



saspri

Southern African Social Policy Research Institute
Southern African Social Policy Research Insights

Setting the Scene – the spatial patterning of poverty and multiple deprivation in South Africa

Michael Noble
Wanga Zembe



Outline

- Background
- Creating small area income poverty measures for 2011.
- Spatial patterning of income poverty
- Measuring inequality at small area level
- Relationship between poverty and inequality



Spatial Patterning of Poverty

- Poverty and deprivation are invariably spatially differentiated
- SA colonial, segregation and apartheid legacy
 - 1913 Land Act,
 - Natives (Urban Areas) Act of 1923
 - Group Areas Acts 1950 – 1966
 - Bantu Authorities Act 1951
- South African Indices of Multiple Deprivation (2001 – 2011) have consistently shown the persistence of spatial differentiation in terms of social and economic segregation into the democratic era



Poverty or Inequality?

- Persistent inequality, rather than poverty *per se*, is increasingly regarded as a major correlate of various social problems
- But inequality usually expressed at high levels of spatial aggregation and says little about an individual's 'lived experience' of inequality
- Focus of the day will be to look at ways of measuring spatial variations in inequality drawing on the rich international literature of spatial segregation
- As context, the nature of spatial patterning of poverty in South Africa in 2011 will be described and the relationship between poverty and inequality at small area level examined



Income poverty at ward level

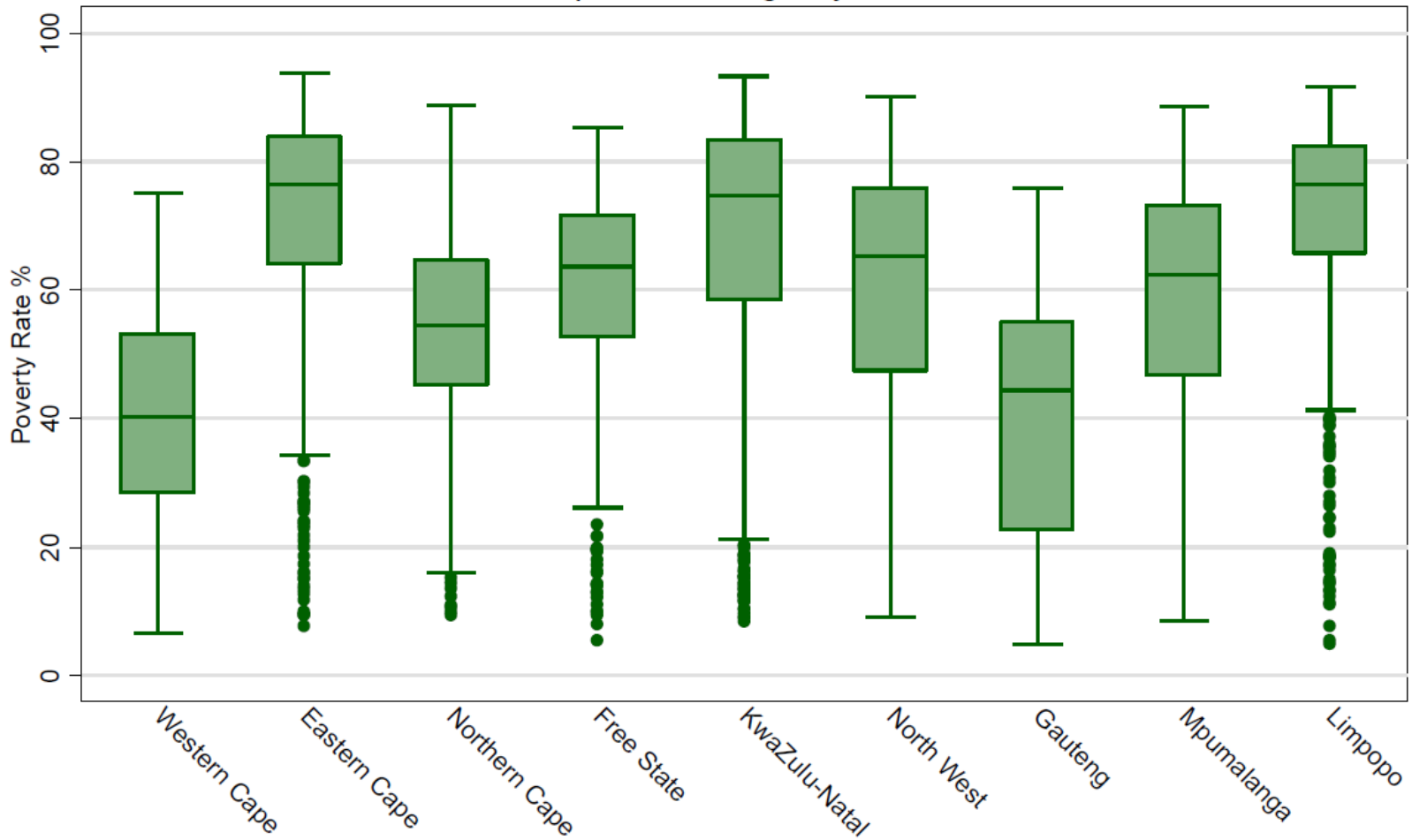


Income Poverty at small area level in 2011

- Hoogeveen and Özler (2006).
- “lower bound” poverty line = R604 and an “upper bound” poverty line = R1113 pcpm in 2011
- Uses published (Superstar) ward level tables using household income and household size

Ward-level Per Capita Income Poverty 2011

Lower bound poverty line (R604 per month in 2011)
Interquartile Range by Province



Poverty Line: Hoozeven and Ozler (2006) lower bound line updated to 2011 using CPI



Table 2: The 10 district municipalities/Metros with the highest lower bound poverty rates in 2011

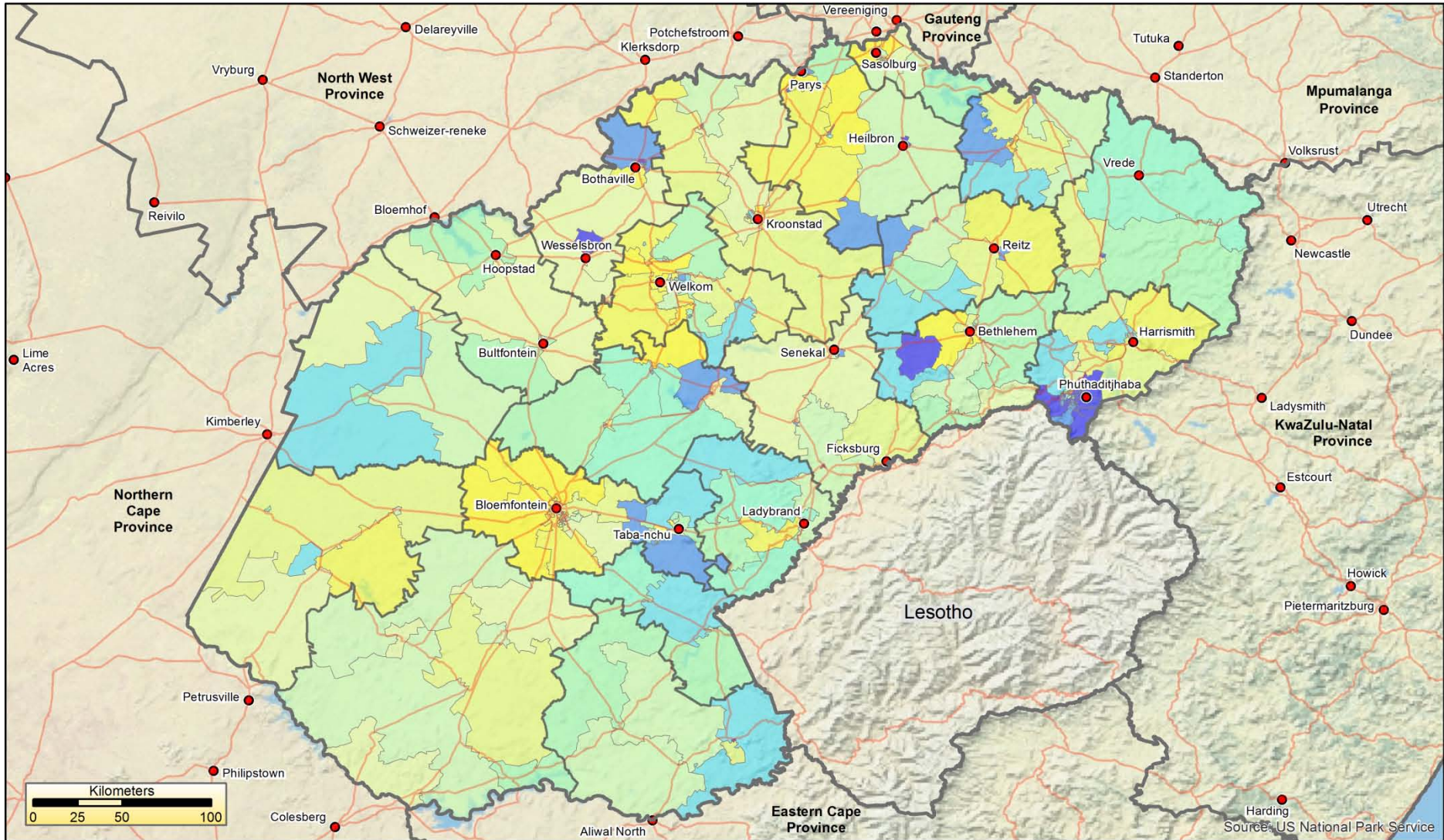
Province	District Code	District Name	% of population below Lower Bound Poverty Line	Rank (Where 1=area with highest lower bound poverty rates and 52 = area with lowest lower bound poverty rates)
Eastern Cape	DC44	Alfred Nzo	81.6	1
Eastern Cape	DC15	O.R.Tambo	80.5	2
KwaZulu-Natal	DC27	Umkhanyakude	80.1	3
KwaZulu-Natal	DC24	Umzinyathi	78.7	4
KwaZulu-Natal	DC26	Zululand	77.6	5
KwaZulu-Natal	DC43	Sisonke	76.3	6
Eastern Cape	DC12	Amathole	75.6	7
Limpopo	DC47	Greater Sekhukhune	74.7	8
KwaZulu-Natal	DC23	Uthukela	74.0	9
Eastern Cape	DC14	Joe Gqabi	73.4	10



