

## Making the value of statistics visible



3rd ISIbalo CRUISE Conference Kicks Off in Stellenbosch. The Stellenbosch Institute for Advanced Study, home of the CRUISE programme, plays host to the 3rd ISIbalo CRUISE conference, running from 3 – 5 July in a cold but sunny Stellenbosch - a town that can be described as bearing features of integrated land use planning across the primary, secondary and tertiary productive sectors. The conference will also serve as a platform for the launch of the African Regional Science Association (ARSA), the African division of the Regional Science Association International (RSAI).

In his welcome, Prof HS Geyer remarked that the pendulum was swinging back towards fact-based research to inform decision-making. The Statistician-General (SG), Dr Pali Lehohla, then took delegates through a fact-based presentation outlining the South African reality, based on fact and not supposition. He also spoke to the fact that CRUISE helps statisticians understand what they are measuring so that they are able to make the value of statistics visible.

While the Minister in the Presidency responsible for Statistics, the honourable Jeff Radebe, was not able to join us in the flesh, his recorded message spoke to the importance of the launch of the African Regional Science Association (ARSA).

The minister said, "South Africa needs a planning institution that has staff who are competent across disciplines such as planning, econometrics, sociology, political economy, modelling, regional science and statistics to mention but a few critical skills.

Above all, we need a system that is long-term and strategically led. The launch of ARSA is one pillar in

our march towards solving the complex phenomenon of underdevelopment. This significant development is in line with the goals enshrined in the National Development Plan (NDP), a blueprint for South Africa's development trajectory."

University of Stellenbosch Vice-Rector for Research, Innovation and Postgraduate Studies, Prof Eugene Cloete, gave an insightful presentation on innovation being the key for universities of the future. He gave a fascinating case study of what happens when ownership and value are brought into education, citing a project the university did in conjunction with a cellphone service provider.

The entire curriculum was downloaded onto learners' cellphones. Learners were then given mathematics exercises based on the curriculum, and for every exercise they completed correctly, they were given airtime. Their activities were observed, and learners spontaneously broke themselves up into groups of 10 – 15 learners to tackle the problems together. At the end of the project, the average maths mark amongst the group had improved dramatically, because the learners owned their education and their learning had value.

The final presentation of the introductory session was by Professor Peter Nijkamp of VU University in Amsterdam, who has also held the position of chairperson of the RSAI. Resplendent in a red bowtie, Prof Nijkamp took delegates through the history of regional science, from its origin when questions arose as to why cities exist, to the future of mega-cities with more than 100-million inhabitants. With many more fascinating presentations to come, we are sure that this 3rd ISIbalo CRUISE conference will leave delegates inspired to make the value of data visible.











#### Urbanisation in the former homelands

It ended as quickly as it had begun. March 1994, a month before South Africa's first democratic elections, saw the dramatic dissolution of Bophuthatswana, one of the former homelands set up during apartheid.

On 7 March, the president of the homeland, Lucas Mangope, refused incorporation into South Africa. Civil servants got angry, taking to the streets and clashing with the Bophuthatswana Defence Force.

The situation escalated with the arrival of armed right-wing groups from South Africa wanting to preserve Mangope's rule. The South African Defence Force eventually stepped into the chaos and by 12 March order was restored.

All of South Africa's former homelands were eventually dissolved; not all of their final weeks were as dramatic. Legal and economic boundaries that were imposed to keep them separate from South Africa have been gone for 23 years. But despite this, social and economic boundaries remain.

Mawande Nigidi's presentation brought into sharp focus how former homeland areas continue to struggle to keep up with the rest of the country, in terms of infrastructure development, employment, economic growth, and education levels.

Common theory states that a rise in urbanisation leads to an increase in economic development. If people and industries are crammed close together in an urban setting, the entire system takes advantage of lower transport costs and economies of scale. In a nutshell, this is what's known as agglomeration.

Have the formal homeland areas benefited from agglomeration?

