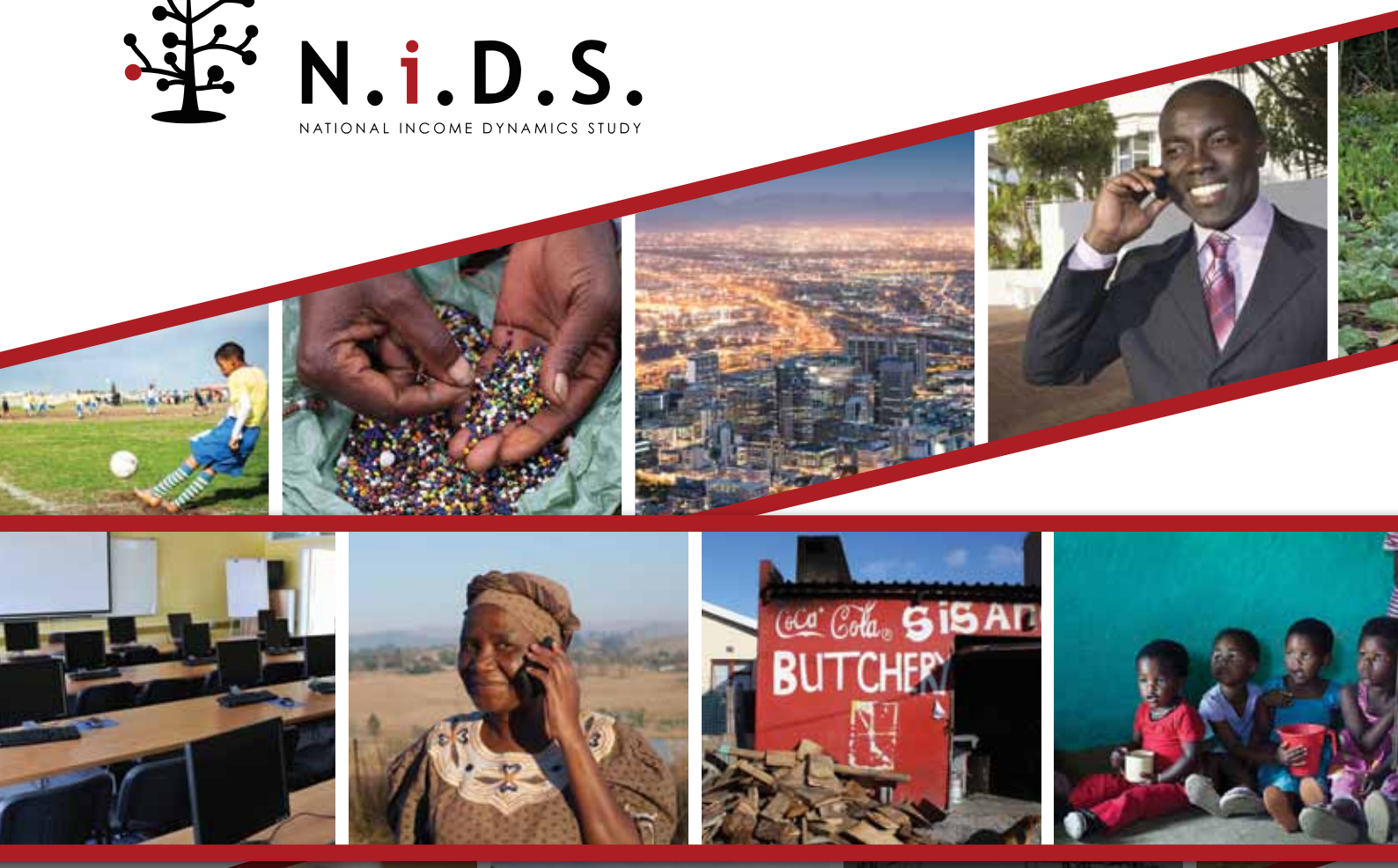
N.i.D.S.
NATIONAL INCOME DYNAMICS STUDY



WAVE 4
OVERVIEW

2008 to 2016 NATIONAL INCOME DYNAMICS STUDY

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planning, monitoring & evaluation
Department: Planning, Monitoring and Evaluation
REPUBLIC OF SOUTH AFRICA

PSPPD
PROGRAMME TO SUPPORT PRO-POOR POLICY DEVELOPMENT

SALDRU

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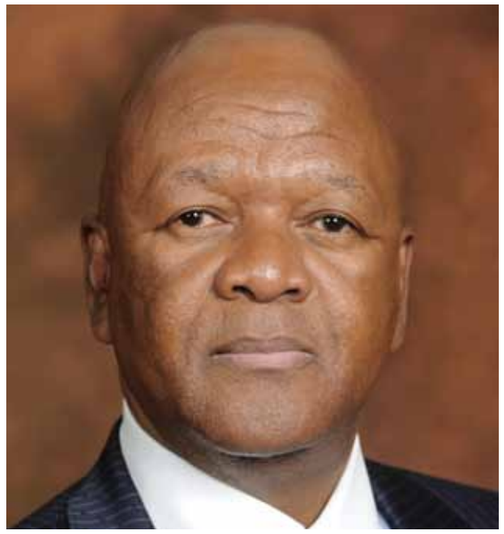


Persistent poverty and inequality remain a striking feature of South African society. The National Income Dynamics Study (NIDS) data show that of those who were poor in Wave 1 (2008), almost three-quarters were still poor in Wave 4. These people are effectively trapped in poverty and require policy interventions directed at addressing the structural issues in the economy. The NIDS panel study provides us with empirical data that illustrate the nuances of these challenges. The NIDS data assist us in checking to what extent we are achieving the objectives of the National Development Plan.

This report presents the findings of Wave 4 (fourth round of the survey). NIDS is South Africa's national panel study which is commissioned by the Department of Planning, Monitoring and Evaluation (DPME). NIDS is a unique dataset in that it provides information across time, from Wave 1 in 2008 to Wave 4 in 2014/15. As the panel unfolds from one wave to the following wave, it reveals the changing structure of households in South Africa, including the changes in the living conditions and well-being of household members. In government we have had the foresight to commission a panel study in South Africa, as the NIDS provides us in government with an enhanced understanding of the socioeconomic dynamics of South Africa.

The main findings of the NIDS in respect of poverty are that changes to household composition is the largest trigger of poverty entry and exit, and that increasing the income from government grants acts as the main trigger for an exit from poverty for about one-quarter of the NIDS sample. NIDS allows us to track households over time, which provides us with this type of empirical evidence.

NIDS is a unique dataset that provides information on education levels and earnings of both parents and their adult children. This data allow us to record mobility across generations, that is, whether children are better off compared to their parents. NIDS tells us that education and earnings mobility follow two different paths. While there has been an increase in the years of schooling, this has not translated into better jobs. This means that the advantage gained from having a more educated younger generation has not yet led to a reduction in earnings inequality. This lack of intergenerational mobility in earnings is key to understanding the persistence of South Africa's inequality.

Mindful of the capacity constraints in respect of quantitative analysis in South Africa, the DPME through NIDS contract with SALDRU has provided nine scholarships to postgraduate students.

NIDS is an important national resource which is an example of government and academia collaborating to achieve the development goals of the country.

Hon. Jeffrey T Radebe, MP
Minister in The Presidency: Planning, Monitoring and Evaluation

NIDS: Telling South Africa's story

How does one tell the South African story? What are the main drivers of changes in South Africans' lives for better and for worse?

The National Income Dynamics Study (NIDS) is a major resource for answering these questions by tracking the unfolding stories of a representative group of individuals and households over time.

This is the fourth wave of NIDS, a longitudinal panel study that began in 2008.

NIDS began with more than 28,000 panel members. These are called our **Continuing Sample Members (CSMs)**. The study tracks these panel members every two years (Waves). If they move, we track them to where they have moved and also interview other members of their new household. These are called **Temporary Sample Members (TSMs).** We interview them but do not track them.

After eight years, NIDS can begin to tell a story of the key changes in people's lives. It tracks employment, inequality, health and wealth, as well as the effects of social spending such as education and grants. In this way, it builds a critical information base for evidence-based policy-making.

To illustrate the policy value of such a rich dataset, a number of researchers were asked to analyse the panel findings from the four Waves. They examined some of the pressing social challenges in the country from unemployment to inequality, from chronic poverty to the distribution of wealth, and from education to health. The research has also developed an index to measure social cohesion. This document summarises some of those findings.

The numbers

In Wave 4, NIDS deployed 128 interviewers in the field from October 2014 to August 2015. They interviewed:

- 37,396 individuals, of whom 25,268 were CSMs and 12,128 were TSMs;
- 21,702 of the original 28,226 Wave 1 CSMs.

They discovered that:

- 2,211 of the 28,226 original Wave 1 CSMs had died by the end of Wave 4;
- since Wave 1, 3,740 new "baby" CSMs have been added (they are new "baby" CSMs because they were born to an original Wave 1 CSM female).

The interviewers attempt to interview every resident member of the household. Residents aged 15 years and older are interviewed directly (or via proxy), and interviews for those who are aged 14 years or younger are answered by the mother/caregiver of the child or another household member who is knowledgeable about the child. For non-residents living in an institution (such as a boarding school, prison or hospital) at the time of the interview, a proxy questionnaire is completed for them in their last known household.

As the interviewers weigh and measure every resident sample member who is six months or older, NIDS is able to track the health of people – including stunting of children, nutritional status, and obesity, along with economic, educational and other measures.

With the inclusion of Wave 4 data, NIDS can now track changes in people's lives over the past eight years. It gives us a picture of movement. **More importantly, NIDS allows us to determine the triggers** that lift people out of poverty or plunge them into it, that push people through the middle class, or keep them positioned at the pinnacle of income distribution. **This is the critical contribution that NIDS makes.**

The data also help us understand what difference education makes, whether people are moving and where to, the mental and physical health of South Africans and how that has changed over time, what events impact on their health status and what effects this health status has on the ability of people to be productive in their daily lives.

South Africa is still burdened by poverty and inequality. If we are to eliminate poverty and reduce inequality by 2030, as the National Development Plan proposes, it is critical that we understand the nature of poverty – what triggers it, what traps people in chronic poverty, and why inequality spans generations.

Because of the size of the sample and its regularity over waves, NIDS makes a unique contribution to understanding these dynamics. This understanding can form the basis of evidence-based policy-making that can help counteract the trends that entrench poverty and inequality.

Many of the findings have clear policy implications – for instance, how preventing early childhood stunting can make a critical difference in a child's chances of success at school and possibly in the labour market.

NIDS tells us how being orphaned (by mothers) can impede a child's life chances; it explores the effects of different pathways into adulthood from leaving school to trying to find a job; and it tells us why, and how many people move from their homes.

This report also looks at new social and class structures emerging in South Africa, with one key finding being that a middle class, defined in terms of vulnerability to poverty, is far less substantial than previously thought.

It also deals with some critical health issues, including mental health and how it is associated with poverty, and the increase in diabetes and obesity.

Finally, the report measures the degree of social cohesion in the country: how close are we to being one nation bound by trust and common understanding? Social cohesion is an indicator of the social and economic well-being of a country's citizens. To build a nation, policymakers need to find ways to enhance that well-being across all income groups. There may be robust debate about the factors that improve social cohesion, but the NIDS data provide an important measure of where we are, who we are and what the constraints and catalysts are to getting ahead.

Key Personnel

Professor Murray Leibbrandt is the Pro Vice-Chancellor, Poverty and Inequality, at the University of Cape Town (UCT), a Professor in the School of Economics and the Director of the Southern Africa Labour and Development Research Unit (SALDRU. His research analyses South African poverty, inequality and labour market dynamics using survey data and, in particular, panel data. He is one of the Principal Investigators on NIDS. He holds the DST/NRF National Research Chair in Poverty and Inequality Research and Chairs the Academy of Science of South Africa (ASSAF) Standing Committee on Science for the Reduction of Poverty and Inequality.

Professor Ingrid Woolard is Dean of the Faculty of Commerce, Professor of Economics and a Research Associate in SALDRU at UCT. She has been one of the Principal Investigators of NIDS since the first wave. She served as the Chair of the Employment Conditions Commission (ECC) from 2011 to 2014. Her research focuses on poverty, inequality, social assistance and fiscal policy, and she is a Research Fellow of the Institute for the Study of Labour (IZA).

Dr Cecil Mlatsheni is a senior lecturer in the School of Economics at UCT and a research associate in SALDRU at UCT. He is also a Principal Investigator on NIDS. His research interests lie in labour market analysis, youth unemployment in particular. He has published widely in this area, along with authoring a series of policy focussed outputs. He is a commissioner with the Department of Labour. He sits on the steering committee of the Programme to Support Pro-poor Development Policy, and is a member of the National Youth Development Agency's technical reference team for the Youth Employment Plan 2030.

