Is employment a panacea for poverty in South Africa? A mixed-methods investigation

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Working Paper Series
Number 229, Version 1

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Acknowledgements:
I am grateful to Pramila Krishnan, Hannah Dawson, Vimal Ranchhod, Stefan Dercon, Murray Leibbrandt, Joshua Budlender, Ravi Kanbur, David Neves, Debbie Budlender, participants at talks and conferences including the 2017 HDCA Conference in Cape Town, the 2018 CSAE Conference in Oxford, and at SALDRU, ReSEP and Oxford African Studies Centre seminars, as well as several anonymous reviewers at the Oxford Department for International Development for helpful suggestions on earlier drafts. Nina Zizzamia provided excellent assistance with proofreading. Arden Finn provided helpful Stata code for cleaning and deflating National Income Dynamics Study data. I am especially grateful to Simone Schotte, who has been an inimitable partner in both the design of this research project and in running field research in Khayelitsha, and who also helped with the design of weights for the NIDS balanced panel. I am also indebted to an exceptional team of fieldworkers, among whom Mzulungile Cabanga, Sibongile Mthini, Andiswa Mtini and Amanda Moocha deserve special mention. Fieldwork was implemented with the financial support of the Southern African Labour and Development Research Unit, the German Institute for Global and Area Studies, St Anne's College, Oxford, and the Department of International Development at the University of Oxford. I am grateful for support through the Skye Foundation and the Dulverton and Michael Wills Trusts. Responsibility for any errors remains my own.

Recommended citation
Zizzamia, R. (2018). Is employment a panacea for poverty in South Africa? A mixed-methods investigation. Cape Town: SALDRU, UCT. (SALDRU Working Paper Number 229).

ISBN: 978-1-928281-90-0

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Saldru Working Paper 229
University of Cape Town
August 2018

Abstract

Unemployment is a key determinant of poverty in South Africa and job losses are closely associated with descents into poverty. Disparities in opportunities that characterise individual fortunes in the labour market, in turn, reflect deep-rooted structural inequalities in South Africa. I focus on a black, urban demographic and investigate the conditions under which transitions out of employment lead to descents into poverty and/or declines in self-reported wellbeing. Of particular relevance are those cases in which a transition out of employment leads to a descent into money-metric poverty *without* resulting in a fall in self-reported wellbeing. These apparent inconsistencies – especially prevalent in cases where workers choose to leave work – may help illuminate how disadvantaged workers face non-negligible disincentives to certain forms of low-skill employment, which, under certain circumstances, may outweigh the disincentives to unemployment. Analysing both NIDS panel data and qualitative data collected by the author in Cape Town, I show how a purely quantitative analysis cannot provide an adequate account of the relationship between job loss and changes in self-reported wellbeing. In contrast, a qualitative analysis can illuminate the causal mechanisms which explain why, under certain circumstances, transitioning out of employment will be the welfare optimising choice for workers. To aid this explanation, I develop a model which analyses the welfare effect of job losses as being jointly determined by the strength of outside options and the disincentives to work. Younger workers with no dependants and with alternative sources of support can be said to have stronger outside options, and are especially likely to turn down or quit "bad" jobs. Older workers, with dependants and without alternative sources of support, are more likely to accept and persist in "bad" jobs – leading me to characterise wage work in these instances as a "survivalist" livelihood choice. This study shows that understanding the complexity and multidimensionality of the incentives that workers face and which inform labour market choices will be indispensable in effectively designing policies which aim to reduce inequalities in the labour market – in South Africa and beyond.

Keywords: South Africa; mixed methods; welfare dynamics; earnings volatility; unemployment.

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1. Introduction

Employment creation is almost universally held up as the key to achieving meaningful poverty reduction in South Africa - across the political spectrum and in academic and policy circles, unemployment and poverty are seen as two sides of the same coin. In 2017, Statistics South Africa (Stats SA) revealed that unemployment had risen to a 14-year high of 27.7 percent, and that young workers and those with less education contribute disproportionately to total unemployment. In his first public appearance as president, President Ramaphosa acknowledged the relationship between unemployment and poverty, and identified youth unemployment as South Africa's "most pressing challenge" (2018). This echoes former President Mbeki's "dual economy" thesis, according to which poverty is seen primarily as a symptom of exclusion from South Africa's "first world economy", while development is understood as a process of "inclusion" (2003). It is usually taken for granted that inclusion in the labour market is a "good thing".

This study sets out to investigate whether economic inclusion through employment is the panacea for the poor that it is so often claimed to be. Because of the relatively greater dependence of households on wage employment in urban areas and the greater dynamism of urban labour markets, this study focusses on answering this question specifically in an urban context.

A recent field of literature has emerged in both anthropology and economics which has found, in several African countries, that unskilled workers choose to avoid formal wage employment when they can afford to make this choice (Teal, 2017; Blattman and Dercon, 2016; Dawson, 2018). These studies explain these counterintuitive findings by discussing how the often-overlooked costs of employment (among them, health, time and the psychological burdens borne by workers) lead all but the most disadvantaged workers to prefer alternative livelihood strategies, such as self-employment in the informal sector.

If workers often choose to turn down or leave wage employment, this is an important potential determinant of both unemployment and employment dynamics. Consequently, this will have profound implications for the effectiveness of strategies which hope to address unemployment through job creation. As a contribution to this emerging debate, this study attempts to understand the conditions under which disadvantaged South Africans choose to turn down economic "inclusion" in the form of wage employment. These decisions are assessed as being determined by two distinct but interrelated factors. First, a decision to leave or turn down wage employment will be more likely if the benefits are only marginally greater than the costs of employment. Second, those with stronger outside options may be less tolerant of "bad" forms of work relative to those with weaker outside options.

Importantly, both the costs of employment and the strength of outside options are often not amenable to quantitative measurement. For instance, costs of employment might include psychological burdens while outside options may be determined by the strength of complex and unquantifiable social networks. One consequence of this is that if workers value their psychological well-being over their wage employment, workers may make welfare-maximising choices which lead to decreases in observed income or consumption. This may lead to misleading results in a purely quantitative analysis.

This observation has two consequences for the present study. First, to understand the reasons why workers might be averse to wage employment beyond a narrow quantitative sense, this study employs a mixed-methods approach which draws on Lieberman's (2005) nested analysis strategy. South African National Income Dynamics Study (NIDS) panel data is used in the initial quantitative analysis, which is primarily concerned with understanding how transitions into and out of employment are related to poverty transitions. Since this quantitative analysis is

unable to provide an adequate account of the relationship between wellbeing and employment (which is the primary object of this study), I proceed to what Lieberman terms "model-building" qualitative analysis. This analysis is undertaken on qualitative data in the form of in-depth life history interviews (LHIs) and focus group discussions (FGDs) which were collected in a research project implemented in Khayelitsha, a large black township in Cape Town, in 2017.

