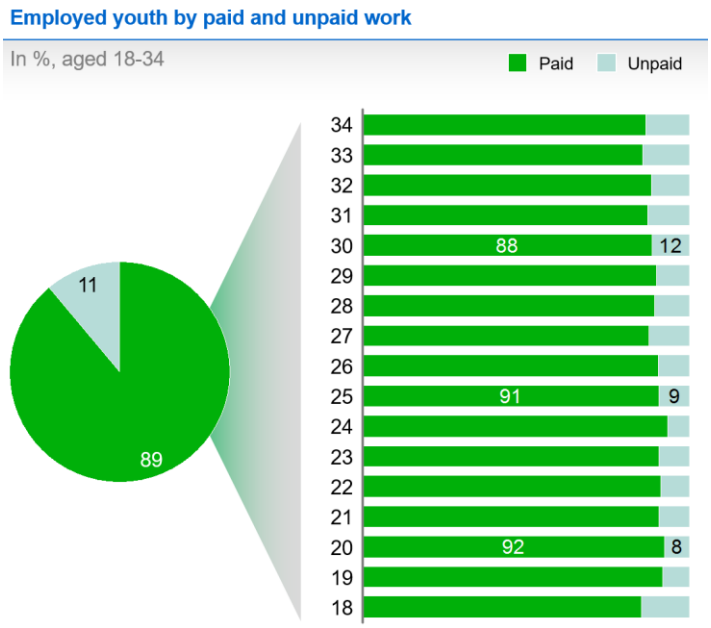

Figure 31: Youth employment by payment

Source: Statistics South Africa (2017b); own illustration

While 89% of employed youth get paid for their work, 11% work without income, typically as volunteers or in internships, which help to develop skills and find future employment. This percentage does not change significantly throughout the age ranges (*Figure 31*, p. 89).

Entrepreneurial activity

Figure 32 (p. 90) shows that only 9% of those who work are active entrepreneurially. 91% of youth in work are employed by someone else. The share of entrepreneurship seems low, considering the high level of unemployment.

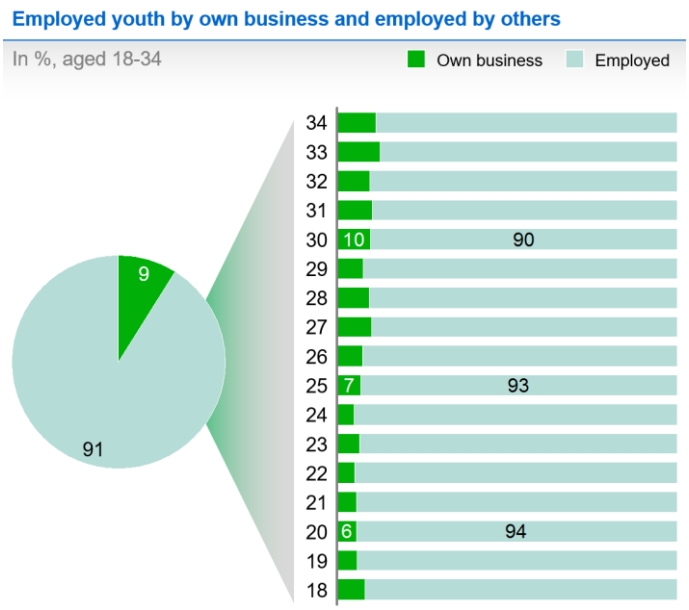

Figure 32: Youth employment by type of employment

Source: Statistics South Africa (2017b); own illustration

Statistical summary

Summarised, the South African employment statistics on youth highlights the severity of the status quo:

1) South Africa is the least equal society in the world, reflected across income, wealth, education, and opportunities.
2) The share of youth in the overall growing population decreases, increasing the stress to support younger and older generations.
3) Women are more affected by unemployment and non-participation in the economy than are men.

4) 13% of South African youth want to work, but have given up searching, where 35% are actively looking for a job, 17% are precariously employed, and only 35% are formally ("properly") employed.
5) Rural areas are more affected by unemployment than those in urban areas. The highest unemployment rates are in the Eastern Cape, Mpumalanga, and the North West. Desperation is highest in rural KwaZulu-Natal. The Western Cape has the highest employment and lowest desperation rate.
6) *Black* South Africans are worse off than *coloured*, *Indian*, and *white* South Africans.
7) The longer a youth stays in education, the higher the probability that one will find a job. Most university graduates find employment.
8) The level of youth entrepreneurship is low at nine percent.

The average South African unemployed is therefore an African *black* female, aged 18 to 24, living in a township close to Johannesburg, who dropped out of school before earning her matric, and who has never worked before. Her (fictional) name is Lesedi. Lesedi will return in 2035 and help us to understand the future.

4.2. Field insights on youth employment

This section on the fieldwork sets the context of the challenges South African youth, particularly those from precarious environments, face. The first part illustrates the environment in which the youth live, namely Katlehong, Thokoza, Knysna, and Langa, while the second part details their hurdles in finding an occupation.

4.2.1. Setting the context

Katlehong

Lesotho Street is long, and straight. It is an immaculate example of the relics of apartheid spatial planning, which was used to build segregated towns for then-called *non-whites*, cementing segregation at a remove from formal economic centres. Approximately where Lesotho Street intersect with Matsose Street, in the middle of the informal settlement of Katlehong, a township 35km southeast of central Johannesburg, the western side of the road is crammed with tin shacks, while the seam of the eastern side is bordered by haphazardly placed public plastic toilets. The perfectly straight road and the chaos along it could not provide more of a contrast.

I sit on the curb in fine, sticky red dust. In front of a one-story building, which has a street facing wall and is made of five different unaligned corrugated sheets. The roof is another sheet of tin. I look onto the side with the grey and red toilets. In front of them is a puddle. Sewage and excrement cause a biting odour, carried in waves by the light breeze. The post-apartheid government is clearly failing to provide sanitary facilities that can be used with dignity by those neglected and oppressed by the apartheid regime.

It is hot in the sun. The breeze makes the temperature tolerable, but for the smell. I am the *'black' sheep* – the odd one out as the only *white* person – where everyone else is *black*, and mostly Zulu. It does not seem that there are many *white* visitors coming by, respectively living here, at least, I did not see one. Everyone saw me, sitting there with my *black* friend and guide, Lucky.

The structural chaos does not seem to impact people here. Everything moves slowly, not hectic. From time to time, a car drives by, slowly. An elderly woman washes clothing in a tin basin, slowly. A young man pulls a cart overfilled with empty plastic bottles, slowly. Six young men sit in front of the shack next to me and watch the road. The faces, all faces, are expressionless. They talk, slowly. I do not see laughter, crying, or anger. They seem to be in a state of waiting. Waiting for better times? But meanwhile, time does not seem to go by quickly.

I observe the young men. They look like they are in their early twenties, and all skinny, except for one. One is wearing a blue t-shirt with big white D and A inscribed on it, and a circle with shiny green, yellow, red, and blue waves – the logo of the Democratic Alliance. My shorts have attracted a haze of red. So too did my shoes, and t-shirt. The men's clothing is clean. Some looks worn, but the white is white, the blue is blue, the yellow is yellow. Even the white soles of one man's Converse-style shoes are white. All wear a hat, except for the man with the DA shirt, either a baseball cap or a hat with a brim, stylish, and far from not randomly combined, clean.

The curb is hard, but I cannot complain. I think of where I will sit later that day, while everyone else will still sit on the curb. The smell carried from the public toilets itches my nose. I consider my own bathroom.

The group of men sit in front of a shack with a neat yellow wooden porch. It is a feast for the eyes, compared to the shack in front of which I sat. They sit so they can watch the street. Everything that is happening is happening on the street. Nothing is happening unnoticed by the five

youth. They know everyone, it's their 'hood'. They wave at people walking by and at cars. Sometimes they shake their head and they have a conversation, an unexcited one.

Suddenly, a young man joins the group. He shakes everyone's hand, the African way: he stretches out his arms, palm reaches for palm, fingers pointing slightly downwards – so far, the international handshake. But then, palms stay connected, both hands move so that the fingers point slightly upwards, and then back. Fingers pointing down and a soft snap with each other's thumbs. Six times.

The energy in the group picks up, and one man leaves the group to go into the yellow-verandaed shack to fetch something. It is not visible what he is fetching. The group changes formation. They now face each other, turning their backs to the straight road. One starts with an extensive movement of his arm, as if he threw something. Then, the next one. Laughter. Then the next one. Now I see the dice, two of them. Tiny, with an edge length of less than one centimetre. They play for a while.

Figure 33: Impressions from the field – African handshake

Source: photo by Lucky Dinake

Then, one young man points at me with a nod of the head. Some follow his nod, and look. Do I need to prepare to run? The man who points at me indicates for me to come over. I slightly hesitate, then make my way towards them. The man who flagged me down extends his hand. We do the African handshake. Then again, four times over. I sit down in their circle. They want me to join the game. I try to understand the rules. Their English is difficult to understand, their

rule is impossible: “it’s like three five or three one the number that you say I’m doing seven okay maybe [you] can say ‘okay, do six five me, its eleven’, okay, they can say ‘four-four, and then when you do that four-four, and then you lose, they take the money… it’s like that.”

They ask me to put in money. One Rand. I hesitate. The biggest denomination I have is a ten Rand note. No coins. I politely decline and ask to play until I get the rules. No problem. I still do not understand them. I try to link their cheering and moaning to the face value the dices show. No luck. They see that I am struggling.

I ask how often they played are playing. “It goes to mostly weekends. […] Maybe when the month is ending on Tuesday or Wednesday and then we start [earlier], maybe the month like this – like last month. It ends […] on Wednesday and then we start on Wednesday [and gamble] up until Sunday.”

Figure 34: Impressions from the field – a street in Katlehong

Source: photos by Lucky Dinake

I am curious if they run it as a business or for fun. “Just to get such a little money you see?” “It’s not a business”. They do it to make money. Buy in is twenty rand. They tell me the story of the “one guy [that] ended up having two thousand”.

I learn their names and ages, which are: Themba Dlamini, 22, Siyanda Dube, 26, Lawrence Luggage, 32, Shepard Mgandela, 29, Vuyani Taoki, 24.

They ask after my business in town. I tell them I am studying, doing my PhD on youth unemployment in South Africa. They start telling me their stories. No one has a job. No one has matric. Some finished school in Grade Eight, some tried, but failed Matric.

We have an extended conversation, covering how they get by, how their days look like, what they do when they are bored, what makes them happy, and what makes them angry, about corruption, and how this affects them finding a job, how they tried starting their business and failed, how they could kill to survive, and more about gambling. My first visit to Katlehong allows me to dive right into the lives of unemployed young Youth Africans.

Thokoza

It is the smell that is itching my nose that first impacts me when exiting the car. We, Lucky, driving and knowing the area, and I, park on a bumpy earthy brown space used for parking, not far from some taxis: white, old, dented, and scratched, and certainly not looking roadworthy Toyota minibuses. They park in groups at taxi stands to gather passengers, where they eat, drink, or fix their cars. It looks like people do not care about their litter and drop it to the ground. The smell and the trash cause that impression. Here we park the car and head on by foot.

Lucky Dinake is my friend and my guide. We met in the possibly most different setting to the one described, just 20 km away, that is, at the Rand Club. The Rand Club was founded by a British Prime Minister of the Cape Colony, the mining magnate, the originator of the Cape Town to Cairo phrase, the imperialist, the name-giver to one of the most renowned scholarships, the person whose statue was torn down in the protests against university fees being a symbol of colonialism, the colonialist – a one Cecil John Rhodes – in 1887, as society club for rich and influential, as long as they were *white*, Christian, and male. The Rand Club is one of the oldest buildings in central Johannesburg, in which it feels like a century and a half have passed, without unsettling its majestic colonial pride, like the queen of England. The appearance is the same as it has been in its glory days, having collected dust of time, and making it appear like a manner of castle, if one converted into a museum. It is now also open to all complexions, religions, and genders, and rents itself out for events. At one of these events, I met Lucky, being seated at the same round table. He then was 23 years old, and elected councillor in Ekurhuleni, responsible for the ward in which Katlehong and Thokoza are situated. Being well-articulated, well-dressed, well-informed, he was educated by an English lady, and carried an English accent. Although *black*, Lucky seems like taken out of the historical Rand Club setting.

Where we are now, Lucky leads the way as we walk across the earthy parking lot towards the tin shacks. We pass a central fountain. The shacks do not have any fresh water, nor wastewater access. The water hole is the only water source in the neighbourhood. Originating from the water hole, there is a small stream running slightly downhill, gathering water in a puddle. The

water comes from spillage, used water from washing, and smells like it may contain more abrasive sewage. The puddle contains pieces of waste that look like undefinable remainders of packaging.

A couple of people pilgrimage to the water fountain and gather to collect water. All of them are women. They do not look young, they do not look old, and their faces have a stubborn expression, seeming focused on what they are doing. They are moving slowly, one woman dragging her feet on the dusty ground, causing a little cloud of dirt particles, which a slight breeze carries away. The women carry containers to fill with the water. The containers are of plastic and appear to hold up to ten litres of water. Most women carry three of these, one balancing on her head, and two in each hand. They do not seem to have to tell each other much. They are not quiet, they are not chatting, they seem to limit themselves to the necessary. On the way back, I will see a woman washing her clothes next to the water hole, drying it on the concrete surrounding the fountain.

We follow an alley between the shacks. The shacks are fenced off using wooden poles, most of them crooked, connected with strings or netting wire, which create a private area around the tin building, and giving the illusion of privacy and ownership. Technically, the land is illegally occupied, and residents do not own title deeds. The residents know their neighbours and exactly what they do, and with whom, as I will later learn.

We reach the residence of Zodwa Khumalo, who is the regional branch chair of the DA. That is how Lucky knows her. We are expected. She welcomes us politely, but shyly. We are invited to take a seat on a box in front of her hut. Her accommodation is dark inside, without windows. The only light that falls into the house is through the open entrance door unveiling one room with a kitchen cabinet and a cooker. A mattress is set up on the opposite wall. The small, fenced garden in which we take a seat is mostly of brown hard soil. Cardboard covers several patches of the garden. In-between these, there is litter. It escapes my reasoning as to why someone not appearing to be too busy does not maintain their garden and picks up the litter lying around. Zodwa offers Lucky the chance to find an unemployed young neighbour to talk to us. She is also unemployed but falls outside the age range of youth.

She briefly disappears, and brings back a man dressed in a blue overall, who introduces himself as Xolani Nyembe (2017a). He is even shyer than Zodwa. He looks to the ground when he talks, and constantly avoids eye contact. His English is basic, and he speaks slowly, sometimes searching for his words. He, however, is willing to discuss and answer questions. We sit down.

Xolani is 30 years old, having moved here from Bergville, a small town at the foot of the Drakensberg mountain range in KwaZulu-Natal, to Thokoza, where he rents his shack for two hundred rand a month. He has his matric certificate. The money he makes is from occasional loading and off-loading trucks. Otherwise, he has no one to support him. He has a partner, who works in KwaZulu-Natal, but she cannot support him. A friend gives him money when he is short on his rent. Lucky occasionally helps in translating between Zulu and English, as we have an extended conversation at the end of which we agree to meet again. He promises to bring many friends, so they can share their stories with me. He hopes that their voices are being heard to improve their lives.

Figure 35: Impressions from the field - Thokoza

Source: own photos

Knysna

The red light in the fuel gauge is shining brightly. We are on the last drop of fuel as we climb up the hills in an old Fold Fiesta. The ups and downs lead past different areas, first shacks with colourful painting, describing the businesses they house, then monotonous identical RDP (Reconstruction and Development Programme) houses, past a gated community of shacks housing the local Rastafari community, then farther up the hills, with mostly untidy shacks.

The people we pass, children, elderly adults, *black* or *coloured*, look at us driving past them. Most turn their heads to follow us with glazed curiosity, and uncertainty. We are clearly outsiders, intruders, so it felt to me.

Malcolm explains the areas as we pass them, and who lives in each place. Malcolm would be considered to be *coloured*, but he does not like to be called *coloured*. He prefers being call *brown*, as he trails his heritage back to the Khoisan, the autochthon of South Africa, who have been called *Bushmen* by English settlers. The Khoisan were displaced by *black* communities coming from the North. Today, the Khoisan language is not even recognised as one of the

eleven official languages in South Africa. Malcolm runs vegetable stores at the local market, which he later proudly shows us.

He has started a community project for the most disadvantaged youth in the area. The youth collect trash in the area and sell it to recyclers. With the proceeds, Malcolm finances a community centre, where youth will have internet access, and get training on how to use the worldwide web for their advantage. At least that is his plan. He promises to show us how far he has gotten, and to take me there, deep into the township, far up the hills.

We stop, and I am astonished. The view from where we parked the car is breath-taking. We overlook the Knysna lagoon, from a vantage point far above the sea. The islands in the lagoon, the mountains in the background, and the clear air with soft clouds floating over the mountain range that separates the lagoon from the sea are a uniquely placid sight. We are in the middle of the Knysna Township, probably the South African township with the best view. Around us are low-income homes, with some RDP houses, some metal shacks, and some wooden shacks.

Figure 36: Impressions from the field – Knysna

Source: own photos

We arrive at a container, the community centre, with its IT training facility, and a recycling hub-to-be. The container is painted colourfully, with recyclable items like a cardboard boxes, a plastic bottle, or a metal tin can, which are humanised with faces, eyes, mouths, arms and legs. The container is surrounded by actual waste, cardboard, plastic bottles, and tin cans. The recycling element of the project has apparently not started yet. Malcolm unlocks the container doors that are locked with a heavy padlock. The inside is dark and empty. The funding is missing to kick off the project.

We cause attention, where a couple of children aggregate around the container and ourselves. They keep their distance, sit down and observe. It is a Wednesday morning, should they not be at school? (Adams, 2017).

Langa

As she passes the gate and walks towards the entrance door, she speaks vernacular (local South African languages) loudly, as if in a churchly Sprechgesang. Her voice carries life experience, and confidence. The residents of the house peek out of the door and see Sister Winnie leading a small group of *black* women, a *coloured* man, and *white* men and women towards the house.

Sister Winnie is a nurse, who retired from her job at a government hospital, but now works in the community health service of the *Order of St. John*. She is rather short, and strongly built. Her hair is covered by a headscarf. Her face looks friendly but determined. She has an aura of authority, despite her petite physique. The *black*, much younger women are community health workers. The programme is an initiative by the City of Cape Town and allows for elderly and frail care for people without health insurance in their homes.

I am invited to follow them to a couple of houses to see how health, or the lack thereof, and care for the sick impacts the community.

I am greeted shyly, but with respect. We stand in a dark room with a bed. Every room, however, seems to be a bedroom for someone. The rooms are filled with a lot of furniture, wide couches, tall shelves, big tables, and many boxes. The darkness and the minimal space to move place pressure on the mood. Sister Winnie explains what they do to help, and how they organise themselves to most effectively help the community, and the sick and elderly.

The singing before entering, I learn later, is a sign of respect, announcing the guests and ensuring the hosts that no danger is coming from us as impostors and visitors. This is pointed in the *Cape Flats*, an area known colloquially as the “killing fields”, where the murder rate is the

highest in the country, children routinely get abducted and raped, and nearly every household is affected by at least one crime per year. That is also the reason why the community health workers are only dispatched in their neighbourhood where they themselves are known by others, and where they know the ins and outs (Grill, 2018; Winnie, 2018).

4.2.2. Snippets of the lives of young unemployed

In exploring the townships and the unemployed youth who live there, several snippets about the lives of the youth are revealed, which are grouped and summarised in the following. The voice, their tone, grammar, hesitation, and desperation speak through the quotes used to underline the status quo of unemployed youth.

Why earn money, and what life goals look like

The first and fundamental question for aspiring employment is what to work for. What are the aspirations of young South Africans that drive them, that make them pursue a job opportunity? The responses can be split into two main categories, namely family support and long-term goals.

Nyembe (2017a) first and foremost wants to "live". The following section 'What 100 Rand buys' illustrates what that wish implies regarding spending. Then, he wants to be able to support his family that stays in KwaZulu-Natal, and eventually build a house in his rural home.

In the group around Dlamini, Dube, Luggage, Mgandela, and Taoki (2017), the verdict is to "buy a car, take a wife, everything". They eventually admit that they "[…] really have to survive – hey we really have to survive."

Armstrong (2017) wants to be able to support his children, who live with his girlfriend having had a job for four years as a cashier. Having been a packer at Makro, a mega store supermarket chain, he was able to contribute to the family upkeep. He is unemployed.

Regardless of thriving for family support or long-term goals, the wishes and aspirations have an element of social responsibility, belonging, and status.

What 100 Rand buys

In the first interview with Xolani Nyembe in Thokoza, he mentioned his daily struggle is finding food. He would go from door to door in his neighbourhood to ask for leftovers, often not having eaten anything before falling asleep in his shack that he rents for about ZAR 200 (±EUR ~15) per month. As a sign of appreciation for his challenging situation, and his promise to

gather more interviewees for the upcoming discussion, he received ZAR100 (±EUR ~7), although participants were generally not paid (Nyembe, 2017a).

In the following interview, he shared what he had bought with the ZAR100: Paraffin to cook for about ZAR70, soap to finally being able to wash himself again for about ZAR10, and lastly bread, to tackle hunger, for the remaining ZAR 20 (Nyembe, 2017b).

The search for a job in South Africa amounts to about ZAR500 on average per month for the youth, most of which is accounted for by transport costs. The first ZAR100 this unemployed youth, Nyembe, received, he used for food and hygiene, and not for searching for a job.

Daily hustle for labour

The line between working and not working is thin. Employment is often a matter of hours or days, not one of months and years. At the lowest level of work, manual jobs not requiring qualifications, an 'employee' can be unemployed the very next day, and someone unemployed can become employed just as suddenly, due to the lack of any formality. No contract entails no security, but also the opportunity to find work with a limited duration and with it, some immediate income. Consequently, looking for a job is a daily routine, and a daily hustle.

The routine involves going early in the morning to hubs where people hire. This could be at an intersection, at an industrial cluster, or at a factory. In the case where the job hunting is not successful, the youth return home. A day of work can bring an income for three to five hundred rand. In comparison, rent in a township costs about ZAR 350.

"We just wake up in the morning and then go to the stop signs and then the robots. We got some maybe one-day job, or maybe one week or three days […]. If we don't find anything we go back at noon". They go by train, dodging the fare, as a minibus taxi is too expensive. Sometimes they have to escape the ticket inspector. Without qualification, the job search is opportunistic: "Maybe the construction, maybe we [will be] doing the trench, maybe cleaning like housekeeping, ja, everything. We also do like [to take] some recycling stuff to take to the scrapyard and then get something" (Dlamini et al., 2017). "I wake up and start looking for work. I go to the local factories. I take any job. When I'm lucky, I can load or off-load trucks" (Nyembe, 2017a). "When my aunt is away, I help in her business. I bring kids to school in her bakkie. But I don't get paid for that. I help political parties to do canvasing and get a little money for that" (Armstrong, 2017).

No bribe, no job

One hurdle young South Africans face on their job hunt is being asked for bribes to process their applications (Benjamin et al., 2016; Dlamini et al., 2017; Storme, 2016b).

Dlamini et al. (2017) reported on a factory close by, where it is only possible to get a job through bribery: "when you going there to write the test, they said you have to put some money inside of your papers so that when they are correcting your papers, they get this money and then they phone you – you get the job. But you – if you'll just write the test, you've failed without money. You have to put something."

Also, the work-around, paying the bribe after you got the job and have an income does not work. You need to "bribe in order to get some job. […] You can't get the permanent job without bribing them. You have to have something to bribe them, then you'll get a job […]. You can hire me and then by the month end you deduct this money. They say "no" because when you are inside, you'll go and then open the case for me. […] so, give me this money before you enter. That is the problem. [They want] one thousand five hundred and then you don't even have one hundred and fifty that time."

They also outline a recent incident: "There is a new fire station, but no one in our community got a job there. Only people that knew the politicians. They did not give us a job although we voted for them." This serves to illustrate that the access to jobs is not merit-based.

The dream job

The level of frustration amongst the youth is high, often resulting in giving up even trying to find an occupation, although the expectations for a job are low. Being asked what constitutes the minimum requirement for a job, incorporating salary, the type of work, and the location, the interviewed youth have little to no expectations. "I'd take any job" (Armstrong, 2017; Nyembe, 2017a), "even [as] brick layer, plasterer, or plumber" (Dlamini et al., 2017). "You can spend even the whole month without getting any job, up until maybe here on the location you are asked by the old lady here come and then fix my door and then you got fifty Rand you see? At last – you take, because you don't have something, you fix the door" (Dlamini et al., 2017).

Although having no reservation as to the type of job he would accept, Nyembe (2017b) aspires a dream job: "I would like to become a truck driver, but I can't afford the license for 6,500 Rand" (Nyembe, 2017b), while Gamede, Mabale, Mayisela, Mhlongo, and et al. (2017) would like to work in a bakery, or as a security guard.

On the other hand, Armstrong (2017) and Dlamini et al. (2017) do not have a specific profession in mind, as long as it pays: "Three point five [ZAR 3,500] a month, it will be okay. Just for living, but it is not enough […] just to maintain" (Dlamini et al., 2017).

Role models and their absence

The aspirations for jobs are low. Could the reason be a lack of role models? Whom do Dlamini et al. (2017) look up to? After some consideration, they say: teachers, policemen, and security guards are those in their neighbourhood they look up to. It is not family. Most of their relatives are unemployed. They mostly live in rural areas in the Eastern Cape, and expect their children living in Johannesburg to support them. So even some of the little money they make goes back to their families. Armstrong (2017) looks up to his brother, who, he says, "…can support his family, his kids, and me." Gamede et al. (2017) mention that "people with a qualification, a matric for example" and "people who live here that earn money" or "policemen and security guards. But both are corrupt." Nyembe (2017b) has no one he looks up to.

Mthembu et al. (2018) from KwaThema report that those qualifying as role models, having made money, leave the township and its misery behind and look back in disgrace, not supporting their former fellow sufferers: "I get my money, I'm out of this nonsense so they all leave. No one stays behind. So, you know there's a guy that lives there in that house, but he doesn't live here, he lives in Sandton and when he comes here, he looks down on us. So, you want to look up to him but when he looks at you, he's like – you know. It's very…, it's – we are facing it daily. We are facing… I believe that even when I were to get money, I would actually leave, that's the culture with our society, when we get money we leave. We don't want to have anything to do with this place, this godforsaken place, you are going to live in the [wealthy sub]burbs with other people, because these ones are going to pull you down. You have this mentality that the township is going to pull you down so it's better for you to leave and grow elsewhere, whereas if we look at it in a different way, if people like us stayed in the township would actually develop the township. A lot of young people would have access to us, they would materialise their dreams, they would materialise other people's dreams, and there are a lot of things that happen in the township. But when they get their money, they leave."

In Johannesburg, Benjamin et al. (2016) say they do not look up to anyone in their community, as there is no one there having achieved that to which they aspire: "I did not ask information from my community, because mostly in my community there is no one who did what I wanted to do."

There are only a few to no role models for unemployed youth in their environments. A person's ability to make money is the most relevant element for others to look up to that person. Often role models lack integrity. They are either corrupt or move out of the township and look down onto the fellow people they left behind.

Gambling, alcohol, and drugs to escape reality: what the last Rand is spent on

"On the weekends we gamble […]" and "[we drink alcohol] big time, man, every fucking [sic] weekend." "We really want that happiness inside you" to forget the "problems […] just – just for that piece of moment". Dlamini et al. (2017) describe what can be found frequently, gambling, alcohol, and drugs are used to escape the misery of the everyday life.

Dice games are infamous. Kids start playing at school, even though they are illegal. The rules are easy: two dice, at least two players, and usually a five rand bet per round. The player throws the dice. If the player rolls a seven or an eleven as a sum of both dice, he wins. If he rolls any other number, he has to roll again until he either rolls the same number as in his first throw, or a seven or eleven. If he rolls the same number again, he wins. If he rolls a seven or eleven, he loses. The attraction lies in the perception of big wins: You can win a lot in one round, and you only lose little per round. Big wins are the dream: "One guy ended up having two thousand" (Dlamini et al., 2017).

While gambling is illegal, it gives the youth an occupation and a passion, preventing them from being exposed to more harmful crimes. The exposure to alcohol, on the other hand, is riskier as it does not require a group setting as gambling does, and thus is independent of timing and setting. "Scarcity of options, that's the main problem" (Dlamini et al., 2017).

The Katlehong group points out a group of women close by: "you see it's Monday, but you see the ladies are – because of alcohol. You see now because we don't have something to do […]. Some of us they are ending up go there and then drink because we've got nothing to do. That is the problem you see – on Monday – you see Friday is too far, but they are […] drunk today, tomorrow they start [again], and then Wednesday until Friday until Monday – they drink you see? *That's why the corruption is too high. And then their abuse is too high, 'cause they are abusing alcohol, some abusing drugs, some abusing some smoking daggas*."

They get the money from hustling: "*it's called ukukgereza,* they are hustling, ja anything – anything actually they get", e.g., "I can sell you this hat, […] okay, hey do you like it? Ja, I like it. Give me five rand you can have it. So, you give me five rand, okay. I go down there, I can sell this t-shirt, hey. Here's a t-shirt you don't like it? Ja, I like it okay I sell it [for] ten rand.

Hayi man, ten rand is high. I have five rand. Give me that five rand. […] I can afford what I want for the moment. I have ten rand, maybe, I can have a beer, you see?"

Alternatively, the money or the goods to sell are acquired through 'expropriation': "that is ending up on a robbery. […] If you see like young girls, like they're carrying fifty rand going to the shops. [You] take that fifty rand."

Alcohol consumption, the group in KwaThema (Mthembu et al., 2018) recounts, becomes a social activity. Due to a lack of alternatives, the gathering point for the youth and even children on a Friday and Saturday evening is a shebeen (pub) "the only place in any township, in particular in Ekurhuleni, where you can find people, is a place where there's alcohol."

These evenings turn into a trial of strength, not uncommonly causing horrific brutality: "We are there to show off, I'm better – my poverty is better than yours – it's a matter of how you're dressed, the kind of alcohol that you buy with money that you do not have. So that's the only space where young people actually come together – and it happens all the time. Even young people, the way this thing is going out of control it has gotten to a point where even - come to [the shebeen] with us you find that a lot of young people. Even Grade Six kids are there as well. This is all we know; this is what we know. This is our life. They get hurt, others get raped there, others get shot, others get things stolen from them. The kids they are vulnerable, but they come there anyway, because there is no other space where we can meet. Sports, you come together and build, sports is not financed, or sports is not taken seriously in the township, you know. There is no place or institution in the township where young people come together, besides coming together to use alcohol. Even in the libraries now. You go there, it's empty. People don't care anymore. People have just given up. What's the point?"

Children do get exposed to alcohol early. Besides the reported happenings, a photo of children (see *Figure 37*, p. 106) was taken on a canvassing event in Katlehong. It shows three children, a girl, perhaps six or seven, holding a baby boy, around one, and another boy, aged perhaps three or four, playing in a tin shack. The earthy floor is partially covered with a bast mat, and a blanket, accompanied by a smartphone, a nearly headless doll, and a rake. The photo also shows an empty Gordon's gin bottle, one of the small inexpensive ones you would find at the counter of liquor shops, carelessly placed on the glassless window frame. The older boy leans over a 350*ml* Black Label beer can, and a 750*ml* Black label beer bottle that lie next to the blanket. Their parents sit outside the shack on white plastic chairs. They claim to be strict Muslims.

Figure 37: Impressions from the field – children with alcohol bottles in Katlehong

Source: own photo

Besides the exposure to alcohol occurring in childhood and early adulthood, drugs also appear early in the life of the youth in townships: "[There] are those people coming from other worlds. They are killing our society, they are killing our children, they are selling Nyaope [to them]" (Dlamini et al., 2017).

Nyaope is a drug cocktail to be smoked. It is a combination of Cannabis, Heroin, Tenofovir, Emtricitabine, Efavirenz (all three antiviral drugs used for HIV treatment causing an LSD-like psychedelic effect), Strychnine, Brodifacoum (both pesticides, rat poison, so to speak), and birth control pills. There is no assurance of the components, nor their proportions. Addicts typically smoke it every four hours. It is without saying that this drug is highly addictive and dangerous, particularly for the children exposed to it (Morris, 2014).

The Katlehong group points out a man walking by, visibly impaired, induced by a pill they claim, walking dead slow. They explain how this presumably young, but nonetheless elderly-looking man consumes pills, to pay for which he collects bottles to recycle. "You see one of these guys – this guy is a young man – this guy is a young man he's staying here look at the person, look at the guy you see now he's collecting the bottle so that he can get that ten rand in the scrapyard to go and run there then take to buy this – these things, it's twelve rand fifty the half its twenty five rand and the full, you see?" "It's a drug – it's a pill."