Mike Brown is Director of Operations for the South African National Income Dynamics Study (NIDS), a face-to-face panel of 28,000 individuals now in its eighth year. In a career move from management consulting in the oil and gas industries, Mike has been leading development interventions and field surveys in a number of countries since 2005, joining the SALDRU NIDS team in 2010. He holds an MBA and a Masters in International Development.

The core NIDS team is based within SALDRU at UCT and is proud to have been the implementing partner of NIDS for The Presidency and the DPME since 2008.

Illustrative Findings from the First Four Waves of NIDS

NIDS is a wide-ranging study looking at many key aspects of life that impact on poverty and describe its nature. It covers not only income from employment and social grants, but also examines education, health, access to services, assets, consumption and more. What follows are just a few examples of what can be learned from the NIDS data.

1. Poverty

The analysis on poverty was undertaken using a balanced panel of respondents – that is, those people who have been part of the NIDS survey since the first wave in 2008 and have been interviewed in each of the four waves.

This study calculated multidimensional poverty, using the Multidimensional Poverty Index (MPI), as well as money-metric or income poverty. Multidimensional poverty is made up of several factors that constitute deprivation, including poor health, education and living standards, while money-metric poverty benchmarks income per person in each NIDS household against a poverty line that is fixed in terms of rands per person per month. Analysis of the data shows that MPI poverty is lower than money-metric poverty. But those who are chronically poor in terms of a range of dimensions over four waves are also income-poor.

A key feature of NIDS is being able to track poverty dynamics over time. There is considerable "churn" at the lower end of income groups, with people falling in and out of poverty at regular intervals. The key question is: Why – what are the triggers that propel this movement?

NIDS is one of the few South African datasets that offers panel data to understand these transitions. There have been relatively few other panel datasets, and certainly none with the national scope and size of NIDS.

1.1 Poverty dynamics

Nearly half of the poor are stuck there, with a lot more people falling into and out of poverty.

In analysing poverty dynamics across all four waves, NIDS researchers used a cost-of-basic-needs poverty line of **R1,283** (in January 2015 rands) per capita per month.[1] This line includes a minimal nutrition line and the cost of a basic number of non-food goods that would be needed by every household. By this measure:

- of those who were **poor** in Wave 1, almost three-fifths were **still poor** by Wave 4;
- of those who were **non-poor** in Wave 1, 79% were still **non-poor** by Wave 4; and
- 21% fell into **poverty** between Waves 1 and 4.

It was 5% more likely that people moved out of poverty between Waves 1 and 4 than it was that they moved into poverty. Of those who were in **severe poverty** in Wave 1 (defined as having a real household income of less than half the poverty line):

- about 78% were **still in severe poverty** or poor by Wave 4.

Of those classified as **poor** in Wave 1:

- 27.5% moved down into severe poverty by Wave 4;
- 40% moved to the non-poor category.

If you were **non-poor** in Wave 1, you were more likely to be in that category in Wave 4:

- 79% of those who were non-poor in the first wave remained non-poor in the most recent wave;
- 13.5% moved into the poor category; and
- 8.5% became severely poor.

It is important to note here that **nearly one-third** (29%) of those trapped in poverty (i.e. poor through all the waves) were in **severe poverty.**

Table 1a: Transitions by poverty level

		Wave 2					Wave 3		
		Severe	Poor	Non-poor			Severe	Poor	Non-poor
Wave 1	Severe	73.16	19.48	7.36	**Wave 2**	Severe	63.14	25.64	11.21
	Poor	42.31	34.77	22.92		Poor	35.49	37.33	27.18
	Non-poor	12.25	14.23	73.52		Non-poor	8.30	11.95	79.74
		Wave 4					**Wave 4**		
		Severe	Poor	Non-poor			Severe	Poor	Non-poor
Wave 3	Severe	60.21	24.36	15.43	**Wave 1**	Severe	53.88	24.55	21.57
	Poor	33.35	36.87	29.78		Poor	27.47	32.48	40.04
	Non-poor	9.36	11.38	79.26		Non-poor	8.52	12.83	78.64

Table 1b: Proportion of the population in each transition state

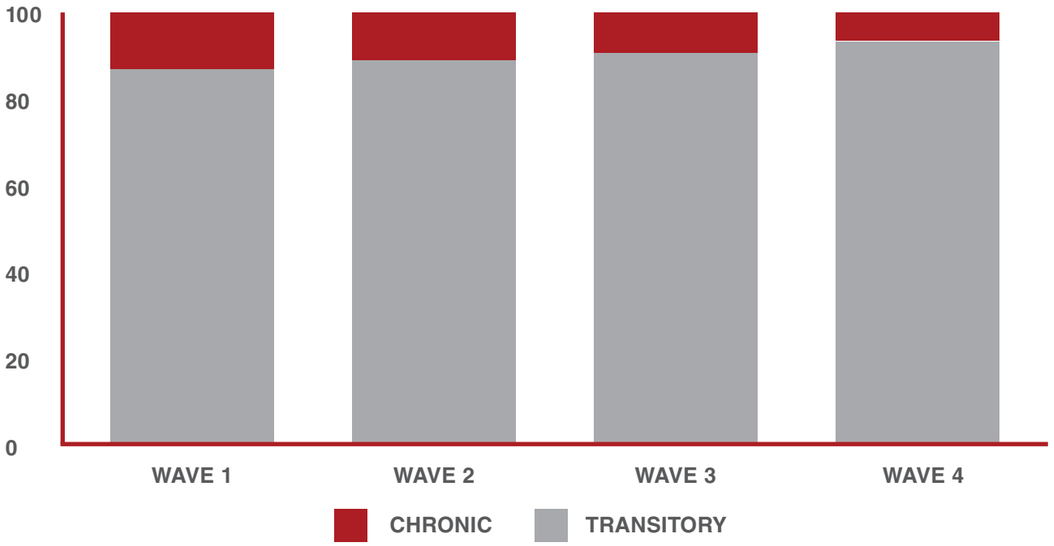
Wave 1	Wave 4	%
Severe	Severe	28.69
Severe	Poor	13.07
Severe	Non-poor	11.49
Poor	Severe	5.48
Poor	Poor	6.48
Poor	Non-poor	7.98
Non-poor	Severe	2.29
Non-poor	Poor	3.44
Non-poor	Non-poor	21.09
Total		100

Source: Finn, A. and Leibbrandt, M: The dynamics of poverty in the first four waves of NIDS, 2016.

Over four waves, it is possible that people can move in and out of poverty with each successive measurement every two years. **It is striking that nearly half of the panel members (about 47%) were poor across all four waves.** Only 16% were non-poor across all four waves.

For policymakers and researchers, the significance of this is in being able to distinguish the chronically poor from the transitorily poor. In this analysis an individual is defined as chronically poor if his or her income, averaged over the four waves, is less than R1,283 in real terms. The four waves of data show that the proportion of chronically poor has grown in the past eight years. Of those who were **poor** in Wave 1, about 86% were **chronically poor**; by Wave 4, of those who were poor, nearly 93% were chronically poor. In other words, **most of those who are classified as poor are chronically poor.**

Figure 1: Chronic versus transitory poverty



Source: Finn, A. and Leibbrandt, M., The dynamics of poverty in the first four waves of NIDS, p. 10. Attrition-corrected panel weights applied to members of the balanced panel.

1.2 Multidimensional poverty

Access to education and services such as water, electricity and health continues to improve lives.

Poor households face a range of deprivations, and the Multidimensional Poverty Index is useful in measuring access to education, health and services such as water and energy.

A major finding of the NIDS study is that, by Wave 4, **far more people had moved out of MPI poverty than income poverty.** Only 24.6% of those who were MPI-poor in Wave 1 were still multiply deprived by Wave 4 (contrasted with 54% of those who were money-poor in Wave 1 and were still so by Wave 4).

In measuring each wave, we found the MPI poverty rate to be consistently lower than income poverty. Moreover, it was more likely that households could transition out of being MPI-poor in successive waves but still remain income-poor.

A fairly consistent trend is that between 66% and 88% of those who experienced **transitory MPI poverty** (poor in one wave and not the other) were **income-poor** in both waves, while about 10% were income non-poor in both Waves 1 and 4.

So, improvement in the MPI can lead to better lives, but this has to translate into better access to jobs to improve incomes in the short run. Many of the improvements reflected in the decreased MPI (for example, education and health) are longer-term investments in people and would be reflected in improved income poverty outcomes in later waves of NIDS.

1.3 What makes up household income?

The grant system plays an important role in poverty reduction. The loss of labour market income is the major reason people are falling into poverty.

For **non-poor households**, labour market income (wages and salaries) makes up a substantial portion of their income – 86%. However, in poor households this ranges from 46% to 52% over different waves.

For **poor households,** the share of income from government grants is very important and comprises between 40% and 50% in all the waves. Remittances are also an important and seemingly rising component of household income in poor households, comprising 3% in Wave 1 and 11% in Wave 4.

For non-poor households, investment makes up a far more important part of income than for poor households (7–10% compared with 1–3%).

1.4 What are the trigger events causing individuals and households to enter or exit poverty?

We modelled transitions into and out of poverty over the four waves of NIDS using regression analysis, and found that:

- an increase in the size of a household increases that household's chances of moving into poverty and decreases its chances of leaving poverty;
- women were no more likely to transition into poverty than men, but were less likely to transition out of poverty; and
- respondents living in rural areas were on average between 4% and 7% more likely to enter poverty than those living in urban areas.

In terms of race, there was no significant difference between the likelihood of African and coloured households entering poverty, although white and Indian respondents were between 20% and 25% less likely to do so between Wave 1 and Wave 4.

But by far the most economically significant factor that either pushed a household into poverty or pulled it out was the **labour market** – specifically, living in a household in which at least one resident member was employed. Controlling for other factors, if a respondent had a wage-earning person in their household in Wave 1, he or she was about 8% more likely to exit poverty by Wave 4. Having an employed household member was also a significant buffer to entering poverty between Wave 1 and Wave 4, reducing the probability of this transition by about 14%.

We also examined a number of factors that determined whether a person moved into or out of poverty. These factors were divided into demographic and income events that occurred in households over the four waves, and included:

- adding or losing a household member;
- a change in the household head;
- changes in earnings for different household members;
- changes in remittance income; and
- changes in income received from government grants.

The propellers for exiting or entering poverty were driven by the loss or gain of a wage income for a household head, spouse or member, and a concomitant change in remittance income for poorer households. The primary trigger for one-fifth of households that entered poverty between Waves 1 and 4 was a fall in the labour market earnings of the household head; for 14% of households, the trigger was a fall in the labour market earnings of another member of the household.

Other triggers that pushed people into poverty were a fall in remittances or government grants: for instance, the death of a relative who may have been receiving an old-age pension.

Demographic events explained 56% of the transitions into poverty, and about 59% of the transitions out of poverty, between Wave 1 and

Wave 4. On the income side, a fall in the wages earned by the household head explained close to one-fifth of transitions into poverty, as mentioned above. This was not mirrored in the dynamics of exiting poverty, as higher wages for a household head were the most important trigger event for only 4% of households. By far the most significant income trigger for a household leaving poverty was an increase in government grants, and this was the case for almost one-quarter of those who exit poverty.

The four waves of NIDS data indicate that demographic changes are as important as income changes in triggering entry into and exit from poverty. On the income side, the grant system plays an important role in poverty reduction, while the loss of labour market income is the major reason why people fall into poverty.

2. Inequality

Although education attainment is increasing across income groups, the poorest are not benefiting through upward income mobility.

South Africa has one of the highest levels of inequality in the world. The Gini coefficient for labour market earnings (wages and salaries) is 0.55 (where 1 is most unequal and 0 is most equal), and for total household income even higher, at 0.66. This inequality has been stubbornly high in the post-apartheid era. It raises the question of whether this persistent inequality spans generations.

NIDS is uniquely able to throw light on whether the schooling, occupational and earnings situations of today's children are better than those of their parents. Analysis made use of a balanced panel of sample members – that is, members of the study who have been interviewed in all four waves. The mean age for our sample was 35 years, of whom about 85% were African.

With these four waves of data, researchers focused on earnings mobility across generations as labour market income plays such an important role in determining income inequality in South Africa. The focus on education allowed an investigation of the widespread belief – and hope – that improved educational outcomes will lead to better employment for a new post-apartheid generation.