Second, in the qualitative element of the analysis, welfare (used interchangeably with "wellbeing") is defined more broadly than the consumption/income proxies which are dominant in the economic literature. The reason for broadening the definition is that money-metric proxies may be misleading in those cases where workers face a trade-off between the loss of employment income and alleviation from the burdens of employment. That is, in precisely those cases which are the object of this study, money-metric proxies for wellbeing are likely to be least reliable. Rather, using welfare mapping techniques such as those used by Davis and Baulch (2011), LHI participants were asked to track their socio-economic wellbeing across their life-course, using a scale which was bounded by a four-tier schema of social stratification. This scale was developed through participation during FGDs. The intention of anchoring the definition of wellbeing within this scale was to facilitate a meaningful degree of comparability between cases in a way that eludes most subjective measures of wellbeing, while at the same time reflecting subjective determinants of well-being not captured by consumption/expenditure indicators.

Using this mixed-methods analysis and adopting a broad conception of welfare, I find that urban, unskilled, black workers can occupy one of two stylised states: On the one hand, those with weak outside options will be likely to accept "bad" forms of wage employment. Older workers, those with dependents, those with less support in the household, and those with weaker social networks can be said to have weaker outside options, and are hence less empowered to turn down even the lowest paid, most degrading and precarious forms of work. On the other hand, those with stronger outside options are likely to avoid wage employment, unless they are using wage employment as a temporary means of coping with an economic shock. Younger workers, those with few dependants, those with alternative sources of support and those with strong social networks appear to have stronger outside options and are consequently more likely to turn down "bad" jobs.

However, these differences are complicated in a dynamic perspective since one of the features most strongly associated with "bad" forms of employment is precariousness. Precariousness in this context is understood to mean a high exogenous likelihood of losing employment. A core hypothesis of this study is that the welfare impact of this precariousness is fundamentally different for those with strong versus those with weak outside options. For those with relatively weak outside options, the loss of a job will have a severe negative impact on well-being, while for those with relatively strong outside options, wage employment is often deliberately temporary and might be taken up to smooth consumption, so that precariousness will not have as severe a negative impact. The analysis of qualitative data provides strong support for this hypothesis in the South African urban context.

To my knowledge this is the first study of the relationship between labour market volatility and welfare in the urban South African context using mixed-methods. As such, it provides a cross-disciplinary bridge between quantitative and qualitative social sciences, both of which can illuminate valuable and complementary insights into the welfare consequences of labour market volatility.

This study also contributes towards the reconceptualization of the social and economic value attributed to work in a high inequality and unemployment context such as South Africa. At the heart of this reconceptualization is the argument that, for the unskilled urban poor, certain forms of wage work can be considered as "survivalist", in a similar sense that certain forms of

unprofitable informal self-employment are conventionally considered to be survivalist. That is, as for other activities where the benefits are only marginally greater than the costs, workers consider wage employment as a "second best" option, to be avoided when possible. Returning to President Ramaphosa's call to address youth unemployment, understanding that low-skill employment in South Africa is seen by many as an aspirational compromise is imperative if efforts to combat unemployment through job creation are to be effective.

The study is structured as follows: The following section provides historical context, surveys relevant literature and introduces an ongoing debate about the meaning and value of work in South Africa. In the third section, the quantitative and qualitative methods used in this study as well as the approach used to integrate this data in a mixed-methods analytical framework are discussed. The fourth section presents quantitative evidence on the dynamic relationship between labour market events and economic mobility. The fifth section constitutes the principle contribution of this paper, setting out the hypothesis discussed in this introduction, and presenting qualitative evidence in support of this hypothesis. A final section summarises and concludes.

2. Setting the scene: Poverty and unemployment dynamics in post-apartheid South Africa

2.1. Well-trodden terrain: Unemployment in South Africa

In 1994, the ANC-led government inherited an economy which did not have the capacity to absorb the millions of unskilled, unemployed black South Africans who were rapidly entering the labour market following the abolition of influx control in 1986. Despite this need, during the early transitional period, the South African corporate sector and international financial institutions were able to exert considerable influence over the ANC, succeeding in shifting ANC economic policy from a focus on radical state-led redistribution in 1990, to a commitment to orthodox, investor-friendly, market-led growth in 1994. Towards this aim, the ANC government strove to promote an industrial growth path that was internationally competitive, export-led, high-wage and high value-added (Marais, 2011).

The assumption underlying this approach was that the high unemployment of the 1970s and 1980s was primarily a symptom of low growth and that, by improving economic performance in the 1990s, reductions in unemployment would naturally follow. Unfortunately, the historical basis of this assumption is shaky – while unemployment was historically correlated with slowing economic growth, it was most likely primarily caused by the shift to increasingly capital-intensive industrial growth in the 1980s (Terreblanche, 2005). Seekings and Nattrass (2005) argue that the shift to this growth path crowded out labour-intensive, low-wage industries, resulting in retrenchment of workers in an economy whose capacity to absorb labour was already restricted. The inability of a capital- and skill-intensive growth path at reducing unemployment was confirmed when industrial output did begin improving in the 2000s and the South African Reserve Bank acknowledged that there was little correlation between increased industrial output and employment growth (Padyachee, 2005). By reproducing a growth path with a limited capacity to absorb unskilled workers, ANC economic policy did little more than reproduce the structural basis of unemployment.

Even where the South African economy did create employment opportunities – 1.6 million jobs were created between 1995 and 2002 – the increase in labour absorptive capacity could not match the growth in the labour force – which grew by 5 million individuals over the same period (Padyachee, 2005). Where jobs were lost, these were mostly shed from the most important

employment sectors (mining, manufacturing and construction) where there had been significant investments in labour-saving technologies (Marais, 2011). Thus, the persistence of structural unemployment in the post-apartheid period represents a continuity with the late apartheid period, where the rise in unemployment was driven by a combination of stagnant demand for labour and a rising supply of labour (Feinstein, 2005).[1]

In the post-apartheid period, a high-wage, high-skill and capital-intensive growth path not only failed to address the root causes of structural unemployment, but also deepened the marginalisation of those parts of the labour force which do not have the human, financial or social capital to find employment (Seekings and Nattrass, 2005). Seekings and Nattrass argue that the de-racialisation of the economy has benefitted a rising black elite and the formally employed working class and has largely neglected the poor – the unemployed and marginal working class.

In their influential book *Class, Race and Inequality in South Africa* (2005), Seekings and Nattrass argue that the core problem underlying South Africa's persistent poverty and inequality is the existence of an unemployed and effectively unemployable rural "underclass". In *Policy, Politics and Poverty in South Africa* (2015) they show further that upward social mobility through the labour market is constrained by the fact that the labour market has been restructured through an alliance of organised labour, state and capital in such a way that its capacity to absorb new workers in formal employment is increasingly limited. For Seekings and Nattrass, the tragedy of economic growth in the post-apartheid period has been that those sectors which have experienced the most rapid growth – notably financial services – have been unable to absorb idle workers in sufficient numbers, while those sectors which had the greatest potential to expand low-skill employment – especially manufacturing and agriculture – have stagnated and shifted away from labour-intensive production technologies and towards more capital-intensive growth paths (Seekings and Nattrass, 2011; Kingdon and Knight, 2007).

