

Southern Africa Labour and Development Research Unit

Towards measuring social cohesion in South Africa

by
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and
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N.i.D.S.
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NIDS Discussion Paper
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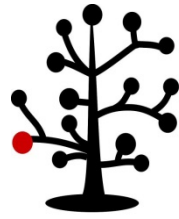
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Abstract

This paper uses data collected across the four waves of the National Income Dynamics Study (NIDS) to construct a measure of social cohesion for South Africa. We compare our index to one derived using the Afrobarometer data and find a large degree of consistency in trends in the index and its constituent components over time across the two datasets. However, there is less consistency in the measures once one moves to lower levels of geographic disaggregation. We also find far less variability in the constructed index relying on NIDS panel data as opposed to the repeated cross-sections from Afrobarometer. Having derived the index, we then correlate it with a variety of indicators of social and economic well-being. We show that higher levels of education, per capita income and employment are positively associated with higher social cohesion while social cohesion is negatively associated with poverty, service delivery protest and perceptions of crime. In addition, municipal policy and competence are closely associated with higher social cohesion. While this work is exploratory, it is encouraging, and suggests new opportunities for future research to begin to take seriously the link between social cohesion and economic and social development.

Introduction

Building social cohesion is perhaps one of the most difficult yet fundamental challenges facing South African society. Social cohesion speaks to the glue that binds us together, forging a common sense of identity and sense of belonging. It speaks to a willingness to extend trust to outsiders, to respect fellow citizens and uphold their dignity, and to be moved to action in the face of persistent inequality on behalf of those who are marginalized. Its very essence is a common humanity as embodied in the notion of Ubuntu. However, while there is a widespread agreement that social cohesion influences economic and social development, and that nurturing a more cohesive society is an important policy goal in itself, little progress has been made in trying to measure it and track progress in this domain over time. In part, this is because there is far less consensus about what constitutes an appropriate definition of social cohesion in a South African context, or about the kinds of policies required to effectively promote a more cohesive South African society. Without definition, it becomes difficult to assess whether social cohesion has improved or worsened. Without definition and measurement, progress cannot be tracked consistently at a national level and key causes and consequences of social cohesion will remain obscured. This makes it difficult to formulate policies that can be expected to materially improve social cohesion and achieve inclusive development most effectively. The explosion of research on the impact of civil and political liberties on economic growth, which only began to flourish once quantifiable indices of these political and civil rights were constructed, amply demonstrates this point.

This paper uses data collected across the four waves of the National Income Dynamics Study (NIDS) to construct a measure of social cohesion based on a method proposed in the literature by Langer et al. (2016). We compare our index to the one developed by Langer et al. (2016) who rely on the Afrobarometer data, although we go further and map social cohesion at the provincial level using both datasets. The goal here is the development of an index that can be regularly updated and tracked at low cost, given the ongoing collection of the panel data that constitutes NIDS. We want to be clear that this exercise is only a first attempt at relying on readily available, large-scale, nationally representative data to construct such an index. In this way, it differs from previous attempts to construct such an index that have relied on smaller-scale studies (such as the once-off HSRC barometer project). Moreover, it is inevitable that issues of definition and debate concerning the appropriate variables to include in the construction of such an index will arise as a result of this work. We view this as positive and a critical step in advancing a broader research agenda of quantifying and tracking social cohesion over time, and in examining the link between social cohesion and economic welfare more broadly.

What is social cohesion?

Part of the difficulty of measuring social cohesion stems from the considerable number of definitions that are operationalized in this respect. For some, social cohesion describes the bonds or relationships that exist between fellow citizens, especially in contexts characterized by ethnic heterogeneity (Taylor, 1996; Schmeets, 2012). For others, it is the quality of these connections between individuals and the groups to which they belong that matters (Marc et al., 2012), since strong affective relationships allow (local) group boundaries to be transcended via consensus as opposed to coercion in the pursuit of social welfare (Green et al., 2009). Common to these definitions of social cohesion is an emphasis on participation and adherence to a (common) super-arching identity.

However, others argue for a definition of social cohesion that both highlights the capacity of a society to pursue its members' welfare while at the same time reducing inequalities and promoting inclusion

amongst diverse groups (Council of Europe, 2007). This is present in the OECD definition of social cohesion, for example, which holds that:

'A cohesive society works towards the well-being of all of its members, minimising disparities and avoiding marginalisation. It entails three major dimensions: fostering cohesion by building networks of relationships, trust and identity between different groups; fighting discrimination, exclusion and excessive inequalities; and enabling upward social mobility' (OECD, 2011)

In South Africa, discussions of social cohesion tend to reflect these same ideas. Struwig et al. (2012:1) have identified social cohesion as the process of unifying South Africans across diverse backgrounds to create a common vision to work in the interest of the nation and all individuals therein. Both the President's Fifteen Year Review and the National Planning Commission recognise social cohesion as a key constituent of a broader development agenda for the country, an objective to be pursued in its own right, defining it as a "common attachment to the ethical principles of the constitution" (Chipkin and Ngqulunga; 2008:64). The Department of Social Development's White Paper on families identifies social cohesion as 'a process of building shared values and communities of interpretation, reducing disparities in wealth and income, and generally enabling people to have a sense that they are engaged in a common enterprise, facing shared challenges, and that they are members of the same community.' (Department of Social Development, 2012: 4). Such mutual trust in the face of diversity is only possible when citizens have a shared identity to bind them together.

We do not intend to resolve the definition question in this paper definitively. For the purpose of this paper, we adopt the approach of Langer et al. (2016) who, after a substantial review of the literature, propose a working definition that tries to reflect the importance of equality and social inclusion as central to social cohesion (processes typically managed by the State) as well as the importance of affective bonds and interpersonal trust between individuals with diverse identities. Simply put, for Langer et al. (2016), any measure of social cohesion must comprise the elements of trust (both interpersonal and institutional), identity (adherence to national identity in relation to their group (or ethnic) identity), and perceptions of relative inequality. This seems to us an acceptable starting point for our analysis, and is a definition that resonates with much of the South African literature.

Constructing a measure of social cohesion

We use all four waves of the NIDS data to construct a measure of social cohesion, based on the approach adopted by Langer et al. (2016). NIDS is a nationally representative panel dataset of South Africa that collects data every two years. In its fourth wave, it contains 43 231 observations at the individual level. Of these, 27 677 observations were adults (age 15 and above) and these are the only respondents who completed the social cohesion module.

For purposes of calibration and comparison, we repeat the exercise using the Afrobarometer data. This allows us to assess how well a measure of social cohesion based on the NIDS data compares to the one constructed by Langer et al. (2016), which is important in assessing how robust such an index might be to the use of different datasets. The Afrobarometer is a series of public opinion surveys that gather information on perceptions of democracy, governance, markets and civil society. The surveys are run in a number of African countries; the initial round, in 1999, comprised 12 countries while Round 5, the most recent round for which results are available, was conducted between 2011 and 2013 and included 34 countries. For the purposes of this paper, we focus on the three most recent rounds; Round 5 (2011-2013), Round 4 (2008) and Round 3 (2005-2006), and we focus exclusively on

South Africa. Using both datasets, we construct and map a measure of social cohesion both at the national and the provincial level. The weights appropriate for each dataset are applied.

Reconciling datasets

One of the difficulties with this exercise is that the questions used in Afrobarometer do not necessarily match those asked in NIDS. Consequently, we select questions from NIDS that are as similar as possible to the Afrobarometer questions used by Langer et al. (2016), or that reflect something to do with the three pillars of trust, inequality and identity. The tables below provide a comparison of the questions used from the Afrobarometer data, and those used from NIDS, and we discuss each pillar in turn.

There are a few key differences. Table 1 provides the questions used to construct a measure of perceived inequality. There is some overlap in the questions from the two different surveys, although NIDS does not ask any questions about perceived unfair treatment of an ethnic group by the State. For our purposes, we measure perceived inequality by using the NIDS data from the ladder question which asks the respondent to position themselves on a six rung ladder of relative income at different points in time (past, present and future). If one characterizes rungs 3 and 4 as being the midpoint, that is, about the same position as the average South African, then rungs one and two represent a position of perceived relative income disadvantage, while rungs five and six represent a position of perceived relative advantage. We code all individuals who report themselves to be on rung 3 or 4 as a value of 1, and all others (relative advantage and disadvantage) as zero. In other words, this variable reflects individuals who do not perceive themselves as significantly different than the mean or median citizen, at least in income terms.

We also construct a measure of optimism using this ladder question. Any individual who currently perceives themselves to be income disadvantaged but who expects to climb the income ladder in the next 5 years is coded as optimistic or hopeful about future income prospects. We also include all individuals who currently report themselves as enjoying a relative income advantage and who do not anticipate any deterioration in their income position in the next 5 years as optimistic.

Finally, respondents were also asked to classify their household's income position relative to other households in their village/suburb. Again, all individuals who reported their household to be average are coded as one (no perceived difference) while all others are coded as zero. This latter measure is very similar to a measure used by Langer et al. (2016).

Table 1: Comparison of survey questions in Afrobarometer vs NIDS used to construct measure of Perceived Inequality

Afrobarometer			NIDS		
Perceived Inequality					
Question	Answers	Coding for index	Question	Answers	Coding for index
How do you rate your living conditions vs others?	1 = much worse 2 = worse 3 = same 4 = better 5 = much better	Proportion of respondents who answered "same"	Please imagine a six step ladder where the poorest people in South Africa stand on the bottom (the first step) and the richest people in South Africa stand on the highest step (the sixth step). On which step are you today and on which step do you expect to be 5 years from now?	6 = Richest 5 4 3 2 1 = Poorest	Proportion of respondents who answered three or four
How often is your ethnic group treated unfairly by the government?	0 = never 1 = sometimes 2 = often 3 = always	Proportion of respondents who answered "never"	How would you classify your household in terms of income, compared with other households in your village/suburb?	1 = Much Above Average 2 = Above Average 3 = Average 4 = Below Average 5 = Much Below Average	Proportion of respondents who answered "Average"
			Optimism/Hope (constructed from ladder question)	Compares current rung on ladder to expected position in 5 years' time	Proportion of respondents currently below average who expect improved position and respondents above average who expect no deterioration in their position.