Table 2: Summary statistics of the balanced panel

Age (mean in Wave 4)			
Race %	35.41		
African	85.53		
Coloured	6.49		
Asian / Indian	2.23		
White	5.75		
Education %	**Son**	**Father**	**Mother**
None	2.86	46.50	40.39
Primary	13.32	18.54	24.17
Incomplete secondary	40.97	22.62	23.78
Matric	21.90	8.22	6.95
Post-secondary	20.95	4.13	4.17
Occupation %			
Elementary	21.46	23.62	59.51
Craft / trade	23.90	23.67	5.33
Clerk / sales	22.59	14.17	16.75
Operator / semi-skilled	23.96	29.33	5.21
Porfessional / manager	8.08	9.20	13.20
Number of people observed	**1785**		

Source: Finn, A., Leibbrandt, M. and Ranchhod, V., Patterns of persistence: Intergenerational mobility and education in South Africa, p. 14.

The education results were very promising, showing a marked increase in educational attainment of children compared with their parents:

- Although the proportion of respondents in the sample with no education was less than 3%, more than 40% reported having parents who had no education.
- Forty-three per cent of respondents in the balanced panel attained at least a matric. The corresponding proportions for the fathers and mothers of these respondents were about 12.4% and 11.7%, respectively.
- **More than a quarter of sons who had either a father or a mother with no education managed to complete at least a matric.**
- There was very little downward educational mobility for sons whose parents had either a primary or an incomplete secondary education.

However, it is important to note that this analysis does not measure the quality of education, simply the number of years of formal education.

As a bridge into the analysis of earnings mobility across generations, we examined the occupations of the respondents and their mothers and fathers. [2] The findings were that:

- The occupational distributions for fathers and sons look relatively similar, although there is a higher proportion of sons in clerk/sales categories, and a lower proportion in operator/semi-skilled jobs, than their fathers. This is a much less optimistic picture than that presented above with regard to education.
- In contrast, almost 60% of the mothers of our balanced panel respondents were employed in elementary occupations –

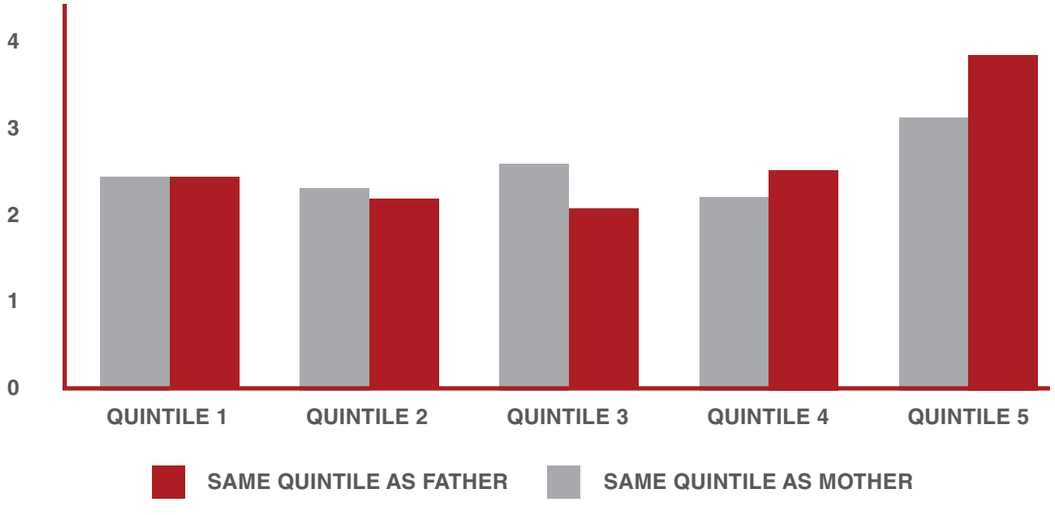
nearly three times the proportion of sons. This could suggest occupational mobility, but the above picture with regard to fathers and sons suggests rather that this is a reflection of the lack of change in the gender division of work. That being said, about 13% of mothers were employed in the highest skill category (professional/technical/manager), and the corresponding percentage for sons was lower, at 8%.

Now, earning variables were mapped against different levels of education to discern the patterns. Earnings levels were generally low unless a respondent had a matric or a post-matric qualification. Dividing people by income quintiles (20% slices from the lowest to the highest), we observed that:

- about one-quarter of sons whose parents were in the bottom quintile (20%) of earnings were themselves in the bottom quintile of earnings;
- for the middle quintile, this decreased to just under 20%; and
- the highest probability of a parent and child matching is at the top of the earnings distribution.

More formal analysis confirms that the correlation between the earnings of fathers and sons is very high, notwithstanding an increase in years of schooling. Internationally, particularly in other developing countries, there is a high correlation between parents and sons at the lower end of the earnings distribution. But in South Africa the correlation is even higher – at 0.9 for those who earn the lowest wages. This is a sign of how persistent inequality is over a generation. The correlation of father and son earnings changes along the distribution of earnings. While it is highest at the bottom of the distribution (and at the top), it falls toward the middle.

Figure 2: Unconditional probability of a son being in the same earnings quintile as his parents



Source: From the first four waves of NIDS. Attrition-corrected panel weights applied to members of the balanced panel. Finn, A., Leibbrandt, M. and Ranchhod, V., Patterns of persistence: Intergenerational mobility and education in South Africa, p. 16.

In sum, although today's generation has much higher levels of educational attainment than their parents and grandparents, there has been little occupational and earnings mobility. In spite of an increase in years of education, children's occupations and earnings generally match that of their parents closely, particularly at the top and bottom end of the income distribution. There seems to be more mobility in the middle of the income distribution, but given the high levels of unemployment, this is as likely to be downward mobility as upward mobility.

Going forward, further work on the quality of education is a priority. In this regard, innovative work is under way that involves linking NIDS data on schools with data from the Department of Basic Education.

3. Employment

One-fifth of those employed in 2012 were not by 2015. However, nearly half of the 2012 unemployed had found a job by 2015.

NIDS is based on a panel survey that interviews the same respondents at two-yearly intervals. Thus, it is well placed to investigate changes in employment status. The survey can be used to tell a story of what happens to those who have jobs or are unemployed over time.

The statistics reported below provide a brief overview of labour market patterns for the working-age population, while a more detailed analysis is reserved for Section 4.2 "Youth", which analyses youth in the labour market.

This analysis looks at the group of working-age (15–64) respondents who had been interviewed in each of the waves from Wave 1 to 4 (i.e. a balanced panel of respondents), to discern **patterns** of employment and unemployment from Waves 3 to 4. Here are some of the findings:

- Of those who were **employed** in Wave 3, 80% were still employed in Wave 4.
- Of those **unemployed** (by the expanded definition) in Wave 3, about 27% were still unemployed by Wave 4 and about 43% had found jobs.
- Of those who defined themselves as **not economically active** in Wave 3, 61% were still not economically active, about 23% were employed and about 16% were unemployed – meaning they were wanting jobs.
- Of those who were **employed** in Wave 3, just over 7% were unemployed by the broad definition (either searching or discouraged unemployed) in Wave 4.

Of those interviewed in all waves from Wave 1 to Wave 4 who were of working age and either **not economically active** or **unemployed** (by the

broad definition) in Wave 3 and who found jobs in Wave 4, the biggest sectors of their primary regular employment were in the community, social and personal services (about one-quarter) and wholesale and retail trade (just under one-quarter).

The picture that emerges from this analysis of the balanced panel of working-age respondents is a positive one. The majority of the employed in the balanced panel retained their jobs between Wave 3 and Wave 4, while a significant proportion of the unemployed found jobs.

Furthermore, evidence from this analysis suggests that there are benefits to actively searching for employment. Table 3 indicates that of those who were discouraged in Wave 3, that is wanting work but not actively searching, 33% had found employment by Wave 4. By comparison, 44% of individuals who were actively searching for work in Wave 3 had found employment in Wave 4.

Table 3: Wave 3 to Wave 4 employment status transition matrix (aged 15-64 years in Wave 3)

		Wave 4 employment status				
		Not Economically Active	Unemployed Discouraged	Unemployed Strict	Employed	Total
Wave 3 employment status	Not Economically Active	61.0	2.7	13.4	22.8	100.0
	Unemployed Discouraged	36.6	3.8	26.5	33.1	100.0
	Unemployed Strict	29.1	2.5	23.7	44.7	100.0
	Employed	12.8	0.6	6.7	79.9	100.0
	Total	35.6	1.8	12.6	50.0	100.0

4. Growing up in South Africa Today

4.1 Childhood

Some of the research using NIDS data in the wake of the Wave 4 survey focused on how children grow up in South Africa. This is important, because the way children are treated or develop lays the basis for the future of the country. Childhood development also lends itself to early policy interventions that can change the life chances for a new generation and build a more equitable society.

Some of the key questions that can be addressed from the NIDS data to date are:

- how malnutrition in early life affects educational attainment;
- the cumulative effects of the Child Support Grant
  - on education; and
  - on maternal mental health;
- how children are affected by maternal deaths; and
- how children are affected by adult migration and how they are affected by migrating themselves.

4.1.1 Nutrition and stunting

Stunted children start school later and progress at a slower rate, completing fewer years of school. They are more likely to come from poor households.

There is increasing evidence that the early childhood years are crucial for an entire life. Early childhood nutrition and intellectual stimulation affects the way children perform in school; the way they perform in school affects their chances of obtaining a matric; and matriculating affects their chances of post-matric education, which in turn affects their chances of entering the labour market and becoming a fulfilled adult. It is only through fulfilled and functioning adults that the social fabric can be strengthened.

The NIDS data illuminate some critical information in respect of child development. Specifically, the data tell us about the relationship between early childhood malnutrition, manifested by either stunting (low height-for-age) or obesity (high Body Mass Index), and schooling outcomes for children aged 14 years and younger.

Across the waves, NIDS collects anthropometric data – information on the height, weight and measurements of all the respondents who are interviewed. To identify whether children are growing at an age-appropriate rate, international child growth standards from the World Health Organization (WHO) are used as a reference point.[3]

Because NIDS is now in its fourth wave, we are able to link the data on measurements of children in Wave 1 to educational outcomes eight year later, in Wave 4. In Wave 4, the effective sample was 4,482 children identified as Continuing Sample Members (CSMs). In 2008 (Wave 1), they were aged 0–8 years and comprised a total of 5,049. Because of some attrition in the original sample, 89% were re-interviewed by Wave 4.

In Wave 1, the prevalence of stunting among children aged 6 months to 14 years was just over 17%, while 6.5% of children were severely stunted. Close to 19% of children were overweight, and 7.5% were classified as obese. Importantly, the youngest children (aged 6 months to 4 years) suffered from the highest prevalence of stunting and severe stunting (24.9% and 9.5%, respectively), while the prevalence of overweight children and obese children rises with age (rates of overweightness and obesity among the group of 10–14-year-olds are 21.2% and 9.6%, respectively).

Girls were marginally less likely than boys to be stunted or severely stunted, while they were more likely than boys to be overweight or obese.

African and coloured children were more likely to be stunted than Indian and white children. The prevalence of stunting among African and coloured children was 18% and 20%, respectively, whereas for Indian and white children it was 1.5% and 5.9%, respectively.

Obesity rates were also highest among African (7.2%) and coloured children (13.9%), compared with Indian (1.5%) and white children (5.9%), but the data suggest similarly high rates of overweightness (19% to 21%) for African, coloured and white children, with Indian children being the least likely to be overweight (11.5%).

Stunting and severe stunting were higher in rural areas, while rates of overweightness and obesity were lower in rural areas than in urban areas. Stunting is much more prevalent in lower-income households. So, for instance, 20% of children were stunted in the lowest quintile, compared with 12% in quintile 5 (the richest). In contrast, the prevalence of obesity was 6% for children in quintile 1 and 13% for children in quintile. [5]

Comparable studies conducted within ten years of the NIDS Wave 1 survey in 2008 show similar data. Although stunting and severe stunting among children aged 4 to 9 appears to have declined since 2005, it is alarming that it may have increased for the most vulnerable group of children, those aged 1 to 3.[4]

We examined the educational outcomes of children re-interviewed in Wave 4 and compared these with the nutritional status captured in Wave 1. We looked at three measures:

- the age the child first enrolled for school;
- the number of grades completed; and
- whether a child had passed, failed or withdrawn before a grade was completed.

These were our findings:

- **Stunted children not only start school later but progress at a slower rate. Children stunted in 2008 (Wave 1) are more likely to have failed at least once by 2015.**
- **On average, those who were not stunted in 2008 started school between one-third and one-quarter of a year earlier than those who were stunted.**
- **About 30% of children who were stunted in 2008 failed at least once by 2015, compared with about 20% of children who were not stunted.**
- **Children who were stunted in 2008 completed significantly fewer grades at school by Wave 4 by age 14 than those who were not.**

The NIDS data demonstrate that poor nutrition in early childhood, as measured by stunting, has a significant effect on educational attainment. Stunted children start school later and fail more grades, resulting in completing fewer years of school than their better-nourished counterparts. To the extent that NIDS can be compared to other data sources such as the SANHANES survey, it appears that the stunting of children aged 1 to 3 has not declined since 2012 and may even have increased.

