Submission on the City of Johannesburg’s Spatial Development Framework, 2016

Socio-Economic Rights Institute of South Africa
(SERI)

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1. Introduction

On 27 January 2016, the City of Johannesburg ("the City") published an invitation for interested parties to comment on its Draft Spatial Development Framework (SDF). The SDF is published in accordance with the requirements of the Spatial Planning and Land Use Management Act, 16 of 2013 (SPLUMA). Further, the SDF is a component of an Integrated Development Plan which municipalities are obliged to adopt as contemplated in section 25(1) of the Municipal Systems Act, 32 of 2000.

SPLUMA sets out development principles and applicable norms and standards which apply to all organs of state and other authorities responsible for the implementation of legislation regulating the use and development of land. The SDF gives effect to these principles, norms and standards within the jurisdictional area of the City of Johannesburg Metropolitan Municipality. It also includes the spatial policies, strategies and implementation mechanisms that have been carried over from the 2010/11 SDF, as well as those that have been amended or added.

The framework created by the SDF reflects the recognition that spatial inequalities inherited from apartheid, and in many instances perpetuated in democratic South Africa, remain a defining characteristic of Johannesburg and a major hindrance to the fulfilment of socio-economic rights and an adequate standard of living for everybody who lives there.

The Socio-Economic Rights Institute of South Africa (SERI) has read and considered the draft SDF and makes this submission to the City of Johannesburg in accordance with the invitation to submit written comments. SERI’s submission provides background to the organisation and its work, detailed comments on the draft SDF and recommendations for amending the SDF.

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2 Spatial Planning and Land Use Management Act, 16 of 2013. ("SPLUMA").
3 SPLUMA, 14-18.
4 SPLUMA, 30-32.
2. Executive Summary

On the 27th of January 2016, the City of Johannesburg published for comment its draft Spatial Development Framework (SDF). As described by the City:

*The SDF for Johannesburg 2040 is a city-wide spatial policy document identifying the main challenges and opportunities in the city, setting a spatial vision for the future city, and outlining a set of strategies that would lead to the realisation of that vision.*[^1]

The SDF is an important document, designed to set the spatial agenda for Johannesburg for the next 25 years. SERI has prepared and submitted comments on the draft SDF in line with the organisation’s areas of expertise. The SERI submission focuses on three topics: Spatial Justice, Provision of Affordable Housing, and Informal Work.

SERI argues that while the SDF’s focus on the development of a compact polycentric city model is a welcome intervention, this is not sufficient in a provincial context where the Gauteng Provincial Government has committed itself to so-called housing “Mega-projects”, which entail massive peripheral and green-field developments far from existing jobs and social amenities. The SDF should place greater emphasis on how peripheral green-field development has historically failed to transform South African cities, and explicitly recognise that continuing on this developmental path will entrench Apartheid-era spatial planning.

Informal settlement upgrading is not discussed with sufficient detail in the SDF, and some key omissions deserve greater attention. Most glaringly, there is no discussion of the “Special Zones” concept introduced in SPLUMA. These zones can be used to regularise tenure and land use, and facilitate *in situ* upgrading. The possibilities for development should be discussed explicitly. Additionally, the SDF should graphically and textually identify the location of current Johannesburg informal settlements, consider and discuss the effect of new form-based coding on informal settlement upgrading, identify and incorporate existing policies, instruments and mechanisms for *in situ* upgrading, and an explicit commitment should be made to engagement with residents when upgrading settlements.

The SDF identifies so-called “Priority Transformation Areas” which are to receive the bulk of new infrastructure spending. While SERI recognises the necessity of high-level spatial planning and resource allocation policies, some allowance should be made for local realities which do not neatly fit into the SDF’s plan. The SDF should identify investment for “non-

[^1]: SDF, 6.
priority” areas where people currently live in inadequate conditions, including *in situ* informal settlement upgrading. This does not constitute an endorsement of green-field peripheral development similar to Gauteng’s housing “Mega-projects”.

While the SDF makes an explicit commitment to the provision of affordable housing, the document is unclear as to what constitutes affordability and how much of the housing stock in Johannesburg should be affordable. SERI argues that consistent benchmarks should be set based on an analysis of the prevailing distribution of household income in Johannesburg. SERI presents statistics showing that approximately half of all households in Johannesburg have a monthly income below R3 500 per month (in 2011 Rands), with many households significantly poorer than this. Affordable housing policy should be responsive to this reality.

Affordable housing proposals in the SDF make no mention of affordable public rental accommodation. SERI argues that market-provided and social housing are inadequate to meet the demand for affordable housing in Johannesburg, and affordable public rental accommodation should be identified explicitly as an implementation intervention in the priority development areas identified in the SDF, such as the inner city and transport corridors.

While the SDF discusses extensively the effect that spatial form has on formal jobs and livelihoods, there is almost no discussion of informal work in the document. This is despite spatial form having significant implications for the livelihoods of informal workers, and the existence of informal work having implications for Johannesburg’s spatial form. SERI argues that the SDF should expand its definition of work and livelihoods to include informal work, and in particular it should align with the approach contained in the Inner City Transformation Roadmap. Additionally, the SDF should address its current gap regarding informal trade by reviewing the likely implications of its proposals for informal livelihoods. In particular, regarding the spatial vision for the streets, the SDF should promote a balance between the needs of pedestrians and commuters and people who make a living there.
3. The Socio-Economic Rights Institute (SERI)

SERI is a registered non-profit organisation and public interest law clinic that provides professional, dedicated and expert socio-economic rights assistance to individuals, communities and social movements in South Africa. SERI conducts applied legal research, litigates in the public interest, facilitates civil society mobilisation and coordination, and conducts popular education and training. SERI’s core work relates to the advancement and protection of access to socio-economic rights in socio-economically marginalised (poor) communities.

SERI’s primary thematic focus areas are urban housing, access to basic services and informal settlement upgrading, informal trade, and the advancement of political space for organisation, expression, participation and articulation.

SERI has the following aims:

- To advance the currency of human rights and particularly socio-economic rights in South Africa.
- To promote the fulfilment of socio-economic rights by vulnerable communities in South Africa.
- To assist poor and marginalised groups to realise an adequate standard of living.
- To contribute to public governance through empowering local communities to understand their rights, government processes and to effectively engage in such processes, thereby holding government accountable.6

SERI’s work and the focus and intentions of the SDF have many parallels. Section 26 of the Constitution is identified in SPLUMA as one of the constitutional imperatives that underpins the act, to which the SDF gives effect.7 Much of SERI’s work involves an engagement with section 26 of the Constitution, not only in litigation at all levels of our legal system, but also through applied research and advocacy.