There are large differences in our approach in the identity domain. Table 2 provides a comparison of the questions available in Afrobarometer to those we used from NIDS. While Afrobarometer asks directly about an individual's local identity relative to their national/South African identity, these kinds of questions are absent in NIDS. Thus, we adopt a measure of identity that proxies for an individual's sense of belonging or rootedness in their community and combine it with a reflection of their overall life satisfaction (or subjective well-being). Simply put, identity is reconceptualised to "belonging". Respondents were asked to characterize how strong their preference was to continue living in their current neighbourhood. Individuals who report a strong or moderate preference to stay are coded as 1, while those who are neutral or express a desire to leave are coded as zero. We combine this with a measure of life satisfaction. Individuals were asked to report their life satisfaction using a 10-point scale. All individuals who reported a satisfaction level of 5 or above, (above average satisfaction) are coded as 1, while those expressing below average satisfaction are coded as zero. Our approach here represents a significant conceptual departure from Langer et al. (2016) and is due to data limitations. The extension of preference to stay in a neighbourhood to a measure of preference to stay in the broader community or even the country is tenuous. Neighbourhood attributes, particularly in South Africa's socio-economically and racially segregated spatial patterns, does little to convince one of the connection to the broader societal level feelings of belonging. However, we contend that an individual who feels marginalized or excluded within their neighbourhood due to their local identity should be more likely to express a desire to leave their neighbourhood and report lower levels of life satisfaction.

Table 2: Comparison of survey questions in Afrobarometer vs NIDS used to construct measure of Identity/Belonging

Afrobarometer			NIDS		
Identity					
Question	Answers	Coding for index	Question	Answers	Coding for index
If you had to choose between being a South African and being a (<i>ethnic group</i>), which of the following best expresses your feelings?	1 = I feel only (ethnic group)	Proportion of respondents who either feel "more South African than ethnic group" or "only South African" (responses 4 and 5)	Think about the area (village or suburb) in which you live. How strong is your preference to continue living in this area?	1 = Strong Preference to Stay	Proportion of respondents who answered "Strong Preference to Stay" or "Moderate Preference to Stay"
	2 = I feel more (ethnic group) than South African			2 = Moderate Preference to Stay	
	3 = I feel equally (ethnic group) and South African			3 = Unsure	
	4 = I feel more South African than (ethnic group)			4 = Moderate Preference to Leave	
	5 = I feel only South African			5 = Strong Preference to Leave	
			Using a scale of 1 to 10 where 1 means "Very dissatisfied" and 10 means "Very satisfied", how do you feel about your life as a whole right now?	10 = Very Satisfied 9 8 7 ... 4 3 2 1 = Very Dissatisfied	Proportion of respondents who answered five to ten

Finally, in the domain of trust, NIDS does not include any questions relating to institutional trust but does ask individuals to report their trust in community members and strangers respectively to return a lost wallet. These questions are similar to the Afrobarometer questions about trust in relatives, neighbours and strangers. Here, individuals who report it likely that a lost wallet would be returned are coded as 1, while those who report lower levels of trust (unlikely that wallet will be returned) are coded as zero.

Table 3: Comparison of survey questions in Afrobarometer vs NIDS used to construct measure of Trust

Afrobarometer			NIDS		
Trust					
Question	Answers	Coding for index	Question	Answers	Coding for index
How much do you trust the President?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"			
How much do you trust parliament?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"			
How much do you trust the police?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"			
How much do you trust courts of law?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"			
How much do you trust your relatives?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"	Imagine you lost a wallet or purse that contained R200 and it was found by a complete stranger. Is it very likely, somewhat likely or not likely at all to be returned with the money in it?	1 = Very Likely 2 = Somewhat Likely 3 = Not Likely	Proportion of respondents who answered "Very Likely" or "Somewhat Likely"
How much do you trust your neighbours?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"	Imagine you lost a wallet or purse that contained R200 and it was found by someone who lives close by. Is it very likely, somewhat likely or not likely at all to be returned with the money in it?	1 = Very Likely 2 = Somewhat Likely 3 = Not Likely	Proportion of respondents who answered "Very Likely" or "Somewhat Likely"
How much do you trust other people you know?	0 = not at all 1 = just a little 2 = somewhat 3 = a lot	Proportion of respondents who answered "a lot"			

Putting it all together

The final social cohesion index (SCI) is weighted equally between the three pillars – inequality, trust and identity. The inequality measure is calculated by averaging the responses of interest across the relevant inequality questions. For example, using the Afrobarometer questions as an example, if 35.31% of respondents answered “3” to the living conditions question and 58.13% of respondents felt their ethnic group was never treated unfairly by the government, the average of 46.72% becomes our perceived inequality measure for the index. More specifically, the perceived inequality index actually reflects the proportion of individuals who do not perceive themselves to suffer any inequality relative to others, so it may in fact, be more appropriate to call it a measure of perceived equality of outcomes.

The trust component is calculated in a similar fashion – we obtain an average response for each trust question (since all are coded as 1/0), and then we calculate the average across the different trust measures to obtain the trust component for the index. In the Afrobarometer case, this ensures that institutional and interpersonal trust are equally weighted in the trust measure. In the case of NIDS, this means that the trust indicator reflects the weighted average of the belief that a lost wallet would likely be returned either by a stranger or someone living in one’s own community. Again, this indicator has a positive interpretation – higher values indicate higher trust.

Finally, in the Afrobarometer data, the identity component reflects the fraction of individuals who reported themselves to only feel South African or to feel more South African than any other identity. A larger number of responses in this direction suggests that individuals subscribe to an over-arching national identity which is able to supersede local identities, thereby promoting cohesion across group boundaries. In NIDS, as explained, the identity measure reflects a sense of belonging and life satisfaction. This indicator reflects the average of two variables, namely, the number of individuals who report high life satisfaction and the number of individuals who report a preference to stay in their current neighbourhoods.

Descriptive statistics

Before presenting the index itself, we present descriptive statistics for the key variables that comprise the index for the four waves of NIDS in Table 4 below. Figures 1 and 2 present the same data graphically.

Trust levels are low on average¹. Around a third of respondents report that they think it is likely that a lost wallet would be returned to them if it were found by someone who lived in their community. This lack of trust is fairly consistent across the four waves. Despite these low levels of community trust, over three quarters of citizens report a preference to remain living in their current neighbourhoods, and there is little variation in this measure across the four waves. Unsurprisingly, respondents’ trust that a lost wallet would be returned by a stranger is lower, and again, there is little variation across the waves.

¹ Likert Scale variables (trust, importance of religion, preference to stay etc.) are represented as dummy variables where strong and moderate positive responses are coded as one while neutral and negative responses are coded as zero.

Table 4: Descriptive Statistics of key variables used to construct SCI (NIDS) by wave

	Pooled	Wave	Wave	W2-	Wave	W3-	Wave	W4-
VARIABLES	Mean	1	2	W1	3	W2	4	W3
		Mean	Mean	t	Mean	t	Mean	t
<i>WELLBEING & TRUST</i>								
Life Satisfaction	0.61	0.68	0.56	-21.68	0.55	-1.17	0.66	21.46
Trust community member to return wallet	0.32	0.29	0.36	13.12	0.30	-10.48	0.34	7.13
Trust Stanger to return wallet	0.18	0.14	0.19	13.21	0.20	1.59	0.19	-2.09
Happier Than 10 years Ago	0.73	0.65	0.70	6.97	0.74	7.19	0.80	11.87
Happiness Unchanged	0.31	0.32	0.37	8.78	0.31	-11.60	0.25	-14.12
Religion Important	0.10	0.12	0.10	-6.59	0.10	0.81	0.08	-5.51
Prefer to Stay in Neighbourhood	0.76	0.73	0.76	7.11	0.77	0.87	0.78	3.09
<i>PERCEPTIONS OF INEQUALITY</i>								
HH income is same as average in neighbourhood	0.43	0.41	0.41	0.65	0.43	3.95	0.44	1.98
Relative Income Equal Today	0.52	0.48	0.52	6.62	0.52	-0.28	0.54	3.50
Relative Income Equal expected in 5 Years	0.46	0.42	0.42	-0.20	0.53	19.02	0.44	-18.03
Relative Income Advantage	0.13	0.11	0.16	12.67	0.10	-17.60	0.14	12.55
Relative Income Disadvantage	0.44	0.48	0.42	-9.48	0.47	7.97	0.41	-10.25
Relative Income Advantage Today	0.04	0.04	0.04	1.06	0.03	-6.36	0.04	5.60
Relative Income Disadvantage Today	0.45	0.48	0.44	-7.06	0.45	2.62	0.42	-5.56
Relative Income Advantage expected in 5 Years	0.45	0.51	0.43	-12.95	0.37	-10.10	0.49	22.79
Relative income Disadvantage expected in 5 Years	0.09	0.07	0.15	21.70	0.09	-14.12	0.07	-8.25
Optimistic about future income (escape disadv, remain adv)	0.66	0.68	0.64	-6.46	0.63	-1.28	0.69	11.46

Note: t-test reports test of mean difference for successive waves, that is, test of significance for Wave 1 vs Wave 2, Wave 2 vs Wave 3, and Wave 3 vs Wave 4.

There appears to be an upward trend in reported happiness over the four waves, with the number of individuals reporting that they were happier in the present period than ten years ago, increasing from two-thirds in Wave 1 to 80% in wave 4. Interestingly, the same pattern is not evident in terms of reported life satisfaction. While over two-thirds of respondents report above average satisfaction with their lives in Wave 1 and Wave 4 of NIDS, this declines significantly in Waves 2 and 3.

Turning to perceived income inequality, in the pooled sample across all four waves, just over half of all respondents characterised themselves as being on rung 3 or 4 at the time of the interview (52%). This varied from 48% in Wave 1, increasing to 54% by Wave 4. Interestingly, only 4% of respondents classified themselves as being on Rung 5 or 6 (thereby enjoying a relatively advantaged income position) compared to 45% who reported themselves in a position of relative income disadvantage. However, two thirds of citizens exhibit optimism about their income status over a 5-year horizon, and this is fairly consistent across the 4 waves. Finally, just over 40% of respondents reported their household income to be about the same as other households in their neighbourhood (Income equal), and again, this remains fairly consistent over time.