One has to first ask whether formal homeland areas, which are predominantly rural, have experienced urbanisation.

Using data from Census 1996, 2001 and 2011, as well as settlement classification data from the CSIR, Nigidi showed that the urban population in former homeland areas have increased over time, indicating that these areas are slowly urbanising. The question as to whether this is resulting in economic growth took some additional analysis using Gross value added (GVA) data from Quantech.

The result? Despite increasing urbanisation, higher urban centres in former homeland areas are experiencing a declining share of economic activity, while lower order urban centres and rural areas are undergoing a rise. Not what would be predicted by economies of agglomeration.

A higher rise in economic activity in lower order urban and rural areas may be due to (1) government targeting rural areas for development, and (2) the extension of social grants to rural communities, but further research is needed.

Many of the formal homelands have had turbulent histories, but if South Africa focuses on understanding the unique dynamics and problems of those areas, it can eventually make strides in providing solutions that work.



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# Jungle Gyms vs Doggie Parks

After a robust session discussing interesting research around regional change, the focus now moved onto papers discussing planning analysis within South Africa and abroad.

Lodene Willemse presented on The Quality of Life theme, focusing on access to "Community Neighbourhood Parks - (CNP)" by lower, middle and high-income earners within the City of Cape Town. The utilisation of CNPs differ between income groups; doggie parks are preferred by high-income groups while lower income groups expressed a need for jungle gyms. Clearly, place and space are differently perceived amongst different income clusters of the population. Lower income earners, according to the data, seem to be more negatively affected as opposed to their higher income earning counterparts with respect to the norms of access, i.e. having these areas within a 1.2km range. Furthermore, the lowincome population spends more time in parks and tends to be more social.

Three planning session presentations followed. research, Thothela's entitled "Citizen municipal participation in planning performance management processes in KZN: understanding citizen satisfaction with municipal performance" attempted to determine what proportion of the population within the KZN province understand and participate in IDP planning or ward-based planning processes. The respective results indicate that a small proportion of the population, ranging between 18% - 19%, understand and participate in these processes.

In his discussion on "Integrated development planning and sustainable development indicators: a case study of the Overberg District Municipalities and City of Cape Town", Mr. Cronje highlighted that pre-2012 there was a lack of standardisation with respect to indicators, which creates an issue when comparing IDPs across the municipalities of Overberg District and the City of Cape Town. His research attempted to promote a generic set of indicators to cover key areas across economic, social and environmental spheres. Thirty-four core indicators were recommended as a basis to be used as a comparison set of indicators between municipalities, while not neglecting or diminishing other indicators to differentiate each one's uniqueness.

There were questions raised from the floor revolving around the issue of "standardising IDP indicators". These were well answered by the presenters and robust discussions ensued.







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## Determinants of Migration

A session on Migration was chaired by Prof Eduardo Haddad, councillor for the Latin American and Caribbean Regional Science Association of the Regional Science International Association.

M. Thoka presented a paper titled "Migration and labour force participation: analysis of internal economic migrants in Gauteng South Africa, 2011". Internal migration in South Africa resulted from apartheid, where the population was concentrated in the former homelands. Post-apartheid migrants moved to urban areas where there was wealth, economic activity and purchasing power. There was a high rate of internal migration to Gauteng. Unemployment remained high (above 30%), despite policies created by the government to focus on development and spatial planning to counter the effects of apartheid (for example the National Development Plan).

The paper focuses on the levels and patterns of internal migration. Census data was used to determine significance and association, using the age groups 15-19; 20-34 and 35-64. The first two categories enter the labour market, while the latter is more established in the labour market. The other variables were population group, marital status, level of education and geo-type. Migrants who were in the labour force were more likely to be older, male, black, unemployed and married.

The following was found:

- As age increased, unemployment decreased;
- Migrants with some secondary education had the highest unemployment rate;
- Migrants in urban areas had a higher rate of employment than in rural areas; and
- Migrants were better off in province of origin than in Gauteng.