South Africa does not do well in global comparisons, given its GDP per capita. It was recently found to be one of 34 countries responsible for 90% of the child malnutrition burden.[5]

As stunted children are more likely to come from lower-income households, the educational effects of their stunting are likely to perpetuate their position near the bottom of the income distribution. The evidence suggests that nutritional programmes should target children in the first few years of life.

4.1.2 The cumulative effects of the Child Support Grant

Receipt of the Child Support Grant is highly correlated with increased years of schooling attained.

NIDS also investigated the cumulative effects of the Child Support Grant (CSG) over the four waves, as well as its effects on maternal mental health. This is significant because children of depressed mothers have been shown to have poorer outcomes in education.

The research shows that for those children born before the means test threshold was raised, there has been significant loss of possible income. This is also the case for those born in 1994 as opposed to 1995, the latter being the year in which the CSG was introduced.

The CSG has benefitted about 12 million children since 1998 and is the largest pro-poor cash transfer programme. In 2010 it reached about 82% of the poorest fifth of households and comprised 59% of household income.[6] Both the means test threshold and the age eligibility have increased since 1998, but it should be noted that the income threshold for the means test remained constant for a decade from 1998–2008, after which it almost doubled. The adjustment of the means test threshold means that children born in 2007 would have lost a year's worth of grants if their caregiver was above the threshold. Ten-year-olds in 2008 who were in families above the threshold lost about R11,000 in potential income.

There is also a gap in cumulative effects between children born in 1994 and those born in 1996, who became eligible for the grant at an earlier age. Those born in 1994 have received R13,244 less than those born in 1995.

4.1.2.1 The effects of the CSG on education

The cumulative effects of the CSG impacts on educational attainment:

- **Those born in 1995 would have about 19% more schooling than those born in 1994.**
- **Increases in cumulative Child Support Grant received over the years to 2014 are highly correlated with increased years of schooling attained. The mean number of years of schooling (measured in 2014) for the means-test-eligible sample born in 1995 is 8.37, compared with 7.76 for those born in 1994.**

Although the uptake of the grant is high, it is estimated that about 3.2 million eligible children did not receive the grant in 2010,[7] which could have long-term effects on their development.

As the government considers increasing the age limit for the receipt of CSGs, it is important to note their cumulative effects, particularly on education.

4.1.2.2 The CSG and maternal mental health

In analysing the Wave 4 data, researchers investigated the less visible benefits of the CSG, in addition to its effect on schooling and nutrition.

One benefit of the grant seems to be the effect on maternal mental health.[8] International research has shown that maternal mental health is correlated with a range of outcomes for children, such as years of schooling and their own mental health. The alleviation of financial stress through cash transfers improves maternal mental health, and this in turn can have a positive outcome for children.

There is a significant correlation between the raising of the means threshold for the grants and maternal mental health: the incidence of depression drops from an average of 36% in Wave 1 to 24% in Wave 2 – a reduction of 33%. This was the period in which the threshold doubled, meaning more caregivers were eligible to receive the grant.

NIDS data show that the CSG can play a role in improving maternal mental health and impact positively on outcomes for children.

4.1.3 Maternal death and child development

Maternal orphanhood rates have risen for African children, with adverse effects on education.

The HIV/AIDS pandemic continues to have a devastating impact, particularly on those living in sub-Saharan Africa. A UNAIDS study of sub-Saharan Africa estimated that, in 2014, 11 million children had lost one or both parents to AIDS.

In South Africa, maternal orphanhood rates have risen for African children over the past decade and remained stable, or have fallen, for other race groups. Interestingly, from 1993 to 2014, maternal orphanhood rates measured at seven-yearly intervals increase until 2008, when they fall for younger children but continue to climb for the older cohort. This marks the year when policy relating to antiretroviral treatment (ART) changed significantly and AIDS counselling and prevention measures were rolled out. The majority of patients receiving treatment were women aged 15 and over, suggesting that the ART roll-out would have a significant effect on maternal orphanhood rates.[9]

This is good news. But for those children who were young in the years leading up to 2008 and are now schoolgoing, there is high level of maternal orphanhood.

Previous research has indicated a strong correlation between a child losing his or her mother and falling behind in school. In other developing countries, research has also shown that children who lose their mothers suffer poorer health outcomes, which can impact on their educational attainment.

The NIDS data clearly show maternal orphans to be at a disadvantage with respect to health and educational outcomes. Among African and coloured children aged 5 to 14 years, maternal orphans are shorter, lighter, report worse health and have completed less schooling than their non-orphaned peers. In the NIDS data we also identified adults who lost their mothers before the age of 15 and compared their outcomes with their non-orphaned peers. Adults who became maternal orphans before the age of 15 have, on average, 0.6 years less schooling than non-orphans, and are about 10% less likely to have a matric.

NIDS shows that that African and coloured adults who lost their mother prior to age 15 on average attained fewer years of education, earn less, and report worse health.

The four waves of NIDS data allow us to observe children at multiple time points, before and after a mother's death. We can examine whether maternal orphans were disadvantaged even prior to their mother's death, or whether the death caused declining nutritional and educational outcomes.

We find a significant causal impact of the loss of a mother on a child's educational attainment. We do not, however, find the same impact on nutrition and health as in other countries. Maternal orphans had poorer nutritional status before their mother's death, but her death did not result in further declines in their nutrition and health. The relationship between maternal orphanhood and poor nutrition is not causal, but rather reflects a common association with factors such as poverty.

Table 4: 2014/15 comparison of adults orphaned before age 15 and those whose mother is alive or died after age 15

	Mother died before individual was aged 15 (% ages)	Non-orphan or mother died when individual was aged 15 or older (% ages)	Level of significance for test of difference in means	Observations
Age	34.40	35.68	***	9149
Years of education (including Grade R)	10.43	11.04	***	9149
Matriculated (at least Grade 12)	0.27	0.36	***	9149
Employed	0.54	0.58	*	9142
Household assets	7.17	7.66	***	9146
Height	1.62	1.63	**	9061
Weight	69.89	73.12	***	9042
BMI	26.59	27.51	***	8782
Underweight	0.05	0.05		8782
Overweight	0.232	0.238		8782
Obese	0.274	0.325	**	8782
Self-reported health status	2.181	2.124		9144
Reports poor or fair health	0.096	0.078		9144
CESD 10 (depression scale)	6.839	6.732		9148
Any chronic conditions	0.177	0.167		9149
Moderate to severe hypertension	0.189	0.175		9063

Notes: Data: NIDS, 2014/5. African and coloured adults, aged 25-50 years. Standard errors for tests of differences in means allow for correlation in the unobservables between individuals from the same Wave 1 sampling cluster (* p<0.01, ** p<0.05, * p<0.1).**

Source: Ardington, C. and Little, M. The impact of maternal death on children's health and education outcomes.

4.1.4 Child migration

Child migration is high and tends to be away from urban areas and their mothers.

NIDS is both national and longitudinal, following its sample members around the country using GPS data. This, coupled with detailed questions about children, means it provides a rich source of data on the nature of migration and its effects on children. About five million of 18 million children in South Africa do not have co-resident mothers. Of these, 29% are maternal orphans, while 71% have mothers living elsewhere.

The four waves of NIDS have allowed us to track children since birth or childhood over the eight years of the panel study. If they move, they will be tracked to their new households and interviewed, together with the new household members.

Most previous migration studies have focused on those over the age of 15; NIDS has allowed us to focus on children who were below the age of 15 in Wave 4.

After attrition (i.e. being unable to track children), the panel consisted of 3,750 children, who were present at both Waves 1 and 4 of NIDS. Of these, 4% were maternally orphaned when they were originally interviewed in Wave 1, and 22% had mothers who were living elsewhere. By Wave 4, the percentage of maternally orphaned children had increased to 11%, and 26% of children had mothers living elsewhere.

Migration is defined as crossing a municipal boundary. By this definition, 14% of the African children in the sample had migrated between Waves 1 and 4. When scaling up this sample using the survey weights, this implies that there have been nearly one million child migrants (980,000) between Waves 1 and 4.

Mobility rates within municipalities are much higher, with about a third of all children who were under eight years in the first wave moving residence in the seven years of the panel (implying nearly 2.5 million child movers). Of these, 39% were defined as migrants in that they had moved across municipal boundaries, while 61% had moved house or joined another household but stayed within the same municipality.

Nearly half of these cross-municipality moves for children were also across provinces, except for KwaZulu-Natal where the majority of child migrants (79%) ended up in the same province.

A quarter of those whose sending household was in the Eastern Cape ended up living in the Western Cape, while 48% remained in the Eastern Cape and 13% went to Gauteng. Gauteng had the highest in-migration rate, receiving 30% of all child migrants. This comprised:

- 34% of migrants from Mpumalanga and Limpopo;
- 30% from the Northern Cape; and
- 29% from North West.

There are particularly high rates of movement of children both ways between rural and urban areas. Of those initially living in urban areas, 36% of cross-municipality moves were to another urban area, and 64% were to the former homelands. Of those moving from the former homelands, 47% moved to another rural household in a former homeland, while 52% moved to an urban area.

This is different from (permanent) adult migration patterns, where people tend to move to similar areas (either urban or rural), and it indicates that children may be sent to join a parent in an urban area from a rural area, or sent home to grandparents from an urban area to a rural area.

Households with child migrants have specific characteristics. Amongst them are:

- Households tend to be slightly smaller.
- The mean per capita household income is slightly higher.
- There are indications that migrant children are financially better off both before and after migration.
- Migrant children tend to be younger than five, and the mean age of mothers is slightly younger.
- There seems to be a slightly higher rate of migration by children in informal dwellings.
- Mothers of children who migrated were less likely to have work and more likely to be looking for work than the mothers of those who did not migrate: this suggests that the migration of children is strongly linked to their mothers' work-seeking activities.
- Migrant children whose mothers were alive but absent across two waves were more likely to migrate into households in rural areas (62%) than to urban areas (38%). A similar pattern was found for children whose mothers' residence status had changed from co-resident to absent (56% of these migrant children ended up in rural households, while urban households were the destinations for 44%).

So, the net effect of child migration tends to be **away** from parents. Children who migrate away from co-residence with their parents tend to migrate to rural areas. About 62% of child migrants move into rural areas. However, **the majority of those who migrated to join their mothers** (80%) moved from rural to urban areas. Conversely, **when mothers migrated away from their children,** 82% were left behind in rural areas.

This suggests that migration to urban areas tends to result in co-residence of children and mothers, whereas migration to rural areas tends to result in separation.

Over three waves of NIDS, 20% of children experienced migration events in relation to their mothers – amounting to 1.4 million children, when scaling up the NIDS sample using survey weights.

The findings show that maternal migration is primarily to urban areas. If children migrate to join their mothers, they are likely to move to (or within) urban areas. Conversely, there are indications that rural areas (which are predominantly the former homelands) remain holding places for children whose mothers are urban migrants, and that there is some return migration of young children to rural areas.

This study shows that the long-term effects of influx control persist. Children may be slightly more mobile now but mostly they do not move even when their mothers do so. Rural homelands continue to be dormitory areas for the children of adults who are trying to join the labour force and move to urban areas.

Mostly, children migrate over long distances, with half of those who cross municipal boundaries also crossing provincial ones. Gauteng has the largest share of in-migration children, while the Eastern Cape is the largest destination for children leaving the Western Cape.

The fact that so many children are separated from their mothers if the latter migrate suggests that childcare in urban areas should be examined from a policy perspective. Migration patterns of children, which tend in the main to be away from urban areas and their mothers, suggest that the legacy of apartheid-era influx control policies persists.

More research needs to be done about what informs decisions to send children away from urban areas back to traditional rural areas. But current knowledge suggests that mothers are deciding not to bring their children to urban areas because they may be too dangerous for children (for example, informal settlements) and/or because affordable childcare is not available.

Policymakers need to consider settlement and housing plans that can take into account the needs of children who would otherwise be forced to migrate away from their mothers.

4.2 Youth

4.2.1 Employment

Youth employment is unstable, and prospects improve with being male, older, or more educated.