Figure 1: Well-being and trust by wave (NIDS)

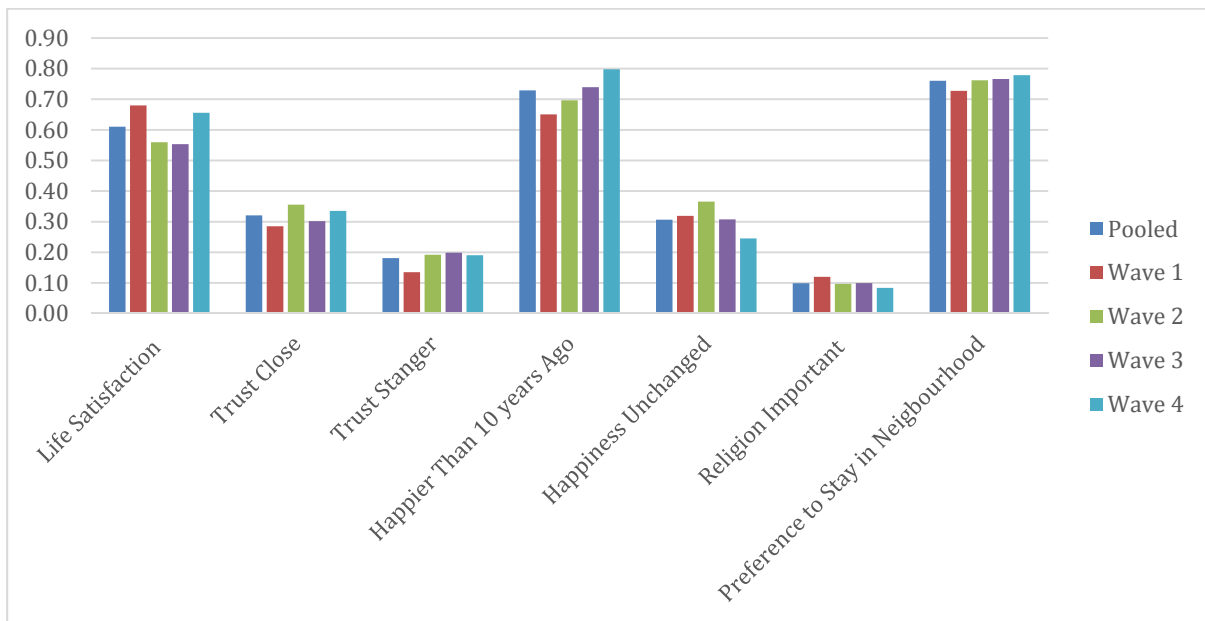
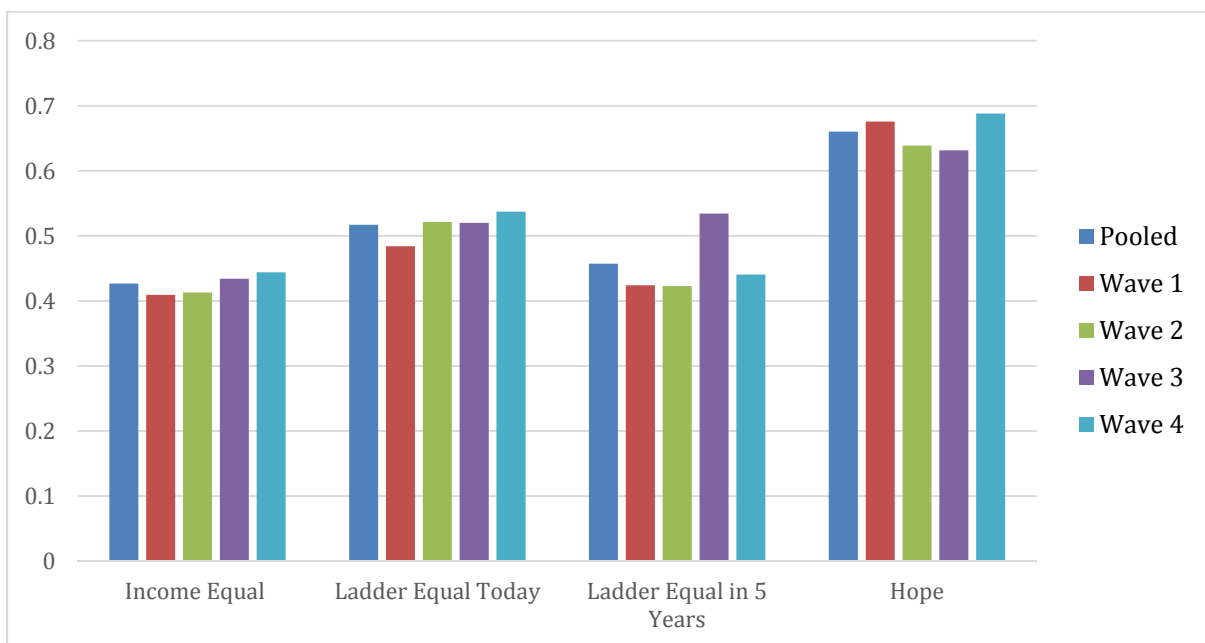


Figure 2: Perceived inequality by wave (NIDS)



For the purpose of comparison, we present a brief overview of the relevant variables from Afrobarometer. The means over Rounds 3-5 of the survey are presented in Table 5 below, and graphically in Figure 3 below. The two inequality measures (living conditions and unfair treatment) indicate a worsening for Round 4 but then an improvement for Round 5. The change in the living conditions variable appears small while the change in perceived treatment of ethnic group is dramatic – in Round 4, individuals clearly felt that their own ethnic group was treated unfairly by the government, while this improved significantly in Round 5.² The identity measure shows a similar trend, decreasing from Round 3 to Round 4 but then improving in Round 5. In contrast, the trust measures display a clear reduction in the level of trust felt by South Africans from Round 3 to Round 5. This pattern is consistent for both institutional and interpersonal trust, although more marked for the former³.

Table 5: Descriptive statistics of key variables from Afrobarometer, by round

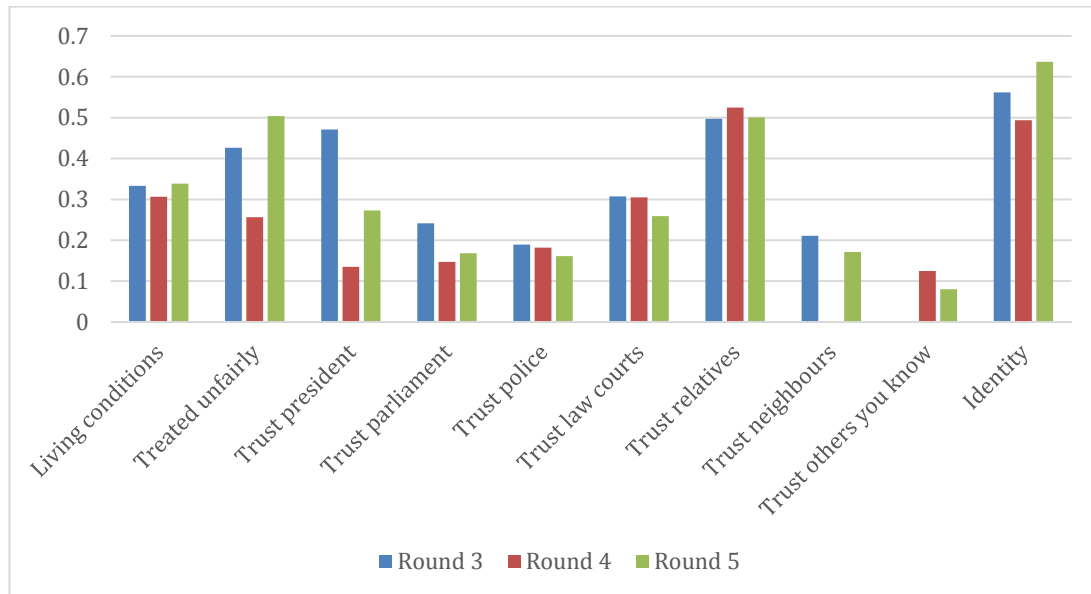
Variable	Round 3	Round 4	Round 5
Living conditions average	0,33	0,31	0,34
Ethnic group not treated unfairly	0,43	0,26	0,50
Trust president	0,47	0,13	0,27
Trust parliament	0,24	0,15	0,17
Trust police	0,19	0,18	0,16
Trust law courts	0,31	0,30	0,26
Trust relatives	0,50	0,52	0,50
Trust neighbours	0,21		0,17
Trust people from own ethnic group	0,18		
Trust people from other ethnic groups	0,88		
Trust others you know		0,12	0,08
Trust other South Africans		0,07	
South African identity most important	0,56	0,49	0,64

Note: The variables reported here are coded as described in Tables 1-3

² Remember that this variable captures the proportion of respondents who answered “never” to how often they are treated unfairly – hence, an increase in the proportion who answered “never” is a positive result, not an indication of more unfair treatment.

³ In Afrobarometer, the majority of the questions remain the same over the three rounds, although the interpersonal trust questions differ slightly. Specifically, in Round 4 the interpersonal trust questions are “How much do you trust your relatives”, “How much do you trust other people you know” and “How much do you trust other South Africans”. In Round 3 these questions are “How much do you trust your relatives”, “How much do you trust your neighbours”, “How much do you trust people from your own ethnic group” and “How much do you trust people from other ethnic groups”. We assume that the combined questions in each round yield a measure of interpersonal trust. As such, we average the answers over the three or four questions in each round to attain a measure for interpersonal trust.

Figure 3: Variables used to construct SCI based on Afrobarometer data by round.



Note: The variables reported here are coded as described in Tables 1-3. The bars thus represent the fraction of individuals who report that they trust an individual/institution, who perceive no relative inequality between themselves and others, and who report a South African identity to be most important to them.

Variations in trust, identity and perceived inequality by province

Using the responses to the questions detailed above, we are able to examine variations in the constituent parts of the index both nationally and by province over time. As described earlier, the final social cohesion index (SCI) is weighted equally between the three pillars – inequality, trust and identity.

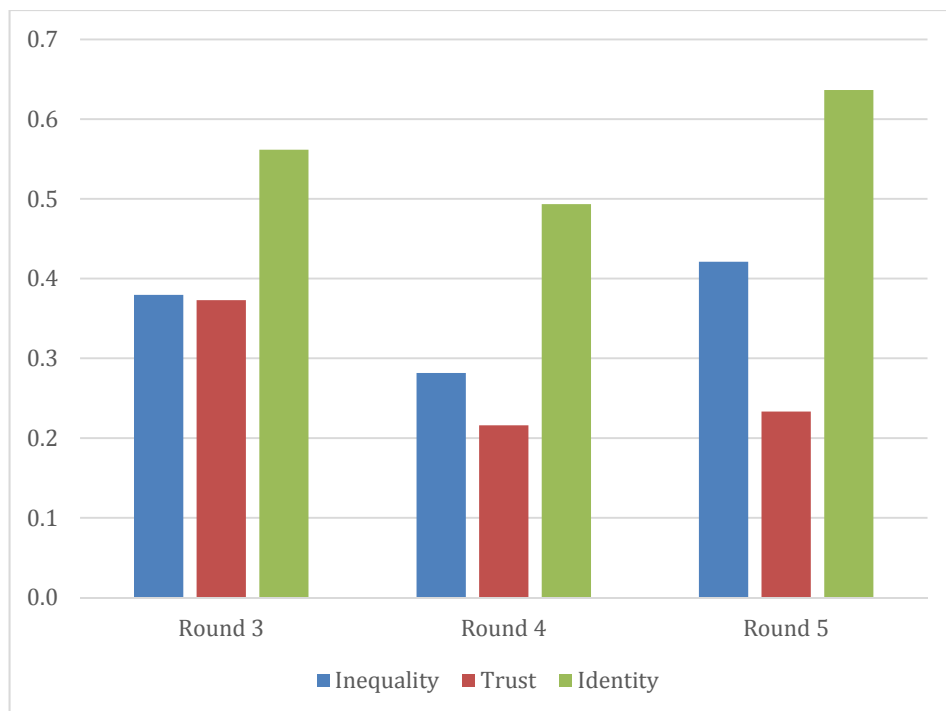
Of interest to us is the fact that while there is some variation in the questions asked in NIDS compared to Afrobarometer across these three domains, the magnitude of the responses and trends are often in the same direction. Figures 4 and 5 below present the indicators (based on the weighted average responses to the variables described above) for perceived inequality, trust and identity at a national level for both datasets. The data underlying these figures can be found in the Appendix, Tables A1 and A2.