The corridor in Gauteng had a high concentration for settlement of employed migrants – they lived closer to their place of work in informal settlements in Mamelodi and areas around Midrand.

The policy implications are:

- Encourage more females to move to Gauteng;
- Incentivise business to decentralise away from industrial areas and other provinces; and
- Improve the circumstances of people in other provinces/areas.
- J. Ngobeni analysed the source areas of migrants (provincial and municipal) and identified migration destinations in Gauteng between 2001 and 2016.

The main senders were Limpopo, KwaZulu-Natal, North West and Mpumalanga. 32.3% of migrants were foreign migrants. Cluster analysis showed:

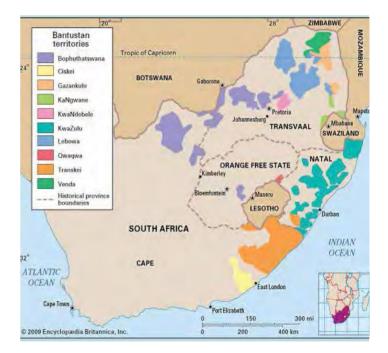
- High-high (Limpopo and Mpumalanga): People with limited education and low education moved to job opportunities in Gauteng; and
- High-Low (Metros): this was due to the educated and high income earners from smaller municipalities moving to better opportunities and incomes.

Preferred municipal destinations in Gauteng were City of Johannesburg, Ekhuruleni and Tshwane. The typical migrant is male person who has never married.

P. Buwembo looked at differences between migrants from Limpopo and Gauteng and non-migrants in Limpopo in terms of labour market outcomes. Migrants were more likely to be employed than non-migrants; this declined from 1.6% to 1.3% from 2001 to 2011. Men were more likely to be migrants, married, and have a longer stay duration in Gauteng.

Clustering of migrants from Limpopo to Gauteng could be as a result of strong social networks. Hence migration to Gauteng is likely to increase.

J.J.H. Coetzee found that people mainly moved from Free State to Gauteng due to job opportunities and looking for paid work. The minor sub-stream was due to marriage and education. A binomial logistic regression showed that death and divorce are more important migration factors for women than for men.













## Will our metro areas keep growing?

Counterintuitive data suggests otherwise. In his remarks at the opening ceremony of the 3rd ISIbalo CRUISE conference in Stellenbosch, the Statistician-General (SG), Dr Pali Lehohla, spoke to the importance of using evidence, rather than emotion or anecdote, when making decisions. This was brought sharply to the fore in the session on Urban Development Trends, which included presentations related to urbanisation and counter-urbanisation.

While it is generally accepted that urbanisation is increasing internationally, and that most migration occurs towards major metropolitan areas such as Johannesburg and Cape Town, presentations by Prof. H.S. Geyer and N.P. Geyer on Differential Urbanisation Trends and Counterurbanisation suggested that eventually migration to metropolitan areas will be taken over by migration to smaller cities, leading to the phenomenon known as counterurbanisation.

Differential urbanisation follows a set pattern. The first phase is urbanisation, whereby mainstream migration supports large city development at the expense of small cities. This is followed by polarisation reversal, in which intermediate-sized cities grow at the expense of both major and small cities (although major cities might still be gaining population). The turning point for this phase is when industries start to locate away from primary cities and more towards secondary cities. The third phase is counterurbanisation, where small cities gain migrants the fastest at the expense of large cities.

Counterurbanisation is significant. Downstream migration is on the increase in the developing world, and is set to overtake urbanisation as the dominant migration flow. This will allow smaller areas to dominate a region despite being small nationally. Counterurbanisers contribute more to the local economy as they tend to be people who are better educated and more capable of contributing to the local economy.

When looking at outmigration from Gauteng province, the majority of these migrants are children, the elderly and those who are better educated. Destinations include areas that have a high income potential and access to amenities. It is estimated that downstream migration out of metropoles may account for 40% of all outmigration.

