

# Income inequality in the Gauteng City-Region – sources and decompositions

Darlington Mushongera

20 March, 2013

## Abstract

This paper lays the basis for an analysis of income inequality in the Gauteng City-Region (GCR) – South Africa’s smallest but densely populated region. The GCR is the fastest growing region in South Africa. It contributes 34% of the country’s Gross Domestic Product (GDP), making it the main driver of the national economy. Given its level of industrialization and urbanization coupled with a large and increasing population, the GCR exerts significant influence on the lives of many people in South Africa. However, there are significant differences in wealth and income that provoke important questions about the inequitable distribution of wealth and income. A number of inequality studies have focused on South Africa due to the nature of the available datasets. However, analyses pitched at national level usually mask the heterogeneities that are often present in localised and unique areas such as the GCR. The unique focus on Gauteng and the more disaggregated (municipal level) approach permits more nuanced results with spatially relevant policy implications. Using recently generated Quality of Life (QoL) survey data; we decompose income inequality according to source, subpopulation groups and location. The convenience of the user-written Stata command `descogini` also allows us to measure the effects on overall inequality of marginal changes in a particular income source. Preliminary results show that the racial footprints of apartheid are still visible across the GCR.

**Keywords:** income inequality, income source, income shares, Gini coefficient, decompositions, Gauteng

# 1 Introduction

Addressing inequality is one of the key policy objectives of the South African government. It has become established in both local and international literature that the level of inequality in South Africa is one of the highest in the world (Tregenna and Tsela 2012; World Bank, 2012). Sadly, inequality is not just high but is increasing. Since 1994, inequality alongside poverty remains an intractable challenge confronting the new government. The the distribution and re-distribution of income and wealth are major debating points that are both politically controversial and conceptually challenging (Bosch et al, 2010; Bernstein, 2010).

Understanding inequality and its subsequent impact on society is therefore a priority research area for policy makers and academics alike. Urgent answers are needed to questions on why inequalities persist. The persistence of inequality not only speaks volumes about the structural challenges in the economy but also the efficacy of existing government policies aimed at addressing skewness in the distribution of income in the country. Inequality, in particular high inequality, impedes government efforts towards reducing poverty and its persistence is a threat to social cohesion and social justice (Everatt, 2003; Tregenna, 2011). Reducing inequality is therefore a legitimate goal of government and a key step towards achieving the ultimate goals of social justice and social cohesion (Salardi, 2005).

Strategies for reducing inequality critically depend on a better understanding of the sources of inequality (Shams, 2012). This study seeks to provide such an understanding by (i) mapping the spatial configuration of inequality and (ii) identify the key factors that drive inequality and how these vary spatially. Unlike most studies on inequality that are national oriented, this is focused only on the Gauteng City-Region (GCR). Analysis pitched at national level usually masks the heterogeneities that are often present in localised and unique areas such as the GCR. This study aims to fill this knowledge gap hence provide useful and relevant information to government at local level policy implementation. Spatial inequalities are typically thought of as a construct arising out of variations in economic endowments, geography, and socio-political structure (Dutta and Nagarajan, 2005). All these factors are at play in the economic history of the GCR, in particular resource endowments and the legacy of apartheid.

## **2 The problem**

Undisputedly, inequality patterns in South Africa are directly rooted in the country's colonial history, driven mainly on a racial basis over centuries. Such a system created institutional structures that supported and perpetuated skewness in the distribution of income and wealth as well as entrenched poverty among the disadvantaged groups of society. That said, the natural policy recommendation is to redistribute income, hence lower inequality.

However, proceeding with remedial action directly on this basis, (though justifiable) may turn out to be both impulsive and misleading from a practical point of view. For example, in 2012, COSATU, the country's main labour union, called for an urgent "overhaul of the country's macro-economic policies and a radical economic shift necessary to deal with unemployment, poverty and inequality"<sup>1</sup> (SABC, 2012). While such audacious public remarks appeal to particular quotas of society, they do lack substance in terms of the precise steps that government needs to take in order to address these challenges.

A detailed and systematic understanding of the factors sustaining inequality and the manner in which people are positioned in society in terms of access to resources is critical (Knight & Lina 1991; Jenkins, 1995; Du Toit 2006). In addition, key determinants of inequality need to be identified and tested with a view to provide effected and more informed policy leads for government on how to lower the skewed distribution of income. (Adams and He, 1995).

## **3 Why inequality**

South Africa's major developmental challenges are poverty and inequality. While these challenges are related, they are totally different and capable of being analysed separately. This study focuses on analysing inequality in the GCR and this is so for specific reasons. Unlike poverty, inequality studies cast analysis over an entire population as opposed to a segment of the population e.g. people falling below a particular income threshold. Where decompositions by population subgroups are possible, inequality analysis can be instrumental in understanding the severity of poverty among the different subgroups (Todaro and Smith, 2011).

---

<sup>1</sup> Zwelinzima Vavi, COSATU Secretary General, reacting to events in the mining sector triggered by the Marikana shooting incident.

The premise of the study is that, in order for government to deal decisively with poverty, it needs to first tackle inequality. High levels of inequality prohibit the poor from fully participating in the growth process (Bangura, 2012). By restricting the expansion of the domestic market, inequality may create institutions that trap the poor into poverty in particular where inequality is associated with class, race and gender (*ibid*).

Further, the persistence of inequality potentially results in unprecedented societal problems such as crime, corruption, social exclusion and instability. These social “ills” are often manifested at local levels such as a municipality or province e.g. xenophobia and service delivery protests. , a case in point being the Marikana disaster. Social ills are undesirable for the economy and may cause the poor to sink deeper into poverty.

