Using Indicators of Multiple Deprivation to Demonstrate the Spatial Legacy of Apartheid in South Africa

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Abstract This paper presents a spatial analysis of multiple deprivation in South Africa and demonstrates that the most deprived areas in the country are located in the rural former homeland areas. The analysis is undertaken using the datazone level South African Index of Multiple Deprivation which was constructed from the 2001 Census. Datazones are a new statistical geography designed especially for this Index using techniques developed in the United Kingdom. They are smaller in population size than wards, enabling fine-grained spatial analysis of deprivation across the whole of South Africa. The spatial scale used is the smallest to be used in a developing country to date. Levels of deprivation are compared between former homeland areas as a whole, the rest of South Africa and a case-study township, as well as between each former homeland. Individual dimensions of deprivation and an overall composite measure are presented. Municipality-level analysis shows that this spatial pattern of multiple deprivation continued to persist in 2007, demonstrating the ongoing spatial legacy of apartheid.

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1 Introduction

This paper presents a spatial analysis of multiple deprivation in South Africa at a small
area level, based on the datazone level South African Index of Multiple Deprivation 2001
(SAIMD 2001). The SAIMD 2001 was produced using data from the South African 2001
Census of Population.[1] Datazones are small area level statistical boundaries that were
especially constructed for the SAIMD using 2001 Census Enumeration Areas (EAs) as the
building blocks.[2] The datazone level SAIMD 2001 provides the most fine-grained profile
of deprivation to be produced within South Africa and indeed in any low or middle-income
country.

The paper focuses particularly on the levels of deprivation in the former homelands. In
1951 the Bantu Authorities Act established ten 'homelands', or 'bantustans' for different
black African ethnic groups. The Transkei, Bophuthatswana, Venda and Ciskei—referred
to as the 'TBVC states'—were given nominal independence and the remaining six—
Gazankulu, KaNgwane, KwaNdebele, KwaZulu, Lebowa and QwaQwa—had limited self-
governance (Beinart 2001). These areas were reincorporated into South Africa in April
1994. Whereas the former homeland areas only cover 13 % of the land area of the country,
at the time of the last census in 2001, around 43 % of the non institutional population of
South Africa lived in these areas (own calculation).[3] Despite their high population density,
these areas are usually described as remote and 'deep rural' (e.g. Chabane 2010). This is
because they contain very few towns and no cities and, as much as there is employment,
this tends to be subsistence agriculture resulting in 'a high proportion [of the homeland
population] living in remote but densely settled rural communities' (Collinson et al. 2006,
p. 4).

The former homelands are often referred to as being characterised by high levels of
poverty, unemployment and lack of infrastructure (e.g. Aliber et al. 2005; Lahiff 1997;
Office of the Presidency 2011). However, with a couple of exceptions (see Sect. 2) there
has been very little research undertaken either to quantify these phenomena in the former
homeland areas, or to compare deprivation levels between different former homeland
areas. Furthermore, no studies have been identified that quantify the extent to which
deprivation varies *within* each of the former homeland areas. As most studies have been
based on survey rather than census data, analysis has often had to be restricted to provincial
level, or to national level decomposed by selected criteria e.g. urban/rural, race (e.g.
Leibbrandt et al. 2010). Moreover, where poverty levels in former homeland areas are
described these, in the main, relate to 1993 just prior to the commencement of the dem-
ocratic era in 1994, and almost always refer to income/expenditure poverty (e.g. Carter and
May 1999; Leibbrandt et al. 2000).

This paper, for the first time, provides analysis in the democratic era at a fine-grained
level across a number of dimensions of deprivation. It enables us not only to quantify the
levels of deprivation in former homelands as a composite area type, but also to distinguish

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[1] As will be explained below, the analysis makes use of the full (or '100%') version of the Census.

[2] The datazones are described in more detail below. Their average population size is 1,962 people.

[3] The non institutional population comprises the population that did not spend the Census night in an
institution e.g. prisons, hospitals, army barracks or a tourist hotel.

between deprivation levels in each of the former homelands, and to drill down to a sub-former homeland level to quantify the extent of deprivation within different areas in each former homeland. Such analysis serves to highlight the fact that these areas suffer high levels of rural poverty and are not homogenous, and provides an example of how analysis of Census data in a middle income country can shed light on the socio-economic profile of the country at a very small area level.

