

32. The spatial patterning of exposure to inequality and its social consequences in South Africa: work in progress

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The author has developed a neighbourhood measure of exposure to socio-economic inequality in South Africa and argues that it better reflects people's actual lived experience of inequality than a national-level Gini coefficient. He explores associations between exposure to inequality, social attitudes and violent crime.

I would argue that economic measures of income inequality do not capture enough of the dynamic relationship between inequality and other social problems such as crime. I therefore propose a measure on another scale – the lived experience of inequality at a detailed, neighbourhood level. Getting the scale of measurements right is more than an academic exercise. Crime is costly, and inequality, poverty and unemployment obstruct development (NPC, 2014). The inequalities between people, between places and between people-in-places, are increasingly regarded as major drivers of social problems, such as violent crime and social unrest in urban areas (Bundy, 2014).

Inequality in South Africa

South Africa has undergone a remarkable political transformation since the birth of democracy in 1994. Successive African National Congress (ANC)-led governments have tried to remedy the harmful disadvantage and injustice inherited from the colonial, segregationist and apartheid eras. During the very first year of democracy, the government acknowledged that economic and social transformation had to accompany political freedom if the country was to prosper. A broad range of programmes aimed at removing disadvantages and injustices has been implemented (Bundy, 2014). At a national level, absolute levels of poverty and deprivation have fallen slightly over the past two decades (Leibbrandt et al., 2010; Noble et Wright, 2013) with some evidence that this is due at least in part to government intervention (Harrison and Todes, 2015).

But despite these advances, there are still extremely high levels of social and economic inequality in South Africa. In terms of income inequality, South Africa's 2008 Gini coefficient of 0.7 was one of the highest in the world (Leibbrandt et al., 2010). Furthermore, the country's inequality shows strong and continuing racial and spatial components (Noble and Wright, 2013a). The minority white population still enjoys higher living standards than non-white population groups (Wright, 2008). Urban and suburban residents generally enjoy greater economic opportunities and better services than people in townships (specified urban areas where non-white people were permitted to live during the apartheid regime) and in rural areas (Noble and Wright, 2013b; Turok and Borel-Saladin, 2014). In this respect, there has been very little change over the past twenty years.

Measuring the lived experience of inequality in South Africa

Despite discussions of inequality by the government, in academia and in society at large, evidence of intervention and transformation has remained quite limited. To date, most quantitative research on inequality in South Africa has utilized the classical measures of income inequality, for example, the Gini coefficient, General Entropy measures and the Atkinson Index, expressed at the national or occasionally provincial level. Although these measures are powerful tools for measuring change in inequality in South Africa over time, or for international comparisons, they say little about people's day-to-day lived experience of inequality and how it influences them.

My colleagues and I propose that in order to understand how inequality affects people's lives, how it contributes to and interacts with social problems, and general attitudes towards it, we also need to understand how people actually experience it.

I would argue that an individual's experience of inequality is mainly shaped by two interrelated factors: the degree to which an individual routinely comes into personal contact with people from the other end of the socio-economic spectrum (for instance, a poor person from a poor neighbourhood working or seeking work in a wealthy setting and who encounters wealthy people daily); and the degree to which an individual sees severe visual signs of inequality which do not involve direct personal contact (for instance, a wealthy person driving along a highway who notices very poor informal settlements, but does not come into personal contact with their inhabitants).

People from across the entire income spectrum can experience inequality in these ways, by personal contact or by observing the visual signs of inequality. Although this is my main focus here, I also acknowledge that inequality may be experienced in other, less tangible ways, such as via the media.

I would argue that the geographical settings in which people live, work, socialize, travel and so on will contribute to their first-hand experience of inequality. In my team's research, we propose that the experience of inequality is dependent on the neighbourhood in which a person lives and the spatial interrelationships between the home neighbourhood and other nearby neighbourhoods in which daily activities are carried out.

To date, we have used our measure in two separate but complementary pieces of research. The first involved exploring the relationship between the experience of inequality and attitudes to inequality in South Africa.¹ The second involved exploring the associations between the rates of violent crime and the levels of poverty and exposure to inequality across South Africa.² In the latter study, we developed a number of statistical models to explore whether the rates of violent crime at the police district level were associated with a range of social, demographic and economic variables, including exposure to inequality.³

Findings

In general, we found that the poor population's exposure to inequality is highest when a poor person lives within, or close to, a wealthy neighbourhood. Similarly, exposure to inequality is usually lowest when a poor person lives in a poor neighbourhood surrounded by many other poor neighbourhoods.