There is a good deal of consistency in the constituent components, despite underlying differences in variables used to construct the measures. Note that if one averages the responses to the questions on interpersonal trust from the Afrobarometer (trust in relatives, neighbours, and others you know), the mean response is very similar to that obtained in the NIDS question concerning the likelihood of a lost wallet being returned by an individual living in your own community. Similarly, between 55 and 66% of Afrobarometer respondents indicate a strong identification with a national as opposed to local identity, while in NIDS, three quarters of respondents indicate a desire to remain rooted in their current neighbourhoods and the majority report fairly high levels of life satisfaction. And finally, in terms of perceptions of economic inequality, the averaged responses of the questions in Afrobarometer are close to the relative income measures obtained from using the ladder question in NIDS.

Figure 4: NIDS: Variations in perceived inequality, trust and belonging by wave



Figure 5: Afrobarometer: Variations in perceived inequality, trust and belonging by round



Moreover, the trends in the components over time appear to be in the same direction. In both datasets, there is an increase in the fraction of individuals who do not perceive themselves to be different from the average citizen in relative income terms, as well as an increase in a sense of national identity or belonging. Conversely, there has been a decline in reported trust over time and this is evident in both datasets. In the Appendix, we provide provincial level breakdowns for these three pillars (Tables A1 and A2) as well as a graphical summary (Figures A1-A6).

Before moving on to discuss the final index, we first turn our attention to the determinants of the individual components of the key indicator variables that make up the index. This is important since if it can be established that particular socio-demographic and economic variables positively predict the key indicators, this may provide some useful policy insights.

Determinants of key indicators that constitute social cohesion

Table 6 reports the results from OLS regressions which explore whether there are any significant socio-demographic predictors of individual perceptions of trust, belonging and perceived equality. We only report regressions results for NIDS in this section and the data are pooled across all four waves of NIDS. Importantly, these regressions examine the predictors of an individual response in any given social cohesion indicator domain, that is, what predicts the likelihood that an individual is trusting, perceives no income inequality in their position relative to the average South African, and feels a sense of rootedness and life satisfaction in their existing community.

As one might expect, there is considerable provincial and time variation in all three measures. For example, respondents are significantly more likely to report that a stolen wallet would be returned in subsequent waves of NIDS compared to the baseline in 2008. Interestingly, the largest of these positive time trends in reported trust is in wave 2 (2010) which is the same year South Africa hosted the FIFA World Cup. Individual perceptions of income equality increase over time while the sense of belonging appears to fall in Waves 2 and 3, before improving again in Wave 4.

Educational attainment is a significant determinant of all three index components, albeit the economic effects are small given the size of the coefficients⁴. This accords with a broader literature that suggests that one of the values of education, other than knowledge transfer, is its role in promoting shared values and social cohesion (Barr, 2004). To the extent that education positively predicts the individual components of social cohesion, we would expect it to be positively associated with any social cohesion index derived therefrom.

Employed individuals are significantly more likely to feel a sense of belonging and relative income equality, but interestingly, employment status has no significant effect on trust. Younger individuals are significantly less likely to feel a sense of belonging in or commitment to remaining in their current neighbourhoods, and are also significantly less likely to perceive their income position as being similar to others. The economic magnitude of these effects are small though, but the qualitative finding resonates with work published in the most recent *Child Gauge (2015)*.

⁴ The coefficients represent the effect of an additional year of education on the mean score for each indicator for an individual.

Table 6: OLS regression of determinants of individual trust, perceived equality and sense of belonging

VARIABLES	(1) Trust	(2) Perceived equality	(3) Sense of belonging
Individual is female	-0.144 (0.491)	0.975* (0.538)	1.530*** (0.439)
Years of education	0.532*** (0.080)	2.214*** (0.088)	0.567*** (0.069)
Individual is employed	-0.841 (0.548)	7.138*** (0.603)	3.165*** (0.518)
Age	0.069 (0.076)	-0.723*** (0.078)	-0.336*** (0.064)
Age squared	0.000 (0.001)	0.009*** (0.001)	0.006*** (0.001)
Individual is Black	-0.985 (2.032)	-23.794*** (2.135)	-18.069*** (1.671)
Individual is White	3.986 (2.467)	-8.199*** (2.504)	-0.258 (1.927)
Individual is Coloured	-8.706*** (2.295)	-15.213*** (2.389)	-7.202*** (1.884)
Western Cape	-2.549** (1.240)	-1.299 (1.205)	-0.187 (0.979)
Eastern Cape	-11.009*** (0.828)	-4.520*** (0.916)	0.710 (0.765)
Northern Cape	-6.140*** (1.091)	-5.153*** (1.215)	1.291 (1.004)
Free State	-1.211 (1.184)	7.181*** (1.085)	3.716*** (0.917)
KZN	-4.529*** (0.824)	-6.719*** (0.866)	-3.696*** (0.711)
North West	-4.285*** (1.191)	-1.842* (1.017)	2.714*** (0.951)
Gauteng	-6.718*** (0.865)	3.272*** (0.963)	-2.092** (0.833)
Mpumalanga	3.423*** (1.021)	-2.498** (0.978)	-1.946** (0.837)
Wave 2	7.177*** (0.668)	1.627** (0.702)	-3.407*** (0.573)
Wave 3	4.782*** (0.672)	1.218* (0.644)	-3.843*** (0.579)
Wave 4	5.834*** (0.658)	2.294*** (0.623)	1.581*** (0.564)
Constant	18.385*** (2.774)	62.302*** (2.843)	80.808*** (2.324)
Observations	67,680	62,326	71,265
R-squared	0.027	0.117	0.072

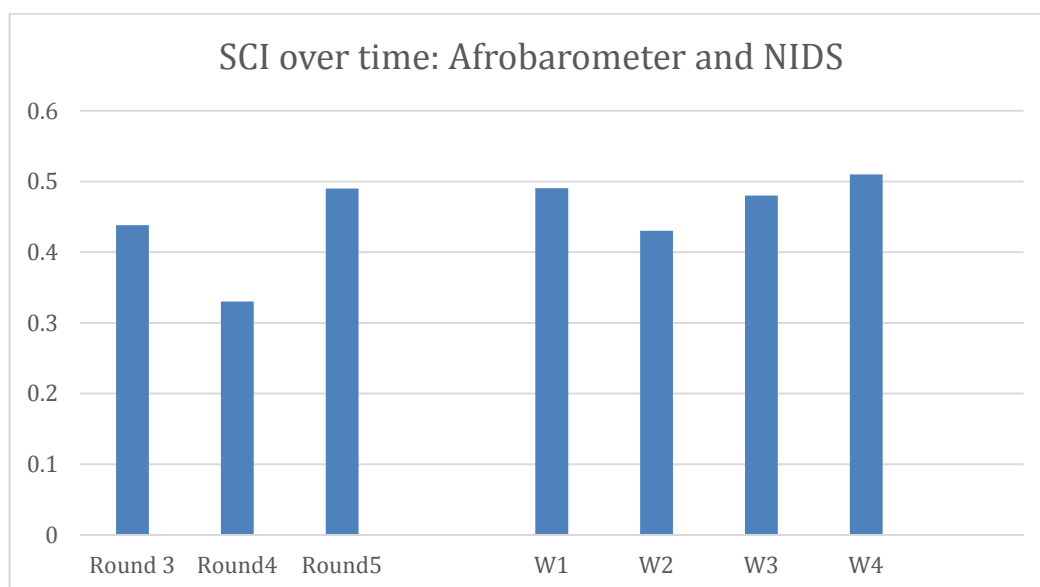
Robust standard errors in parentheses; *** p<0.01, ** p<0.05, *p<0.1

Social cohesion in South Africa

As already noted, the social cohesion index is weighted equally between the three constituent components – inequality, trust and identity. Given the way we have constructed our components, higher values of the SCI indicate higher levels of cohesion, that is, higher trust, less perception of relative economic inequality, and stronger sense of national identity or commitment to community and higher life satisfaction.

Figure 6 below presents a graphical comparison of a national social cohesion index over time, based on Afrobarometer data as well as NIDS data (see Appendix Tables A1 and A2 for data). Again, there is a good deal of consistency in the two indices, with both reflecting an upward trend in more recent waves of data. At the same time, however, the graphs make clear that differences in the variables used to construct the index can have a substantial effect on the index (as might differences in sampling frames). Consider that Round 4 of Afrobarometer was conducted in 2008, the same year as Wave 1 of NIDS. The respective indices for these two datasets are quite different, with an SCI of 0, 33 based on Afrobarometer data compared to an SCI of 0, 49 using NIDS. While we are encouraged that the data trends move in the same direction despite these definitional differences, these size differences do again point to the need for robust engagement and debate over the measurement and definition of social cohesion, and for a concerted effort to include appropriate questions in the relevant datasets.

Figure 6: SCI over time: Afrobarometer and NIDS



An important objective in our work programme on social cohesion is to produce social cohesion indices for the lowest possible level of geographic disaggregation, since it is at the community/neighbourhood level that social cohesion really matters, and can impact on service delivery and development opportunities. In both NIDS and Afrobarometer, the lowest level of disaggregation we use in order to maintain representative samples is at the provincial level. Tables A1 and A2 in the appendix provide provincial level social cohesion indices over time for both datasets. There is far less variation in the SCI based on NIDS data than that created using the Afrobarometer data. In part, this may reflect the fact that NIDS is a panel survey which tracks the same individuals over time, while Afrobarometer is a series of repeated cross-sections. Since one would expect a fair

degree of consistency within an individual in their responses over time, the lower levels of variation in NIDS are to be expected.