20 Poorest Local Municipalities

Province	Local Municipality Code	Local Municipality Name	% of population below Lower Bound Poverty Line	Rank (Where 1=area with highest lower bound poverty rates and 226 = area with lowest lower bound poverty rates)
Eastern Cape	291	Port St Johns	86.7	1
Eastern Cape	298	Ntabankulu	86.3	2
KwaZulu-Natal	569	Indaka	86.2	3
KwaZulu-Natal	576	Msinga	85.5	4
KwaZulu-Natal	575	Nqutu	84.7	5
Eastern Cape	290	Ngquza Hill	84.3	6
Eastern Cape	297	Mbizana	84.2	7
Eastern Cape	292	Nyandeni	84.2	8
KwaZulu-Natal	582	Umhlabuyalingana	82.9	9
North West	665	Ratlou	82.6	10
KwaZulu-Natal	580	Nongoma	82.4	11
KwaZulu-Natal	583	Jozini	82.3	12
Eastern Cape	284	Engcobo	82.3	13
KwaZulu-Natal	546	Maphumulo	82.1	14
KwaZulu-Natal	588	Ntambanana	81.9	15
KwaZulu-Natal	598	Umzimkhulu	81.7	16
Eastern Cape	293	Mhlontlo	81.7	17
Eastern Cape	270	Mbhashe	81.5	18
Limpopo	985	Makhuduthamaga	81.5	19
KwaZulu-Natal	542	Nkandla	81.4	20

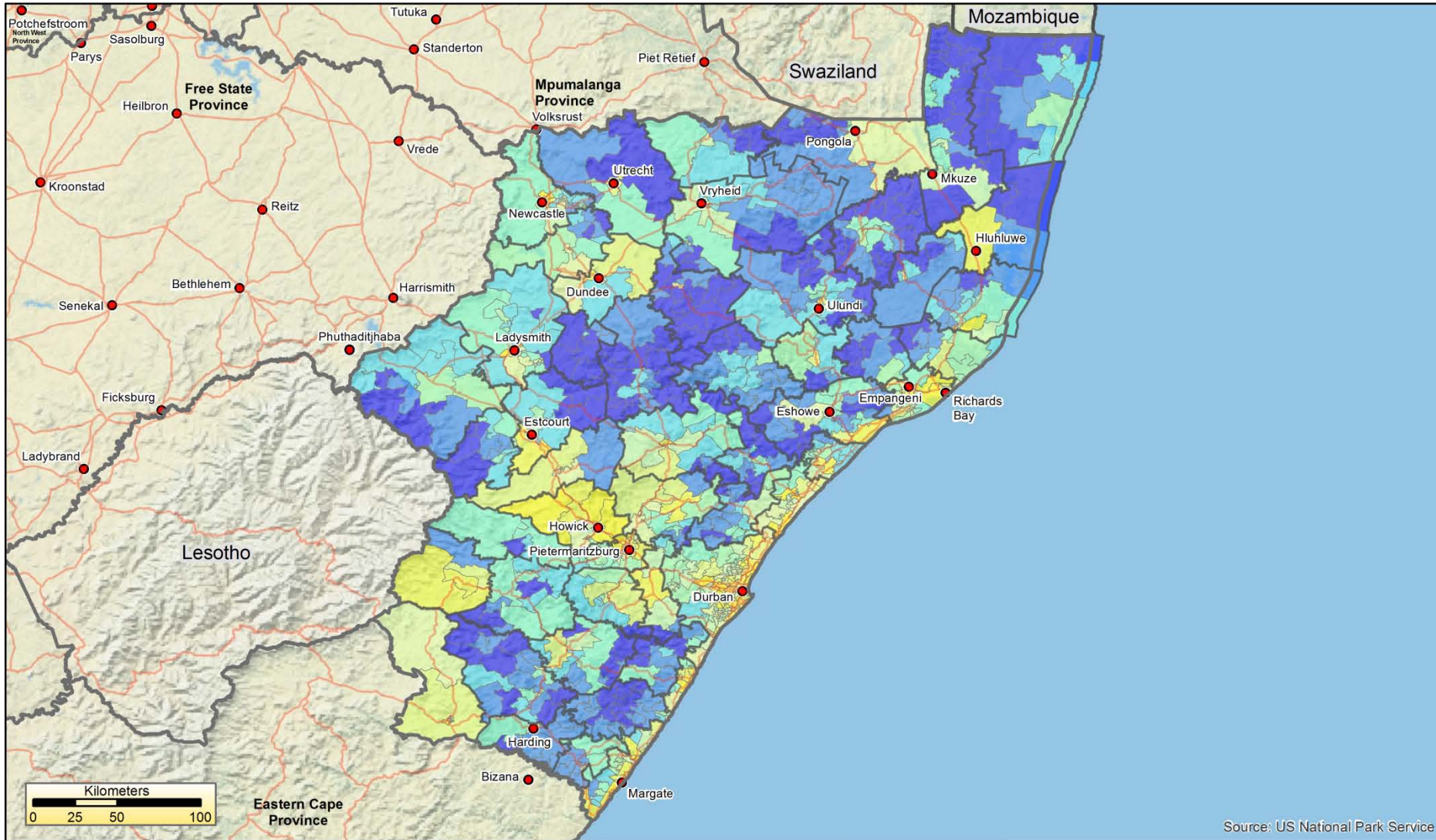
**Ward level income poverty rates 2011 (poverty line R604 per capita pcm)
Free State Province (Free State Deciles)**



Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014

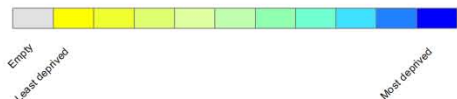


Ward level income poverty rates 2011 (poverty line R604 per capita pcm) KwaZulu-Natal Province