Crimes like being robbed, raped, or murdered, and being affected by alcohol and drug abuse are a daily reality in townships. Adding to that, the pursuit to evade the miserable life can end in suicide. One young man (Mthembu et al., 2018) says that "it's my brother, he killed himself because he was trying to be happy inside and he decided to use drugs." A young woman in the same group adds: "People are actually killing themselves now, young people. It's not something we found in the township where a young person, [aged] 22 or 23 would be found dead, and they committed suicide, hanged themselves […]. But now it's something we see on a weekly basis, […] the pressure got to them. You know the pressure got to them and they couldn't handle it anymore and they just…"

The cause of the desperation resulting in suicide, the group claims to be "social pressure", is imitated as follows: "Everyone's winning and what's happening with me, what's wrong with me? The pressures of saying time is ticking, what's happening with you? […] You're getting old, you're getting old, you're supposed to take responsibility, you're supposed to be taking care of yourself. You can't be asking me for money. You know what I mean. Those pressures."

Crime as a profession: What it takes to make 1000 Rand

Crime can have several causes and effects, ranging from the need to put food on the table, helping the family, to financing drug addiction, leading to petty crime, robbery, rape, and murder. As work opportunities are not accessible to many, crime can become the necessary occupation to survive.

Dlamini et al. (2017) share an every-day anecdote about youth that have made robbery their profession. They get up early to go to work and make money, like an employed person: "In the morning you stand on the corner waiting for those who are going to work, take their phones, take their money, take some stuff, [and] you sell it. It's not that you are [too] lazy to go to work, to get [a] job, but we wake up but don't have – we don't get the jobs […]. If you can rob a person at four o'clock [in the morning when] you are rushing for the first train at twenty past four – that person is not lazy because he's waking up – early [in the] morning so […] he can grab people that are going for the first train. If that person can't get [a] job, he's going to wake up early in the morning and go to […] work."

Besides robbing fellow township neighbours, who have little more than the robber, there seems to be an even more radical possibility to earn money. The Katlehong group reports about the possibility to become an occasional hit man. A murder, it is recounted, is worth a thousand rand: "That's why in the location [Katlehong] you find that most youth, they are ending up killing

people, because those who have money, they come with one thousand [rand]. You don't have money, and it's around the month end you need money and then it's [a] kill: You can shoot this guy for me – it's easy to do that because you don't have job. […] But it's not that we are lazy."

Besides robbery and murder, there are many other ways to acquire money illegally. In KwaThema (Mthembu et al., 2018), the story of the illegal miner is told. Illegal mining, practitioners of which are referred to as "*zama zama*", is common in areas with natural resources and mine dumps. The Witwatersrand, being home to Johannesburg, referred to as "City of Gold", is littered with closed goldmines that are hijacked by gangs, allowing access to miners, called "security", in exchange for a share, where, suffice it to say, safety measures are non-existent. Miners risk their lives on a daily basis: "they go to an abandoned mine – these guys who have claimed the territory as security, and just go down, you mine or whatever you can mine and then you come out with what you have, as a way of processing the soil and then – obviously I think it's illegal mining."

Figure 38: Impressions from the field – a hostel in Katlehong

Source: own photos

Church with spiritual support, but without paid jobs

Church and the role of religion seems to vary strongly amongst young South Africans. The questions around religion and employment circulate around whether the church provides support for employment, or a social structure to hold onto.

Church communities are seen as a provider of factual and spiritual opportunities. Mthembu et al. (2018) claim that "a lot of young people did not stop going to church, because church is giving out opportunities."

A young woman in Ekurhuleni shared her unpaid commitment at church as an usher. She recounts, "I organise everything [up to] the cleaning toilets, [to] get some recognition for it." Although not receiving the aspired recognition, she still pursues her activity, because "we still work our day, we go to those offices with the best smile, and dress our best with God's grace and that is why we are here today, even, to have a voice, to say we are unemployed, but we still have that, and we still dream" (Dinala et al., 2016).

The group around Mthembu et al. (2018) used to visit a Methodist church regularly, but not anymore. They reason: "there's no food and stuff like that, so the young people are just done with that. […] Our education taught us that we must not identify with the church. We know better than our parents. To be honest, a lot of young people know that the church represents something that we're not. You know, so a lot of people will forego the opportunities that come with the church on the principle that 'I'm not Christian and I know that Christianity was brought in my country to oppress me', just because you are impoverished doesn't mean that you are stupid. We are also educated. We are revolutionaries. We're putting our foot down and saying we're not going. A lot of young people are not going to church. […] Politics teaches that the church was brought into Africa to colonise our people. We understand that Christianity is not us, it broke our families apart, it changed the way we live by teaching us about a God that we don't know, we are educated, we know these things, we can explain in an anthropological sense, you know what I'm talking about. [The church is] that place where we are being taught to perpetuate our poverty and our problems, even if they have programmes, we don't want the church programmes, we don't want them, and we are not going. I will take [a job offered by the church] because I'm being opportunistic now, but in principle I will not identify with the church and a lot of people are like me in the township. Things have changed. It's not like the '70s, when a lot of young people go to the church and be hostesses there and hosts. No, it's not like that anymore. We are more liberal and liberated, we are educated now, it's just the poverty aspect of our lives that is putting us down, and we view the church as one of those things that press us down. This is where you get a lot of judgement. People are supposed to come with you, help you grow. Look down on you, look down on your family, look down on your mother, look down at your father. Look down at the status of your family when you come

to church, how well do you dress, how well do you speak English. Are you friends with the pastor's children or not, so it's those things."

After this passionate woman's monologue, she shared that she has been politically active "her whole life", first in the PAC (Pan-African Congress), a nationalist Africanist South African party, and later in the ANC.

Even the youth that choose not to go to church admit that the church provides opportunities, whereas those that go, do so for spiritual purposes or see their involvement as a contribution to their community.

Party affiliation and how the ANC helps with jobs

Compared to being affiliated to a church, the question arises as to whether the affiliation to a political party provides support in the search for a job. The passionate politician from KwaThema in the previous section elaborates: "I don't have a job. I'm part of the ANC, I don't have a job. […] You get deployed by the party [without compensation …]. Let me tell you something about the township, a lot of people in the ANC are people, who are not even qualified. Qualified people are complaining at home […]. If you are not a comrade, you are at home. There are a lot of comrades in the ANC [without work] and when limited opportunities come, the first person we are going to consider are comrades." (Mthembu et al., 2018)

Dlamini et al. (2017) experience the other perspective, that is, not being affiliated with a party. Access to jobs, they claim, is non-transparent and unfair: "There is a new fire station here. No one in the community got hired there – only people from somewhere else who know someone [through party affiliation]."

Party affiliation, at least to the ruling ANC, seems to have a positive impact on finding jobs opportunities. Besides that, being active in a party seems to provide structure in the daily life of the unemployed, as well as a sense of belonging and purpose.

Growing up in the township and moving into the township

In South Africa, residential geographies can be typically differentiated along rural and urban, whereas urban areas can be (typically wealthy) "suburbs", city centres or "CBDs", and (typically disadvantaged) "townships". As identified in *Chapter 3.1 Scenario analysis applied* (pp. 57 ff.), the youth unemployment rate in rural areas is higher than it is in urban areas, driving youth to move to metropolitan centres, where they typically end up staying in a township.

Based on the urbanisation as described, the question arises as to whether the unemployment situation for youth having moved from a rural area to an urban township is different from that of youth having grown up in the township.

The field participants are represented by both groups. Each group had exclusively either youth that came from a rural area, or youth that grew up in the township. This fact alone is an indication of differentiation.

The participants in Katlehong (Dlamini et al., 2017) and Thokoza (Gamede et al., 2017) moved to the township (the "movers"), whereas the participants in KwaThema (Mthembu et al., 2018), Knysna (Adams, 2017), Langa, and Nyanga (Winnie, 2018) grew up in the township where they stayed (the "stayers") when they were interviewed.

Sihle, one such stayer, stated that she has access to her mother's car for transport, although she needs to cover the expenses for using it (Mthembu et al., 2018). The participants in Langa and Nyanga were mostly volunteers receiving a stipend of ZAR1,800 to 2,200 per month for serving their community, making them technically unemployed (Winnie, 2018). All the stayers mentioned having some kind of support from their families, e.g., that they live with them, get food for free, get pocket money, or have access to job opportunities, as they know somebody in first or second degree to whim they can send applications.

On the other hand, the movers do not have that support. They have to find accommodation, food, and most dramatically, they are expected to support their families that stayed behind in the rural areas. They also complain that they do not know anyone that could help them with a job, or at least a job opportunity (Armstrong, 2017; Dlamini et al., 2017; Nyembe, 2017a).

The answer consequently seems to be, yes: youth growing up in townships are advantaged over those that migrated from their rural home to a township, driven by networks and social structures that support them.

Happiness in doses and why burning cars gets attention

All participants were confronted with the question of what causes them happiness, and what causes them anger.

Nyembe (2017a) aspires being recognised as a happy person. The thoughts of "fixing myself" or "uplifting his home in KwaZulu-Natal" add to his aspiration, eventually to "have money to be like other people". All this, however, requires him to have a job.

Dlamini et al. (2017) reply to the question on happiness that they drink to be happy and escape their problems: "[we drink] big time man, every fucking weekend. […] We really want that happiness inside you." They explain that they are "always thinking [about] fucking […] problems [and drink] just to forget just – just for that piece of moment". They drink and gamble to escape the desperate reality and have a little fun for the moment. The same group also highlights the joy they have from gambling, which reflects in their excitement while talking about their upcoming plans.

Other drivers for happiness were mentioned as "live a life with a future" (Gamede et al., 2017) or "my family and kids" (Armstrong, 2017).

Causes for anger were mentioned as "that I have to go so far to find work" (Gamede et al., 2017), "when I vote still nothing changes" (Dlamini et al., 2017), "corruption […] if I don't have money I can't get a job" (Mthembu et al., 2018), insults, and embarrassment.

Based on Nyembe's (2017a) lack of a job and an income, his anger arises from embarrassment: he cannot wash himself, he has to ask for food donations, he is hungry when interviewed.

Dlamini et al. (2017) vividly describe their frustrations. One of these are the public toilets as described in the Katlehong chapter are not cleaned by the municipality for weeks. Destructive protest seems to be their only hope to be heard: "[We] burn the tires, we do some *toyi-toyi* [protest] and […] you stop them and then you burn the car and then they'll come to fix it. You see they don't care but they need for us – they need for us to be violent in something that – they need violence, because our children are playing here and then when – when we are tired we will end up closing this road and then burn their cars."

The responses to the question over "what makes you happy" were mostly hypothetical, replying to what *would* makes them happy. On the contrary, the questions regarding causes of anger were very specific. This can be interpreted that anger is a real, an everyday feeling, whereas happiness is a feeling that is hypothetical, and far in the future.

Why the banana stand did not last and why foreigners have to run

Taking initiative and starting your own business to generate income is an obvious possibility. Indeed, many participants report on their ventures and business ideas.

The mielie-meal stand: This is some participants' experience with foreign operated ventures. Dlamini et al. (2017) explain the dynamics in the mealie-meal business. Mealie-meal is a maize flour used to cook *pap*, the most common staple food in the country and region. In their

neighbourhood, there were South African and Ethiopian vender of maize, or mielie meal. The Ethiopians however charge a lower price: “the 12.5 kg [mielie-meal] is hundred and five rand [at the South African operated stand…] but these Ethiopians they can sell you for eighty rand. So, we were running to them, […but] then we make our homeboys to be angry and then they go to attack them so that they can chase them [away]. That’s why now you cannot see their shops.” The South African traders lose on business and lose the product, but by eliminating their competition they can artificially keep the prices up: “you end up your stock there getting rot and then you leave to sell to do the business and then they will take up the prices when they see that there is no competition they take up the prices.”

The banana stand: One participant explains a similar situation occurred to him. He sold bananas at ZAR 2.50 and apples at ZAR 2, which “got a lot of profit”. Then a Zimbabwean woman set up stand close by, and undercut his prices, selling bananas for ZAR 2 and apples at half price: “[she] sell[s at] low prices always, because she wanted me to fail so that she can got more profit than me.” The participant eventually closed his operations: “I lose that thing because there is no succeed.” Inquiring as to why he did not lower his prices to stay competitive, he answered that the Zimbabweans use a purchasing cartel, aggregating their purchasing power and running a central stock: “[they] share the stock and then they sell so that’s why they got low prices. So I’m going alone and then I get this bunch of bananas so I need the profit there” (Dlamini et al., 2017).

The spare parts shack. This is a Thokoza participant’s well-operated venture. Next to the taxi rank, this woman set up a spare parts shop in a shack. She very proudly explained her operations and presented her shop. She sells low value spare parts for the taxis, as she does not have the funds available for higher value parts. This, she explains, is the next step as soon as she gathers more capital. She can live well off her business, although she saves money for a planned expansion (Gamede et al., 2017).

The muffin business: In Durban, a participant mentioned an idea she had not operationalised. The question as to why not to start your own business is self-evident. So, this female participant mentioned she wanted to bake and sell muffins in her community. She, however, had neither started nor tested her idea. She was held back by financial fears, thinking she needed a significant amount to start, which she did not have. Challenged on breaking it down to a specific amount, she mentioned needing about ZAR 150 for ingredients, after thoughtfully calculating. She then was challenged by the researcher as to whether she did not know family, uncles, aunts, cousins from whom she could borrow the money, at least for a day, as she could have repaid

them the next day after selling the muffins. She was seemingly thrown off by that question, as she had not considered this route (Dasa et al., 2016).

All of these examples, but particularly the last case, highlight that there is entrepreneurial drive, but a significant lack of self-confidence to initiate a trial and iterate the operating model to suit the market environment.

Figure 39: Impressions from the field - Thokoza

Source: own photo

Nobody cares about the oracle

Asking about one's future highlights the fears and hopes of this person. So, the question as to whether you could ask an oracle one question about your future, which question would you ask, was added in the field interactions. Because the word and concept of an oracle was not commonly understood by participants, it was explained at length.

The questions participants asked, however were not particularly forward-looking: "When will I find a job? Can you take my number if you hear something" (Nyembe, 2017a), "Do you have recommendations how to get a job?" (Dlamini et al., 2017), or "will my life ever change?" (Gamede et al., 2017).

The questions the participants asked were for the now, that is, for their immediate need, highlighting their desperation for finding employment.

Is it help or a scam?

What happens if someone in despair for an occupation stumbles across an opportunity that might help in the job-hunt? Armstrong (2017) reported that he had received a text message from "Harambee". Harambee is the largest employment bridging provider in South Africa, set up as public-private-partnership addressing hundreds of thousands unemployed youth to coach them on how to find a job. Harambee assesses the skill level, including for example language skills, CV writing skills, and personal interest to guide the youth. The SMS offered free registration for one of those assessment dates.

Armstrong, however, had never heard of Harambee before, and was afraid this might be a scam, one of the many he had heard of. Consequently, and instead of conducting further research, he ignored the SMS, missing out on the opportunity to learn and engage.

4.3. Eleven drivers for youth employment in South Africa

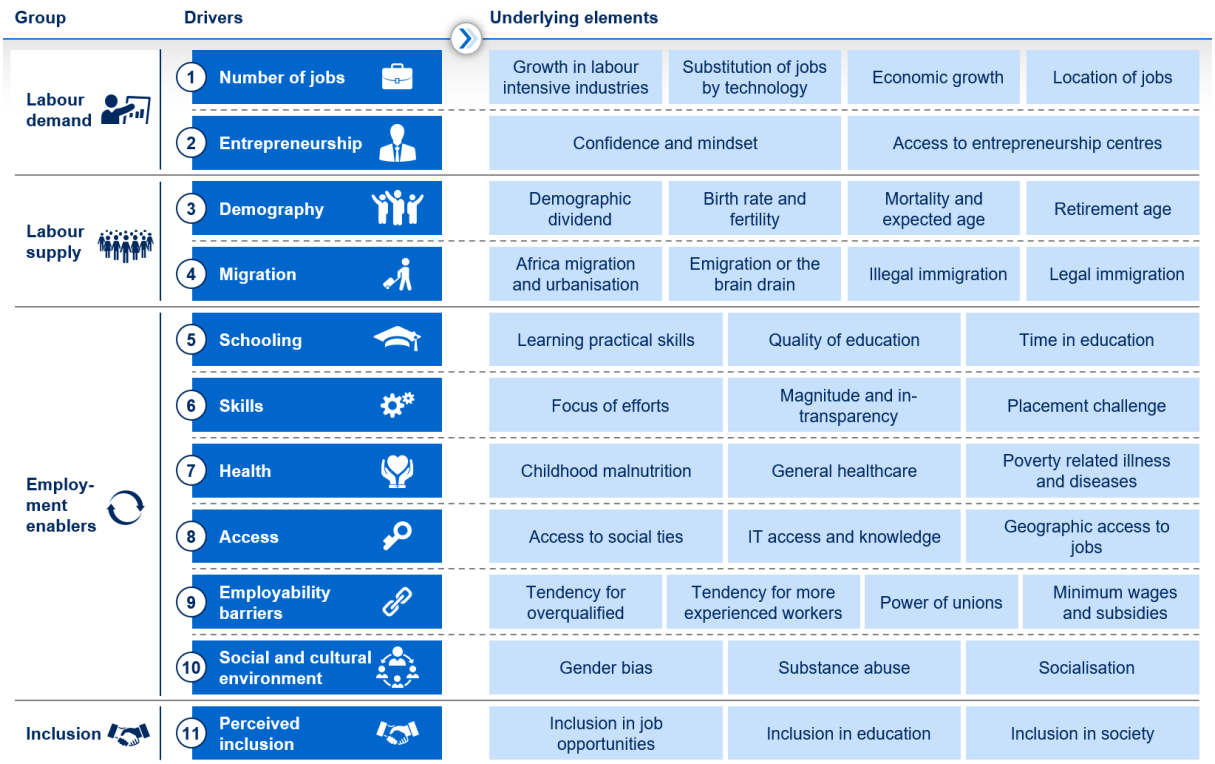

Figure 40: 11 drivers for youth employment

Source: own illustration

Aggregating the insights from literature, the 26 field research locations, 90 expert interactions, and statistical analyses allows for an extensive as well as an intensive overview of what drives

employment. Eleven drivers and supporting elements are the result of this mixed methods approach.

4.3.1. Developing eleven drivers

In order to develop the detailed and solid drivers for employment and their underlying supporting sub-drivers or elements, this research followed six steps.

Firstly, economic and anthropological literature provide a first cut of eleven mutually exclusive categories influencing employment (see *Chapter 2.5.3 Drivers for employment*, pp. 55 f. and *Figure 9: Employment drivers*, p. 56).

Secondly, experts were interviewed to validate the drivers, built on the literature overview. This first round of expert interviews was unbiased, as the experts were asked to state what in their experience drives employment. This allowed the list of drivers to be tested for completeness. Experts mentioned the number of jobs 29 times, entrepreneurship 11 times, demography 13 times, migration eight times, schooling 39 times, skills 41 times, health 33 times, access 35 times, employability barriers 44 times, social and cultural environment 21 times, and perceived inclusion 25 times (as illustrated in the blue bubbles in *Figure 41: Developing 11 drivers for youth employment*, p. 117).

The results of steps one and two is a list of eleven mutually exclusive and comprehensively exhaustive drivers for youth employment. In the next steps, the supporting elements for each of these drivers, namely the underlying framework, needs to be developed.

Thirdly, the statistical analyses helped to identify elements supporting the development of the *number of jobs*, *demography*, and *health* (as illustrated in light orange in *Figure 41: Developing 11 drivers for youth employment*, p. 117).

Fourth, the extensive fieldwork provided significant context to nine of the eleven drivers. In total, 21 supporting elements are drawn from the ethnographic fieldwork, that is, more than from any other source of research (as illustrated in dark orange in *Figure 41: Developing 11 drivers for youth employment*, p. 117).

Fifth, expert interviews were combed through so as to identify missing supporting elements to complement the findings in the statistical and the field research. Particularly when it came to *number of jobs*, *migration*, *health*, and *employability barriers*, the experts interviews added additional insights (as illustrated in medium orange in *Figure 41: Developing 11 drivers for youth employment*, p. 117).

Steps one to five provided a holistic framework for youth employment drivers and supporting elements. However, the statistical, expert, and field insights provide a structure, but: (1) not necessarily the content for the South African context, nor (2) quantifiable data.

Thus, sixth, each underlying factor was researched to provide relevant and, where possible, quantified contend in the South African context. Academic papers, a round of deepened expert interviews, and publications in reputed magazines provide the content. These are described in the following *Sub-chapters 4.3.2 Number of available jobs* (pp. 117 ff.) to *4.3.12 Perceived inclusion in society and opportunities* (pp. 149 ff.).

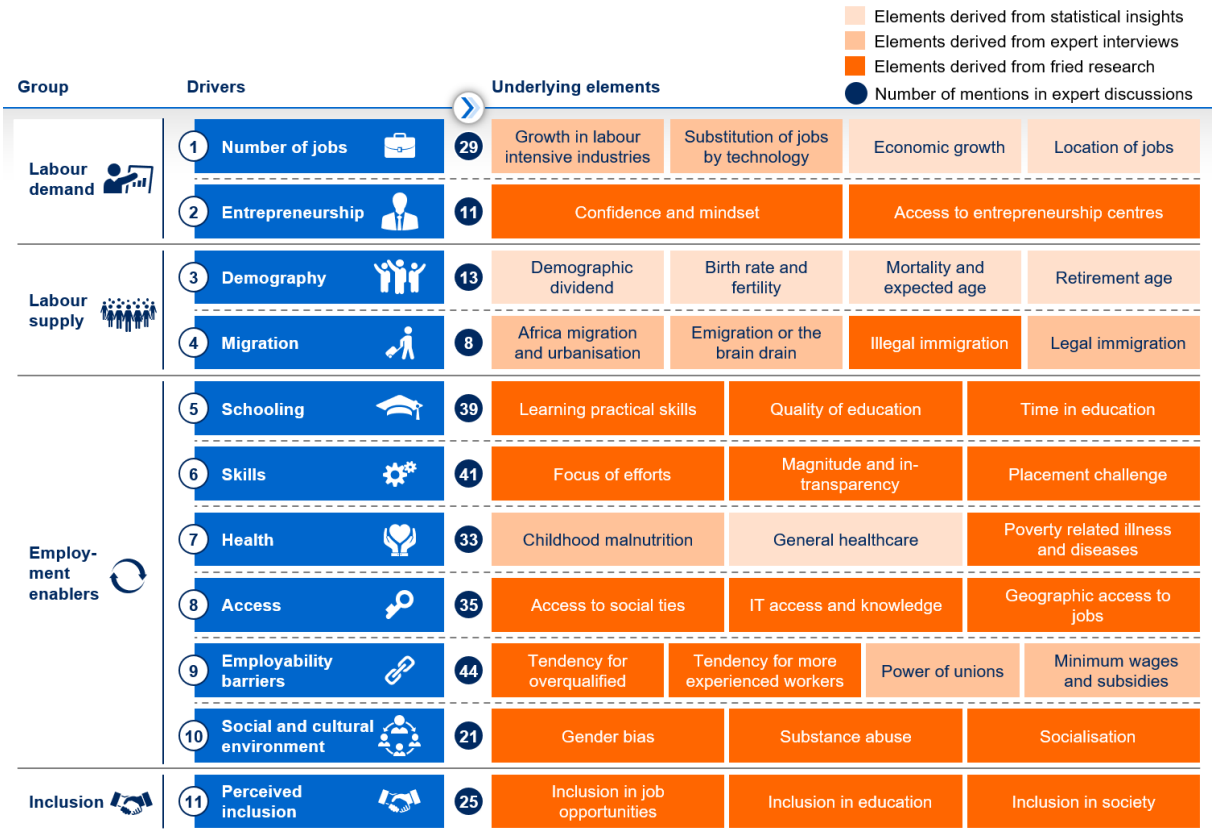

Figure 41: Developing 11 drivers for youth employment

Source: own illustration

4.3.2. Number of available jobs

As a driver for employment, the number of available jobs is highly relevant, however, does not necessarily cause direct employment for youth, such as the available jobs can require higher qualifications than young people have, where the jobs are for more experienced and older workers, far from economic hubs. To understand this challenge better, the theme of job availability looks firstly at economic growth as a driver for new jobs. This growth only supports

employment if, secondly, growth comes from labour-intensive industries. Thirdly, further to this, particularly low-skilled jobs can be substituted by artificial intelligence (AI), especially as this research is looking as far ahead as 2035. Fourth, the location of available jobs needs to be geographically proximate.

Economic growth and stability

The South African economy is nearly at a standstill, with GDP growth of only 1.3% in 2017, still higher than the expected one percent. For 2018 the GDP growth rate is expected to be 0.8%, while the forecast for the next years looks slightly better, with up to 2% projected growth by 2020 (AFP, 2018; Statistics South Africa, 2018b). However, with COVID-19, the economic impact on South Africa will be severe. Driven by the local lockdown and the affected world economy, the number of available jobs in South Africa will most likely decline in the midterm.

In 2017, South Africa lost its investment grade for government-issued bonds up kept by the international rating agencies "Fitch" and "Standard & Poor's", due to a lack of trust in the country's political activities, highlighted by the cabinet re-shuffles under the former president Jacob Zuma. The downgrade hampered direct foreign investment into the country, as well as devalued the Rand, and increased local interest rates (AFP, 2018; Statistics South Africa, 2018b).

South Africa has implemented certain laws to overcome the structural inequalities created by apartheid. Most centrally and visibly is the legislation around *board-based black economic empowerment* (B-BBEE), where corporates receive a rating according to their contribution to B-BBEE. The rating incorporates: (1) *black ownership*, (2) *black management and control*, (3) *employment equity* (b*lack* employees), (4) *skills development*, (5) *preferential procurement*, (6) *enterprise development*, (7) *socioeconomic development*, and (8) *qualifying of small enterprises*. A high rating increases the chance of winning government tenders. As the rating is carried through the supply chain, those affected include companies that do not directly apply for government tenders (Department of Trade and Industry South Africa, 2007). B-BBEE opened the door for upward mobility, creating an extremely wealthy, but a small *black* upper class.

In combination with bad governance, B-BBEE also provided the ruling party with justifications to place cronies into high positions. "A tradition of "deploying" party loyalists to run state-owned firms transmogrified, under President Zuma, into a habit of planting cronies into positions that enabled them to steal," comments *The Economist* (2019a), where, to bluntly continue: "Mr. Zuma hollowed out institutions, appointed crooks and liars to senior jobs and ensured that

the watchdogs who are supposed to stop corruption were muzzled", leading to, in its most extreme case, *State Capture*. *The Economist* (2019a) quotes that a compliant government under the era presided over by President Zuma would have under alternative circumstances resulted in the South African economy being 25% larger than it is today.

With President Ramaphosa's takeover of the presidency from Zuma in early 2018, he, being a "a cleaner and more competent politician" (The Economist, 2019b) promised to investigate State C*apture* and bring the offenders behind bars. Over a year later, no one has been jailed.

Ramaphosa also triggered governmental discussions on "expropriation without compensation". This conversation is popular amongst disadvantaged voter groups, however not amongst businesses, international investors, and property owners. It is generally held that such an initiative could further weaken international trust in South Africa's economy (Leon, 2018).

In addition to the slow economic growth and the decreasing international trust in South Africa, the wealth distribution is dangerously one-sided, where 1% of the population account for 42% of the country's wealth. This gap is said to be ever-widening (Allianz, 2017; Credit Suisse, 2017; Mahlakoana, 2018).

Growth in labour-intensive industries

Economic growth supports employment, but only if the growth reflects in newly created jobs. In South Africa, the national employment rate in labour intensive industries like agriculture, mining and manufacturing dropped from 30% in 2000 to 19% today. 72% of employment today is in the service-related industries, which typically require higher skill sets and are therefore inaccessible to undereducated youth (Altbaker & Bernstein, 2017).

Not only did the employment in labour intensive industries decrease, but the economy as a whole saw the number of available jobs decrease. There were approximately 170,000 less jobs in 2016 than in 2008, equating to a loss of 60 each day. During the same time period, the young population grew by 1,260,000, equating to 380 new-borns per day. This discrepancy shows the already severe and still worsening state of South Africa when it comes to youth employment (Altbaker & Bernstein, 2017, p. 2).

Substitution of jobs by technology and AI

With progressing technological advancement, the substitution of human work by machines, robots for physical work and artificial intelligence for intellectual work (the so-called "fourth industrial revolution") is a risk for employment. McKinsey research claims that Artificial

Intelligence (AI) will contribute to growth three to four times more by 2030 than it does today. This will drive the divide between countries prepared for the fourth industrial revolution, mostly first world countries, and countries not prepared for it. Consequently, this shift will not only impact the divide between countries, but also within them (McKinsey Global Institute, 2018; Schwab, 2016).

Even though job substitution might be more prevalent in highly developed countries, 41% of all work activities in South Africa are subject to automation, including office administration, tellers at banks, drivers, or warehouse logistics.

The on-going substitution of work will create jobs that do not exist today, as the required skill sets are largely unavailable in the current workforce. 65% of children entering primary education today will work in the kind of jobs that have yet to be invented, such as robot technicians knowing what to do if the electricity is down, user interface developers (UI), or user experience designers (UX).

This transition from traditional work to future jobs has major implications for companies and society at large.

Corporates have to find new sources for hiring, incorporating a changing skills set. It is not unlikely that universities will experience a challenge educating youth in the traditional several-year programmes. Shorter and more practical courses might develop new skill sets better, possibly in collaboration with businesses. Secondly, jobs need to be redesigned. This includes the content of the job description, but also prerequisites, working hours, or working locations (such as remote work). It is therefore a question as to whether current employees can be reskilled, or new employees need to fill the roles with changed job profiles. Surely both will be required. The jobs of the future will require an increasing emphasis on soft skills, such as like interpersonal skills, judgement, and complexity management. It is likely that the workforce will become younger, as digital nativity is required for many of the new jobs, while workers that have been doing the same job for decades might be less willing and able to fill new roles. Consequently, the organisation needs to be redesigned. The transition of job profiles might incur significant layoffs, but also large hiring so as to eventually lead to lower employment rates, while having a higher investment in machinery, that is, a shift from labour to capital.

This transition certainly affects society, where layoffs are unavoidable in the long run. Unions, historically strong in South Africa, will need to understand the changing environment and

cooperate with employers to achieve competitiveness and a high rate of employment, even if it is in new fields.

The question arises as to what the population, particularly the youth, will need to survive if there are hardly any jobs left. The broadly discussed and even piloted call for a universal basic income (UBI, see *Chapter 2.1.4 Dynamics in unemployment*, pp. 18 ff.) is the widely accepted solution for the job loss due to automation. Even in South Africa, for the Democratic Alliance, the main opposition party has demanded a basic income already in 2002. A UBI would be fair and would help break up ossified inequalities like the gender wage gap, social transition, or ethnic economic differences. However, the major trials in Ontario, Canada, and Finland, or even a smaller trial in Namibia, appear to have failed, where the results are not clear or not academically rigorous. First indications are not necessarily positive, for example, the Namibian government has simply claimed that its people had become lazy. Social grants are considered by some as the biggest mistake in South Africa, as they do not incentivise people to become economically active (Sarupen, 2018a). The introduction of a UBI at this stage is widely considered too early for a developing country as South Africa (AllAfrica, 2002; Chui, 2018a, 2018b; Lacey, 2017; Lewis et al., 2005; Mac Guill, 2018; D. Mahajan, 2018; Manson, 2018; Sounding Board et al., 2017; The Economist, 2016a, 2017d).

Monga (2018) and McGaughey (2018) argue on the contrary that, throughout world history, technological advancements and the introduction of new machines have only replaced human labour in the short term, but created many more jobs than they destroyed in the long term. As the adage goes, “humans will find other things to do”.

The transition to future jobs thus bears an opportunity for youth in South Africa, but only for educated youth. And those are not the ones who currently need a job. The education output needs to dramatically change in order to equip the youth with an adequate skill sets.

Aggregation of jobs in economic hubs

Economic growth only entails employment if the newly created labour and the supply of a labour force geographically overlap. The powerhouses in South Africa providing jobs in SA are the metro areas, particularly the Johannesburg-Pretoria metro, Cape Town, Durban, and Port Elizabeth. New jobs are most likely to be created there.

In urban areas, the highest density residential areas are inner cities and townships, both mostly with a disadvantaged population. The available (formal) jobs, however, are typically in business areas like Sandton or the Cape Town CBD, or in industrial areas that are further away from

townships, with limited accessibility, like Kempton Park in Gauteng. The reason for this is apartheid spatial design, meant to limit *black* urbanisation, which constitutes a challenge that has not sufficiently been addressed since the installation of formal democracy in 1994 (more on this in *Chapter 4.3.9 Fair access to* job opportunities, pp. 141 ff.).