#### **4 Why the GCR?**

Studies such as NIDS are very important but analysis is only possible at national level. The resultant analysis mask the heterogeneities often found at localised levels. This is a common feature whenever nationally aggregated indices are used (Betz, 1974; Dutta and Nagarjan, 2005). The GCR possess several unique spatial characteristics that warrant a dedicated inequality analysis. If successful, such analysis has the potential to generate meaningful policy solutions that have spatial relevance. Some of the unique characteristics worth mentioning at this point include (i) an extensive urban area dominated by three of the country’s major metropolitan municipalities i.e. Johannesburg, Tshwane and Ekurhuleni, (ii) rapid urbanisation, (iii) large and growing population, and (iv) excessive immigration. The region also generates very high returns to location than any of the other provinces and these returns seem to drive expansion in the region and growth in the local economy. Footprints of apartheid are very vivid in the GCR with clear differences in terms of access to services between the previously disadvantaged areas and those once privileged. In addition the bulk of the population in the GCR look to employment as the major source of income. It is therefore not uncommon to observe an astronomically wide range in personal income across the GCR. This contrasts sharply with rural province where occupations are less diverse. GCR faces gross inequalities in personal income as a result of its geographical, urban and economics standing (OECD, 2011).

Therefore the main motive for directing attention on Gauteng is to expose the spatial dimensions of inequality often missing in most studies. Economic endowments and activity, socio-economic structure, and levels of integration into the broader economy are rarely uniform across space. On the basis of knowledge, policy formulation also need to be spatially relevant.

## 5 Gauteng City-Region

The GCR is a particular spatial and planning concept adopted by the Gauteng Provincial Government (GPG) in order to denote an area of some socio-economic importance that stretches beyond the administrative boundaries of Gauteng province (GPG, 2005)<sup>2</sup>. See Figure 1 below.

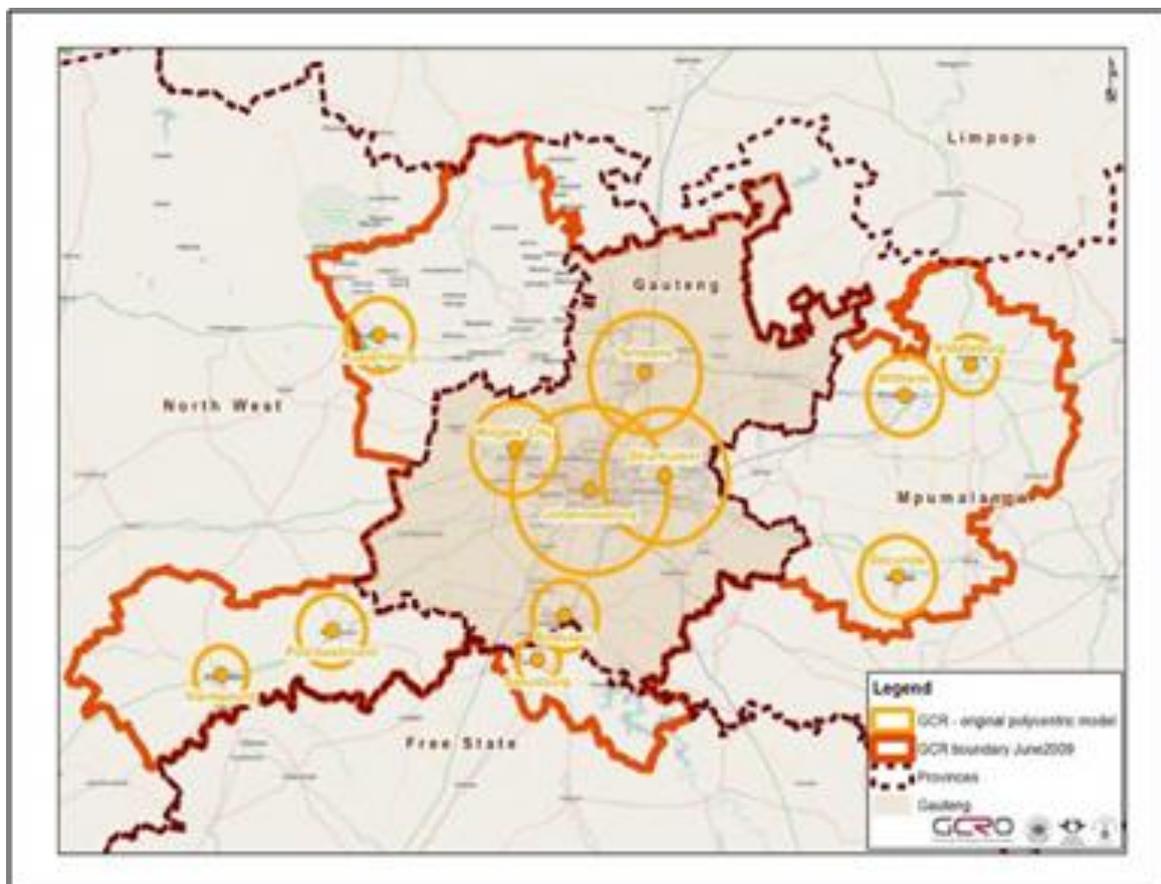


Figure 1: Map of the GCR. Source: GCRO

In spite of its small geo-size, the GCR exerts significant influence on the lives of people in South Africa as well as the sub-region. It has a population of over 12 million (Stats, SA,

---

<sup>2</sup> Gauteng Provincial Government. A golden opportunity: Building Gauteng as a Globally Competitive City-Region, 2005.

