END OF TERM REVIEW: 2014-2019
GAUTENG CITY REGION SYNTHESIS REPORT
DEVELOPMENT AND CHANGE IN A DYNAMIC CITY REGION

1. PEOPLE, ECONOMY AND RESOURCES ............................................................ 2
   The population of Gauteng ............................................................................. 2
   Economic growth, structural change and unemployment ............................ 4
   Fiscal resources of provincial and local government .................................. 7
   Natural resources and the environment ....................................................... 8

2. PUBLIC SERVICES, SOCIETY AND INEQUALITY ........................................... 10
   Provision of basic services and infrastructure ............................................. 10
   Moderate improvements in the quality of life .............................................. 12
   Poverty and inequality ............................................................................... 13
   Public perceptions and social cohesion ..................................................... 14

3. SPATIAL DEVELOPMENT AND SETTLEMENT PATTERNS .................................. 17
   A new geography of race and class ............................................................ 17
   New patterns of human settlement ............................................................ 17
   Uneven density and mobility .................................................................... 19
   The daily commute and the alternation of day and night ......................... 20

4. SUMMARY AND DISCUSSION ....................................................................... 21
   Summary ..................................................................................................... 21
   Discussion .................................................................................................. 23

ADDITIONAL TABLES ......................................................................................... 27
   T1 Gauteng Provincial Government Spending (2010/11 – 2020/21) .............. 27
   T2 Income strata in Gauteng ..................................................................... 28

MAPS ............................................................................................................... 29
   M1: Green vegetation and impervious surfaces ......................................... 29
   M2: Imputed mean income by ward in 2017 ............................................. 30
   M3: Median income (2001) and median income growth rates (2001 – 2011) .. 31
   M4: Racial Diversity in the Gauteng City Region ...................................... 32
   M5: Income diversity in the Gauteng City Region ...................................... 33
   M6: Gated communities and government housing ..................................... 34
   M7: Soshangvye - Residential development 2001 – 2016 ......................... 35
   M8: Trips to Work ...................................................................................... 36
   M9: Looking for Work in the Gauteng City Region .................................... 37
INTRODUCTION

This document summarizes key trends in the society and economy of the Gauteng city region since the dawn of democracy, but with a focus on the last ten years.

It provides a context for government’s successes and challenges, and in some cases highlights strategic factors that will need to be considered in the years ahead.

It is intended as a selection of evidence and analysis that can serve as a basis for tragic planning in the province for the next term of office.

The document draws extensively on the work of the Gauteng City Region Observatory (GCRO), which prepared a set of issue papers to inform this work.
1. PEOPLE, ECONOMY AND RESOURCES

The Gauteng City Region is one of the largest urban agglomerations in the world. One estimate has the urban core of the province at 13.4 million people in 6,480 km², making it the 26th largest urban area globally\(^1\). By comparison, London is ranked 25th, with 14.6 million people, and Rio de Janeiro is 27th with a population of 12.8 million. The largest agglomeration in the world is the Pearl River Delta around Guangzhou, with a population of 45.6 million.

![FIGURE 1 City population of selected urban areas](http://www.citypopulation.de)

The population of Gauteng

Nearly 15 million people live in Gauteng. The population has more than doubled between 1996 and 2018, a rate of growth that is quite phenomenal by any standards, and which far exceeds the growth rate of any other province in the country. As South Africa becomes more urban, the Gauteng is hosting an increasing share of the nation’s population. At least half the population growth between census 2001 and 2011 was a result of in-migration. Of the 12.3 million people residing in Gauteng in 2011, 6.7 million (55%) were born in the province. This census figure aligns with the GCRO’s Quality of Life survey, which finds that around 45 per cent of respondents were born outside the province.

\(^1\) Note that this is not the entire population or spatial extent of Gauteng, which stands at some 14.7 million people in 17 000km². This estimate is the population in the area covered by urban land or the “consolidated urban area” surrounding Johannesburg.
StatsSA estimates that 1.5 million people migrated into the province between 2011 and 2016. Half a million moved out, leaving a net migration inflow of approximately 1 million. It is estimated that three quarters of newcomers are migrants from within South Africa, with about a quarter coming in from outside the country. Limpopo, KwaZulu Natal, and the Eastern Cape account for half of new internal South African migrants into the province. The most recent Quality of Life Survey found that 8.5% of all Gauteng residents were born outside the country. Of these, two thirds (67%) came from South Africa’s neighbours — eSwatini, Lesotho, Botswana, Namibia, Mozambique and Zimbabwe.

Gauteng’s fertility rate is the lowest in the country and falling. This is consistent with well-established patterns associated with urbanisation. Nevertheless, the average total fertility rate of 2, which StatsSA projects over the next five years, is well below the world average of 2.5.

About 2.3 million people in Gauteng are living with HIV and AIDS. However, AIDS related deaths have been falling significantly, and as a consequence life expectancy has been increasing. A decade ago life expectancy at birth has was as low as 56 for males and 59 for females, as the HIV/AIDS pandemic reached it height. Since then life expectancy has improved, largely because of the take up of antiretroviral therapy. StatsSA projects life expectancy to average 64 for males and 70 for females over the medium term. This is higher than all other provinces except for the Western Cape.

Gauteng’s population will remain overwhelmingly youthful in the years ahead. Seventy percent of Gauteng residents are below the age of 40. One third are younger than twenty years-old. However, projections by StatsSA indicate that the growth of the young population is beginning to slow, while the population over sixty is growing faster than any other age group. If correct, these trends will have important economic and social impacts in the decades ahead.
Gauteng’s demographic structure reflects the continuing importance of circular migration. In many respects the migratory patterns set in motion by colonialism and apartheid continue – and this accounts for much of the migration to Gauteng from South and Southern Africa. For instance, young children and the very old are a much higher share of the population in Limpopo than in Gauteng. This reflects that fact that families and livelihoods are constructed across the political boundaries. For many, Gauteng is a place of work, but intergenerational reproduction takes place elsewhere. Again, this points to the importance of Gauteng in national and regional development – as remittances of earnings in the province support livelihoods in the poorest regions of South Africa and beyond.

**Economic growth, structural change and unemployment**

The Gauteng economy has grown steadily over the last 25 years. In real terms the economy has almost doubled in size. In today’s prices the province produced R782 billion in 1995 rising to than R1.5 trillion today. Following the recession in 2009, the Gauteng economy bounced back – benefitting from continued buoyancy of international mineral prices and investments leading into the 2010 World Cup. But the commodity cycle turned in 2011 and growth began to fall; a sustained deceleration that reflects national trends.

Owing to the higher rate of population growth in Gauteng, these national trends have meant that the province’s GDP per capita stagnated after 2011 and has fallen every year since 2013. The
The average income of a Gauteng resident is now lower than it was a decade ago. If projections prove correct, GDP per capita will continue to decline over the medium-term.

The services sectors have been the main drivers of economic growth in the Gauteng. Finance and business services now accounts for 22 per cent of output, followed by government consumption, which makes up 18 per cent of the provincial economy. Transport, electricity, water and construction has also expanded as a share of the economy, growing to 20 per cent.

While manufacturing has seen its share of the economy fall over the last decade, the sector has continued to grow in real terms. This is not the case with mining, which continues to produce falling levels of output in the province, a trend which has been quite consistent for the last 25 years.