However, the areas with the highest youth unemployment are rural areas (see *Chapter 4.1 Statistical insights on youth unemployment*, pp. 74 ff.), particularly remote areas like Bushbuckridge, where the youth unemployment rate is about 75%, which has barely any job opportunities (Schirmer & Bernstein, 2017). The jobs are simply not located where the unemployed youth are who so desperately need them.

What can change

The economy and the number of jobs can change dramatically over time. A political crisis, a natural catastrophe such as running out of water, a pandemic like “Corona”, social unrest, a global economic crisis, and many more, can cause the economy to bottom out. On the other hand, the economy may well also flourish through good governance, a growing consuming middle-class that can stimulate the economy, and unforeseen foreign investments into the country.

Based on internal (South Africa related) or external (non-South Africa related) factors, self-inflicted or inflicted by a third party or higher power, the South African economy and with it, its jobs can head upwards or downwards, whether slowly or radically.

4.3.3. Access to entrepreneurship capabilities

Youth can find an occupation with an existing company, or through becoming self-employed and starting their own business. The self-employment rate amongst the youth is rather low (see *Chapter 3.2 Statistical data*, pp. 61 ff.), so it is a question as to why more young people are not starting their own business. The youth have ideas, but their hard and soft skills may be insufficiently developed. It is also worth noting that townships have huge purchasing power, which is a potential breeding ground for entrepreneurs. The World Bank estimates that Diepsloot alone, for example, as one of the medium-sized and notoriously dangerous Johannesburg townships, nonetheless has a GDP of ZAR 671m (Asche, 2015; Mahajan, 2014).

Confidence and mindset

Several young unemployed South Africans have business ideas, even if they are small. A girl in East London wanted to start a muffin bakery and sell in her neighbourhood in a township. She did not know where to start, being pre-occupied with financial concerns. She also did not give it a try, not being self-confident enough to explore.

A study investigated start-ups in Africa to understand the impact of hard skills on the one side, and soft skills on the other. Start-ups trained on hard skills, formal business administration, e.g., accounting, management, human resources performed worse than start-ups without any training. The highest performance was achieved by start-ups given psychological training, such as goal setting, feedback mechanisms, managing setbacks, and showing the strongest results (Basardien, Friedrich, & Parker, 2013; Solomon, Frese, Friedrich, & Glaub, 2013; The Economist, 2017d). Even short, confidence-building courses like the three-day boot camp of the Khonopreneur Academy can help youth to generate an income with a high success rate.

The path to success is therefore described by confidence building youth as needing to literally step outside to trial-and-error of business ideas, in order to plant the seed for self-employment and generating income.

Access to entrepreneurship centres

Besides starting new enterprises, growing them from the first to the second and third employee is crucial. Structured support is required. South Africa has numerous entrepreneurship support institutions. *The Aspen Network* lists 340 providers for entrepreneurship support in South Africa (Aspen Network of Development Entrepreneurs, 2017), where numerous national and provincial government agencies, such as the *extended public works programme* (EPWP) or the *National Empowerment Fund*, two state owned enterprise programmes, such as the *Eskom Economic Empowerment Programmes*, two provincial government agencies, such as the *Gauteng Enterprise Propeller*, one municipal government agency, *JoziHub*, private sector institutions, *National Empowerment Fund* such as the *South African Black Enterprise Forum*, business incubators and hubs, such as the *Awethu Project*, as well as twelve educational institutes such as business schools, and nine entrepreneurship skills training programmes, such as the *Branson Centre for Entrepreneurship*.

However, most of these institutions and programmes do not target unemployed and under-qualified youth. Still, in helping to grow small businesses, new incremental jobs will result (z.a.zen consulting, 2017).

What can change

Unemployed young South Africans are currently not being motivated, trained, and mentored to start their own businesses, and the efforts to do so are still relatively few and far-between. A programme reaching across South Africa, including rural areas, enforced through existing structures, can make an existential change in the life of the unemployed and their families.

4.3.4. Demographic shifts

According to the simplest labour market perspective, there is supply and demand for labour, supply being the workers and demand being the jobs (see *Chapter 2.1.4 Dynamics in unemployment*, pp. 18 ff.). To achieve higher employment rates, there need to be more jobs or fewer people wanting to work. *Chapter 4.3.2 Number of available jobs* (pp. 117 ff.) discussed the labour demand side of this issue, whereas the current chapter focuses on the labour supply side. To understand the dynamics of workforce availability, this chapter investigates South Africa's population shifts in terms of birth and fertility rates, mortality rates, life expectancy, and retirement age. Insight into such factors allow for an understanding of whether there is demographic dividend in South Africa.

Birth rate and fertility

The fertility rate in South Africa is 2.34 (latest figure as of 2015), meaning each woman on average has 2.34 children. This rate dropped significantly from 3.66 in 1990. A dropping rate is typically a sign for an improved level of social security that often come hand-in-hand with urbanisation. The more often children die, or the weaker the support system for elderly is, the more children are born per woman.

Other countries with similar GDP/capita, however, have lower fertility rates. Brazil is at 2.07 and Thailand is at 1.54. Child mortality in South Africa is at 75 deaths per 1000. This figure is higher than comparable countries like Brazil, at 23, and Thailand at 18 (Gapminder, 2018).

Mortality and expected age

The life expectancy in South Africa is at 62.4 years of age as of today (World DataBank, 2017). Countries with similar GDP/capita have a higher life expectancy. Brazil is at 72, Thailand at 73, and Costa Rica is at 79. Hardly any developing country has a lower life expectancy (except Angola). No non-African country (other than Afghanistan) has a lower life expectancy than

South Africa. Reasons for this are illustrated in *Chapter 4.3.8 Health of youth and families* (p. 139).

However, the life expectancy has improved. From the 1940s it improved constantly from about 40 years to 64 years in 1994, during the era of Apartheid. From 1994, as Apartheid ended, in just over 10 years until 2006, the life expectancy dropped dramatically by more than 10 years of age to 51 years of age, which is a similar value to that of South Africa in the 1950s. The main reason for this drop was the impact of denying antiretrovirals to HIV positive individuals. From there on in, it has increased again to today's 62.4 years (Gapminder, 2018; Sarupen, 2018a).

The child mortality rate of 7.5% means that of the 2.34 children per woman, 2.16 survive. As women on average become pregnant early, even in their teens, combined with an increasing life expectancy this ratio indicates an overall population growth.

Retirement age

In South Africa, the retirement age is most commonly at 65 years. Citizens or permanent residents and refugees can receive the "older person's grant" starting aged 60 if they do not have any other means of financial income. The grant covers a monthly payment of ZAR 1,500 until the age of 75. Thereafter, ZAR 1,520 will be paid out (Western Cape Government, 2018).

Demographic dividend

The demographic dividend is a "window period for economic growth created when a country's fertility rates decline and the working-age population grows" (Capazorio, 2017). To address this window of opportunity, it is necessary that: (1) the working age population increases relatively to the overall population, that policies allow for accompanying economic growth, and that the transitions happens quickly, as defined in *Chapter 2.1.3 Labour market interventions and their effects on youth* (pp. 14 ff.). Ultimately, however, the demographic dividend will only pay out if the working age population, particularly the youth, participate in economic activities, where unemployment kills the potential for a demographic dividend.

The working age population (16 to 65, see *Figure 42: Demographic dividend in South Africa*, p. 127, the available data on long term projections only provides a split of data in five-year steps) grows by 25% from 2015 to 2035 in absolute terms, and more relevantly by 3.5% in relative terms.

South Africa is in the state of an "advanced transition", meaning that the demographic shift, lower fertility rates, and the lower mortality rate, are in full swing (IMF, 2015). The window of

a growing working age population continues until around 2045, from where on the working age population will shrink. Then, the window of opportunity is closed.

Based on UN projections, there is a logical dependency ratio of 34%. 34% of the population depend on the 66% of working age population. Incorporating the expected growth in growing working age population, there consequently is a theoretical demographic dividend in South Africa.

Practically speaking, a demographic dividend is only of assistance for a country if the working age population does actually work. Half of 18 to 34-year-olds are not working, and about a third of the older generation are not in employment. *Figure 43: Employment distribution in South Africa* (see p. 128) shows the actual distribution of the working population to the unemployed, and the inactive parts of the population split by rural, urban, and total population. The dependency ratio in rural South Africa is 78%, in urban areas 68%, and combined is seventy-four percent.

This huge difference of the theoretical dependency ratio of 34% to the actual ratio of 74% illustrates that there is not demographic dividend in South Africa, due to the vast unemployment.

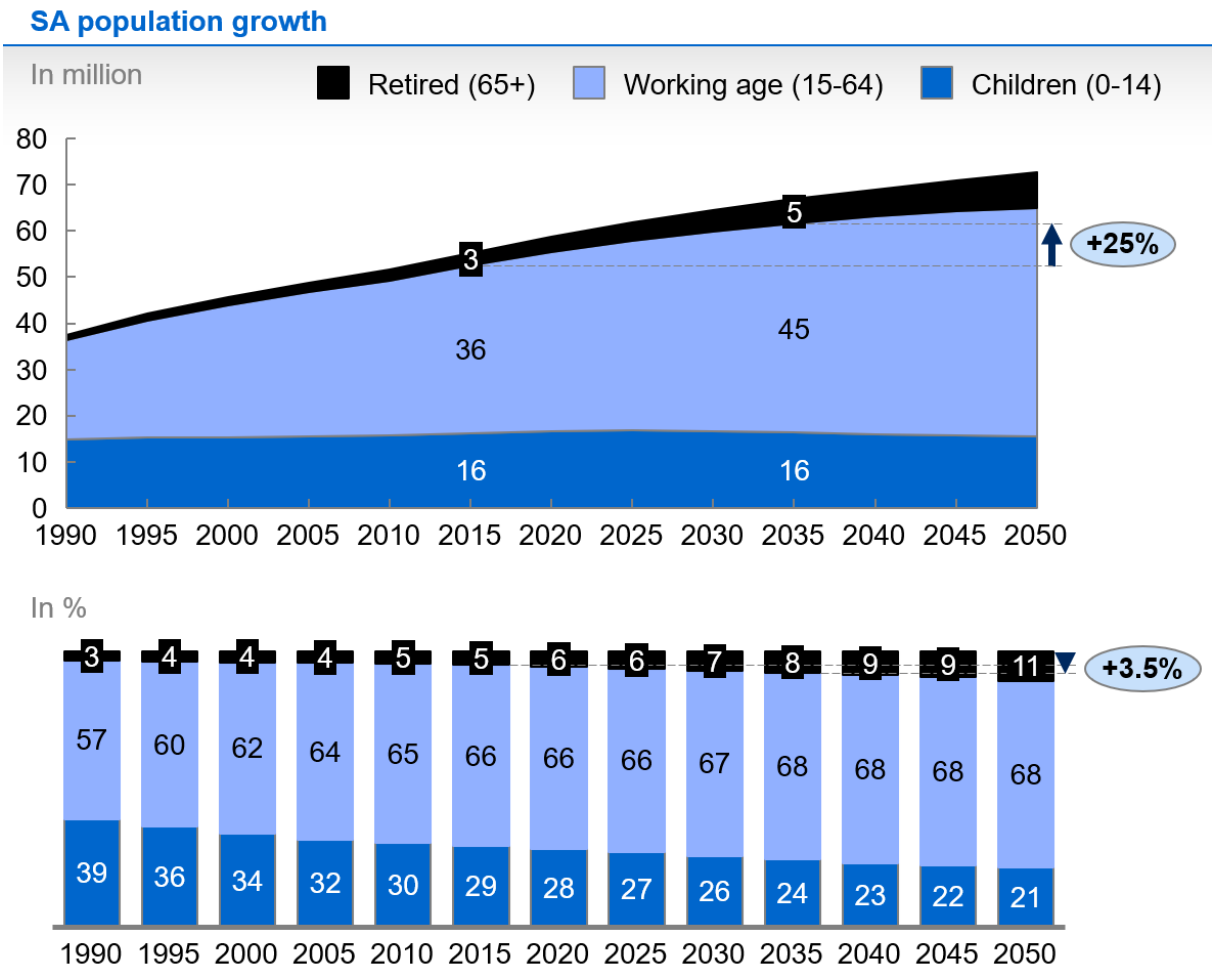

Figure 42: Demographic dividend in South Africa

Source: United Nations (2017b); own illustration

With the extremely high unemployment levels in South Africa, the country is not likely to harness its potential for a demographic dividend, particularly as the demographic shift is already at an advanced stage.

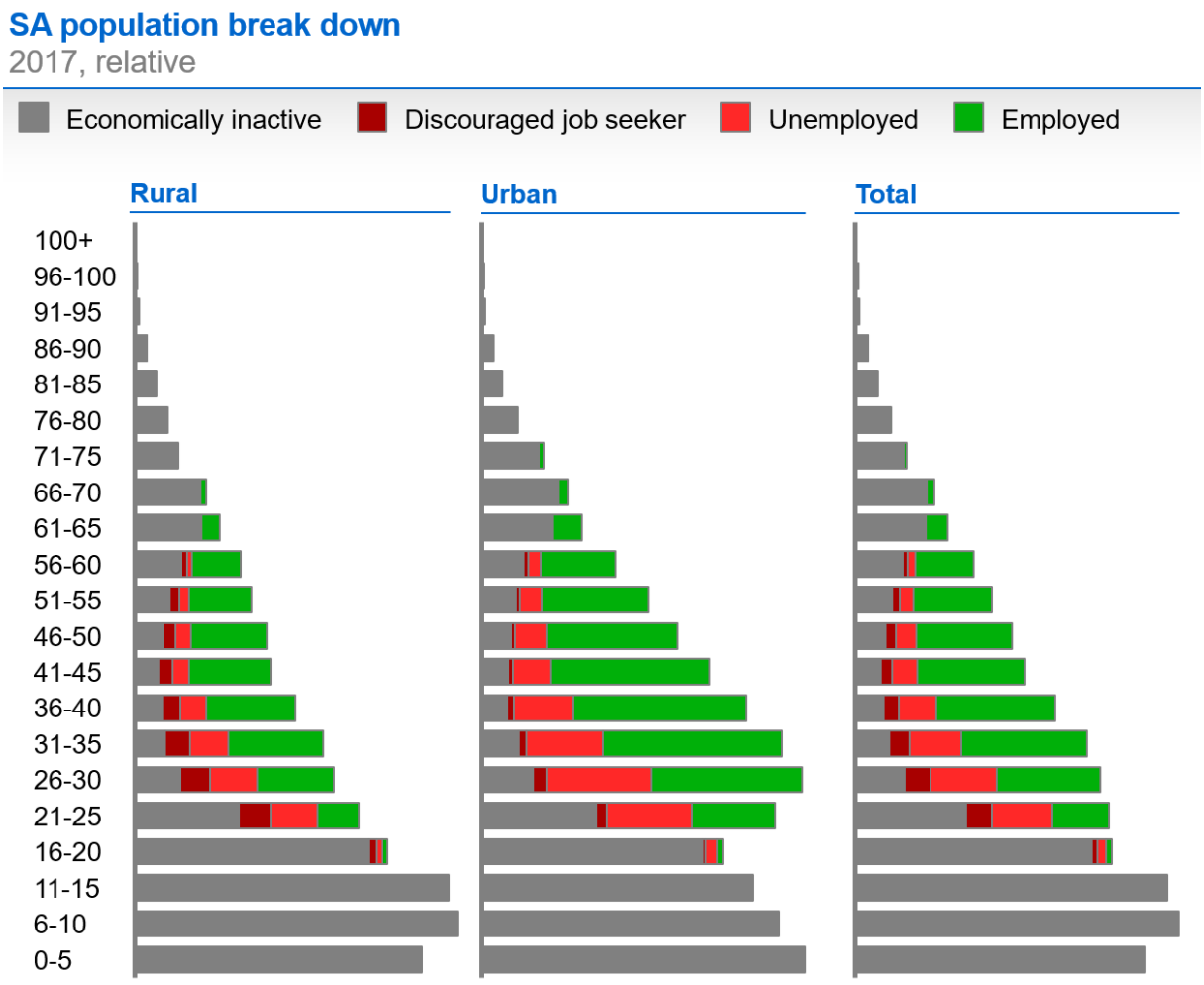

Figure 43: Employment distribution in South Africa

Source: Statistics South Africa (2017b); own illustration

What can change

The UN population forecast is based on extrapolation of existing data, which is as discussed in the scenario chapter, and not necessarily accurate. It however gives an indication of how the population split might look, since population forecasts are typically quite accurate. Cases of inaccuracy are most often caused by wars, which have a historically major impact on the population size and gender split (men die, baby boom after). Natural disasters and health can have an impact as well. In Sierra Leone, the Ebola virus reduced the average life expectancy by 3.5 years from 2013 to 2014. However, the population still grew by approximately 2.3% in the same time period, which is in line with the population growth from 2012 to 2013 (Gapminder, 2018).

4.3.5. Migration patterns

Besides demographic shifts, the supply of labour can also be determined by migration patterns. There can be an influx and an outflux of people into South Africa, which can be legal or illegal, and driven by economic or political matters.

Migration and urbanisation in Africa

32million Africans, that is, 13.4% of the total African population, are migrants living in a country that is not their home country. As many as 16.4m of these migrants live in African countries. A majority 87% of migrants to African countries move to a neighbouring country and 8.9m of African migrants live in Europe, 4.1m in Asia, and 1.7m in the US (Aubry, 2017).

Urbanisation is a global trend as work opportunities, safety, quality of living, education, and upward mobility become superior to a rural lifestyle. Between 2017 and 2050, Africa's urban population is projected to triple. In hand with urbanisation comes an increase in GDP per capita. The UN highlights that policies to enhance rural development in order to slow urbanisation have broadly failed (Kok & Collinson, 2006; United Nations, 2017a).

In South Africa, Johannesburg is projected to grow by about 32% between today and 2035 to 7.5m inhabitants. At the same time, Cape Town will grow to 4.5m, by about 30% (World Population Review, 2019).

Legal immigration

About 6% of people living in South Africa are foreign citizens adding up to about 3.6m migrants. 41% of residence permits given in 2012 were given to youth within an age range of 15-35, with 29% of the permits being employment related. Most foreigners in SA are Zimbabwean with about half a million (Crush, 2011).

South Africa grants work visas to foreigners to work in the country if they possess critical skills. These critical skills contain skills difficult to obtain and rare, e.g., astronomers, but also skills that are obtainable quickly or without formal education, e.g., sheep shearers or welders (Department of Home Affairs, 2014).

Figure 44: Critical skills list (1/3)

Source: Department of Home Affairs (2014); own illustration

Figure 45: Critical skills list (2/3)

Source: Department of Home Affairs (2014); own illustration

Figure 46: Critical skills list (3/3)

Source: Department of Home Affairs (2014); own illustration

Out of 229 critical skills (see *Figure 44*, ff., pp. 130 ff.) 34 would be skills typically acquired in a trade school, called T-VET colleges in South Africa. The fact that foreigners can occupy these manual trades indicates that South Africa does not produce enough diploma holders. Consequently, a higher output of T-VET colleges could reduce unemployment. The *Chapter 4.3.7 Skills development* (pp. 137 ff.) takes a closer look at skills development challenges in South Africa. The critical skills list is said to be revised in 2019 (Sarupen, 2018b).

Illegal immigration

Besides legal immigrants, South Africa attracts illegal immigrants, who come for mostly economic reasons. The largest group of illegal immigrants come from neighbouring Zimbabwe. The economically distressed country produces highly qualified workers, and is said to have the best schooling system in Southern Africa (Sarupen, 2017; Sounding Board, Maree, Chinhimba et al., 2017).

Illegal immigrants come with the mindset to earn money, as well as to support their families in their home countries. Immigrants often find jobs, such as in construction or the service industry, as they are typically preferred over South Africans due to their higher qualification, better work ethic, and a lower share of unionisation. These occupations often happen in township economies, without registration. Illegal immigrants are known for their entrepreneurial activities. In Katlehong, a group of Zimbabweans sold bananas at street corner stands. Due to bundling their purchasing power, and buying in bulk at lower prices, they were able to undercut the price of the bananas sold by the South African stands by half.

The business activities of foreigners and their resulting success and consequent relative prosperity cause discontent amongst disenfranchised South Africans. Xenophobic attacks,

involving the burning down of foreign-owned businesses and chasing away of owners, if not killing them, are not uncommon in townships throughout South Africa, but have decreased since its peak in April 2015. Still, xenophobic violence continues to spread. Electricity shortages or the sale of expired food caused the violent death of foreign nationals in August 2018, where three Somalis were tragically burnt to death in Soweto (Daniel, 2018; Dlamini et al., 2017; Nxasana, 2018; Sounding Board, Maree, Chinhimba et al., 2017).

Emigration and brain drain

About 5% of the South African population lives outside their country. Preferred destinations include the UK, the USA, Canada, and Australia. Health services, doctors and nurses are those most affected by the brain drain (Crush, 2011).

Also, the political situation, causing uncertainty, leads to emigration waves. The first big wave was around the end of apartheid when many *white* South Africans left. Still today, crime and uncertainty of ownership caused by the discussion around expropriation drive people out of their country (Sarupen, 2018a).

What can change

Migration is a factor much more uncertain than demographics. Political, economic, and humanitarian crises in neighbouring countries can entail massive migration, as has happened with Zimbabweans coming to South Africa. Of course, the opposite can happen as well. South Africans are emigrating for various reasons from their motherland to find opportunities elsewhere. The workforce can therefore fluctuate, based on the stability of either the region or of single countries.

A relevant factor in this regard is the level of qualification of the incoming or exiting workforce, and whether their immigration is legal or illegal. Currently, as an example, an illegal Zimbabwean immigrant with an engineering degree is active as an Uber driver (Uber driver, 2018). This reduces the chance for a South African with low qualifications to occupy his job. Going forward, this trend can increase, giving more entry-level jobs to foreigners.

On the other hand, qualified South Africans, who are the foundation for the economic pillars, particularly the banking sector, might emigrate, leaving the country without the talent at the top to drive growth. Regardless of the angle from which this is viewed, the situation for the poorly qualified unemployed could get even much worse.

4.3.6. Schooling system

In debates on unemployment, schooling is the single most mentioned reason for the severe unemployment in South Africa, where its repair will provide the ultimate solution to broader socio-economic issues. The schooling system in South Africa can be observed to be flawed. With its pernicious Bantu education policies, the apartheid regime ring-fenced *non-whites* from educational attainment and economic empowerment. This destructive legacy is still visible today, as one might observe, by apartheid's design. However, it is not the only cause for contemporary unemployment. Even a very good education system, as Zimbabwe still has today, does not solve unemployment, as unofficially 95% of young Zimbabweans are without a formal job (Chaka, 2017).

Time in education

Pupils dropping out of schools are a serious issue. A significant number do not proceed with schooling and terminate their schooling before earning a matric certificate. A case study (Altbaker & Bernstein, 2017) investigated the schooling career of South African children in Grade Two in 2005, equating this to 100% (see *Figure 47: School participation*, p. 134).

Between Grade Two and Grade Ten, there are nearly no dropouts. 19% of the students dropped out between grades Ten and Eleven. 26% drop out between grades Eleven and Twelve. Of those that finish Grade 12, only 68% obtain their matric, while only 77% of the matric holders are eligible for tertiary education due to their pass rates. Of this proportion eligible to access tertiary education, only 45% obtain a university degree.

Out of the children that were in Grade Two in 2005, only 41% pass matric and only 31% are eligible for tertiary education. 14% finish tertiary education.

The reasons for dropouts are the cost of schooling, drug abuse, family support, health, and being forced out by teachers (Sarupen, 2018a). The major cost elements are school uniforms and transportation. This is applicable throughout the schooling period, but particularly for the first year of school.

The dramatic dropout rate of 39% between grades Ten and Twelve, is driven by the following factors: drug dealers specifically target vulnerable pupils at school, starting around age 14 to 15 (Dlamini et al., 2017). At the same age, families start to load the burden for economic support onto their children. The need to earn money for the family often comes from an ill or diseased

family member. To add to these complex factors, the health of the learner is also a frequent reason for dropping out (see *Chapter 4.3.8 Health of youth and families*, p. 139).

Schools get incentivised and ranked by their matric pass rates. The largest South African teachers' union, SADTU being allied with the ANC through COSATU, is known for controlling schools, teachers, and having a significant influence in the South African *Department of Basic Education*, while being said to being corrupt through over-advantaging their members, where it is reputed for example to "buy" positions for them (Maree, 2017a). This influence is abused to push learners that are unlikely to pass matric out of the schooling system in Grade Ten and Eleven (Department: Basic Education, 2016; Sarupen, 2018a). Sarupen (2018a) claims that the only way to reform the South African public schooling system is to put the learners' interests ahead of the teachers' interests.

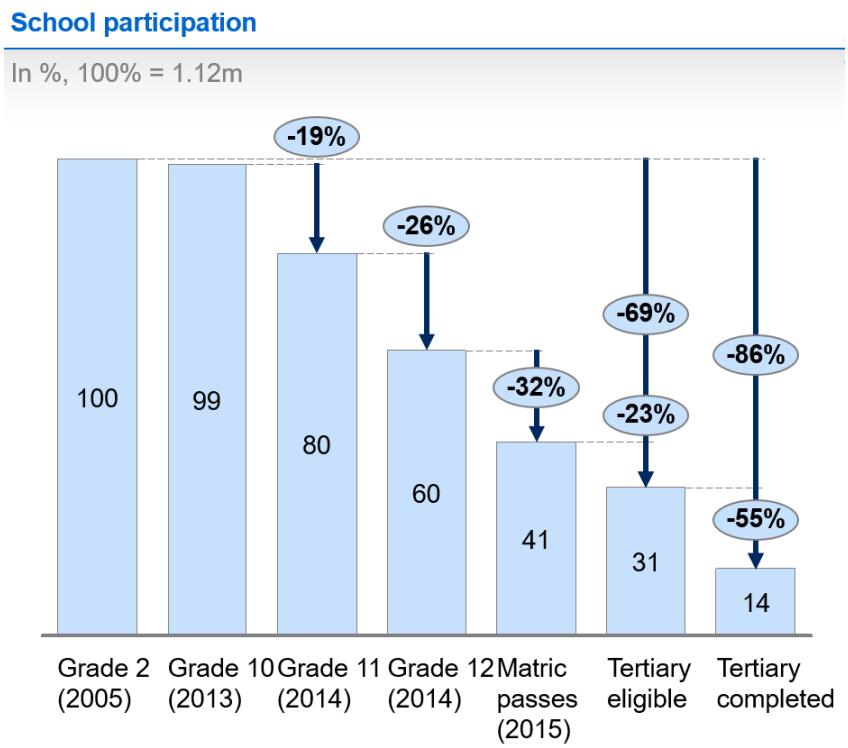

Figure 47: School participation

Source: adapted from Altbaker and Bernstein (2017, p. 4), Statistics South Africa (2017b)

The high dropout rates lead to a low level of qualifications amongst young South Africans. At the age of 25, tertiary education should be finalised, but nearly half of the youth in the age bracket of 25 to 34 have not completed secondary school (43%; see *Figure 48: School participation*, p. 135). Only one third (34%) have finished secondary school, and only 14% have tertiary education (Statistics South Africa, 2017b).

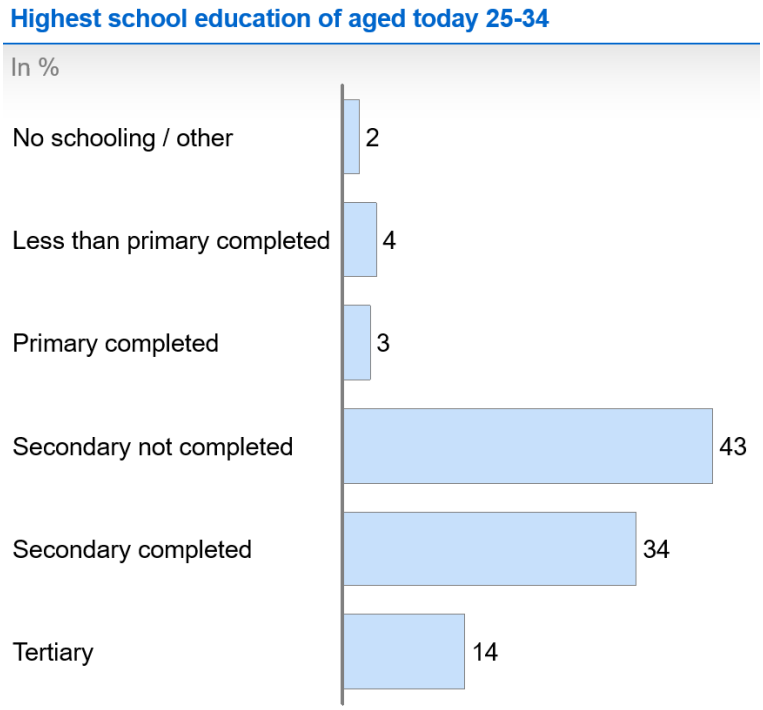

Figure 48: School participation

Source: Statistics South Africa (2017b); own illustration

Quality of education

Besides the dropout rates, the quality of the schooling system in South Africa proves a challenge. It has the most unequal schooling in the world, and one of the worst systems globally. It came out with the worst result for gap between the top 20% of students and the rest. This inequality reflects the country's overall social gap, still mostly split along ethnic lines. Consequently, only one out of 200 *black* pupils can expect to qualify for an engineering degree, compared to one out of ten of their *white* counterparts.

This gap is primarily based on the double-tracked schooling system. Those who can afford it send their children to highly competitive private schools, and others to deficient public schools. In public schools, 79% of teachers do not pass a test meant for their students, highlighting catastrophic quality. This effect is worsened by the low attendance of teachers, who do not show up for their classes (Bernstein, 2017a; The Economist, 2017a, 2017b; G. Thomas, 1997).

As a result, 11.7% of Africans and 10.1% of *coloureds* are illiterate, while 11.5% of Africans and 9.6% of *coloureds* experience difficulties with calculation. Illiteracy and innumeracy of *Indian/Asians* and *whites* are lower, around three to four percent, where the rate is slightly higher for women than it is for men (Statistics South Africa, 2017a).

Although the rates for illiteracy and innumeracy are already high, even those who pass matric do often not have the skills required for employment (Sounding Board, Maree, Chinhimba et al., 2017).

Another challenge South African children face is a language barrier at school. Public schools typically teach in English or Afrikaans. However, children (aged 0 to 14) most often do not speak either of those languages at home. Only 9.1% speak Afrikaans, and 4.3% English inside their family. For the other 86.5% of children, the language in which school subjects are taught is a secondary language, which is not taught as such. The arising challenge is that teachers do not speak the language they teach in as their mother tongue. Also, parents cannot support their children with schoolwork if the taught language is English, and not the vernacular language. Schools teaching in the children's mother tongue and introducing English and Afrikaans as secondary languages could alone improve the quality of education through the inclusion of children by lowering the barriers for learning (Naude, 2018; Nxasana, 2018).

Learning practical skills

Further to this, schools do not focus on practical or soft skills. Typically, internships are not required, neither in school nor at university. As a result, employers complain about lacking practical skills of school and university graduates (Sounding Board, Maree, Chinhimba et al., 2017).

Even in dual (theoretical and practical) education (e.g., TVET colleges), the practical part is often underrepresented, technologies are out-dated, or are not available for the course or programme. For example, the car mechanic diploma does not require one to work in a car workshop. The practical part is done on a discarded and out-dated vehicle (Prinsloo, 2018a).

What can change

As mentioned before, an improved educational system will not solve unemployment on its own. The biggest advantage of a good educational system is social permeability. Currently, the two-tier educational system enforces this inequality. A high-quality school system would allow for a good education, and therefore the increased possibility of upward social mobility.

Alternatively, private schools may be obliged to integrate a certain percentage of disadvantaged students at zero cost, as wealthier pupils and their parents absorb these.

To achieve that, a frankly colossal change needs to happen in the public system, making teachers more accountable and better trained. Alternatively, public, private partnership models

succeed around the world (Barrera-Osorio, Guáqueta, & Patrinos, 2009). South Africa seems to have first successes with a PPP schooling model, as students improve results significantly better, while having lower dropout rates (Bishop, 2018). Additionally, children should have the opportunity to be taught in their mother tongue.

4.3.7. Skills development

In Germany, Switzerland, and Austria, the schooling system provides an alternative for those learners that do not have an aptitude for a strictly academic curriculum, and do not stay in school for twelve years. This alternative is a dual-education or apprenticeship model, in which learners typically enter after Grade Nine or Ten. Dual education combines classroom learning with real life exposure, often in blocks of three months or more, switching from school to employers. Trade in dual education include white-collar professions, e.g., administration, banking, and blue-collar professions, e.g., carpentry, plumbing. The high amount of practical skills, the exposure to the working environment, and the contact to specific employers allow for high placement rates of youth with a dual education diploma. About 80% of graduates in Germany find work within three months after completion. It must be mentioned that German employers are struggling to fill all their trade vacancies (Wolfskämpf, 2016).