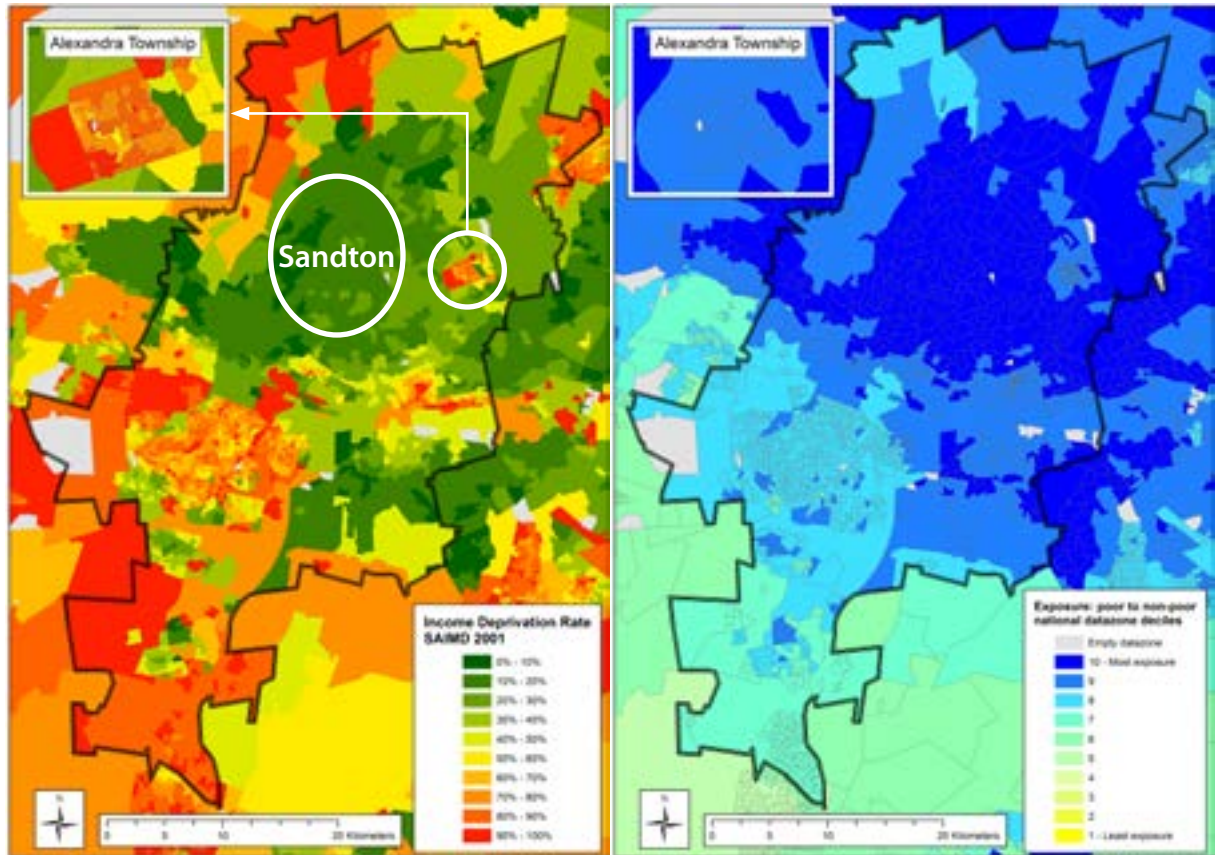
It is immediately obvious from *Figure 32.1a* that a mix of neighbourhood poverty rates, with some areas of concentrated poverty (as are found in the Alexandra township) very close to wealthy areas (such as Sandton), are characteristic of Johannesburg.

A poor person living within the largely affluent areas of Sandton experiences some of the highest levels of exposure to inequality in the country. However, residents of the Alexandra Township, which has very high levels of poverty, also experience very high levels of exposure, as shown in *Figure 32.1a*. These high levels of exposure are mainly due to the township being very close to wealthy Sandton.

In contrast, the former homeland areas are typically rural, and remote from major urban centres. While the vast majority of their inhabitants are extremely poor, they experience less exposure to inequality. However, important differences in exposure are also apparent within specific municipalities, depending on the neighbourhood in which people live and carry out their daily activities. Our neighbourhood-level measure of exposure to inequality is therefore more geographically refined than most other measures of inequality in use in South Africa.

In both studies, we found evidence of associations between exposure to inequality and specific dependent variables, such as violent crime and attitudes to inequality. However, the size of the effect, although significant, was typically quite small. This may be because of the limitations of the dependent variables, such as the under-reporting and under-recording of violent crime. Two main concerns for future research in this field are to test for associations between exposure to inequality and other social outcomes, such as fear of crime (using victimization surveys), in South Africa and internationally; and to develop time series of exposure measures on consistent spatial scales to allow us to assess the impact that changing socio-spatial dynamics have on the dependent variables of interest.

Figure 32.1a Neighbourhood poverty rates across Johannesburg and surrounding areas, 2001 (left);
Figure 32.1b Neighbourhood 'exposure to inequality' scores across Johannesburg and surrounding areas, 2001 (right)



a) Dark green: less than 10 per cent of the population was considered poor in 2001;

b) Dark blue: highest exposure decile to inequality in 2001.

Sources: Author's elaboration of data supplied by Statistics South Africa and the Chief Directorate of Surveys and Mapping; and derived from the South African Index of Multiple Deprivation (SAIMD) 2001.

In summary, the spatially refined consideration of inequality described here offers a potentially useful way to identify neighbourhood-level associations between inequality and social problems, such as violent crime, and to build a strong evidence base for interventions that will help reduce inequality, poverty, and crime.

Notes

1. For this, we developed an exposure measure, using neighbourhood-level data derived from the South African Index of Multiple Deprivation 2001 (Noble et al, 2009), which was based on the 2001 census data. For the method used in developing this index see McLennan et al (2015). DOI: 10.1080/03736245.2015.1028980.
2. In this second research project, we developed the exposure measure using data from the 2011 South African Index of Multiple Deprivation (Noble et al., 2013a), which was based on 2011 census data.
3. For a project aimed at disaggregating relevant variables, see Pare and Felson (2014).

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