Since 2008 the working age population has grown by 2 million people, whereas the number of jobs has increased by less than 400 thousand. Measured strictly, the rate of unemployment increased sharply in the recession of 2009 and then improved somewhat. As economic growth has decelerated since 2011, unemployed workers have edged up toward 30 percent of the workforce, stabilising at one of the highest unemployment rates in the world. If discouraged work seekers are included, more than one third of workers are now unemployed.

The patterns of employment by economic sector reflect the dominance of services in the economy of the province, as well as the relatively higher labour-intensity of the services sectors. Services account for more than two thirds of employment in the province, with 60 percent of workers.
employed in social services (including government) or finance, business and trading services. The share of manufacturing in total employment has fallen from 17 percent a decade ago to 12 per cent today. Agriculture has also fallen as a share of total employment in the province, from 1.6 per cent a decade ago to 0.6 percent today.

Most workers are employed in the formal sector, but the informal sector accounts for a quarter of employment in the province. Since 2014 there has been an increase in the number of people employed in the informal sector, from around 600 to 800 thousand people. In the third quarter of 2018 some 830 thousand people (or 16% of Gauteng’s total 5.1 million employed) worked in the informal sector, excluding agriculture. Growth in informal employment has helped to offset the stagnation in formal sector employment, and the fall in employment in the private households and agriculture.

The GCRO’s Quality of Life Survey found that about 455 thousand people were running informal sector-businesses in the province. This is about 5.2 percent of the population. Most informal businesses are in the retail trade, accommodation and food services. Although an important generator of employment, there is evidence that the informal sector remains vulnerable in the face of economic downturns. Spatial studies show that informal business and their suppliers are concentrated in large townships.

FIGURE 11 Working-age population and employment

FIGURE 12 Unemployment Rate (strict) in Gauteng

FIGURE 13 Employment by economic sector in Gauteng

FIGURE 14 Share of informal sector in total employment
Fiscal resources of provincial and local government

The provincial budget has grown significantly in real terms over the last 25 years. In today’s prices, spending by provincial government has grown from around R50 billion in 1996 to a budgeted amount of more than R120 billion this year. To some extent, this growth has been offset by the increase in population of the province. However, once population growth is considered, the resources available to the provincial government have still increased. In 2004, provincial government spent about R5000 per resident of the province (in today’s prices), whereas today it spends more than R8000 per resident. Over the last ten years, spending per resident has remained broadly stable. This reflects the fact that the resource envelope available to provincial government has broadly kept pace with the increase in the number of people and the increase in prices.

Over ninety percent of provincial government spending is on five departments – Health, education, roads and transport, human settlements and social development. Over the last five years, health has overtaken education as the largest budget. The growth in health spending has been 12.6 per cent per annum on average of the last five years. Budgets for education, roads and transport and human settlements have all grown slower the overall provincial budget, meaning that these departments account for a declining share of spending. The most rapid growth in resource allocation has been for the Department of Infrastructure Development, which now accounts for 2.5 per cent of provincial government spending, up from less than 2 per cent in 2010. Overall, smaller departments have seen faster growth.

**FIGURE 15 Spending by Gauteng Provincial Government (real)**

**FIGURE 16 GPG spending per capita (real)**

**FIGURE 17 GPG spending by department in 2017/18**

**FIGURE 18 Growth in spending by department**
Local government spending in the province is about equal to the resources channelled through provincial government. Taken together local and metro governments paid out R116 billion in cash in the last fiscal year, compared to R114 billion in payments by GPG. Amongst the municipalities, the metros dominate resource allocation accounting for 90% of local government spending. Like provincial government spending, local government cash payments have broadly exceeded the pace of growth in population and increases in prices.

Natural resources and the environment

Gauteng’s land and resources are limited, and the province draws on food production, water and energy from far beyond its borders to sustain life. Rising concentrations of people, intensifying economic activity, urban development, and extremes of inequality all impact on the natural resource base.

The impact of environmental pressures is uneven. Unequal access to resources, urban sprawl and spatial mismatches drive a car-centred culture. Increased wealth is associated with growing resource consumption and waste production. The rich are responsible for the bulk of unsustainable consumption patterns, while the poor often bear the brunt of the negative externalities that result. Rising costs as a result of resource constraints and environmental risks also impact on business and can become a constraint on economic growth. This creates the opportunity for the transition to a sustainable path of human development that helps restore social justice and unlock economic
growth. However, if not managed well, human development will deplete natural resources and degrade the environment, ultimately undermining human development itself.

Map M1 illustrates environmental inequality, showing an index of vegetation and impervious surfaces in Gauteng. Green areas in Gauteng are concentrated in leafy suburbs and irrigated agriculture. Wealthier suburbs have a high levels of tree coverage, as well as planted gardens, lawns and parks that improve the quality of life in these urban spaces. These green areas provide important ecosystem services, such as temperature regulation, flood control, and air and water purification. Townships areas such as Alexandra, Soweto and Dipsloot are dominated by bare soil, hard surfaces and little vegetation. As a result, they face an increased risk of flooding.

Gauteng straddles a major watershed divide, and very limited local water sources mean the province can never take its water security for granted. The Vaal River system is a large, integrated and highly engineered system that draws water from five different river basins across six provinces and Lesotho to supply bulk water to Gauteng. Return flows ultimately end up in the Indian and Atlantic Oceans. The climate that supports these supplies is extremely variable with a history of unpredictable multi-year droughts and flash flooding. The threat of climate change compounds this uncertainty and adds further long-term risks.

Until the completion of the Polihali Dam – the next phase of the Lesotho Highlands Water Project, which is expected to take another decade – the province will be at risk of supply shortages. In the event of a protracted dry period, readiness to impose water restrictions and manage the related risks would be tested. Over the longer term, action is needed to ensure the sustainability of water consumption.

Access to good quality water remains very high in Gauteng. However, water quality problems are the result of poor management of sanitation systems, mining and industrial activities, dumping and littering. Excessively high E. coli levels within Gauteng rivers are an indicator of sewage pollution from dysfunctional wastewater treatment works or inadequate sanitation in informal settlements. Wastewater treatment works are can also be overwhelmed during high rainfall events, releasing untreated water into the environment. Recent conditions in Emfuleni and the state of the Vaal River highlight the severity of the issue.

The bulk of energy consumption in Gauteng is by the transport sector (liquid fuels, mostly petrol and diesel), followed by industry (16%) and residential consumption (12%). The combination of the
current load shedding crisis at Eskom, rapidly rising prices for electricity and liquid fuels is an issue of
great concern for residents, businesses and municipalities in Gauteng.

While domestic and business electricity consumption combined only accounts for one third of
Gauteng’s energy consumption, they contribute nearly two thirds of carbon emissions due to South
Africa’s reliance on electricity generation from coal-fired power stations using poor quality coal. As
such, while energy demand and supply is presently an issue of great concern, emissions from low-
grade coal-based electricity and the high consumption of fossil diesel and petrol are under scrutiny
because of the commitments to reducing GHG emissions (SEA, 2016).

Municipal revenue is dependent on middle- and higher-income residents cross-subsidising services
to poorer households. But it is the richer households who can afford to go off-grid. These
households can recycle water and waste, use solar energy and install boreholes. This reduced
consumption is necessary to reduce environmental impacts but is likely to affect municipal revenue
generation.

2. PUBLIC SERVICES, SOCIETY AND INEQUALITY

Gauteng’s government has been successful in raising living standards through improved access to
basic services and education. These material improvements have had a demonstrable impact on
improving overall living conditions in the province. However, widespread poverty and
unemployment persist, and they continue to be structured around apartheid’s geographic legacy.