2011) translating to 23.7% of the country's total population. The population density is also very high, 675 people per km<sup>2</sup> compared to a national average of just 42 people per km<sup>2</sup>. The GCR is dominated by the three metropolitan areas of Johannesburg, Tshwane and Ekurhuleni and therefore population densities are not uniform across the GCR space. Its industrial base is wide and diverse industrial and it contributes 34% of the country's Gross Domestic Product. This make the the GCR the main driver of the national economy (Kok, 1998; OECD, 2011). It is also the country's economic heartland and a continental leader in innovation (OECD 2011). International studies have shown that levels of inequality can be potentially acute in cities due to high heterogeneity of persons and occupation typical found in urban areas (Glaeser et al, 2009). Large cities The acute diversities of people in large cities also create fertile ground for social and economic inequalities as has been observed in Brazil (Salardi, 2005; OECD, 2011).

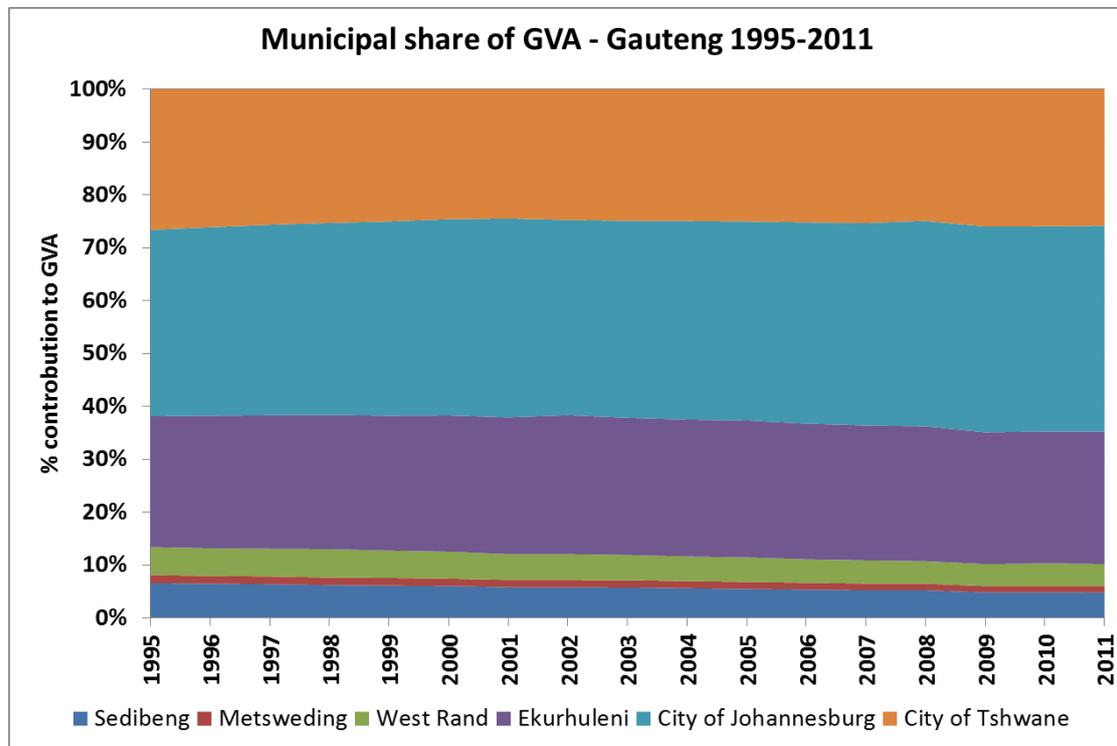
## **5.1 Gauteng economy**

Historically, the Gauteng province established itself as the economic heartland of South Africa due the large concentration of gold mining and subsequent development of industrial and financial services. This position was consolidated over the years such that the size of its economy equated or even surpassed that of other African countries. For example in 1992, Gauteng's economy was larger than some of the richest countries in Africa at the time, such as Egypt and Nigeria (Kok, 1998). According to 1996 data from the Central Statistical Services (now Stats SA), Gauteng contributed 37,2% of the country's economic output measured in terms of Gross Domestic Product (GDP), (Hall and Whiteford, 1998). Between 1995 and 2008, Gauteng's GDP grew at an average annual rate of 3.6%, 0.1 percentage points higher than the national average (OECD, 2011). As a result, Gauteng has been and still remains the wealthiest province in the country (Kok, 1998; OECD, 2008). It is certainly the driver of the South Africa economy, a trend common to most city regions in the world (OECD, 2011). With such a vibrant economy, one would expect benefits of a large economy to reach the poorest by *trickle-down* effect. However, existing evidence shows that the poor have not been the direct beneficiaries of economic growth and this is due to the structural nature of inequality.

### *5.1.1 Municipal contribution to GDP*

An important feature of the Gauteng economy useful for this study is the variation in economic endowments of the different municipalities in the GCR. Figure 2 below shows

that contribution to the GCR economy is dominated by three metropolitan municipalities.