The background section of this paper contains a brief review of South African small area level indices of deprivation. The indices are categorised below according to the geographical unit at which the measures have been produced; however, as the measures are each based on different conceptualizations of poverty and deprivation, use a range of different methodological approaches, and relate to various time points, a thorough review and comparison with the datazone level SAIMD 2001 is beyond the scope of this paper. In Sect. 3 the methodological steps involved in constructing the datazone level SAIMD 2001 are summarised. Section 4 presents a spatial analysis of the datazone level SAIMD 2001 with a particular focus on the extent to which deprivation as measured by the SAIMD occurs within the former homeland areas. A comparison of the levels of deprivation in former homelands is made with an aggregate of all other areas, as well as with a case-study township area in Cape Town, and comparisons of deprivation levels between different former homelands are made.

Though more recent data at very small area level will not be available until the results of the 2011 Census are to hand, evidence from the municipality level 2007 Community Survey is presented which enable an assessment as to whether the former homeland areas were still experiencing high levels of deprivation in 2007. Finally, the implications of the findings are discussed and conclusions drawn.

2 Background

A number of national-level indices have been produced for South Africa relating to deprivation. Examples include Vichi's (1997) index of deprivation based on the 1993 *South Africa Living Standards and Development* Survey; Klasen's (1997, 2000) deprivation index which uses the same dataset; a Lived Poverty Index (Afrobarometer 2004, 2005; Mattes et al. 2003); the United Nations Development Programme (UNDP)'s Human Development Index, Human Poverty Index, Gender Empowerment Measure and Service Deprivation Index (UNDP 2003); a Capability Poverty Measure (UNDP 1996); and a Multidimensional Poverty Index (Alkire and Santos 2010).

Vichi's and Klasen's national-level indices do include decompositions by area type, though Vichi simply distinguishes between urban and rural areas. Using area classifications of the then Central Statistical Services which defined areas as rural, urban or metropolitan, Klasen (1997) found that income poverty was highest in rural areas. He then measured the extent and depth of income poverty at province level and identified that the provinces with the highest levels of poverty contained former homeland areas, particularly in the Northern Province (now called Limpopo Province) and the Eastern Cape. Most notably for the purposes of this paper, he then undertook analysis by former homeland area and identified that of these ten areas the Transkei had the highest levels of income poverty, though as the survey only covered 9,000 households this analysis may have pushed the survey to its limits. Using the same dataset, Klasen further developed this analysis by comparing income poverty and deprivation measures for three aggregate area types: 'former provinces', 'former TBVC states' and 'former self-governing territories' (Klasen 2000).

South Africa has nine provinces. Province level indices include a Household Infra-
structure Index and a Household Circumstances Index (Hirschowitz 2000). A Majority
Necessities Index and a Proportional Deprivation Index have been developed, based on the
enforced lack of items (due to lack of resources) that were defined by a representative
sample of South Africans as essential for an acceptable standard of living (Noble et al.
2007; Wright 2008). The South African Advertising Research Foundation's Living Stan-
dards Measure (LSM) and Universal LSM (e.g. Van Aardt 2005) have been constructed
since 1997 and are broken down by province. An HDI was produced in the Western Cape
(Department of Health and Social Services of the Western Cape 1999) which was then
broken down to municipality level (Department of the Premier of the Western Cape 2005).

At magisterial district level, four deprivation indices have been produced which focus
on the relationship between deprivation and health inequalities in South Africa (McIntyre
et al. 2000, 2002).[4] This has been further developed at municipality level by the Health
Systems Trust for their District Health Barometer 2007/2008 (Day et al. 2009).[5] These
indices focus on groups at risk rather than on dimensions of deprivation per se (see Day
et al. 2009, p. 212).

In 2006, a ward-level Index of Multiple Deprivation was produced using the 2001
Census for each of South Africa's nine provinces, referred to as the Provincial Indices of
Multiple Deprivation (PIMD) (Noble et al. 2006a, b). Noble et al. (2010) identify con-
gruence between the location of deprived areas in the Eastern Cape and the former
homeland areas of the Transkei and Ciskei but that paper does not elaborate upon the issue
further, and analysis using the PIMD is restricted to within-province analysis. As will be
outlined in the next section, the datazone level SAIMD 2001 is a development of the PIMD
as it uses the same conceptual and methodological approach but, rather than being an Index
for each province as was the case with the PIMD, the SAIMD enables all areas in South
Africa to be set alongside one another. Also, as the SAIMD is calculated at the level of
datazones rather than wards, it is possible for deprivation rates to be compared using a
geographical unit that contains similar population sizes, and therefore for the relative
positioning of areas to be more equitably compared.