Source: US National Park Service

National deciles



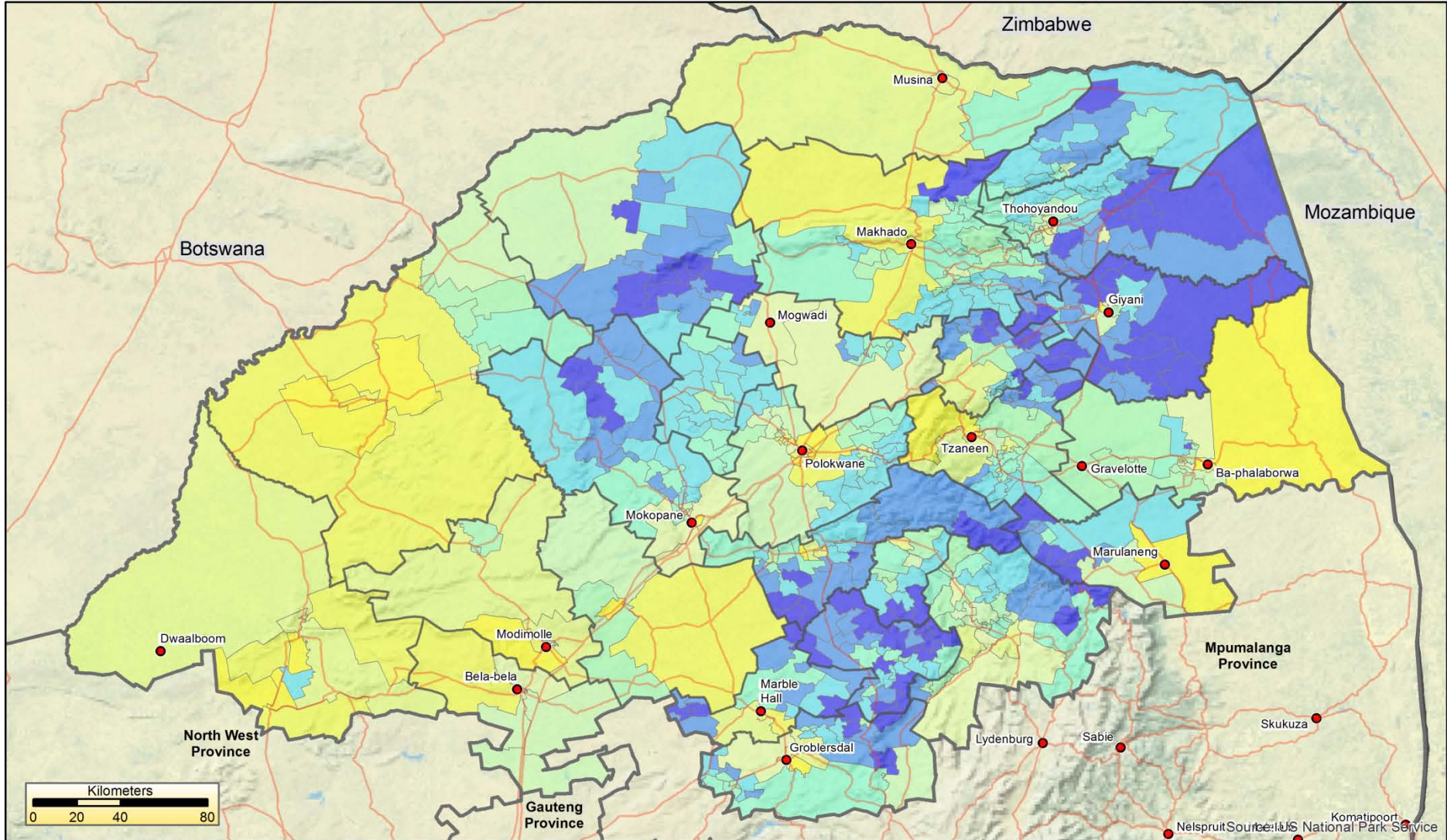
Empty
Least deprived

Most deprived

Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014



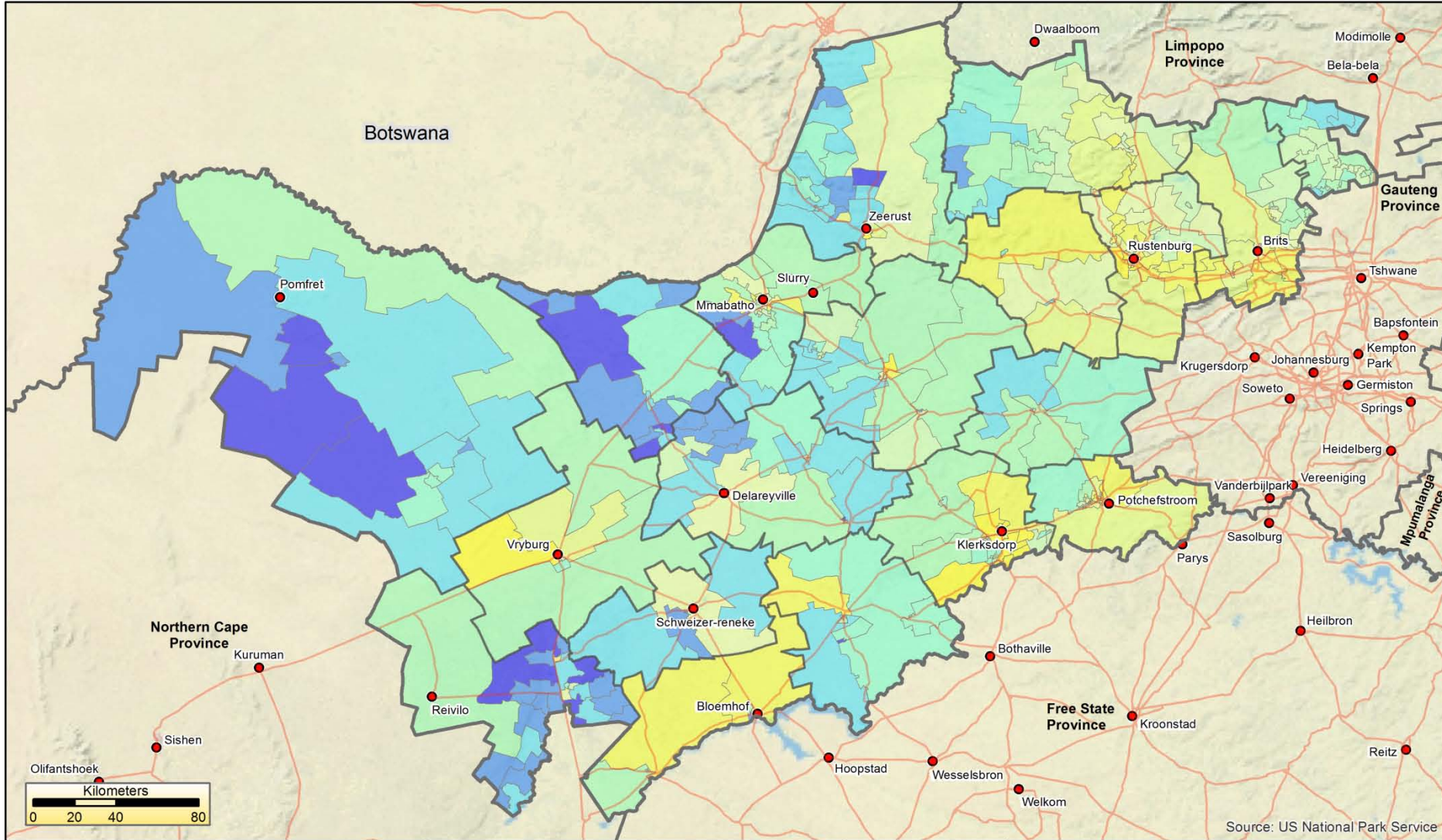
**Ward level income poverty rates 2011 (poverty line R604 per capita pcm)
Limpopo Province**



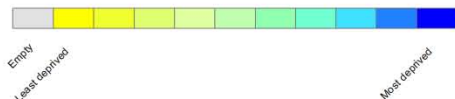
Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014



Ward level income poverty rates 2011 (poverty line R604 per capita pcm) North West Province



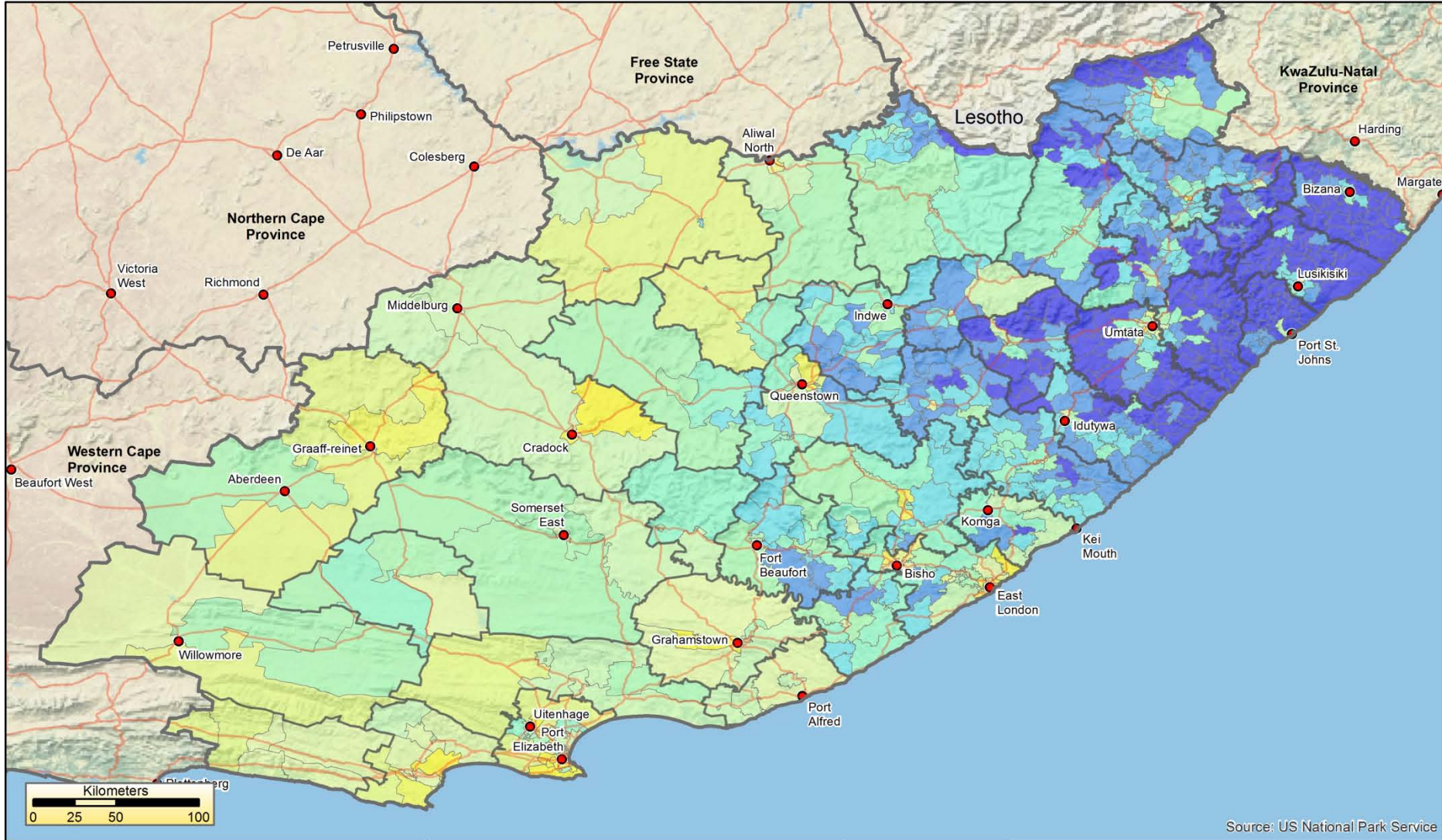
National deciles



Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspr.org, February 2014

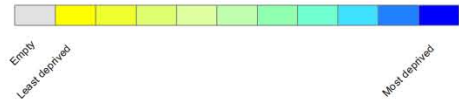


Ward level income poverty rates 2011 (poverty line R604 per capita pcm) Eastern Cape Province



Source: US National Park Service

National deciles



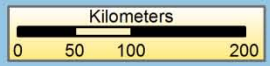
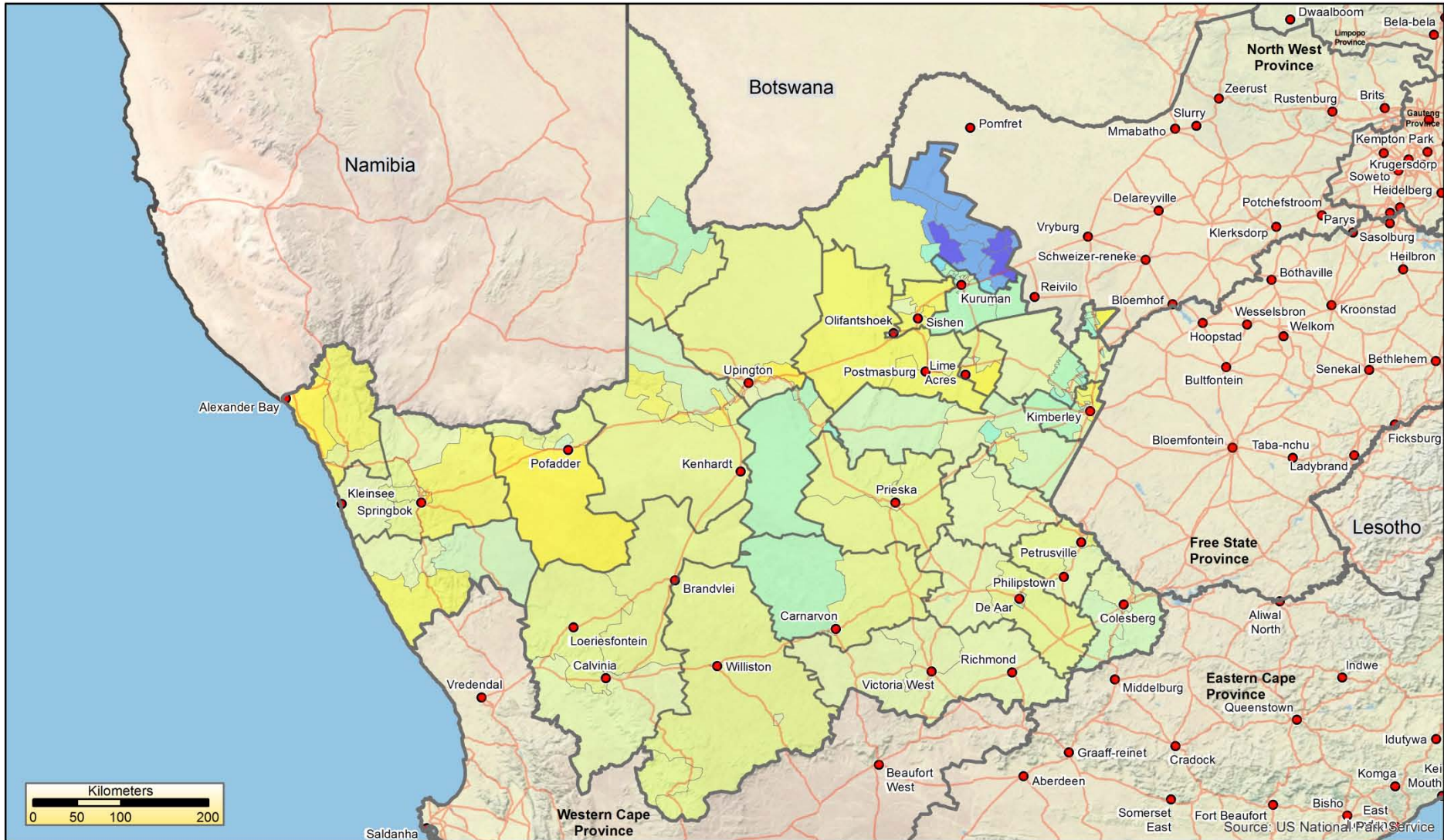
Empty
Least deprived