One of the most pressing social challenges in contemporary South Africa is youth unemployment. Young people (those aged 15–34 years) make up about three-quarters of the five million people currently unemployed.[10]

The crucial policy questions are how young people can make the transition from school to work, and which pathways are the most effective in preparing them for the labour market. Because NIDS is able to track the same people over time, it can address key questions that pertain to finding a job:

- **How long do young people remain unemployed?**
- **What makes a difference in finding a job?**
- **Who remains unemployed and why?**
- **Are the wage expectations of young people unrealistic?**

The analysis in this section makes use of a balanced panel of youth, that is, youth who were interviewed in Wave 1 and in each subsequent wave. In this analysis, youth are categorised as either consistently employed, if employed for at least three of the four waves of NIDS, or persistently unemployed, if unemployed for at least three of the waves.

The youth are defined as 15–34 year-olds. There is a high degree of labour market churn within this group. For at least three of the four waves, nearly one-third (31%) of the balanced panel of Wave 1 youth were **consistently employed**, while about 7% were **persistently unemployed**. About 42% were defined as not economically active in at least three out of four waves. The remainder (about 20%) were in the labour force for at least three waves, but were neither employed nor unemployed for more than two waves.

We can further break down those who were in the labour force for at least three waves by creating age sub-categories of youth. Generally, the older group does better when it comes to employment. Of the Wave 1 youth who were in the labour force for at least three waves, those in the older age groups were more likely to have been employed consistently. About two-thirds of those who were in the 30–34 age category in Wave 1 were consistently employed, but less than half – about 45% – of those in the 20–24 age category were consistently employed. Conversely, 8% of youth in the 30–34 age category were persistently unemployed, compared with 14% in the 20–24 age category.

Males tend to be more consistently employed. About 62% of the males in our balanced panel of Wave 1 youth who were in the labour force for at least three waves were consistently employed. In contrast, of the women, 47% were employed consistently, while 16% were unemployed persistently, compared with 7% of males.

A racial dynamic is also observable, in that just over half (52%) of African youth who were in the labour force for at least three waves were consistently employed, compared with 60% of coloured youth. What is more, 12% of African youth were persistently unemployed, compared with 5% of coloured youth. The Indian and white sample was too small to comment on separately.

The benefits of education are clearly evident: 77% of those who had higher education in Wave 1 in our balanced panel and were in the labour force for at least three waves were consistently employed, whereas 58% of those with matric, and fewer than half (46%) of those with less than matric, were consistently employed. As far as persistence in unemployment is concerned, 15% of those with less than matric were unemployed for three or four waves, in comparison with 8% for those with matric only and just 1% of those with higher education. The positive effects of education in accessing employment are well documented, but what NIDS indicates is that education plays a key role in youth remaining employed.

Young people who live in urban areas and on farms were more likely to be consistently employed than those who live in traditional areas. About 59% of those in urban areas who were in the labour force for at least three waves, and about 70% of those who lived on farms, have been employed for at least three waves, in contrast with fewer than half (40%) of those who lived in traditional areas in Wave 1.

Table 5: Breakdown of those in the labour force for at least three waves, by characteristic

	Employed 3 or 4 Waves	Unemployed 3 or 4 Waves	No more than 2 Waves Employed or Unemployed	Total
Wave 1 Age Interval (%)				
15-19	32.7	15.3	52.0	100.0
20-24	45.2	13.6	41.2	100.0
25-29	56.6	10.9	32.6	100.0
30-34	67.4	8.1	24.6	100.0
Wave 4 Age Interval (%)				
20-24	17.2	11.9	70.9	100.0
25-29	39.0	17.0	44.0	100.0
30-34	56.3	11.1	32.5	100.0
35-39	60.6	8.7	30.7	100.0
40-44	76.5	6.6	16.9	100.0
Gender (%)				
Male	62.0	6.5	31.5	100.0
Female	46.6	15.7	37.8	100.0
Race (%)				
African	51.7	12.2	36.1	100.0
Coloured	59.7	4.7	35.7	100.0
Asian/Indian	76.0	0.0	24.0	100.0
White	88.4	11.6	0.0	100.0
Wave 1 Highest Education Level Attained (%)				
Less than matric	46.0	15.3	38.7	100.0
Matric	58.4	8.2	33.3	100.0
Higher education	77.0	1.3	21.7	100.0
Wave 4 Highest Education Level Attained (%)				
Less than matric	47.0	15.8	37.2	100.0
Matric	52.0	9.6	38.4	100.0
Higher education	69.9	3.4	26.7	100.0

	Employed 3 or 4 Waves	Unemployed 3 or 4 Waves	No more than 2 Waves Employed or Unemployed	Total
Wave 1 Location (%)				
Traditional	39.7	15.4	44.8	100.0
Urban	58.8	10.3	30.9	100.0
Farms	69.4	2.0	28.7	100.0
Wave 4 Location (%)				
Traditional	39.3	18.4	42.3	100.0
Urban	58.3	9.3	32.4	100.0
Farms	70.2	1.5	28.2	100.0
Moved Between any of the Waves (%)				
Did not move	53.5	11.4	35.1	100.0
Moved at least once	54.6	11.1	34.3	100.0
Total (%)	53.9	11.3	34.8	100.0

Note: Estimates using balanced panel of youth in Wave 1, who were interviewed with an adult questionnaire and had an employment status in all waves. Respondents with a missing education in either Wave 1 or Wave 3 are excluded from the education numbers. Balanced panel weight used.

Source: Ingle, K. and Mlatsheni, C. The extent of churn in the South African labour market: Evidence from the NIDS Wave 1–Wave 4.

The results of the youth labour market panel analysis suggest that two-thirds of the balanced panel of Wave 1 youth who were employed in Wave 1 had regular employment. One-third (33%) did not; they were employed doing casual work, working for themselves, working on a plot, or helping other people with their businesses.

What sectors were they working in predominantly? Of those in regular employment in Wave 1, nearly half were working in either the wholesale and retail trade (24%) or in community, social and personal services sectors (about 22%). Only about 17% were working in the manufacturing sector.

Of those who were in regular employment in Wave 1 in the community, social and personal services sector, nearly two-thirds (66%) had regular employment across all four waves. About half of those who were employed in the wholesale and retail trade or in manufacturing in Wave 1 also had regular employment across all four waves (although they may have changed sectors post-Wave 1). And of those who were regularly employed in community, social and personal services in Wave 1, 71% of those who were regularly employed across all four waves had their primary employment in this sector in all four waves. The corresponding proportion for wholesale and retail and manufacturing was much lower, at 45% and 16%, respectively.

Of those in regular employment in Wave 1, about half were in service and sales or in elementary occupations. Of those regularly employed as service and sales workers in Wave 1, more than half (55%) had regular employment across all four waves (not necessarily in the same type of occupation), while the corresponding proportion for craft and related trades and elementary occupations was 38% and 37%, respectively.

But most young people who were regularly employed across all four waves were not employed in the same type of occupation throughout. Only about one-third (38%) of those in services and sales and in elementary occupations (36%) who were regularly employed in all four waves, stayed in the same type of occupation throughout.

About 4% of those who were unemployed in Wave 1 remained unemployed across all four waves, but about 41% were unemployed for two waves.

4.2.2 Reservation wages

Youth are not pricing themselves out of the market.

The analysis also investigated whether reservation wages – the lowest wage an individual claims he or she would accept – were a significant reason for unemployment in the balanced panel of Wave 1 youth.

The question "What is the absolute lowest take-home wage that you would accept for any permanent, full-time work (per month)?" was asked only in Waves 2, 3 and 4.

Perhaps not unexpectedly, within each wave the reservation wages of the balanced panel of respondents were higher for employed than for unemployed youth. Also, they increased slightly with each wave, perhaps reflecting changing individual circumstances and cognisance of inflation.

For those who remained unemployed through Waves 2, 3 and 4, the median real reservation wages (in November 2014 rands) declined slightly from R2,507 in the second wave to R2,007 in the fourth wave. For those who remained employed through Waves 2, 3 and 4, these wages went up, from a median of R3,752 in the second wave to R4,000 in the fourth wave.

This suggests that high reservation wages are not the primary reason for persistent unemployment. The more persistently youth experience unemployment, the more they tend to revise their wage expectations downward.

For those who gained a job between waves, the mean change in real reservation wages was positive and of a larger magnitude than for those who lost a job between waves.

Interestingly, those who changed from being unemployed in Wave 2 to employed in a regular job in Wave 3 (which was permanent and full-time), earned an average of about R482 more than their reservation wage, and for those employed in Wave 4, the difference was about R65 more (in November 2014 rands). **This shows that their average expectations of wages were not above the average of what they actually earned once they found employment.**

4.2.3 Who found a job and how?

About half of the unemployed youth find their jobs through friends and relatives. Being too discouraged to look for work is not a sentence to permanent unemployment.

Of those who were employed in Wave 3, 81% were still employed in Wave 4. In addition, nearly half (47%) of those who were unemployed by the strict definition in Wave 3 had found a job by Wave 4; of those who were classified as "discouraged unemployed" in Wave 3, 36% had found a job by Wave 4; and about the same proportion of those who were classified as not economically active in Wave 3 had found jobs by Wave 4.

Of those who found jobs, about half of those people classified as not economically active and unemployed said they had found work through relatives or friends.

Most of those who found jobs went into either the wholesale and retail sector or into the community, social and personal services sector.

Table 6: Sector of Wave 4 main regular job if not employed in Wave 3

Sector code for primary regular occupation	Wave 3 employment status		Total %
	Not economically active %	Unemployed % (strict & discouraged)	
Private households	6.5	9.6	8.1
Agriculture, hunting, forestry and fishing	8.0	3.5	5.7
Mining and quarrying	3.2	2.9	3.1
Manufacturing	8.9	9.6	9.3
Electricity, gas and water supply	0.4	1.8	1.1
Construction	6.6	10.9	8.8
Wholesale and retail trade, repairs, hotels and restaurants	32.8	22.4	27.6
Transport, storage and communication	2.3	3.5	2.9
Financial intermediation, insurance, real estate and business services	7.3	11.3	9.3
Community, social and personal services	23.9	24.3	24.1
Total	100.0	100.0	100.0

Notes: Those with a missing sector code for their main regular employment were excluded. Estimates used a balanced panel of youth in Wave 1, who were interviewed with an adult questionnaire and had an employment status in all waves. Balanced panel weight used.

Source: Ingle, K. and Mlatsheni, C. The extent of churn in the South African labour market: Evidence from the NIDS Wave 1–Wave 4.

4.2.4 Post-matric education

Household income when a young person is in matric plays a significant role in whether he or she is able to enrol in tertiary education or not.

Tertiary education plays a crucial role in determining whether young people find regular employment. Analysis using the first four waves of the NIDS allows an assessment of what factors determine whether young people manage to enrol in tertiary education or not.

South Africa's inequality trap is partly determined by access to tertiary education. Low enrolment rates lead to a scarcity of skills, which in turn leads to high rewards for those with tertiary education.

It is often assumed that eligibility is the key reason why most young people do not enter tertiary institutions. Only around half of 25–29-year-olds have passed matric, and only about 15% have achieved grades that allow them to pursue studies at university. But even for those who pass matric, a substantial portion (70%) do not pursue any post-secondary education. Because the rewards for post-secondary education are markedly higher than for matric, it seems as though an expansion in access could break the intergenerational cycle of inequality.

The Department of Higher Education and Training (DHET) in its 2013 White Paper set out plans to expand the capacity of post-secondary educational institutions in the next two decades, focusing particularly on Technical Vocational Education and Training institutions (TVETs).

There are currently 50 public TVET colleges around the country, comprising 264 campuses. They face a number of challenges, including a much-criticised disconnect between course content and the needs of the labour market. Yet they should be much more easily accessible than universities in terms of entrance requirements. This would give clear motivation for the DHET's wish to expand them by 2030 and enrol four times the number currently enrolled – about 2.5 million. At the moment, enrolments at TVETs are substantially less than at universities.

What determines whether a young person enrols at a post-secondary institution? Using NIDS, researchers compared the characteristics of those who enrol within two years of school at a university or a TVET with those who do not do so.

Controlling for socioeconomic background, two key factors that determine enrolment at both universities and TVETs are:

- **family household income during the final years of schooling;**
- **academic capability.**

The sample was based on NIDS respondents who were younger than 30 and who were in matric at some point during the four waves of the survey, and were seen again in the survey within the two years following their matric.

Crucially, the socioeconomic status of a household at the time a young person is in matric is found to have a significant impact on their future choices.

The sample of matriculants seen within two years of leaving matric totalled 2,319 people. Of these, 226 were enrolled in university, 215 in a public TVET, and 208 in another type of post-secondary institution. The remaining 1,670 are not enrolled in any form of post-secondary education.

The mean age of those not enrolled in any institution was slightly higher than those who had enrolled – about 19 – suggesting they may have failed grades in school. University enrolees had the youngest mean age – 18 years – suggesting less grade repetition. The survey confirms that university students are least likely to have repeated a grade (21% have repeated a grade by their matric year), while those not enrolled are most likely to have repeated a grade (61% have repeated a grade at least once). Those who enrol in TVETs are slightly less likely to have repeated a grade, with 53% having repeated.