However, the relative rankings of provinces in terms of their levels of social cohesion does not match all that well across the two datasets. In table 7 below, we present estimates of social cohesion by province using the Round 4 data from Afrobarometer and Wave 1 data collected from NIDS. We choose these two years since for both, the data was collected in 2008. Our objective here is to assess how robust the relative ranking of provinces in terms of social cohesion is across the two surveys. Table 7 ranks provinces by their social cohesion index, from lowest to highest, for the two surveys. Only 5 out of the 9 provinces display some similarity in terms of their relative rank, namely Limpopo, Gauteng, Northern Cape, Free State and North West. Only 2 enjoy the same rank position, namely Northern Cape and Gauteng.

Table 7: Relative rank of provinces based on their SCI in NIDS Wave 1 and Afrobarometer Round 4.

Province	Afrobarometer R4	Province	NIDS Wave 1
Western Cape	0,19	Mpumalanga	0,44
Limpopo	0,29	Eastern Cape	0,44
Gauteng	0,33	Gauteng	0,45
Kwazulu Natal	0,34	Limpopo	0,48
Northern Cape	0,36	Northern Cape	0,49
Free State	0,37	KwaZulu-Natal	0,50
Eastern Cape	0,37	North West	0,52
North West	0,40	Western Cape	0,54
Mpumalanga	0,40	Free State	0,55

Note: Provinces are ranked from lowest to highest for each survey.
Provinces in bold share similar rank across the two datasets.

There may be a number of plausible reasons for this variation, including different sampling frames, the fact that NIDS is a panel survey while Afrobarometer is a series of repeated cross sections, and there are differences in the questions used to construct the index. However, it does again point to the need for clear thinking about the variables required to construct a SCI, and to ensure that these are collected on an ongoing basis. NIDS provides the perfect vehicle for such an exercise.

As a final exploration of how comparable the indices are, based on these two different datasets, below we present SCI by province over successive rounds of data. The goal here is to assess whether there is some correlation in the trends we observe in the provincial measures of SCI. Round 4 and Round 5 of Afrobarometer occur within the NIDS time frame, and hence are appropriate points of reference.

In all cases, based on the Afrobarometer, social cohesion increases between 2008 and 2013. The comparable waves from the NIDS data would be to compare changes between wave 1 (2008) and wave 3 (2012) or wave 4 (2014). For 4 out of the 9 provinces, the trends are unambiguously the same as in Afrobarometer, namely, social cohesion increases over time. For a further 3 provinces (KZN, Mpumalanga and North-West), social cohesion increases between 2008 and 2012, but dips slightly by 2014, although the differences here are fairly small. So, the most generous interpretation is that for 7 out of 9 provinces, the trends in social cohesion over time are in the same direction across the two datasets. It is only for the Northern Cape and Western Cape that NIDS and Afrobarometer trends of

social cohesion diverge significantly, with these two provinces experiencing lower levels of social cohesion over time according to NIDS data.

Figure 7: Afrobarometer: Provincial SCI over time.

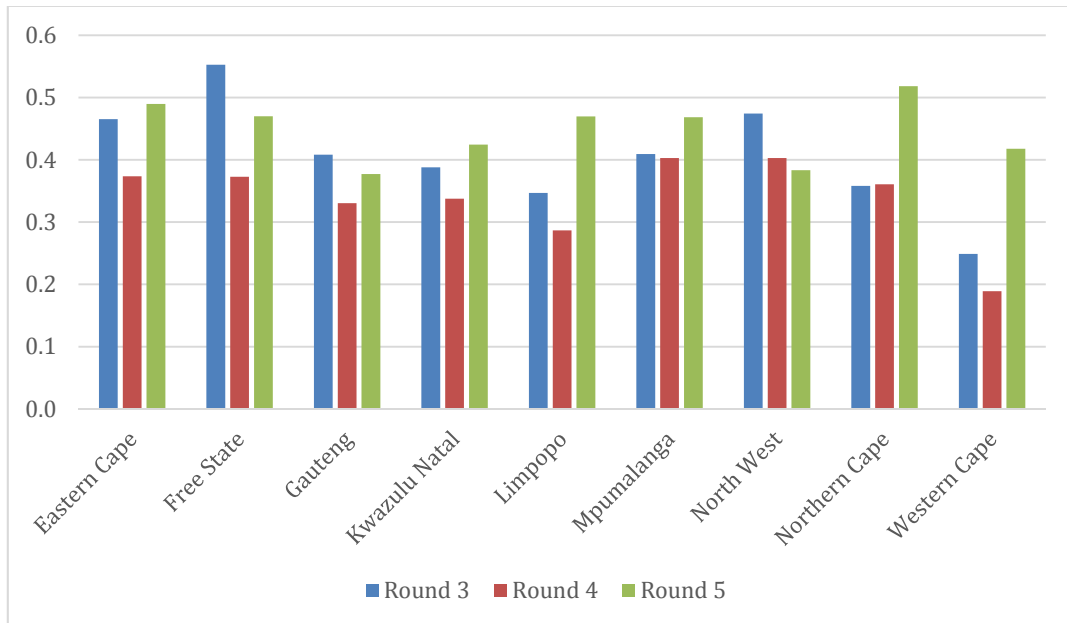
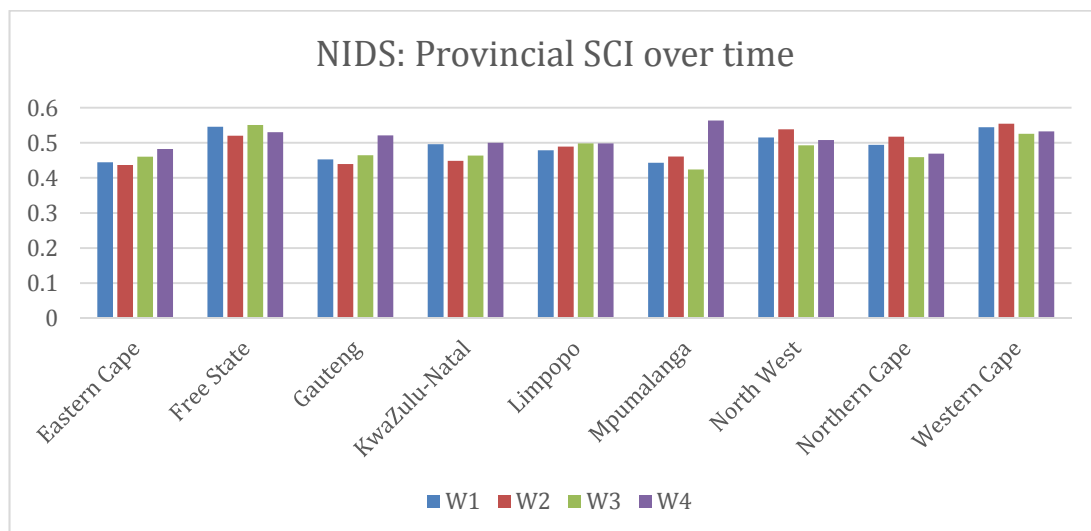
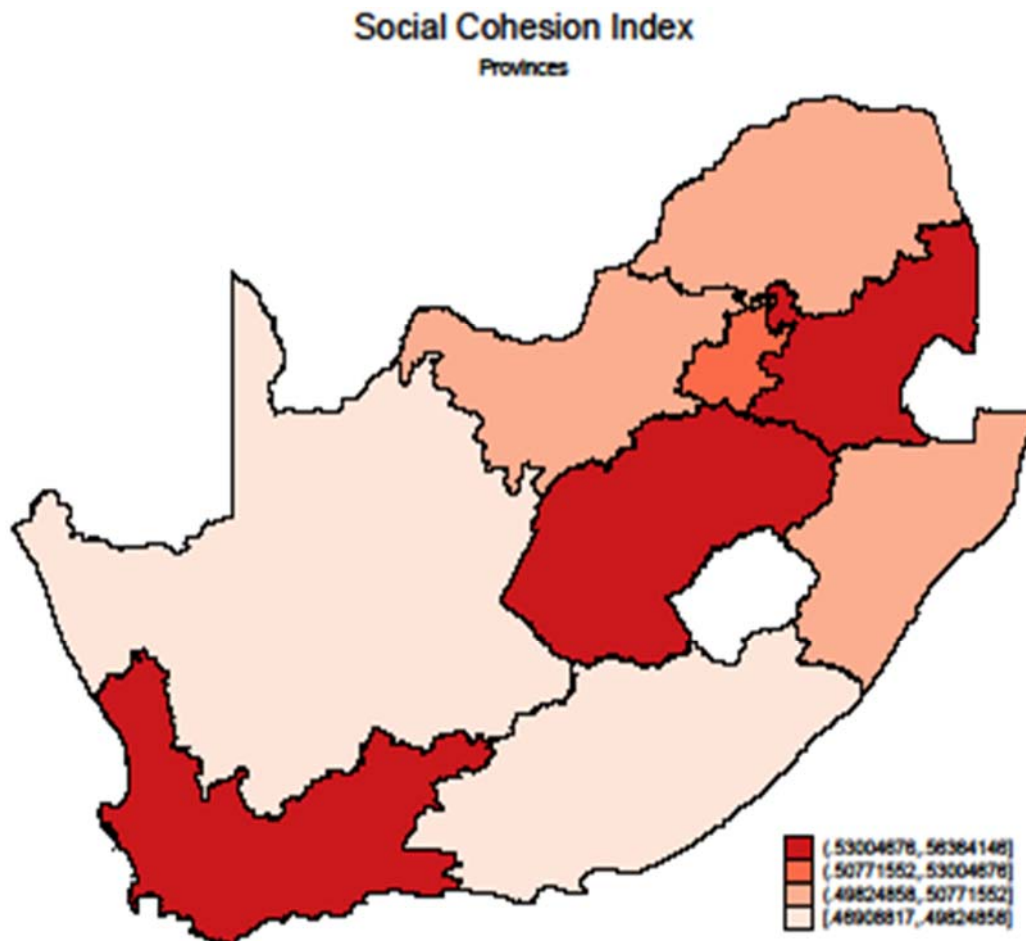


Figure 8: NIDS: Provincial SCI over time.



Finally, figure 9 below provides a map of social cohesion at the provincial level using NIDS Wave 4 data. There is great potential inherent in the development and tracking of such an index over time, especially if it can be linked to lower levels of disaggregation. Darker areas on the map indicate higher levels of social cohesion based on our NIDS measure.