Most deprived

Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014



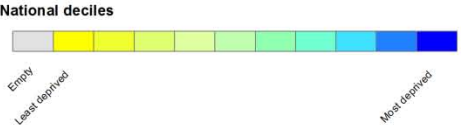
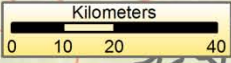
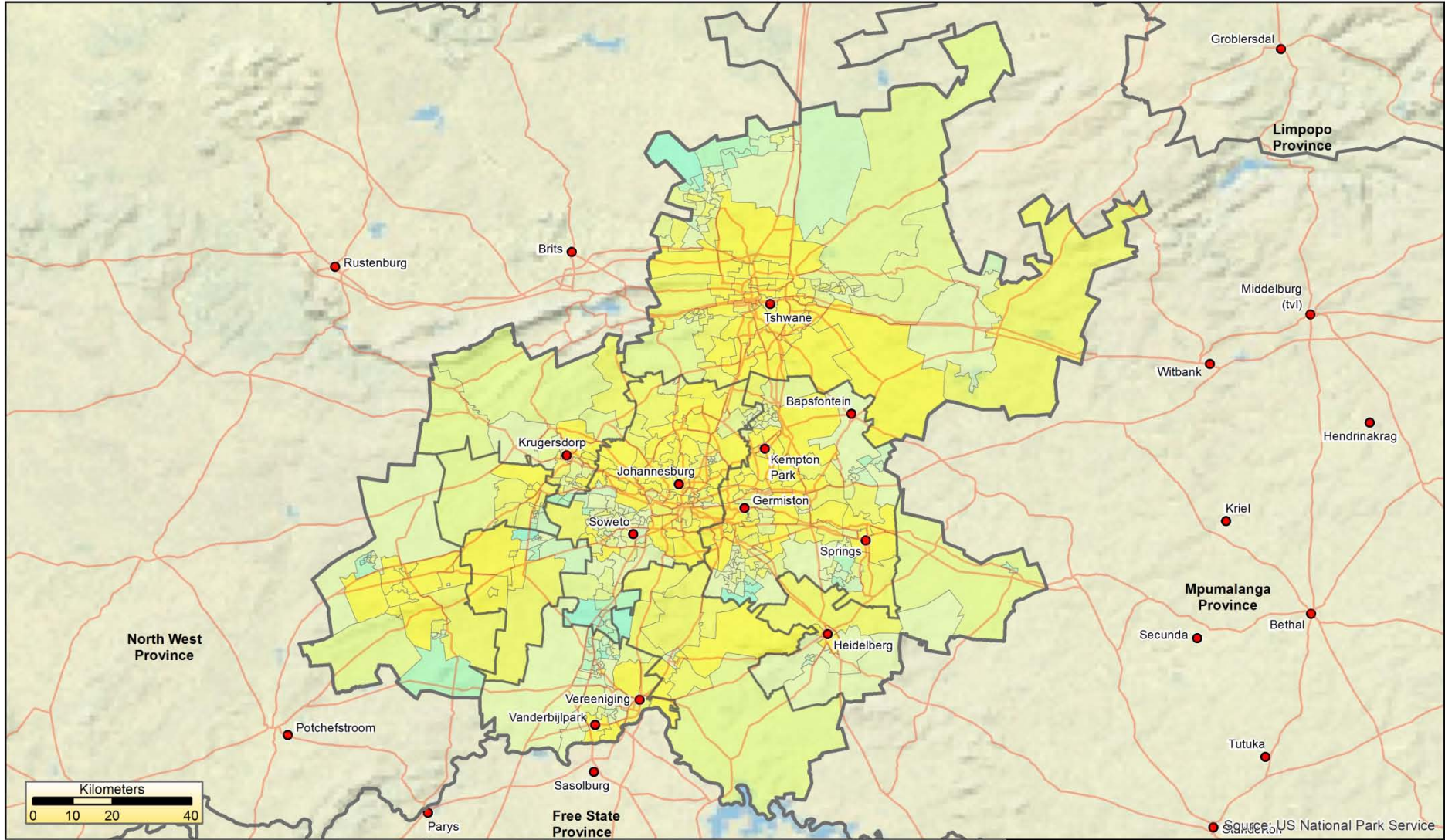
Ward level income poverty rates 2011 (poverty line R604 per capita pcm) Northern Cape Province



Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014



**Ward level income poverty rates 2011 (poverty line R604 per capita pcm)
Gauteng Province**

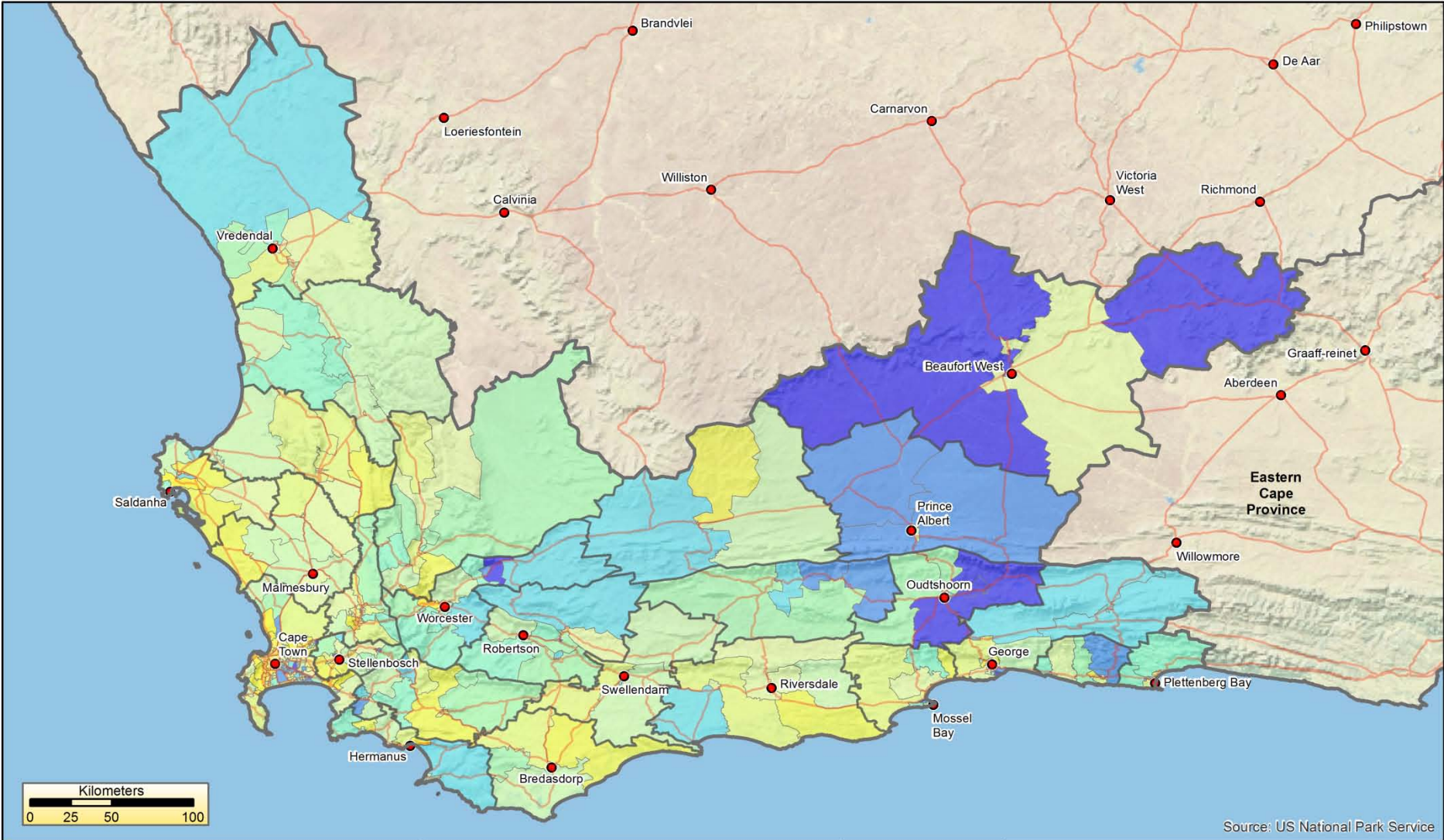


Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014



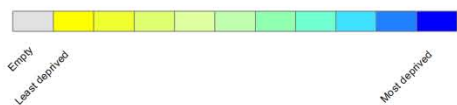
Source: US National Park Service

**Ward level income poverty rates 2011 (poverty line R604 per capita pcm)
Western Cape Province (Western Cape Deciles)**



Source: US National Park Service

Province deciles



Source and copyright: Statistics South Africa
Produced by the Southern African Social Policy Research Insights
www.saspri.org, February 2014