Magnitude and lack of transparency of offers

South Africa has a system for qualification levels, the National Qualifications Framework (NQF). NQF level 4 corresponds to matric, successfully completing Grade Twelve. With NQF Level 4, the learner can join a tertiary educational programme. Each year of full-time education corresponds to one level of NQF. A three-year bachelor's degree corresponds to NQF Level 7, and a master's to NQF Level 9. There are more than 16,000 qualifications registered under NQF. For vocational training, there are three different entry qualification frameworks, namely the National Certificate (Vocational), the Nated System, and the Occupational Subframework, all providing different certificates and diplomas (South African Qualifications Authority, 2010).

About 1.3m learners were enrolled in vocational training in 2015 in South Africa. There are four institutional types through which one might undertake vocational training: 50 public TVET colleges with about 260 campuses, private providers including about 205 private colleges, about 7,500 private skills providers, and 125-150 private higher educational institutions. Further, there are Sector Education and Training Authorities (SETAs) organised by industry sectors that provide learnerships. Lastly, there is Community Education and Training (CET) organised in

nine public colleges, and about 2,640 learning centres, formerly known as Adult Basic Education and Training (Department of Higher Education and Training, 2015).

Despite efforts to simplify the magnitude of frameworks, institutions, and qualifications, employers and learners get lost in manoeuvring the system (Maree, 2018; Prinsloo, 2018a, 2018b; Sounding Board, Maree, Chinhimba et al., 2017).

Placement challenge

There is clearly no lack of skills offerings based on the magnitude of available options. It is however questionable as to whether these programmes help youth in finding an occupation. Dropout rates and low placement rates are the key challenge.

Only about 60% of students starting a TVET course will complete a diploma. Most programmes are not employer demand driven, and the courses offered do not correspond with the current or projected needs for skills by companies. Most public or private TVET colleges base their course offerings on funding available from SETAs. The SETAs as a governing body for skills development in various industry branches that ought to steer course offerings, but due to often poor management and opaque data, fail in delivering on this task. TVET colleges train for occupations, but do not necessarily train for available jobs. Placement rates as a result are low. Better programmes achieve up to 75%, worse below ten percent.

Harambee is the largest private-public-partnership employment upskilling organisation in South Africa, dissimilar to a TVET-like institution. Harambee has so far (2017) assessed ~1.5m disadvantaged unemployed South Africans. However, their placement rate with ~40,000 jobs matchings is low, at 2.6% (Hadfield et al., 2017; Magwentshu, 2017; Prinsloo, 2018b; Reddy, Bhorat, Powell, Visser, & Arends, 2016; Sounding Board, Maree, Chinhimba et al., 2017; Urquhart, 2017; Webber, 2016).

Focus of efforts

The fact that there is a disconnect between employers and training institutions reflects in lacking upskilling in the professions in demand. Additionally, the quality of the curriculum is low: employers mostly neither influence nor co-develop the curriculum. As a result, the youth qualify, but their skills are not compatible with employers' needs. Over 70% of the education is classroom-based, and not practical. Furthermore, the practical components taught in colleges are often out-dated. A car mechanic trained on a 1980s Mazda will be inevitably less valuable than someone trained on a modern car.

The *Department of Higher Education and Training* (DHET) identified the need for an employer driven dual education and took action: 'Centres of Specialisation' are supposed to drive occupational qualifications, which are similar to the German model of work experience, workspace-based practical expertise combined with classroom-based theory. They will offer programmes that will be co-developed with employers in order to be more suitable than the NC(V) diplomas, which is mostly theory based (Maree & Zille, 2018; Prinsloo, 2018a, 2018b; Sounding Board, Maree, Chinhimba et al., 2017).

Exploiting the system

Learners in TVET colleges or similar institutions usually receive a stipend to cover transportation and food expenses. Employers that provide the practical experience component as part of learnerships receive funding through SETAs or B-BBEE-related tax breaks, re-payments, and BEE score related benefits, usually preferential treatment in tenders.

If a youth does not find employment after the completed learnership, it is therefore beneficial to start a new learnership in order to have a source of income. Similarly, employers are incentivised to conduct learnerships without having a specific need for a learner, not with the intention of hiring the learner after he/she completes a learnership (Prinsloo, 2018a; Webber, 2016).

What can change

The disconnect of employers, training institutions, and youth, leads to an untransparent jungle of offerings, none of which are employer-demand driven, nor employer co-developed. A strong player linking these three interest groups and driving a real demand-led approach can revolutionise skills development in South Africa and bridge the gap of frustrated employees and the huge number of unemployed youth.

4.3.8. Health of youth and families

Health is an enabling factor for youth employment, as it can either affect the youth directly or indirectly, due to family members being affected. Either it can lead to dropping-out or missing of classes of the youth, to a reprioritisation of earning income over visiting school, and taking over responsibilities in the household, deviating attention from education (Moonilal, 2017).

General healthcare

South Africa provides a dual health care system, where a private, highly specialised and internationally reputed system, and a basic public and free system. Only ±14-17% of all South

Africans are covered by health insurance, granting them access to the private system. Particularly affected are *black* South Africans, of whom, only ±7% have access. The private sector attracts most spending, and with 73% of GPs, also the most health professionals. The public system is left underfinanced, causing deteriorating infrastructure and low doctor-to-patient-ratios. Although South Africa's health system is expensive (8.3% of the GDP compared to 5% recommended by the WHO), health outcomes are worse than in countries with comparable income (Brand South Africa, 2012; Gapminder, 2018; Johnston, Spurrett, & Bernstein, 2011).

Poverty-related illness and diseases

The major poverty-related diseases that can also be found in South Africa are tuberculosis (TB), malaria, HIV/AIDS, cholera, and malnutrition. An alarming 16.6% of South Africans (aged 15-49) are meanwhile affected by AIDS. TB is an illness with a high co-infection rate for HIV infection, with approximately 70% of TB patients are HIV infected. About 10% of South African children, roughly 2m, are AIDS-related orphans (Singh & Singh, 2008; Stevens, 2004).

HIV/AIDS is therefore tearing families apart and burdening the youth. The disease comes with a high level of stigmatisation and is attended by a low level of social awareness. Particularly *black* South Africans do not want to be tested, as they are afraid of social exclusion. Unidentified and untreated infections lead to new infections, low quality health, and early death (Sarupen, 2018b).

Infected and untreated parents do not only risk their children being infected, but as they lose the capacity to work also burden the young generation with having to take care of them, to earn money, and to take over the responsibilities for heading the families.

Childhood malnutrition

Childhood nutrition is particularly relevant for the development of the brain. Malnutrition causes stunting (poor growth), marasmus (too little weight), kwashiorkor (protein deficiency), or vitamin and mineral deficiencies, resulting in attention deficit disorder, impaired school performance, decreased IQ scores, memory deficiency, learning disabilities, reduced social skills, reduced language development, or reduced problem-solving abilities.

About one fourth of children under five years of age are stunted, 12% are underweight, and 5% wasted, (both) due to malnutrition.

Exclusive breast-feeding in the first six months prevents malnutrition in early age, but only about 25% of South African babies receive this. In contrast, 55% of the population over 15 are obese, with a rising trajectory (May, 2016; UNICEF, 2017; Winnie, 2018).

What can change

Health as an enabling factor is a necessary basis for a young person to contribute in an economy. Improving education around health issues reduces the risk of deaths and health-related school dropouts. A rising middle class allows more South Africans to benefit from health insurance, and to gain access to the private health system.

4.3.9. Fair access to job opportunities

In an environment with a high number of vacant jobs and skilled unemployed people, there should be no unemployment. Access to jobs and job opportunities is a crucial factor in reducing unemployment. In a country that is as unequal as South Africa, the roots of which are the policies of apartheid, but which have mostly not been reduced thereafter, access for the disadvantaged parts of the population is a challenge: geographic proximity, access to an IT infrastructure for job search and application, and access to social ties.

Geographic access to jobs

Segregation of ethnicities was the underlying principle of apartheid. One of the techniques to enforce segregation was the relocation of people of colour. Townships were built far from city centres, having geometrical layouts, with controllable entry and exit points, zoning according to ethnicity, and even language and so-called homelands, where areas dedicated to the *non-white* South African majority were established far away from centres of colonial socio-economic opportunity.

The post-apartheid government paradoxically re-enforced spatial inequality. Instead of building high rise buildings in proximity to commercial centres, informal settlements were converted to formal settlements, government-financed houses were given to the previously disadvantaged including title deeds, but these were in remote townships, or in the former rural homelands, where there are neither jobs, nor effective public transport systems.

The South African public transport system is notoriously underdeveloped, and poorly run. The rail and tram system functioning during apartheid either stopped its operations or became unreliable. There are on-going efforts to re-boot the public transport system. In Johannesburg, the

Metrobus system started in the 2000s, which was added to by the competitive *Rea Vaya* bus system in 2009, designed for outlay in advance of the *Soccer World Cup*. In 2012, the pricey Gautrain was introduced for white collar commuters and airport transfers. Tuk-tuks and ride hailing services, like Uber, were added to the portfolio, but likewise target middle to higher incomes.

The backbone of the transportation, however, still is the privately-run mini-bus (Toyota Quantum and *Toyota Hiace Siyaya* taxi) and mini-van (*Toyota Avanza*, called *Amaphela*, or "cockroach") taxi industry. They typically pick up passengers along the street, if stopped by a hand sign indicating the destination, or at taxi ranks. They commute within townships and connect townships to business districts, and are used mainly by the poorer population as they are the cheapest means of transport (Winnie, 2018).

Due to the remoteness of the low income residential and the commercial areas, workers and prospective workers are dependent on transport by taxis. A suburban, mainly *white* employee's commute is 88 minutes a day. For a disadvantaged worker in the townships, this commute can easily add up to four hours every day (The Economist, 2018b).

Although the fares seem low for a single ride (±ZAR5-25 depending on distance and provider), they add up to be the largest expense for low-income workers, where the costs exceed that of accommodation or food.

Transport cost amounts to ZAR560 as a monthly average for jobseekers. However, job-seeking youth only have on average around ZAR527 available in a month. As a result, many young people give up looking for a job, simply because they cannot afford to pay transport (Altbaker & Bernstein, 2017; Capazorio, 2017; Lauren Graham & Lannoy, 2016; Sarupen, 2018b).

IT access and knowledge

Besides geographical access to job opportunities, the access to online information is a limiting factor. Job advertisements, job or training information, information about providers for up-skilling, or job birding, can all be found online. This information can only be accessed with an internet-capable device, an active internet connection, and the knowledge about how to find, manoeuvre, and interpret the information.

43% of youth aged 15 to 24 live in households without resources to have IT access, and consequently lack the knowledge of usage. Informal settlements, as much as shacks in townships,

often lack access to the electricity required to charge electronic devices (Statistics South Africa, 2016).

Airtime and data are expensive. South Africa has the highest cost for data in a large African economy. The cost for 1GB of mobile data averages at USD 7.6 in South Africa. In Egypt, the same amount of mobile data costs USD 1.2 (16% of the cost of South Africa), USD 3.1 in Nigeria (40%), or USD 4.9 in Kenya (64%) (Business Tech, 2017).

As a result, only 28% of youth search for jobs on the internet (Statistics South Africa, 2016).

Access to social ties

Jobs can be allocated through a transparent advertising and application process, or through social nepotistic ties. So-called "clan-based thinking" is commonly found in South Africa when occupying vacancies. Family, friends, political affiliates, and people of the same origin or ethnic background often get preferential treatment.

Social ties are not available to all job-searching youth. The fieldwork showed two groups of youth, namely youth that grew up in an economically active area, and youth that grew up in rural areas and moved to an area in which they hope to find a job, such as from rural areas in the Eastern Cape to a Johannesburg township, as noted by Dlamini et al. (2017). The first group is typically better connected, as they have family and friends that can help with the job search. The second group cannot rely on this social net, and thus struggles much more in its job search. In Thokoza, as one example illustrates, a new fire station opened. There were several new jobs available, which however were not given to the unemployed from the community. The jobs were allegedly given to the friends and political cronies of the councillor in this ward, who was an ANC representative (Gamede et al., 2017).

Corruption

Many unemployed youth report that they need money to gain access to job opportunities. They do not refer to transport cost as mentioned above, but rather to bribes. This is counterintuitive, as it is unclear where the money should be coming from, as the unemployed generally do not have disposable funds. Bribes are required at several stages of the application process. By handing the CV in at the gate, the guard or receptionist will typically ask for a handling fee or cold drink, which is code for a bribe. Additionally, the youth believe that they need to add money between the leaves of their CV to merely be considered. The amount therefore is not just a few rand, but around ZAR 500 – money the interviewees do not have available, particularly not for

several applications at one time. This might not be applicable for all jobs or industries. The youth reported this about applications in warehouses in particular, where they would apply as a handler, for a couple of hundred rand a month. Some even proposed to the potential employer that they pay the bribe with their first salary, but none were successful with this approach (Armstrong, 2017; Dlamini et al., 2017; Nyembe, 2017a).

What can change

Geographic access, digital access, and social ties, or the lack thereof, are a legacy of the oppressive past of South Africa. In order to democratise the access to job opportunities, housing projects need to move into the proximity of economic activities, transport needs to be cheaper and more reliable, the cost for data reduced, and the job allocation along nepotistic lines replaced by transparent job allocations.

4.3.10. Structural employment barriers

Employers have a choice as to whom to employ. Their choice does often not fall on the young unemployed, but on older more experienced workers. Minimum wages and the power of unions deter employers from hiring new entrants into the job market.

Minimum wages and subsidies

As discussed in *Chapter 2.1 Economic views on* unemployed youth (pp. 6 ff.), minimum wages are a hindrance to employment. Minimum wages reduce the number of employed and increase the difficulty for job entrants that would work at a labour rate lower than the minimum wage. The monthly minimum wage in South Africa, introduced in November 2016, is ZAR 3,500 (±EUR ~ 230), corresponding to ZAR20 per hour. Its introduction entailed an improvement for most low skilled workers. There are exceptions for some professions, such as farmworkers, domestic helpers, and learnerships.

In 2014, the youth wage subsidy (Employment Tax Incentive Act (ETI)) was introduced as an initiative to create jobs for young South Africans. However, rather than creating new jobs, existing positions were given to younger people, aged 18 to 29, which meant a reduction of wages to less than ZAR 6,000 (Bhorat et al., 2016; Rankin & Roberts, 2011).

Power of unions

“Unions are the single biggest barrier for employment in South Africa,” Monga (2018) claims. Unions in South Africa have a powerful standing due to a high number of unionised workers

and their affiliation to the ruling ANC. About 30 percent of employed South Africans are unionised (Statistics South Africa, 2018a), while the public sector unions could tenfold their membership base since the early 1990s (Bischoff & Maree, 2017). The congress of *South African Trade Unions* (COSATU) is the largest confederation of unions combining 21 unions, of which seven have suspended their participation. SADTU, the teachers' union, mentioned in *Chapter 4.3.6 Schooling system* (pp. 133 ff.) is a member of COSATU. COSATU is one of the three members of the "Tripartite Alliance" alongside the South African Communist Party (SACP) that governs South Africa under the ANC banner (COSATU, 2018; FIN24, 2014).

Dismissals, performance reviews, and reallocations are typically objected to by unions, resulting in strikes. Therefore, the cost of labour when incorporating the cost caused by strikes and the legal inflexibility to hire and fire is not competitively high, compared to emerging Asian, as well as also other African countries. As Monga notes, "Unions only protect those that have a job and are a member. That is a small minority in South Africa" (Monga, 2018). Combined with the unions' inclusion in the ANC, the voice of this unionised workers minority gets a voice far bigger than it should in proportion to other interest groups.

Additionally, unions disapprove of tax incentives or wage subsidies for young workers being afraid older, unionised workers will lose their jobs (Ngwenya, 2017; Sarupen, 2018a; Schmeling, 2017).

Tendency for more experienced workers

Youth experience older workers being preferred over them. Older workers are either factually, or simply perceived to be more experienced. Even with the same formal qualification, older workers are preferred over younger ones.

Many youth complain that their earned diplomas and certificates are not well-received by potential employers. The qualification system is perceived to be non-transparent as employers cannot value the qualification of an applicant correctly, and thus tends to employ workers with work experience (Dlamini et al., 2017; Gamede et al., 2017). Employers confirm the challenges for recruiting and screening for the adequate formal qualification (Masilo, 2016a; Schmeling, 2017). This is an indication for the magnitude of skill development programmes and their lacking alignment, as described in *Chapter 4.3.7 Skills development* (pp. 137 ff.).

Tendency for over-qualified staff

Besides the employers' tendency to hire experienced and older employees, employers also tend to hire over-qualified youth. The two drivers are the distrust in the education system, and the oversupply of qualified unemployed youth willing to work in any profession. Employers' doubt in the quality of the education system, partially justified due to little practical exposure during the education, out-dated learning materials, and unorganised learning institutions, while partially unjustified due to the lack of transparency of actual learning content, leading to the tendency to hire youth with qualifications exceeding the necessary level.

This is possible due to the vast number of unemployed with formal qualifications. Sarupen notes, "I can ask my domestic helper to have a matric certificate" (Sarupen, 2017). This example shows that matric holders are hired for work skills that do not require a matric, like cleaning, and therefore crowd out unqualified youth, denying them the opportunity to work according to their formal skill level.

What can change

The barriers hindering youth employment, namely preferential treatment of elder and more experienced workers by employers and unions, paired with the tendency for over-qualified workers, need to be reduced. The incentive of youth wage subsidies is a start, but as long as the magnitude of qualifications, the low perception of dual education, and the power of unions remains, young job-entrants have to contend with increasing hurdles.

4.3.11. Social and cultural environment

The correlation and causality of social environment or "the neighbourhood" has been proven to have an influence unemployment and health (Henry, Stephens, & Schaefer, 1977; Kolvereid, 1996; Musterd & Andersson, 2006). The social environment young South Africans grow up in will have an influence on their outlooks as youth. The field research highlights that socialisation, substance abuse, and gender bias are dominating elements.

Socialisation

The most important environments for socialisation are the family, peers, the school, and the classical print and radio media, but also online and social media. All of these environments are influenced by wealth and social status. Parental care in South Africa is a challenge. Not only do health issues lead to children being disregarded (see *Chapter 4.3.8 Health of youth and*

families, pp. 139 ff.), but also, the habit of impregnating a woman and moving on is commonly seen (J. Ramokgopa, 2017). Only one in ten children grow up in families with two parents.

The Maharishi Institute, a free-of-cost private tertiary learning institution, tests its applicants for *Post-Traumatic Stress Disorder* (PTSD). PTSD can be the consequence of a traumatic event caused by an injury, death, or the threat of it. It can cause "major depression, panic disorder, generalized anxiety disorder, and substance abuse" (Yehuda, 2002, p. 108). Often soldiers returning from wars suffer from PTSD. The Maharishi applicants, a rather representative group of mostly previously disadvantaged South Africans from low-income areas in their late teens and early twenties, show an exorbitantly high rate of PTSD. 60% of females and 30% of male suffer from PTSD. Violence, weak family structures, and particularly sexual abuse, an unsafe childhood, and youth environment, contribute to this issue in South Africa (Blecher, 2017; K. M. Scott et al., 2018).

Substance abuse

South Africa is famous for its alcohol indulgence. Both South African wines (mostly from the winelands in the Western Cape), and South African beers (South African Breweries (SAB Miller) are globally renowned (Douglas, 2017), being the second largest beer conglomerate after Anheuser-Busch InBev, before it was acquired by them in 2016. South Africans also indulge in alcohol. On average, a South African consumes about 10 litres of pure alcohol per year. Excluding those that do not drink at all, an alcohol-consuming South African takes in 27.1 litres of pure alcohol per year, equating to nearly 60 grams per day. Only Chad, Gambia, Mali, and Namibia have a higher per capita consumption than do South Africa in Africa. With a score of four out of five, the years of life lost due to alcohol in South Africa are only topped by several countries in South America and former USSR countries, and a few countries in Western Europe (Finland, France, and Portugal) and Asia (Thailand, Mongolia, South Korea, and Vietnam). No African country has a score of five (WHO, 2014).

The reason can be found in the low alcohol prices, and the home-brewing culture, combined with the pursuit to escape every-day miseries. A pint of beer is about USD 2.20 even in restaurants in wealthy parts of Johannesburg, one of the lowest rates in the world, even after purchasing power adjustments. In townships, home-brewed beer, sometimes brewed in trash bins stolen from affluent neighbourhoods, is a veritable tradition. Alcohol, therefore, is relatively cheap and easily accessible, where identification is all too often not required to purchase it (Gal & Loudenback, 2018; J. Ramokgopa, 2017).

Alcohol and other substances are often consumed due to "wanting to escape the miserable life" and the wish to retract themselves from the daily challenges in the township. Field work has shown, strikingly, the many intoxicated young people even in bright daylight, hassling drivers to clean their windscreens at traffic lights, strolling around collecting bottles, or sitting at street corners in groups with impaired communication abilities (Dlamini et al., 2017; Gamede et al., 2017).

Domestic violence, crime, and increased desperation is a consequence, as well as a vicious cycle. However, substance abuse does not only harm families, cause violence, and distract from finding actual work, it also affects the adolescent brain, which is hampered in its development by intoxication. The resulting risks are cognitive deficits, poor movement disorders, and increased obligation (Bava & Tapert, 2010; Witt, 2010).

To reduce alcohol consumption and the resulting misery, South Africa proposed banning advertising of alcohol, however, this has not been implemented (Jernigan, 2013). The Western Cape Government (2017) did, however, see the need for action and included "alcohol harms reduction" as one of their seven Game Changers, fostering "strong partnerships with communities and law enforcement to reduce access to alcohol" and by providing "alternatives both economic and recreational so that communities drink less" (p. 5) (Prinsloo, 2018b).

Gender bias

Women in South Africa are affected more by violence than men. They are also less well educated than men, with 25% of *black* African women being illiterate, versus 20% of *black* African men. They are further disadvantaged in other aspects of society. The rate of women married young is high, at 34% versus only 21% of men in the same age range, between ten and 29. A marriage at a young age causes challenges. Married women face gender roles, and they are socialised to become 'house keepers and child-bearers'. This perception and mostly lived practice tends to work against employment and economic participation (ILO, 2018; Moela et al., 2016; Statistics South Africa, 2013; UNICEF, 2018).

What can change

The social interaction and cultural habitus are a derivative of the everyday environment. Destructive environments reinforce themselves in a vicious cycle. To break that cycle, targeted interventions need to be set in place that keep children busy and away from home: schools need

to offer afternoon activities like sports, arts, and homework supervision. Crime and abuse need to be eradicated.

4.3.12. Perceived inclusion in society and opportunities

Inclusion might not seem that relevant when investigating employment. It nevertheless is, particularly when it comes to the perception of inclusion. First, the feeling of not being part of a majority or not having access to an opportunity can cause disruption and despair. A youth thinking that he or she is not part of society might give up on even trying to contribute to society and not work, or not stick to the formal and informal rules of society. Secondly, a young South African feeling he or she cannot access university because of the high cost involved might not participate in tertiary education or may disruptively protest as happened in the Fallist (#FeesMustFall) movement. Thirdly, the perceived lack of a job opportunity leads youth to not even look for a job, which is the case for 13% of South African youth as seen in 4.1 Statistical insights on youth unemployment (pp. 74 ff.) Acemoglu and Robinson (2013) most famously argue that an inclusive society is the sole most relevant factor for a successful country.

Inclusion in society and politics

An inclusive society is defined by people that feel recognised and accepted while having a sense of belonging. The inclusive society and all its members follow the same values and accept its institutions. Society participates in social, cultural, economic, and political life. Inclusive societies grant the same rights to everyone, especially minorities to foster non-violence, security, dignity, pluralism, solidarity, non-discrimination, and equal-opportunities (Atkinson, 1998; Gallie, Paugam, & Jacobs, 2003; Lamrabat, 2009; Levitas, 2005).

However, the field research has vividly shown that disadvantaged, unemployed youth do not feel included: “I don't feel like a person” is the clearest and most striking example of perceived exclusion. Interviewed youth do experience violence, lack access to food and sanitation, are discriminated against for being from a different province or country, and do not have access to opportunities (see *Chapter 3.5 Youth field research*, pp. 67 ff.). This clearly shows that the lacking inclusion is not just perceived, but, in many cases, an actual exclusion from society is present.

Because of this, (perceived) exclusion can cause uprisings and disruption. Burning tires or cars are common. Even the interviewees stated violence as their perceived only possibility to get

attention: “If the municipality does not help us [cleaning the sanitary facilities], we burn their cars or block the road” (Dlamini et al., 2017).

The question arises as to what drives this often violent need to express dissatisfaction, and what the underlying beliefs are of those that take this route. Experts claim that the political culture in South Africa has inculcated a high level of distrust, based on misstated facts and falsified political campaigns (Cronje, 2019). Most famously, Bell Pottinger, a British public relations agency, created a political campaign around non-factual allegations of *white monopoly capital* looting the *black* majority that was promoted by fake accounts paid for by the Gupta family, aimed at covering up their wrongdoings. Although, Bell Pottinger had to close down after admitting their macroeconomic manipulations of an entire country, the term *white monopoly capital* is still in public discourse, and emotionally touching many disadvantaged South Africans.

Acemoglu and Robinson (2013) proclaim political inclusiveness, and the existence of inclusive, non-extractive institutions that are granted by free and fair elections, as the single most relevant element to success. The United States stand as a perhaps misperceived but widely heralded figurehead, whereas African countries like South Sudan or Somalia are considered to be failed states, not being able to grant their citizens basic rights.

Inclusion in education

The Fallist movement (mostly in 2016 and 2017) is a vivid example of uprising caused by perceived exclusion to education. The protesting university students (attended by those external to the university matrices) asked for the scrapping of university tuition fees to allow everyone to complete a university degree, and to not be forced to drop out or to not even register for university, due to insufficient access to financing.

The movement caused major disruptions at South African universities, but also impacted everyday life: stores got plundered, cars were set on fire, etc. The total damage caused by these protests across South Africa amounted to nearly ZAR 800m (±EUR ~50m). However, one of Zuma’s last actions as president was to give in to the protests and to declare universities free for students from disadvantaged households (Dentlinger, 2018).

This showed that the relatively small group of university students in SA have a disproportionate voice that is not going unnoticed. The following question however arises: is the scrapping of university fees a legitimate opportunity cost in comparison to other possible investments that might buttress youth employment?

Only 14% of the children starting school complete tertiary education, which can be a university or college level qualification. The share of those entering university is therefore low. Of the small portion finishing university, about 95% of the graduates find a job, whereas only 52% of youth become employed (see *Figure 49*, p. 151). Those that are advantaged enough to go to university are most advantaged to find a job afterwards. They are the tiny academic elite in South Africa.

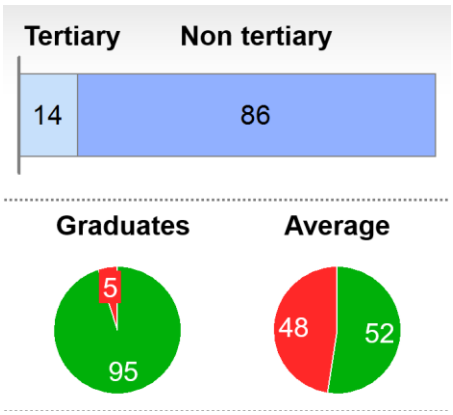

Figure 49: Graduates vs. non-graduates

Source: IRR (2016, p. 459), Statistics South Africa (2017b); own illustration

As the university graduates are already better off than most other South African youth, should they complain about university fees? Let us compare the cost to the USA, a country where student fees have been widely accepted. To have a like-for-like comparison, the cost for studying an engineering degree including tuition and accommodation is put in relationship to the starting salary of an engineer. The cost for a BSc. and Honour's Degree in SA is about twice the average starting salary (1.9 times), while in the USA it is about four times. The fees for universities are about half that in South Africa, as compared to the USA.

To understand whether the universities in South Africa are particularly neglected compared to other educational institutions, we compare government spending per university student to the government spending per school student. The spending per university student is ZAR 28.891, and ZAR 12.158 per school child. A university student (without cutting university fees) receives 138% more than a student does at school. The South African government overspends proportionally far too much on universities. Students cannot complain about being neglected by the government, also considering that the education they receive is on average the best in Africa. It would not be unfair to say that university students are an elite that is in fact strongly supported by the government.

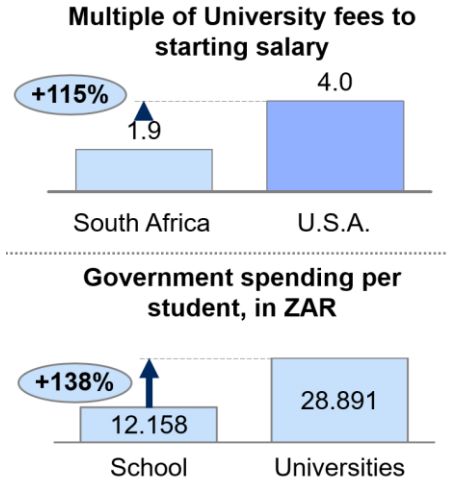

Figure 50: South African universities in comparison

Source: IRR (2016, pp. 459–463), Bridgestock (2018), Indeed (2018); own illustration

Major uprisings have not happened at other levels of schooling yet, although schools or colleges often require the learner's family to pay a fee.

Inclusion in job opportunities

Perceived exclusion happens when the trust in being able to change the country, society, and one's own fate is severely eroded. Unemployment and having given up searching for a job are clear indicators that a society lacks inclusion. Many South Africans believe that the government is responsible for them getting a job. However, 35% of South Africans believe the government does not effectively create jobs (Sonn, 2017a).

Further, corruption is prevalent in finding a job. "We need to pay someone to even write an entry test", and in keeping a job, where "Police hassles us for money if we don't have a permission" (Dlamini et al., 2017). Access to jobs is perceived as to be non-transparent and unfair: "There are openings. But they don't really exist or are occupied already" (Dlamini et al., 2017).

Being excluded from job opportunities, and society in broader terms, makes youth give up hope and give up searching for a job. Fieldwork has shown that the frustration of perceiving not being "part of it" influences the psyches due to frustration, stress, and desperation. 13% of the youth has given up searching for a job. This is even higher amongst 18-to-24-year-olds, where the percentage lies at 18% (see *Chapter 4.1 Statistical insights on youth unemployment*, pp. 74 ff.). This process of becoming desperate and being "alienated" is similar to Marx' concept of alienation, however applied to the unemployed, rather than to the employed (see *Chapter 2.1.2 Schools of thought*, pp. 8 ff.).

What can change

Inclusion can be perceived as political inclusion, by being able to vote, and thus being able to change the government, or as economic inclusion, or being able to access merit based monetary opportunities (Acemoglu & Robinson, 2013; Cronje, 2014). Either could change in South Africa. South Africa has shifted from an extractive to inclusive setup with the end of apartheid and is considered mostly fair, granting extensive rights to the whole population, including minorities (such as rights to same sex-marriage). The South African constitution is considered one of the most progressive in the world, incorporating elements from many others. The inclusion into merit-based job opportunities is already low, driven by limited access to education and jobs. Bribery, clan-based thinking, nepotism, are just the spearhead of inaccessibility.

The lack of perceived, and actual inclusion to political and economic institutions historically triggered the *Arab Spring*. Oppressive regimes deprive their citizens of basic rights. The suicide of a Tunisian vendor, by setting himself on fire, triggered the protests that changed a whole region.

Inclusion can change in a short period of time, and perceived inclusion even much more rapidly. The effects are not identifiable by extrapolation, as they can shake a society at its very foundations.

4.3.13. Interdependencies of drivers

The eleven drivers are not fully independent of each other. Interdependencies and correlations exist between them. The experts and sounding board evaluated these qualitatively and classified then as low, medium, and high. A quantitative assessment is not feasible, due to the nature of the data.

By way of example, the interdependency of *demography* on *number of jobs* is low. The *number of jobs* can develop independently of demographic changes, and vice versa. The impact of *schooling* is high on *entrepreneurship,* as an improved *entrepreneurial* hard and soft skills development in school will allow for an increased *entrepreneurship* initiation and improved outcomes and longevity.

Certain factors have more interdependencies than others. The driver standing out is *perceived inclusion,* with overall high interdependencies. *Entrepreneurship, schooling,* and *skills* have high scores as well. Drivers with low interdependencies are the number of jobs, *demography, migration, access,* and *social and cultural environment.*

		1 Number of jobs	2 Entrepreneurship	3 Demography	4 Migration	5 Schooling	6 Skills	7 Health	8 Access	9 Employability barriers	10 Social and cultural environment	11 Perceived inclusion
1	Number of jobs		medium	low	low	low	medium	medium	high	low	low	medium
2	Entrepreneurship			low	low	high	high	low	high	medium	low	medium
3	Demography				low	medium	low	medium	low	medium	medium	low
4	Migration					medium	medium	medium	low	medium	medium	medium
5	Schooling						high	medium	low	medium	medium	high
6	Skills							medium	low	medium	medium	high
7	Health								low	low	low	high
8	Access									low	low	high
9	Employability barriers										low	high
10	Social and cultural environment											medium
11	Perceived inclusion											
	Overall interdependency	low	medium	low	low	high	high	medium	low	medium	low	high

Figure 51: Interdependency of employment drivers

Source: own illustration

The interdependencies do not explain how impactful each driver is when it comes to fostering youth employment. The driver of *perceived inclusion*, however, seems to have a special role as it intervenes with most other drivers.