Provision of basic services and infrastructure

Government has placed the elimination of apartheid’s infrastructure backlogs and the provision of
basic education and formal housing at the centre of national development. The connective tissue of
infrastructure networks empowers people and creates conditions for economic inclusivity, which in
turn is an urban economic growth driver.

According to Quantec data the total number of households in Gauteng doubled from 2.3 million in
1993 to 4.5 million in 2017, an average growth rate of 2.9% per year. Delivery of key basic services
has kept pace with this increase in household numbers.

▪ The number of households using electricity for lighting – the most common measure of whether
households have any access to networked power – increased from 1.9 million in 1993 to 3.9
million in 2017, at a growth rate of 3.1% per year. The proportion with access to electricity
increased from 82% to 87%.

▪ The number of households with water on site (i.e. in the dwelling or yard) increased from 1.9
million in 1993 to some 4.0 million in 2017. The share of households with access to water on site
increased from 85% to 89%. If the number of households with a community standpipe within
200m (the lower RDP standard) are added in, the percentage access in 2017 was 95%.

▪ Similarly, the number of households with either a flush toilet on site or access to a chemical toilet
increased from 1.9 million to 3.8 million. The share increased from 83% to 85% over the period,
as the roll out of sanitation exceeded the growth rate of households.

▪ The number of households in Gauteng supplied with weekly refuse removal by a municipality at
1.9 million in 1993. This increased by an annual average growth rate of 3.1% to 4.0 million in 2017,
lifting the overall access level from 82% to 88%.
This data is corroborated by GCRO data, which shows that about 90% of Gauteng households have access to high-quality basic services. The Quality of Life Survey shows that households in local municipalities (as opposed to metros) have lower levels of access. Over time, access to high quality basic services has been very stable in Ekurhuleni, Johannesburg, Lesedi, Merafong and Rand West (despite significant population growth). Midvaal has shown a substantial improvement, but access in Tshwane, Emfuleni and Mogale City has deteriorated.

It is worth noting that Emfuleni is a special case. Its level of access to services has traditionally been very high, on par with or above even the metros. This is in large measure due to the fact that it received very little of Gauteng's migrant inflow. But poor municipal administration has recently led to a collapse in provision of key services.

At ward level, areas with the highest levels of access were in the wealthier suburbs of northern Johannesburg and central Tshwane and Ekurhuleni. Encouragingly though, many parts of Mamelodi, Soweto, Tembisa, Katlehong and other townships have similar levels of access. Lower levels of access were more likely to be found in areas on the outskirts of the province, many of them lower density agricultural areas, but also a few higher density settlements such as Winterveld and Khutsong. Diepsloot, Ivory Park and a few areas stand out as less formal yet densely populated settlements in or near the urban core with lower service access.

Overall, despite a massive growth in the number of households, government has managed to sustain and improve access to high quality basic services in Gauteng province. Of course, this excellent performance is likely to attract further migration into the province. Also, according to the Quantec data illustrated in figure 1.14, the rate at which basic services have been extended has begun to moderate over the last decade. This could reflect the success of basic service penetration, with the remaining households being more distant from existing networks or facing more challenging conditions for infrastructure roll-out. It could also reflect a slowdown in the pace of housing delivery, since basic services are usually bundled together with the provision of housing.
Moderate improvements in the quality of life

The falling average income of Gauteng residents has not yet translated into a decline in the overall quality of life. The GCRO’s Qualify of Life index draws on 58 indicators, measuring both objective circumstances and subjective opinions. By this measure, there has been a moderate but continued improvement in overall quality of life in Gauteng since 2011.

The Quality of Life score is pulled up by dimensions such as ‘infrastructure’, ‘dwelling’, ‘health’ and ‘family’, but is pushed down by ‘global life satisfaction’, ‘work’ and ‘socio political attitudes’. Continued high scores for ‘infrastructure’ (access to services, self-reported improvement in community and water cleanliness, and evictions for non-payment of bills) reflect the impact of consistent and relatively good service provision. There has been a sustained improvement in the ‘health’ dimension over time, with an increase from 0.57 in 2011 to 0.73 in 2017/18. The scoring for ‘community’ and ‘socio-political attitudes’ remains low, although both have improved markedly over the last three years. Of concern is the deterioration in the ‘global life satisfaction’, ‘work’ and ‘dwelling’ dimensions.

Race, class and geographic location remain key determinants of the quality of life index. High reported quality of life is concentrated around the main urban centres in the province and in previously white areas. Higher household income is directly correlated with higher quality of life. Africans report an average score of 6 out of ten. By contrast, whites have consistently reported the highest average Quality of Life score, now at 7.3 out of ten. The average score for both Africans and whites have increased steadily since 2011, but the rate of increase has been faster for whites. The gains in QoL scores (driving up the overall average) have been in the higher income groups. Huge gains have been made in the upper income brackets with respect to the socio-political dimension of the QoL Index (that measuring broad political sentiment). Lower income brackets have seen big declines in the score on this dimension.

This moderate improvement is notable in the context of population growth, negative economic conditions and political changes that Gauteng has faced in the last few years. However, given the strong correlation between income and the quality of life, it is doubtful that this could be sustained in the face of continued falls in GDP per capita. Over time, lower GDP will translate directly into lower household income, and indirectly into higher levels of unemployment, and greater constraints on resources for service delivery.
Poverty and inequality

Based on calculations from the three most recent Quality of life surveys, overall poverty – as measured by the percentage of respondents from households below the poverty line – has decreased in Gauteng over the last five years from 38% to 28%. While the fact that more than a quarter of Gauteng residents still live in poverty is far too high, this trend is encouraging.

There is also a positive trend in the concentration of poverty, which measures the proportion of the population that lives in below the poverty line in a given location. Between 2013/14 and 2017/18 the number of wards where no respondents were in poverty increased from 7 to 36. The number where less than 10% were in poverty increased from 67 to 103. Correspondingly the number of wards where more than 50% of the respondents lived in poverty decreased from 195 to just 48.

However, only a fraction of the Gauteng’s population has escaped poverty or vulnerability to poverty. The distribution of household income has not changed much over the last five years and the gap between the rich and the poor remains extreme and entrenched.

Income inequality continues to be marked by racial exclusion, as reflected in table 1. At the top end of the income distribution there is some movement in racial demographics but not yet enough. Of those who could be categorised as the wealthy elite, only 24% are African. Of the top 1.5% of households (those earning R102 401 and more) 69% are white. Looked at another way, just 0.4% of Africans fall into this top income band of R102 401, and just over 2% can be categorised as wealthy elite. By comparison, 7% of white households fall in the top band, and 31% could be categorised as wealthy elite.

Table T2 at the end of this document provides more detail on the characteristics of these income strata.