Poverty in Former Homelands

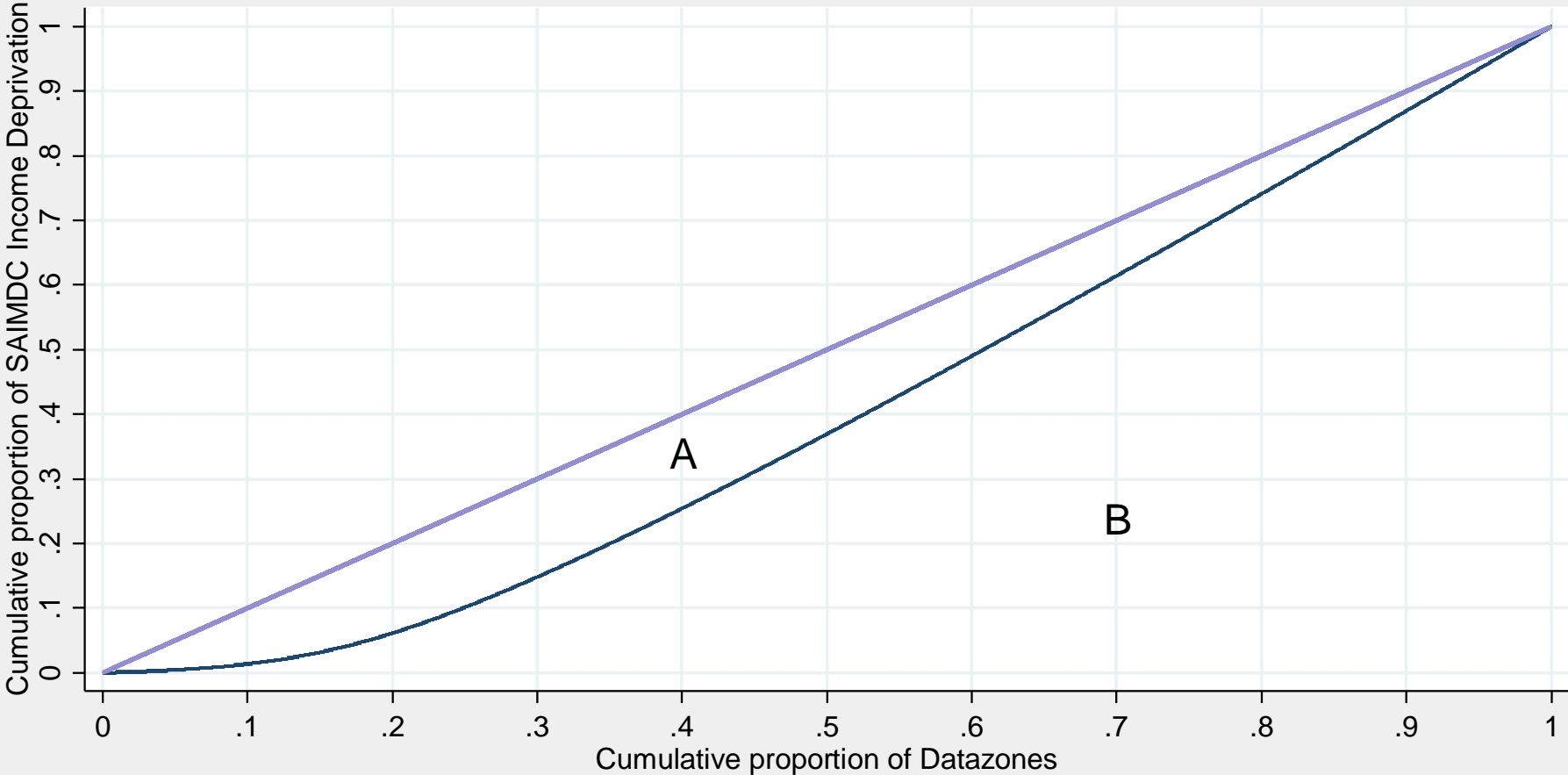
Area	Lower Bound (R604) %	Upper bound (R1113) %
Former Bophuthatswana	63.1	72.7
Former Ciskei	68.0	77.2
Former Gazankulu	77.0	84.2
Former KaNgwane	71.4	80.9
Former KwaNdebele	66.7	78.5
Former KwaZulu	73.6	82.3
Former Lebowa	74.5	82.7
Former Qwa Qwa	74.9	83.4
Former Transkei	80.3	86.6
Former Venda	75.1	82.9
All of former homelands	73.4	81.7
Rest of South Africa	46.0	55.3
South Africa	55.7	64.6



Measuring inequality using Lorentz curves/gini coefficients – examples from the Eastern Cape

Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei

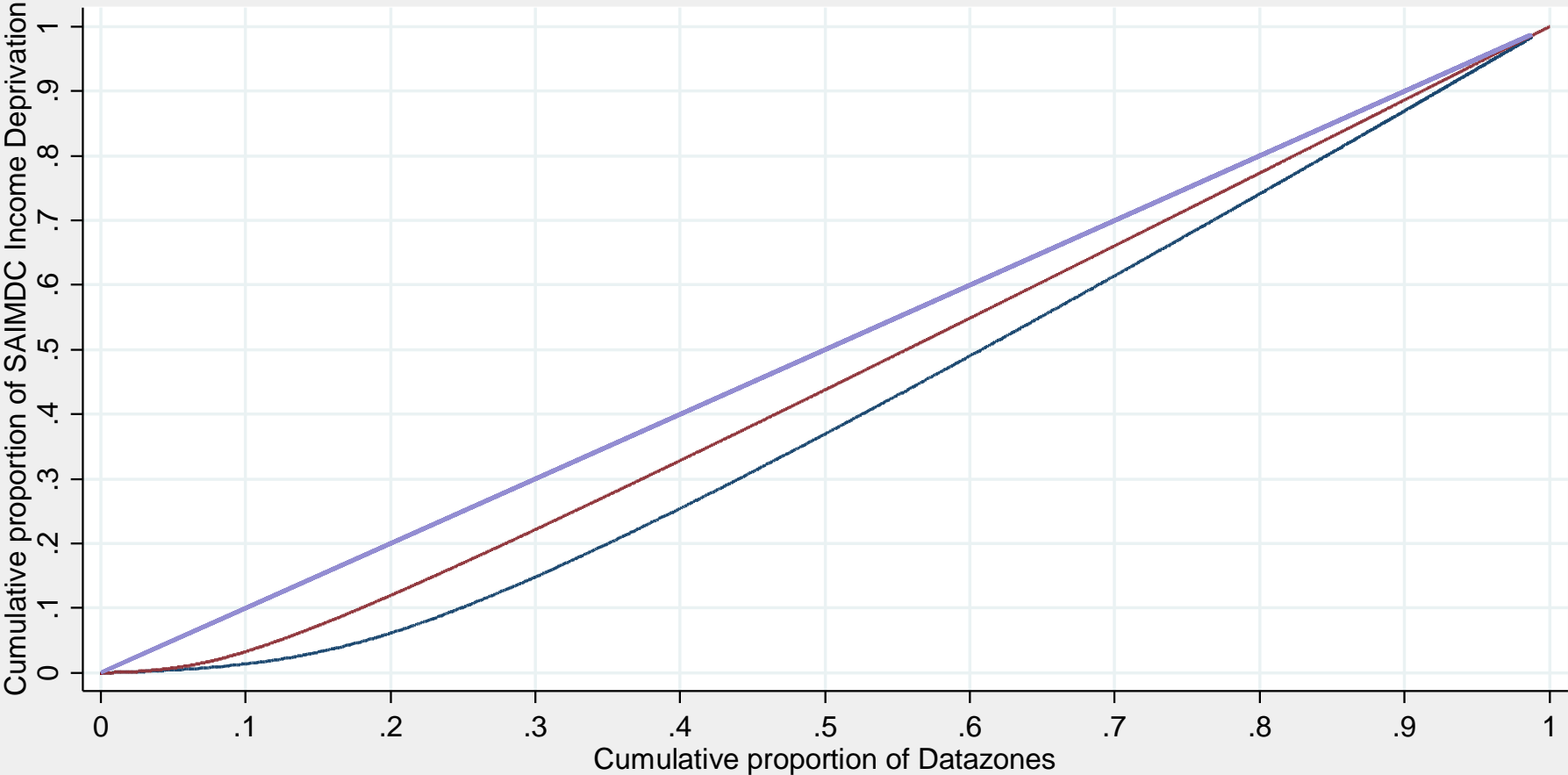


$Gini = A / (A + B)$

- | | |
|----------------------------|-------------------|
| — South Africa | — Eastern Cape |
| — Nelson Mandela Bay | — Buffalo City |
| — Former Ciskei | — Former Transkei |
| — Line of perfect equality | |

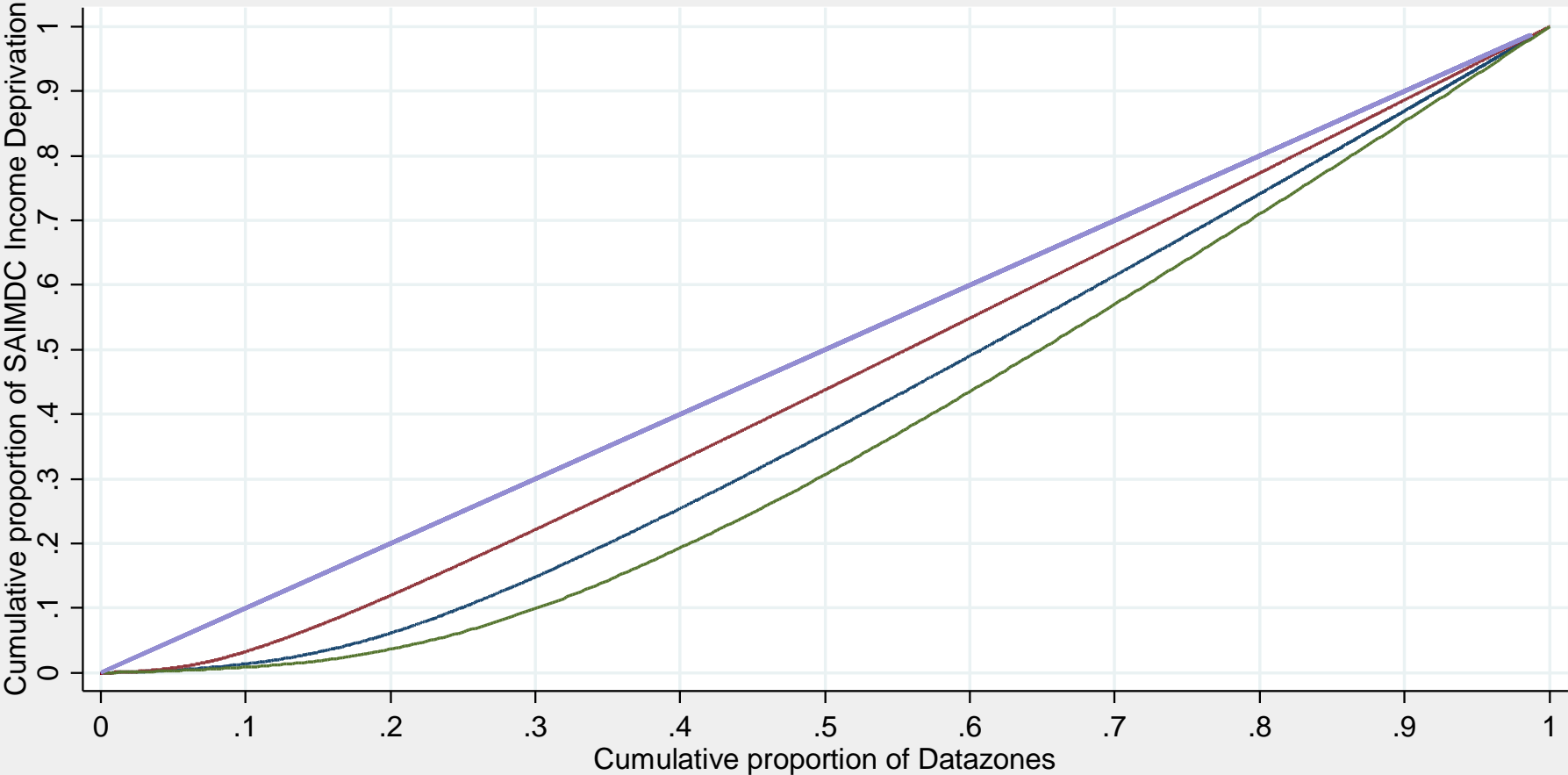
Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei



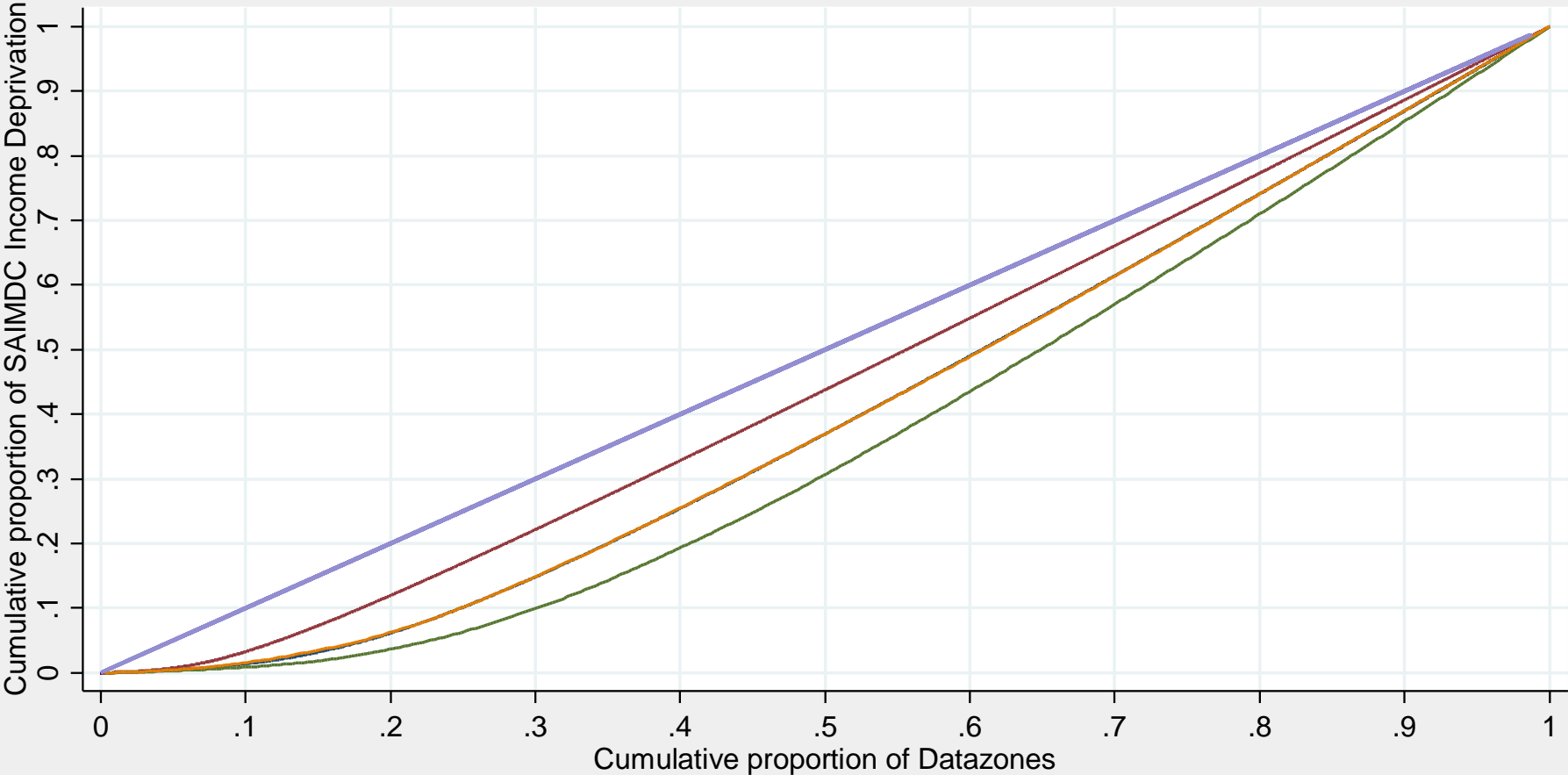
Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei



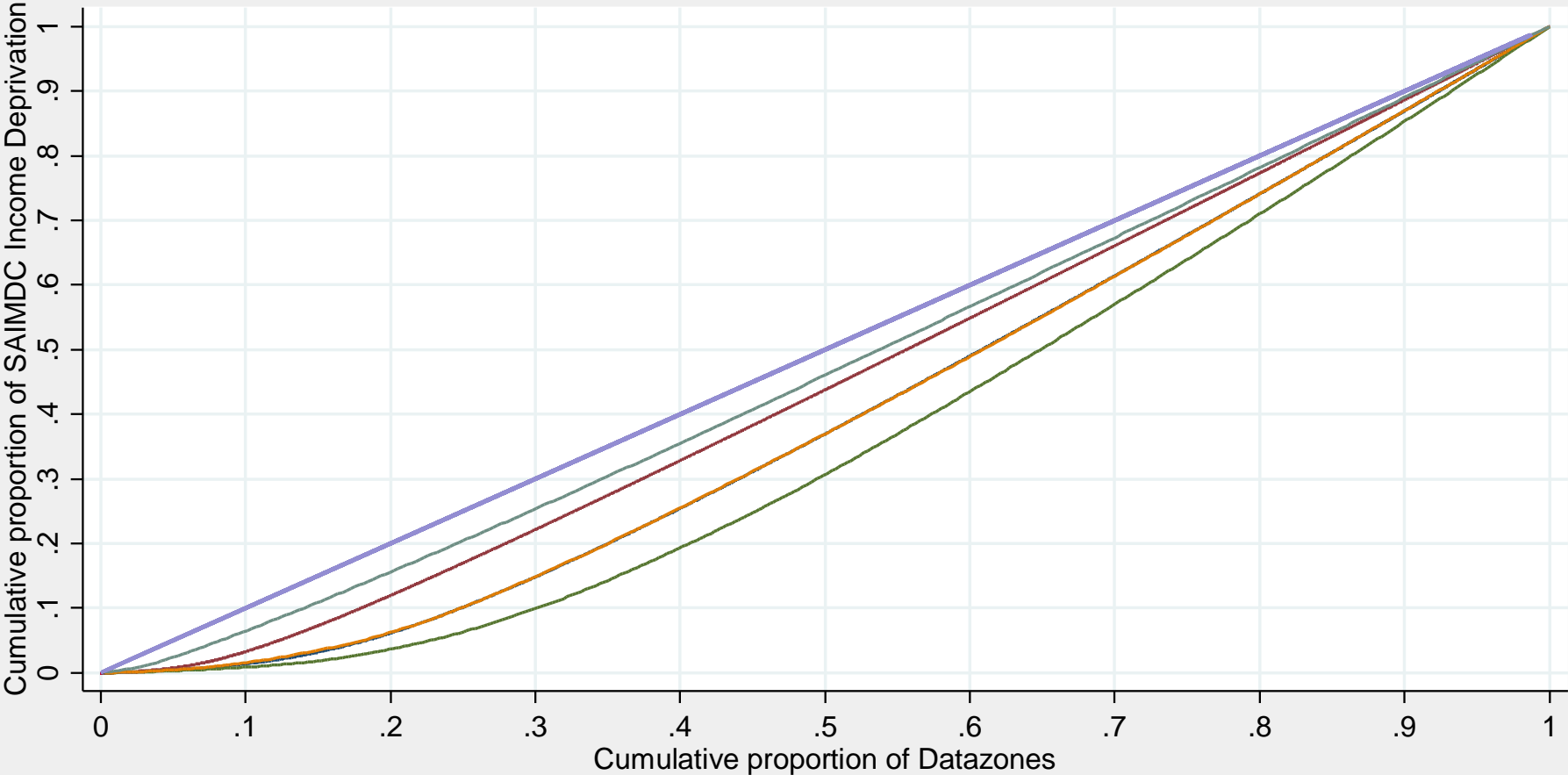
Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei



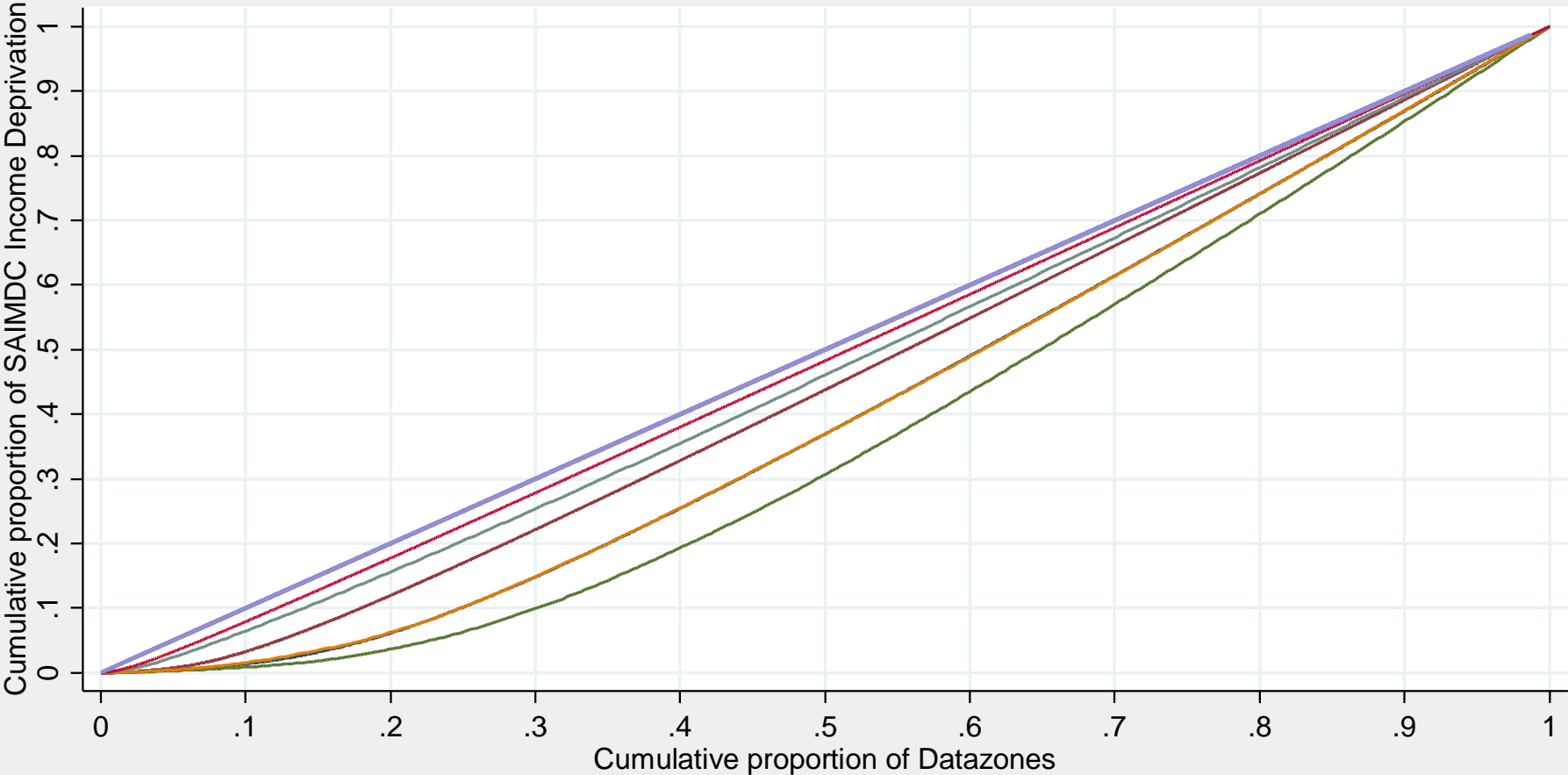
Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei



Lorentz Curves - SAIMDC Income Deprivation at Datazone Level

South Africa, Eastern Cape, Nelson Mandela Bay Municipality, Buffalo City Former Ciskei and Former Transkei

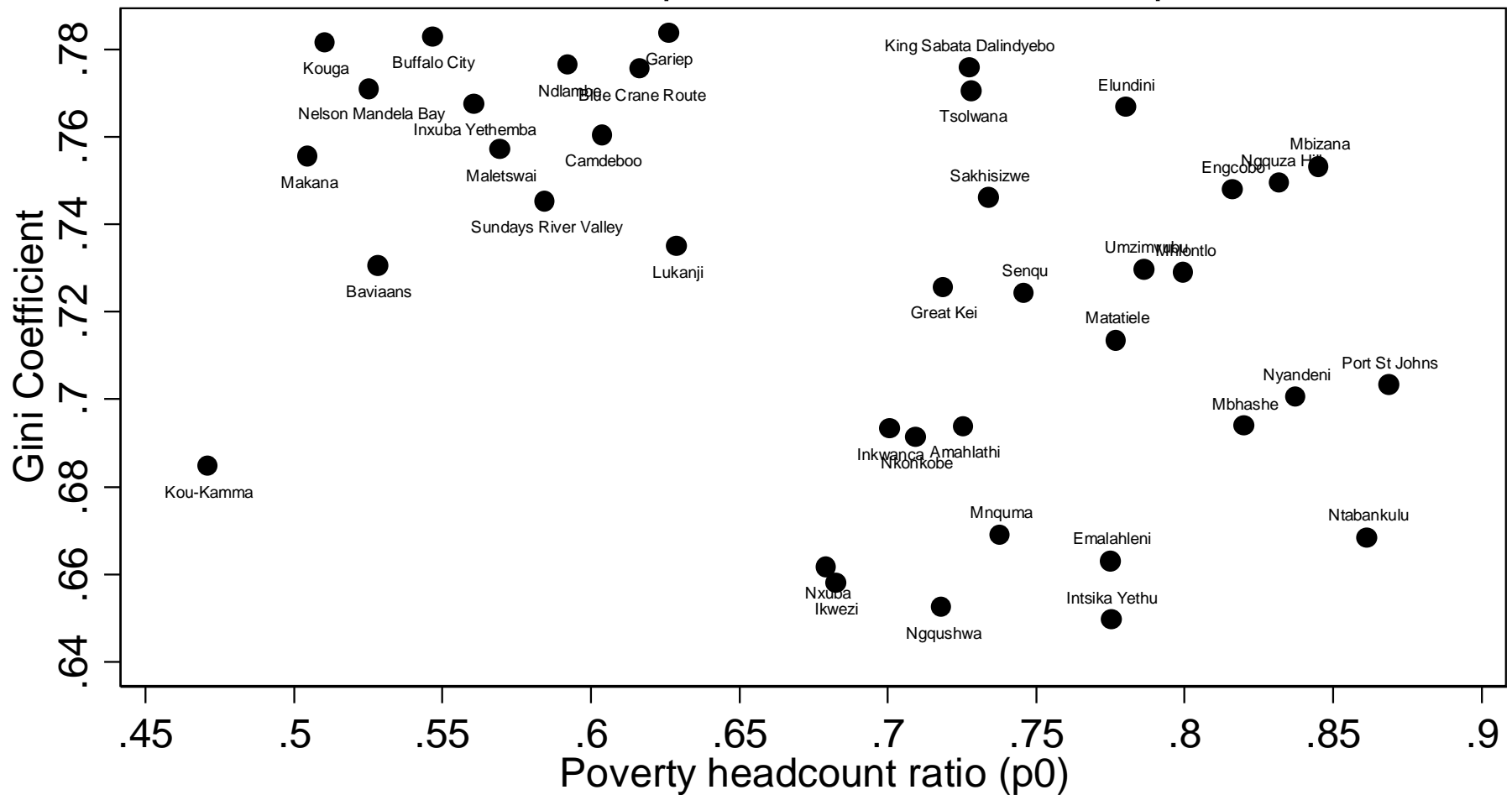




Comparing Income Poverty and Inequality at Local Municipality/Metro Level

Scatter Gini Coefficient and Poverty Headcount Ratio

Local Municipalities in the Eastern Cape



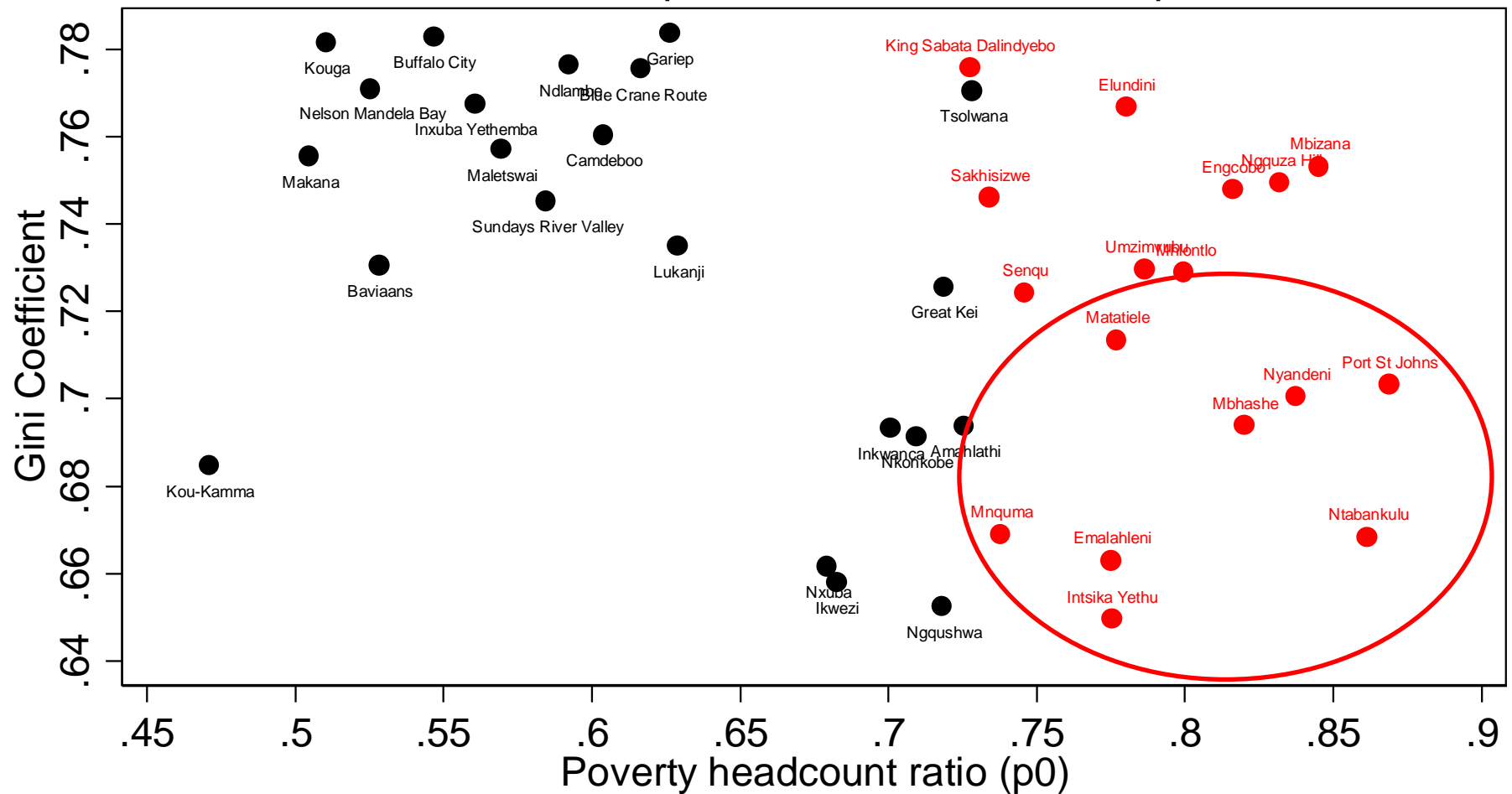
● Other Municipalities ● Former Tanskei Municipalities