Of those registered in post-secondary institutions, Africans were more likely to be enrolled in TVETs, while whites were more likely to be enrolled in universities.

In terms of home environment – household size, income and parental education – TVET enrolees were closer to the non-enrolled group. **TVET enrolees come from households that are slightly smaller in size, but have only slightly higher income and parental education levels, compared with the non-enrolled group. University enrolees come from smaller households, have household incomes that are over three times higher, and parental education levels more than 2.5 years higher than both the TVET and non-enrolled groups. Moreover, university enrolees are more likely to have attended a school in an urban area, while TVET enrolees and those not enrolled are more likely to have attended a rural school.**

Financial constraints also seem to be an important determinant of whether and where people enrol in post-secondary institutions. University fees are almost double TVET fees but even those are about R12,000 a year, which for a poor household is not insubstantial. Full funding for TVETs is restricted to the poorest households, and only around 32% of enrolees in the data have been awarded some form of bursary or scholarship, which is slightly less than university enrolees. Also, students enrolled in TVETs are more likely to have to travel further away from

home, so this is an added cost.

Numeracy tests were also given to respondents in Wave 1, but only about 38% of the analysis sample took these tests. However, the results show that the TVET and university enrolees tended to do better than those not enrolled. University enrolment has a clear positive relationship with the test scores overall. The relationship between score and university enrolment is fairly linear for the richest income group, with enrolment higher at each score level than those in the middle or lowest income group. The relationship between enrolment and test score is most noteworthy in the low-income group, with enrolment close to zero at low scores but increasing faster than other income groups for scores above the average.

Interestingly, we see no relationship between enrolment and test scores in the middle-income group.

These differences in patterns of enrolment for income groups could be explained by current funding policies, whereby those in the middle of the income distribution miss out on educational opportunities as their incomes are not low enough to qualify for means-based government funding but, at the same time, are not high enough to qualify for private loans. TVET enrolment by scores also shows a rise in enrolment with higher scores.

The key points to emerge from the analysis are:

- **In terms of socioeconomic household profiles, TVET enrolees do not look very different from those who are not enrolled. However, their test scores are higher.**
- **Household income in the matric year is a significant factor in determining whether matriculants enrol at a tertiary institution.**
- **Individual ability is important, even after controlling for household socioeconomic status and school quality.**

4.2.5 What does this mean for policy?

The finding that household income when a young person is in matric plays a significant role in whether he or she enrol in TVETs or not means that funding at TVETs is insufficient to allow families to overcome the financial constraints involved in enrolment.

It is also significant in the decision to enrol at universities. However, it is important to note that those who enrol at universities generally have three times the household income of those who enrol at TVETs; thus, free university education would not necessarily transfer wealth in the longer term to lower-income groups.

Interestingly, we find that academic merit is important for determining who enrols in TVETs as well as in universities, suggesting that TVETs are not necessarily more accessible to learners struggling in the mainstream schooling system.

To promote equity, it would be effective to direct bursary assistance to university and particularly TVET students in financial need. However, increasing student enrolment in TVETs to the desired level by 2030 requires ensuring that students of all academic levels can access this post-schooling stream.

5. How We Live Now

5.1 Social class and distribution of wealth

NIDS tells us how the social and economic structure of society is changing. Two important indicators are whether there is a growing middle class and whether wealth is being distributed more equally than in the apartheid era.

5.1.1 Middle class

Many middle-income earners are vulnerable to falling in and out of poverty. The truly economically empowered middle class are a small section of society.

Although popular media refers frequently to a growing South African middle class, there has not been a rigorous definition of what this class is.

The NIDS data allow us to look more closely at what is meant by the term "middle class" and to track its evolution.

Although there has been positive growth in average real incomes since 1993, inequality has widened. The incomes of the poorest sections of the population have also increased, paradoxically along with inequality. How has this been possible?

One reason is the slow growth of the middle-income sections of the population. But it is more than that, and goes to the heart of the definition of who exactly the middle class is.

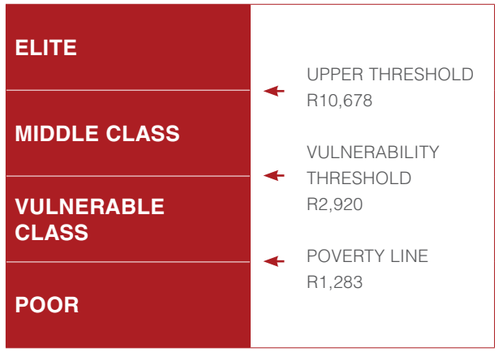
Our analysis tells us that **the definition must go beyond just income at a particular point in time. It must also incorporate who is vulnerable to poverty at that point.**

The definition of a middle class must include the notion that the middle class is an "empowered" class. This means a social group that has a low probability (defined as a probability of 10% or less) of falling into poverty. The **vulnerability threshold to poverty** was calculated using a monthly per capita household expenditure of R2,920 a month (in January 2015 prices).

This concept of the "vulnerability threshold" also serves to distinguish the middle-income band from the elite. Many studies tend to conflate the elite with the middle class in South Africa. We should remember that the share of total income accruing to the top 5% of the population is 42%, compared with only 13% going to the next 5%. The rand value per capita expenditure per month (in January 2015 prices) associated with identifying an elite, as opposed to a middle class, is R10,678.

From these guidelines, it seems that South Africa has four distinct tiers: an elite, a middle class, a vulnerable class, and the poor (see Figure 3). It also appears that the South African middle class is much smaller than previously estimated, at around 14.5% of the total population in 2014. Moreover, it has not grown much since 1993 – growing its share by only two percentage points in the past 23 years. This finding is in line with the fact that per capita income growth in the country has been slowest between the 40th and 95th percentiles of the income distribution.

Figure 3: Four-tiered class stratification following a vulnerability-based approach



Source: Zizzamia, R., Leibbrandt, M. and Ranchhod, V: Vulnerability and the Middle Class in South Africa, SALDRU Working Paper, May 2016

Since 1993, the share of Africans in the middle class has tripled, while the share of whites has halved. In the past five years, there has been a marked growth of Africans in the middle class, who have increased their share from 40% to 50%, totalling four million in 2014. Even more strikingly, the African membership of the elite has more than doubled between 2010 and 2014, from 200,000 to 450,000.

Africans now outnumber whites by two to one in the middle class. Yet, in terms of the country's overall demographics, Africans are still under-represented.

Because NIDS measures changes in and out of various income groups, we can see how many people within each class we have identified are stably positioned and how many move income brackets.

The most stable classes are the chronically poor and the elite. Of those who were chronically poor in 2008, 80% were still poor in 2014. And of those in the elite in 2008, 56% were still in the elite by 2014. However, the vulnerable class is much more mobile, with almost 42% of those who were vulnerable in 2008 moving down into poverty by 2014 – almost twice as many who moved up into the middle class.

In numbers this translates into the following: of the 11 million South Africans who were not poor in 2008, 25% of these (or 3.7 million) had become poor in 2014.

It is in this context of high volatility that a definition of the middle class should avoid including those who are highly vulnerable to falling into poverty.

The biggest distinguishing factor between the severely poor and other classes is access to the labour market. For the severely poor (the bottom 30%), the biggest source of income is government grants and remittances. Only one-third of those classified as poor are employed. In contrast, two-thirds of the "vulnerable" class are employed, and in the more stable middle class, the unemployment rate is only about 6%.

In terms of occupation, the poor and vulnerable who are employed are more likely to be employed in elementary occupations, although an equal proportion of the vulnerable class is likely to be employed in clerical, service and sales occupations. The middle and elite classes dominate the managerial, professional and technical occupations.

Another important distinguishing factor is security of employment: a much higher proportion of those in the vulnerable and poor classes who are employed have verbal rather than written contracts.

Table 7: Type of employment agreement by class, 2014

	Poor	Vulnerable	Middle Class	Elite
Written Contract %	63.66	74.83	89.30	93.31
Verbal Contract %	36.34	25.17	10.70	6.69

Source: Zizzamia, R., Schotte, S. and Leibbrandt, M. Vulnerability and the middle class in South Africa'. SALDRU working paper, May 2016.

In terms of our definition of vulnerability, it becomes apparent that few South Africans are economically secure: the overwhelming majority are either poor, or vulnerable to becoming poor. It is this vulnerability that prevents them from becoming "truly middle class" and able to take decisions based on long-term stability.

5.1.2 Distribution of wealth

The picture that emerges from analysing the wealth data in NIDS is that wealth inequality is greater than income inequality.

NIDS is also an important tool to measure wealth. The study changed its questionnaire design in the second wave so that it could measure durable household assets and liabilities, thus arriving at a better measure of wealth as well as income. The wealth module is included in the survey every second wave, so this was the second time we tracked it.

There are various important factors to bear in mind with the measurements. One is that land tenure arrangements in traditional areas do not usually involve having to finance land, although they may involve financing a home. The other is that the rate of attrition – that is, dropping out of the survey – is much higher in the higher-income groups. This means the estimates of financial assets in the fourth wave may be lower than they actually are.

Respondents were asked not only to estimate their assets and liabilities, but also to assess what would happen if they sold off their all their assets.

The picture that emerges from analysing the wealth data in NIDS is that wealth inequality is greater than income inequality. In particular, inequality of financial assets is very high. **The lowest quintile has a median net worth of R3,513, while for the highest it is more than R2 million.** This inequality seems to have declined somewhat in Wave 4 (since Wave 2), but the finding may also be a result of higher-income groups dropping out of the survey.

The dominant asset categories were possessions and real estate, with possessions being a larger proportion of assets for the lower-income groups. Retirement annuities also tend to be confined to the top decile.

In terms of debt, all households have a large component of financial debt, but in the top decile, real estate debt overshadows financial debt. Vehicle debts are prominent in every decile.

Real estate assets and possessions are prominent in every geographic location, including traditional areas. Retirement annuities are most prominent in urban formal areas. However, when it comes to liabilities, real estate debts are relatively small in traditional areas, whereas financial debts are by far the biggest proportion.

Home ownership in South Africa is the most important component of a household's asset base and wealth accumulation strategy, including in traditional areas. But it is important to see the effect of the dual land tenure system in those areas on the accumulation of wealth. About 31% of the sample who live in traditional areas live with secure property rights, but these do not necessarily include the rights to sell. This may have implications for what is considered a usual path to economic security.

This raises the issue of the relationship between home ownership and the property rights regime in South Africa, something that NIDS is uniquely able to answer as a nationally representative household survey.

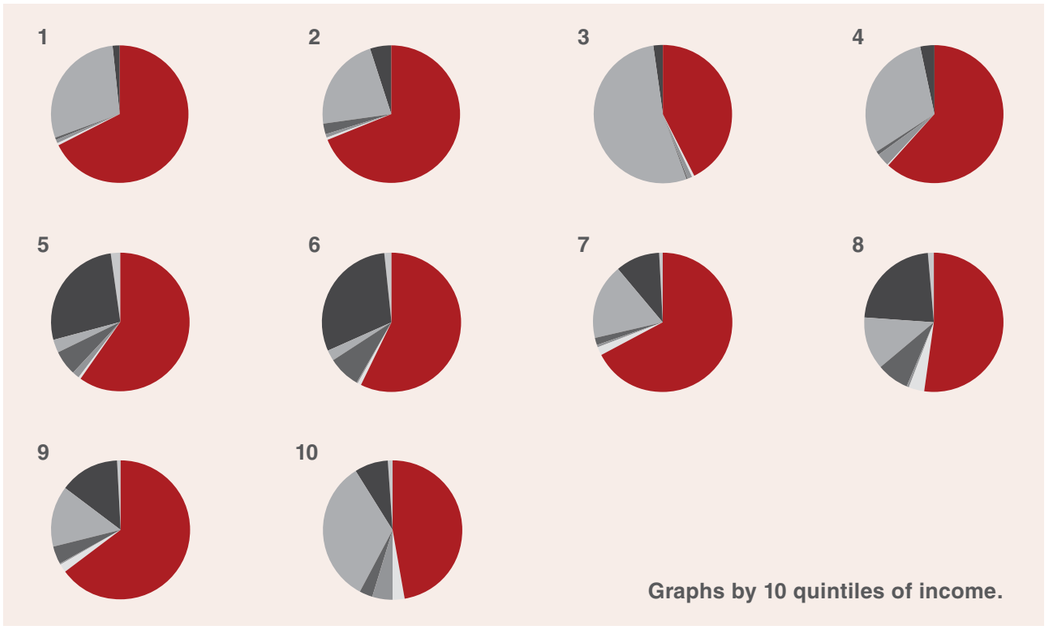
It is also important to note that not all those living in communal areas are poor households. About one-third are in the top three deciles.