Furthermore, SPLUMA identifies the principles that underpin land development and land use management. These include to “increase access to land by disadvantaged communities” and to “accommodate access to secure tenure and the incremental upgrading of informal areas”. It also recognises the need for land use management that is appropriate for informal

6 For more on SERI visit the SERI website: www.seris.org
7 SPLUMA, preamble.
settlements. The SDF reiterates the position of national and City policy that the in situ upgrading of informal settlements must be prioritised. SERI’s legal, research and advocacy work is focused on, amongst other things, security of tenure, evictions and informal settlements.

SERI has been involved in litigation protecting housing-related rights from negative violations. The advocacy activities also address the right to housing and has published a series of guides and research reports in relation to the right to housing and against illegal evictions.

An important aspect of this advocacy has been the call for the City to put in place a plan and measures to progressively deal with the lack of supply of low-income rental housing for close to half of the households currently living in the inner city, and to implement a programmatic response to its constitutional obligation to provide alternative accommodation in the case of evictions which would result in homelessness.

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8 These include: **Auto Cinema Investments v Occupiers of Stanhope Compound** ('Stanhope Compound') eviction - Stanhope mining compound - Johannesburg - access to justice; **Blue Moonlight Properties 39 (Pty) Ltd v Occupiers of Saratoga Avenue and Another** ('Blue Moonlight') private eviction - Berea - City of Johannesburg - alternative accommodation - Constitutional Court; **Changing Tides (Pty) Ltd v Unlawful Occupiers of Chung Hua Mansions and Others** ('Changing Tides') unlawful eviction - inner city of Johannesburg - Johannesburg High Court; **City of Johannesburg v Changing Tides Properties and the Unlawful Occupiers of Tikwelo House** ('Tikwelo House') amicus curiae - appeal against order to provide alternative accommodation - City of Johannesburg - Supreme Court of Appeal (SCA); **City of Johannesburg in re: All pending eviction applications where the occupiers’ eviction may lead to homelessness** ('City of Johannesburg ex parte stay application') stay application - evictions - City of Johannesburg - South Gauteng High Court; **Dladla and the Further Residents of Ekuthuleni Shelter v City of Johannesburg and MES** ('Dladla') rights to dignity, privacy and adequate housing - shelter accommodation - inner city Johannesburg; **Hawerd Nleya and Others v Ingelosi House (Pty) Ltd** ('Ingelosi House') application for leave to appeal - just and equitable eviction - Gauteng Local Division of the High Court - Supreme Court of Appeal; **Hlopha and Others v City of Johannesburg and Others** ('Hlopha') Chung Hua - enforcement application – contempt; **Mthimkulu and Others v City of Johannesburg and Others** ('Mthimkulu') emergency housing - City of Johannesburg - South Gauteng High Court; **Occupiers of Erven 87 & 88 Berea v De Wet and Another** ('Kiribilly') eviction rescission - lack of consent – Johannesburg; **Occupiers of 10-18 Salisbury Street, Johannesburg v City of Johannesburg and Johannesburg Metropolitan Police Department** illegal eviction - Johannesburg CBD - Johannesburg Metropolitan Police Department (JMPD) - fire brigade; **Occupiers of Jeanwell Court v Khalil Ahmed Properties** ('Jeanwell Court') inner city Johannesburg - rescission application - South Gauteng High Court; **Occupiers of 50, 53 and 54 Soper Road v Motala and Others** ('Soper Road') urgent application – eviction – inner city Johannesburg – rescission; **Schubart Park Residents Association and Others v City of Tshwane Metropolitan Municipality and Others** ('Schubart Park') amicus curiae - Schubart Park – difference between 'evacuation' and 'eviction' of occupiers - Constitutional Court.

SERI has also been involved in litigation involving informal settlements, ranging from resisting evictions to the upgrading of informal settlements and the provision of alternative accommodation.\textsuperscript{10} SERI and the clients it represents have an interest in the SDF and its aims.

\textsuperscript{10} These include: De Clerq and Others v Occupiers of Plot 38 Meringspark, Klerksdorp and Others ("Ratanang") eviction - Ratanang informal settlement - Klerksdorp - North Gauteng High Court; Melani and the Further Residents of Slovo Park Informal Settlement v City of Johannesburg and Others ("Slovo Park") Slovo Park informal settlement - Upgrading of Informal Settlements Programme (UISP) - City of Johannesburg; Dzai and Others v Ekurhuleni Metropolitan Municipality and Others ("Makause") Makause informal settlement - Ekurhuleni Metropolitan Municipality - application of Upgrading of Informal Settlements Programme (UISP) - Johannesburg High Court; Fischer and City of Cape Town v Ramahlele and 46 Others ("Fischer") anti-land invasion unit - City of Cape Town - Supreme Court of Appeal; Lyton Props and Robert Ross v Occupiers of IsiQalo and City of Cape Town ("IsiQalo") IsiQalo informal settlement - private owner - eviction application - Western Cape High Court; Mjaju and Others in re Federation for a Sustainable Environment v National Nuclear Regulator and Others ("Tudor Shaft") application for leave to intervene - mine residue removal - lack of public participation - Tudor Shaft - South Gauteng High Court; Mikani Holdings v Unlawful Occupiers of Taylor Road, Honeydew Manor and Another ("Mikani") alternative accommodation - informal settlement - Honeydew - City of Johannesburg; Mtungwa and Others v Ekurhuleni Metropolitan Municipality ("Mtungwa") access to water and sanitation - Langaville informal settlement - Ekurhuleni Metropolitan Municipality; Mzimela and Others v eThekwini Municipality and Others ("Mzimela") illegal eviction - urgent interdict - Cato Crest informal settlement - Durban High Court; Pheko and Others v Ekurhuleni Metropolitan Municipality ("Bapsfontein") illegal eviction - Bapsfontein informal settlement - Ekurhuleni Metropolitan Municipality - amicus curiae - Constitutional Court; Rand Leases Properties v Occupiers of Vogelstruisfontein and Others ("Rand Leases") emergency housing - access to basic services - Marie Louise informal settlement - City of Johannesburg; Rula Tecno Park (Pty) Ltd v Moses Khuwzwayo Mahlangu and Others ("Rula Tecno") eviction - Extension of Security of Tenure Act (ESTA) - Roodepoort Magistrate's Court; uMgeni Municipality v Mafuludi Dlamini and Others ("Tumbleweed") eviction - Tumbleweed township - KwaZulu-Natal - Interim Protection of Informal Land Rights Act; Nvobo and Others v City of Johannesburg and Others ("Kliptown") eviction - Kliptown informal settlement - City of Johannesburg - JMPD - South Gauteng High Court; Thubakgale and Others v Ekurhuleni Metropolitan Municipality and Others ("Winnie Mandela") housing allocation - PAJA - Winnie Mandela informal settlement - North Gauteng High Court; Zulu and 389 Others v eThekwini Municipality and Others ("Zulu") constitutional validity of court order - amicus curiae - Constitutional Court.
4. **Response to the proposed SDF**

The SDF is in many respects a promising document, particularly in relation to the housing and jobs spatial vision outlined for the City of Johannesburg. This vision stands in stark contrast to the approach adopted by the Gauteng Provincial Government’s mega-projects and new towns approach, which is of concern to SERI.\(^{11}\)

Areas of concern remain, however. These can be grouped thematically into three areas –

- Spatial Justice
- Provision of Affordable Housing
- Informal Work

Each of them will be dealt with separately below.