2011	GINI
Rest Of SA	0.77
Former Homelands	0.69
All SA	0.79

Hoogeveen and Özler (2006) lower bound poverty line adjusted to 2011 using CPI

Scatter Gini Coefficient and Poverty Headcount Ratio

Local Municipalities in the Eastern Cape



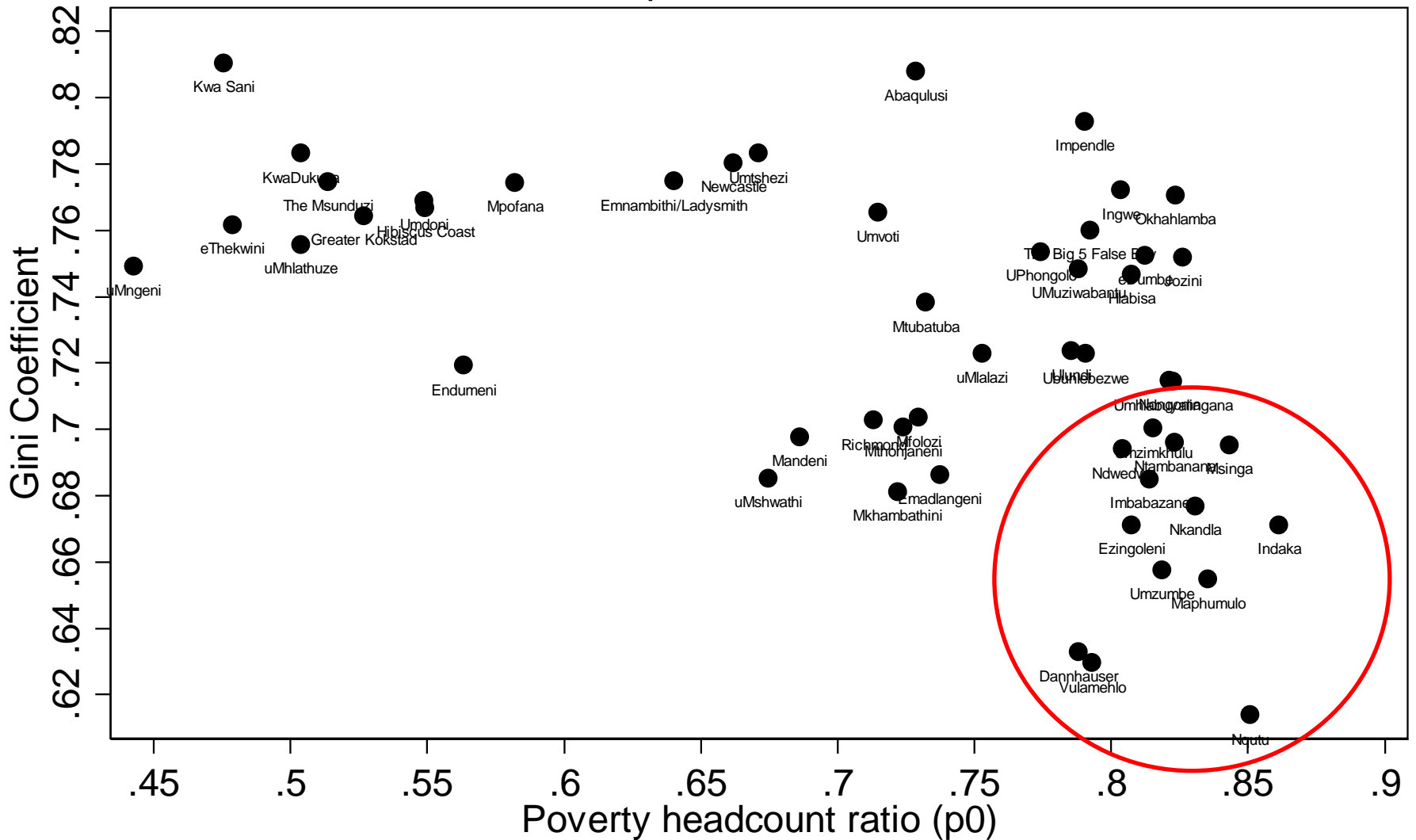
● Other Municipalities ● Former Tanskei Municipalities

2011	GINI
Rest Of SA	0.77
Former Homelands	0.69
All SA	0.79

Hoogeveen and Özler (2006) lower bound poverty line adjusted to 2011 using CPI

Scatter Gini Coefficient and Poverty Headcount Ratio

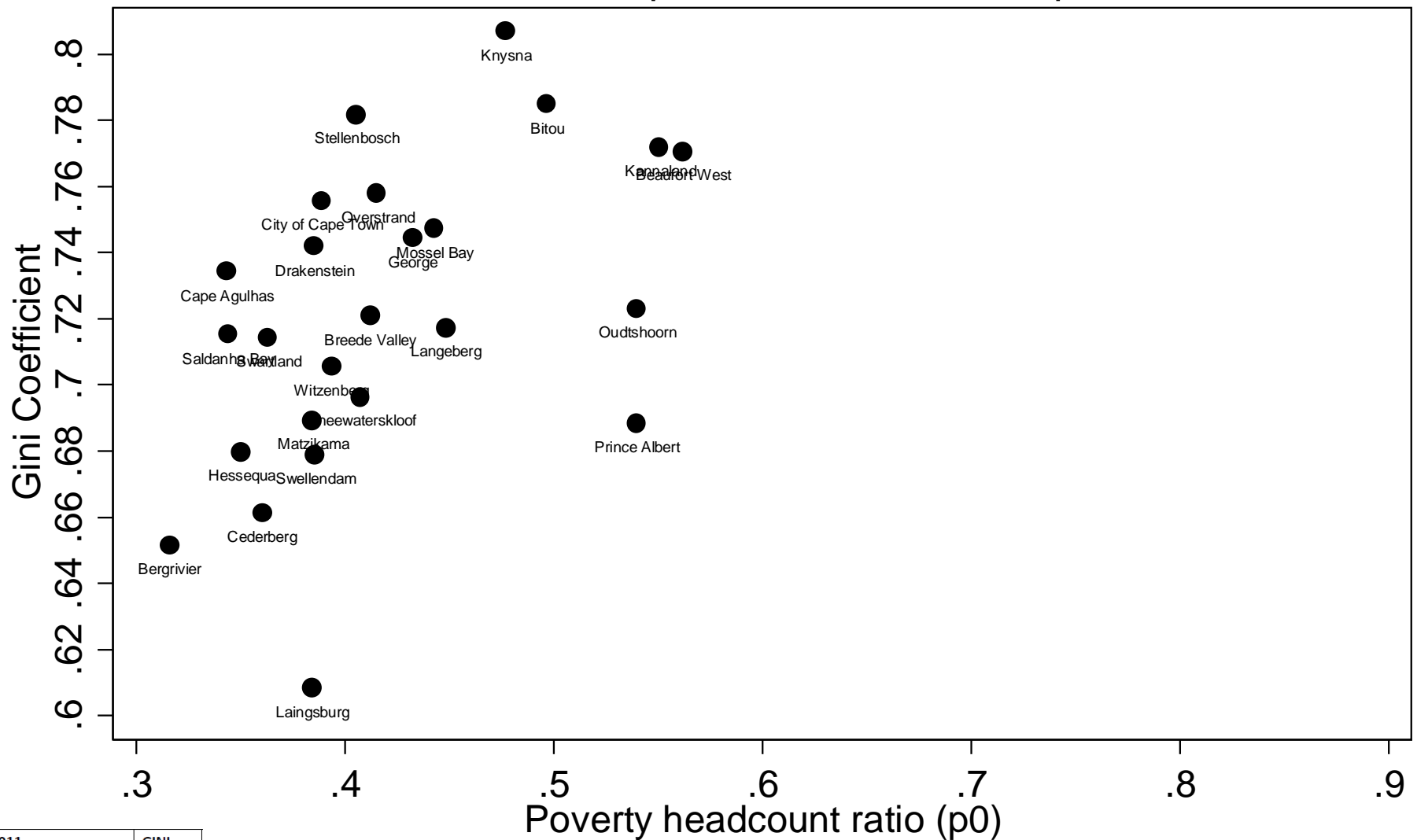
Local Municipalities in KwaZulu-Natal



Hoogeveen and Özler (2006) lower bound poverty line adjusted to 2011 using CPI

Scatter Gini Coefficient and Poverty Headcount Ratio

Local Municipalities in Western Cape

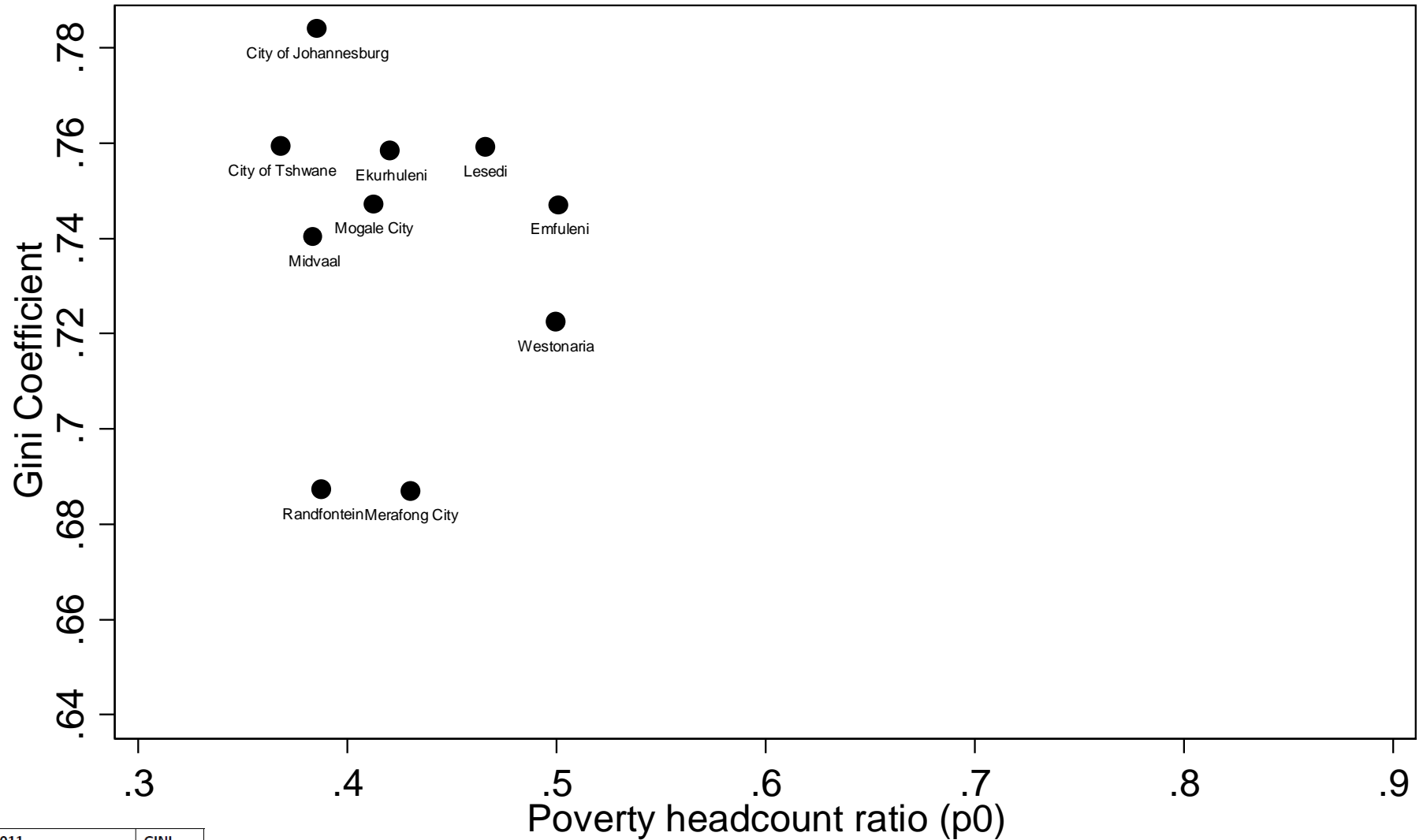


Hoogeveen and Özler (2006) lower bound poverty line adjusted to 2011 using CPI

2011	GINI
Rest Of SA	0.77
Former Homelands	0.69
All SA	0.79

Scatter Gini Coefficient and Poverty Headcount Ratio

Local Municipalities in Gauteng



2011	GINI
Rest Of SA	0.77
Former Homelands	0.69
All SA	0.79

Hoogeveen and Özler (2006) lower bound poverty line adjusted to 2011 using CPI



Concluding Remarks

- Income Poverty is highly spatially differentiated and still reflects the historical legacies of colonialism segregation and apartheid
- Highest poverty levels are in the former homelands
- Inequality and poverty do not have a simple relationship with each other
- More sophisticated accounts are necessary to reflect the lived experience of inequality