TABLE 1 Descriptive breakdown of Gauteng’s population by income strata

<table>
<thead>
<tr>
<th>Monthly household income</th>
<th>% of Gauteng population</th>
<th>Typical employment/income</th>
<th>% African</th>
<th>% White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronically poor</td>
<td>R1 - R800</td>
<td>11.0%</td>
<td>None</td>
<td>97.1%</td>
</tr>
<tr>
<td>Minimum wage workers</td>
<td>R801 - R3200</td>
<td>34.0%</td>
<td>Cashier, brick-layer, cleaner, domestic worker, plumber, receptionist</td>
<td>95.1%</td>
</tr>
<tr>
<td>Living wage workers</td>
<td>R3 201 - R12 800</td>
<td>29.0%</td>
<td>Security guard, construction worker, artisan (e.g. boiler maker), call centre agent, data capturer, mechanic</td>
<td>87.0%</td>
</tr>
<tr>
<td>Lower middle class</td>
<td>R12 801 - R25 600</td>
<td>12.0%</td>
<td>Nurse, teacher, police officer, social worker, secretary, doctor’s assistant, industrial technician</td>
<td>63.8%</td>
</tr>
<tr>
<td>Upper middle class</td>
<td>R25 601 - R51 200</td>
<td>9.0%</td>
<td>Store manager, teacher, Doctor, IT professional</td>
<td>40.6%</td>
</tr>
<tr>
<td>Wealthy elite</td>
<td>R51 201 +</td>
<td>6.5%</td>
<td>Lawyer, politician, electrical engineer, mechanical engineer</td>
<td>24.5%</td>
</tr>
</tbody>
</table>

Source: GCRO QoL V

Spatially, the wealthy elite occupies the central core of the province, with the wealthiest wards located in the heart of Johannesburg’s northern suburbs such as Sandton, and pockets of southern Tshwane. The most severe income poverty is concentrated on the fringes of the province, and on the edges of townships such as Soshanguve, Soweto, Tembisa and Mamelodi.
Map M2 suggests that very high levels of wealth in the hands of the few is the main driver of spatial inequality. However, although mean incomes are much lower in the townships, higher population density means that aggregate purchasing power in the townships rival the main urban centres.

Map M3 shows the trend towards greater polarisation of income in stark spatial terms. Wards coloured orange – mostly those on the outer periphery – are those that started from a low base but grew faster than the province on average. Pale green wards are those that started from a higher base but grew slowly. Wards that are coloured dark green are those that were already rich in 2001 and nevertheless grew faster than the provincial average. These green wards can be seen mostly in the urban core (northern Johannesburg and central Tshwane and Ekurhuleni).

Wards coloured red are those that started from a low base in 2001 but grew slower than the provincial average. The location and number of red wards is deeply concerning and has profound implications. They are mostly areas that were designated as African townships under apartheid. Most of Soweto, Tembisa and Ivory Park, Katlehong, Thokoza, Vosloorus, KwaThema, Orange Farm, Sebokeng, Mabopane, are all red. The median income in many of these wards declined in real terms after adjusting for inflation, and this adds significantly to the concern over these areas and their ability to escape long term poverty.

**Public perceptions and social cohesion**

The quality of life and overall well-being of Gauteng’s resident’s is not only influenced by material factors. Perceptions, psycho-social attitudes and opinions are also important. Overall, since 2013/14 there has been a gradual decline in the rating Gauteng residents give to their overall satisfaction with life.

The GCRO survey asks respondents whether they agree with the statement ‘Nobody cares about people like me’. Between the last two surveys there was a concerning increase in people who agreed with this statement and a decrease in people who disagreed.

**FIGURE 26 Satisfaction with life as a whole**

The GCRO’s survey shows a clear correlation between satisfaction with government and the quality of life. People who have a high quality of life are significantly more likely to be satisfied with government than people with a poor quality of life. While the proportion of respondents expressing some level of satisfaction with their lives as a whole has only dropped marginally between 2015/16
and 2017/18, the sharp drop in the proportion of respondents who report being very satisfied is notable.

The proportion of respondents in Gauteng who participated in a protest in the previous year has increased over time, doubling from 4% in 2013/14 to 8% in 2017/18. Protest activity is also correlated with satisfaction with government. Around one in twelve Gauteng residents participated in a protest in the last year, and people who are dissatisfied with local government are twice as likely to have participated in a protest. Table T2 shows that those who had participated in protest tend to be concentrated amongst the lower income households in the province.

**FIGURE 27 Responses to the statement ‘Nobody cares about people like me’**

![Figure 27](source: GCRO Qualify of Live V (2017/18) survey)

**FIGURE 28 Participation in protest over time**

![Figure 28](source: GCRO Qualify of Live V (2017/18) survey)

In realising the aims of the Constitution, government seeks to transform the country’s legacy of racism, and build social cohesion by fostering tolerance and understanding between people. Trust is an important component of social cohesion. Respondents who indicate that most people in their own community can be trusted improved markedly in the last survey, but two thirds of respondents still indicated that ‘you need to be very careful’ in your community.
Perceptions of trust between population groups continues to fluctuate. In the 2017/18 survey, 65% of respondents agreed that ‘blacks and whites will never trust each other’, an increase since the last survey in 2015/16, and a return to similar levels from prior surveys. The question reflects both the respondent’s own feelings towards other races as well as interpretations of how other people might trust each other. Perceptions of interracial trust correlate strongly with the respondent’s race. African respondents are much more likely to believe that blacks and whites will never trust each other, while white respondents are more likely to believe that the two groups will trust each other.

FIGURE 29 Proportion of respondents who agree that ‘blacks and whites will never trust each other’

Three quarters of respondents in the most recent survey agreed that ‘interracial dating/marriage is acceptable’. Younger generations are slightly more tolerant with 82% of 18-19-year-olds and 80% of 20-24-year-olds agree that interracial dating or marriage is acceptable compared with only 69% of those over the age of 65. This suggests that younger generations are increasingly tolerant. Unlike interracial dating or marriage, attitudes towards gays and lesbians do not show any clear trend with age. The surveys show that 89% of people do not think violence towards gay and lesbian people is acceptable, a sharp increase from 72% in the last (2015/16) survey.

Attitudes of South Africans in Gauteng have softened towards foreigners over time. The proportion of people who feel that all foreigners should be sent home has fallen – down from 38% in 2013/14 to 18% in 2017/18. Despite this, a high proportion of people in Gauteng (8%) still believe that it is acceptable to be violent towards foreigners.
3. SPATIAL DEVELOPMENT AND SETTLEMENT PATTERNS

In Gauteng’s dynamic environment, there is both continuity and change in spatial structure. Newly built urban spaces like low cost housing, informal settlements and gated communities have emerged. Yet in some respects these new places reproduce aspects of the city-region’s divided past. Meanwhile, the role and functions of long-established spaces – suburbs, townships and inner-city areas – have transformed as rapid social change acts on and reinvents the built environment.

A new geography of race and class

Spatial separation of people by ‘race’ was, of course, a key objective of apartheid. Map M4 shows racially mixed wards in darker red. The urban core appears more diverse than the periphery, and the most racially diverse areas are some of the newly developed middle-class areas around Bryanston, Wilgeheuwil/Ruimsig, Nigel and the south of Johannesburg. To some extent townships cater to middle class residents and many who can afford to move out opt to remain in the township. But most black people still lack the financial resources to live anywhere except in townships, informal settlements or new government housing projects, while other population groups constitute a very small share of this poor population (see table T2). As a result, black residential spaces established under apartheid remain more racially homogenous.

Map M5 shows income diversity. Darker wards contain a mix of rich and poor, while lighter wards have homogenous incomes (whether rich, poor or middle incomes). While former white suburbs are more non-racial, this integration has usually taken place within narrow class boundaries. For example, the area around Bryanston has a low level of income heterogeneity because residents are uniformly affluent. Stated simply, the willingness of suburbs once designated for white occupation to tolerate some black residents does not imply that the residents of affluent suburbs would tolerate the presence of the black poor on a mass scale.

On the other hand, former black townships and their adjacent suburbs – such as Johannesburg south, Vosloorus, Akasia and west of Pretoria – have the highest levels of income diversity. These wards do demonstrate the co-presence of rich and poor together. Class integration might be taken as positive insofar as poorer people are not ghettoised in poor wards and can benefit from economic opportunities associated with their affluent neighbours.