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\(^{11}\) L Royston and Y Shawkat, “The idea of new cities may be folly”, *Business Day* (11 September 2015).
4.1 Spatial Justice

4.1.1 Urban form

The SDF recognises that Johannesburg is characterised by spatial mismatch.\(^{12}\) Population density increases with distance from the city centre, while jobs, economic activity and social amenities are most highly concentrated in the urban core. Those residents who do live close to the urban core are disproportionately white and relatively wealthy, while dense peripheral areas are overwhelmingly black and poor. This spatial structure entrenches poverty, deprivation and inequality.\(^{13}\) While well-located residents’ proximity to jobs and amenities provide distinct economic and social advantages, the peripheral poor must pay exorbitant transport costs to access these opportunities and must spend significant time commuting if they can afford these costs. This spatial geography is a legacy of Apartheid-era spatial planning, which sought to reserve the best-located land for whites and was wary of an urbanised black population, but this urban form has in some respects been entrenched by post-Apartheid housing policy too. This is acknowledged in the SDF, which explains that:

> Traditionally, housing for low income residents has been delivered in areas that are distant from main economic sectors on cheap and available land, rather on land that is optimal for urban development. Continuing to meet housing demand in this manner not only exacerbates existing socio-economic disparities in the city, but entrenches a growing pattern of spatial inequality.\(^{14}\)

The SDF recognises firstly that development in Johannesburg requires “creating housing opportunities near jobs, and creating job intensive economic opportunities in high density residential areas”\(^{15}\), and secondly that the “sharp concentration of jobs is an asset for Johannesburg and will feed economic growth if it is articulated with an efficient transportation network in the short term and by increased housing opportunities in close proximity in the long run.”\(^{16}\)

In line with this understanding, the draft SDF commits the City of Johannesburg to developing a “compact polycentric city with a dense urban core linked by efficient public transport networks to dense, mixed-use, complimentary [sic] sub-centres, situated within a protected and integrated natural environment.”\(^{17}\) It recognises the vision outlined in the National Development Plan 2030, which, amongst other things, advocates for “strong measures to

\(^{12}\) SDF, 5, 27-37, 41, 46.
\(^{13}\) SDF, 35,36, 46.
\(^{14}\) SDF, 36.
\(^{15}\) SDF, 36.
\(^{16}\) SDF, 37.
\(^{17}\) SDF, 6.
prevent further development of housing in marginal locations [and] increased urban densities to support sustainable public transport”\textsuperscript{18}. The SDF’s explicit support for the development of a compact city built around the inner-city core, with well-located housing to take advantage of prevailing jobs and amenities concentrations, is a very welcome development. As the SDF recognises, this position stands in contrast to much of post-Apartheid housing practice, where in pursuit of the cheap construction of large numbers of housing units, peripheral green-field development has been preferred with disastrous developmental consequences. The SDF explicitly states that its proposed model “opposes green-field development on the outskirts of the city.”\textsuperscript{19}

While SERI welcomes these commitments, the provincial housing policy context is worrying. The Gauteng provincial government has committed itself to the construction of so-called housing “Mega-projects”, which entail massive green-field housing developments on peripheral land throughout the province.\textsuperscript{20} Significant concerns about these proposed developments have been raised by a number of experts, who argue that the Mega-projects are fiscally risky, lack detail on key issues, will likely entrench prevailing patterns of poverty and inequality, and reflect an unwillingness to learn from the failed housing policies of the past.\textsuperscript{21} The Gauteng plans, which are directly opposed to the spatial model proposed in the SDF, will affect the capacity of the City of Johannesburg to implement its spatial vision.

In response to this, the SDF should place more emphasis on how peripheral green-field development has failed to transform South African cities. While the draft SDF extensively discusses the benefits of compact development, it refers only in passing to the problems associated with peripheral development. This not a strong enough comment in the prevailing provincial policy environment, and more should be said about how green-field peripheral development has entrenched the Apartheid-era spatial form in South African cities for the last 20 years. There is significant evidence and expert opinion which the SDF can incorporate on this issue, much of which comes from national government, which at least in terms of policy, has recognised the failure of peripheral development.\textsuperscript{22}

\textsuperscript{18} National Planning Commission, National Development Plan Vision 2030 (2012), 47.
\textsuperscript{19} SDF, 52.
\textsuperscript{20} D Makhura, “Gauteng State of the Province Address” (2015).
\textsuperscript{22} National Department of Housing, Breaking New Ground: A comprehensive plan for the development of sustainable human settlements (2004); S Charlton and C Kihato “Reaching the Poor: An analysis of the influences on the evolution of South Africa’s housing programme” in U Pillay et al (eds.) Democracy and Delivery: Urban Policy in South Africa (2006); Centre on Housing Rights and Evictions (COHRE), Business as Usual?: Housing rights and ‘slum eradication’ in Durban, South Africa (September 2008); Social Housing
4.1.2 *In situ upgrading*

In accordance with national policy documents such as Breaking New Ground, the National Development Plan and the Upgrading of Informal Settlements Programme, the SDF makes an explicit commitment to the *in situ* upgrading of informal settlements, rather than the alternative of green-field development and relocation.\(^{23}\) This is also in accordance with already-existing Johannesburg-specific policy, such as the City’s Informal Settlement Regularisation Programme (about which the SDF is silent, something which we return to below).\(^{24}\) The SDF adopts the firm position that:

*in situ upgrading of informal settlements should be the first option for intervention, with relocation only applied where upgrades are not possible and where the land inhabited is unsuitable for human habitation. When relocation is necessary, distances should be kept to a minimum (within 2 km). Moving people far from where they live moves them away from the opportunities, livelihoods, relationships and amenities that prompted them to locate there in the first place.*\(^{25}\)

This strong commitment to *in situ* upgrading is welcome, but is not sufficient. As the SDF notes, an undertaking to prioritising *in situ* upgrading is not new policy.\(^{26}\) Further detail is required to give practical form to this commitment. And yet *in situ* upgrading is mentioned only twice in the SDF, and in both cases a commitment is made without any implementation plan or discussion of how informal settlement upgrading fits into the City’s broader spatial vision.\(^{27}\)

In the absence of this type of detail, the SDF does little to actually advance an *in situ* upgrading agenda. In particular, a number of other focus areas or proposals in the SDF have the potential to negatively affect an *in situ* upgrading plan, and the effects of these must be considered explicitly. We identify three gaps related to *in situ* upgrading created by other SDF proposals or focus areas:

1) Despite a significant focus of the SDF being its proposed spatial vision for the city, which entails the prioritisation of development in some areas relative to others, no information is provided as to where the city’s informal settlements are located, and how their upgrading fits into the main spatial vision for Johannesburg outlined in

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\(^{23}\) SDF, 11.