4.4. Prioritisation of employment drivers

Chapter 4.3 Eleven drivers for youth employment in South Africa (pp. 115 ff.) describes the drivers for youth employment with South Africa specific subcategories and their interdependencies. In order to use these drivers to form scenarios, the two most relevant drivers need to be identified to span a two-by-two matrix that describes four scenarios. The remaining nine drivers will provide further context to the scenarios.

In order to prioritise the drivers, they are plotted according to their impact on youth employment in South Africa, and their uncertainty of appearance according to the principles described in *Chapter 3.1 Scenario analysis applied* (pp. 57 ff.).

The first dimension, namely impact, describes the magnitude of youth employment a single driver is capable of causing. Economic growth causes more employment than better health, for example.

The second dimension, uncertainty, describes the uncertainty of what the impact of this driver will be.

All drivers are tested according to two criteria: (1) is the driver likely to change from its trajectory, and (2) if it changes, how significant will the impact be? It is unclear if the perception of belonging and access of South Africans will have an influence on employment, where either South Africans become increasingly unhappy with the social divide and corruption and revolt, bringing the economy and therefore employment down, or the perceived inclusion will not have any influence on employment. As the first option is disruptive although uncertain, the driver perceived inclusion has a high level of uncertainty (Cronje, 2014).

The board of experts gathered in the scenario sounding board decides on the placement of the drivers along impact and uncertainty (see *Figure 52: Prioritisation of drivers for youth employment* along both dimensions, p. 155). Each board member decides individually and anonymously to ensure unbiased results. To then make the ratings comparable, they are first normalized per expert and secondly normalised per driver. The average of the expert opinions is then plotted on the axes.

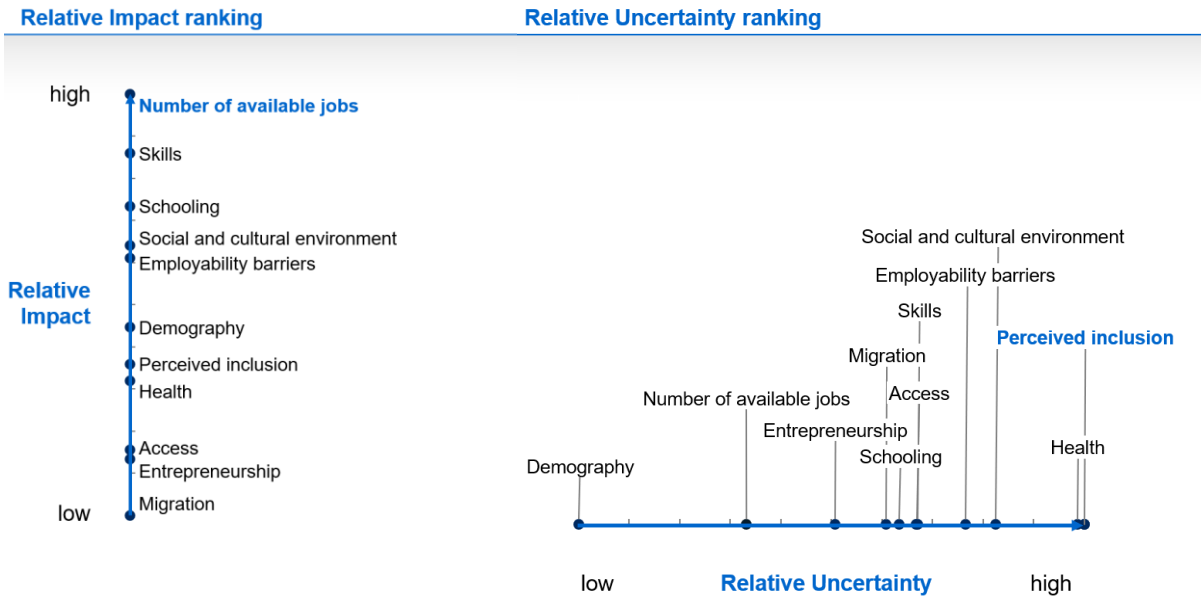

Figure 52: Prioritisation of drivers for youth employment along both dimensions

Source: Sounding Board et al. (2018); own illustration

For impact, the driver *number of jobs* is ranked highest at 82.4%, *migration* at 34.1% is ranked lowest. The highest variance, experts not agreeing on the positioning, is for *perceived inclusion*, the lowest is for *skills* (see *Figure 71: Driver ranking results*, p. 247).

For uncertainty, the driver *perceived inclusion* is ranked highest at 69.8%, and *demography* lowest at 19.1 percent. Leader in variance is *health* and *structural barriers* is at the end of the list (Sounding Board, Maree, Chinhimba et al., 2017).

All values are relative to one another, where *Number of available jobs* and *perceived inclusion* are therefore the main drivers for the scenarios for 2035.

Both dimensions combined span the space for a scatter diagram (see *Figure 53: Prioritisation of drivers for youth employment in scatter diagram*, p. 156). This scatter diagram can be split into four fields, namely: (1) the top right field with high impact and high uncertainty, the two fields with (2) high impact and low uncertainty, (3) low impact and high uncertainty, and lastly (4) the field with low impact and low uncertainty. The first field contains highly relevant drivers, which are, however, neither the most impactful nor most uncertain drivers, viz.: *skills*, *schooling*, *environment*, and *barriers*.

The drivers *perceived inclusion* and *health* are close to each other. It therefore is questionable to clearly prioritise *perceived inclusion* over *health*. However, the high variance of expert rankings for *health* compared to the low variance of *perceived inclusion* is an indicator for the confidence of experts on the uncertainty of the driver.

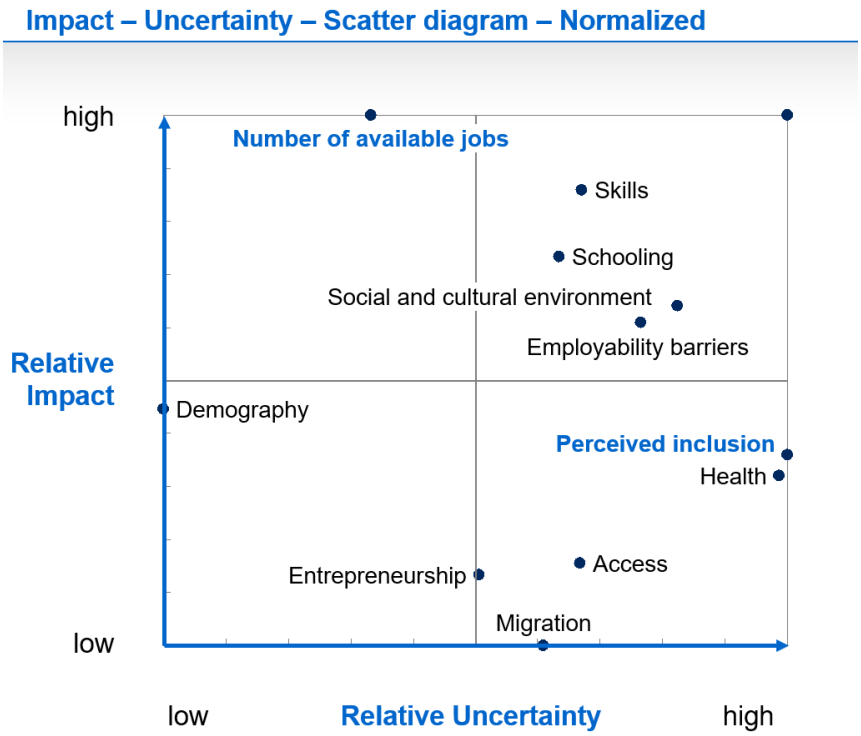

Figure 53: Prioritisation of drivers for youth employment in scatter diagram

Source: Sounding Board et al. (2018); own illustration

5. Youth employment scenarios for South Africa in 2035

Scenarios help to understand how the future might look. They are not aiming to describe the most likely case, but the extreme cases that hold certain possibility. The most likely future setting is supposed to be between the extremes. Describing possible future states based on academically derived drivers and extrapolation of these drivers, and not the extrapolation of the status quo, does not guarantee any certainty, but merely an approximation.

The following scenarios are set in South Africa in the year 2035. Looking ahead this far might seem like a long period of time. From 2018, this is 17 years in the future. A child born now will only just enter the youth bracket in 2035 and will be looking for employment. An 18-year-old youth today will just have left the youth bracket at 35 and will have found a status in life on which to build his or her adulthood, family, and future.

To put this timeframe in relationship to the past, we look at what has happened 17 years ago: in 2001, George W. Bush had just taken over the presidency from Bill Clinton. After having served eight years in office, Barack Obama had led the United States for another eight years, before Donald Trump took office in 2017.

South Africa saw four presidents in the last 17 years. Thabo Mbeki had been in office for two years already in 2001 and served another seven years. In 2008, Kgalema Motlanthe served for less than a year, as Jacob Zuma replaced him in 2009. Zuma stepped down to be succeeded by Cyril Ramaphosa in 2018.

If you went to the cinema in 2001, you would have most likely seen the *Harry Potter and the Philosopher's Stone*, the first of eight film adaptions of the Harry Potter series, which was the highest grossing movie at the time in western countries. Just 17 years later, *Black Panther* became the highest-grossing movie of 2018, and one of the highest grossing movies of all time (AMC, 2018; Box Office Mojo, 2018).

Going to a showroom to buy a car, it was not unlikely to have bought a VW Golf, one of the most sold cars worldwide, then and now. In 2001, you would have bought the fourth generation Golf, and in 2018, the seventh generation (see *Figure 54: VW Golf 2001 and 2018*, p. 158).

Figure 54: VW Golf 2001 and 2018

Source: VW (2001, 2018)

The largest shift in the last 17 years might have happened in technology. IT equipment and usage patterns that we take for granted in 2018, had not been spread in 2001. Stationary computers were large, laptops heavy, mobiles phones had black and white screens, the first iPod had a wheel to navigate, and digital cameras always ran out of memory or power (see *Figure 55: IT equipment in 2001*, p. 158).

Figure 55: IT equipment in 2001

Source: Apple History (2018), Shapshak (2017), Digicamhistory (2018)

Today, PCs are ultra-thin, laptops too, and phones, music devices, and cameras are integrated, have internet access, and are navigated through a touchscreen (see *Figure 56: IT equipment in 2018*, p. 158).

Figure 56: IT equipment in 2018

Source: Apple (2018)

Both in 2001 and 2018 there were also events happening that were commonly not anticipated. In 2001, there was 9/11, the terrorist attack on the World Trade Centre in New York, that caused around 3,000 deaths, but also changed the world order, causing a global recession, global xenophobia, and a string of consequent wars.

The year 2017 has seen the longest standing ruler in the world fall. Robert Mugabe was displaced as President of Zimbabwe in a coup d'état-like take over by the military and his former deputy President Emmerson Mnangagwa. Mugabe had not just been in power in 2001, but de facto since 1980, for a total of 37 years. 17 years in comparison seem to have flown by.

Looking ahead 17 years might seem scary, especially when at the most radical scenarios to possibly happen. Looking back 17 years, some changes appear to be linear extrapolations like technology development, while some are disruptive, such as the 9/11 attacks.

To establish the most radical scenarios, the two main drivers "number of available jobs" and "perceived inclusion" are plotted as orthogonal axes, the most impactful as *y*-axis and the most uncertain as *x*-axis. As a result, there are four fields with a middle at the intersection of the axis basically describing the status quo. The other nine drivers account for further, geometrically not illustrated, but relevant dimensions. Over the next 17 years the status quo can develop in any direction, depending on the "pull" of each driver.

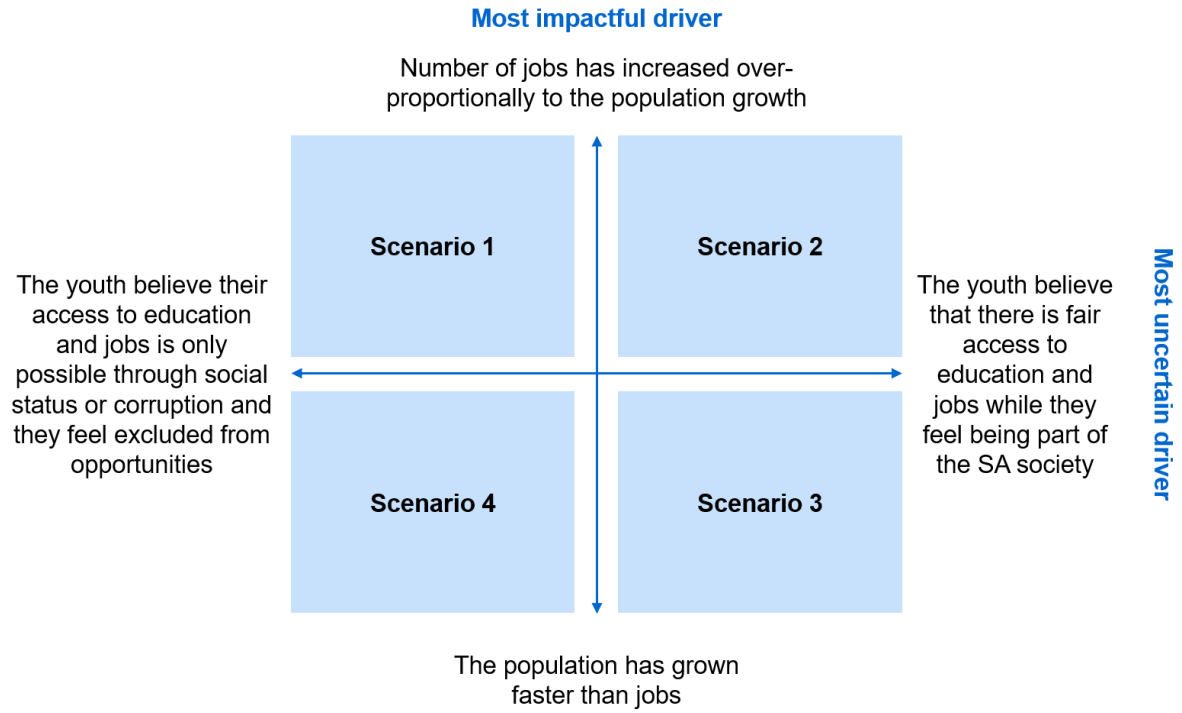

Figure 57: scenario matrix applied

Source: own illustration

The four fields account for the four scenarios (see Figure *57: scenario matrix applied*, p. 159): Scenario 1 is situated in the first quadrant incorporating job growth but decreased perceived inclusion, Scenario 2 accounts for more jobs and an improved inclusion perception. Scenario 3 on the bottom right faces relative job-loss combined with improved inclusion, and lastly, Scenario 4 sees jobs and perceived inclusion declining.

The four scenarios are named after the four seasons. The content of the scenarios reflects attributes associated with *Spring*, *Summer*, *Fall* (autumn), and *Winter*: Scenario 1, the *Spring*, describes the *South African Spring*, following the theme of the *Arab Spring*. Scenario 2, the *Summer*, lets bright sunlight shine on the youth employment situation in 2035, as jobs are numerous, and seem accessible. Scenario 3, the *Fall*, reflects on the fall of the economy and a reduction of jobs, but also on the fall of red tape and inequality. Lastly, scenario 4, the *Winter*, the season of despair, in which the economy has collapsed and the youth have resigned, South Africa is in a state in 2035 comparable to the one in which Zimbabwe had manoeuvred itself into in the early twenty-first century. *Figure 58: The four seasons in 2035* (p. 160) illustrate the seasonality of the four scenarios.

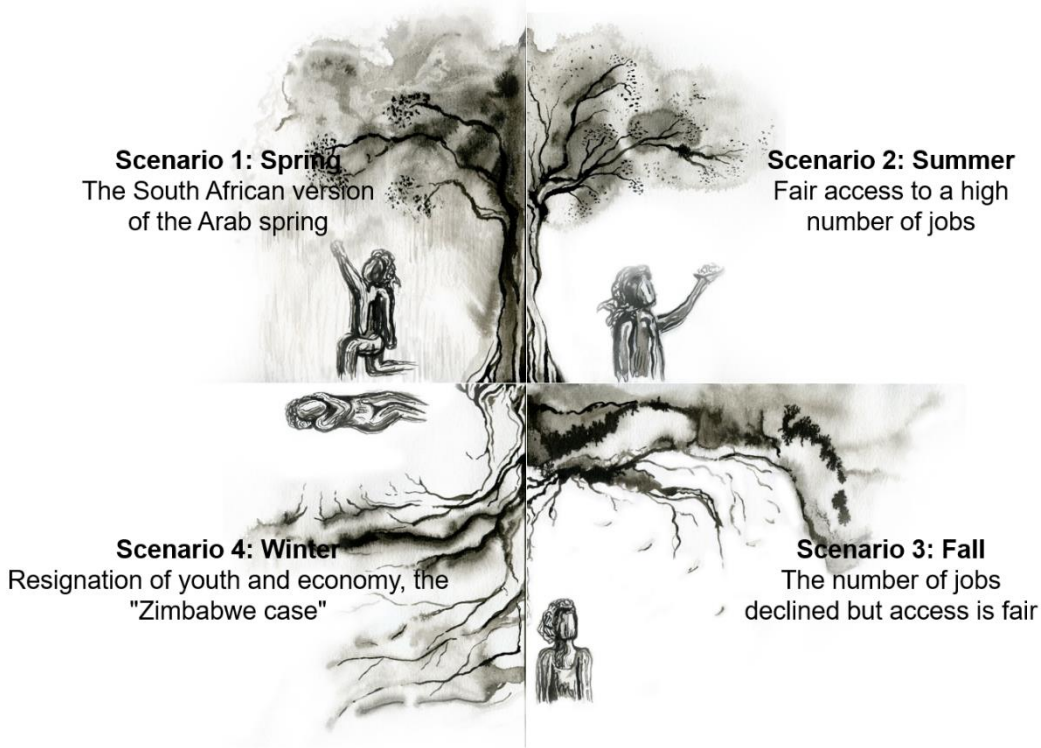

Figure 58: The four seasons in 2035

Source: illustration by Botha (2017)

The four scenarios were discussed, challenged and iterated by the *Sounding Board* as key element of the strategic conversation in the process building scenarios (van der Heijden, 2005). The aim was to make all scenarios plausible and internally constant, while at the same time not biased towards any one scenario. Each need is similarly likely, covering extreme possible future states. This was achieved in the second session of the *Sounding Board.*

Each scenario is introduced with a short narrative that is inspired by the fieldwork conducted in townships throughout South Africa. The narrative contextualises and illustrates the scenarios by giving an insight into the life of Lesedi, the average South African unemployed, and her family.

5.1. Scenario 1 – Spring: The South African version of the Arab spring

Lesedi's uncle enters the dimly lit room. She looks up from her phone, on which she has just been checking on the most recent news on social media. He stops and looks at her sitting at a table on which she spread out a cloth, just having started painting large capital letters onto the white linen. He whispers: "Here, take that." He turns his head towards the dark corner of the room where Thabo is sleeping. "Don't let them do to you what they did to your brother." Thabo has been sleeping a lot on that mattress in the corner since last week.

Last week, Thabo marched towards Sandton, Johannesburg's business district, that is considered "the richest square mile in Africa". His eyes were on fire before he left: "We will take what's ours, our share of what they have." He was desperate, having finished Matric, but not having had grades to go to university. He was told to start a course at a TVET college. But that was far, too far. Hardly anyone of their graduates finds a job. Thabo decided not to go anymore. He wanted to go to university and get a proper job. Become rich. That, however, seemed further away than ever. Now, he still looks bad. They had already reached Sandton, the stock exchange, but there was plundering on the way, windows smashed, cars burning. Police watched overwhelmed, but private security forces pushed back. First tear gas, then rubber bullets. Anyone they got their hands on, they beat up. Thabo was at the wrong place and the wrong time. Brutally beaten up, he was brought home by friends. Everyone knows that public hospitals do not have capacity. Private hospitals are only for the rich, and they are protected by private security.

Lesedi's uncle reaches into the pocket of his coat and reveals a small package. The light is shimmering and Lesedi only sees cloth held together by a string. He hands it to her. Lesedi keeps holding it in her hands, seemingly surprised by its weight while her uncle turns around to exit the room. He stops and mumbles "be strong, stay safe," before he leaves.

Lesedi places the package next to the banner that reads "IT'S OURS" and unwraps it to find a loaded revolver.

The society

South African society is classist: there is a controlling and extremely wealthy elitist *black* class in the form of business owners, an educated relatively small middle class, in the form of managers and white-collar workers, and a poor lower class, some educated, some uneducated – basically all unemployed. Changing classes is practically impossible.

Key drivers are economic growth in services and capital-intensive industries paired with a rapid introduction of artificial intelligence that is making blue-collar workers nearly unnecessary. Opportunities for the lower class are close to zero. The lower class has been growing over-proportionally due to a high fertility rate as a result of hoping that children will provide for the elderly.

Jobs are inaccessible and requires a high level of education. Education, particularly university education, is necessary for service industries and managing artificial intelligence. Although university education is provided for free, the access to it is very limited, as universities have implemented high barriers to entry, and only provide a relatively low number of spots.

Youth born into the lower class can either access skills education, which has improved and provides particularly practical skills, which however are not required in the labour market. Alternatively, mostly driven by social circumstances, school dropouts do not pursue any further education. Consequently, youth unemployment is very high, at around two thirds on average, and nearly around 100% amongst lower class youth, where lower class youth are jobless, regardless of whether or not they spent many years in the educational system, and are skilled, or whether they dropped out of school.

Over the last years, desperate youth have revolted by marching on governmental institutions. Protests have been peaceful at first, with scattered and disorganised violence. The recent abduction of a family member of a state minister (or any other specific act of violence) as a violent sign of helplessness caused an explosion of violence fuelled by the police and military, forcefully locking off townships, preventing the lower-class population from moving freely.

The state forces are not able to enclose the masses that now have practically shut down the daily life. The wealthy middle and upper class do not leave their heavily guarded homes or get escorted by security forces. The protests are on-going countrywide, asking the government to

resign. The South African version of the *Arab spring* has erupted triggered by unemployed desperate youth.

Number of jobs increased

South Africa managed to attract international investment entailing an influx of companies setting up in South Africa driven by the high standard of living, the comparably low cost of living, combined with less expensive labour for white collar workers. First and second tier cities are benefitting most, leaving rural areas untouched. This extended the base of existing companies in the services sector, entailing job creation, particularly in white collar professions.

The low skilled, mostly blue-collar jobs are being replaced by machines and artificial intelligence at a high pace, making it even more difficult for low-skilled workers to find a job and make a living. Industries most affected are labour intense, that is: automotive manufacturing, mining, and farming.

The attractive and most well-paid jobs are in city centres, to which the educated and wealthy have the best access, driven by high rents in suburban areas and far distances, combined with traffic for low-cost housing areas, as only the rich can afford the high rent. Low-cost housing areas are at significant distances and lie behind high traffic.

Perceived inclusion worsened

The divide between rich and poor is prevalent. The gap has widened. However, the socioeconomic status dictates the outlook, not the ethnicity. The middle class has grown. For low-income families with poor education, the middle class has moved far out of reach. Even empowerment schemes like B-BBEE largely benefit the established *black* elite, who benefit from high-paid jobs and equity transfers. The poor do not sufficiently benefit from empowerment initiatives and are left behind.

Entrepreneurship increased

The lack of opportunities for low skilled workers has created a wave of one-person businesses, offering low-cost low-skill services like cooking, cleaning, or washing. Most businesses are in townships or reach into the formal economy, although not being registered as businesses.

There are few organisations that support such kind of businesses, consequently many fail or do not grow past self-employment. Still, small businesses help a significant number of people to earn an income.

Demography changed

The demographic dividend just pays out. The poor still give birth to many children as a "retirement insurance", while the middle class and upper class have few children. Thus, the grown middle class and upper class pay grants for the poor, but they have to work until old age, because otherwise the funds set aside would not allow the system to fund their retirement. Life expectancy of the middle and upper classes has improved, while the poor live about 10 years less on average.

Migration patterns improved

The influx of foreigners has decreased as the economic situation in neighbouring countries has improved over the last years, providing job opportunities to their citizens, while and xenophobic attacks have increased in low-income areas of South Africa. Foreign workers on critical skill visas have been driven out of the country as a political sign, driven by a broad *black* voter base.

The sprawling nepotism amongst the elites and the inaccessibility of leadership roles in the public and private sector have driven reams of *white* educated South Africans out of the country seeking opportunities in other Commonwealth countries.

Schooling unchanged

The quality of the education has improved at the cost of pass rates, while the level of tests has risen to match international standards. Teachers, however, were not trained accordingly to boost the learning outcomes thus producing few high-performing children and a majority of underperforming children, who are dropping out of the system before matriculation.

The gap between private and public schools is still marked. Middle- and upper-class parents send their children to private schools with well-trained and non-unionised teachers. The lower class sends its children to public schools, where teachers can provide the support that is needed to advance to Matric. Students are pushed out of the schooling system when they fail, enforcing the lower-class misery of no education, no skill, and no prospects. However, TVET colleges take in dropouts and provide them with the opportunity to upskill on more practical and manual trades, providing them a perspective.

Skills development improved

The quality of skills development has improved, particularly through including a more practice-relevant aspect to the curriculum, offering an apprenticeship-like education. The pass rates are

high, but the placement rates are low, as the employer needs are not sufficiently incorporated in the design and intake to the programmes, leaving even educated youth jobless.

The access to universities is limited. Free tertiary education has been implemented, but as consequence, the universities have increased their academic entry barriers, and overall reduced the number of admitted students, due to government budget restrictions. Consequently, highly qualified middle- and upper-class students get accepted to universities, and do not need to pay fees. This mechanism enforces the social drift apart.

Health unchanged

The classist split of society is also reflected in the health system. The rich benefit from an elaborate private health system, and are healthy, living long, whereas the poor do not have access to first world medical treatment and suffer from underfinanced public facilities. As a result, health in low-income families continues to be poor.

Access worsened

The classist society has also left its footprint on social access and housing: the poor live far away from cities and jobs, suffering from high transport cost and congestion. Remoteness of work opportunities from homes is the main barrier to finding a job.

IT skills have improved as data and airtime have become cheaper, providing an easier access to the job search. However, most jobs are not advertised, or are not accessible without knowing the right people and having the relevant political association. Nepotism and corruption are rampant.

Employability barriers increased

Unions have steadily lost their influence hand-in-hand with the decreasing number of low-skilled and unionised workers. Subsidies are being abused, or used for simply cutting the cost of labour, but not creating new jobs or easing the entry for youth. The jobs available require a high level of qualification. Preference is given to older and more experienced workers.

Cultural and social impact on youth unchanged

Many families are not considered to be intact. Still, 1 in 10 children do now grow up with two parents. The socialisation regarding family, peers, school, and media is very much dependent on the social status of the environment, to which the young people are exposed. Alcohol and drugs are consumed regularly in precarious environments to “escape” the daily misery and

desperation. Money to get by is therefore often acquired illegally, and often brutally. Crime rates are higher than ever.

5.2. Scenario 2 – Summer: Fair access to a high number of jobs

It is Lesedi's first night back in South Africa. She sits in her room and enjoys the silence. It is the first time there is no sound since she landed. First, she arrived at the airport and her family picked her up, then they had a big dinner. Everybody came and wanted to hear her stories. She sits at her desk and thinks back to the magnitude of overwhelming experiences. Just two and a half years ago, she applied for a scholarship with a big Chinese technology company. She got accepted and started studying advanced analytics in Johannesburg in a globally competitive programme. The company that pays her scholarship also funds the study programme.

After just one year at university, she was asked to intern at her sponsoring company's headquarter in Chengdu in China. She enjoyed her time a great deal, although it was her first time abroad. The Mandarin she had learnt in high school surely helped to make friends quickly and feel welcomed there. After just one more semester in Johannesburg, Lesedi was offered the opportunity to study a term abroad in Shanghai at the best-rated university worldwide for data analytics, fully funded by her sponsor. The last half-year was tough for her, missing her family and having to work long hours to stay on top of the assignments. Lesedi looks up, also thinking of the good memories she collected, having been resilient, and not having given up.

She looks to the corner of the room, where her brother's bed stands. He has not picked her up from the airport, nor has he been at the family dinner. She misses her brother. Thabo is in Cape Town at TVET college, being trained in mechatronics. Talented young people with an understanding for robotics and the skill to maintain artificial intelligence production sites are rare. The government reacted firmly and shifted TVET education towards corporate needs, including these needs, into the curriculum.

Being relieved of the stress, the buzz around her, and all the experiences she accumulated, she gets a shiver, and starts smiling. The internship and the term abroad made her eligible to work for her sponsor as soon as she finishes her honour's. She found the contract in her mail when she got home today. She and her brother will be the first ones in the family to start working right after finishing their education in a well-paid job. Her family is very proud, she knows.

The society

Economic growth and a decreased social divide have created millions of new jobs and made opportunities egalitarian and ubiquitous.

The key drivers behind this development are improved governance and housing reforms, which are driven by Chinese influence. Government has significantly cut down on corruption and improved bureaucratic processes, attracting foreign investors and boosting the domestic market. The housing reform, as part of the land reform, now gives South Africans the chance to get a government house in a township or fully subsidised rent in wealthy suburbs. Both factors have allowed the middle class to grow and to increase the living standards of the poorest. The social divide has reduced dramatically.

Education, particularly job-readiness, has improved, as mandatory practical work in form of internships and apprenticeships have been implemented in schools, TVETs, and universities.

The number of jobs has risen faster than the population growth. Jobs are now easily accessible. The youth unemployment rate has dropped to 15%. In urban areas, the youth can find jobs easily, whereas in rural areas the challenge of finding a job is still prevalent.

Number of jobs increased

Although President Ramaphosa faced a recession at the beginning of his term, eventually local and international confidence in the South African economy has grown. Wealth has slowly but surely democratised, making social progression a reality for many. Consequently, the middle class has grown and created grew creating an increased local demand.

The economic upliftment entailed millions of new jobs, as automatization does not cannibalising jobs quickly. Special development zones brought jobs to secondary cities, but also townships and rural areas, bringing relief to areas that were mostly affected by unemployment, despair, and crime.

Perceived inclusion improved

The people believe that voting can change behaviours. Bad governance and nepotism are penalised with low voting results, driving compliance in politics and administration. Youth voting participation is high.

There has been some social unrest, as the new presidency could not deliver its promises quickly enough after high levels of enthusiasm. Time, however, has brought continuous improvement, albeit slowly. The government has drilled down on corruption, creating a shift in mindset that has helped change people's behaviours over the last decade.

Tertiary education (e.g. TVETs and universities) is now free for the poor, a loan system has also improved participation among the lower middle classes, opening new spending opportunities.

The access to jobs is now mostly merit based. Red tape has decreased, and corruption has declined to a negligible level. Eagerness in education and job-searches are fruitful.

Entrepreneurship increased

A government-led initiative supported by businesses and NGOs has helped countrywide to approach unemployed youth to help them build confidence in starting their own business.

Even though these mostly low-complexity owner-run businesses do often not last many years, the exposure to business increases the work-readiness significantly, making it easier for the self-employed to find a corporate job or start a new company.

The entrepreneurial start-up culture helps in creating many new jobs, not necessarily many jobs per start-up, but in thousands of them.

Demographic shift improved

The demographic dividend is paying off. High taxation and a large working age population, combined with relatively high employment, support the elderly and allow for grants and subsidies for the disadvantaged. The retirement age has risen with the increased life expectancy, enabling a healthy relationship of working to non-working population.

Increased trust in government facilities has caused the fertility rate to drop from 2.3 to two, as children do not need to act as retirement insurance. This stabilises the size of the population. The life expectancy has increased slightly due to better health, but also due to government support and infrastructural changes.

Migration pattern improved

The economic upturn has brought South Africans back from the diaspora, particularly in the medical sector. It is now more difficult to get a critical skills visa, as the local talent pool has significantly improved.

The economic uplift and good governance have spilled over, also creating positive impact in Zimbabwe, which has caused most of the Zimbabweans in South Africa to return to their home country, decreasing xenophobic violence and improving business and job opportunities for South Africans.

Schooling improved

The schooling system has been reformed. Teachers are better educated and underlie strict performance measures that are enforced. Primary schools now teach in local African languages, increasing children's and parents' participation. Public schools access private corporate funding, incentivised through revised empowerment programmes. Unions were strong-armed to comply in order not to close underperforming public schools. School drop-out rates have improved, as most students now stay in school and finish matric in Grade 12, in hand with improved matric pass-rates. Mandatory internships are introduced, exposing students to the working environment while building the soft skills needed for employment.