3 Methodology

The decision to develop a new statistical geography—the 'datazones'—was prompted by
the experience of developing the ward level Provincial Indices of Multiple Deprivation
(PIMD): though wards were the best sub-municipality level geographical unit available at
the time, they vary greatly by population size, particularly between provinces, and so are
not an optimal unit to use for the purpose of comparing levels of deprivation across the
whole of South Africa (Noble et al. 2006a, b, pp. 53–54, 2010). It was also prompted by the
shift of deprivation indices in England and subsequently in the rest of the UK from the use
of wards to especially constructed statistical geographies. This took place for two reasons:
first, to address the problem of widely varying ward population sizes; and second, to create

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[4] Magisterial districts—of which there are 354—are a subdivision of provinces created for the justice
system and relate to the location of magisterial offices.

[5] Municipalities are the area of jurisdiction of the third sphere of government, after the national and
provincial levels. There are six metropolitan municipalities. Non-metropolitan areas are divided into 47
district municipalities which contain 231 local municipalities and 25 district management areas which are
mainly deserts or conservation areas with low residential populations.

a geography that would be less prone to boundary change than wards and therefore more accommodating of analysis of change over time (e.g. Flowerdew et al. 2004).

The aims when constructing the datazones were that they could be used as a statistical—not political—geography to delineate pockets of deprivation more effectively than wards, and that they should contain similar numbers of people so that each area could be compared alongside all other areas in the country more equitably, as deprivation rates would be compared between populations of more equal sizes. Since the SAIMD was to be created using Census 2001 data, it was necessary to construct the new geographical units from existing smaller Census geographical units. Unlike the UK Census, the South African Census is still based on an input geography—enumeration areas (EAs)—of which there are 80,787 (Statistics South Africa 2004) and these were used as the 'building blocks' for the datazones.

The techniques used for the creation of South Africa datazones drew upon automated zoning procedures (AZP) introduced by Openshaw (1977a, b) and adapted for the 2001 Census of England and Wales by Martin (Martin et al. 2001; Martin 2002). Due to the complex geography of South African EAs and stringent requirements of datazones for identifying pockets of deprivation the creation of South African datazones used a modification of AZP and combined this with an iterative rule base which took into account amongst other things population density, social homogeneity, and population size (for further details see Avenell et al. 2009).

A total of 22,164 datazones were created. The average datazone population was 1,962 people (standard deviation = 648), and each datazone contained an average of 3.54 EAs (standard deviation = 2.49), with a maximum of 34 EAs in one datazone.

The construction of the datazone level SAIMD 2001 is detailed in Noble et al. (2009) and so the steps are only summarised briefly here. The intention was to construct discrete dimensions or 'domains' of deprivation at a small area level which could then be combined to produce an overall measure of multiple deprivation. The techniques used build on work undertaken in South Africa (e.g. Noble et al. 2010), England (e.g. Noble et al. 2008; McLennan et al. 2011), Northern Ireland (e.g. Noble et al. 2001a), Scotland (Noble et al. 2003) and Wales (Noble et al. 2000). The five domains of deprivation that were produced, and their component indicators are listed in Table 1 below.

Using the publicly available 10 % sample of the 2001 Census, code was written to identify deprived people for each of the five domains. This code was then run by Statistics South Africa on the 100 % version of the 2001 Census which had datazone codes linked to each case based on a look up table supplied by the authors. Stats SA then supplied the aggregate datazone level counts of deprivation indicators for each domain.[6]

A domain deprivation score was produced for each domain of deprivation. Apart from the health domain, the score was a simple proportion of people in the datazone experiencing the deprivation in question. Because a Census of population can be regarded as sample from a super-population, it was decided that large standard errors would be dealt with using empirical Bayes shrinkage estimation[7] though, in practice, this had very little impact on the domain scores.

The overall SAIMD was constructed by combining the 'shrunk' domain scores which were first standardised by ranking and then transformed to an exponential distribution

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[6] These aggregate counts are non-disclosive as individuals cannot be identified at this spatial level.

[7] This technique involves moving unreliable datazone scores (i.e. those with large standard errors) towards another more robust score, in this instance the municipality mean. For further details see Noble et al. (2001b).