Figure 9: Mapping social cohesion: NIDS Wave 4



Correlating NIDS SCI and outcome indicators of interest

Since there is widespread agreement that social cohesion influences economic and social development, in this final section, we explore the correlation between our SCI index constructed using NIDS data and a number of economic and social variables. In order to have enough variation in our correlations, we do this analysis at the provincial level, that is, we examine the correlation between provincial SCI and provincial measures of economic and social development. The underlying external provincial data used can be found in Tables A3-A5 in the Appendix. As far as possible, we try to match data in the same year. Where this is not possible, we provide multiple correlations with different waves of NIDS for comparison purposes. For example, we correlate our GDP per capita measure for 2013 with the NIDS SCI for both Wave 3 (2012) and Wave 4 (2014).

The exploratory results reported in Table 8 are very encouraging. In most cases, the sign on the correlation coefficient moves in the correct direction, and for some cases, the magnitude of the correlation is sizeable. For example, higher levels of GDP per capita are correlated with higher levels of social cohesion, while conversely, higher incidence of poverty displays a negative correlation. Higher levels of labour force participation are positively correlated with social cohesion while higher unemployment displays a negative association. This accords with the regression results in table 6 that suggest that employment status is a positive predictor of perceptions of equality and a sense of belonging.

We also include three measures from the Municipal IQ. These include the incidence of service delivery protests, a municipal productivity index (MPI) and the compliance and governance index (CGI). The MPI combines financial and non-financial data to assess the ability of individuals to engage with local economies. It does not reflect directly on municipal competence, but rather how spending patterns of a municipality reinforce and affect socio-economic contexts. In contrast, CGI focuses on how well municipalities are meeting basic planning, reporting, financial management and capacity requirements. The results suggest that lower levels of social cohesion are associated with a higher incidence of service delivery protests, but that MPI and CGI are positively associated with social cohesion. Simply put, municipal policy and competence are closely associated with higher social cohesion.

Table 8: Correlations between provincial SCI (NIDS) and indicators of economic well-being.

Indicator	Data source	Year	Corr with 2008 SCI	Corr with 2010 SCI	Corr with 2012 SCI	Corr with 2014 SCI
GDP/capita	StatsSA ⁵	2008	0,26			
		2013			0,15	0,50
Poverty gap (%)	StatsSA ⁶	2009	-0,31	-0,25		
		2011			-0,26	
Headcount poverty (%)	StatsSA ⁷	2009	-0,24	-0,18		
		2011			-0,31	
Labour force participation	StasSA ⁸	2008	0,26	0,18		
		2012			0,15	0,49
Unemployment rate	StatsSA ⁹	2008	-0,39	-0,27		
		2012			-0,07	
Compliance and Governance Index	Municipal IQ ¹⁰	2014				0,45
Municipal Productivity index	Municipal IQ ¹¹	2014				0,40
No. service delivery protests 2013	Municipal IQ ¹²	2013			-0,21	-0,09
Total crimes	SAPS data	2008-2009	-0,13	-0,35		
		2011-2012			0,03	
		2012-2013			0,05	0,23
Contact crimes	SAPS data	2008-2009	-0,26	-0,52		
		2011-2012			-0,03	
		2012-2013			0,02	0,15
Property crimes	SAPS data	2008-2009	-0,17	-0,38		
		2011-2012			-0,01	
		2012-2013			0,01	0,25

⁵<http://www.statssa.gov.za/publications/P0441/P04413rdQuarter2014.pdf>;

<http://www.statssa.gov.za/publications/P0302/P03022006.pdf>;

<http://www.statssa.gov.za/publications/P0302/P03022014.pdf>;

<http://www.statssa.gov.za/publications/P0302/P03022008.pdf>;

<http://www.statssa.gov.za/publications/P0302/P03022013.pdf>

⁶ <http://www.statssa.gov.za/publications/Report-03-10-06/Report-03-10-06March2014.pdf>

⁷ <http://www.statssa.gov.za/publications/Report-03-10-06/Report-03-10-06March2014.pdf>

⁸ http://www.statssa.gov.za/?page_id=1854&PPN=P0211

⁹ http://www.statssa.gov.za/?page_id=1854&PPN=P0211

¹⁰<https://africacheck.org/wp-content/uploads/2014/03/201312021614519448.pdf>

¹¹<https://www.overstrand.gov.za/en/media-section/news/100-overstrand-best-performer-in-sa>

¹²<https://www.overstrand.gov.za/en/media-section/news/100-overstrand-best-performer-in-sa>

Finally, the association between social cohesion and crime is a little ambiguous. There appears to be a negative correlation between the incidence of crime and social cohesion in earlier waves of NIDS, but this reverses in later waves. It is not immediately clear why this should be the case, but may well have to do with problems in the timing of and coverage of the provincial crime statistics.

We explore this a little further using NIDS which collects data on household perceptions of the frequency of domestic violence, gang activity, drug use and violence in the neighbourhood. Table 9 below presents correlation co-efficients for these measures against the indicator measures that constitute the SCI for the pooled dataset across all four waves of NIDS. In most cases, there is a negative correlation between perceptions of violence and crime and reported trust, perceived equality and a sense of belonging, with the exception of Limpopo and Mpumalanga. This accords with the negative correlation between reported crimes and social cohesion in earlier waves of NIDS as reported in Table 8 above.

Table 9: Correlations between household perceptions of crime and violence and indicators of social cohesion (NIDS)

		Gang	Murder	Drugs	Domestic Violence	Violence
Trust	WC	-0.074	-0.077	-0.199	-0.084	-0.078
	EC	-0.081	-0.078	-0.110	-0.016	-0.024
	NC	-0.060	-0.101	-0.108	-0.055	-0.041
	FS	-0.147	-0.068	-0.107	-0.047	-0.022
	KZN	-0.082	-0.100	-0.163	-0.015	-0.020
	NW	-0.066	-0.063	-0.126	-0.011	0.034
	GP	-0.062	-0.043	-0.114	-0.026	-0.008
	MP	0.106	0.037	-0.128	0.154	0.128
	LP	0.012	0.016	-0.110	0.061	0.032
Perceived Equality	WC	-0.074	-0.077	-0.050	-0.056	-0.068
	EC	-0.051	-0.018	0.019	-0.029	-0.046
	NC	0.072	0.012	0.024	-0.010	-0.028
	FS	-0.074	-0.099	-0.022	-0.035	-0.025
	KZN	-0.019	-0.023	-0.004	-0.069	-0.050
	NW	0.035	0.047	0.072	-0.010	-0.008
	GP	-0.081	-0.105	-0.046	-0.077	-0.085
	MP	0.049	-0.046	0.080	0.041	0.025
	LP	0.030	0.003	-0.004	0.036	0.032
Belonging	WC	-0.174	-0.162	-0.088	-0.114	-0.115
	EC	-0.046	-0.034	0.048	-0.053	-0.073
	NC	-0.063	-0.038	-0.036	-0.023	-0.064
	FS	-0.038	-0.055	-0.003	-0.094	-0.085
	KZN	-0.027	-0.027	0.045	-0.081	-0.067
	NW	-0.039	-0.006	-0.039	-0.036	-0.009
	GP	-0.123	-0.118	-0.072	-0.151	-0.135
	MP	-0.050	-0.033	0.029	-0.057	-0.054
	LP	0.013	0.032	0.130	-0.034	-0.047

The obvious point here is that correlation need not imply causality. Social cohesion may be both a cause and a consequence of many of these social and economic variables. This is an open question, and one that forms the domain of an ongoing research programme on the link between social cohesion and inclusive growth. This is precisely the impetus that we hope this contribution will provide.

Conclusion

This paper uses data collected across the four waves of the National Income Dynamics Study, from 2008 to 2014/15, to construct a measure of social cohesion based on a method proposed in the literature by Langer et al. (2016). We compare our index to the one developed by Langer et al. (2016) who rely on the Afrobarometer data, although we go further and map social cohesion at the provincial level using both datasets. This paper is a first attempt at relying on a readily available, large-scale, nationally representative data to construct such an index.

Despite some differences in the variables used to construct the indices, we find a large degree of consistency in trends in the index and its constituent components over time across the two datasets. This is encouraging, since consistency is an important characteristic of a robust indicator. However, there is less consistency in the measures once one moves to lower levels of geographic disaggregation, and we find that the relative ranking of provinces in terms of their social cohesion levels does not match well. This is a crucial question for ongoing research to explore. Moreover, it is important that policy makers and academics begin to take seriously the collection and use of data that is representative at the local area level, since this is the level at which social cohesion truly interfaces with opportunities for inclusive development. Whilst most of the datasets collected by StatsSA do, in fact, allow for analysis at the local area level, this data is rarely made available in public release versions of the data. Further engagement with StatsSA on this matter is important, in parallel with discussions concerning the incorporation of questions to do with social cohesion into existing nationally representative, annual surveys.

Moreover, the need remains for agreement to be reached on what constitutes an appropriate definition of social cohesion in a South Africa context if such an index is to be developed and tracked over time. This paper has demonstrated that small differences in the variables used to construct the index can produce quite different results, certainly in level terms. There is little value in an index that constantly changes due to differences in definition. Moreover, this paper has shown that there is far less variability in the constructed index relying on panel data as opposed to repeated cross-sections, so the nature of the data that will be collected to track social cohesion is also something to be resolved. Relying on large-scale, existing datasets that are collected regularly (such as NIDS) provides one way to ensure positive progress in measurement and tracking of social cohesion over time, so avenues to include additional questions to collect necessary data should also be explored.

Finally, this paper has presented evidence that higher levels of education, per capita income, and employment are positively associated with higher social cohesion and that poverty, service delivery protests, and perceptions of crime are negatively correlated with social cohesion. In addition, municipal policy and competence are closely associated with higher social cohesion. While this work is exploratory, it is encouraging, and suggests exciting new opportunities for future research to begin to take seriously the link between social cohesion and economic and social development.