As the ANC's economic policies pushed South Africa onto an increasingly capital-intensive, high-wage, high-skill growth path, trade unions championed wage increases to narrow the wage gap within formal employment. Rising wages, in part due to pressure from unions and in part due to the increasing capital and skill demands of the post-apartheid growth path, resulted in a dramatic transformation of the composition of trade union membership from 1994 to 2008. In this period, the proportion of unskilled union members fell from 30 to 6 percent, while the proportion of skilled members rose from 35 to 75 percent (Seekings and Nattrass, 2015; Theron, 2010). The result is that trade unions have increasingly come to represent workers from households in the top three income quintiles, while the two poorest income quintiles have lost substantial union representation (Seekings and Nattrass , 2015).

The fact that South Africa's growth path has been biased against unskilled workers and towards skilled workers is particularly problematic given that a large part of South Africa's labour force, and the majority of the unemployed, are unskilled. The total employment share of unskilled and semi-skilled workers between 1995 and 2015 has declined, while the share of skilled workers has risen, confirming Bhorat and Khan's finding that over this period "every main sector of the economy experienced a steady rise in skills intensity" (2018: 9). In addition, Seekings and Nattrass show that more skilled workers have a substantially lower likelihood of falling out of regular employment (Seekings and Nattrass, 2005). Thus, for unskilled workers, not only is employment more difficult to find, it is also less secure once it is found. Rising unemployment and a skill-bias in employment growth mean that inequality – based on labour market position rather than race – has risen.

[1] Of the 5,9 million South Africans who became economically active between 1980 and 1996 only 320 000 found employment (Feinstein, 2005)

To characterise poverty simply as a symptom of unemployment would, however, be misleading. While Marais acknowledges that unemployment is the "single most important factor affecting the poverty status of households in South Africa", he maintains that poverty and inequality cannot be regarded merely as symptoms of exclusion from the productive economy (2010: 110). Since 1994, inequality has become increasingly embedded within the structures of employment - Finn (2015), for example, has calculated that, by 2012, the relative contribution of wage income to overall inequality in South Africa was as high as 90 percent. The fact that wages dominate as a contribution to inequality suggests that wages are extremely low for many South African workers. Finn (2015) confirms this, finding that the poverty rate is 50 percent among those households with at least one wage earner (versus 88.1 percent for households with no wage income), illustrating that inclusion in the labour market is often not enough to lift a household out of poverty.[2] Finn additionally calculates a "working poor threshold" as the wage at which a worker would be able to support an average sized family at above poverty levels. At a threshold of R4,008 per month (January 2015 Rands) he calculates that 60 percent of all black workers earned a wage below this threshold.

Closely related to this is the fact that a further possible cause of poverty and inequality is the rise of vulnerable forms of employment through employment practices such as outsourcing and labour-brokering[3]. Consistent with broader post-apartheid policy trends promoting the prioritisation of competitiveness and investment-friendly growth, the labour composition of firms has been allowed to shift toward the reliance on more flexible forms of labour. This has manifested in the move toward restructuring the labour composition of firms around a core of full-time, high-wage, skilled workers, and an increasing reliance on subcontracting and outsourcing for low-skilled work.[4] Theron (2010) has called this process of restructuring 'informalisation from above', which he describes in the following way:

> "[Increasingly], the workplace has ceased to comprise a community of workers with different skills, working in the same physical locality for a single employer. Instead, the workplace has become a community of service providers or intermediaries, each of which employs its own workforce, but which is nevertheless subordinate to a core business. The core business determines not only the parameters on which services are provided but also the parameters on which the service provider or intermediary provides employment. […] Workers employed by franchisees or temporary employment agencies or service providers in the formal workplace are nominally employees, to whom labor legislation applies. But, they are unable to avail themselves of the rights and protections labor legislation provides insofar as the conditions under which they are employed are in fact determined by a person that is legally not party to the employment relationship, namely the core business. This can be described as "informalization from above." (2010: 91)

Businesses have increasingly turned to external service providers to provide services regarded as supportive or peripheral to the enterprise's core function, reflecting the motivation to outsource as a means of focussing on a firm's 'core-competencies' (Tregenna, 2010). These service providers employ workers directly, while the parameters and conditions of employment are stipulated by the core business. However, because the core business is not the workers' direct employer, the workers do not have recourse to the benefits and protections of labour regulations since their employer is not responsible for their conditions of employment (Theron, 2010). Although services are often performed for large companies, labour brokers are often registered

[2] Finn uses the SALDRU upper-bound poverty line (2015) as a poverty threshold, and NIDS Wave 3 data.
[3] Labour brokering refers to a form of outsourcing practiced in South Africa, in which companies hire casual labour through a third party – a "labour broker" who handles all aspects of the workers' employment, including contracting, recruitment, pay and administration.
[4] For more details on the nature of this restructuring see Tregenna (2010), Bhorat and Khan (2018), Marais (2013), Bhorat et al. (2016).

as small enterprises, thereby in effect exempting them from needing to abide by the Basic Conditions of Employment Act (1997) which covers most basic forms of employment protection in South Africa (Barchiesi, 2011). These "informalised" workers often lack the job protection of other workers in the formal sector, do not receive benefits, earn less, and encounter difficulty in representing their grievances collectively (Barchiesi, 2011). It is important to stress that these vulnerable workers are not excluded from the productive economy, but constitute an integral part of it. It is not their exclusion which is the source of disadvantage, but rather the terms of their inclusion.

A major part of this disadvantage is the extreme precariousness of much of this work. Precariousness in this context is used to describe the high exogenous likelihood of losing employment. Job losses could be unexpected, such as being fired, or they could be anticipated, in those common cases where contracts are of short duration. Ranchhod (2013), using NIDS data, finds that earnings volatility is high in South Africa, and that most of this volatility is due to transitions into and out of employment. Using rich South African Revenue Services tax data, Kerr (2016) shows that, by international standards, South Africa has exceptionally high rates of worker flows, defined as the sum of hires and separations. That is, workers transition into and out of employment at an unusually frequent rate – a finding which adds support to similar conclusions reached by Banerjee et al. (2008).

Importantly, Kerr finds that the majority of these movements are accounted for by worker "churning", defined as excess worker flows not accounted for by movements into and out of employment due to the creation and destruction of jobs. As Bassanini et al. (2010) argue, one expects worker flows to be high in contexts where labour market rigidities are low and employment protections are lax. This appears to be inconsistent with Go et al.'s (2010) argument that South Africa has a rigid labour market. However, Martin and Scarpetta (2012) provide a framework which can explain how South Africa's high degree of worker flows is consistent with a high degree of rigidity for certain forms of employment in the labour market, as long as other forms of employment are unprotected. Martin and Scarpetta characterise dual labour markets as those in which some workers have highly protected jobs, while workers in different sectors or forms of employment cannot avail themselves of the same employment protection. Martin and Scarpetta suggest that in economies which are characterised by dual labour markets, firms tend to over-rely on unprotected contracts, leading to high levels of worker flows. This account is consistent with Theron's description of "informalisation from above".