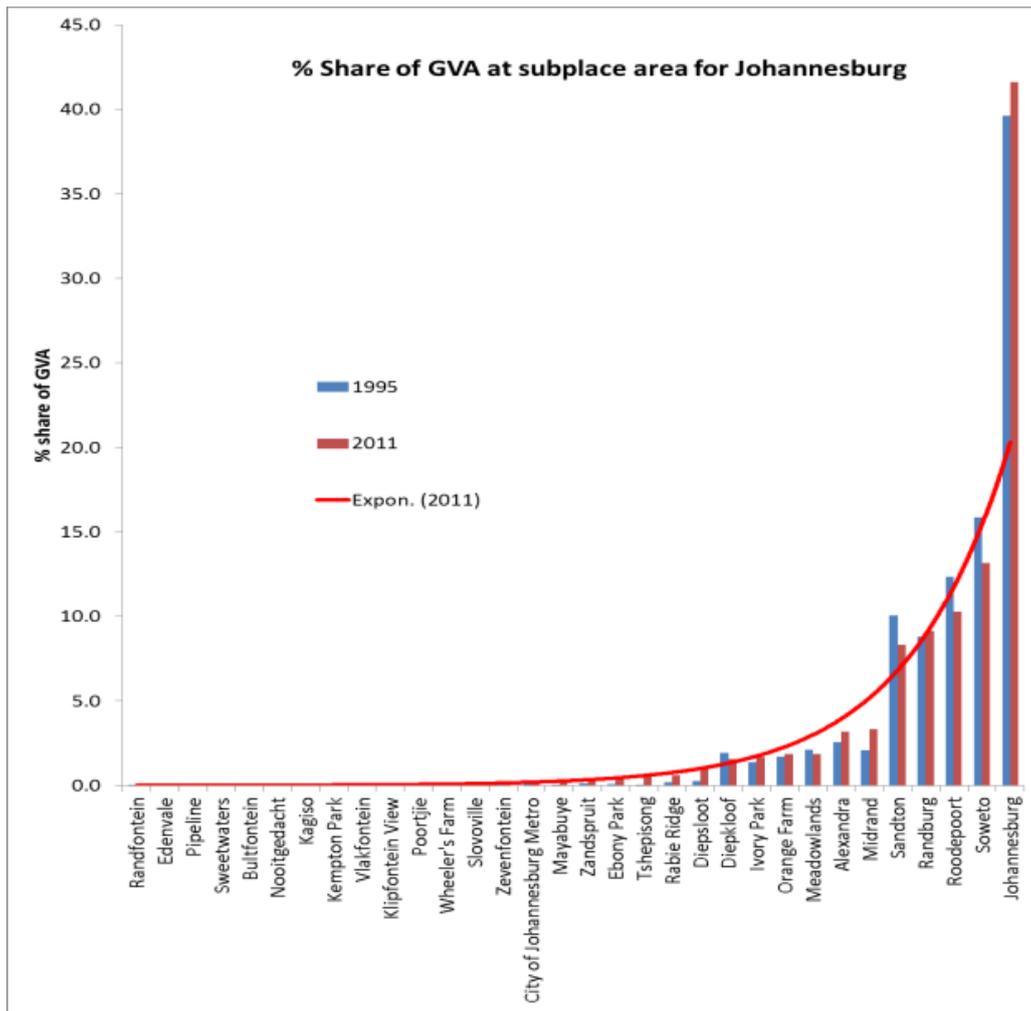


**Figure 2:** Percentage contribution to GVA<sup>3</sup> per main area. *Soure: Author using Quantec data*

The City of Johannesburg contributed 38,9% in 2011 and Metsweding only 1.2% in the same year. The annual trend has generally been similar between 1996-2011. The share of the bottom three municipalities fell by 3.2 percentage points from a combine share of 13.4% in 1996 to 10.2% in 2011. The observed spatial differences in contribution to total GVA speaks volumes about variations in local economies across municipalities. Returns to location are lower for municipalities that are contribute the least and this may have bearing on the incomes of residents

Looking at a more localised level, Figure 3 shows an even strikingly skewed pattern. There is evidence that economic activity is concentrated in just a few areas, mainly Johanneburg, Soweto, Roodepoort, Randburg and Sandton respectively.

<sup>3</sup> Gross Value Add at 2005 constant prices. Author construction using Quantec data



**Figure 3:** Percentage contribution to GVA. *Source: Author using Quantec data*

### 5.1.2 Globalisation

Gauteng occupies a key lace role in South Africa's export sector. When production is designed to satisfy global markets, it may require highly skilled and specialised labour often to be found in a small proportion of the population. This may shift attention away from the poor who often do not possess the requisite skills needed to enter a competitive labour market. The gap between the rich and the poor is further widened.