\(^{25}\) SDF, 33.

\(^{26}\) SDF, 33.

\(^{27}\) SDF, 11-12, 13.
the SDF. The SDF needs to indicate where the city’s informal settlements are located, and should discuss how the upgrading of these settlements will be affected by the SDF’s master spatial plan. The potential conflict between high-level spatial planning and the necessity of \textit{in situ} upgrading is discussed further in Section 4.1.3 of this submission.

2) The SDF proposes a move away from land use zoning to what is called “Form-Based Codes”.\textsuperscript{28} These codes are designed to be adaptable to local realities and will apparently allow for more integrated developments which serve a mixed-use function.\textsuperscript{29} However the introduction of form-based coding without discussing how it will impact informal settlement upgrading specifically constitutes a gap in both the form-based coding and \textit{in situ} upgrading sections of the SDF. Inappropriate land use zoning has caused significant delays when it comes to the upgrading of informal settlements, and the impact that form-based coding may have needs to be more fully explored.

3) The SDF places great emphasis on a practical implementation focus for the document. It asserts that:

\begin{quote}
a realistic implementation framework is tied to this SDF, a point on which previous SDFs have been critiqued. The SDF must translate into a clear decision-making framework that is able to chart a way forward for public sector investment. This gap is addressed in this SDF through implementation strategies that combine a set of priority investment area projects with spatial policies to support them.\textsuperscript{30}
\end{quote}

However, in the case of \textit{in situ} upgrading, no discussion is presented about the various policies, instruments, and mechanisms that can be used to facilitate \textit{in situ} upgrading. In light of its commitment to “implementation strategies that combine a set of priority investment area projects with spatial policies to support them”\textsuperscript{31}, the SDF should at the very least identify the instruments which would be useful for \textit{in situ} upgrading. These include the Upgrading of Informal Settlements Programme (UISP) and the City’s own Regularisation Programme.

\textsuperscript{28} SDF, 12, 103.
\textsuperscript{29} SDF, 103.
\textsuperscript{30} SDF, 15.
\textsuperscript{31} SDF, 15.
Two further issues, which are not identified in the SDF at all, also require discussion and firm commitments: the “Special Zones” concept introduced in SPLUMA, and the importance of meaningful engagement with informal settlement residents.

Firstly, the SDF should identify the use of special zones for informal settlement land use management. The SDF’s silence on this issue is particularly surprising because the City’s own Regularisation Programme designated a category of informal settlements as “transitional residential settlement areas”. 32 Transitional residential settlement areas are, in fact, special zones. Special Zones are an aspect of informal settlement upgrading that can regularise tenure and land use. The SDF should clarify the relationship between Special Zones and the proposed form-based coding.

SPLUMA makes explicit provision for Special Zones, and SERI had hoped that the City of Johannesburg’s Municipal Planning By-law, would build on this provision of SPLUMA. 33 The draft By-law published for comment on 29 January 2016, however, only makes passing reference to Special Zones, and does not at all mention the “Regularisation Programme” previously developed by the City of Johannesburg to legalise informal settlement land use via planning mechanisms. 34 The By-law makes no explicit provision for the creation of a special informal settlement land use zone in order to legalise informal settlement use. This reiterates the importance of the SDF including implementation detail for its commitment to in situ upgrading, and explicit proposal for Special Zones.

The second gap in the SDF concerns the importance of meaningful engagement in in situ upgrading. Plans to provide infrastructure in informal settlements, whether by in situ upgrading or relocation, must be developed in consultation with residents. The SDF’s position, that “in situ upgrading of informal settlements should be the first option for intervention, with relocation only applied where upgrades are not possible” 35 is welcome, but should include an additional commitment to consultation with residents about what solutions work for them.

4.1.3 Priority Transformation Areas

As part of implementing its vision of the “polycentric compact city”, the SDF proposes specific “Priority Transformation Areas”, which are to receive targeted investment in new

33 SPLUMA, S 24(3)(b).
35 SDF, 11-12.
infrastructure. While the specific taxonomy is somewhat unclear, it seems that the SDF further divides the Priority Transformation Areas into “Priority Development Zones” (also called the “Blue Zone”) and “Consolidation areas” (also called the “Orange Zone”). The Blue Zone is made up of a “Public Transport Backbone”, an “Aerotropolis Corridor”, the “Metropolitan Core”, and the “Mining Belt”. The Orange Zone consists of Soweto, Diepsloot, Ivory Park, and Orange Farm. The SDF proposes that the Blue Zone receives 70% of new infrastructure expenditure between 2015 and 2020, while the Orange Zone receives 30%. This advances to 90% of new infrastructure spending for the Blue Zone and 10% for the Orange Zone by 2030.

While SERI recognises the necessity of high-level spatial planning and resource allocation policies if the SDF’s spatial vision is to be implemented, some allowance must be made for local realities which do not neatly fit into the SDF’s plan. It is a legacy of Apartheid that many South Africans live in poorly located areas, and this cannot be a basis for their abandonment by the state. The only allowance the SDF makes in this respect is to state that: “It is recognised that development cannot come to a complete halt outside of the Priority Development Zone, but the SDF does propose that this zone does receive the bulk of investment in new infrastructure for the foreseeable future.” This does not provide sufficient assurance that people outside the Blue and Orange zones will receive sufficient infrastructure investment, or indeed any infrastructure investment at all, given that investment outside the Priority Development Zone (the Blue Zone) may simply mean investment in the Orange Zone Consolidation areas. In addition, the absence of a commitment to any kind of infrastructure investment outside the Blue and Orange Zones creates a potential conflict with the SDF’s commitment to in situ upgrading of informal settlements, as many of these settlements may be outside the Priority Transformation Areas but will still require infrastructure investment for upgrading.

An inconsistency of this nature is undesirable from a planning perspective, as it allows for developers and other actors to justify widely disparate actions as being in line with the SDF, making it possible for them to pursue their own self-interest without consideration to the SDF’s actual objectives. This is particularly concerning in a context where the Gauteng Provincial Government’s spatial vision is substantially different from the City’s, and the inconsistency

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36 SDF, 96.
37 SDF, 97, 98.
38 SDF, 96, 97.
39 SDF, 7.
40 SDF, 98.
41 SDF, 98.
42 SDF, 98.
may lend itself to the imposition of the provincial agenda ostensibly on the grounds that is in accordance with the City’s SDF.