The quality of schooling between rural and urban, and particularly between private and public schooling is still significant. Rural schools do not receive the private funding urban schools do, and well-educated teachers prefer living and working in urban areas.

Skills deployment improved

Centres of specialisation, an adaption of the German dual apprenticeship and schooling system, has been rolled out aggressively. These centres are now the main alternative to universities and also accept school dropouts, allowing them to find an alternative educational path to employment.

Training programmes are now distinctly more employer-demand driven. Companies sponsor learnerships for the jobs they need and hire most of their students.

Health improved

Government has placed a focus on educating the poor population, decreasing the rate of HIV, tuberculosis, and malnutrition. As a result, there are fewer families headed by children, allowing more youth to continue in education and reduce health related dropout rates.

The public healthcare system has improved, reducing the waiting times and the time to cure illnesses, ultimately reducing illness-based absenteeism.

Access improved

A housing reform was thoroughly implemented that enforced that all new urban developments accommodate people with a spread of income, where 10% of apartments in each complex are allocated to low-income families.

This has reduced the social divide, and particularly the travel times, along with the cost associated with this, thus the cost of transport on average has reduced significantly.

IT literacy has improved due to better schooling, allowing for easier access to opportunities on the internet. Non-governmental organisations like Harambee train and prepare youth for job readiness on a large scale across the country, including remote areas.

Social ties still account for a fair share of job placements, however, particularly due to the housing reform, social ties now extend beyond clans, ethnicities, and income.

Employability barriers decreased

Subsidies have become more targeted and are used for education and work-readiness, rather than wage subsidies. Unions are still powerful. However, due to the improved economic situation, they have become more cooperative and supportive of the changing demand of skills.

Due to improved job access, hiring and firing has become easier improving the willingness of companies to hire more quickly, and in greater number. This creates entry opportunities for all skill levels and opens doors particularly for the unskilled, who did not have access to opportunities for a long time.

As South African skills development has become state-of-the-art, and incorporates practical training, companies now focus on hiring from TVETs and universities directly, rather than solely focusing on experienced workers, while creating chances for younger workers.

Cultural and social impact on youth improved

With improved health, there are now more “intact” families with two parents. This and the improved social inclusion have decreased the stress levels, allowing youth to focus on education. In line with the above, substance abuse has been reduced due to government initiatives.

Women now have a stronger role to play in the South African society. They have become the better students, stay in the educational system as long as men, leading to similar opportunities and similar pay for comparable jobs.

5.3. Scenario 3 – Fall: The number of jobs has declined but access is fair

Lesedi leans on her desk and looks up. The candle casts dancing shadows on her face. She still has more than a dozen pages to go through before her test tomorrow.

She is tired, and her tummy moans. The last time she ate was for lunch. After her father lost his job a year ago, she and her family were even more restrained. Now everybody gets a basic income, a policy the unions have pushed through while facing massive layoffs. Corporations prefer to use automation in South Africa, as labour is expensive, exploiting neighbouring countries for manual labour. Even though the basic income is better than no income, it is too little to sustain a family with no-one working. Thabo, her brother, has started to work in construction. He did well in his matric and started a vocational training as a builder. He could graduate early, as Lesedi supported him while studying, and their father worked. Now that he has lost his job, Thabo has started to work sooner than planned, as he was lucky to have found a job.

Lesedi's father and brother share their basic income with the family to allow Lesedi to continue her studies, while still putting food on the table. Lesedi knows that the hopes of her family lie with her. She studies, and so she will have a good job. It is tough. The competition is high, as everyone is keen to get a job these days.

Lesedi takes a deep breath and focuses her attention again on the remaining pages. Tomorrow's test is crucial for her to get accepted to do her honour's. Without an honour's degree there is no chance of getting a job, and no chance of her helping her family.

The society

The economy has grown at a low, one-digit annual rate, just above stagnation, while the government has managed to improve social cohesion and cut down on red tape. The number of

jobs, however, has grown under-proportionally in relation to the development of the population, as new technologies have made human labour steadily less relevant.

There are two key drivers behind this development. International corporations have become more interested in investing in Africa outside of South Africa, as these markets have promised higher growth and more untapped opportunities. Even though the economy has not grown strongly, the government has enabled equal and free access to tertiary education and has improved the schooling system. In addition, a universal basic income was introduced as reaction to continuous job-loss, replacing the grant system and allowing the millions of unemployed to participate.

The universities and TVET colleges have increased the proportion of on-the-job training and soft-skill development. This has resulted in a high job-readiness among tertiary graduates.

The available jobs are advertised and allocated according to merit and achievement, giving the qualified youth a preference over the more experienced but less educated older generation. This has caused the youth unemployment rate to drop, but the general unemployment rate to rise, both at around 35%. Barriers to employment have fallen, while opportunities have become merit based.

Number of jobs declined

South Africa is left behind on growth on the continent. The Western world has not picked up interest in Africa, while Asian countries that have experienced strong and continuous growth, have found ways to utilise Africa for them. China is leading the trend, boosting the economy around Africa, while making the countries concerned dependant, through their loans. Investors are attracted to countries with a lower cost of labour, and more flexibility around regulations, and partially rules.

Policies and politics in South Africa are transparent, and basically non-corrupt, due to the improved political environment, offering alternatives for frustrated voters.

However, the increase in jobs could not keep up with the increase of population, worsening the overall unemployment rate.

Perceived inclusion improved

Fees have fallen. Government reprioritised finances, allowing access to good education independently of social status. Schooling standards have improved. Now everyone can get decent

education on primary, secondary, and tertiary level. Even rural areas have been included in the uplift supported by local language education.

Job placements are fair and merit-based, without corruption. Nevertheless, red tape and little availability cause long queues for job openings.

Entrepreneurship unchanged

Incubation programmes try to attract local talent, but the funds to scale are lacking. One-person owned and run businesses come and go, without leaving a lasting mark on the economy or on the individual's pocket.

Demographic shift worsened

The demographic dividend has not materialised. Fertility rates have stayed on a constant level due to the perceived need for children as social security for retirement. The share of the working age population has declined, and the occupation rate is low. The retirement age is still at 65, to allow jobs to be filled with younger people.

Migration patterns improved

As other African countries have experienced an economic boom, many African immigrants have returned to their home countries. Due to the high level of education and the opportunities elsewhere, there is a brain drain on all classes in society. This trend, however, does not affect the local economy, as there is sufficient talent available locally.

Schooling improved

The government has placed a significant focus on improving schools. A system of having dedicated exit points from high school, feeding into a dual education apprenticeship model, has significantly reduced drop-out rates, and increased possible paths to employment. The matric results have improved, as teachers are being thoroughly assessed, improving the quality of classes and pass-rates.

The gap between public and private schools has decreased with the improvements for public schools, including the rural areas.

Skills deployment improved

The German model of a dual education, where classroom education and on-the-job training are in parallel, has been established, using centres of specialisation. The schools feed students into this system in accordance to their preference and capabilities.

The access to these TVET colleges is fair and free, as the government and companies provide funds to run the training programmes in accordance with their qualitative and quantitative need for skills. Still, the programmes' placement rates are not very high, due to the low availability of jobs in the economy. The perception of vocational training as a pathway has improved, by integrating it into the schooling system.

Health unchanged

The gap between the public and private system is still large. Consequently, the poor are overly affected by diseases and illnesses. Due to the poor economy, and the resulting strains on livelihood, children are often malnourished.

Access improved

The cost for finding a job has decreased as cell phone charges have dropped, and transportation fees have decreased, with the roll out of a widespread public bus system. IT literacy and access to the internet have improved, easing the search for opportunities advertised online.

Social ties have become less relevant in job searching, as all jobs have to be advertised and allocated on a merit-base. Cases of nepotism and corruption are investigated and cause negative consequences for those involved.

Employability barriers decreased

Unions use their influence to ensure that jobs are advertised, and that recruitment is based on achievement and records. They however still prefer older and unionised workers over young talent, who bring the skillsets required for the technological shift.

Youth wage subsidies, in combination with the improved education, have helped to place more qualified youth on vacancies.

Cultural and social impact on youth unchanged

Only few families are “intact”, that is, with two parents present. Violence in low-income neighbourhoods continues, as the government does not have the funds to finance substantial improvements in infrastructure and security. Many children suffer from on-going stress.

Alcohol and drug abuse have increased slightly due to the higher overall unemployment and entail desperation and violence.

Women now earn equally to men, but still fewer women participate in the workforce than do men.

5.4. Scenario 4 – Winter: Resignation of youth and economy

Lesedi leans back in her armchair and looks around her room. The large windows overlook the Sandton skyline. She can only see the silhouettes of the modern skyscrapers and the well-rounded office buildings as the moon shines. The lights are out.

Lesedi stares out of the window and thinks of the old days, when she still shared a room with her brother in the little house in Soweto. She was excited about the change. She thinks about the joy and enthusiasm in her family when they moved north, to the lavish suburbs with their big houses. She was not sad about the white people leaving. She did not have any white or Indian, coloured or Asian friends, anyhow. So, she did not miss them. She also did not really understand why or how they left. Everyone was just talking about times changing and turning to the better.

She remembers her father and brother jointly buying a new, large, German SUV around the same time they moved. They were very proud. Lesedi's father was a bit worried about the loan he took out, but times looked good then. He was very happy when he was able to pay off his loan much quicker than he had expected. The prices rose, but the loans did not, so it was easy to pay it off soon. The same car is parked in the driveway. Lesedi cannot remember when it was moved the last time. It had been extremely difficult to obtain fuel for it. Only when Thabo, her brother, who is sent around the country taking care of law and order and making sure the change is still happening, comes back home, he brings a canister or two of fuel. So, they can take a ride through town and visit their family. Thabo has not been home in a while. The last times he came, he did not even get fuel. Now the car has been stationary for months.

Last time Thabo came home, he also looked frail, and slimmer than usual. He said that they do not get food regularly, and only in small portions. Lesedi feels lucky having her extended family around, who takes care of them. They all have large houses, with gardens where they can grow some vegetables. Her uncle even used to have some chickens, before the government reminded

him of his duty towards his great nation. Lesedi also tried growing vegetables in their garden, but the soil seemed to be infertile. She remembers the days with filled supermarkets that have long gone by. Today, the shelves are empty, and the few goods they offer are imported and unaffordable.

Lesedi remembers Thabo complaining about a constant headache. Her father tried taking him to a doctor, but there was none that was willing to work for the little money they could afford. The public hospitals have queues for days before you can get an appointment, or even some medicine. Finally, Lesedi's father found a traditional healer, but he was too far away. The walk would have taken a day.

Lesedi lets her eyes wander through the room, her room, and for the first time, she asks herself who might have lived in this room before. When they moved in, her dad said the previous owners left, because the country was finally given back to its people. Lesedi asks herself if she might have been happier if she were still in their old house, having her brother and her family around, having a light bulb brightening her and Thabo's room, having chicken off a metal plate, having medicine if you were sick, rather than having a designer lamp without electricity, having a few raw vegetables on porcelain, and suffering from pain without a sign of relief.

The society

The economy had imploded. Jobs have vanished. The Rand had plunged. Inflation had sky-rocketed. The educated have emigrated.

The key driver was radical redistribution. The government was not able to continue riding on the fading wave of enthusiasm. The promises for economic growth and good government were not fulfilled to the satisfaction of the South African people. The approval rate of the ruling party declined, causing it to change its policies and convert the softly initiated land redistribution into a radical form of expropriation without compensation. This new populist initiative did not only include vacant or unused land, but also arable productive farms, random urban houses, even apartment blocks. Worst of all, companies were nationalised, with 51% of the shares being owned by the government. The expropriation did not follow a comprehensible logic but seemed random. Nepotism and corruption appeared to have played a major role.

International companies shut down all their local business. Jobs vanished by the thousands, daily. The wealthy packed their suitcases, and left the country, leaving a tiny elite behind that stayed, because of political ties and preferential access to resources. Also, those that were still hoping to benefit from redistribution or could not afford to emigrate, stayed.

The educational and health system became accessible for everyone. Soon after this, free education and healthcare caused the system to run out of money, leaving it wrecked.

Unemployment amongst youth was close to 100%, where opportunities for jobs seemed far off. They were either in politics, or abroad.

South Africa had followed in the footsteps of Robert Mugabe's Zimbabwe, but with a lower level of education, and more acute levels of violence.

Number of jobs decreased

The automotive, farming, and mining industry automated radically to avoid the cost and hassle associated with the increasing union influence, reducing the number of employed workers dramatically.

Bad governance and corruption caused international companies to leave, as compliance scandals kept seeping in, causing issues for their listed mother companies, which were getting into trouble with US and European regulators.

The increased red tape and corruption, combined with a declining economy, became a vicious cycle, eradicating thousands of jobs. White- and blue-collar workers were laid off, with little to no chances of finding a new job.

Perceived inclusion worsened

The mostly *black* elite is herding its money and invests itself outside South Africa to avoid high taxes, and to mitigate the high exchange rate fluctuations of the Rand.

The children of wealthy families are sent abroad to schools and universities, creating a new South African diaspora overseas and in stable African countries. Those that choose or have to stay behind are left behind. Social systems have collapsed. The country has become more equal, but on a much lower level.

However, the elites have benefited from the expropriation, creating a tiny rich elite and a vast mass of desperate poor. The high level of desperation has sparked uprisings that were consequently and often brutally supressed by police.

The access to the few remaining jobs is limited and requires the right connection. Knowing the right people or paying them off is perceived as the only feasible way to find a job.

Entrepreneurship worsened

Even small businesses do not survive, as their market has collapsed due to lack of funds. Cash is short, and the poor do not have bank accounts or cannot process card payments. There is no organised support from government to support SMEs or start-ups.

Demographic shift worsened

The demographic dividend has not paid out, as the share of working to not working population is marginal. After a first increase in life expectancy and a reduction in the fertility rate, due to the better access to healthcare, the trend has reversed after the healthcare system has run low on funds. The private system has deteriorated, due to the middle class having become impoverished, and the upper class going abroad for medical treatments.

At this stage, the life expectancy is lower, and fertility rates higher than in 2018. The retirement age has increased, as those that have work and are not wealthy have no social net for retirement, and are not able to rely on their families, that mostly do not have jobs.

Migration pattern worsened

The educated middle class has left South Africa for jobs in the UK, US, Canada, Australia, but also neighbouring countries, as their economies have improved.

Zimbabwe has seen a steep path upward, catching up to where South Africa used to be. Zimbabwe has managed to attract much of South Africa's talent and investment.

As the economic situation has worsened, many South Africans did not want to share what they retained with foreigners. Xenophobic attacks ignited. Most immigrants have left, if they could.

Schooling unchanged

The matric pass rate has stayed on a low level, in hand with high dropout rates. The gap between rural and urban, and between public and private education is still large. Practical soft skills are not taught in schools, nor is training learners in life or entrepreneurial skills.

Skills development declined

As access to skills development in form of TVET colleges becomes free, there is an increase in learner numbers, with which the colleges have struggled. As a result, the quality of the education, particularly among public TVETs, decreased, and exposure to employers is missing. The

few jobs available can be filled inexpensively with the available unemployed, but sufficiently qualified workforce.

Private TVETs that used to have more reputable programmes mainly close as their funding models, based on corporate B-BBEE investments, have dried up.

Health worsened

Initially a free and egalitarian healthcare system was implemented. Anyone could go to any hospital or doctor as the state insurance covered the occurring cost. Consequently, the general health improved, until the economy started declining, and educated people, particularly doctors left the country. The state insurance system was unable to maintain its high standards. The public health worsened to a lower level than it had seen since 2018.

Access worsened

The few jobs that are available are not advertised and given to family, friends, or political affiliates. Without a network there is not chance to find an occupation.

The poor stay far from areas where the few jobs exist. Houses in suburban areas that the middle class once occupied are either vacant, or run-down. Transport and communication are expensive, as petrol prices have spiked, and telecom providers stopped investing in infrastructure.

Employability barriers rose

The influence of unions on politics and policies prevails, making it even harder for businesses to manoeuvre in turbulent economic times. Due to a high rate of unemployment, the employers can pick and choose the most qualified and experienced, mostly non-youth as employees. It is almost impossible for youth to find a merit-based occupation.

Culture and social impact on youth worsened

Desperation is high, causing substance abuse, and leading to domestic violence and lasting stress. There has not been any improvement in gender bias. Women get married even earlier to have children that might take care of them when they experience a crisis. Combined with teenage pregnancy and high dropout rates of the education system, the increased fertility rate and fewer economic opportunities lead to desperation and violence.

6. Hypotheses on how to pave the way to youth employment

Supporting youth employment will not only build a positive trajectory for the *Summer* scenario and mitigate the risk of drifting towards worse cases, but it is the foundation to building a more equal society in South Africa today. There are on-going initiatives and proposals and newly developed initiatives derived from this research. Ideally, all eleven drivers are addressed to improve the situation of South African youth. However, one programme will not be able to tackle all issues at the same time. Some initiatives are policy driven; others can be privately pursued.

6.1. Existing initiatives for addressing youth unemployment

There are numerous youth employment interventions and programmes in action. Government, public-private partnerships, NGOs, schools, universities or businesses have an interest to foster employment. The following overview is an excerpt of institutions mentioned most or those with a unique approach. The overview does not claim to be exhaustive.

YES4Youth

The Youth Employment Services (YES) or YES4Youth is an employment programme by the South African government initiated by Colin Coleman, managing director of Goldman Sachs, and Stephen Koseff, CEO of Investec, aimed at providing work experience to one million youth. President Cyril Ramaphosa set youth employment as one of his key proprieties, for which YES is the vehicle. The idea is simple, where companies pay the salary of previously unemployed youth for one year. The terms are that it does not matter if they work at the sponsoring company, or at a third party. The salary is the minimum wage of ZAR 3,500 per month. The programme is set up for previously disadvantaged groups, and *white* South African youth are excluded. The motivation for companies to participate is to increase their B-BBEE score by one or two levels. The number of youth placed on the payroll depends on the sponsoring company's headcount, average turnover for the last three years, or the average net profit after tax for the last three years. The criterion with the highest result is used for the calculation. The program is strictly limited to one year. In early November 2018, 195 companies had signed up, placing 3905 youth in temporary employment.

The programme provides workplace experience for youth, and thus typically helps them to find a subsequent job, either with the company offering the one-year job, or with another employer. However, claiming to create new jobs is an illusion, as there is no viability. Jobs can organically

only be created by some form of growth or expansion. State intervention does create artificial jobs, entailing the risk of the youth being unemployed again after the 12 months of the programme are over. If there had been the need for workers before the intervention, then the jobs would have been created without YES anyhow. Still, there is a benefit contained in training and exposing youth to work, as well as to redistributing wealth from profitable or large corporations to unemployed individuals and families (Ismail-Saville, 2018; YES, 2018). *Figure 59: YES contribution to employment drivers* (p. 185) shows the elements the YES programme supports.

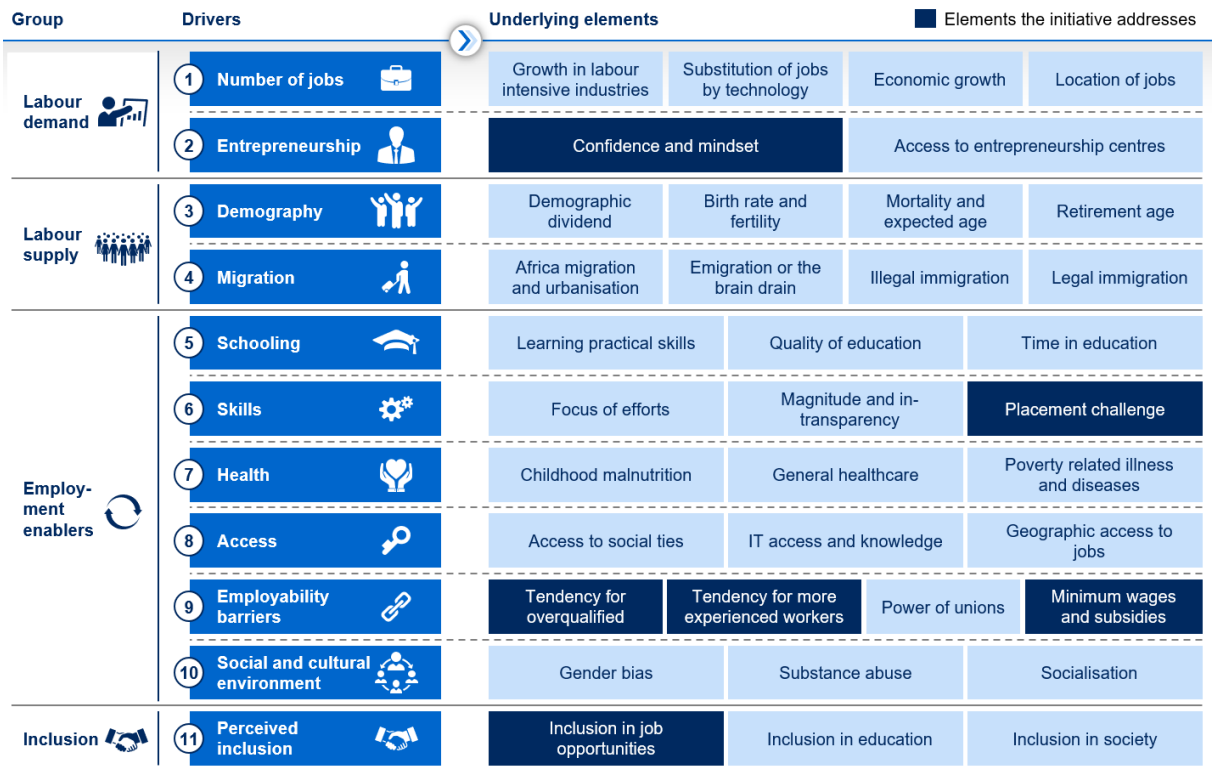

Figure 59: YES contribution to employment drivers

Source: own illustration

Harambee

Harambee is one of the biggest bridging, work-readiness training, and placement programmes in South Africa supporting youth employment. *Harambee* is the Swahili phrase for putting all together and constitutes a symbol of self-help. Established in 2011 as "an independent, not-for-profit social enterprise that works with individual businesses, government agencies, local and international donors, industry sector associations, youth-serving organisations, assessment specialists, behaviour change experts and technology providers" (Harambee, 2018), Harambee aims to place youth with their 450 employer partners, addressing previously disadvantaged South African youth that are unemployed, and have not been permanently employed at a single employer for more than one year, do not study, and finished at least Grade 11. These youth are

assessed to be matched to the employers' requirements. In this process, they also receive training regarding the application process. Harambee also offers job-birding, where for example, they train youth to be on time, or stand for the day if they want to become cashiers.

Harambee has assessed 1.7m youth, helping 50,000 to find their first job. This is also the largest challenge Harambee currently faces. A placement rate of less than three percent is low. Harambee tries to generate an ecosystem to boost its placement rates, which, however, does not seem to show quick results (Hadfield et al., 2017; Harambee, 2018; Urquhart, 2017).

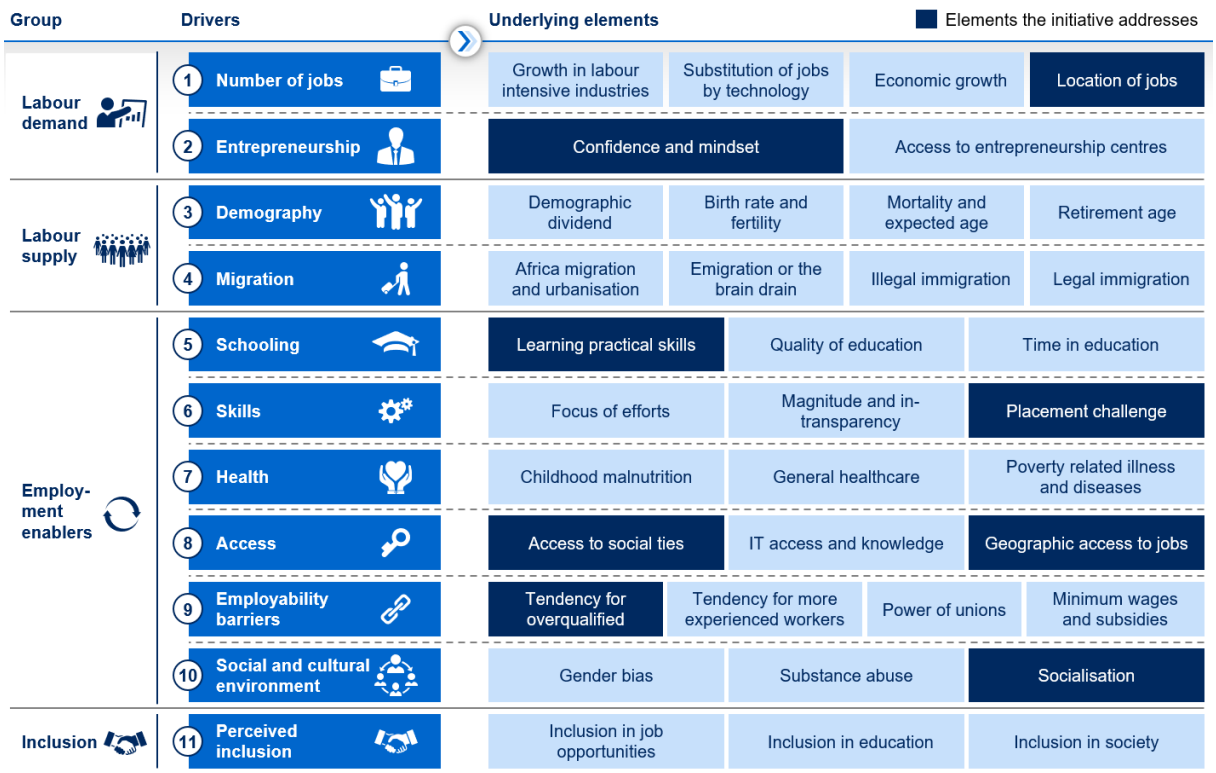

Figure 60: Harambee contribution to employment drivers

Source: own illustration

Placement agencies

South Africa does have a couple of placement agencies looking particularly at entry level jobs. CareerJunction, Giraffe, JobStarter, or Lulaway are amongst these. They typically allow youth to register with their qualifications, and thereby provide companies access to these youth. This allows for reducing the information barrier (CareerJunction, 2018; Giraffe, 2018; Jobstarter, 2018; Lulaway, 2018).

Bridging efforts

As established in the previous chapters, South Africa has a discrepancy in education and skills between youth and employers. As a consequence, there are organisations bridging this gap. One of these initiatives is Bridge. They commit to engage in: (1) learner support, (2) early childhood development, (3) teacher development, and (4) school leadership by connecting people, driving collaboration, improving the quality of education, and sharing ideas (Bridge, 2018; Okelo, 2016).

Another organisation aiming at bridging the gap between youth capabilities and employers' needs is the Maharishi Institute, following a very different approach. As a non-profit tertiary educational institution, the Maharishi Institute recruits disadvantaged youth in order to facilitate a tertiary degree in combination with including the youth into the institute's management. The youth accepted have high rates of *Post-Traumatic Stress Disorder* (PTSD), with about 60% of females and 30% of males affected. This does not only allow for saving overhead costs, it provides the youth with real-life challenges, for which they take over responsibility. The students' days are fully loaded with education and management responsibilities. Thereby they have the opportunity to leave their domestic issues at home and concentrate fully on their self-development. The PTSD characteristics show significant decrease through participation in this holistic approach to education according to Taddy Blecher, the institute's founder (Blecher, 2017; Maharishi, 2018).

SOS Children's Villages International, a globally active NGO supporting youth in precarious family situations, teamed up with corporates like Allianz, a global insurer, and DHL, a global logistics company, to start YouthCan!, an initiative to support youth in their education to employment process. YouthCan! offers youth to gain on-the-job expertise through the exposure to the SOS working environment. The effect seems to have a positive influence on the employability of the SOS candidates (DHL, 2016; SOS Children's Villages, 2016, 2017; Swartz, 2016a, 2016b).

6.2. Five new proposals for addressing youth unemployment

The existing initiatives aiming at tackling youth unemployment in South Africa do support youth, however they do not support employment. Supporting the youth selected for a programme or initiative helps these individuals to improve their chances of finding a job, but they will take the job away from someone else, either from other youth or even adults. This does

include the YES programme, which is a state intervention to employ youth without an economic need for the employer. There is no net creation of new jobs.

In order to support youth employment, as identified in *Chapter 4.4 Prioritisation of employment drivers* (pp. 154 ff.), *number of available jobs* is the most impactful driver for employment. *Perceived inclusion* needs to be addressed in order to mitigate the risk of drifting to a *Spring* or *Winter* scenario.

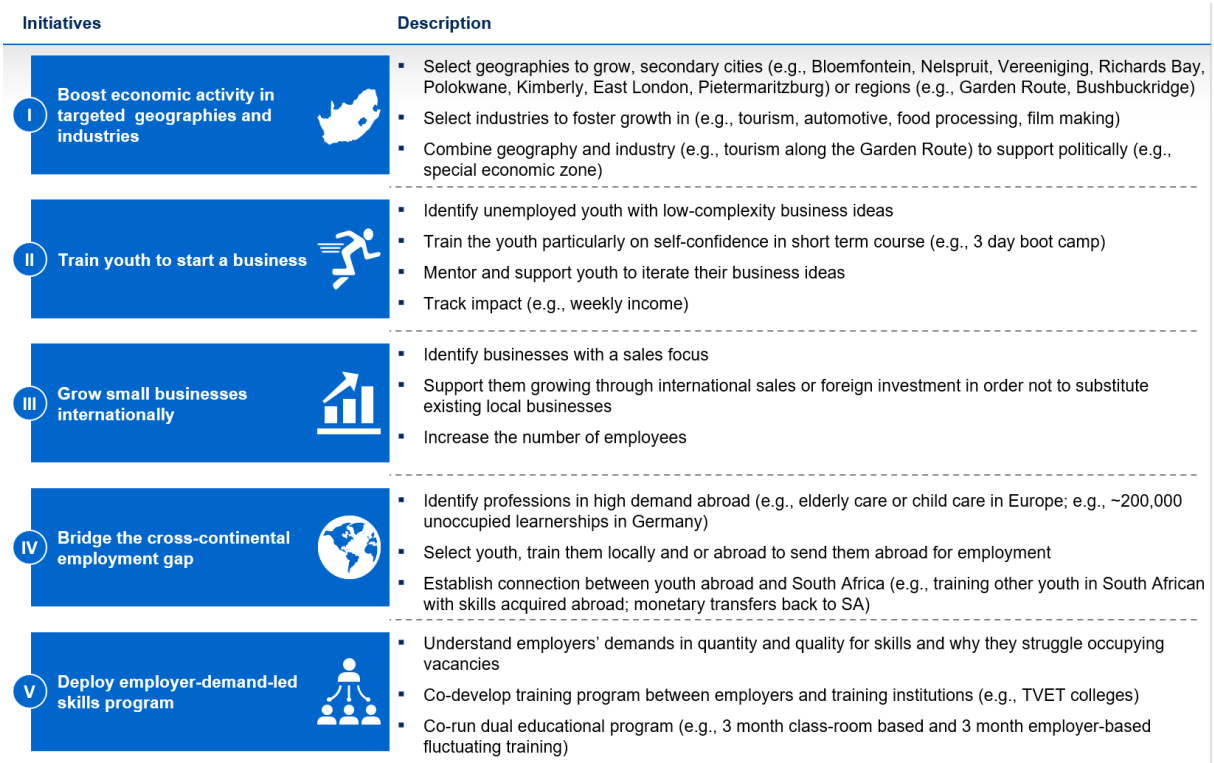

Figure 61: Youth employment initiatives for South Africa

Source: own illustration

Consequently, initiatives to drive employment need to have an element of net job creation. Ideally, the economy grows in labour intensive industries. This, however, is the consequence of medium-to-long-term policies, international trust in the country, and technological development, and is therefore not explicitly considered in the proposed initiatives.

The other alternative is to substitute imports, or boost exports. Both logically lift the need for local employment. On the other hand, there might be the need for exporting labour to countries with specific needs, which would cause a decrease in unemployment locally, and an increase the employment of South Africans, even if working abroad. Thirdly, there are unoccupied positions at South African companies, as they struggle finding the right talent, either in quantitative and/or qualitative terms. Bridging this specific gap creates net employment. Lastly, creating

new localised markets that utilise untapped potential, such as offering products in townships that could only be accessible in more developed areas, at higher cost, driven by transport cost.

Five proposals have developed form the research (Matschke, 2020). Their validity has been tested in pilot projects. Each initiative investigates the largest hurdle to overcome, the most binding constraint, to implement it (Hausmann, Klinger, & Wagner, 2008; Hausmann, Rodrik, & Velasco, 2008).

6.2.1. Boosting economic activity in targeted geographies and industries

Concept

Boosting economic growth in targeted geographies and industries addresses job creation through economic growth further, fuelled by international integration.