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Appendix

Table A1: NIDS: Key components of SCI and the index itself by province and wave

Wave	Province	Trust	Belonging	Equality	SCI
Wave 4	Western Cape	0,18	0,79	0,62	0,53
	Eastern Cape	0,17	0,74	0,53	0,48
	Northern Cape	0,17	0,73	0,51	0,47
	Free State	0,22	0,78	0,59	0,53
	KwaZulu-Natal	0,29	0,70	0,51	0,50
	North West	0,27	0,75	0,50	0,51
	Gauteng	0,29	0,67	0,61	0,52
	Mpumalanga	0,43	0,71	0,55	0,56
	Limpopo	0,26	0,71	0,52	0,50
	National	0,25	0,73	0,55	0,51
Wave 3	Western Cape	0,27	0,73	0,58	0,53
	Eastern Cape	0,26	0,63	0,49	0,46
	Northern Cape	0,21	0,67	0,50	0,46
	Free State	0,60	0,61	0,44	0,55
	KwaZulu-Natal	0,39	0,49	0,51	0,46
	North West	0,54	0,52	0,42	0,49
	Gauteng	0,45	0,54	0,40	0,46
	Mpumalanga	0,41	0,43	0,43	0,42
	Limpopo	0,47	0,46	0,56	0,50
	National	0,40	0,56	0,48	0,48
Wave 2	Western Cape	0,34	0,74	0,58	0,55
	Eastern Cape	0,16	0,65	0,50	0,44
	Northern Cape	0,29	0,79	0,48	0,52
	Free State	0,56	0,63	0,37	0,52
	KwaZulu-Natal	0,43	0,45	0,46	0,45
	North West	0,57	0,52	0,53	0,54
	Gauteng	0,46	0,44	0,42	0,44
	Mpumalanga	0,42	0,54	0,42	0,46
	Limpopo	0,51	0,43	0,53	0,49
	National	0,42	0,58	0,48	0,49
Wave 1	Western Cape	0,24	0,80	0,60	0,543
	Eastern Cape	0,12	0,70	0,51	0,44
	Northern Cape	0,18	0,80	0,51	0,49
	Free State	0,63	0,67	0,34	0,55
	KwaZulu-Natal	0,48	0,52	0,49	0,50
	North West	0,65	0,51	0,38	0,52
	Gauteng	0,47	0,42	0,47	0,45
	Mpumalanga	0,41	0,46	0,46	0,44
	Limpopo	0,45	0,43	0,56	0,48
	National	0,40	0,59	0,48	0,49

Table A2: Afrobarometer: Key components of SCI and the index itself by province and round

Round 3				
	SCI	Inequality	Trust	Identity
South Africa	0.4381	0.3797	0.3731	0.5617
Eastern Cape	0.4652	0.4501	0.3423	0.6034
Free State	0.5527	0.5353	0.3698	0.7529
Gauteng	0.4083	0.3978	0.2404	0.5868
Kwazulu Natal	0.3880	0.3311	0.2233	0.6098
Limpopo	0.3470	0.4039	0.2342	0.4028
Mpumalanga	0.4094	0.2764	0.3114	0.6405
North West	0.4744	0.4416	0.2916	0.6901
Northern Cape	0.3582	0.2317	0.2813	0.5615
Western Cape	0.2489	0.2514	0.2652	0.2302
Round 4				
	SCI	Inequality	Trust	Identity
South Africa	0.3303	0.2816	0.2161	0.4934
Eastern Cape	0.3737	0.2818	0.2567	0.5825
Free State	0.3729	0.3634	0.2222	0.5331
Gauteng	0.3306	0.3437	0.1962	0.4518
Kwazulu Natal	0.3376	0.2973	0.2105	0.5050
Limpopo	0.2867	0.1852	0.1783	0.4966
Mpumalanga	0.4030	0.2791	0.2213	0.7085
North West	0.4029	0.2817	0.2813	0.6458
Northern Cape	0.3608	0.2149	0.2971	0.5705
Western Cape	0.1891	0.1808	0.1895	0.1970
Round 5				
	SCI	Inequality	Trust	Identity
South Africa	0.4303	0.4212	0.2332	0.6365
Eastern Cape	0.4898	0.4965	0.2281	0.7448
Free State	0.4700	0.5421	0.2053	0.6625
Gauteng	0.3772	0.3771	0.2305	0.5238
Kwazulu Natal	0.4245	0.3989	0.2238	0.6507
Limpopo	0.4697	0.3315	0.3059	0.7718
Mpumalanga	0.4684	0.5681	0.2620	0.5751
North West	0.3833	0.4255	0.2010	0.5235
Northern Cape	0.5184	0.5547	0.2685	0.7320
Western Cape	0.4177	0.3697	0.2025	0.6810

Table A3: External data on social and economic outcomes by province (2008-2009)

Date	2008	2008	2008	2009	2009	2008-2009	2008-2009	2008-2009
Province	GDP pc	Unempl rate	Labour force participation rate	Headcount poverty (%)	Poverty gap (%)	Total crimes	Contact crime	property crime
Eastern Cape	27750,12	0,26	0,47	0,71	0,37	216666,00	78175,00	54838,00
Free State	48657,75	0,24	0,61	0,62	0,28	132342,00	50041,00	33814,00
Gauteng	69984,34	0,22	0,73	0,33	0,13	638225,00	203371,00	161707,00
Kwazulu Natal	40588,88	0,22	0,54	0,65	0,33	340113,00	116603,00	80311,00
Limpopo	31975,09	0,30	0,43	0,79	0,44	97567,00	34929,00	24079,00
Mpumalanga	44914,85	0,23	0,56	0,67	0,34	131412,00	46451,00	36604,00
North West	45795,53	0,24	0,56	0,61	0,29	117121,00	39147,00	29738,00
Northern Cape	48657,75	0,23	0,58	0,63	0,30	50277,00	21087,00	11379,00
Western Cape	61370,14	0,18	0,67	0,35	0,14	398249,00	88338,00	94618,00
Corr with 2008 SCI	0,26	-0,39	0,26	-0,24	-0,31	-0,13	-0,26	-0,17
Corr with 2010 SCI	0,25	-0,27	0,18	-0,18	-0,25	-0,35	-0,52	-0,38

Table A4: External data on social and economic outcomes by province (2011-2013)

Date	2013	2012	2012	2011	2011	2014	2014	2013
Province	GDP pc.	Unempl. rate	Labour force participation rate	Headcount poverty (%)	Poverty gap (%)	Compliance and Governance Index	Municipal Productivity index	No. service delivery protests
Eastern Cape	40762,27	0,28	0,45	0,61	0,27	73,70	36,90	33,84
Free State	65419,17	0,31	0,59	0,41	0,18	73,90	43,40	11,28
Gauteng	94331,56	0,26	0,70	0,23	0,08	87,30	52,80	35,25
Kwazulu Natal	53900,52	0,20	0,48	0,57	0,26	82,40	36,00	21,15
Limpopo	46819,60	0,19	0,39	0,64	0,30	69,40	38,30	2,82
Mpumalanga	64991,59	0,29	0,57	0,52	0,22	78,80	42,90	8,46
North West	66701,90	0,26	0,48	0,51	0,23	71,30	40,40	7,05
Northern Cape	60638,09	0,28	0,56	0,47	0,19	72,40	44,40	5,64
Western Cape	80868,67	0,23	0,68	0,25	0,09	91,40	51,70	15,51
Corr with 2012 SCI	0,15	-0,07	0,15	-0,31	-0,26			-0,21
Corr with 2014 SCI	0,50	0,16	0,49			0,45	0,40	-0,09

Table A5: External crime data by province (2011-2013)

Date	2011-2012	2012-2013	2011-2012	2012-2013	2011-2012	2012-2013
Province	Total crimes	Total crimes	Contact crime	Contact crime	Property crimes	Property crimes
Eastern Cape	214465	209126	75779	72650	55742	55484
Free State	126391	131785	47486	48480	31772	34738
Gauteng	577991	584325	160289	153610	147690	153759
Kwazulu Natal	348416	362680	105443	105444	84433	91128
Limpopo	113634	112953	38826	36786	29335	28533
Mpumalanga	122191	121172	36661	33692	36169	36312
North West	111030	115319	36112	36067	30389	31725
Northern Cape	45258	47697	18038	18649	11081	12533
Western Cape	447241	465997	97301	103346	104013	114122
Corr with 2012 SCI	0,03	0,05	-0,03	0,02	-0,01	0,01
Corr with 2014 SCI		0,23		0,15		0,25