However, the presence of both rich and poor in a single ward does not necessarily signify social integration; in some case it reflects the shrinking scale at which more intensive segregation occurs, with gated communities nestled check by jowl with informal settlements. For example, the Zandspruit informal settlement shares a ward with the wealthy Jackal Creek Golf Estate, and as a result the ward appears to be diverse in both income and racial terms, but the reality is sharp separation between two relatively homogenous communities.

New patterns of human settlement

Table 2 shows types of residential buildings in 2001 and 2016, based on satellite imagery. In total, the number of residential buildings in Gauteng has increased from 2.1 million to 3.4 million households over this period.

Three types of residential development appear are particularly important for the reconfiguration of settlement patterns in the post-apartheid city region: backyard dwellings, gated communities and government housing programmes. The most common form of dwelling is free-hold formal houses...
which increased to 1.6 million houses by 2016 – an increase of 38 per cent over the period. Informal settlements are important, with almost 600 000 units making up 18 per cent of the total. But backyard dwellings attached to freehold housing have overtaken informal settlements to become the largest category after free-hold houses.

**TABLE 2 Residential buildings (urban and non-urban)**

<table>
<thead>
<tr>
<th></th>
<th>2001 Structures</th>
<th>Share of total</th>
<th>2016 Structures</th>
<th>Share of total</th>
<th>% Change (2001-2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freehold formal houses</td>
<td>1,190,167</td>
<td>56%</td>
<td>1,647,686</td>
<td>49%</td>
<td>38%</td>
</tr>
<tr>
<td>Informal housing structures</td>
<td>395,449</td>
<td>19%</td>
<td>598,406</td>
<td>18%</td>
<td>51%</td>
</tr>
<tr>
<td>Backyard structures</td>
<td>266,929</td>
<td>13%</td>
<td>813,224</td>
<td>24%</td>
<td>205%</td>
</tr>
<tr>
<td>Difficult to classify as formal or informal</td>
<td>161,963</td>
<td>8%</td>
<td>148,753</td>
<td>4%</td>
<td>-8%</td>
</tr>
<tr>
<td>Estate and security village housing</td>
<td>26,573</td>
<td>1%</td>
<td>92,696</td>
<td>3%</td>
<td>249%</td>
</tr>
<tr>
<td>Flats, hostels, townhouses, semi-detached</td>
<td>19,848</td>
<td>1%</td>
<td>27,245</td>
<td>1%</td>
<td>37%</td>
</tr>
<tr>
<td>Smallholdings / agriculture</td>
<td>42,872</td>
<td>2%</td>
<td>47,223</td>
<td>1%</td>
<td>10%</td>
</tr>
<tr>
<td>Rural workers housing</td>
<td>13,920</td>
<td>1%</td>
<td>16,945</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,117,721</strong></td>
<td><strong>100%</strong></td>
<td><strong>3,392,178</strong></td>
<td><strong>100%</strong></td>
<td><strong>60%</strong></td>
</tr>
</tbody>
</table>

Source: GTI

**Backyard dwellings** increased by 205% over the period to more than 800 000 structures. The surge of people into backyard dwellings is resulting in the densification of former townships, as newcomers settle where infrastructure and services are available.

These structures are generally constructed for renting out by the occupants of formal houses. Some of these backyard structures are informal and others are formal. However, unlike many structures in informal settlements, backyard dwellings benefit from being close to the infrastructure provided to formal housing (electricity, water and sanitation).

There powerful incentives behind the movement towards backyard dwellings. If we assume a rental income of R500 a month per unit, then the potential total income from backyard rental in Gauteng is close to five billion rand a year. In the context of acute unemployment, constructing and renting backyard structures is entirely rational. It has enormous planning implications, to be sure, not least a strain on infrastructure now servicing far denser populations than for which they were designed. In the years ahead, government planning will need to adjust to these realities.

Map M6 shows **gated communities** in 2012. This is the dominant way in which the private sector supplies accommodation for relatively affluent groupings in society, and significant growth has taken place since then. They are distinctive for enclosing many units – sometimes entire suburbs – within a fortified perimeter with access control. While estate housing is generally less land-hungry than apartheid-era suburbs, they are nevertheless a comparatively low-density form of settlement in which each housing unit takes up far more land than housing in downtown areas or in townships.

Although estate and security village buildings are relatively small in number, they are the fastest growing category of residential building listed in Table 2. This kind of housing grew by 249% between 2001 and 2016 and now total 92 696 buildings. These buildings indicate only a part of ‘gated communities’, a broader term that includes lifestyle or golf estates for affluent groups and cluster development for middle-class residents. Gated communities have become a widespread form of housing in many middle-class suburbs, both as a result of the redevelopment of some parts of long-
established suburbs and the construction of gated communities on former smallholdings and agricultural land.

**Government-provided housing** is not a separate category in Table 2 but would be part of the ‘Freehold formal houses’ and ‘flats, hostels, townhouses, semi-detached’ categories. Notwithstanding some notable changes to these programmes since 2014, they broadly extend existing township spaces either by developing undeveloped land or by upgrading informal settlements. In general, as illustrated in Map M6, government housing programmes have been located on the far side of existing townships, contributing to further spatial polarisation.

At a smaller scale, it is possible to see remarkable changes in an area such as Soshanguve. Map M7 represents each informal dwelling as a red dot, each formal dwelling as a green dot, and each backyard dwelling as a blue dot. It shows that many informal settlements in 2001 have been formalised, while others have been removed. However, the most striking feature of change is the proliferation of backyard dwellings interspersed with formal dwellings.

**Uneven density and mobility**

Much of the growth in residential structures is not expanding the urban footprint but rather densifying existing urban space. The highest concentrations of increase (up to 9,493 units per km²) are in townships, such as Soshanguve, Mamelodi, Diepsloot, Tembisa, Soweto, Katlehong and Sebokeng. Lower, but still significant, increases in residential buildings are also occurring in areas such as northern Johannesburg and Pretoria east.

Like wealth, density is unevenly distributed across Gauteng’s landscape. The vast middle-class suburbs of the urban core accommodate between 500 and 7,500 people per square kilometre. Well-established townships have higher densities, ranging from 7,500 to 20 thousand people per km². Downtown inner-cities achieve even higher densities through tall apartment blocks. But parts of Alexander, Tembisa and Diepsloot also exceed 20 thousand people per km², even with single story settlement patterns.

Unlike many major cities elsewhere in the world, where natural density gradients see higher densities in the centre, and more sparsely populated stretches on the edge, Gauteng has inherited an inverted density. The peripheries of Gauteng have over time become areas of higher population densities, characterised by substantial housing improvements, the growth of backyard dwellings and other forms of unplanned densification.

The opportunities for densification are in part a legacy of sparse settlement in the past. Large suburban homes and agricultural holdings have been subdivided, or redeveloped into cluster development, and many township or low-cost houses have added backyard dwellings.

Higher density is potentially positive, as it enables economic agglomeration, efficient infrastructure networks and affordable public transport. However, much of Gauteng’s densification is taking place around the edge of urban settlements, limiting the economic and infrastructure benefits of densification.
The daily commute and the alternation of day and night

As in any city, individuals commute daily to work, school and shops. The spatial mismatch between jobs and residential areas restricts employment prospects for those who are looking for work. Long daily commutes for many people are inefficient and costly to the environment, place an enormous cost of time and money onto commuters themselves, and erode the fiscal sustainability of local and provincial government.