Localised growth initiatives have been responsible for boosting regions around the world. Porter (1990) argues that countries do not generate a competitive advantage, but that this is done by clusters of associated industries in the same region, such as in Silicon Valley. Pudong, an area of Shanghai, has shifted from agricultural land to a dense business district, with some of the world's highest skyscrapers, within a mere 20 years. This dimension of growth is driven by two factors. On the one hand, there are typically special government-induced incentives, such as reduced taxation or softened labour laws, often organised as special economic zones (SEZs) or export processing zones (EPZs).

On the other hand, there needs to be a focus on a particular industry in order to create a supplier network, training focus, and logistics infrastructure. In China, Shenyang has become the automotive cluster, Nanjing stands for petro-chemicals, or the Pearl River Delta including Guangzhou, Shenzhen, Hong Kong, and Macao is considered as the workbench, manufacturing consumer goods from electronics over toys to plastics (McKinsey & Company, 2017; Schirmer & Bernstein, 2017). The combination of both factors is mostly applied to secondary cities.

To build a functioning ecosystem, top-down prescribed approaches have largely failed in Africa. A bottom-up approach involving inclusive private and public dialogues and partnerships is essential to create structuralist policies enabling economic success (Asche & Grimm, 2017).

This approach can also be applied to South Africa. South Africa has ten industrial development (IDZs) and special economic zones (SEZs) in Coega in Nelson Mandela Bay for "agro-processing, automotive, aquaculture, energy, metals logistics and business process services

sectors"; in Richards Bay for "manufacturing and storage of minerals and products to boost beneficiation, investment, economic growth and, most importantly, the development of skills and employment", in East London for "automotive, agro-processing and aqua-culture"; in Saldanha Bay in the Western Cape for "oil, gas and Marine Repair engineering and logistics services complex"; in Maluti-A-Phofung in Harrismith for "general manufacturing, offering a convenient production base for light and medium manufacturing"; at OR Tambo in Ekurhuleni for "beneficiation of precious metals and the minerals sector, with a focus on light, high-margin, export-oriented manufacturing of South African precious and semi-precious metals", and in Musina and Makhado in Limpopo at the Zimbabwean boarder for "agro-processing" and "metallurgical/mineral beneficiation". Additionally, there is a Double Trade Port about 30km north of Durban (DTI, 2018). There are two new SEZs in in Nkomazi at the boarder to Mozambique for "agriculture, agri-processing, nutraceuticals, fertiliser production, and leather products" and Atlantis for "green technologies, alternative waste management, energy efficient technology, alternative binding materials" (City Press, 2019).

As seen in these descriptions, most SEZs in South Africa do not have one particular industry focus. Also, they are not necessarily in secondary cities with potential. Schirmer and Bernstein (2017) and Sarupen (2018a) identify that South Africa has been failing in focusing SEZs on one industry, locating them in and around metro areas, having access to existing infrastructure, a skilled and semi-skilled labour force, and thus making them unique, so as to attract foreign investors. The reason for the lack of success is a nation-wide blanket approach, rather than a bottom-up regional approach.

The *CDE, Centre for Development and Enterprise*, developed an index for the potential of South African cities to become an economic developmental zone relative to each other based on population density, disposable income, and human capital levels. Secondary cities with the highest potential are Emfuleni (Vereeniging with 46 points), Emalahleni (Witbank, 39), Msunduzi (Pietermaritzburg, 38), and Polokwane (33). Metros rank with decreasing potential from Johannesburg (58), City of Tshwane (Pretoria, 53), Cape Town (49), Ekurhuleni (East Rand, 48), eThekwini (Durban, 42), Mangaung (Bloemfontein, 35), to Nelson Mandela Bay (Port Elizabeth, 33) (Schirmer & Bernstein, 2017).

Alexander Forbes, a financial services group, publishes a "location attractiveness index" ranking secondary South African cities according to produce return from spill-over effects based on market size, agglomeration of people, agglomeration of economic activity, openness of the local economy, cost of labour, quality of labour, and local stability. The highest ranked city on

the attractiveness index is uMhlathuze, which incorporates Richards Bay and Empangeni. It is followed by Emfuleni (Vereeniging and Vanderbijlpark), KwaDukuza (Ballito), Msunduzi (Pietermaritzburg), Breede Valley (Worcester), Stellenbosch, Mogale City (West Rand), Drakenstein (Paarl), Metsimaholo (Sasolburg), and Saldanha Bay (Paternoster) (Business Tech, 2018b).

Again, the selection of a suitable location providing a breeding ground is crucial, but only one part of the equation. The other is the support of the industry's needs.

South Africa does have existing industry clusters that can still be expanded. The automotive footprint in South Africa is large, with BMW, Chrysler, Fiat, Ford, MAN, Mercedes, Nissan, Toyota, and Volkswagen manufacturing cars mostly in Northern Gauteng or around Port Elizabeth and East London (Sarupen, 2018a). However, the supplier industry shows potential. Why not produce seats or electronics locally, while incentivising OEMs to source and suppliers to manufacture locally?

Tourism is already a highly relevant industry in South Africa, contributing about ten percent to the GDP, as well as to employment (Turner, 2013). There is an upside potential for tourism: opposed seasons to the northern hemisphere, low prices in an international comparison, cultural diversity, leading museums, globally competitive cuisine, as well as a unique scenery, flora, and fauna. Areas like the Kruger Park, the Garden Route or Johannesburg, amongst many others, still have large upside potential for attracting foreign tourists (Prinsloo, 2018b; Sarupen, 2018b).

The film industry is also a field with potential. South Africa has already been the home for many renowned international productions, including *Mad Maxx: Fury Road* (6 Oscars), *Tsotsi* (Oscar, Golden Globe), or *Inxeba* (several film festival awards) (IMDB, 2018). South Africa has a competitive advantage, as costs for filming are comparably low. Not only is labour cost lower than elsewhere, but as with Hollywood there are many varied landscapes reachable within a short distance, the infrastructure is competitive, and the exchange value of the Rand is advantageous for foreign productions (Prinsloo, 2018b).

Besides the three examples provided, there are also other industries that ought to be considered for support, mostly by vertically integrating and localising value generating activities, in agri-processing, renewable energy production, oil and gas processing, or mineral and metal processing.

The three most binding constraints to implementing this initiative, starting with the more relevant, are: (1) trust in the South African market and political stability, (2) the high cost of labour, and (3) infrastructure outside of main business hubs.

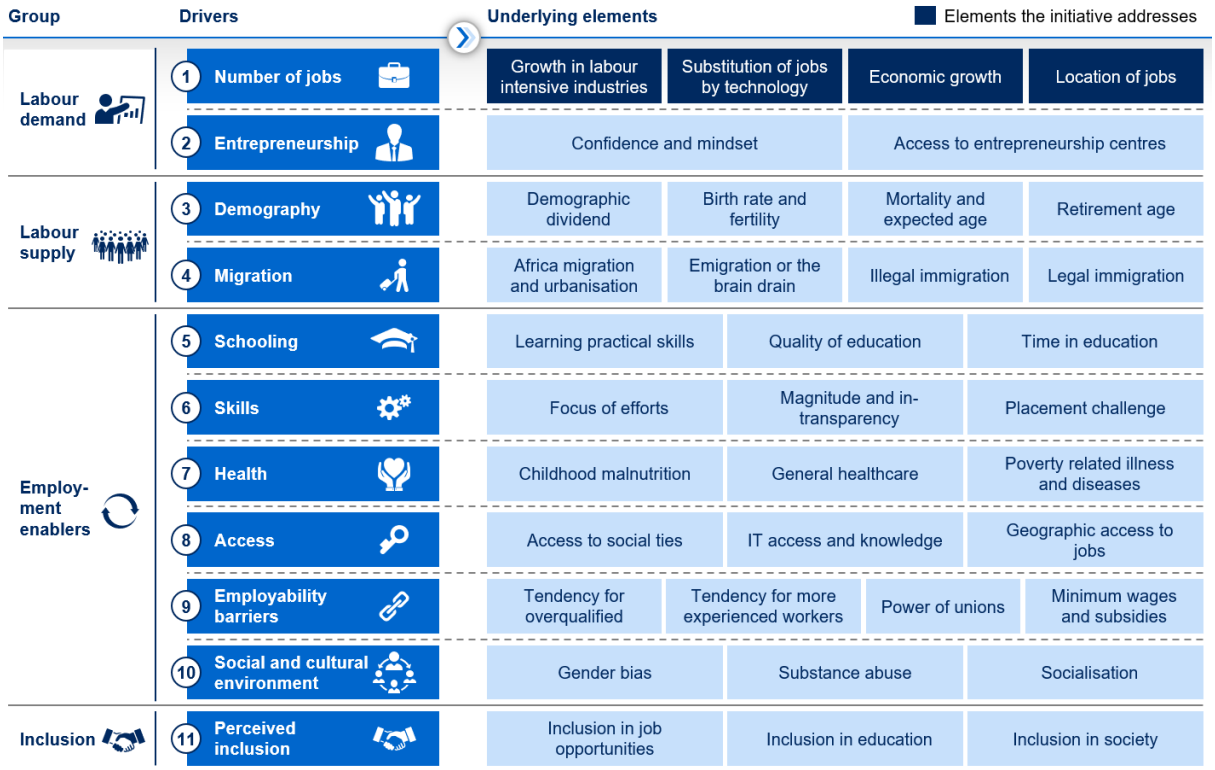

Figure 62: Economic Boost contribution to employment drivers

Source: own illustration

Pilot

McKinsey & Company has worked on rebuilding the infrastructure at the Garden Route after the severe fires. Several dozens of jobs have thus been created directly through the re-build and several hundred through the resulting effects enabling the strengthening of the region and its tourism industry (Prinsloo, 2018b; Zille, 2017a).

6.2.2. Train youth to start a business

Concept

Youth upskilling creates employment by addressing the issue of structural unemployment and employability deficits.

South Africa has an extensive environment for entrepreneurship support, including various entrepreneurship centres and even angel and venture capital funding opportunities, as illustrated

in *Chapter 4.3.3 Access to entrepreneurship capabilities* (pp. 122 ff.). However, there is a lack of the infrastructure on both ends of the entrepreneurial journey.

To tap into these available resources, the entrepreneur needs to have a proof of concept and a somewhat operational business. There is no structured ideation programme in South Africa to support youth at this stage. On the other end of the journey, as SMEs left the incubation phase, there is hardly any structured support to grow the SMEs in order to create jobs. Both insufficiencies are crucial in addressing unemployment. Entrepreneurship support creates self-employment, and SME support creates employment within the grown organisation.

Many unemployed youth in townships do have business ideas, but fail starting or implementing them as seen in *Chapter 4.2.2 Snippets of the lives of young unemployed* (pp. 100 ff.). The chapter explained the intention of a young lady to bake and sell muffins to her community. This girl cannot access the existing entrepreneurial infrastructure, such as an entrepreneurship centre, as she has not started and proven her business yet. She sits at home thinking about her idea but is lacking the literal push beyond the doorstep.

The question arises as to whether supporting youth entrepreneurship is a useful investment and builds the path to a viable future. Many think so. The president of the South African Youth Chamber of Commerce does (Kilian, 2017), as do many youth when asked for a path to the future. The CDE argues that entrepreneurs are trained best as employees, learning content and drive. Also, the relatively small entrepreneurial community in South Africa does not allow for spill-over effects, motivating others to become entrepreneurs. The CDE further argue that small businesses lack a track record of longevity (Bernstein, 2004; Schirmer & Bernstein, 2017). Their arguments might hold true for more advanced business models, where work experience is required to understand the product and industry, but not necessarily for a baking business, or some such similar venture. Although the entrepreneurial community in South Africa might be smaller than it is in other African countries, there are still prominent successful entrepreneurs, namely President Cyril Ramaphosa, to mention but one. Lastly, longevity is typically measured for registered businesses. Most of the start-ups in townships would not reflect in any formal statistic. Further to this, the businesses started by unemployed youth are also not intended to become the next conglomerate, but to show youth that economic activity pays off by earning money.

Additionally, it is arguable as to whether the business contributes to the South African economy as it is most likely to be run informally, without registration or taxation. This is without a doubt

the case. For several reasons: the experience unemployed and possibly discouraged youth get by experiencing their ideas turning these into cash will have a lasting impact on drive and business attitude. Also, as businesses grow, formalisation and the integration into B-BBEE is of advantage, incentivising formalisation.

It is further arguable as to whether youth starting their own business create net new jobs. They do: purchasing products while living in a township entails additional cost, either by travelling to a city hub where available, or by buying them there and transporting and storing them in the township. Thus, local produce creates a new market that involves incremental value creation.

Interviewing this young woman who wants to start a muffin business triggered the researcher to initiate a programme to support her and like-minded, but also similarly helpless youth. Research in Africa has shown that entrepreneurs trained in soft skills help to successfully incubate the business more than those having gone through hard-skill business training (The Economist, 2017d). Field work has also shown that self-confidence is the largest challenge for youth, who have typically failed multiple times throughout their lives, dropping out of school and not being successful with job applications.

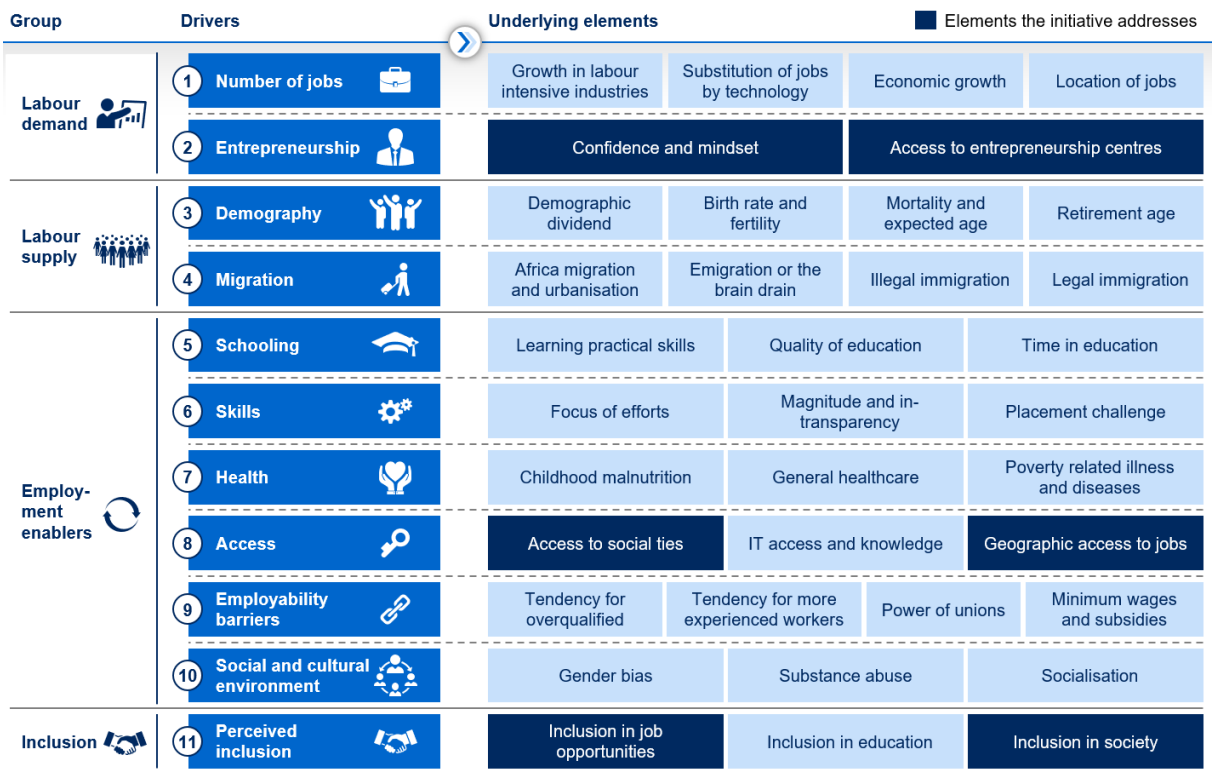

Figure 63: Entrepreneurship Bootcamp contribution to employment drivers

Source: own illustration

B-BBEEE does support small enterprises through *preferential procurement*, *enterprise development*, and *qualifying of small enterprises*. Youth that this entrepreneurship boot camp

addresses are typically non-registered business and therefore fall out of the raster. Still, the B-BBEE category of *socioeconomic development* both could and ought to be used to finance this initiative. This initiative to boost entrepreneurial activity appeals to the *socioeconomic development* portion of B-BBEE to focus efforts on job creation by enabling entrepreneurs in townships through training.

The three largest challenges to overcome in order to make this initiative a success is a reliable, competent, and nationally represented partner for the roll out, with access to a recruiting pipeline for youth, training and train-the-trainer capabilities, and monitoring and evaluation rigorousness.

Pilot

In cooperation with Khonology, an employment and IT consultancy, the researcher developed a three-day entrepreneurship boot camp to address youth that are keen to start a business. The applicants were selected for being unemployed South Africans, having a low-complexity business idea, and a sound motivation. The selected entrepreneurs-to-be were invited to train for three days, covering (1) exercises to increase the motivation of the participants and to determine whether a participant has the right personality profile to start a business, (2) checking whether a participant has the right skills for his/her business idea, interacting with first potential customers, receiving feedback on business idea, and (3) guest speakers as role models for participants, defining next steps and milestones, and pitching in front of a jury. The trainings incorporated feedback from random strangers, helping the participants to overcome the barrier of approaching strangers to pitch their idea and to receive instant, unfiltered feedback. After the three days, each participant was allocated a mentor, and references for further support (Dahwa, Dayi, Jakie, Molefe, & et al., 2017).

The eleven business ideas the participants followed up on were a driving school, children's clothing, a fitness studio, an internet café, interior design, family coaching, fruit delivery, an e-commerce platform, stationary delivery, an IT college, and a customer service consultancy.

Out of these eleven ideas, five entrepreneurs earned money a month after the training. The young man who wanted to start a fitness studio was hesitant, due to lack of funds for renting a venue and buying equipment. The entrepreneurship boot camp helped him to iterate his idea. Within the training he came across the police commissioner of the local station, who offered to pay him for training the policemen by taking them for a run and do exercises outside. No investment required.

This concept, based on the fairly successful pilot, can be rolled out to reach thousands of youth in townships.

6.2.3. Grow SMEs businesses

Concept

Growing small and medium sized enterprises allows for job creation by integrating South African businesses better into the international value chain entailing a net growth of the local economy.

As elaborated in *Chapter 6.2.2 Train youth to start a business* (pp. 192 ff.), the South African entrepreneurial environment is lacking support for growing companies. The South African *National Development Plan* for 2030 identifies SMEs as the motor for job growth in South Africa. It predicts that 90% of new jobs will be housed in SMEs by 2030, claiming 11m jobs to be created by 49,000 SMEs underlying a growth rate of 20% p.a. (NDP, 2011). Without doubt this is an ambitious assumption considering a stagnant economy. Even worse, there is no targeted growth-support ecosystem for SMEs in South Africa. The McKinsey Global Institute identified the sectors bearing the largest job creation potential as advanced manufacturing (e.g., automotive, defence), agriculture (e.g., production and processing), and service exports (e.g., international call centres) (McKinsey Global Institute, 2010, 2012, 2016).

In order to create incremental jobs, not replacing any from existing South African businesses, the growth needs to come from exporting goods or substituting imports. In order to achieve either of these, SMEs typically require support for their go-to-market strategy, cash-flow optimisation, or operational optimisation.

The support model can either be a dedicated consulting effort in the SEMs targeting specific themes, or as training for owners and managers of these SMEs.

For this proposal likewise, B-BBEE can be beneficial. The existing *preferential procurement*, *enterprise development*, and *qualifying of small enterprises* elements provide an adequate structure to support for the import substitution element. Growth through export falls out of the BEE structure, as goods and monetary flows are with foreign counterparts. However, the ecosystem for local enterprises is fairly closed (Sarupen, 2018b). Supply chains are dominated by large players, making the market entry or growth for incumbents much more challenging.

For this grow accelerator, the most binding constraint are the recruiting of companies to train and the capabilities to provide industry-specific expertise.

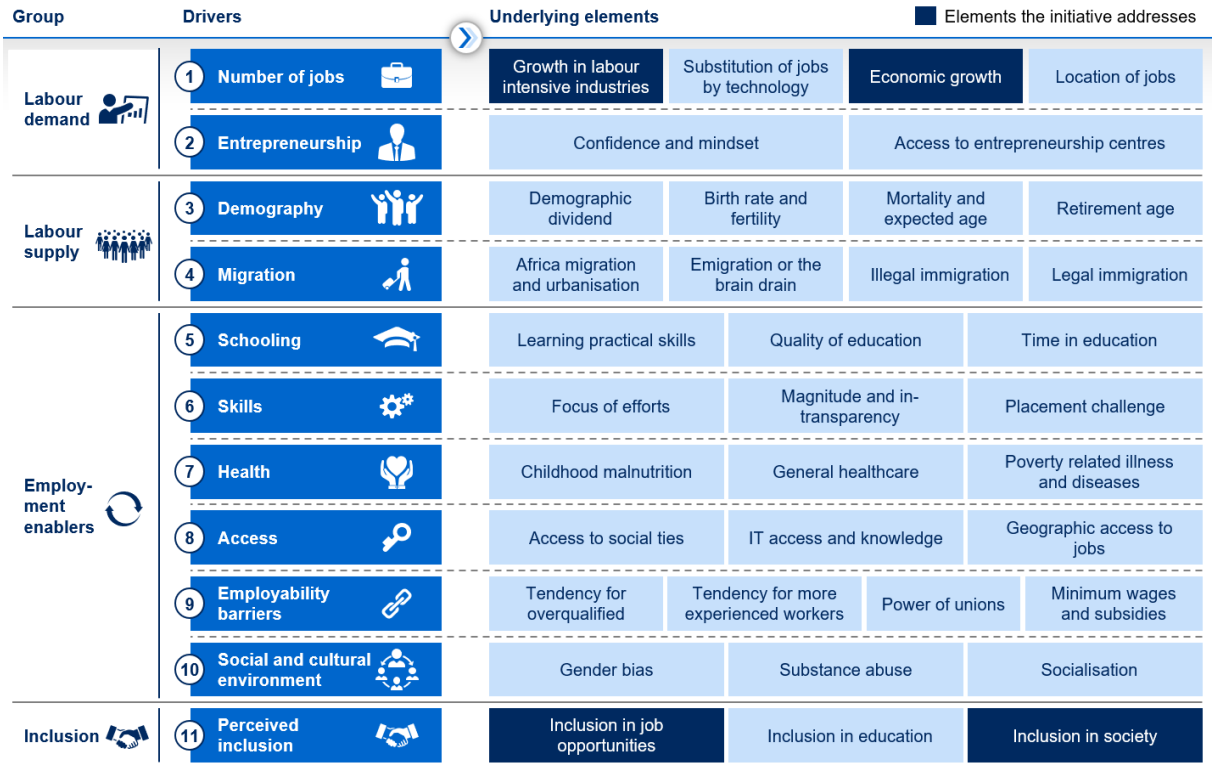

Figure 64: SME accelerator contribution to employment drivers

Source: own illustration

Pilot

McKinsey & Company has implemented such a model as an element of their South African pro-bono initiative, Tirelo SA. Six SMEs received pro-bono consulting advice over a short period of time, and the managers of four SMEs were trained, creating in sum about 500 new jobs within less than nine months after starting the programme.

This success illustrates that there is significant potential for creating new incremental jobs. Alone in the target industries advanced manufacturing, agriculture, and service export, about 2,500 new jobs are possible until 2030 based on their projected GDP contribution (McKinsey Global Institute, 2016; Oxford Economics, 2018).

6.2.4. Bridge the cross-continental employment gap

Concept

Cross-continental bridging creates employment by matching labour market insufficiencies by incorporating countries with an over-supply of labour and countries with an over-demand for labour.

There are global disparities when it comes to labour supply and demand. Aging societies lack youth to fill jobs while other countries suffer from severe unemployment. One example is Germany and the challenges of its aging population. Already in 2016, close to 200,000 learnerships were unoccupied in Germany (Handelsblatt, 2016). One of the areas with the most significant shortage is caregiving. Driven by a population with increased lifespans requiring care, combined with the reduced youthful workforce that also is not keen to work in a care-giving environment, elderly care will show significant shortages in the future. By 2030, 300,000 caregivers will be missing, 200,000 of them in elderly care (Stalinski, 2017).

At the same time there are many unemployed or underemployed but qualified caregivers in South Africa, such as community health workers with a qualification level between NQF level 2 and NQF level 4. Bridging this cross-country disparity would allow for South African youth to gain training, employment, and international exposure. At the same time, German elderly would receive improved care. Additionally, the German and South African governments would relieve their social responsibility burdens.

The largest challenges to implementing this initiative are the support of the government in the receiving country, particularly around immigration regulations, the capacity and intercultural competency of the training providers in the receiving country, sourcing resilient youth to learn another language and tackling the challenges facing going and being abroad.

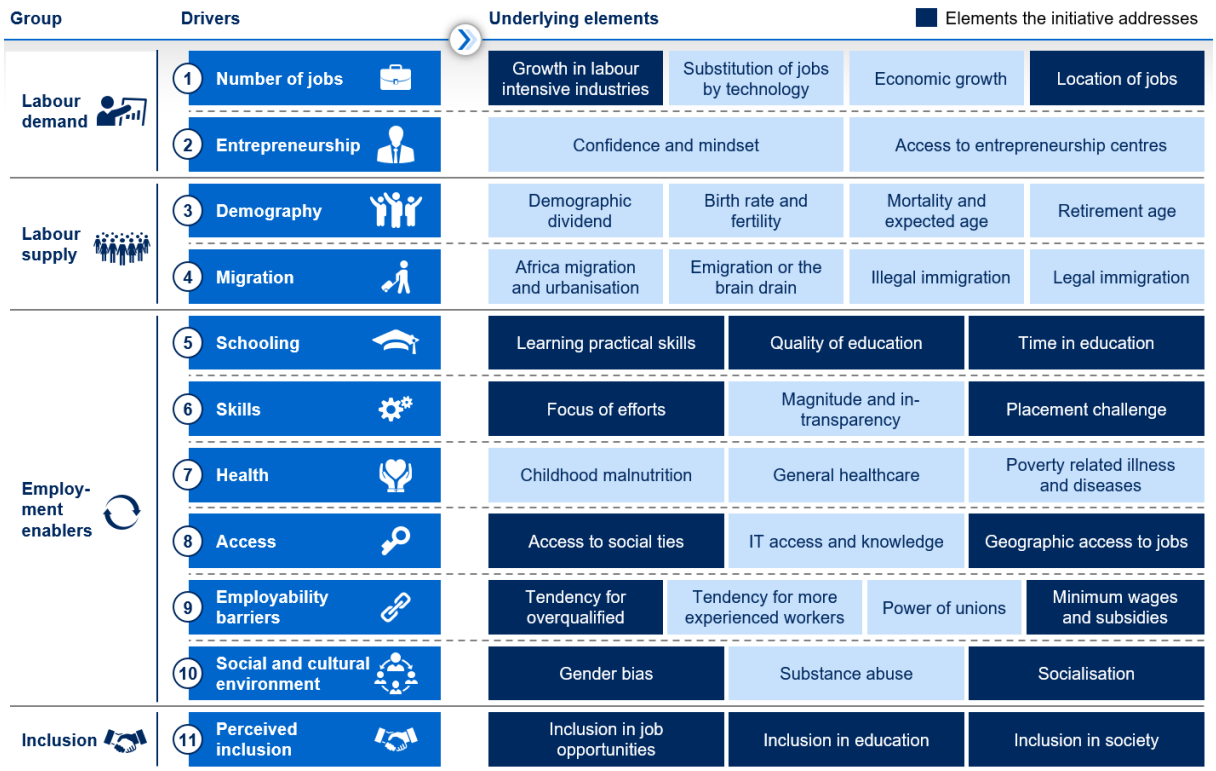

Figure 65: Cross-continental bridging contribution to employment drivers

Source: own illustration

Pilot

uNowanga has made this issue its purpose. uNowanga is the isiZulu and isiXhosa name for the white stork that travels from Europe to Africa and back, as do the caregivers. Initiated by the researcher and George Woods, the CEO of the Order of St John, an order of chivalry focusing on health care in South Africa and many other countries, this programme is set up as a joint venture between the Order of St John and the Johanniter Order, the German equivalent.

The Order of St John trains youth from mostly disadvantaged backgrounds to become community health workers. This accredited programme allows them to workforce a small stipend in their local community. Despite the stipend, most are considered unemployed, as they are, earning between ZAR 1,800 and 2,200 per month.

uNowanga aims to recruit from these youth participants for a three- to four-year programme. The first twelve months the youth learn German, and work in a German old-age home in South Africa that is co-run by the Johanniter Order. After qualifying in German, they then start an apprenticeship in Germany at a Johanniter old age home qualifying as a nurse (German: Krankenpfleger) or geriatric nurse (German: Altenpfleger). After two to three years, their

apprenticeship is concluded, qualifying them to work as a nurse in Germany and depending on the recognition of the apprenticeship by South Africa, also in South Africa.

This helps the youth to gain a further qualification and upwards mobility through a fully funded programme, while gaining international experience. They will also bring back a scarce skill when returning to South Africa.

6.2.5. Implement employer-demand-led skills programme

Concept

An employer-demand-led skills programme addresses structural unemployment caused by insufficient employability amongst the youth.

Even though South Africa faces exorbitant youth unemployment, corporates still struggle finding talent across the board. Particularly qualified workers are scarce. Corporates can neither rely on the public nor on the private educational system to supply the qualifications they are in need for. As a result, businesses start their own training facility to train according to their standards. For example, Steinmüller in South Africa, the supplier of components for power plants, operates its own training centre. This is a cost-intense investment, which is nonetheless required to operate at the required standards. This investment is built on a risky foundation, as poaching competitors' talent is the alternative way to acquire talent. (Kaempffer, 2016; Masilo, 2016b, 2017; Schmeling, 2017; Sounding Board et al., 2018).

This system leads to high personnel cost, driven by the training, and attrition further worsens South Africa's position compared to other African countries with lower labour costs.

The professions with the highest scarcity and a lengthiest time period to adequately fill an open position consisting of the time to hire and the time to train on the job up to the required skills, are technical-vocational skills and digital skills. Manual skills ought to be provided by public and private TVET colleges. As described in *Chapter 4.3.7 Skills development* (pp. 137 ff.), wrong page reference TVET colleges are not up to standards, training on dated curricula and machinery, and thus missing the quality requirements of employers. Digital skills, such as front- and back end, full stack, or customer journey developers are typically provided by universities. However, their training is more generic. Institutions that purely focus on programming skills are few, but the ones that exist have absorption rates of close to 100%, such as the venture WeThinkCode (Agon, 2016; Prinsloo, 2018a). Thus, the difference between manual and digital

skills is that there is simply not enough capacity to train digital skills, whereas training providers for manual skills are not training up to employers' standards.

How does the system operate currently? The structural foundation for vocational training is solid: South Africa offers three pathways to vocational training, namely the National Certificate (Vocational), the Nated System, and the Occupational Sub-framework. The funding is secured, although bureaucratic hurdles have to be overcome: TVET colleges are funded and accredited by SETAs and employer's *skills development levy*, which is an element of their B-BBEE spend and accredited by SETAs. TVETs therefore train mostly in the professions that supply the largest funding, not necessarily with the largest need. The curricula allow for exposure: a split for workplace, practical, and classroom training, but often use outdated materials. There is a multitude of training providers: around 8,000 providers offer a magnitude of professions and paths, often leaving youth puzzled as to which ones to choose. This system is not efficient.

The underlying issue causing this inefficiency is a disconnect between employers, training providers for skills, and youth. In brief, youth do not appreciate the value of vocational training, do not know where to get an education, and which jobs offer promising expectations. Employers do not collaborate enough with training providers to meet their demands and lack the empathy for the challenges of youth. Trainers struggle to recruit youth, link to employers for curricula development and absorption, and lack funding.