Schotte et al. (2017a) show that wage income dominates as a source of income for those households on the edge of falling into poverty and those just below the poverty line. The combined result of high dependence on wages to sustain consumption with the high rates of worker flows in South Africa means that labour market transitions are responsible for a large share of poverty transitions. Just as gaining a job often lifts households out of poverty, the loss of a job may also push households into poverty. Schotte et al. (2017b) find that 25.4 percent of all poverty entries are associated with a fall in the number of workers in the household.

These findings are consistent with an established literature investigating poverty dynamics in South Africa, which consistently finds strong links between labour market events and poverty transitions (Carter and May, 2001; Aliber, 2003; Woolard and Klasen, 2005; Adato et al., 2006; Adato et al., 2007; Schotte et al., 2017a; Finn and Leibbrandt, 2017). There is a broad consensus that, among economic events, changes in employment status are clearly dominant in determining poverty transitions and that this is a symptom of unemployment and a high degree of churning in the labour market. Just as poverty dynamics appear to be determined largely by employment dynamics, chronic poverty appears to be determined by structural exclusion from the labour

market, with those in large households and with no access to or experience in the labour market being most likely to be trapped in chronic poverty.

These studies are useful for gaining an insight into the extent of income and consumption volatility in South Africa, as well as the primary drivers of this volatility. In particular, the use of panel data allows researchers and policymakers to appreciate the intertemporal patterns of poverty, and target poverty alleviation measures appropriately. For instance, chronic poverty associated with structural unemployment in rural areas will elicit a different policy response compared to transient poverty associated with employment volatility in urban areas.

However, these studies are also beset by a number of empirical and methodological challenges which limit their ability to illuminate the causal mechanisms determining poverty transitions. First, measurement error is always a concern when studying poverty dynamics since, in a dynamic analysis, measurement error will overstate the extent of income/consumption volatility. Second, NIDS is a panel of individuals, meaning that individuals, rather than households, are followed over time. However, since consumption is measured at the household level and is then converted to a per capita value, poverty dynamics are especially sensitive to the formation and dissolution of households and the mismeasurement of household size. Third, despite the inclusion of a shock module in NIDS, quantitative surveys have been largely unable to provide tools to identify the frequency and intensity of shocks and the coping mechanisms used by households to attempt to mitigate the welfare consequences of these shocks (for further discussion see Schotte et al., 2017b).

A further limitation of quantitative work is more general. Both qualitative and quantitative social sciences attempt to understand complex social phenomena and processes. However, quantitative social sciences tend to dedicate most attention to fairly narrow concerns with econometric identification and estimation of causal effects. Qualitative social sciences tend to be more concerned with investigating the definitions and meanings of social phenomena. While the concern with identification and estimation in quantitative social science is undoubtedly legitimate, if this is done at the expense of a careful consideration of the definitions of variables and accuracy of assumptions relating to the objects of study, this can consequentially undermine and distort the accuracy of findings, however careful the quantitative methodology.

The following example is illustrative of this limitation: Given that the household is often the primary unit of analysis in micro survey data used in economic research, working with an ill-informed definition of the household has potentially distortionary effects on conclusions reached through quantitative methods. For instance, research using an inappropriately narrow and nuclear definition of the household (which does not reflect the reality of spatially “stretched” households in South Africa) has found that the payment of old age pensions in South Africa has unintended negative impacts on labour market participation amongst prime-aged adults (Bertrand et al., 2003). However, Posel et al. (2006), using a more appropriate household definition informed by qualitative insights into household dynamics and migration patterns, found that the expansion of pensions in fact increased labour market participation through job-search driven migration amongst prime aged adults, especially women. Bertrand et al.’s results were distorted by overlooking the impact of grants on migration, a mistake which Posel et al. avoided by using a more appropriate household definition. In Du Toit and Neves’s words: “Even the best income and expenditure data need to be historically and socially situated, and the analysis to be guided by an understanding of the social dynamics and relationships that shape poor people’s choices and responses” (2009: 7).

Fortunately, a strong qualitative literature has emerged in South Africa which attempts to investigate the dynamics of poverty. This work draws on the sustainable livelihoods concept developed by Chambers and Conway (1992), Ellis (1998) and Scoones (1998) among others, to

understand, in a way that is overlooked by standard money-metric approaches, how the poor survive. Ellis defines the concept of a livelihood as follows:

> A livelihood encompasses income, both in cash and in kind, as well as the social institutions (kin, family, compound, village, and so on), gender relations, and property rights required to support and sustain a given standard of living. (1998: 4).

The diversification of livelihood portfolios, both to cope ex ante with risk and ex post with shocks, is a particular focus (see Ellis, 1998). Livelihood approaches are well-suited to understanding how households cope with situations of scarcity, and how they are able (or unable) to leverage social institutions, economic behaviour, and consumption to cope with adversity.

While this literature has traditionally been predominantly rural in its focus, in South Africa, Du Toit and Neves (2007a, 207b, 2009, 2009, 2014) have extended this approach to the study of urban livelihoods. In a series of reports and articles which draw on extensive fieldwork in Khayelitsha, Cape Town, and in Mt. Frere, Eastern Cape, Du Toit and Neves (2006, 2007a, 2007b, 2009, 2014) make a substantial contribution to the understanding of urban poverty, and in particular, how livelihood strategies, including, but not limited to, wage labour, relate to changes in wellbeing over time. Two contributions of their work are especially salient.

First, Du Toit and Neves (2007a) address the notion, predominant in development and policy discourses, that South Africa is characterised by a "dual economy" (Seekings and Nattrass, 2005 and Mbeki, 2003) – where one economy is productive and modern, and the "second economy" traditional and unproductive. According to this view, poverty is a function of exclusion from the productive economy, and therefore poverty alleviation will occur when those in the "second economy" are incorporated into the modern economy. The assumption behind this view, expressed most famously by then-President Mbeki in his "Letter from the President" (2003), was that the solution to poverty lay in the expansion of the "first world economy" and that the problem lay in the persistence of the "third world economy".

Du Toit and Neves show that this is a distortionary distinction with little basis in reality. They show that the "two economies" are indistinct, interdependent and thoroughly integrated: monetisation and de-agrarianisation combined with deep retail penetration have drawn even the poorest South Africans into the consumer market, while at the same time deepening the reliance of these households on the low-wage, low-skill jobs on offer in the "modern" sector. Thus, "[rather] than being structurally disconnected from the 'formal economy', formal and informal, 'mainstream' and marginal activities are often thoroughly interdependent, supplementing or subsidizing one another in complex ways" (Du Toit and Neves, 2007a: iv). Rather, Du Toit and Neves argue that those at the margins of the formal economy are not so much excluded as "adversely included".