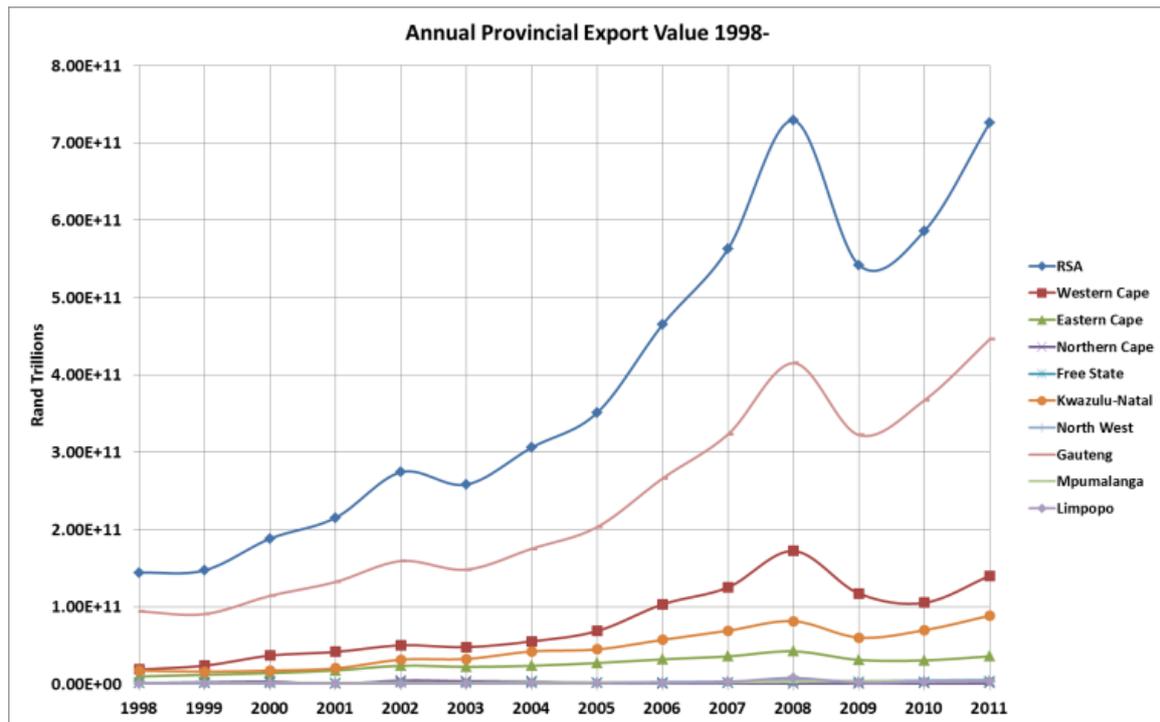


Figure 4: Annual provincial export value. Source: Author using Quantec data

Provincial data on exports shows the contribution of Gauteng remains far surpasses that of other provinces (see Figure 4 above). The contribution mirrors that of national, an indication that Gauteng economy exerts significant influence on the national economy. Trade links particularly with Europe can be risky when events such as the recent global economic crisis occur as show by the dip in 2009. If income distributions are highly skewed those in the lower echelons of the income distribution will be hardest hit by the crisis.

## 6 Key research questions

The key questions that guide this study are:

1. What are the major income sources in Gauteng and how are these distributed by according to race, sex, age and location i.e. share distribution of income?
2. What is the relative importance of each income source to overall inequality?
3. What is the impact of marginal changes in income sources on overall inequality?

## 7 Methodology

There are several measures that can be used to analyse inequality. This study uses the Gini coefficient, which takes the values between 0 (perfect equality) and 1 (perfect inequality). The Gini is by far the most widely used measure of inequality. Its merits are

(i) it is decomposable into several subgroup categories, (ii) it corresponds neatly with the Lorenz curve and (iii) it is easy to interpret. Inequality decompositions of the Gini by income source are particularly useful. Generally, total household income is an aggregate of income from a variety of sources e.g. wages, transfers, remittance and investments. The share size of each income source can have significant influence on overall inequality depending on which group earns such income and at what point in the distribution they are located. Such analysis therefore exposes the workings of the labour market and the economy in general and how changes in these sectors affect overall inequality. Several analyses will be carried out and these are:

## **7.1 Income source analysis**

*7.1.1 Overall income shares*

*7.1.2 Distribution of households by income shares*

*7.1.3 Income shares by Municipality*

*7.1.4 Income shares by Ward*

*7.1.5 Sex*

*7.1.6 Race*

## **7.2 Decomposition by income source**

*7.2.1 Decomposing overall inequality*

*7.2.2 Decomposing overall inequality by municipality*

*7.2.3 Sex*

*7.2.4 Race*

## **7.3 Inequality decomposition by area**

*7.3.1 Within municipality*

*7.3.2 Between municipality*

## **7.4 Income source effects on inequality**

Lerman and Yitzhaki (1985) gave a very useful decomposition of the Gini coefficient by income source. A user-written command, `descogini` was developed by Lopez-Feldman (2006) for this purposes. The results generated speak to the relative share of each income source, own-Gini of the income source and the degree to which overall inequality changes if there are marginal changes in the income source.

## **8 Data sources and data challenges**

An analysis of inequality in the GCR is made possible by the availability of two very recent Quality of Life (QoL) surveys generated by the Gauteng City Region Observatory (GCRO). In line with its research agenda, the GCRO conducts a QoL survey every two years. So far, two QoL surveys have been conducted – QoL I in 2009 and QoL II in 2011 and a third is expected in 2013. The first two surveys were conducted on fairly large samples of 6636 and 16729 respondents respectively. The latter survey has been the largest of its kind at local scale after the census. These surveys focus on Gauteng and unlike most surveys, variables in the QoL datasets can be disaggregated by municipalities and even ward level. Therefore the datasets serve as a useful basis for determining living conditions of people in the GCR and for measuring development progress into the future.

## **9 Value of the study**

Disparities in incomes have implications for economic growth, poverty and poverty reduction efforts (Ravallion, 2001; Bourguignon, 2004). This is expected to add to the growing body of literature on income inequality in South Africa and extends further the analysis by incorporating the spatial dimensions of income inequality that are often missing in most inequality studies for South Africa. Policies designed on the basis of aggregate measures when it is clear that strong spatial variations exist may lack precision in terms of targeting. This study is therefore instrumental for Gauteng in that (i) it allows for comparison of incomes across localised space such as municipality and (ii) it eliminates the problem of unobserved heterogeneity typical of national level analyses.

## **10 Research outputs and conclusion**

This study is expected to come up with a set of inequality analysis products that collectively describe and explain inequality in the GCR. The spatial approach comes in handy for local municipalities in the region in terms of planning for the future or for immediate intervention.

## **11 Preliminary results**

Being processed.