Table 1 Indicators included in the datazone level SAIMD 2001

Income deprivation domain (Proportion of people living in households experiencing one or more
  of the following deprivations)

  People living in a household that has a household income (need-adjusted using the modified OECD
  equivalence scale) that is below 40 % of the mean equivalent household income

  People living in a household without a refrigerator

  People living in a household with neither a television nor a radio

Employment deprivation domain (Proportion of adults aged 15–65 who were unemployed plus those
  who said they were too sick/disabled to work divided by the total economically active population
  aged 15–65 plus those not able to work due to sickness/disability)

  People who are unemployed (using official definition)

  People who are not working because of illness or disability

Education deprivation domain (Proportion of adults aged 18–65 with no secondary schooling)

  Adults (18–65 years) with no secondary schooling

Living environment deprivation domain (Proportion of people living in households experiencing one
  or more of the deprivations)

  People living in a household without piped water inside their dwelling/yard or within 200 m

  People living in a household without a pit latrine with ventilation or flush toilet

  People living in a household without use of electricity for lighting

  People living in a shack

  People living in a household that is crowded

  People living in a household with no access to a telephone

Health deprivation domain (Directly age and sex standardised measure of premature deaths)

  Years of potential life lost

before being combined with equal weights. Exponential transformation was employed to
reduce the problem of implicit weights when combining the domains, and to control the
level of cancellation between the domains (these techniques are explained in more detail in
Noble 2006c).

In order to undertake the analysis for this paper, a digitised set of boundaries of the
former homelands were constructed and a 'best-fit' look-up table was created for the
datazones so that it was possible to identify whether each datazone falls within a former
homeland area, and if so which one.

4 Results

The maps in Fig. 1 show the spatial distribution of multiple deprivation in South Africa,
using the datazone level South African Index of Multiple Deprivation (SAIMD) 2001. The
SAIMD has been ranked, and deciles of deprivation were generated and mapped. The most
deprived decile has been given the darkest shading graduating to the least deprived decile
with the lightest shading. The map on the left shows the province boundaries, whilst the
map on the right shows the boundaries of the former homelands which have been super-
imposed. The maps reveal a striking pattern of deprivation, with the highest levels of
deprivation occurring mainly in the former homeland areas.

The following map focuses just on the Eastern Cape. The concentration of deprivation
in the former Transkei and, to a lesser extent, in the former Ciskei is very evident.
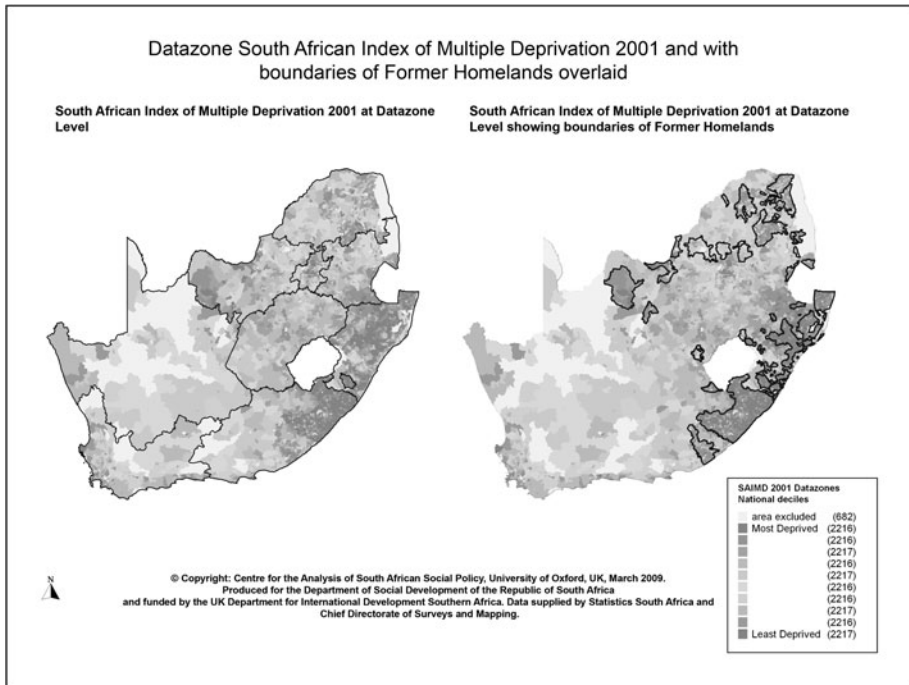The 'spatial echo' between the most deprived areas in 2001 and the former homeland

Fig. 1 Multiple deprivation in South Africa at datazone level

boundaries is even more apparent using datazones than when using larger area units such as wards (e.g. Noble et al. 2009). The use of the more fine-grained datazones serves to highlight the extent to which the areas with high levels of deprivation coincide with the former homeland areas. And by using nation-wide data, (unlike the PIMD which was undertaken province by province), it further highlights the fact that the most deprived areas in South Africa as a whole are located in the former homeland areas. Within the former Transkei, datazones in the most deprived decile are located almost exclusively in the most remote and rural areas, whereas the less deprived areas are concentrated around towns such as Umtata and other settlements close to the national N2 Highway which traverses the province in a south-west to north-east direction (Fig. 2).