Du Toit and Neves are not the first to challenge the dual economy thesis, but are innovative in succeeding to illustrate the extent and nature of these "cross-economy" interlinkages and interdependencies. Wolpe, already in 1972, challenged the notion that there were two distinct economies in South Africa. Callebert (2014) corroborates Du Toit and Neves's argument by arguing that class and the economy in South Africa ought to be considered as thoroughly integrated, and that inequality and poverty are determined by the terms of this integration for the most disadvantaged. As urbanization in South Africa accelerated in the post-apartheid era, these adverse terms of this inclusion have been consolidated by the gradual shift to more flexible and precarious forms of work for marginal workers. As discussed above, the emergence of a dualist labour market (Kerr, 2016) has facilitated the inclusion rather than led to the exclusion of those on the margins of the formal economy, but it has been this inclusion which has, ironically, consolidated deep inequalities and vulnerability. In contrast to the dual economy hypothesis, Du

Toit and Neves suggest that the solution to poverty is not so much in expanding the first economy, as improving the terms of incorporation of those at the margins.

Second, Du Toit and Neves (2009) describe what they term the "hybrid livelihood profiles" of those on the margins of the urban economy. These hybrid livelihood profiles are largely determined by the form and nature of social networks, where these are often spatially stretched between urban and rural spheres. Households and individuals engage in a multitude of complex strategies to survive and maintain a level of security and wellbeing, which will often include formal wage labour, informal wage labour, improvisatory self-employment, leveraging distributional claims on others both within and outside the household, engaging in unpaid care work, and accepting, rejecting or expelling new household members (and the state grants that often come with elderly or young dependants). Even those officially counted among the "unemployed" are shown to survive through actively engaging in numerous improvisatory economic activities. These strategies interact in complex and complementary ways – for example, unpaid care work may involve rural-to-urban or urban-to-rural migration, which in turn may facilitate another household member's insertion into the labour market. Understanding the household not as a "unit of analysis" but as a fluid and porous "open system" is central to Du Toit and Neves' analysis.

Du Toit and Neves (2009) and Ferguson (2013, 2015) pay special attention to the role that state grants play in these livelihood portfolios. One third of all South Africans receive a state grant, over fifty percent live in households with grant income, and grants comprise the most important source of income for half of these households (Ferriera, 2017; Seeking & Nattrass, 2015).[5] Recognising that distribution-based livelihoods are fundamentally built on the basis of reciprocity, Du Toit and Neves (2009), Ferguson (2015) and Ferguson and Li (2018) show that formal social protection (grants) functions to facilitate and lubricate systems of informal social protection (social networks). Rather than crowding out informal channels of resource distribution through social networks, grants complement these forms of redistribution within the livelihood portfolios of the poor.

It is worth emphasising that, while wage work does appear in these "hybrid livelihood profiles", it is in no way automatically privileged. Wage work is always understood as dependent on the presence of other elements within the livelihood portfolio just as it in turn enables other livelihood strategies. Understanding any one livelihood strategy in isolation from the household's hybrid livelihood portfolio is not possible, and wage labour is no exception.

Social networks represent the linkages that draw together individual livelihood strategies into more complex, supra-individual livelihood portfolios. As Ellis (1998) argues, the strength of livelihood strategies is determined largely by the extent to which these are diversified, since this facilitates the mitigation of vulnerability and the smoothing of wellbeing through sharing risks and resources. However, social networks operate in complex ways, sometimes helping and sometimes harming households.

Du Toit and Neves warn that social networks may just as easily constrain upward mobility and entrench inequality as facilitate mobility and provide channels for equitable redistribution. They note that distributional claims on ascendant members within social networks often constrain the accumulation of resources which would be necessary to sustain upward mobility. By

[5] Social grants in South Africa consist primarily of old age pensions, disability grants, and child support grants. Old age pensions and disability grants are paid to those who are disabled or who are 60 years old or more, and reach over 4 million people (Ferriera, 2017). They are currently valued at R1,510 per month. The child support grant is paid to the primary caregiver of a child aged 18 or under and reaches 12 million people. At R350, the value of these grants is substantially lower than the old age pension.

the same mechanism, the effects of shocks on others in networks are spread, often affecting ascendant members most negatively.

At the same time, Du Toit and Neves find that those who are most able to leverage social networks to their advantage by making claims on others are also those who command "respect" or *isidima*, where this is in turn determined by the anticipated ability of the person to reciprocate at a point in the future. For prime-age adults without access to grant income, wage income is often valued as one of the few ways of accumulating *isidima,* and thereby lubricating networks of reciprocal exchange which may be drawn upon in times of need. Those least able to reciprocate are typically those most in need of social networks, meaning that those same social mechanisms which "allow costs and resources, opportunities and shocks to be shared, [are], at the same time […], structured by deeply entrenched power relations pivoting on gender, age, status, and other markers of exclusion, [thereby increasing] the vulnerability of some individuals" (Du Toit and Neves, 2009: 4).

2.2. Contested terrain: The meaning of work in South Africa

As discussed above, a dominant school of thought in South Africa holds that the challenge of unemployment will be resolved by creating jobs. Seekings and Nattrass (2005; 2015) articulate this view clearly. For them and for those who share their views, mass unemployment is the primary challenge facing the South African economy and therefore policies which promote employment growth – even if at poverty wages – ought to be pursued.

For this view to be valid, however, it is assumed that unemployed South Africans will be willing to take up the sorts of jobs that are to be created. However, as argued above, to the extent that job creation for the poor has occurred in South Africa, this has consisted above all in precarious forms of work in low-skill service and retail sectors. Bhorat et al. (2016) find that 13.7 percent of total employment growth between 1995 and 2016 has occurred through outsourced and subcontracted jobs, and that poorer, younger and more vulnerable workers are disproportionately likely to find employment in these jobs. If the kinds of jobs being created are of such poor quality, it is not a foregone conclusion that the unemployed masses will flock to these jobs. This subsection deals with literature which may shed light on the validity of this assumption.

Explanations for unemployment are generally classified according to a typology which was introduced by Furnham (1982). The three self-evident explanations are: societal reasons, individualistic reasons and fatalistic reasons. The Seekings and Nattrass school of thought argue (correctly) that the lack of jobs is a primary cause of unemployment, and that this has a *societal* explanation. However, cases in which unemployed workers turn down work clearly demands an alternative explanation, since in these cases unemployment is not straightforwardly attributable to the lack of jobs. When presented with these cases, the Seekings and Nattrass school of thought tends to attribute unemployment to *individualistic* explanations. That is, while a shortage in demand for work in an economy is acknowledged to be a societal problem, when workers turn down employment, the claim is that this reflects more on the individual worker's characteristics than the societal constraints that the worker faces.