## REFERENCES

- African Economic Outlook (2012)** South Africa 2012. AfDB-OECD-UNDP-UNECA
- African National Congress (2012)** National Executive Committee Lekgotla. African National Congress, January 2012
- Agüero J., M. R. Carter and J. May (2006)** Poverty and Inequality in the First Decade of South Africa's Democracy: What can be learnt from Panel Data?
- Alejo, J., M. Bergolo, F. Carbajal and G. Cruces (2009)**. "Cambios en la desigualdad del ingreso en América Latina. Contribución de sus principales determinantes (1995 – 2006)", CEDLAS, Universidad Nacional de La Plata, prepared for the project *Markets, the State and the Dynamics of Inequality*, UNDP. (Translated by Lustig et al, 2011)
- Altman, M.** (2003) Jobless or Job Creating Growth? Some preliminary thoughts. Paper Presented at the TIPS/ DPRU Annual Forum 8 – 10 September 2003 Human Sciences Research Council
- Ardington, C., D. Lam, M. Leibbrandt and M. Welch (2005)** The Sensitivity of Estimates of Post-Apartheid Changes in South African Poverty and Inequality to Key Data Imputations. Centre for Social Science Research Working Paper no.106 University of Cape Town
- Atkinson, A. B. (1970)**. On the measurement of inequality, *Journal of Economic Theory* 2(3): 244-263.
- Atkinson, A. B., Rainwater, L., and Smeeding, T. M. (1995)** Income Distribution in OECD Countries: Evidence from the Luxembourg Income Study (LIS), number 18 in *Social Policy Studies*, Organisation for Economic Cooperation and Development, Paris
- Atkinson, A. B. (1997)**. Bringing Income Distribution in From the Cold. *Economic Journal*, 107, 297-321.
- Baker J and Schuler N (2004)** Analysing urban poverty. A summary of methods and approaches. World Bank Policy Research Paper 3399, September 2004.
- Barber C. (2008)** Notes on Poverty and Inequality in From Poverty to Power: Background Paper Oxfam
- Bernstein, A. (ed)(2010)** Poverty and inequality: Facts, trends, and hard choices. Edited proceedings of a Round Table convened by the Centre for Development and Enterprise CDE Round table Number 15 of August 2010
- Bhorat H. & C. van der Westhuizen (2008)** Economic Growth, Poverty and Inequality in South Africa: The First Decade of Democracy. A paper commissioned by the presidency as input into the 15 year review process.
- Bhorat H., S. van der Berg, C van Aardt (2003)** Breaking the grip of Poverty and Inequality in South Africa 2004-2014, Current trends, issues and future policy options

**Bosch, A. J. Rossouw, T. Claassesns and B. du Plessis (2010)** A second look at measuring inequality in South Africa: A modified Gini coefficient. Working Paper No. 58. School of Development Studies University of KwaZulu-Natal

**Bourguignon, F., F. Ferreira and P. Leite, (2008).** Beyond Oaxaca–Blinder: Accounting for differences in household income distributions. *Journal of Economic Inequality*, Springer, vol. 6(2), pages 117-148

**Bourguignon, F. (2004).** The Poverty-Growth-Inequality Triangle. World Bank

**Brand, D and C. Heyns (eds) (2005).** Socio-Economic Rights in South Africa. University of Pretoria Law Press.

**Brewer, M. and L. Wren-Lewis (2012).** Accounting for changes in income inequality: Decomposition analyses for Great Britain, 1968-2009. Institute for Social and Economic Research No. 2012-17

**Catherine Barber (2008)** Notes on Poverty and Inequality in From Poverty to Power: Background Paper Oxfam

**Cornia G. A. (2012)** Inequality Trends and their Determinants Latin America over 1990-2010 Working Paper No. 2012/09, January 2012 UN-Wider

**Coudouel A, J. S. Hentschel, and Q.T. Wodon (2002)** “Poverty Measurement and” A Sourcebook for Poverty Reduction Strategies (Chapter 1), World Bank

**Coudouel A, J. S. Hentschel, and Q.T. Wodon (2002)** “Poverty Measurement and” A Sourcebook for Poverty Reduction Strategies (Chapter 1), World Bank

**Cowell F.A. (2000)** Measuring Inequality. LSE Economics Series. Published by Oxford University

**Cowell, F.A., E. Flachaire (2006)** Income Distribution and Inequality Measurement: The Problem of Extreme Values. London School of Economics and Ces, Université Paris 1 Panthéon-Sorbonne. October 2006

**Domeij, D. and M. Flodén (2010)** Inequality trends in Sweden 1978-2004. Review of Economic dynamics. Elsevier

**Du Plessis S. and B. Smit (2006)** Economic growth in South Africa since 1994 Stellenbosch Economic Working Papers: 1 / 2006

**Du Toit, A. (2006)** Chronic and Structural Poverty in South Africa: Challenges for Action and Research PLAAS.

**Dutta, P. V and H. K. Nagarajan (2005)** Spatial inequality among Indian villages: Do initial conditions matter? Paper presented at CPPRC-IIPA seminar on ‘chronic poverty: emerging policy - Options and issues’ 29th and 30th of September, 2005 National Council for Applied Economic Research Indian Institute of Public Administration. New Delhi

**Evans M. (1998)** Behind the rhetoric: The institutional basis of social exclusion and poverty. IDS Bulletin Vol. 29 No. 1 1998

**Evans M. (1998)** Behind the rhetoric. The institutional basis of social exclusion and poverty. IDS Bulletin Vol. 29 No. 1 1998

**Everatt, D (2003)** 'The politics of poverty', Southern African Regional Poverty Network (SARPN), November 2003, <http://www.sarpn.org> accessed 24/10/2012

**Fields G.S. (1979)** Income inequality in urban Colombia: A decomposition analysis, Review of Income and Wealth 25, 327-341

**Fields, G. S. (2002)** Accounting for income inequality and its change: A new method, with application to the distribution of earnings in the United States. Retrieved [18/09/2012] from Cornell University, ILR school site:  
<http://digitalcommons.ilr.cornell.edu/articles/265>