The classification of datazones according to whether they fall within a former homeland allows a more nuanced analysis of deprivation than simply assessing the patterns carto-graphically. Figure 3 shows the percentage of datazones in each decile of deprivation that are in former homelands. As can be seen, more than 50 % of datazones in deciles 6–10 are in former homeland areas. In fact 93 % of the datazones in the most deprived decile (Decile 10) are in former homelands, as are 77 % of the datazones in decile 9. Thus, as one moves from the least deprived through to the most deprived decile of datazones in South Africa, the proportion of datazones that are located in former homeland areas increases.

Although all former homelands display a concentration of severe multiple deprivation there is variation between the former homelands in this regard, as well as variation within each former homeland area. In Fig. 4 each datazone is ranked according to its SAIMD score with the most deprived datazone in the country ranked 1 and the least deprived datazone ranked 22,164. The interquartile range of the ranks of the SAIMD ranks for each former homeland and 'the rest of South Africa' (an aggregate of all other datazones) are

South African Index of Multiple Deprivation 2001 at Datazone Level - Eastern Cape
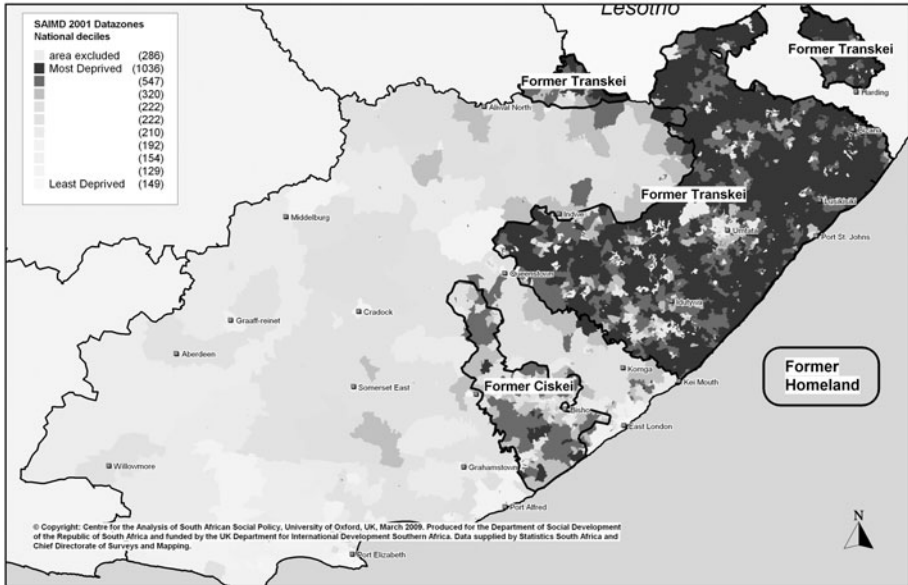with boundaries of Former Ciskei and Former Transkei

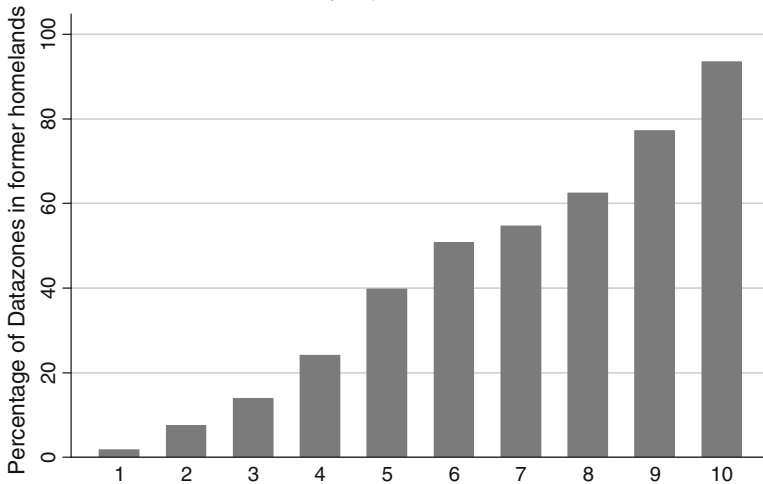**Fig. 2** Multiple deprivation in the Eastern Cape at datazone level