More detail on how this apparent contradiction will be resolved is required in the SDF. The general issue of the conflict between high-level planning and appropriateness to local realities also deserves further discussion. SERI’s position is that while macro planning is necessary for the implementation of the SDF’s spatial vision, some allowance must be made for supporting people where they live currently in inadequate conditions. This means explicitly addressing investment in these “non-priority” areas. There is a fine but distinct difference between supporting people outside the SDF’s Priority Transformation Areas and supporting a policy amenable to green-field mega-projects. This line needs to be made explicit in the SDF, in order to prevent misuse of this provision by those sympathetic to the provincial agenda.

4.2 Provision of Affordable Housing

4.2.1 Inconsistent benchmarks and definitions

While the SDF frequently emphasises the importance of providing affordable housing, suggested benchmarks for what constitutes “affordable housing” and how much housing needs to be affordable, are inconsistent throughout the document. At various points throughout the SDF reference is made alternately to “affordable”, “inclusive”, “low income” and “lower-middle income” housing with scant information on what these definitions mean. At one point “low income households” are defined as household earning less than R3 500 per month but the justification for this figure is not discussed. At another point, “more affordable units” are defined as being those which cost less than R550 000 per unit, again without explanation. Lastly, following a Deloitte report, “those living just outside of poverty, but still with very low incomes”, are defined as the “floating middle class” who live on between US$2 and US$4 per day. It should be noted at this stage that people living on US$4 per day are certainly not living “outside of poverty” by South African standards, with almost all South African-specific poverty lines setting higher poverty thresholds than US$4 per day. The limited presentation in the SDF about what constitutes affordable housing is not based on an

43 SDF, 10, 13, 36, 106.
44 SDF, 36.
45 SDF, 41.
46 SDF, 24.
analysis of Johannesburg’s prevailing household income distribution nor indeed of any empirical evidence.

Suggestions of what proportion of new housing should be affordable are similarly not presented with justification, much less by justification based on an understanding of the prevailing income distribution in Johannesburg. Suggested benchmarks for proportions of affordable housing suffer the additional drawback that the SDF presents a range of different affordable housing targets which apparently contradict each other. At various points a Habitat benchmark that “low cost housing should ultimately make up 20-50% of residential floor area in all neighbourhoods” is suggested, including in the SDF’s proposed Development Control and Urban Performance Measures. However a variety of other proportions are also suggested, including that 20% of all housing units along the public transport backbone must be used for affordable housing, that 20-30% of housing be affordable in the Aerotropolis Corridor, that 10-30% of housing units be affordable in Gauteng Province according to the Gauteng Inclusionary Housing Policy, and finally that 10% of units be allocated to low income housing and 20-30% of new units be dedicated to low to middle income households according to the proposed Johannesburg Inclusionary Housing Policy. The issue with these suggestions is not just that they seem to potentially contradict each other, but that the basis upon which they are determined is insufficiently clear and does not seem to speak to the Johannesburg-specific context.

4.2.2 Setting benchmarks related to actual household income distribution in Johannesburg

A Johannesburg-specific policy should be centred on an evaluation of what conditions prevail in the city, and indeed it would be valuable for the SDF to explicitly refer to these conditions when presenting benchmarks. As such, we present some descriptive statistics on the actual distribution of household incomes in Johannesburg.

We present statistics from the 2012 third wave of the National Income Dynamics Study (NIDS) initiated by the South African Presidency and administered by the Southern Africa Labour and Development Research Unit (SALDRU), the 2011 Quality of Life (QoL) survey initiated by the Gauteng City-Region Observatory and administered by Data World, and two specifications from the 2011 South African national census administered by Statistics South Africa. Apart

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48 SDF, 13, 55, 100.
49 SDF, 72, 89, 106, 107.
50 All statistics are own calculations, using the relevant dataset.
from the census, we use these two surveys in particular because they allow us to disaggregate statistics to the municipal level, unlike other large-scale surveys.

Concerns about the reliability of the 2011 Quality of Life survey and the national census lead us to prefer the NIDS estimates and an adjusted specification (“Specification 2”) of the census for the purposes of determining prevailing income levels in Johannesburg. The Technical Appendix attached to this document describes the different datasets we use, and includes discussion as to why we prefer some datasets and specifications over others.

Statistics are presented in Table 1 in October 2011 Rands, so as to be comparable to the census statistics generally used to describe Johannesburg in planning discourses. While NIDS allows for reporting income as point estimates, the census and Quality of Life income estimates must be presented in intervals, due to the manner in which income was enumerated in these questionnaires.

Table 1: Household income distribution: Johannesburg

<table>
<thead>
<tr>
<th>Income Percentile</th>
<th>NIDS</th>
<th>Census spec. 1</th>
<th>Census spec. 2*</th>
<th>2011 QoL</th>
</tr>
</thead>
<tbody>
<tr>
<td>25th</td>
<td>1751</td>
<td>801-1600</td>
<td>1601-3200</td>
<td>801-1600</td>
</tr>
<tr>
<td>33rd</td>
<td>2224</td>
<td>801-1600</td>
<td>1601-3200</td>
<td>801-1600</td>
</tr>
<tr>
<td>40th</td>
<td>2487</td>
<td>1601-3200</td>
<td>1601-3200</td>
<td>1601-3200</td>
</tr>
<tr>
<td>50th (median)</td>
<td>3543</td>
<td>1601-3200</td>
<td>3201-6400</td>
<td>1601-3200</td>
</tr>
</tbody>
</table>

*Census spec. 2 excludes “zero-income” households and is our preferred census specification.

Using the NIDS estimates for Johannesburg as an example, Table 1 shows that the 25th percentile of household income is equivalent to R1751 per month, meaning that if one were to arrange all of the households in Johannesburg by income, from poorest to richest, the richest household of the poorest 25% of households has an income of R1751 per month. Explained another way, the household with R1751 per month divides the poorest 25% of households from the richest 75% of households. It follows that 25% of households in Johannesburg earn less than R1751 per month. Similarly, 33% of households earn less than R2224 per month, and 40% of households earn less than R2487 per month, according to the NIDS data. The 50th percentile tells us that 50% of households earn less than R3543 per month. The 50th percentile is also called the median: it is the value you get if you order all households in Johannesburg by income, richest to poorest, and choose the middle value. As is explained in the technical appendix, in a highly unequal country like South Africa, the median is generally regarded as the best measure of what a “typical” income is.
The figures in Table 1 are a stark reminder that South Africans are very poor. Recent research suggests that over 60% of the national population was income poor in 2011. More pertinently for the purposes of determining a definition of affordable housing, we see that if we use median income as the best measure for “middle income”, and median income quite literally means “middle income”, the NIDS estimates suggest that a middle income household earns R3543 per month in Johannesburg, while the census suggests that middle income means somewhere between R3184 and R6367 per month in 2011 prices. This has significant implications for our understanding of what income group affordable housing must be targeted to. With middle income meaning approximately R3500 per month, “low to middle income” could be set at the 40% percentile, meaning approximately R2500 per month. “Low income” can then be set at either the 25th or 33rd percentile, meaning between R1750 and R2200 per month. It is worth remembering that even a rental set for households earning only R1750 per month in 2011 prices would be unaffordable for approximately one quarter of Johannesburg’s population.