Counterurbanisation is not a return to an originating rural location. Small urban settlements in rural

areas are seen to offer the best of both worlds in terms of environment and economic opportunity. There are some disadvantages however, as these large migrant streams could move to small urban centres that are often ill-equipped to deal with them as the myth of metropolitan migration has blinded planners to this phenomenon and the need to plan for it.







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### Regional Science Association Lectures

Day 1 finished with a number of lectures by members of the Regional Science Association International (RSAI), who are present for the launch of the African Regional Science Association, the African division of the RSAI.

Prof J. Carruthers, Program Director, Sustainable Urban Planning Program, College of Professional Studies, The George Washington University and former RSAI Councillor, representing the Regional Science Association of the Americas (North America and South America), paid tribute to Walter Isard, the father of regional science, and spoke about how his work and the program he runs has been influenced by this giant.

Prof. Eduardo Haddad, councillor for the Latin American and Caribbean Regional Science Association of the Regional Science International Association, presented on "Trends of territorial economic development in Latin America: analysing potential trade-offs". His presentation looked at various models that can be applied at a regional, national and international level to determine the potential trade-offs.

Prof. Mark Partridge, Swank Chair in Rural-Urban Policy at the University of Ohio, and Vice President of the RSAI, spoke about the book that shaped his career. He shared how reading "Who benefits from State and Local Economic Development Policies" by Tim Bartik made him want to be someone whose work would benefit local communities and create opportunities for people to improve their lot.

Prof. Peter Nijkamp of VU University in Amsterdam presented on "The Voice of the Tourist". Tourism is a major growth industry internationally. With the power of digital media shrinking the world and making it possible for people to see a 3D rendering of the Eiffel Tower from the comfort of their homes, tourist destinations have to look at how they position themselves to attract people to move out of their homes to experience the real thing.

The study uses existing data to look at people's experience of cultural tourism and examines several fascinating aspects of the data, such as whether or not hearing a familiar language makes tourists view a particular cultural experience more favourably.

Karima Kourtit of VU University Amsterdam and a member of the RSAI presented on a dashboard that had been developed related to smart cities, and stressed the importance of having robust indicators to inform the dashboard.



"...fascinating aspects of the data, such as whether or not hearing a familiar language makes tourists view a particular cultural experience more favourably".