Fig. 3 Proportion of datazones in former homelands by SAIMD 2001 decile

depicted by the box. The 'whiskers' indicate the ranks of the remaining datazones and the horizontal line across the box is the median rank for each area. The former homelands are then ordered in ascending order according to the median rank so that the former homeland with the lowest (i.e. most deprived) median rank appears to the left of the chart. The length of the box indicates the range of ranks within the interquartile range. If the box is relatively
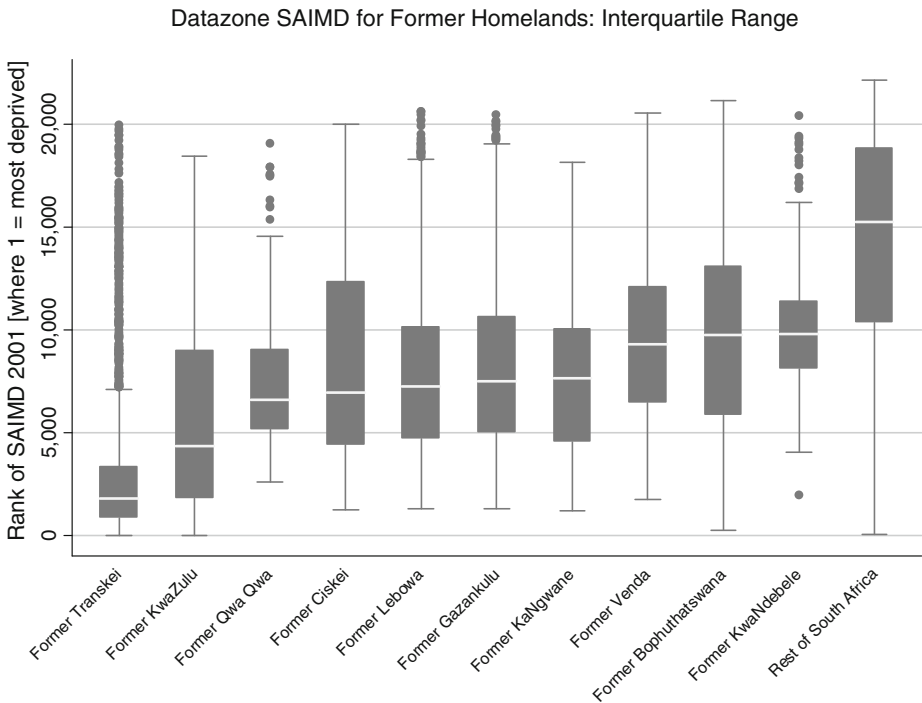
Datazone SAIMD for Former Homelands: Interquartile Range

Fig. 4 Ranks of SAIMD 2001 datazones by former homeland

short then the interquartile range covers a relatively small range of ranks—that is the deprivation, as measured by rank, is relatively concentrated.

It is apparent that all the former homelands have higher levels of overall deprivation than 'the rest of South Africa'. From Fig. 4 below, it is evident that the former Transkei is the most deprived former homeland, both in terms of its datazones' median rank, and the way in which the interquartile range is tightly concentrated amongst the most deprived datazones in the country.

Though it is not possible to compare absolute levels of multiple deprivation across the former homelands, it is possible to do so for four of the five domains of deprivation. These are Income and Material deprivation, Employment Deprivation, Education Deprivation, and Living Environment Deprivation where the deprivation is expressed as a simple rate.[8]

The table below shows the percentage of the population of each former homeland that is deprived on each of these domains (with 'the rest of South Africa' included for comparison). Overall, the former homelands contained around 43 % of the population of South Africa in 2001. The populations of individual former homelands ranged from around 350,000 for former Qwa Qwa to over six million for the former KwaZulu homeland. Former Transkei, Bophu-thatswana, Lebowa and Venda all had populations in excess of one million inhabitants.