For instance, much of the economy of Johannesburg (62%) is located in its north-eastern quadrant including the inner city and Sandton (City of Johannesburg, 2016). While only 23% of the population lives in the inner-city/Sandton areas, these are the areas of half of the city’s economic output. Conversely, while 41% of the city’s population live in the Soweto/Orange Farm areas, only 13% of the city’s economy is located there. On the other hand, spatial mismatch is not absolute but a matter of degree. Some of the high-density townships (Dieploot, Tembisa/Ivory Park, and Soweto) are, in the context of the broader Gauteng city-region, located closer to areas where employment is concentrated.

The maps in figure 30 show a noticeable concentration of day time workers in the Johannesburg, Pretoria, and other towns’ central business districts (CBD). Conversely, the night-time population is concentrated in the townships of Tembisa, Soweto, Orange Farm and Mabopane. Johannesburg and Pretoria CBDs become sparsely populated at night as compared to the day.

FIGURE 30 Total night population and day time concentration of workers, 2017

Map M8 shows trips to work by respondents from the 2017/18 GCRO QoL survey, categorised by race. Trips made by white respondents concentrate at the centre of the province, while trips made by African respondents originate from a much wider area on the periphery. Map M9 illustrates travel patterns of respondents ‘who look for work’ as the purpose of their most frequent trips. Most originate from the periphery and move to the core where economic activities take place.
4. SUMMARY AND DISCUSSION

Summary
The main trends presented in this province can be summarized as follows:

People, economy and resources

- Gauteng has experienced very rapid population growth, largely driven by migration from within South Africa. Three quarters of newcomers are internal migrants, with about a quarter coming in from outside the country. A growing share of South Africa’s population is concentrated in Gauteng, and whilst provincial population growth has slowed, it will continue to grow rapidly as South Africa’s population continues to urbanise.

- Gauteng’s population will remain overwhelmingly youthful in the years ahead. However, pensioners are the fastest growing age group. Circular migration continues to affect the age structure of the province, as many people are resident in Gauteng during their working lives but are infants, school children and retirees in other provinces or neighbouring states.

- GDP per capita has fallen every year since 2013, and this is projected to continue. The main drivers of economic growth and employment creation have been the services sectors – finance, government and retail. Manufacturing growth has been weak in recent years, and mining has continued to decline as a share of output over the long term.

- Unemployment has risen from around 22 per cent in 2009 to 30 per cent today. If discouraged work-seekers are included, more than one third of workers are now unemployed. Growth in informal employment has helped to offset the stagnation in formal sector employment. Services now account for more than two thirds of employment in the province, with 60 percent of workers employed in social services (including government) or finance, business and trading services.

- The fiscal envelope available to provincial and local government has kept pace with inflation and migration. Over the last ten years, spending by provincial and local government has not declined in real per capita terms. Within provincial government, smaller departments have increased their share of resources over the last five years, with spending on education, human settlements and roads growing at a slower rate.

- Gauteng’s natural resource base is limited. Rising concentration of people, intensifying economic activity, urban development, and extremes of inequality all have direct consequences for the depletion of natural resources and the environment. The impact of these pressures is uneven with the rich consuming greater resources and living in good environmental conditions, and the poor bearing the brunt of environmental pressures. Municipal revenue is dependent on middle- and higher-income residents cross-subsidising services to poorer households. But it is the richer households who can afford to go off-grid.

- In the years ahead, the province will be at risk of water supply shortages. In the event of a protracted dry period, readiness to impose water restrictions and manage the related risks would be tested. Over the longer term, action is needed to ensure the sustainability of water consumption.

- The bulk of energy consumption in Gauteng is by the transport sector (liquid fuels, mostly petrol and diesel), followed by industry (16%) and residential consumption (12%). But while domestic
and business electricity consumption only accounts for one third of Gauteng’s energy consumption, they contribute nearly two thirds of carbon emissions.

**Public services, society and inequality**

- Government has been successful in raising living standards through improved access to basic services, targeted health interventions and good-quality basic education in Gauteng. This is a significant achievement in the context of rapid population increase. However, widespread poverty and unemployment persist, and they continue to be structured around apartheid’s geographic legacy.

- Measured by the Quality of Life Index, which combines objective and subjective indicators, there has been a moderate but continued improvement in overall quality of life in Gauteng since 2011. However, race, class and geographic location remain key determinants of the quality of life index, with the rich experiencing the greatest improvements. Moreover, if economic stagnation continues, it is highly unlikely that these improvements will be sustained.

- There is evidence that level and concentration of poverty has declined over the last five to ten years. However, only a fraction of the Gauteng’s population has escaped poverty or vulnerability to poverty. The distribution of household income has not changed much over the last five years and the gap between the rich and the poor remains extreme and entrenched.

- Income inequality continues to be marked by racial exclusion. Of the wealthy elite, only 24% are African. Of the top 1,5% of households 69% are white. Looked at another way, just 0,4% of Africans fall into this top income band, and just over 2% can be categorised as wealthy elite.

- There is a clear correlation between satisfaction with government and the quality of life. People who have a high quality of life are significantly more likely to be satisfied with government than people with a poor quality of life. The proportion of respondents in Gauteng who participated in a protest in the previous year has increased over time, doubling from 4% in 2013/14 to 8% in 2017/18. Protest activity is also correlated with satisfaction with government, and the poorest sections of the population are most likely to have participated in protest.

**Spatial Development**

- In Gauteng’s dynamic environment, there is both continuity and change in spatial structure. Newly built urban spaces like low cost housing, informal settlements and gated communities have emerged. Yet in some respects these new places reproduce aspects of the city-region’s divided past.

- Spatially, the wealthy elite occupies the central core of the province, with the wealthiest wards located in the heart of Johannesburg’s northern suburbs such as Sandton, and pockets of southern Tshwane. The most severe income poverty is concentrated on the fringes of the province, and on the edges of townships such as Soshanguve, Soweto, Tembisa and Mamelodi.

- Black residential spaces established under apartheid remain more racially homogenous. But former black townships and their adjacent suburbs have the highest levels of income diversity. In these spaces, class integration might be taken as positive insofar as poorer people are not ghettoised in poor wards and can benefit from economic opportunities associated with their affluent neighbours. In other places, income heterogeneity represents greater division, but at a smaller scale – with high end security estates in close proximity to informal settlements.
Backyard dwellings and gated communities are the fastest growing forms of residential dwelling type. Over the last ten years, backyard dwellings have overtaken informal settlements as the most important dwelling type after freehold, formal housing. This has resulted in the densification of township settlements and government housing programmes on the edges of the urban space.

Unlike many major cities elsewhere in the world, where natural density gradients see higher densities in the centre, and more sparsely populated stretches on the edge, Gauteng has inherited an inverted density. The peripheries of Gauteng have over time become areas of higher population densities, characterised by substantial housing improvements, the growth of backyard dwellings and other forms of unplanned densification.

Discussion

A crucible for national development

South Africa’s population is becoming more and more concentrated in Gauteng. As its people move to Gauteng in search of a better life, the province has a vital role to play in national development.

The trend of migration from neighbouring provinces and neighbouring states cannot be stopped. But this inexorable trend brings with it huge opportunities, as well as obvious challenges. The province is a crucible of opportunity, a destination that beckons because it represents a better life. While migration may add to the burden of poverty in the short term, those who have trekked thousands of miles in search of a better life tend to be the most enterprising amongst their communities. Their contribution can create add to innovation and job-creation.