The proportion of units in new housing developments that should be set aside for affordable housing will depend on what definition is used for affordable housing. If the definition in the SDF is adopted, and R3500 per month is used, then it would seem that approximately 50% of units should be set aside for housing in this category, as half of the Johannesburg population earned below this amount in 2011. A segmented approach using the 25th percentile as the definition of “low income households” (the 33rd percentile could also be used) would suggest that 25% of housing be set aside for households earning below R1750 in 2011 and 15% be set aside for households earning above R1750 but below R2500 per month (the 40th percentile or low to middle income group). SERI submits that this type of segmented approach is preferable. A segmented approach more effectively reaches the poor than one blanket definition of what constitutes affordable housing and which must apply to all of the poor.

The SDF should identify an approach to what constitutes affordable housing that is based on evidence, and its benchmarks for the proportion of affordable housing necessary in new developments must be similarly calculated. It is SERI’s position that the statistics calculated above using NIDS and the national census provide the best basis upon which to do this. The targets and understanding of affordable housing explained here are evidence-based and speak to Johannesburg’s current reality in a way that the targets proposed in the draft SDF do not.

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4.2.3 The necessity of a public rental option

No mention is made of public rental in the SDF. Both explicitly and implicitly, it is assumed that rental accommodation will be provided via the private market or social housing. SERI’s view is that this approach cannot solve the City’s housing problem. As indicated by the statistics in Section 4.2.2, Johannesburg’s population, like the South African population at large, is majority poor. In the absence of public sector rental, many of these people, who cannot afford market-related rentals, are forced into informality.

Nearly all of the state’s efforts to develop or facilitate affordable rental housing have served households with income between R3 500 and R15 000 per month. As a result, households with incomes of less than R3 500 per month are hard pressed to secure housing that is both safe and affordable. The private sector has delivered very little to this segment of the population. Currently the state’s ownership subsidy programme is directed at households that earn less than R3 500 per month. However, it does not meet the scale of need, and neither does it address the existing needs for rental accommodation. As a result, most households earning less than R3 500 per month occupy accommodation informally in dilapidated inner city buildings, in shared or sub-let rooms, or rent in backyards in townships, suburbs and informal settlements. Many face eviction by private developers or municipalities in processes of regeneration or gentrification that are underway in parts of our inner city areas. Where alternative accommodation is provided, households face displacement to shelters on a temporary basis. No long term solution currently exists for affordable rental accommodation. As a result, temporary alternative accommodation tends to become long term, evictions continue to threaten households in inner city accommodation, and informal arrangements continue to grow. This kind of delivery is in neither the interests of government, nor developers, nor the people who live there.

In line with the priority areas identified in the SDF, there is a particular need for affordable public rental options in the Johannesburg inner city, and along the planned Corridors of Freedom. The up-front capital costs, ongoing operating expenditure and management model are key aspects of the proposed programme. SERI submits that the SDF should explicitly identify affordable public rental accommodation as an implementation intervention in the SDF’s priority development areas, as part of its strategy to ensure provision of affordable housing.
4.3 Informal Work

The SDF largely ignores the need to facilitate and protect informal work in Johannesburg, despite this issue having an important spatial dimension. There is a history of public space interventions made by the City without meaningful, and legally required, engagement with the people who use that public space for creating and sustaining livelihoods. In 2013, the City illegally evicted around 7000 street traders from the inner city during Operation Clean Sweep for the purposes of improving the public environment. The operation flouted the investigation required of the City by the Businesses Act, in which it was meant to consider the implications of restricting trade for traders before embarking on such an operation.

While the SDF examines spatial improvements to the public environment in Johannesburg, it makes no meaningful consideration of informal work and the livelihoods that will be directly affected by these improvements. As a result, so far as informal livelihoods are concerned, the SDF unfortunately echoes interventions by the City from the recent past that have prioritised order, cleanliness, and access to the economy that favours formal businesses, at the expense of the interests of people who make their living informally.

The inclusion of informal work in the SDF is crucial for two further reasons. The first is that it has increased economic opportunity as one of its key concerns, and any plausible interpretation of Johannesburg’s economy and jobs market must take informal employment into account. The second is that some of the spatial intentions of the SDF have implications for informal livelihoods opportunities.

4.3.1 Informal work in Johannesburg’s economy

In its lengthy and important consideration of the jobs/housing mismatch, the SDF is unclear on what jobs it is referencing. These gaps very often stand for a bias towards formal jobs. This bias is confirmed in the SDF’s characterisation of the Johannesburg’s economy, and the need for economic transformation: it provides a job density analysis which makes no mention of informal work, despite the well documented importance of informal work to many peoples’ livelihoods. Instead, it considers the location and concentration of formal jobs only.52

Furthermore, the SDF’s noteworthy concern with the creation of new employment remains toothless without a proper and inclusive analysis of the current trends in employment in Johannesburg, and the resultant acknowledgment of the important role played by the informal

52 SDF, 37.
sector in cushioning the shocks of a formal sector, which has not created enough jobs in South Africa.

While the SDF acknowledges that Johannesburg’s inner city “remains the primary activity node in the city” – something that should be protected and reinforced, it makes no mention of the vibrant street economy there. Rather, it focuses on the public sector as a key employer, and the freight and transport infrastructure, which make the inner city “a global trading focus.”

SERI submits that the SDF should go further towards entrenching the progressive aspects of the Inner City Transformation Roadmap. While the Roadmap is recognised in the SDF, dimensions of the Roadmap that have been designed to support informal livelihoods are overlooked. For instance, the Roadmap provides that informal trade will be actively supported and “employment, through meaningful work and livelihood opportunities, will be increased” and acknowledges that “well managed informal trade is important both for the dynamism of that sector and for its co-existence with other forms of retail and with pedestrian activity in the inner city.” This co-existence is a glaring omission from the avowedly pedestrian-friendly SDF.

4.3.2 Spatial dimensions of informal work

The omission of any meaningful consideration of informal work in the SDF means that it misses another crucial aspect of the management of informal trade, something which the Roadmap acknowledges: it includes important spatial dimensions and is inseparably related to the public environment.

While the SDF considers the needs of commuters and pedestrians in the inner city, it does so at the expense of the people who make a living there. To this end it pursues a “favourable street pattern” and “walkable layout”, amongst other things, to ensure a better public environment. While these are welcome steps towards a more accessible inner city, they are made without any consideration of the significant implications such steps will have for people making a living on the sidewalks of the inner city.