**Gakuru R and N. Mathenge (2012)** Poverty, Growth, and Income Distribution in Kenya: A SAM Perspective AGRODEP Working Paper 0001 June 2012

**Gasparini L. and N. Lustig (2011)** The Rise and Fall of Income Inequality in Latin America in: Ocampo, J.A. and J. Ros. (2011) *Oxford Handbook of Latin American Economics*, Chapter 28. Oxford University Press

**Glaeser Edward L., M. Resseger, K. Tobio (2009)** Urban Inequality. Policy Brief, Harvard Kennedy School

**Govender P., N. Kambaran, N.Patchett, A. Ruddle, G.Torr, and N. Van Zyl (2007)** Poverty and inequality in South Africa and the World. A report prepared for the Actuarial Society of South Africa's Social Security Committee

**Gumede V. (2011)** Social and economic inclusion in post-apartheid South Africa, in 2011 Transformation Audit: From Inequality to Inclusive Growth

**Hall and Whiteford, (1998)** in Kok, P. (ed.) (1998) South Africa's Magnifying Glass: A profile of Gauteng province. Human Science Research Council (HSRC)

**Haughton J, S.R. Khandker (2009)** Handbook on Poverty and Inequality. The International Bank for Reconstruction and Development/The World Bank Washington DC.

**Hobsbawn E.J. (1968)** Poverty. International Encyclopaedia of Social Science New York pp389

**Jang Y. J and M.H. Lee (2010)** An Analysis on the Korean Household Income Inequality by Using the Gini Decomposition. Paper presented at the APEA conference Hong Kong Baptist University, July 8-9, 2010.

**Jenkins, S.P. and Micklewright, J (May 2007)** 'New Directions in the Analysis of Inequality and Poverty', ISER Working Paper 2007-11. Colchester: University of Essex.

**Jenkins, S.P. (1995).** Accounting for inequality trends: Decomposition analysis for the UK, 1971-1986. *Economica* (1995) Vol 62, pp29-62

**Jolly R. (2003)** Income distribution in Clark D.A. (ed) *The Elgar Companion to Development Studies* (2003) Northampton, MA, USA

**Kakwani N. (1995)** Income inequality, welfare and poverty. An illustration using Ukrainian Data. World Bank Policy Research Working Paper No. 1411

**Kang W., K.S. Imai (2012)** Pro-poor growth, poverty and inequality in rural Vietnam, *Journal of Asian Economics* Vol. 30

**Knight J., and S. Lina (1991)** Determinants of urban inequality in China. *Oxford Bulletin of Economics and Statistics*, 53, 2 pp123-154

**Kok, P. (ed.) (1998)** South Africa's Magnifying Glass: A profile of Gauteng province. Human Science Research Council (HSRC).

**Landman, J.P., H. Bhorat, S. van der Berg and C. van Aardt (2003)** Breaking the grip of poverty and inequality in South Africa 2004-2014: Current trends, issues and future policy options.

**Leibbrandt, M., I. Woolard, A. Finn and Jonathan Argent (2010)** Trends in African income distribution and Poverty since the Fall of Apartheid. OECD Social, Employment and Migration Working Paper No, 101, OECD Publishing <http://dx.doi.org/10.1787/5kmm0t7p1ms-n> accessed 11/06/2012 .

**Leibbrandt, M., Wegner, E., Finn, A. (2011).** The Policies for Reducing Income Inequality and Poverty in South Africa. A Southern Africa Labour and Development Research Unit Working Paper Number 64. Cape Town: SALDRU, University of Cape Town

**Lerman, R. I. and S. Yitzhaki (1985)** Income Inequality Effects by Income Source: A New Approach and Applications to USA. *Review of Economics and Statistics* 67, 151-156.

**Lopez-Calva L.F. and N. Lustig, 2009.** The recent decline of inequality in Latin America: Argentina, Brazil, Mexico and Peru. Working Papers 140, ECINEQ, Society for the Study of Economic Inequality.

**Lustig, N. (1995)** *Coping with Austerity: Poverty and Inequality in Latin America*. Washington, DC: The Brookings Institution.

**Lustig, N., L. F. Lopez-Calva, and E. Ortiz-Juarez, 2011.** "The Decline in Inequality in Latin America: How Much, Since When and Why," Working Papers 1118, Tulane University, Department of Economics.

**Lynch, J.W., G.A. Kaplan, E.R. Pamuk, R.D. Cohen, K.E. Heck, J.L. Balfour, and I.H. Yen (1998)** Income inequality and mortality in metropolitan areas of the United States. *American Journal of Public Health*. 1998 July; 88(7): 1074–1080.

**McCord, C., and H.P. Freeman (1990).** Excess mortality in Harlem. *New England Journal of Medicine* 322:173-177.

**McKay, A. (2002)** Defining and Measuring Inequality. Inequality Briefing, Briefing Paper No.1 (1 of 3) Overseas Development Institute and University of Nottingham

**Miller, S.M., M. Rein, P. Roby and B. Cross (1967)** Poverty, inequality and Conflict *Annals of the American Academy of Political Science* Vol. 373 (1967)

**Møller, V (2007)** Quality of life in South Africa – the first ten years of democracy. Institute of Social and Economic Research, Rhodes University, P O Box 94, Grahamstown, 6140, South Africa.

**NPC, (2011)** National Development Plan Vision for 2030 National Planning Commission Office of the Presidency (November 2011).