Cities can work as ladders of prosperity for both existing populations and newcomers. Evidence suggests that migrants benefit from being in the Gauteng through upward social mobility. People who have been resident in the province are more likely to have escaped from poverty. Migration can also benefit economic development. But to succeed in its vital role in national development, Gauteng must be a growing and inclusive city region.

Lack of access to services like formal housing, piped water, sanitation, electricity and refuse removal is both a symptom and a cause of urban poverty. Migrants to the city often begin their search for opportunity in informal settlements where rents are lowest. But without decent shelter and services the costs people face in meeting the daily needs of human life are higher. These costs are paid in time and energy that are diverted from productive work, and poor health that weakens human capabilities. The urban opportunity of a springboard to better life is too easily converted into a mire of permanent poverty and lost hope.

Provincial and local government has done a good job of keeping pace with the immediate basic service demands of an expanding population. Access to high quality basic infrastructure and services in Gauteng is exceptional when compared to other provinces or countries in sub-Saharan Africa. The province provides the best education services in the country, and these have been resilient in the face of a significant expansion. Despite the challenges faced by the provincial public health services, important health indicators – not least life expectancy – have improved dramatically over the last ten years, and the concentration of national health assets in the province continue to attract millions.

Where service delivery has seen significant collapse – in the case of Emfuleni and to some extent healthcare – the issues involved are largely related to weak administration, the erosion of
professional capacity and political challenges that have infected the structures of governance. It is notable that Emfuleni’s level of access to services has traditionally been very high, on par with or above even the metros. On the other hand, the migrant flow to Emfuleni has been very small compared to the metros and cannot be said to be a factor behind service delivery weaknesses.

**The challenge of growth and inclusion**

Government’s vital role is to reduce poverty. It must enable families to move up the urban escalator, escape poverty and realise a life of dignity for themselves and their progeny. Through the provision of education, it must empower people to take charge of their own destiny. When ill-health or adverse economic shocks threaten to reverse the gains of development and push the vulnerable back into poverty, government must ensure an effective social safety net.

But the role of provincial and local government is not limited to the provision of education and social services. It must act with citizens to shape a new and inclusive urban environment. And despite good progress on the provision of basic services has been good, deep fissures of wealth and poverty remain. Income inequality and its spatial counterparts have not been scaled back, and by several measures are further entrenched. Social mobility – the ability of the city to act as a springboard to a better life for its residents – is held back by entrenched inequalities between communities.

The intentional ‘uneven development’ of urban areas ended with apartheid. But despite significant changes, the pattern of exclusion by race continues to define the path of spatial development. The evidence presented in this report suggests that new forms of spatial polarisation are being built on apartheid’s foundations.

Added to this, average incomes in the province are falling and unemployment has stabilised at even higher levels over the last ten years. These challenges – spatial polarisation, entrenched inequality, falling economic growth and high levels of unemployment – are intimately connected. Global experience suggests that highly unequal cities reproduce poverty across generations, especially through the effects of deprived and marginalised neighbourhoods on individual life choices. Education is weakened when it is delivered into communities that are wholly excluded. Social cohesion breaks down in conditions of separate development. Poverty and inter-generational disadvantage are reproduced where ghettos fester beside laagers of exclusive wealth.

Economic growth is retarded by the costs of travel between work and home life. The economic burden of spatial mismatch is carried by employees and firms, the unemployed and government. It places upward pressure on the wage bill, raises the cost of looking for work, increases the cost of public infrastructure and results in lower growth over time. It also reduces the potential from economic agglomeration.

Not only do people travel long distances to work and incur huge transport-related costs, but the economic potential of both town and township is undermined by the extremes in economic oscillation between day and night. Business are only able to function for a fraction of the trading day as consumer power relocated between town and township.

One important effect of patterns of commuting has been the development of infrastructure to enable the high-volume circulations through the city region. In addition to diversifying spaces so that people do not have to commute too far, another important kind of response is to accept that commuting is to some degree inevitable and should be made more efficient. The introduction of the Gautrain, various Bus Rapid Transit (BRT) systems and investments to improve highways and rail systems represent ongoing efforts to achieve this goal.
But poorly considered infrastructure investments can lock different parts of the city into unsustainable and costly resource consumption patterns for decades to come. Transport investments do not merely bridge current gaps between spaces but attract other kinds of investment and can form the nucleus around which urbanization gravitates.

**Policy and resistance in a dynamic urban system**

While the provision of basic infrastructure and social services has been broadly effective, government has not risen to the challenge of changing the direction and pace of economic and spatial development. In some instances, interventions reinforce spatial injustice. The most obvious example is housing, which continues to be dominated by development on the periphery of the urban space, with no concerted effort to ensure a more equitable mix of income within the core of the provincial economy.

Government planning, regulation and public investments in housing stock, transport and municipal infrastructure are critical. But development is shaped by the responses of multitudes of people to changing circumstances and ideas, as well as government interventions.

People’s actions are enabled or constrained by the evolving structural context – shifts in the economic base from manufacturing to services, migration to the city, new infrastructure and transport networks, and the segmented nature of property markets. The reactions of economic agents to incentives shape the demand and supply for various types of urban built environment. Organised vested interests, political entrepreneurs and civil society groups mobilise society and penetrate public administration and political parties to influence spatial policies, disrupt development and determine land-use decisions.

The volume of resistance and the price of land can shape the course of public developments, leading government to build low cost housing on the periphery where they will not receive this volume of resistance. Developers of entry-level suburban housing for the lower middle class can scarcely keep up with demand for their housing on the periphery, where land is cheap but economic opportunities are scarce. Such developers buy land years or decades in advance, foreclosing choices for urban development and locking-in fiscal stress on cities of the future.

Meanwhile, gated communities preclude the possibility diversified neighbourhoods, subjecting public decisions on land use to private authorisation within an enclosed security perimeter. In many instances, developers and property owners have stridently resisted any efforts by the state to introduce inclusionary housing requirements in new developments. Various kinds of ‘not-in-my-back-yard’ behaviour have resulted in resistance to diversification. Cosmo City was delayed for a number of years because of the thousands of objections received from affluent residents in the general area.

There are examples of property markets, government policy and the action of people leading to an integration of land uses and a combination of people and activities. For instance, there has been some transformation of downtown nodes – through mix of process of urban decay and regeneration. Gauteng’s city-centres are also seeing the redevelopment of commercial buildings to residential use to create new affordable and higher-end loft apartments. China City to the west of Johannesburg is an example of the repurposing of former mining-land into a combined industrial, wholesale, warehousing and residential development.

On the whole, however, even in high-density residential sites such as the inner city, the polarisation of incomes limits in the extent to which they can bring together the full spectrum of people and activities. For all its diversity, Sandton remains exclusive for those who have the money to live, shop
or work there. Furthermore, as we move away from nodes of various sizes we find whole sections of the city devoted to a relatively narrow set of uses, and by and large the segmentation of the urban fabric into monofunctional forms, and separate enclaves of rich and poor, remains extreme.

From an environmental point of view, the rich are responsible for the bulk of unsustainable consumption patterns, while the poor often bear the brunt of the negative externalities that result. Rising costs as a result of resource constraints and environmental risks also impact on business and can become a constraint on economic growth. This creates the opportunity for the transition to a sustainable path of human development that helps restore social justice and unlock economic growth. However, if not managed well, human development will deplete natural resources and degrade the environment.