The importance of the public environment to informal livelihoods cannot be overstated. Research recently published by SERI reveals that amongst the most stubborn challenges to

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53 SDF, 65.
54 City of Johannesburg, Inner City Transformation Roadmap (2013).
making a living on the streets in inner city Johannesburg is the lack of basic infrastructure and services all highly relevant to spatial planning for the public environment. The absence of trading stalls, running water, storage space, and proper waste collection all impede on street traders’ abilities to run businesses successfully.

Effective spatial planning and policy is as important to informal enterprises as it is to businesses in the formal sector. Informal street trade, which constitutes a sizeable portion of informal work in Johannesburg, is affected by spatial patterns and regulations. SERI’s research also shows that the ability of traders to make a living relies heavily on establishing permanence and forms of continuity in one trading space over time. Being near key locations, like ATMs, or trading over a period of time in spaces of high pedestrian traffic, are crucial to running a business successfully in the informal economy on the streets of Johannesburg’s inner city.

The inclusion of informal work goes beyond accurate conceptions of the economy and employment in Johannesburg, or the crucial spatial dimensions of informal work: it speaks to the broader issue of access to the city. If the SDF is to successfully adopt the inclusionary concern of spatial justice, it must do more to recognise the important contributions of the informal sector, examine more rigorously what implications that sector has for the spatial future of Johannesburg, and promote the necessary equal access to the economy that an authentically ‘world class African city’ should provide.

5. Conclusion

It is submitted that the SDF should be amended along the lines set out above. In particular SERI recommends that:

1. The SDF should place greater emphasis on how peripheral green-field development has historically failed to transform South African cities, and explicitly recognise that continuing on this developmental path will entrench Apartheid era spatial planning.
2. As part of an implementation plan that incorporates in situ informal settlement upgrading:
   a. The location of current Johannesburg informal settlements should be graphically and textually indicated.
   b. The effect of form-based coding on informal settlement upgrading should be explicitly considered and discussed, and the links of this approach to the Special Zones envisaged in SPLUMA made explicit.
c. Existing policies, instruments and mechanisms for *in situ* upgrading should be identified and incorporated in the SDF implementation plan.

d. The developmental possibilities of Special Zones should be discussed, and they should be used for the legal recognition of informal settlements and incorporated into SDF implementation and the planning by-law.

e. A commitment should be made to meaningful engagement with residents of informal settlements addressed in the implementation plan, including Special Zones.

3. The SDF should identify investment for “non-priority” areas where people currently live in inadequate conditions, including *in situ* informal settlement upgrading, linked to the informal settlements spatial plan proposed earlier.

4. Consistent benchmarks should be set for what constitutes affordable housing and what proportion of new housing should be affordable. These benchmarks should be based on an analysis of the prevailing distribution of household income in Johannesburg.

5. Affordable public rental accommodation should be identified explicitly as an implementation intervention in the priority development areas identified in the SDF, such as the inner city and transport corridors.

6. The SDF should expand its definition of work and livelihoods to include informal work, and in particular it should align with the approach contained in the Inner City Transformation Roadmap.

7. The SDF should address the current gap regarding informal trade by reviewing the likely implications of its proposals for informal livelihoods. In particular, regarding the spatial vision for the streets, the SDF should promote a balance between the needs of pedestrians and commuters and people who make a living there.
6. Technical Appendix

It became apparent during the City of Johannesburg’s *SDF Feedback Session* that there is some uncertainty and contestation as to which statistics and datasets are most appropriate for Johannesburg.\(^{57}\) This technical appendix aims to address these concerns.

6.1 Mean vs median estimates

When analysing census and survey data, analysts will often want present an estimate for the “typical” person, household, or other unit of analysis. This may mean calculating typical household income, as is pertinent for our purposes, or calculating typical household size, as is often required in other cases. The measures most often used to approximate these values are means and medians. The appropriateness of each measure will depend on the underlying data being summarised.

Means are calculated by summing the values of the variable of interest, and then dividing this value by the number of observations. For household income, this would mean summing the total value of household income due to all households in South Africa, and then dividing this value by the number of households.

Medians, in contrast, are calculated by sorting observations into ascending (or descending) order in terms of the variable of interest, and then selecting the middle observation. For household income, this would mean ordering all households in South Africa from poorest to richest, and then identifying the middle household. This household’s income is the median income.

The choice of using mean or median measures is generally related to the sensitivity of these measures to outliers. Outliers are observations which are substantially different from the rest of the sample. The concern is that these outliers have the potential to skew the “representativeness” of the mean or median of the typical observation in the sample. In cases where outliers are not generally a problem, the mean is often used. However where outliers are significantly present, medians are typically used. This is because mean estimates are very sensitive to outliers, whereas median estimates are resistant to outliers.

The South African household income distribution is certainly an example of a distribution which contains significant outlying observations. While the majority of South Africans are income poor, some are extremely wealthy. The income of the wealthy distorts the mean income,

\(^{57}\) *SDF Feedback Session* [event] (1 March 2016).
skewing the measure upwards. The median, in contrast, is relatively unaffected by these outlying values. Median estimates are almost always preferred when trying to calculate “typical” income in South Africa, and it is for this reason that we present median estimates and argue that median household income is the best indicator for “middle income households”.

6.2 Datasets

It is SERI’s position, explained in this section, that the most reliable datasets and specifications for the purposes of determining Johannesburg household income distribution are the NIDS Wave 3 dataset and our “Specification 2” of the national census data, which excludes zero-income households. We argue that the unadjusted census dataset (“Specification 1”) is not reliable due to its implausibly high proportion of zero-income households, and that the GCRO’s Quality of Life Surveys is similarly unreliable, due to problematic sampling methodology and a very high proportion of missing data. This section concludes with a table (Table 2) comparing estimates across different datasets and specifications, to illustrate the reliability or otherwise of different datasets.

6.2.1 NIDS

The National Income Dynamics Study (NIDS) is a nationally representative survey covering over 33,000 individuals nationally. The survey has been running since 2008, with the same people interviewed every two years. That NIDS entails the re-interviewing of sample members makes it unique amongst nationally representative surveys. The most recently released “wave” of the dataset, which we use, incorporates interviews from 2012. NIDS is managed by the South African Presidency, and is administered by the Southern Africa Labour and Development Research Unit (SALDRU) based at the University of Cape Town. NIDS is uniquely useful amongst national surveys for our purposes because its sample can be disaggregated down to the Municipal-level in the publicly available dataset. Comparable nationally representative surveys administered by Statistics South Africa such as the 2014 General Household Survey and the 2010/11 Income and Expenditure Survey can only be disaggregate to provinces at their lowest level. NIDS is also regarded by most practitioners as a particularly well-administered survey. Methodological decisions are indicated
transparently in the NIDS technical documents, and the NIDS team is composed of many eminent academics experienced in running surveys.58

While the NIDS data is weighted (adjusted) to ensure that it is nationally and provincially representative, it is not weighted at the municipal level. The national and provincial calibration ensures that the survey is likely to be reasonably accurate at the municipal level, but the sample size of only just over 1000 individuals in Johannesburg is an additional cause for concern for our purposes. For this reason, while the NIDS survey is likely to be reasonably accurate at the Johannesburg-specific level, these estimates should be compared for reasonableness against its national and provincial estimates, which are assumed to be highly accurate. Additionally, the NIDS Johannesburg-specific estimates should be juxtaposed with comparable estimates from other datasets. See Table 2 for these comparisons.