As we have seen, Klasen (1997) identified the former Transkei as the former homeland with the highest level of poverty. Although using a different definition of income

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[8] This is not the case for the Health Domain as it is expressed at datazone level as Years of Potential Life lost and the former homeland averages are not calculable from the data available.

deprivation, this was still the case in 2001 using the SAIMD. Indeed, as can be seen in Table 2, the former Transkei is the most deprived former homeland on each of the four domains, and the overall SAIMD.

All former homeland areas are more deprived than 'the rest of South Africa' on all domains—usually by a wide margin. Thus in respect of income deprivation the least deprived former homeland is former Bophuthatswana where 85 % of the population are income deprived as compared to 'the rest of South Africa' where the overall income deprivation rate is 64 %. The distinction between rates of deprivation in the former homelands and elsewhere are particularly apparent within the Living Environment domain where 'the rest of South Africa' deprivation rate is a much lower (though still high) 50 %.

It could reasonably be argued that the comparison with 'the rest of South Africa' is too broad a category as it disguises the fact that there is great spatial heterogeneity in areas that are not former homeland areas, particularly given the existence of urban townships which are also part of the spatial legacy of apartheid (Christopher 1994). Unfortunately a comprehensive set of digitised boundaries for all townships in South Africa does not seem to exist. However, it was possible to create digitised boundaries for a large township within the Cape Town Metropolitan area as a case study. Khayelitsha is a predominantly black African community around 30 km from the centre of Cape Town. Around 60 % of the dwellings were classified as shacks in the 2001 Census and its non institutional population was just over 300,000. It is therefore instructive to compare the deprivation rates in the former homelands as a whole with those in Khayelitsha, replicating the dimensions of deprivation presented in the table above (Table 3).

This table shows that although deprivation rates in Khayelitsha in 2001 exceeded those in 'the rest of South Africa' (i.e. the average of all datazones that are not within former homelands) they are still significantly below the rates found in the former homelands.

Whilst the rural former homelands were evidently highly deprived in 2001, could development over the last decade have significantly changed this picture? Although not available at datazone level, analysis has been undertaken at municipality level using the Community Survey 2007 alongside equivalent municipality level analysis in 2001 using the 10 % sample of the Census 2001 in order to monitor change between these two time points (Wright and Noble 2009; Statistics South Africa 2007). In order to facilitate an analysis of change, the municipality-level indices were designed in such a way that they

Table 2 SAIMD 2001 deprivation rates by domain by former homeland and for 'the rest of South Africa'

Region	% Income deprivation	% Employment deprivation	% Education deprivation	% Living environment deprivation
Former Bophuthatswana	85.4	55.8	41.6	82.7
Former Ciskei	89.8	69.2	38.5	77.7
Former Gazankulu	91.0	63.4	50.3	89.5
Former KaNgwane	91.2	56.8	50.2	87.6
Former KwaNdebele	88.6	56.2	45.4	84.8
Former KwaZulu	92.0	66.6	47.2	87.2
Former Lebowa	92.6	63.4	45.6	92.9
Former Qwa Qwa	91.5	64.4	40.3	84.0
Former Transkei	96.1	71.5	56.9	97.0
Former Venda	90.7	60.3	44.6	93.7
Rest of South Africa	64.3	37.3	30.2	50.0

Table 3 SAIMD 2001 deprivation rates by domain for all former homelands, Khayelitsha and 'the rest of South Africa'

Region	% Income deprivation	% Employment deprivation	% Education deprivation	% Living environment deprivation
Former Homelands	91.6	63.9	47.3	89.2
Khayelitsha	85.5	52.7	30.9	76.3
Rest of South Africa	64.3	37.3	30.2	50.0

contain a common set of domains and indicators, and were both created using 2001 municipality boundaries. As much as possible, the domains and indicators were consistent with the datazone level SAIMD 2001 presented above though, due to a lack of mortality data in the Community Survey, the Health Domain had to be dropped from the municipality-level analysis. The authors found that, although the country as a whole had improved a little in absolute terms on each of the domains (with national rates of deprivation falling), there was very little relative change between 2001 and 2007 in terms of the location of the most deprived quintile (20 %) of municipalities. Again, in both time points the most deprived areas were mainly to be found in the former homelands. These findings resonate with analysis by Makgetla (2010) who found that on average municipalities which mainly contained former homeland areas were faring badly on a number of individual indicators of deprivation in 2007.