Re-imagining the idea of a Global City Region

From the perspective of provincial and local government, accelerating economic growth, overcoming entrenched inequality and transforming spatial patterns need to be considered as a single policy challenge. The levers in their hands to address these challenges are social services (particularly education and health), regulatory power over land use and significant resources to fund the construction of the urban built-environment. If marshalled effectively, the combination of these instruments can change the direction of development. In this context, the declining share of the provincial expenditure allocated to education and the built environment should be a cause concern.

Given the complexity of factors shaping spatial development, any attempt to determine in advance or govern through an inflexible, centralised plan is unlikely to succeed. Government regulation and planning needs to intervene decisively but carefully in these complex systems. Intentions need to be tempered with realism about the span of control that government is really able to exercise, in light of the strength and dynamism of independent social, economic and political forces, outside of government direction.

The political environment of governance in the province has become more heterogenous in recent years. This is likely to remain the case in the future. Added to this, government is likely to face a very tight fiscal constraint in the years ahead. Resource allocations will need to be focussed on the most catalytic interventions, based on a sound analysis of the effectiveness of instruments available to government.

This requires leadership that mobilises a range of public agencies to cooperate around clear and consistent strategic goals. Such cooperation must be founded on interactive, technically sound and professionally oriented public planning.

This is the context in which there is a need to revitalise the governance dimensions of the idea of a Gauteng City Region. It is a framework with the potential to mobilise public and private actors behind a common vision of integration and social change. It has the potential to align diverse public agencies – in national provincial and local government – behind strategic action. It has the potential to contribute to a more effective, professionalised public service in the province. Changing the direction of development means realising these potentials.
## T1 Gauteng Provincial Government Spending (2010/11 – 2020/21)

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<tbody>
<tr>
<td>Health</td>
<td>20 475</td>
<td>27 416</td>
<td>44 132</td>
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<td>Education</td>
<td>22 251</td>
<td>29 209</td>
<td>41 787</td>
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<td>Roads And Transport</td>
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<td>Social Development</td>
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<td>4 586</td>
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<td>1 426</td>
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<td>675</td>
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<td>462</td>
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</tr>
<tr>
<td>COGTA</td>
<td>232</td>
<td>274</td>
<td>479</td>
<td>527</td>
<td>15.0%</td>
</tr>
<tr>
<td>Total</td>
<td>61 453</td>
<td>76 114</td>
<td>114 703</td>
<td>135 479</td>
<td>10.8%</td>
</tr>
</tbody>
</table>
# T2 Income strata in Gauteng

<table>
<thead>
<tr>
<th>POPULATION GROUP</th>
<th>Chronically poor</th>
<th>Minimum-wage workers</th>
<th>Living-wage workers</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
<th>Wealthy elite</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>97.1%</td>
<td>95.1%</td>
<td>87.0%</td>
<td>63.8%</td>
<td>40.6%</td>
<td>24.5%</td>
</tr>
<tr>
<td>White</td>
<td>1.0%</td>
<td>2.0%</td>
<td>7.6%</td>
<td>25.5%</td>
<td>47.3%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Coloured</td>
<td>1.5%</td>
<td>2.2%</td>
<td>3.6%</td>
<td>5.5%</td>
<td>5.2%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>0.4%</td>
<td>0.6%</td>
<td>1.8%</td>
<td>5.2%</td>
<td>6.9%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

| EMPLOYMENT                |                  |                      |                     |                   |                   |              |
| Worked in the last 7 days | 23.7%            | 25.2%                | 38.9%               | 46.2%             | 51.9%              | 56.9%        |
| Unemployed and looking for work | 56.3%   | 42.2%                | 29.1%               | 16.4%             | 9.0%               | 5.0%         |

| EDUCATION                 |                  |                      |                     |                   |                   |              |
| None                      | 5.4%             | 5.1%                 | 1.4%                | 0.3%              | 0.3%               | 0.1%         |
| Primary only              | 14.1%            | 15.1%                | 6.5%                | 2.6%              | 0.6%               | 0.1%         |
| Some secondary            | 41.7%            | 38.2%                | 28.1%               | 11.4%             | 5.6%               | 2.5%         |
| Matric                    | 30.9%            | 32.4%                | 41.7%               | 31.4%             | 20.0%              | 16.5%        |
| Higher than matric        | 7.9%             | 9.2%                 | 22.3%               | 54.2%             | 73.6%              | 80.9%        |

| ORIGIN                    |                  |                      |                     |                   |                   |              |
| Born in Gauteng           | 41.2%            | 54.0%                | 54.9%               | 59.8%             | 66.8%              | 72.1%        |
| Migrated from an SA province | 46.4%            | 37.1%                | 37.0%               | 32.6%             | 25.5%              | 22.2%        |
| Migrated from another country | 12.4%            | 8.9%                 | 8.1%                | 7.6%              | 7.7%               | 5.7%         |

| I LIVE IN A HOUSEHOLD WHERE THERE IS A PERSON |                  |                      |                     |                   |                   |              |
| Receives a social grant   | 42.3%            | 58.3%                | 46.5%               | 25.3%             | 14.4%              | 9.4%         |
| Owns a car                | 6.6%             | 13.2%                | 35.7%               | 79.6%             | 95.9%              | 98.8%        |
| Has TB or HIV/AIDS        | 14.4%            | 11.6%                | 10.0%               | 5.9%              | 3.9%               | 1.7%         |

| I HAVE                    |                  |                      |                     |                   |                   |              |
| No medical aid coverage   | 91.9%            | 89.4%                | 77.3%               | 40.1%             | 14.6%              | 4.6%         |
| Been a victim of crime in the last year | 22.5% | 23.9%                | 24.4%               | 23.2%             | 19.6%              | 18.8%        |
| Recently participated in a protest | 14.1% | 10.3%                | 9.0%                | 5.3%              | 2.8%               | 1.5%         |
| Recently participated in a trade union activity | 2.0% | 2.3%                 | 5.9%                | 8.9%              | 7.7%               | 6.6%         |

Source: GCRO Quality of Life Survey, 2017/18
M1: Green vegetation and impervious surfaces

(Maree and Khanyile, 2017)
M2: Imputed mean income by ward in 2017

Source: GCRO Qol V (2017/18)

- Wards coloured orange are those that started from a low base but grew faster than the province on average.
- Pale green wards are those that started from a higher base but grew slowly.
- Dark green wards are those that were already rich in 2001 and nevertheless grew faster than the provincial average.
- Wards coloured red are those that started from a low base in 2001 but grew slower than the provincial average.
M4: Racial Diversity in the Gauteng City Region

Entropy score per ward

- 0.0 - 0.11
- 0.12 - 0.46
- 0.47 - 0.73
- 0.74 - 0.96
- 0.97 - 1.28

Data Source: GCRO QoL IV (2015/16)
M5: Income diversity in the Gauteng City Region

Entropy score per ward

- 0.0 - 0.85
- 0.86 - 1.12
- 1.13 - 1.29
- 1.30 - 1.46
- 1.47 - 1.86
- Municipalities in Gauteng

Data Source: GCRO QoL IV (2015/16)
M6: Gated communities and government housing

Legend
- Backyard dwellings (2016)
- Gated communities (2012)
- Government housing programmes (2014)
- Municipalities in Gauteng
M7: Soshangvue - Residential development 2001 – 2016

Data Source: GeoTerrimage Building Based Land Use layer (2001 and 2016)
M8: Trips to Work

(i) African respondents

(ii) White respondents

Source: Quality of Life Survey IV (2015/16)
M9: Looking for Work in the Gauteng City Region

- Location (origins) of respondents
- Look for work trips
- Gauteng municipalities