This tendency is evident in the debate around reservation wages in South Africa. Reservation wages are defined as the lowest wage that a job-seeker would accept in exchange for her/his labour. This debate is centred on the question of whether or not unemployed South Africans are "pricing themselves out of employment" by expecting to receive wages which are unrealistically high, given their characteristics as workers. Some studies (such as Kingdon and Knight, 2001) find that unemployed South Africans with generally high reservation wages do "price themselves out of employment", while other studies have shown that high reservation

wages do not translate into lower probabilities of finding work, and suggest that the reservation wages reported in surveys may be unrealistically high due to measurement issues (Seekings and Walker, 2005; Lilenstein and Seekings, 2017, Burger et al., 2017).

In either case, however, the research agenda is framed around an enquiry into whether job-seekers have an "unrealistic" or "distorted" expectation of what their labour is worth for the jobs that they are most likely to find. In other words, the debate is centred on an enquiry into some characteristic about the job-seeker. Though neither universal nor intentional, this research agenda often displays a normative undercurrent – if it is discovered that workers do indeed price themselves out of employment then it is implied that their wage expectations "ought" to be adjusted downward to a more "realistic" level. With few exceptions (among them Rankin and Roberts, 2011), the literature on the topic largely overlooks the reasons why poor and unemployed workers may turn down a job, which could point to societal explanations. This suggests strongly that this debate is dominated by concerns which attribute unemployment because of "excessive" reservation wages to individualistic rather than societal reasons.

However, in South Africa and beyond, an emerging body of literature from both economics and economic anthropology has begun to suggest that societal reasons ought to be given more weight in explaining unemployment in those cases where workers turn down wage jobs. This literature suggests that it is more due to the characteristics of the kinds of jobs low-skilled workers have access to which explain unemployment, rather than characteristics of the workers themselves.

The economists Blattman and Dercon (2016), and Teal (2017) appear (to their own great surprise, it should be added) to be providing evidence which supports this line of argument. Blattman and Dercon (2016) use experimental evidence in Ethiopia to understand the trade-offs which workers face in the choice between, on the one hand, entering the formal labour market through the expansion of low-skill, low-wage manufacturing jobs, and on the other hand, remaining self-employed in the informal labour market. Their study was designed around the comparison of economic and health outcomes for three treatment arms in an experiment: one group was offered industrial jobs, another was given a cash grant and entrepreneurial training, and a third group functioned as a control. Against their expectations, they find that industrial jobs had no positive welfare effect on those who were offered jobs and that most of those given industrial jobs had quit after 11 months. Those assigned to the entrepreneurial training/grant treatment, on the other hand, experienced sizeable economic and health benefits.

Their study suggests that industrial work, despite being a reliable and constant source of income, when as low-paid and as physically taxing as it is in the Ethiopian context, is used primarily as a welfare smoothing strategy by those who are temporarily unemployed or who suffer temporary idiosyncratic shocks. Since wage employment essentially functions for these workers as a stop-gap measure, as soon as the immediate economic stressors which forced them to enter wage employment in the first place are no longer pressing, employees quit their formal sector jobs – often even before finding alternative employment options. Those who did not quit are typically older, less able and less skilled – suggesting that they have inferior outside options relative to those who quit, meaning that the costs of leaving their industrial jobs were relatively higher. From the firm's perspective, because minimal training is required and because the supply of workers is abundant, "workers are essentially disposable", with the result that the high turnover of workers is inconvenient, but is preferred over the alternative of improving working conditions and increasing wages. They suggest that "it is possible that, in very unskilled industries, high turnover at very low wages, where workers with the poorest outside options remain, is the profit maximising choice" (Blattman and Dercon, 2016: 46).

Teal (2017), using census and panel survey data in Ghana from 1987 to 2003, finds that the lack of expansion of wage employment in large firms in Ghana over the period in question has largely been due to the superior employment growth of single employer enterprises (that is, own account workers). The higher growth in the number of self-employed workers vis-à-vis wage workers is due to the fact that limited access to capital markets mean that returns to physical capital for self-employed workers is exceptionally high, with the result that those who can access capital to start their own businesses prefer self-employment to wage employment. In a conclusion which is strikingly similar to that of Blattman and Dercon (2016), Teal finds that "there is no reason to think firm wage employment is the preferred outcome for most workers [relative to self-employment]" (2017: 21).

Both Teal and Blattman and Dercon find that, for many workers, low-skill wage employment functions as a temporary means of coping with adversity – essentially as a stop-gap measure. In Ethiopia and Ghana, workers with low levels of human capital see wage employment (of the kind which is available to them) as a distinctly "second best" option, to be avoided if profitable self-employment is a viable alternative. This suggests that for workers who turn down wage employment, the explanation for this is just as likely to be societal as it is to be individualistic.

Dawson (2018), an anthropologist, lends further support to this argument. Drawing on ethnographic research in urban Gauteng, South Africa, she finds that many urban South African youth may "choose" unemployment over employment. For young men in particular, the indignity of unskilled employment in a highly unequal society is experienced as an affirmation of structural exclusion. Dawson finds that many young men opt instead for informal, township-based livelihood portfolios, rather than urban, wage-based livelihood portfolios and its attendant stresses and indignities. De la Hey and Beinart (2017), investigate a related problem in a rural South African context – the withdrawal of labour from smallholder agriculture in areas of high unemployment. Using qualitative interviews over a six year period, they find that the withdrawal of labour from subsistence agriculture is jointly determined by the high costs of agricultural employment, in terms of time, effort and risk, and the availability of alternative means of sustaining livelihoods – primarily in the form of social grants.

As will be discussed in greater depth in Section 5, these findings also find support in my own fieldwork in urban South Africa, where I observed that an aspirational preference for profitable self-employment over wage labour was expressed strongly during FGDs composed primarily of prime-aged, low-skilled men. That wage work for the unskilled might be seen as a "second best" option should not be particularly surprising. In a recent nationally representative study of public attitudes toward work in South Africa, Mncwango (2016) shows that low-skill workers are disproportionately likely to perceive their jobs to be insecure, unfairly low paid, uninteresting, and lacking in opportunities for upward mobility. Among these, workers on short-term contracts registered even higher levels of dissatisfaction, largely due to lack of job security. That the rejection of wage work may be more due to societal reasons than individualistic reasons ought to be seriously considered as a possibility – especially since this has implications for the role of job creation in resolving unemployment.