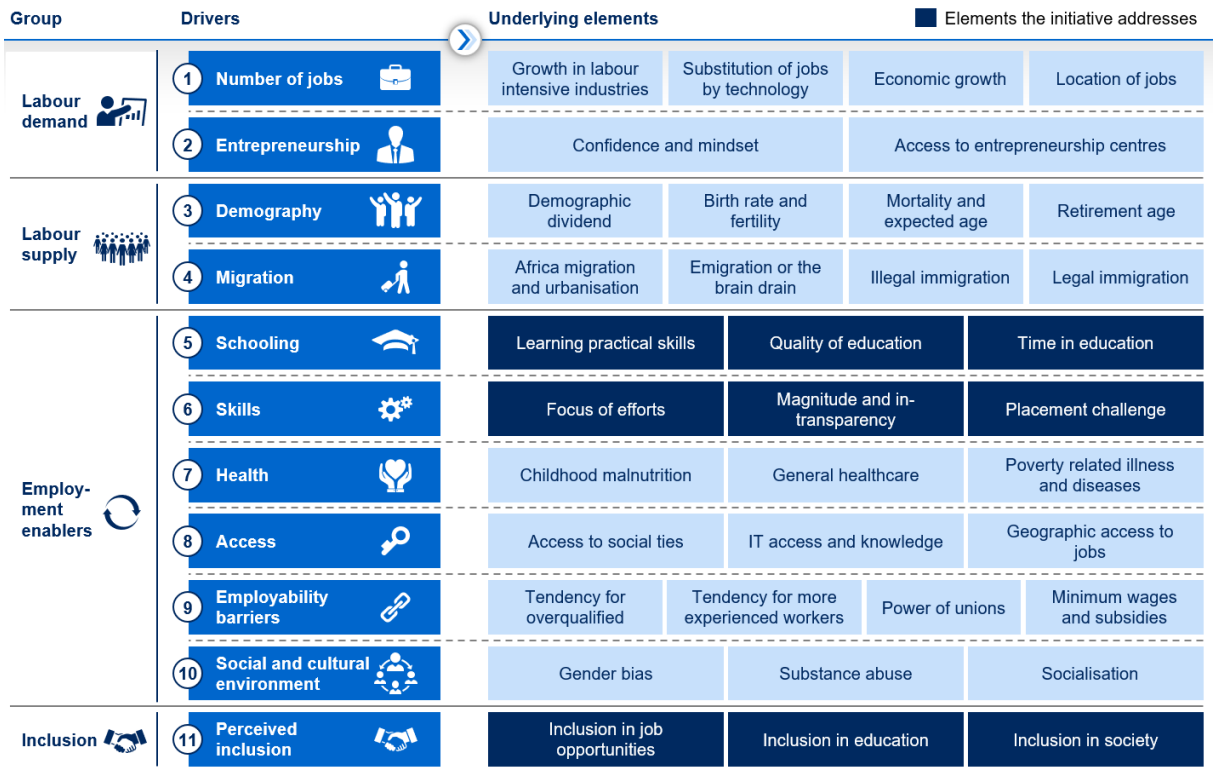

Figure 66: Employer-demand-led training contribution to employment drivers

Source: own illustration

The disconnect carries through, from: (1) recruiting, to (2) training, to (3) placement. (1) In the recruiting process, youth lack an overview of training opportunities and promising jobs with high employment chances and decent pay. Youth see manual labour, and thus vocational training as the last resort. Training providers face the challenge of addressing and recruiting youth. Employers often do not understand the youth's challenges and perceptions. (2) When it comes to training, youth often face certain costs, such as transportation or tuition, that they are not able to afford. They often lack insight into which capabilities they need, whether hard skills or soft skills, e.g. the timeliness or manners they need to succeed on the job. Trainers do not have the full understanding for the employers' requirements regarding quality and quantity of demanded skills. Therefore, the curricula are not optimised, and the equipment for training is not up to industry standards. Further to this, the workplace exposure is not necessarily built into the curricula. Employers see the workplace component of the training as an additional cost burden next to the skills levy and additional management and supervision effort, without perceiving the overall benefit. (3) In placing the youth in a job after finishing the training, youth often lack support structures to find an employer, the training provider lacks contacts to employers and often does not track the absorption rate after the completion of the training, and employers struggle to understand the qualifications youth acquire and struggle understanding the youth's needs based on their challenges and their aspirations.

The most binding constraint for this proposal is to gather all involved parties, youth, employers, schools around one table in a scalable manner, develop a feasible financing model tapping into government funding possibilities and corporate support, and shifting the mindset toward the value of apprenticeships, away from perceiving only academic work as attractive.

Pilot

The solution to this challenge is not to simply roll-out more or better skills development nor to aim at moving more youth through TVETs. As long as the placement rates are low, the shift would be from unqualified unemployed to qualified unemployed, causing significant costs in the process.

The solution is a demand-led skills programme, integrating youth, training providers, and employers. First, employers identify their needs for talent over time. This requires a step up from spontaneous recruiting to a forward-looking talent strategy. Employers then link with training providers to define the exact requirements for the profession in demand and co-develop a

curriculum, incorporating classroom and on-the-job training. The on-the-job training allows the youth and the employer to assess whether a working relationship after the training is in the common interest. Utilising government and available third-party funding, the employer covers additional costs to allow to train as many youth as required. Thirdly, employers and training providers jointly approach youth highlighting the programme's benefits, including no tuition and a high likelihood of placement after the successful completion of the programme.

Ultimately, this programme is very similar to a German or Swiss apprenticeship model, with an increased focus on future demand not required in Germany, as the demand there is higher than the supply for most vocational professions (see *Chapter 6.2.4 Bridge the cross-continental employment gap,* pp. 198 ff.). *McKinsey and Company's GENERATION* programme delivers a very similar approach in Australia, Hong Kong, India, Italy, Kenya, Mexico, Pakistan, Singapore, Spain, the UK, and the US, covering 93 cities on 234 sites, achieving 82% absorption within 90 days after programme completion (Generation, 2018). *GENERATION*, however, addresses countries in which the public system does not have a strong structural foundation for vocational training.

7. Winter is (not) coming

Is *Winter* coming to South Africa? Will the worst-case scenario happen? May we be fortunate and have *Summer* in 2035, or *Spring*, or *Fall*…? This all depends on how the youth employment bomb is handled in the present.

In the introduction, this work discusses the idea of the "ticking time bomb", asking: Why is there a bomb with a ticking detonator? What happens when it explodes? When will the timer have run out and trigger the detonation? Can it be defused? How? By whom?

Why actually is there a bomb with a ticking detonator? Summarising the insights from this research in brief: half of the South African youth are unemployed. This dramatic situation has grown over decades and is not caused by a shock. Therefore, it is deeply rooted in the economic and societal structure. There is no quick or easy way out, and certainly the youth know that. They know that they have limited access to education, limited access to job opportunities, and therefore limited access to becoming part of the striving society. There is hope. The middle class is growing as the poor step up the social ladder. Unfulfilled hope causes the explosiveness. Not finding one's ladder or not being able to climb it causes despair and frustration. That is the dynamite in the bomb.

What happens when it explodes? When the timer stops, triggering a detonation, the youth will rise up and fight for what they think is their right: gaining access and becoming part of the society, the opportunities, and the land in proximity to economic hubs. Still, the *Spring* is not the worst-case as a youth revolt bares the potential to trigger change in the society for the better, as seen in the *Arab Spring*.

When between now and 2035 this will happen, or if it will ever happen, is not certain. The four scenarios, however, explain what will happen if it explodes or if it will not explode. *Summer*, *Fall*, and *Winter* do not incorporate a detonation.

Can it be defused? How? By whom? Yes, it can! There is hope for South Africa, but the path to *Summer* is long, windy, stony, and steep, and requires immense resilience and perseverance to climb. The social ladder and the possibility to climb it needs to be accessible for everyone. The five proposed initiatives, targeted economic growth, entrepreneurship support, SME growth, international opportunities, and an employer-demand-led training programme will build the foundation to place the ladder on. Once it has been laid, jobs will create income and prosperity. To achieve this, all South Africans need to join forces, including government, the

private sector, the schools and training providers, the rich, the poor, the middle class, the employed, and the unemployed.

To tackle youth unemployment in South Africa, a reversal of the current trend is required. This reversal needs to be grand. Efforts too small in scale will only provide ladders to a few, leaving the many in despair, fuelling the inequality and adding to the explosives of the bomb.

7.1. Academic implications

This work focuses on South Africa. The structure on how to methodologically approach socio-economic issues, like unemployment, can also be used in different contexts. For understanding youth unemployment, the structural framework of drivers has applicability beyond this work.

Scenario analysis with economic and ethnographic data

Scenario analysis is a highly structured process following simple, but strict rules. (1) Understand the status quo, (2) identify the key drivers, (3) detail the underlying factors and their possible development until a set point in the future, (4) prioritising the drivers according to impact and uncertainty, (5) building the scenarios, and (6) deriving mitigating measures. This research has used ethnographic elements to gain multi-layered insights into the status quo.

Further work is needed to understand how best anthropology can supply scenario analysis with the granularity to better comprehend complex systems and the path-dependent actions of their actors.

Drivers for youth employment

This work has identified eleven drivers for youth employment in South Africa (see *Figure 68: Youth employment initiatives*). These drivers are derived from economic and anthropological literature that is not specific to a country nor region. Subsequently, these were then validated through 90 expert interviews in a South African context.

These eleven drivers are universal, and consequently are applicable in any geographic youth employment setting. The “eleven drivers for youth employment” claim general applicability.

The underlying elements, two to four per driver, are specifically developed for the South African context based on expert interactions and fieldwork. Some of them therefore will only have limited applicability in other countries, e.g., childhood malnutrition, or have a different magnitude of influence, e.g., quality of education. Several underlying elements however, e.g.,

substitution of jobs by artificial intelligence, demographic shifts, or access to ties, will have an implication in any setting, even though their significance will vary.

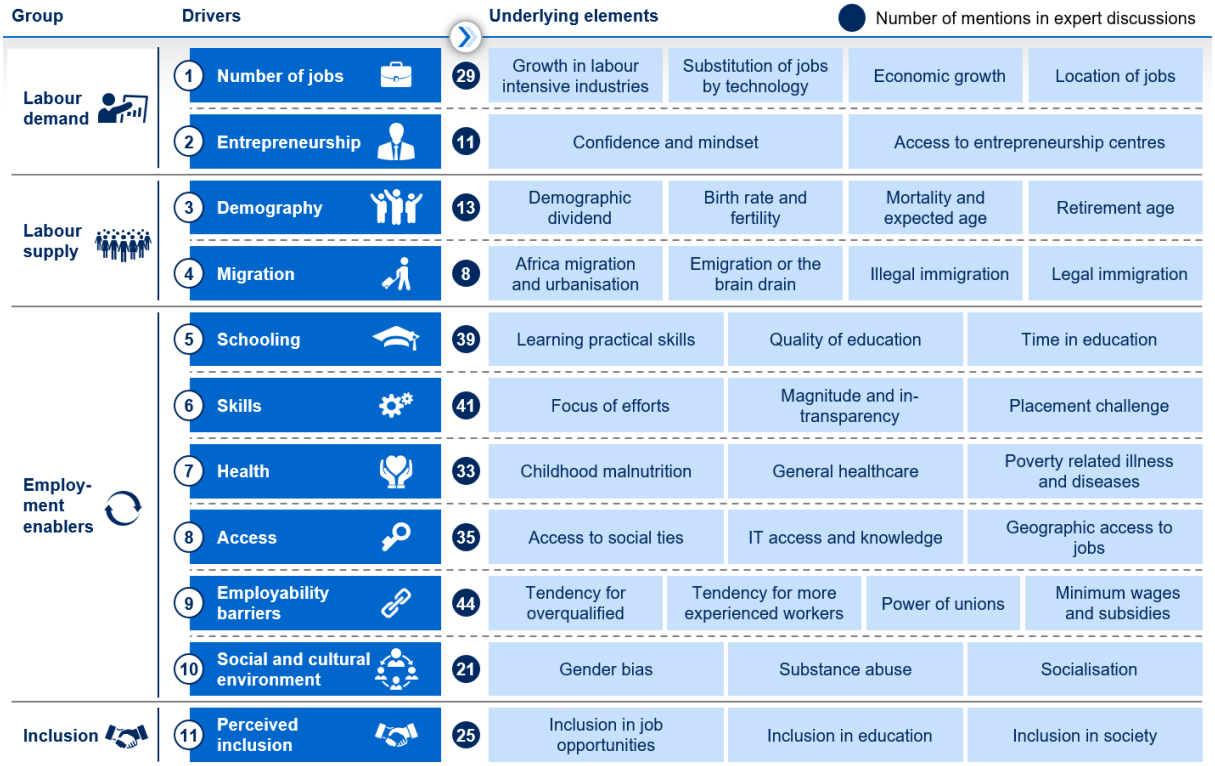

Figure 67: Employment drivers

Source: own illustration

Multiply approach and limitations

Building on this research, youth scenarios will be easily replicable in different countries or regions. The understanding of the status quo will have to be evaluated on a green field using statistical data and ethnological fieldwork, which will allow for plotting the “eleven drivers for youth employment” on the impact-uncertainty matrix, utilising a scenario sounding board.

It will be interesting to evaluate the placement of the eleven drivers on the matrix depending on the country. This comparison will allow for new insights, such as a regression analysis, for the sensitivity of each driver to understand if the drivers are placed similarly according to countries in one region or countries in a similar developmental stage.

This research initially aimed at understanding youth employment in a whole region, but a scenario approach for employment cannot be done for multiple countries at once as each county has its own political, historical, social, and economical peculiarities. However, if there is robust data on driver placement derived from researching individual countries, a grouping might be possible.

7.2. Practical implications

Understanding youth employment is an interesting and challenging exercise, but without drawing conclusions as to how to address the identified issues, the research is meaningless. Only a strong proposal might help to truly change the lives of youth by providing them with employment.

This work proposes five specific proposals on how to address youth unemployment (see *Figure 68: Youth employment initiatives* and *Chapter 6.2 Five new proposals for addressing youth unemployment*, pp. 187 ff.). These five proposals are developed for the South African context.

Figure 68: Youth employment initiatives

Source: own illustration

These five proposals for tackling youth employment open the field for conducting further research. Although all five proposals have been piloted and have shown some initial success, these initiatives need to be implemented in a larger scale and evaluated thoroughly in order to be able to draw conclusions on impact, such as through a longitudinal impact evaluation study evaluating the sustainability and allowing for efficient budget allocations between them.

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Appendix

Appendix 1

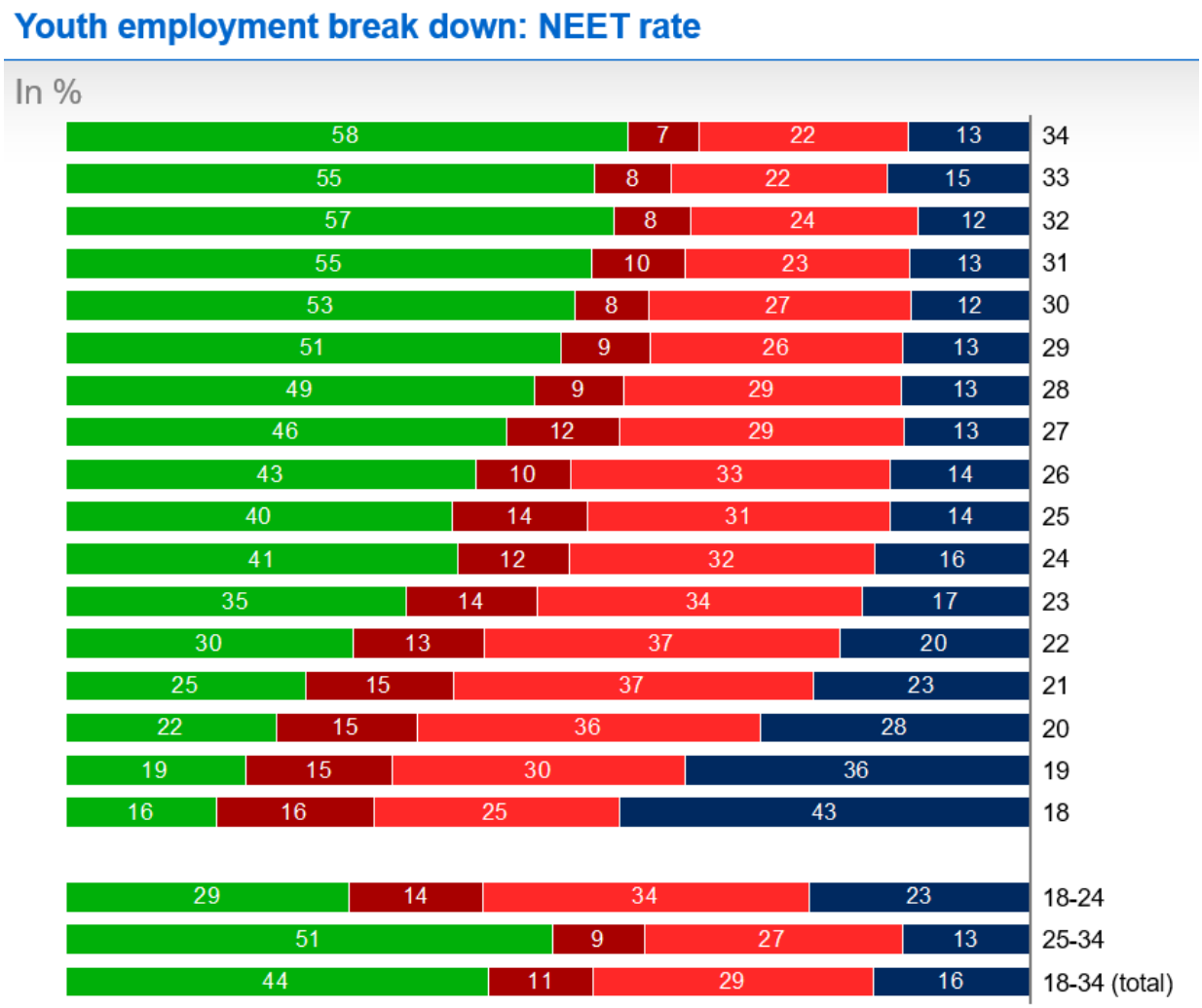

Figure 69: Youth NEET rate by age

Source: Statistics South Africa (2017b); own illustration

Appendix 2

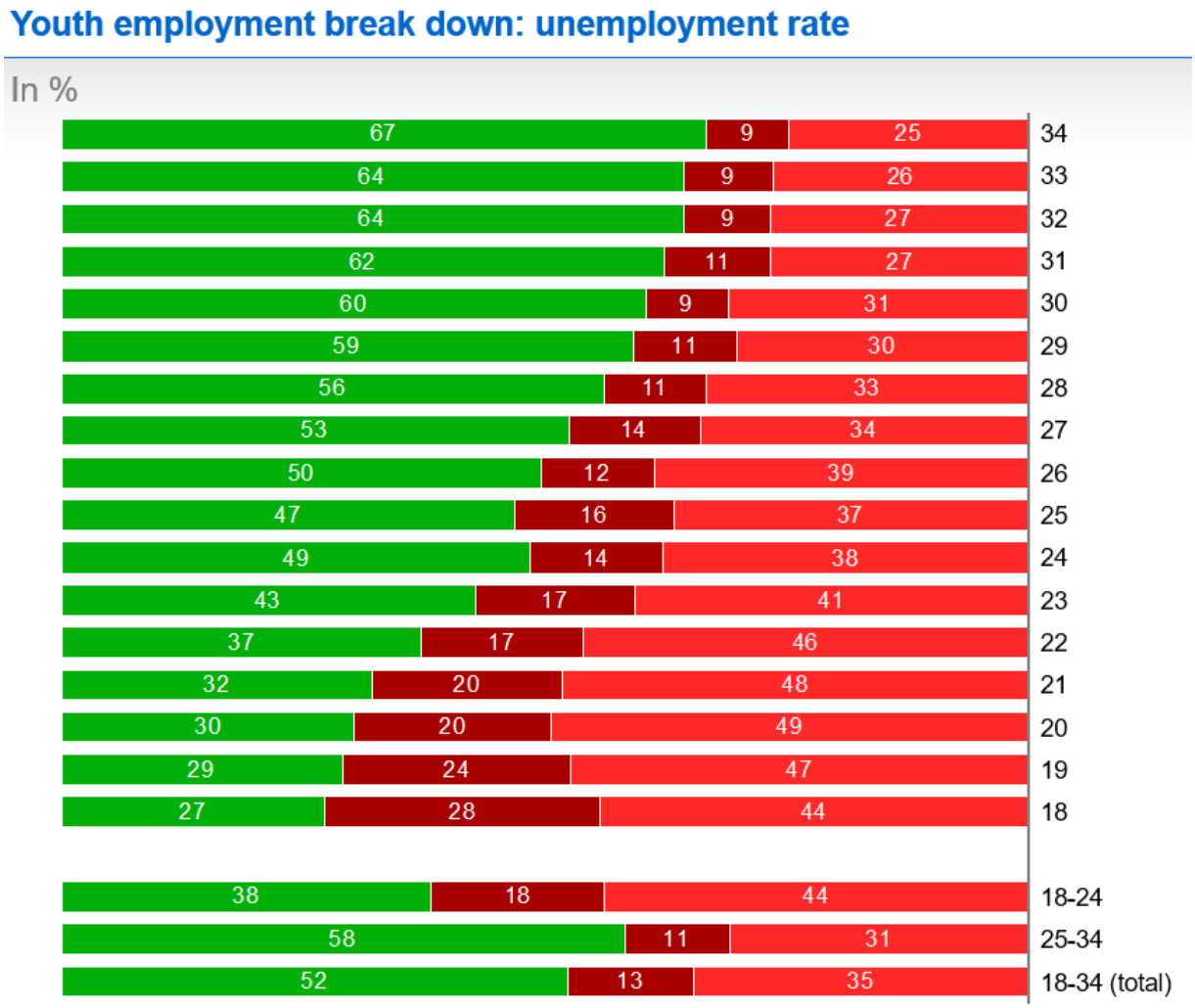

Figure 70: Youth unemployment rate by age

Source: Statistics South Africa (2017b); own illustration

Appendix 3

Driver	Driver No															Min	Max	AVG	VAR
Impact																			
Number of available jobs	**1**	0	100	91	100	100	88	75	100	100	100	0	100	100	100	**0**	**100**	**82.4**	1180.0
Working age population	**2**	0	0	91	80	45	88	75	0	75	75	40	100	100	10	**0**	**100**	**55.6**	1402.2
Education	**3**	100	0	100	90	82	63	75	100	67	25	100	22	50	100	**0**	**100**	**69.5**	1052.6
Migration	**4**	53	0	0	0	0	38	0	30		33	80	39	70	100	**0**	**100**	**34.1**	1074.9
Access	**5**	92	0	100	55	38	86	69	83	0	92	55	92	28	14	**0**	**100**	**57.2**	1193.3
Employability barriers	**6**	67	100	73	60	82	100	75	30	0	17	40	67	80	100	**0**	**100**	**63.5**	911.0
Social and cultural environme	**7**	76	100	56	76	0	24	39	76	59	59	76	12	76	76	**0**	**100**	**57.3**	762.0
Perceived inclusion	**8**	93	0	91	60	0	13	100	10	100	42	60	0	100		**0**	**100**	**51.4**	1677.0
Skills	**9**	100		50	100	75	65	65	45		77	72	0	86	58	**0**	**100**	**66.1**	674.4
Health	**10**	93		55	100	45	38	75	100		42	20	17	0	10	**0**	**100**	**49.5**	1156.5
Entrepreneurship	**11**	67		100	100	64	0	25	80		0	20	11	20	0	**0**	**100**	**40.5**	1393.8
Uncertainty																			
Number of available jobs	**1**	86	0	67	0	0	31	50	0	38	43	0	64	100	71	**0**	**100**	**39.3**	1156.9
Working age population	**2**	0	13	0	35	56	57	0	7	100	0	0	0	0	0	**0**	**100**	**19.1**	910.8
Education	**3**	68	43	92	100	14	81	87	98	0	60	93	30	68	0	**0**	**100**	**59.6**	1212.2
Migration	**4**	43	80	40	32	74	15	95	100		64	0	14	64	93	**0**	**100**	**54.9**	1027.8
Access	**5**	8	64	28	46	35	100	86	54	1	77	73	0	31	62	**0**	**100**	**47.4**	935.9
Employability barriers	**6**	0	75	88	53	75	100	94	40	64	47	12	47	93	47	**0**	**100**	**59.6**	857.6
Social and cultural environme	**7**	0	100	69	41	84	64	49	83	2	75	4	0	100	75	**0**	**100**	**53.3**	1316.1
Perceived inclusion	**8**	89	100	93	30	100	54	56	86	0	64	100	100	35		**0**	**100**	**69.8**	994.6
Skills	**9**	40		100	88	56	0	65	7		100	12	27	60	100	**0**	**100**	**54.5**	1296.3
Health	**10**	100		0	87	14	100	100	100		54	80	9	77	85	**0**	**100**	**67.1**	1347.0
Entrepreneurship	**11**	40		19	100	69	100	53	0		33	24	13	53	47	**0**	**100**	**45.9**	923.2

Figure 71: Driver ranking results

Source: Sounding Board, Maree, Chinhimba et al. (2017); own illustration

Appendix 4:

Figure 72: List of employability factors

I. “Enabling support factors
    a. providing support to individuals on the employability pathway
        i. pre-employment preparation
        ii. training provision/ signposting to specialist provision
        iii. Signposting/ referral to no-employment/training support services (e.g. health, housing, care, etc.)
        iv. CV preparation
        v. interview practice
        vi. job search advice and support
        vii. access to ICT skills provision
        viii. access to ICT hardware and software
        ix. job broking (including technology)
        x. job matching (including technology)
        xi. post-employment support
    b. providing support to employers in facilitating aspects of employment
        i. pre-employment and in work training
        ii. recruitment and selection
        iii. off-the-job and on-the-job training
        iv. helping ensure employee voice and buy-in
        v. legal advice (e.g. on employment regulations)
    c. influencing local training/ skills policy
        i. to address national and local labour market needs
        ii. adapting existing training programmes to meet local needs
        iii. through facilitating opportunities for business and employee voice

II. Individual factors
    a. Demographic characteristics (could be the basis for discrimination)
        i. Age
        ii. Gender
        iii. Nationality
        iv. country of origin
        v. time in host country

vi. ethnic group
vii. religious affiliation
viii. name

b. Disposition to enhancing employability
    i. attitudes to education and training
    ii. engagement in networking to extend human/social/cultural capital
    iii. attitudes to paid employment, self-employment and entrepreneurship
    iv. attitudes to taking up unpaid/marginally paid work, e.g., volunteering and internships
c. Health and well-being
    i. Health physical
    ii. Health mental
    iii. Disability
d. labour market and Job seeking knowledge
    i. employment/ work knowledge base (including work experience and general work skills)
    ii. awareness of labour market opportunities
        1. knowledge of employers' recruitment practices
        2. knowledge and use of formal and informal information sources
    iii. ability to fill in a CV, perform effectively at interview
    iv. realistic approach to job targeting
e. Economic position
    i. (currently) in employment
        1. full-time employee
        2. part-time employee
        3. self-employed (with or without employees)
    ii. (currently) unemployed (duration)
    iii. (currently) economically inactive
        1. reason
        2. duration
    iv. overall work history
f. Adaptability and mobility
    i. career management and adaptability
    ii. functional mobility

iii. occupational mobility
iv. geographical mobility
v. wage flexibility (and reservation wage)

g. Employability skills and attributes/ characteristics
   i. essential attributes
      1. basic social skills
      2. honesty and integrity
      3. personal presentation
      4. reliability
      5. willingness to work
      6. understanding of actions and consequences
      7. positive attitude to work
      8. responsibility
      9. self-discipline
   ii. personal competencies
      1. proactivity
      2. diligence
      3. (self-)motivation
      4. judgement
      5. initiative
      6. assertiveness
      7. confidence
      8. self-esteem
      9. self-efficacy
      10. perceived employability
   iii. basic transferable skills
      1. literacy
      2. writing
      3. numeracy
      4. verbal presentation
      5. basic ICT skills
      6. new basic skills
   iv. key transferable skills
      1. problem solving

2. work process management
3. team working
4. personal task and time management
5. e-skills
6. interpersonal and communication skills
7. emotional intelligence
8. aesthetic customer service skills

v. high level transferable skills
1. team working
2. business thinking
3. commercial awareness
4. vision
5. job-specific skills
6. enterprise skills
7. creativity

vi. qualifications (and where obtained)
1. academic
2. vocational
3. job-specific

III. Individual circumstances

a. Household circumstances
i. direct caring responsibilities
ii. other family and caring responsibilities
iii. other aspects of individual's contribution to household (economic or otherwise)
iv. other household circumstances

b. Household work culture
i. whether other household members are in employment
ii. existence of a culture in which work and skills development is (not) encouraged

c. Access to resources
i. access to transport
ii. access to financial capital
iii. access to social capital (including for job search)

iv. access to cultural capital (to ease entry into employment and to maintain employment)
v. access to ICT

IV. Employer/ organizational practices

a. Organisational culture
    i. trade union recognition
    ii. commitment to training skills development and skills utilisation (and for whom)
        1. whether have a training budget
        2. whether have a training plan
        3. whether support (and fund) on-the-job/ off the-job training (including e-learning)
        4. whether offer work experience/ work placements
    iii. whether adopt high performance work practices (whether provide opportunities for employee voice)
b. Recruitment and selection practices
    i. how and where jobs are advertised (i.e. methods used)
        1. formal
        2. informal
        3. internet/ e-based
    ii. how successful applicants are selected
        1. manual
        2. e-screening/ e-selection
    iii. (non) discriminatory practices
c. Working practices
    i. whether adopt flexible working practices (and for whom)
        1. part-time working
        2. term-time hours
        3. compressed hours
        4. annual hours
        5. job sharing
        6. flexitime
        7. teleworking
    ii. working from home on a regular basis

V. Local contextual factors
    a. Features of local employment
        i. quantity of jobs (vis-à-vis number of people seeking employment) in the local labour market
        ii. quality of jobs
            1. occupation/ skill level
            2. full-time/ part-time
            3. permanent/ temporary
            4. pay
        iii. location of jobs (vis-à-vis residences and local transport networks)
    b. Local work culture
        i. whether neighbourhood has high levels of employment/ non-employment
        ii. local norms/ aspirations regarding education/training/ employment
    c. Local labour market operation and norms
        i. recruitment norms
            1. how/where jobs are advertised locally
            2. role of employment agencies in local labour market (and occupational/ sectoral labour markets locally)
        ii. role and strength of different actors in the local labour markets (e.g. key employers, local authorities, trades unions, etc.)

VI. Macro level factors
    a. Regulatory regime
        i. rules determining labour market access
            1. migration policy
            2. equalities policy / antidiscrimination policy
        ii. formal education system, curricula and training policy (including funding regimes)
    b. Welfare regime and institutional factors
        i. benefits system
        ii. active labour market policy
        iii. role of public employment service
        iv. role of trade unions
        v. ICT policy (public service delivery)

c. Employment policy
    i. work incentives (for individuals)
    ii. access to education and training when on benefits
    iii. incentives for employers to recruit / take on individuals for work experience, and for skills development
d. Macroeconomic factors
    i. aggregate demand for labour
        1. unemployment levels
        2. vacancy levels
        3. employment profile
    ii. employer/ consumer confidence”

(Hoyos et al., 2013, pp. 106–108)

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About the Author

Maximilian Matschke was born and raised in Munich, Germany. He spent four years in the US, three years at the German School New York, and one at a boarding school in Connecticut before graduating with an Abitur in Germany. Max studied Technology and Management as B.Sc. and M.Sc. at the Technical University in Munich. He subsequently completed an Honour's degree in Technology Management, spending a term abroad at Columbia Business School in New York, and interning in Germany, Singapore, PR China, and Spain.

Besides his studies, Max was the CEO and CFO of the Academy Consult, a Munich student-run consulting firm, and an active member of the Rotaract Club. Further, Max founded his own consulting firm, and co-founded a travel application.

He was hired as consultant by McKinsey & Company's Munich office in 2014, where he has been working since. He focused on the automotive and energy infrastructure industry covering topics relevant to strategy, turnaround, marketing and sales, M&A, cost reduction, and organisation in Germany, the US, UK, Mexico, Canada, and Brazil.

Max has decided to interrupt his career at McKinsey to pursue his PhD on a topic he discovered during his stay in South Africa in 2011: Youth Employment.

Max started three social ventures in South Africa, all addressing the issue if youth employment. The first venture was founded in 2011, as the first student-run consulting firm in Johannesburg, The Consulting Academy Johannesburg. The second is an entrepreneurship boot camp for unemployed youth. The third, uNowanga, is an upskilling programme designed to send unemployed community health workers from South Africa to Germany.

Declaration

Hiermit erkläre ich, Maximilian Matschke, dass ich die eingereichte Dissertation selbstständig, ohne fremde Hilfe und mit keinen anderen als den darin angegebenen Hilfsmitteln angefertigt habe, dass die wörtlichen oder dem Inhalt nach aus fremden Arbeiten entnommenen Stellen, Zeichnungen, Skizzen, bildliche Darstellungen und dergleichen als solche genau kenntlich gemacht sind.

Ich habe zudem von der Ordnung zur Sicherung guter wissenschaftlicher Praxis in Forschung und Lehre und zum Verfahren zum Umgang mit wissenschaftlichem Fehlverhalten Kenntnis genommen.

Ich erkläre, keine Hilfe von kommerziellen Promotionsberatern in Anspruch genommen zu haben, außer der einer Lektorin.

Maximilian Matschke

Mainz, den 11. April 2020