6.2.2 Census

The 2011 South African national Census is the country’s most recent such undertaking, with the last census having been conducted in 2001. It is administered by the country’s national statistical office, Statistics South Africa. While the Census has distinct advantages over other surveys due its stated objective of interviewing the entire South African population, thus removing issues of sampling error, questions have been raised about its accuracy. Census post-enumeration methodology and adjustments are not clearly explained in the publicly released technical documents, and some results from the publicly released dataset are implausible. In particular, there is no information regarding how Statistics South Africa dealt with non-response “missing data”. Missing data commonly occurs when an enumerator skips a household, the enumerator doesn’t ask a required question, the interviewee doesn’t know the answer to a question, the interviewee refuses to answer a question, or the interviewee refuses the entire interview. The consequence of these circumstances is that no data is available for a specific question or household. Best practice in surveys is to record that data as “system missing”, and perform various post-enumeration adjustments to correct for the under-representation of groups which are disproportionately missing. It does not appear that Statistics South Africa follows this approach in the 2011 Census, as very little data is indicated as missing.

In the case of household income, which is our variable of particular interest, it appears that missing household income values were coded as “zero household income”. This is a common

but entirely incorrect way of dealing with missing data. The consequence of this coding is that it becomes impossible to distinguish household with true zero-incomes from those for which income data is missing. It leads to situations, as in the 2011 Census, where statistics taken at face value suggest that 15% of households nationally, or 17% of households in Johannesburg, have zero incomes. This is simply implausible, especially given that the census income variable is meant to include any kind of income, including grants and gifts. As such, we present estimates for two specifications of the census data. Our first specification presents the results as they appear at face value, while our second specification excludes zero-income households on the basis that these households are likely not genuine zero-income households. This is not a fully satisfactory fix for a variety of reasons, but is the best approach available in the circumstances.\textsuperscript{59} It is our view that our second census specification (excluding zero-income households) is the more accurate reflection of reality. Both specifications are presented in Table 1 and Table 2 for comparison.

6.2.3 GCRO Quality of Life Surveys

The GCRO 2011 Quality of Life survey seems at first glance to be the best dataset for Johannesburg-specific statistics. The Quality of Life sample size for Johannesburg, at 4539 households, is significantly larger than any other household survey for this area, apart from the 2013 version of this survey. However problems in the 2011 Quality of Life sampling methodology and enumeration make it unreliable.

The principal problem with the 2011 Quality of Life survey is the very high proportion of missing data for its household income question. In both Johannesburg and Gauteng, over 40% of selected households do not have information regarding their household income. Wealthier households are disproportionately likely to refuse interviews, and their refusal to answer income questions may skew income estimates downwards. Surveys such as NIDS and large Statistics South Africa surveys make adjustments for disproportionate non-response, but this does not seem to have been done for the 2011 Quality of Life Survey. Missing data on the scale seen in the 2011 Quality of Life survey cannot simply be ignored if surveys are to remain reasonably accurate.

An additional problem concerns the sampling methodology used in the 2011 Quality of Life Survey, which will systematically lead to an unrepresentative sample. The 2011 Quality of Life Survey “Field Report” explains that while approximately every fifth residential stand on a

particular street was selected for interview, if multiple households resided in a specific dwelling unit, only one household in that dwelling unit was chosen for interview. The consequence of this methodology is that households which share dwelling units are much less likely to be interviewed than households which do not share dwelling units. This approach is very similar to the method used by Statistics South Africa from 1994 to 1998 for its October Household Surveys (OHS), which has been shown to be distortionary, and is no longer used by Statistics South Africa. The consequence of this sampling methodology is to significantly under-count smaller households, which are more likely to share dwelling units. This is a particular issue in the context of Gauteng because of the relatively high prevalence of backyarders. Systematically under-counting small households and backyarders renders the sample unrepresentative of the population it seeks to describe. This is generally a much more serious issue than small sample size, as the sample will be unrepresentative even with very large samples.

The issues of a high proportion of missing data, and the systematic under-counting of small households, are also evident in the GCRO’s 2013 Quality of Life survey. While the proportion of missing data in the 2013 survey is less than in 2011, at 32% of selected households in Johannesburg, it is still very high. This is acknowledged in the GCRO’s 2013 “Benchmark report”. This report also makes it clear that while the 2013 sampling methodology improves upon the 2011 methodology in other respects, the household selection methodology remains unchanged.

The problematic sampling and very high missing-data proportion lead us to prefer our NIDS and 2nd census specification to the Quality of Life estimates.

6.2.4 Dataset and specification comparisons

Table 2 shows household income distributions for a variety of datasets and specifications. The purpose of Table 2 is to help determine which surveys provide reasonable estimates and which surveys may have unreliable elements. Congruent with the technical discussion above, Table 2 shows that the unadjusted census specification and the GCRO Quality of Life surveys do not seem to provide household income estimates consistent with other surveys. To facilitate comparison two new surveys are introduced in Table 2: Statistics South Africa’s 2011

63 Gauteng City-Region Observatory, “Quality of Life Survey 2013: City benchmarking report” (2015), 4.
General Household Survey (GHS) and 2010/2011 Income and Expenditure Survey (IES). These surveys do not allow for disaggregation to municipal level, but allow for fruitful comparison at the national and provincial level. Both surveys are very large, with over 90 000 individuals in their national samples, and their methodology, which is subject to significant academic scrutiny, is generally not in question.
### Table 2: Dataset and specification comparisons

#### Monthly household income: **South Africa**

<table>
<thead>
<tr>
<th>Income Percentile</th>
<th>NIDS</th>
<th>Census spec. 1</th>
<th>Census spec. 2*</th>
<th>2011 QoL</th>
<th>2013 QoL</th>
<th>2011 GHS</th>
<th>2011 IES</th>
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<td>3000</td>
<td>3704</td>
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#### Monthly household income: **Gauteng**

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<th>Census spec. 2*</th>
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#### Monthly household income: **Johannesburg**

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<th>Income Percentile</th>
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<th>Census spec. 1</th>
<th>Census spec. 2*</th>
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</table>

QoL denotes a GCRO Quality of Life survey. Except for the 2013 QoL, household income is reported in 2011 Rands, per month. 2013 QoL income is reported in 2013 Rands, per month.

*Census spec. 2 excludes "zero-income" households and is our preferred censu specification.