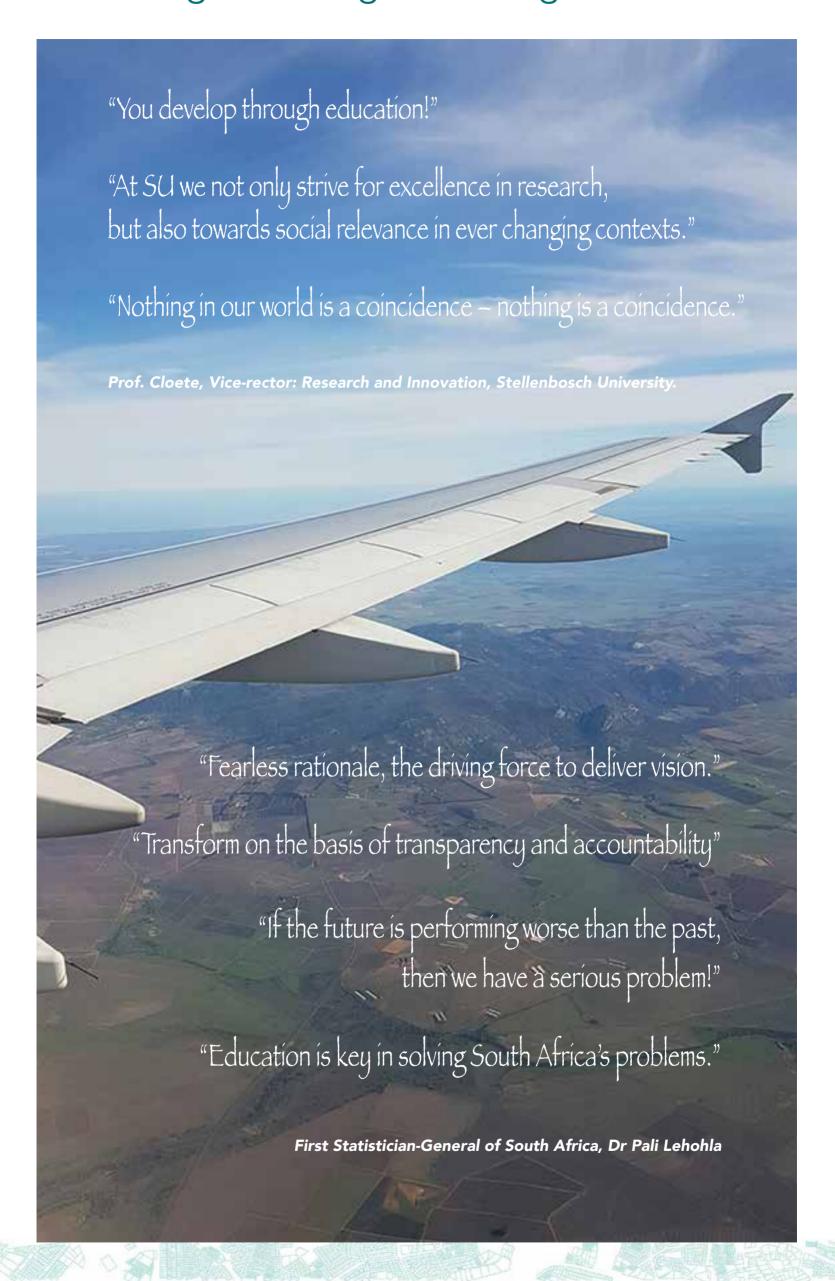








### Reaching new heights through innovation













## Science in the mix

Building scientific networks through colloboration & partnerships







































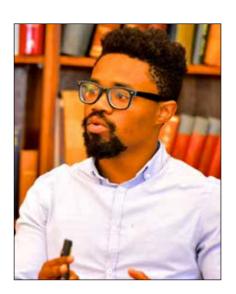


# CRUISE'ing towards innovation

Building a statistical and data literate society!



































### Deputy Minister invites Future Leaders

Last week Deputy Minister in the Presidency, Buti Manamela, together with Deputy Minister for Higher Education and Training, Mduduzi Manana, hosted a Leadership Imbizo at Stats SA's Head Office, ISIbalo House, with scholars identified as leaders from schools across Gauteng. Daniel Petersen (14), the young drummer from the Cape who received the prestigious Barack Obama Lifetime Achievement Award for his work with underprivileged children, was also present. In 2014 he became the youngest person to obtain a degree in music at the University of the Western Cape (UWC). See orange link.









http://www.iol.co.za/capeargus/news/capes-drummer-boy-wins-prestigious-obama-award-10107776



#### "CRUISE helps statisticians make the value of statistics visible".

Dr Pali Lehohla, SG and Head of Stats SA at the opening of the 3rd ISIbalo CRUISE conference.

#### Value vs Worth

Value and Worth are two words that are often confused when it comes to their usage and meanings.

The word 'value' is used in the sense of 'importance'. On the other hand, the word 'worth' is used in the sense of 'the cost of production' of a particular thing or the 'greatness' of a particular person.

This is the main difference between value and worth.

http://www.differencebetween.com/

#### Youth & Education...

"Our children are our greatest treasure. They are our future. Those who abuse them tear at the fabric of our society and weaken our nation."

"Education is the most powerful weapon which you can use to change the world."

"I am fundamentally an optimist. Whether that comes from nature or nurture, I cannot say. Part of being optimistic is keeping one's head pointed toward the sun, one's feet moving forward. There were many dark moments when my faith in humanity was sorely tested, but I would not and could not give myself up to despair. That way lays defeat and death."

~ Nelson Mandela