Figure A1: NIDS: Perceived Income Equality by Province, Waves 1-4

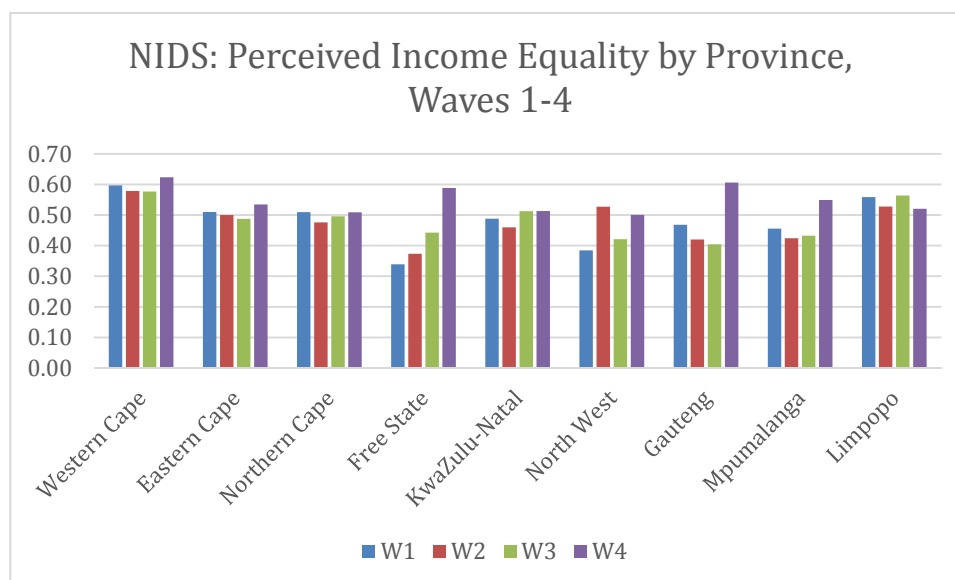


Figure A2: Afrobarometer: Perceived Income Equality by Province, Rounds 3-5

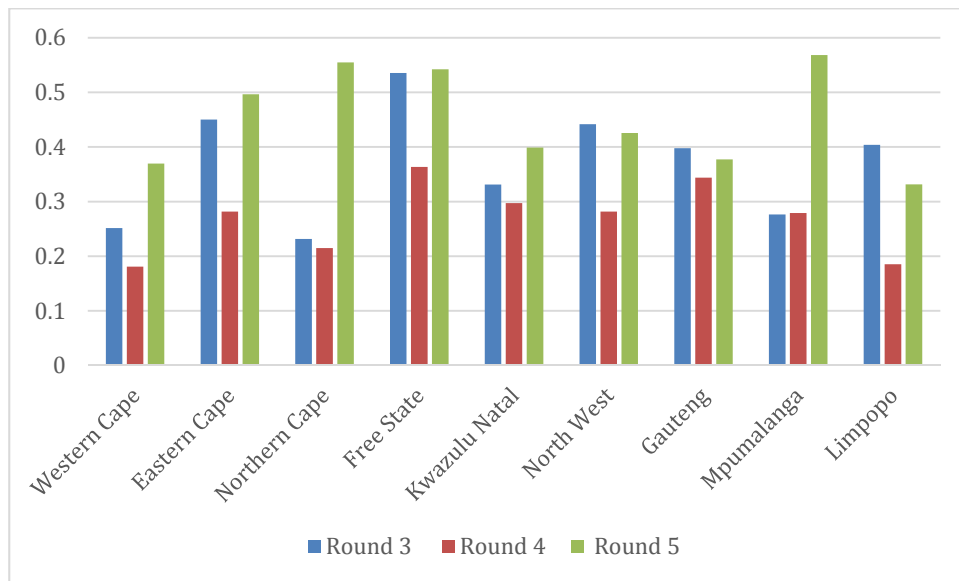


Figure A3: NIDS: Trust by Province, Waves 1-4

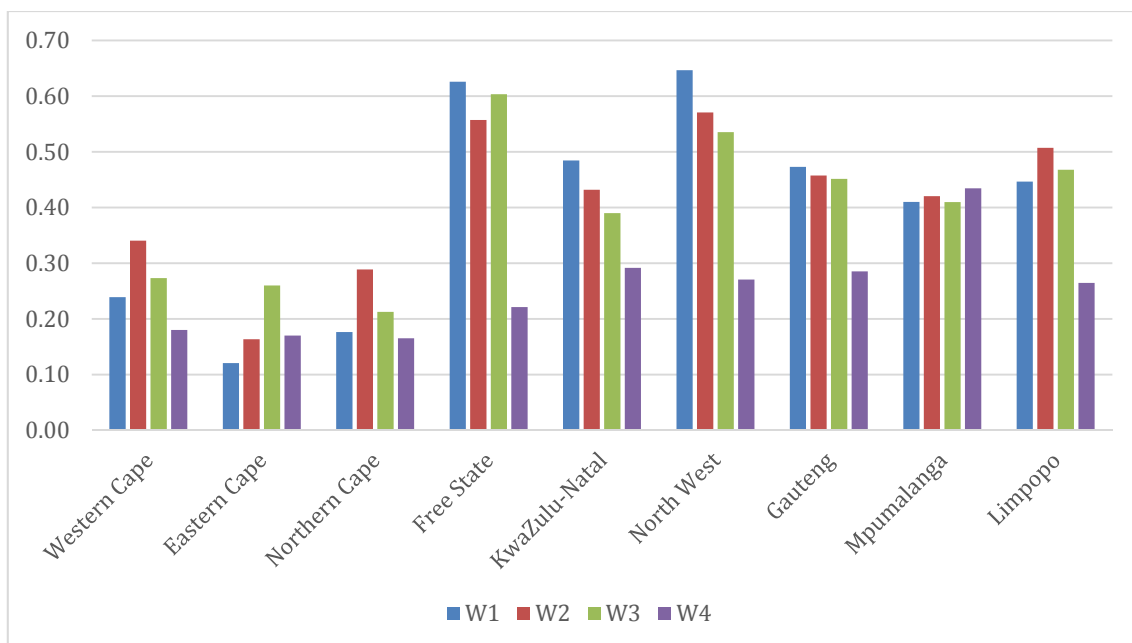


Figure A4: Afrobarometer Trust by Province, Rounds 3-5

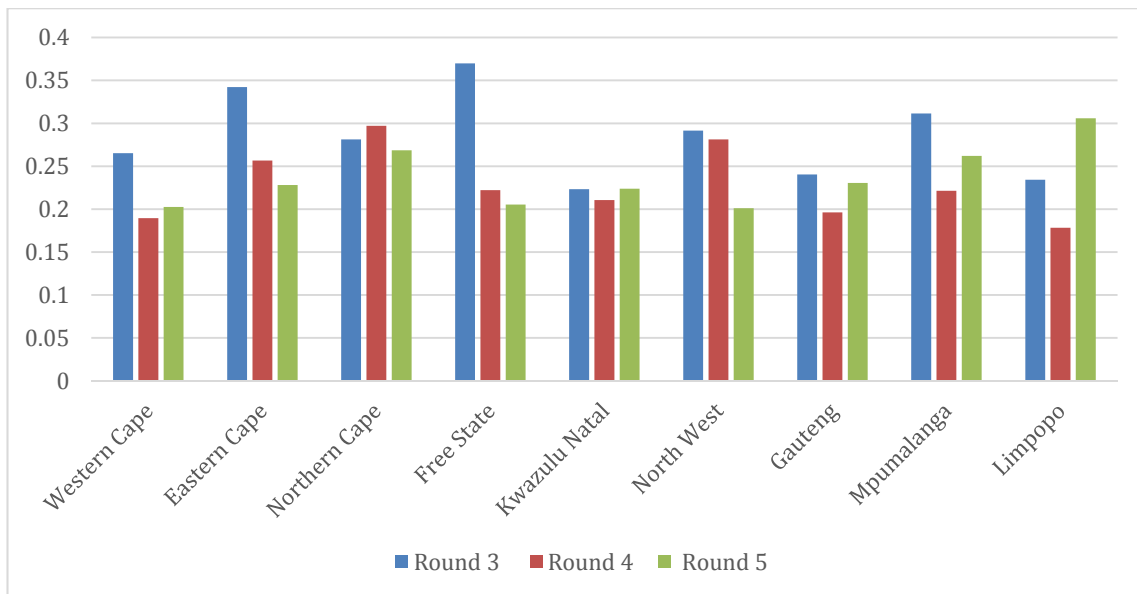


Figure A5: NIDS: Belonging by Province, Waves 1-4

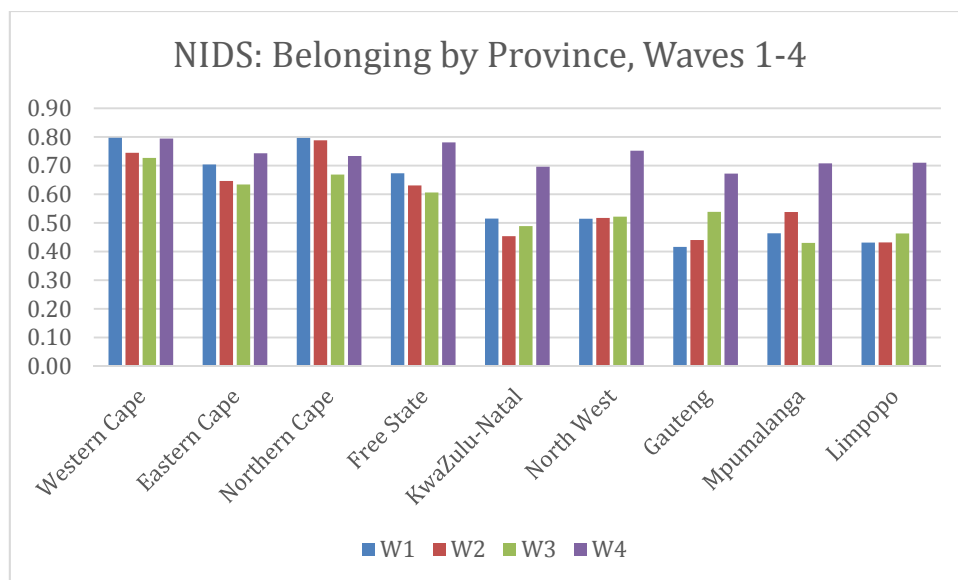
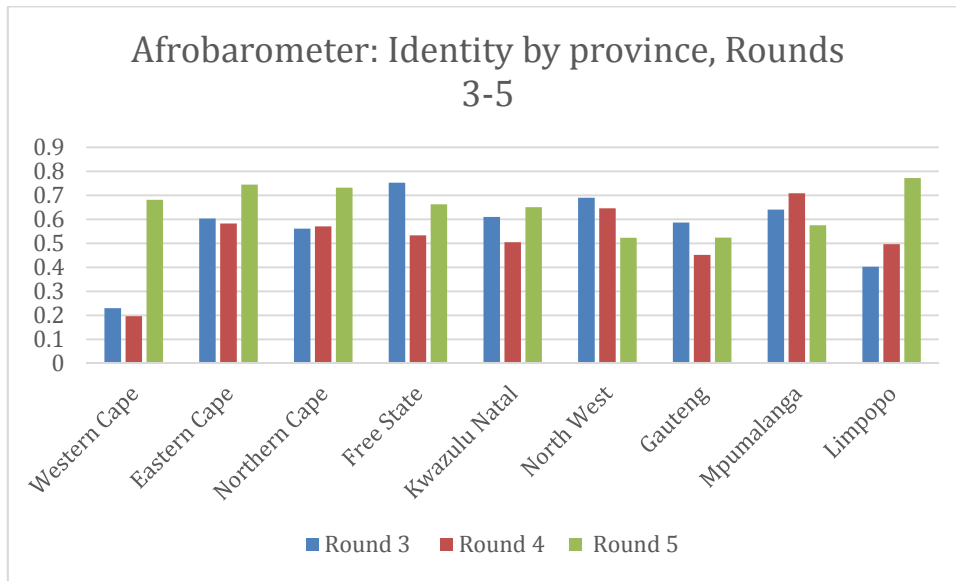


Figure A6: Afrobarometer: Identity by Province, Rounds 3-5



southern africa labour and development research unit

The Southern Africa Labour and Development Research Unit (SALDRU) conducts research directed at improving the well-being of South Africa's poor. It was established in 1975. Over the next two decades the unit's research played a central role in documenting the human costs of apartheid. Key projects from this period included the Farm Labour Conference (1976), the Economics of Health Care Conference (1978), and the Second Carnegie Enquiry into Poverty and Development in South Africa (1983-86). At the urging of the African National Congress, from 1992-1994 SALDRU and the World Bank coordinated the Project for Statistics on Living Standards and Development (PSLSD). This project provide baseline data for the implementation of post-apartheid socio-economic policies through South Africa's first non-racial national sample survey.

In the post-apartheid period, SALDRU has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. In line with its historical contribution, SALDRU's researchers continue to conduct research detailing changing patterns of well-being in South Africa and assessing the impact of government policy on the poor. Current research work falls into the following research themes: post-apartheid poverty; employment and migration dynamics; family support structures in an era of rapid social change; public works and public infrastructure programmes, financial strategies of the poor; common property resources and the poor. Key survey projects include the Langeberg Integrated Family Survey (1999), the Khayelitsha/Mitchell's Plain Survey (2000), the ongoing Cape Area Panel Study (2001-) and the Financial Diaries Project.



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