**Niehues, J. (2011)** Income Inequality, Inequality of Opportunity and Redistributive Policies. Unpublished PhD Thesis

**Kaplan, G.A., E.R. Pamuk, J.W. Lynch, Cohen R.D. (1996)** Inequality in income and mortality in the United States: analysis of mortality and potential pathways. *BMJ* 312:999-1003.

**Kennedy, B.P, Kawachi I, Prothrow-Stith D. (1996)** Income distribution and mortality: cross-sectional ecologic study of the Robin Hood index in the United States. *BMJ* 312:1004-1007

**OECD, (2010)** Tracking inequality in Brazil, China, India and South Africa. Position paper. OECD publishing

**OECD, (2011)** Divided we stand; Why Inequality keeps rising. Special focus, Inequality Emerging Economies. OECD publishing

**OECD, (2011)** OECD Territorial Reviews: The Gauteng City-Region Observatory, South Africa 2011, OECD publishing <http://dx.doi.org/10.1787/9789264122840-en>

**Pedro, O and J Saavedra (2012)** An overview of global inequality trends. *Inequality in Focus* Vol, No. 1, WB 2012

**Ravallion, M. and S. Chen (1996)** What can new survey data tell us about recent changed in distribution and poverty? World Bank Policy Research Working Paper No. 1694

**Rogot, E., P.D. Sorlie, N.J. Johnson, Schmitt C.A. (1992)** Mortality Study of 1.3 Million Persons. Bethesda, Md: National Institutes of Health publication 92-3297.

**Rowlingson, K. (2011)** Does income inequality cause health and social problems? Independent review in the impact of inequality. September 2011

**RSA. (1994)** White Paper on Reconstruction and Development Programme - 1994. Government of the Republic of South Africa

- RSA (1996)** The Constitution of the Republic of South Africa No. 108 of 1996
- Salardi, P. (2005)** How much of Brazilian Inequality can we explain? An attempt of income differentials decomposition using the PNAD 2002. December 2005
- Saunders, P. (2010)** *Beware False Prophets: Equality, the Good Society and The Spirit Level*. London: Policy Exchange
- Seekings J., N. Nattrass and M. Leibbrandt (2004)** The Post-Apartheid Distributional Regime. CSSR Working Paper no.76 Centre for Social Science Research, University of Cape Town
- Seekings, J and Nicoli Nattrass (2005)** Race, Class and Inequality in South Africa (New Haven: Yale University Press).
- Seekings, J. (2007)** Poverty and Inequality after Apartheid. Paper prepared for the second 'After Apartheid Conference', Yale, 27-28 April 2007
- Sen, A. (1993)** The economics of life and death. *Scientific America*. May 1993
- Shams, K. (2012)** Income inequality in rural Pakistan: Sources and decompositions. Munich Personal RePEc Archive <http://mpra.ub.uni-muenchem.de/39318> accessed 04/09/2012
- Shorrocks, A. (1984):** Inequality Decomposition by Population Subgroups. *Econometrica*, vol. 52, 1369-1385.
- Snowdon, C. (2010)** *The Spirit Level Delusion: Fact-Checking the Left's New Theory of Everything*, by Chris Snowdon, is published by Democracy Institute/Little Dice
- Tregenna, F. (2011)** Halving poverty in South Africa: Growth and distribution aspects. Distribution implications of halving poverty in South Africa. Working Paper No 2011/60 UN-WIDER
- Tregenna, F. & M. Tsela (2012)** Inequality in South Africa: The distribution of income, expenditure and earnings. *Development Southern Africa*, 29:1, 35-61
- Triegaardt, J.D. (2006)** Poverty and inequality in South Africa: Policy considerations in an emerging democracy. Paper presented at the annual Association of South African Social Work Education Institutions (ASASWEI), September 2006.
- UNRISD, (2010)** Combating Poverty and inequality: Structural change, social policy and politics. United Nations Research Institute for Social Development, Geneva Switzerland.
- Van der berg S. (2010)** Current poverty and income distribution in the context of South African history. Stellenbosch Economic Working Papers: 22/10 October 2010
- Van Der Berg, S. (2010)** Current poverty and income distribution in the context of South African history Stellenbosch Economic Working Papers: 22/10 October 2010

**Van der berg, S. and M. Louw (2003)** Changing patterns of South African income distribution: towards time series estimates of distribution and poverty

**Wedderburn, D. (Ed) (1974)** Poverty, Inequality and Class Struggle. Cambridge University Press

**Wedderburn, D (Ed) (1974)** Poverty, Inequality and Class Struggle. Cambridge University Press

**Wilkinson, R.G.** (1996). Unhealthy Societies. The Afflictions of Inequality. London, England: Routledge

**Wilkinson, R. and Pickett, K. (2010)** *The Spirit Level: Why Equality Is Better For Everyone*. London: Penguin

**Wodon, Q. and S. Yitzhaki (2002)** "Inequality and Social Welfare" A Sourcebook for Poverty Reduction Strategies (Chapter 2), World Bank.

**Wodon, Q. and S. Yitzhaki (2002)** "Inequality and Social Welfare" A Sourcebook for Poverty Reduction Strategies (Chapter 2), World Bank.

**Woolard, I. (2002).** An overview of poverty and inequality in South Africa. Working paper prepared for DFID (SA), July 2002

**Woolard, I, M. Leibbrandt, and H. McEwen (2009)** The persistence of high income inequality in South Africa: Some recent evidence: in Hofmeyr, J. (ed.) (2009) Recession and recovery. Institute for Justice and Reconciliation (IJR) Cape Town

**World Bank, (2012)** Inequality in Focus Volume No. 1

**Yu, D. (2010)** Poverty and inequality trends in South Africa using different survey data Stellenbosch Economic Working Papers: 04/10