Table 8: Quintile shares in net worth

Decile	Share (%)	Median Value (rands)
1	0.10	R3,513
2	0.31	R 10,000
3	0.76	R 20,100
4	1.46	R 38,605
5	2.13	R 60,870
6	3.24	R 97,450
7	4.67	R 150,000
8	7.51	R 288,214
9	16.20	R 606,900
10	63.63	R 2,051,250

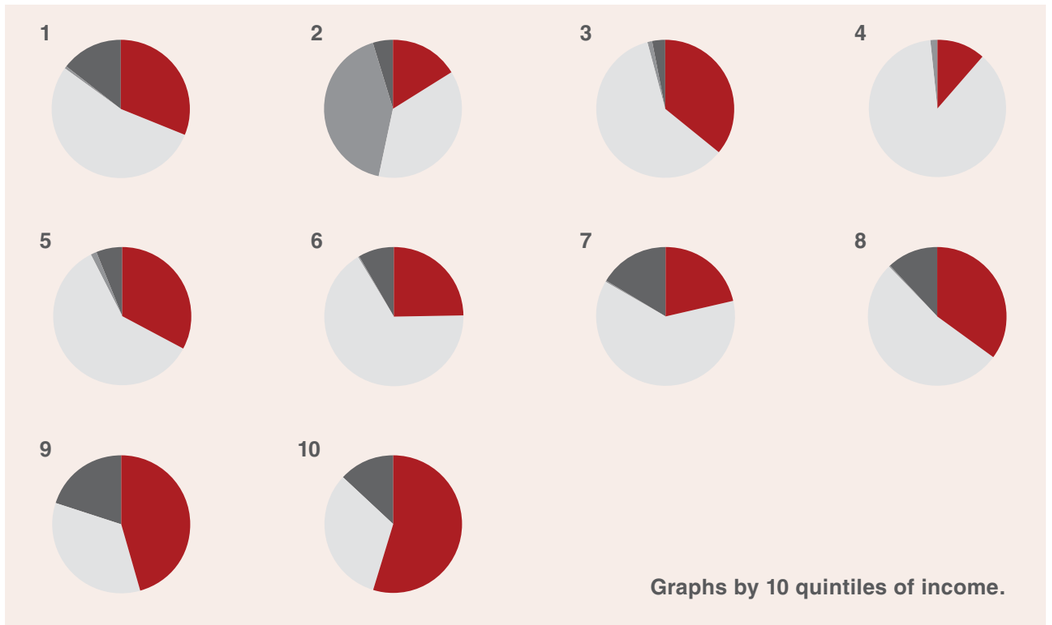
Source: Daniels, R. and Augustine, T., The measurement and distribution of household wealth in South African using the National Income Dynamics Study (NIDS) Wave 4.

Figure 4: Portfolio composition by income decile



Source: Daniels, Reza C. and Augustine, T. The measurement and distribution of household wealth in South African using the National Income Dynamics Study (NIDS) Wave 4.

Figure 5: Debt composition by income decile



Source: Daniels, Reza C. and Augustine, T. The measurement and distribution of household wealth in South African using the National Income Dynamics Study (NIDS) Wave 4.

5.2 Migration patterns and remittances

Many households in developing countries rely on remittances from migrant workers as an important source of household income. In South Africa, though, these remittances tend to be internal, sent between household members residing in different parts of the country.

To a large extent, this is a legacy of apartheid laws, which enforced labour migrancy and kept the families of urban workers out of cities.

The NIDS data make clear that this pattern of migrancy and remittances may have changed but it has not stopped in the post-apartheid period.

5.2.1 Migration

Rural to urban migration continues apace. Migrants tend to be younger than average, and more likely to have completed their high school education than non-migrants.

Between 2012 and 2014, just under 21% (5,513 individuals) of the NIDS CSM sample changed location. But many more – 62% of the sample – were affected by migration.

This is an increase from Wave 1, where about 59% were affected. The majority of these lived in households that both sent and received migrants (51%).

The direction of moves remains similar to prior waves: almost two-thirds of moves were **within** rural or urban categorisations, with rural-to-urban migration comprising 80% of the remaining moves.

Movers, male and female, saw substantially higher income gains than non-movers. Male movers' per capita household income rose by about 46%, compared with 18% for male non-movers. Female movers' per capita household income rose by 37%, relative to 16% among female non-movers.

This is a pattern that has been clear since Wave 1: between 2008 and 2014, male movers' incomes rose by about 78%, compared with about 42% for non-movers, while female movers' gains were 66%, compared with 38% among female non-movers.

But these gains are not persistent. By 2014, income gains for those who moved between 2008 and 2010, relative to non-movers in that interval, are negligible, and negative for males. This reversal is even stronger for those who moved between 2010 and 2012, suggesting that the income gains from migration are a one-time jump, not a different trend, and that the gain may be partially lost in later years.

Migrants tend to be younger than average, and more likely to have completed their high school education than non-migrants. Having a partner is more common among male migrants, and less common among female migrants. Migration is most common from commercial rural areas than from traditional rural areas. Migrants are also likely to come from poorer households.

Households that send migrants tend to be larger, with higher household income but lower per capita income. Most of these characteristics hold true for receiving households as well, which suggests that the majority of households affected by migration both send and receive migrants.

5.3 Private and public transfers

Private transfers contribute significantly to the alleviation of poverty but social grants are more effective.

Domestic remittances are an important source of income for poorer households. This emanates from the patterns put in place by apartheid legislation and influx control over several decades.

In many developing countries where private transfers have been measured, these transfers can comprise from 20% to 50% of household income. In South Africa, this proportion is generally less. But one important difference is that in most other developing countries the transfers are sent by international migrants, whereas in South Africa they tend to be domestic remittances.

We have also used the NIDS panel data to explore the relationship between private and public transfers.

In the past eight years, over four waves of NIDS, there have been interesting changes in the pattern of private transfers. Over this period, their mean monthly value has declined dramatically from R2,156 in 2008 to R1,432 in 2014.

Our results show that private transfers make a substantial difference in those households where they are received.

Yet there has been considerable fluctuation in private transfers over the four waves of NIDS. In 2008 about 17% of households received private transfers; in 2010 this figure had fallen to 8%. This was also a period of falling employment. However, by 2014 the figure had risen to 21%.

Over this period, household sizes were relatively stable, but the proportion of female-headed households increased from 39% in 2008 to 54% in 2014.

Other patterns to emerge are:

- Households with higher levels of income were more likely to send private transfers.
- Those in traditional rural areas were more likely to receive them than those in urban areas or formal rural areas.
- Receiving households are more likely to be without an employed (resident) member.
- In 2014, female-headed households were eight percentage points more likely to receive private transfers.

This supports the notion that women as heads of households play a crucial role as recipients and managers of remittances. African households are more likely to receive private transfers than Indians, coloureds or whites, and this is mainly due to the historical legacy of the migration forced by apartheid.

The key questions we addressed about private transfers are:

- **How have they changed over the post-apartheid period?**
- **Do they contribute to economic well-being?**
- **Do they protect people from falling into poverty?**
- **How do they compare to public transfers?**

Private transfers are generally sent from households with higher incomes, and do not generally affect the levels of poverty in the sending household. However, they have more effect in the receiving household.

Transfers are more likely to be received in female-headed households of lower socioeconomic status and those with children where at least one parent is not co-resident. Nevertheless, the prevalence of transfers in each of the four waves of NIDS is not higher than 40%. They are also higher in households that receive social grants, indicating that they do not displace social grants.

The households from which transfers are sent, however, tend to be better off and more likely to be intact. Parents or partners of recipients of transfers are the senders in about half the cases over all the waves (43–52%); another sizeable share occurs between siblings and other family members.

Interestingly, there seems to be a relationship between receipt of social grants and the sending of private transfers, indicating that social grants are somehow redistributed. This is because social grants may, for instance, go to a primary carer of a child who does not reside with the child.

Private transfers are also associated with changes in household composition and an individual's marital status. The likelihood of receiving a transfer increases if there are more children in the household.

Private transfers comprise an important part of household income for those receiving them, but there is considerable instability and fluctuation in them.

Persistence in the receipt of social grants, in contrast, is far higher. With the expansion of the social security system over the past two decades, social grants are also more widely received than private transfers. In 2014, for example, when the receipt of private transfers was highest, the household incidence of private transfer receipt was 21%, compared with 43% for social grant receipt. Only 27% of adults who had been receiving private transfers in 2012 were still receiving these transfers in 2014, whereas persistence in social grant receipt over this two-year period was more than 70%.

Private transfers contribute significantly to household income when they are received, and persistence in poverty is lower than it would have been in the absence of these transfers. For example, the share of individuals living in poor households in both 2012 and 2014 would have been three percentage points higher had individuals not been living in households where private transfers were received.

But social grants are much more effective in lifting the poor from poverty. Over the same period, persistent poverty in the absence of social grants would have been eight percentage points higher.

5.4 Health

Both poverty and lower levels of education play a role in the rapid acceleration of obesity-driven diabetes.

Through measuring respondents' height and weight in successive waves, NIDS tracks changes in South Africa's collective Body Mass Index (BMI).

A high BMI has been shown to be a risk factor for diabetes, which is increasingly affecting middle-income countries such as South Africa. On a global scale, more than four million people die from the disease every year.

NIDS data were used to examine the prevalence of diabetes and its correlation with risk factors by examining BMI scores, income and education over the four waves.

Diabetes describes a group of diseases characterised by hyperglycaemia (chronic high blood glucose levels), which comes about as a result of the body's failure to produce any or enough insulin to control high glucose levels. Factors that correlate with the risk of developing different types of diabetes include race, age, pregnancy, genetics or family history, stress, high cholesterol, and being overweight or obese.

The International Diabetes Federation reported a prevalence rate of 6.5% for South Africa in 2011 amongst adults aged 20–79 years old. This is expected to rise to just over 7% by 2030.

Diabetes is associated with blindness, amputations and other disabilities. According to the General Household Survey (GHS) conducted by StatsSA, there has been an upward trend in self-reported diabetes, especially among women, although many people could have the disease and not know it. Diabetes is also associated with age. At age 45, there is a five percent prevalence that ticks upwards to 15% by age 60.[11]

The NIDS sample used in this analysis consisted of those who have been interviewed in all four waves of NIDS and were aged 40 and above in the first wave. Our final sample, with valid BMI measurements, was 3,470 people. Of these, the mean age was about 54 years, and the diabetes prevalence rate was nearly 8%. There were many more females in the sample, at about 69%. Africans made up about 81% of the sample, followed by coloureds, who represented 14%.

A significant proportion were classified as overweight, obese or morbidly obese, at approximately 25%, 19% and 20%, respectively. The vast majority of respondents (83%) reported no exercise at all in a typical week, although 213 individuals, or 6% of the sample, reported exercising at least three times per week.

Overall, the prevalence of diabetes increased from Wave 1 to Wave 4 from about 8% to about 20%. The increase was more marked for women than for men. There were also differences in terms of race. For Indians the prevalence reached about 50% by Wave 4 (although this is based on a small sample). For coloured people, the prevalence was also slightly higher than for Africans and whites.

In terms of **education**, the most highly educated group had the lowest prevalence rates. The highest prevalence rates were in groups with intermediate levels of education. Those who completed secondary school had a prevalence rate of about 12% in Wave 1, which increased to about 24% by Wave 4. The least-educated group, those who never completed secondary school, had prevalence rates between the two more educated groups.

In every income group there has been an alarming increase in diabetes over the four waves – by over 100%. But the rate has increased faster in the upper-income groups.

There seems to be a connection between exercising more frequently (three times a week) and a lower prevalence rate.

But most striking was the high correlation between being overweight or obese or morbidly obese and the onset of diabetes. Those who are underweight or of a healthy weight start off with a low prevalence, and this increased to about 10% by Wave 4.

In the case of overweight, obese or morbidly obese people, the prevalence rate began higher and increased at a greater rate. **The overweight group began with a prevalence rate close to double that of the healthy weight group**, which tripled to reach about 19% by Wave 4. **The highest prevalence rates to begin with were in the obese and morbidly obese groups, which were almost double that of the overweight group**. Their growth rates in prevalence were also substantial, such that their prevalence rates by Wave 4 are just under 29% and just over 29%, respectively, almost triple that of the respondents who were in the healthy weight-range in Wave 1.