The former Transkei has been identified in this paper as the most deprived former homeland in 2001. Using fixed 2001 boundaries, 13 local municipalities fall wholly within the former Transkei, enabling analysis of absolute and relative change between 2001 and 2007. In terms of relative change, of the 13 local municipalities in the former Transkei, eleven are in the most deprived quintile (20 %) of municipalities nationally at both time points. If one considers the extent of absolute change, there had been some improvement on all four of the domains which can be measured as simple percentages. While for most of the municipalities there had been very little improvement in terms of the living environment and income domains there had been more improvement in terms of both employment deprivation and education deprivation. Given the small improvements in income deprivation as compared to employment deprivation it seems that increases in employment must have been in relatively low-paid jobs—probably as part of the rollout of the expanded public works programme.

5 Discussion

In this paper it has been demonstrated that the areas in South Africa with the highest levels of deprivation based on the SAIMD 2001 are mainly to be found in rural former homeland areas. Ninety-three per cent of datazones in the most deprived decile on the SAIMD 2001 are located within former homeland areas.

If one considers the domains of income, employment, education, and living environment deprivation separately, former homelands are more deprived on average than 'the rest of South Africa' and more deprived than the average for a case study township in the Western Cape for each of these domains.

The former homelands experienced high levels of poverty in the immediate post-apartheid era, and it has been demonstrated that this continued to be the case at the time of the last Census in 2001, and again 6 years later at the time of the 2007 Community Survey.

As well as highlighting the intractable nature of rural poverty, the extent to which the most deprived areas in South Africa overlap with the former homelands contributes to the literature on the spatial legacy of the former homelands and the complex ways in which spatial boundaries are perpetuated (Makgetla 2010; Ramutsindela 2007).

Notwithstanding this overarching picture, deprivation levels vary greatly between former homeland areas, with the former Transkei and former KwaZulu among the most deprived, and the former kwaNdebele and former Bophuthatswana among the least deprived, though levels of deprivation within all of the former homelands are very high.

The South African Government has made firm commitments to improving the lives of people living in rural areas. It has recently created a department dedicated to championing rural issues in the form of the Department of Rural Development and Land Reform which has the mission to 'initiate, facilitate, coordinate, catalyse and implement an integrated rural development programme' (Department of Rural Development and Land Reform 2011, p. 1). The Department has initiated a Comprehensive Rural Development Programme (CRDP) which has the strategic objective of social cohesion and development, and is described as a 'post-colonial reconstruction and development programme' (Department of Rural Development and Land Reform 2010a, p. 5). In addition, the War on Poverty programme that had been located in the Office of the Presidency has been moved to the Department of Rural Development and Land Reform (Department of Rural Development and Land Reform 2010b, p. 7)—in implicit recognition that the locus of poverty in South Africa is mainly rural. In spite of extensive migration towards urban areas, and high levels of deprivation in urban townships, large numbers of people continue to live in remote rural areas that are even more deprived.

As part of the Government's outcomes-based monitoring and evaluation framework to monitor government's progress, one of the twelve high-level government outcomes is the creation of 'vibrant, equitable and sustainable rural communities with food security for all' (Office of the Presidency 2010, p. 2). This commitment is linked to five measureable outputs, of which Output 3 is 'rural services and sustainable livelihoods' and Output 4 is 'rural job creation linked to skills training and promoting economic livelihoods' (Office of the Presidency 2010, p. 2). However, these goals present enormous challenges and there is not a clear route towards their achievement. Greenberg (2010) highlights the shift between the rhetoric of the new (2007-) administration's prioritisation of rural development compared to the previous administration's focus in rural areas on commercial agriculture and assisting those unable to obtain work in urban areas, but cautions that 'as long as the rural poor and marginalised remain disorganised and unable to drive change in the rural areas through their own activity, it is unlikely that grand plans will be realised' (Greenberg 2010, p. 5). The Diagnostic Overview produced by the National Planning Commission highlights the uncertainty about planning for rural areas, veering between promoting agricultural initiatives on the one hand and promoting economic opportunity for the increasing concentrations of people living along the 'corridors of opportunity' beside main roads in rural areas (Office of the Presidency 2011, p. 20).

The datazone level SAIMD 2001, though now quite aged, can be used in a number of ways alongside more up to date and local knowledge. Although it does not provide policy solutions, it does provide a fine-grained tool for profiling poverty and deprivation across South Africa, highlighting the nature and extent of the policy challenges. When the 2011 Census data becomes available, it will also be possible to quantify at a small area level the extent to which these challenges continue to prevail and identify which areas have improved and deteriorated and explore factors that may have facilitated improvement.

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