A potentially informative analogy in this regard is the distinction between "survivalist" and "profitable" forms of self-employment which is often made in sociology and anthropology. Du Toit and Neves (2007a), Ferguson (2015), Rogerson (1996) and others have argued for the rejection of terms such as "informal economy" and "micro-enterprises" to characterise the livelihood strategies of poor, urban self-employed workers. They argue that these terms ought to be rejected because they misleadingly imply that the businesses of the poor are viable and profitable enterprises or that the poor are simply frustrated entrepreneurs (Mead and Liedholm,

1998, *inter alia*). Ferguson and others argue that these modes of survival are better described as "survivalist enterprises", which are but one element of the urban poor's highly precarious and flexible portfolio of improvisatory strategies of survival. These "survivalist enterprises" are sharply distinct from more "profitable" forms of self-employment. This point was made forcefully by one respondent in my own fieldwork when speaking about her business selling sheep heads, who clarified to me that "this business was not profitable – it was a plan to survive" (Noluvuyo, Aug. 2017). The difference between survivalist, improvisatory self-employment and profitable self-employment is largely taken for granted (except in the persistent obsession with "micro-entrepreneurs" in development economics).

None of these scholars have, however, advanced a similar line of argument with regard to wage labour. Just as there is a distinction between survivalist self-employment and profitable self-employment, might there not also be a similar distinction between "survivalist" wage labour, and "profitable" wage labour? That is, might it be possible that some forms of wage labour, just as with survivalist self-employment, function as a stop-gap measure – undertaken in times of need but put aside when conditions improve? The evidence from the recent findings of Blattman and Dercon, Dawson, Teal and others suggest that this is a possibility worth exploring, and which may provide answers to the structural and societal issues, as opposed to individualistic reasons, which explain why many poor workers prefer to remain outside of wage employment.

3. Methods and Data

3.1. Mixed-methods

According to Kanbur (2003), the strengths of quantitative methods for poverty research consist in the possibility of aggregating results, the possibility of measuring the reliability of results, and the possibility to exploit leverage in policy debates. The strengths of qualitative methods for poverty research, on the other hand, involve a richer definition of poverty, a deeper insight into causal processes, and superior accuracy and depth in answering certain questions. In short, the difference between the two can be distilled by understanding that quantitative methods provide breadth of information, while qualitative methods provide depth of information.

While there is a broad consensus regarding the relative strengths and weaknesses of qualitative and quantitative data, there is not, however, a concomitant clarity regarding how to draw on the respective strengths in such a way that the complementarities can be fruitfully combined (Kanbur, 2003). In this study I draw loosely on Lieberman's (2005) "nested analysis" strategy to attempt to operationalise a mixed-methods approach to analysing the dynamic interactions between welfare and the labour market. The key challenge in applying mixed-methods research is to be able to exploit the advantages of qualitative and quantitative data in such a way that the value of the research output is greater than the sum of its qualitative and quantitative parts. In other words, mixed-methods research should use the qualitative element to add value to the quantitative element, and vice versa. Lieberman elaborates a unified strategy to mixed-methods research which satisfies this synergistic objective.

The sequencing of Lieberman's "nested analysis" begins with "large-N analysis" (LNA) of quantitative datasets, using statistical methods to test a theoretical model. The LNA is also intended to inform the selection of cases to be used in a "small-N analysis" (SNA). If the model in the LNA is well-specified and robust, then the SNA step of the analysis will be concerned with using qualitative data to test the model ("model-testing SNA") (Lieberman, 2005). If the LNA is

neither well-specified nor robust, then the SNA step of the analysis will be concerned with using qualitative data to build an alternative model ("model-building SNA").

The preliminary LNA analysis is intended to establish a clear understanding of the relationships between relevant variables and an outcome of interest. LNA analysis may also be used to draw attention to the limits of existing data and quantitatively informed theory and to identify an empirical puzzle which demands an explanation. This analysis, typically using descriptive statistics and multivariate regression, is reliant on the availability of a quantitative dataset with sufficient observations, and ideally implemented and weighted in such a way that enables researchers to make claims of broader representativeness.

The subsequent SNA can either be used to test the results of the LNA or build an alternative model. If "model-testing", the SNA element of the nested analysis is intended to supplement, enrich, and revise (where necessary) the insights from the LNA. If "model-building", the SNA element of the nested analysis is called upon to "develop a well-specified theoretical account [explaining variation] in the outcome of interest" (Lieberman, 2005: 443). While LNA is limited to what Lieberman calls "data-set analysis" (the observation of between-case relationships), SNA is suited to direct "causal processes observation" (facilitating an understanding of within-case events and processes) (2005:440). SNA can illuminate causal mechanisms – "what types of events and/or processes lie between cause and effect" – while in LNA only the outcomes of these mechanisms are observable (Lieberman, 2005: 442; Mahoney and Goertz, 2006). On the other hand, the criteria of external validity, which is often a reasonable objective of LNA, is beyond the reach of SNA. For this reason, the use of LNA to design a sampling frame within which to situate SNA allows the researcher to apply the insights from SNA within the broader explanatory framework derived from LNA. This can, if undertaken carefully, reveal more broadly applicable insights into the causal mechanisms at work in LNA.

3.2. Quantitative data and methods

The quantitative element of the study uses NIDS panel data (SALDRU 2016a,b,c,d). NIDS is South Africa's first national panel study, which began in 2008 with a nationally representative sample of over 28,000 individuals in 7,300 households. There are at present four waves of data available, each spaced approximately two years apart. In the quantitative analysis in Section 4, data from pairs of consecutive waves $t-1$ and t are pooled, such that the analysis of changes over time represent changes between 2008 to 2010/11, 2010/11 to 2012 and 2012 to 2014/15 respectively, controlling for period-specific fixed effects.

The empirical analysis in Section 4 primarily uses poverty status based on consumption expenditure as a proxy for wellbeing. Poverty is defined using the StatsSA upper-bound poverty line (UBPL), the StatsSA food poverty line (FPL), and occasionally the 2015 SALDRU upper-bound poverty line (SALDRU-UBPL) – all three of which use Ravallion's (1994) cost-of-basic-needs (CoBN) approach designed to indicate various degrees of poverty (Budlender et al., 2015; StatsSA, 2015b). According to Ravallion's methodology, the FPL represents the level of consumption below which individuals are not able to purchase sufficient food to meet their caloric requirements, even if all expenditure is dedicated to food. An upper bound poverty line (UBPL) is calculated to indicate the expenditure level at which individuals can satisfy both their food and non-food needs.[6] Expressed in January 2015 Rands, the three poverty lines are respectively R430, R992, and R1283 per capita, per month.