Table 9: Distribution of diabetes prevalence by Wave 1 BMI category

	Ever reported diabetes (%)			
	Wave 1	Wave 2	Wave 3	Wave 4
Underweight (BMI<18)	3.6	4.6	6.8	10.1
Healthy weight (18<=BMI<25)	3.3	5.4	6.6	9.8
Overweight (25<=BMI<30)	6.2	12	13.8	19.2
Obese (30<=BMI<35)	12.6	17.2	23.2	28.7
Morbidly obese (35<=BMI)	11.3	15.1	19.6	29.5

Note: Proportions are weighted using balanced panel weights for wave 1 to wave 4.

Source: Matsebula, V. and Ranchhod, V. Socio-economic correlates with the prevalence and onset of diabetes in South Africa: Evidence from the first four waves of the National Income Dynamics Study, 2016.

The findings show that genetics and age play an important role, that losing weight matters a lot, and exercising regularly also matters, but less than maintaining a healthy BMI. Higher education has some protective effects, even after controlling for income, BMI and exercise.

In terms of lessons for policy, it seems that well-targeted education campaigns about the importance of maintaining a healthy weight may save many South Africans and their families from suffering the traumatic effects and losses associated with this disease.

6. The Road Ahead

6.1 Social cohesion

Determining the drivers of social cohesion in its virtuous circle with improved living conditions.

There is broad agreement that building a better country for all citizens depends on the degree of social cohesion. This speaks to a sense of belonging and nationhood and respect for fellow citizens.

Social cohesion seems especially important, considering South Africa's divided past and its deep inequality. Until now, social cohesion has been hard to measure in any scientific way. But the four waves of NIDS allow us to construct a measure of social cohesion that can be tracked over time.

We identified three pillars that can be combined to provide a measure of social cohesion: trust, inequality and identity.

Part of the measure is subjective: respondents are asked to identify where they think they stand on a six-runged ladder at different points in time (past, present and future). This also gives us a measure of optimism – where respondents hope to be in the next five years.

NIDS also asks questions that gauge people's trust in their own communities and in strangers: specifically, they are asked whether, if they lost a wallet containing money, they would expect either a member of their community or a stranger to return it.

On average, trust levels are low. Only one-third of respondents thought it likely that a lost wallet would be returned to them if found by someone in their community, and even fewer thought a stranger would return it. This was consistent across all four waves. However, more than three-quarters said they would prefer to continue living in their current neighbourhoods – another consistent response across the waves.

However, there also seems to be an upward trend in happiness over the four waves: those who reported they were happier in the current period than 10 years ago increased from two-thirds in Wave 1 to 80% in Wave 4. But this pattern is not the same with regards to life satisfaction. Life satisfaction went down in Waves 2 and 3 from Wave 1 (where more than two-thirds reported life satisfaction). It declined to just over half in Waves 2 and 3, but has risen again in Wave 4.

In terms of perceived income inequality, about half of all respondents reported themselves as being on rung three or four of an imaginary six-rung ladder over all four waves. That is, they considered themselves "average". Only a small proportion (4%) classified themselves as being on the top two rungs, and 45% thought they were on the bottom two rungs – that is, relatively disadvantaged.

Over time, though, there are considerable variations in these measures of trust, perceived inequality and life satisfaction. Perhaps not surprisingly, **the largest positive trends in reported trust occurred in 2010 (Wave 2) at the time South Africa hosted the FIFA World Cup.**

Education, employment status and age all seem to be factors in determining the individual components that contribute to social cohesion. Education seems to promote shared values: employed people are more likely to feel a sense of belonging and less income inequality, and younger respondents are less likely to feel a sense of belonging or commitment to remaining in their current neighbourhoods.

Using the NIDS data, the Poverty and Inequality Initiative (PII) plans to develop a social cohesion index that can be disaggregated on a local level, as it is in the neighbourhood or local community where a sense of social cohesion is most keenly felt.

NIDS researchers also correlated the levels of social cohesion against GDP per capita measures over time, and used measures from Municipal IQ to assess a Municipal Productivity Index (MPI) and a Compliance and Governance Index (CGI). The levels of MPI and CGI are positively correlated with social cohesion. **This means municipal policy and competence are associated with higher social cohesion. Lower levels of social cohesion are associated with a higher incidence of service delivery protests.**

It is harder to correlate levels of social cohesion with crime. This may be due partly to the fact that there is delayed reporting of provincial crime statistics. But NIDS itself collects data on perceptions of crimes such as domestic violence, gangsterism, drug use, and violence in local communities. **In most cases there is a negative correlation between perceptions of violence and crime, and social cohesion.**

This does not necessarily imply causality, though, and further research is needed to investigate whether crime undermines social cohesion, or whether a lack of social cohesion exacerbates crime.

But the preliminary findings are clear and point the way in terms of policy: **higher levels of education, per capita income and employment are associated with greater social cohesion, whereas poverty, social delivery protests and perceptions of crime are associated with lower social cohesion. Municipal policy and competence also play a role in enhancing social cohesion.**

Public Access to Data

The NIDS dataset is available free of charge. One can find information and resources about NIDS at **www.nids.uct.ac.za**

Preserving anonymity in the data

It is the responsibility of the NIDS team to ensure that respondents' identities are protected. During the interviews, information was collected that will enable tracking and re-contact of respondents for subsequent waves of data collection. However, this information is excluded from the public-release dataset so as to preserve the anonymity of the respondents.

Data structure

NIDS uses a combination of household- and individual-level questionnaires. The data from the different questionnaires are recorded in separate files. These are flat files with one row per record (individual or household). The data can be exported into formats suitable for most standard statistical packages. A set of files is released for each wave, but they can be combined across waves using the unique identifier for the individual, variable name "pid".

Downloading the data

NIDS data can be downloaded from the DataFirst website. The available items can be viewed by searching for "NIDS" in the Data Portal: https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/central/about

There is a video demonstrating how to register and download our data on our Youtube channel (search for "National Income Dynamics Study" on Youtube).

The steps to follow to gain access to the data are:

- Step 1: Register as a user on the DataFirst website. Once you have registered on the DataFirst website, the registration details can be used to access datasets from the site.
- Step 2: Complete a short online Application for Access to a Public Use Dataset for the NIDS datasets. On the form, please provide a short description of your intended use of the data. This information helps us to understand how the NIDS data are being used by the research community. The form also asks you to agree to terms and conditions related to the use of the NIDS dataset.
- Step 3: Select the dataset from the catalogue above.
- Step 4: Click on "Request microdata" to download the data suitable for your preferred statistical package.

There is a video demonstrating how to register and download our data on our Youtube channel (search for "National Income Dynamics Study" on Youtube).

Secure Data Service

In addition to the public release dataset, SALDRU also prepares an internal dataset that includes full geo-coding, employment coding and PSU information. The Secure Datasets include text variables as they are captured in the questionnaire. The Secure Datasets give users the opportunity to compare the NIDS data with administrative or other external data sources in an environment where the confidentiality of respondent information can be respected while allowing important data linkages to be made.

Access to the Secure Datasets is granted only at the DataFirst's Secure Research Data Centre in the School of Economics Building, Middle Campus, University of Cape Town, Cape Town. Secure data may not leave the premises.

Enquires about the Secure Datasets may be addressed to nids-survey@uct.ac.za.

NIDS and GIS

NIDS can be linked to GIS (Geographic Information Systems) data, and we encourage users to do so where it is relevant in nationally salient research topics. Interested parties would have to use the Secure Datasets (see above) for this purpose since the geographic coordinates of households in the survey are confidential. (Note that the NIDS sample size is too small to allow for accurate inferences at provincial and district levels.)

NIDS Papers

This booklet is based on the following papers, which were specially researched and written from the NIDS study up to and including Wave 4:

Cally Ardington and Megan Little: The impact of maternal death on children's health and education outcomes, 2016.

Nicola Branson and Amy Kahn: The post-matriculation enrolment decision: Do public colleges provide students with a viable alternative? Evidence from the first four waves of NIDS, 2016.

Justine Burns, Lindokuhle Njozela and Ingrid Shaw: Towards measuring social cohesion in South Africa, NIDS Input Paper, May 2016.

Daniela Casale: Analysing the links between child health and education outcomes: Evidence from NIDS Waves 1–4, 2016.

Reza Daniels and Taryn Augustine: The measurement and distribution of household wealth in South Africa using the National Income Dynamics Study (NIDS) Wave 4, 2016.

Katherine Eyal and Lindokuhle Njozela: What difference does a year make? The cumulative effects of missing cash transfers on schooling attainment, May 2016.

Arden Finn and Murray Leibbrandt: The dynamics of poverty in the first four waves of NIDS, 2016.

Arden Finn, Murray Leibbrandt and Vimal Ranchhod: Patterns of persistence: Intergenerational mobility and education in South Africa, 2016.

Julia Garlick: Briefing note on migration.

Katherine Hall: Maternal and child migration in post-apartheid South Africa: Evidence from the NIDS panel study, Children's Institute, University of Cape Town, May 2016.

Kim Ingle and Cecil Mlatsheni: The extent of churn in the South African youth labour market: Evidence from the NIDS Wave 1–Wave 4, 2016

Catherine Kannemeyer: Subjective well-being: Adult South Africans' life satisfaction (2008–2014), National Income Dynamics Discussion Paper, 2016.

Velenkosini Matsebula and Vimal Ranchhod: Socio-economic correlates with the prevalence and onset of diabetes in South Africa: Evidence from the first four waves of the National Income Dynamics Study, 2016.

Dori Posel: Inter-household transfers in South Africa: Prevalence, patterns and poverty, 2016.

Fiona Tregenna and Mduduzi Biyase: Determinants of remittances in South Africa, Draft Discussion Paper, prepared for NIDS Wave 4, May 2016.

Rocco Zizzamia, Murray Leibbrandt and Vimal Ranchhod: Vulnerability and the middle class in South Africa, SALDRU Working Paper, May 2016.

Endnotes

[1] For details on the poverty line, see Budlender, J., Leibbrandt, M. and Woolard, I. (2015), South African poverty lines: A review and two new money-metric thresholds, SALDRU Working Papers 151, Southern Africa Labour and Development Research Unit, University of Cape Town.

[2] The definitions of occupations are based on the South African Standard Classification of Occupations (SASCO) conventions and are adjusted so as to overlap directly with the occupational categories present in the data collected by the 1993 Project for Living Standards and Development (PSLSD).

[3] World Health Organization (2006) WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development.

[4] National Food Consumption Survey (NFCS) of 2005 and the South African National Health and Nutrition Examination Survey (SANHANES) of 2012.

[5] Bhutta, Z.A., Das, J.K., Rizvi, A., Gaffey, M.F., Walker, N., Horton, S., Webb, P., Lartey, A. and Black, R.E. (2013), The Lancet Nutrition Interventions Review Group & the Maternal and Child Nutrition Study Group, "Evidence-based interventions for improvement of maternal and child nutrition: What can be done and at what cost?" Lancet, 382(9890): 452–77.

[6] Woolard, I., Buthelezi, T. and Bertsher, J. (2012), Child grants: Analysis of the NIDS Wave 1 and 2 datasets.

[7] Woolard, I., Buthelezi, T. and Bertsher, J. (2012), Child grants: Analysis of the NIDS Wave 1 and 2 datasets.

[8] This self-reported score is calculated from a range of indicators including the ability to sleep, function, and feelings of hopelessness. See Eyal, K. and Njozela, L. (2016), What difference does a year make? The cumulative effect of missing cash transfers on educational attainment, School of Economics, University of Cape Town.

[9] Ardington, C. and Little, M. (2016), The impact of maternal death on children's health and education outcomes, SALDRU, University of Cape Town.

[10] StatsSA (2016), Report-03-19-01 – Vulnerable groups series I: The social profile of youth, 2009–2014.

[11] StatsSA, General Household Survey, 2014.

The National Income Dynamics Study (NIDS) is a national panel study of individuals of all ages in South Africa. Its main objective is to measure and understand who is getting ahead and who is falling behind in South Africa, as well as why some people are making progress and others are not.

Wave 1 of the NIDS survey took place in 2008, Wave 2, in 2010, and Wave 3, in 2012. The most recent wave, Wave 4, took place from October 2014 to August 2015. It involved tracking 37,396 individuals, 25,268 of whom were part of the Wave 1 study and have been tracked every two years.

The data gathered over the four waves of this study allow us to tell a story of the key changes in people's lives. It reflects patterns of employment, inequality, health and wealth, as well as the effects of social spending such as education and grants. It thus provides a critical information base for evidence-based policy making.

To illustrate the policy value of such a rich dataset, a number of researchers were asked to analyse the panel findings from the four waves. They examined some of the pressing social challenges in the country from unemployment to inequality, chronic poverty to the distribution of wealth, education to health. The research has also developed an index to measure social cohesion. This document summarises some of those findings.

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