[6] I omit reporting results using Ravallion's method for calculating a lower-bound poverty line (LBPL), since, as Budlender et al. (2015) note, this indicator is conceptually weak as a cost of basic needs indicator. While

I use expenditure rather than income as a measure of economic welfare. This requires the assumption that expenditure is a good proxy for the resources which are available to individuals and hence reflective of their overall living standards and economic wellbeing.[7] Expenditure is used most often in South Africa to undertake analyses of poverty, since it is assumed that, to the extent that households are able to smooth consumption, expenditure is a better approximation of permanent household income.[8] To facilitate comparisons across time, all monetary figures are deflated using the Stats SA consumer price indices and are calibrated to January 2015 (Stats SA, 2015).[9] To convert household income and expenditure to a per capita measure, household figures are simply divided by the number of members in a household. This follows an established precedent in the South African microeconomics literature (see, among others, Leibbrandt et al., 2010; Finn and Leibbrandt, 2017; Schotte et al., 2017a; Budlender et al., 2015).[10]

Panel weights have been constructed to correct for the presence of panel attrition in NIDS. Of the 26,775 sample members who were successfully interviewed in 2008, 17,266 were re-interviewed in all three subsequent waves, giving an attrition rate for the balanced panel of 35.5 percent. However, between-wave attrition, which is most important in this study, is substantially lower, ranging from 9.3 to 21.1 percent. When analysis is undertaken on pooled wave-to-wave samples, weights are created separately for each sub-period (2008 to 2010/11, 2010/11 to 2012 and 2012 to 2014/15), benchmarking the characteristics of the sample that did not attrite against characteristics in the original sample. That is, for each sub-period, new weights are derived which adjust the original baseline survey design weight to ensure that the weighted distribution of households by gender of the household head, geographic location (area and province), poverty headcount and race is the same for the subperiod in question as in the cross-sectional distribution in the survey's baseline wave.[11]

3.3. Qualitative data and methods

3.3.1. Site selection – Khayelitsha, Cape Town

"In an important sense, Khayelitsha is in, but not of, Cape Town. It is situated more than 30 kilometres from the city centre and is remote from the shopping and manufacturing sectors where

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it allows for spending on non-food items, it requires that individuals sacrifice some food consumption in order to fulfil these non-food needs.

[7] This is not to overlook expenditure's well-known limitations as a proxy for economic welfare. For instance, expenditure is measured at the household level, while my analysis is undertaken primarily at the individual level. This presumes that expenditure is divided equally within the household – an assumption which is almost certainly universally untrue (De Vreyer & Lambert, 2016).

[8] The consumption expenditure variable used excludes "lumpy" once-off expenditure items, such as motor vehicles and furniture.

[9] To adjust for inflation, for each line the food component (equal to the FPL) is inflated by using the food specific Stats SA CPI and the non-food component (equal to the difference between the FPL and the UBPL) is inflated by using the non-food specific Stats SA CPI. (Stats SA, 2015a).

[10] Recognising that income in a family of four is "stretched" further than a per capita equivalent in a single-person household, it may be prudent to use an "equivalence scale" to derive an "adult-equivalent" measure of individual income/consumption which is adjusted to account for differences in the consumption needs of adults and children in a household. This can be further adjusted to consider economies of scale in larger households. However, since there is no consensus as to how to adjust for adult-equivalents and economies of scale, Deaton (1997) has suggested that the use of such scales may raise as many issues as they resolve, and their usefulness has been disputed in the South African context by Woolard and Leibbrandt (2006).

[11] I follow a procedure proposed by Wittenberg (2010) to compute panel survey weights which are as close to the design weights as possible. For more details see Schotte et al. (2017a, 2017b), who use the same methods to design weights as in this analysis.

most of the jobs are to be found. Travel to and from these centres is expensive, time-consuming and unsafe. In many ways, then, Khayelitsha is something of an economic, racial and cultural enclave. People travel over a thousand kilometres from the Eastern Cape to come to the urban areas – and, indeed, shuttle back and forth between their rural homesteads and their dwellings in Sites B, C or Kuyasa – but rarely venture the last 15 or 30 kilometres into the economic hub. Thus, economically, culturally and socially, Khayelitsha is a paradoxical place."

- Du Toit and Neves, 2007a: 30

Field research was undertaken in Khayelitsha, a young, large, and rapidly growing township about 25 kilometres from Cape Town's city centre. Khayelitsha was established by the apartheid government in 1985 as a site for relocations from other overcrowded black townships in Cape Town – primarily Crossroads. Khayelitsha grew rapidly, and growth was accelerated when pass laws, which restricted the movement of black South Africans to urban centres, were abolished in 1987. According to the 2011 Census, the population of Khayelitsha was 392,000 – making it South Africa's second largest township after Soweto. **Figure 1** illustrates the rapid growth of Khayelitsha over the 20 year period between 1987 and 2017.

Figure 1: Growth of Khayelitsha, 1987-2017

1987 ***1997*** ***2017***

Source: Google Earth, historical imagery

Khayelitsha's demographic profile has a high share of young people and is largely made up of rural to urban migrants – almost all of whom are from the Eastern Cape. The rural-urban linkages maintained by Khayelitsha's residents remain strong and indispensable in sustaining the livelihoods of spatially stretched households which often straddle rural-urban divides (du Toit and Neves, 2007b). Khayelitsha has high levels of income poverty and is facing serious challenges in education, crime, employment, housing, sanitation, service delivery and substance abuse. According to 2011 Census data, only 36 percent of residents above the age of 20 have completed high school, only 62 percent of the labour force is employed, and 55 percent of households live in informal dwellings (Census, 2011).

However, these aggregate statistics obscure the extent of socio-economic diversity within Khayelitsha. Many residents of wealthier areas such as Ilitha Park, Khwezi Park and Bonghweni are unambiguous candidates for belonging to a black middle class – and act and spend the part, with their high-walls, guard dogs, private security, satellite television, and their reputation, amongst other residents, for being "stuck up". In other areas, it is not uncommon to see a well-maintained formal house with new furniture, tiled floors and a plasma television next door to a

one room shack, making within-street inequality much more clearly visible than it is in Cape Town's wealthier suburbs.

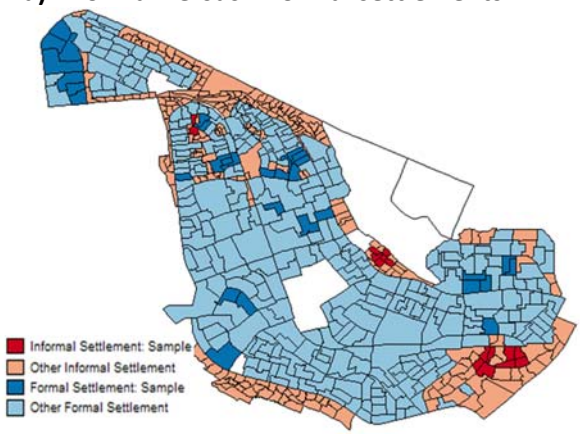
In addition to the advantage of displaying a considerable degree of socio-economic heterogeneity, Khayelitsha was also selected as a study site because of its urban character. As discussed above, chronic poverty is a predominantly rural phenomenon, while the major share of churning around the poverty line is predominantly concentrated in urban areas. In order to focus my qualitative research on the latter, I chose to select an impoverished urban area for my study. My guiding assumption that Khayelitsha was a site of considerable economic mobility and instability was confirmed during the course of the fieldwork.

In selecting areas within Khayelitsha to conduct interviews, I took care to develop a sampling frame which would ensure that my sample represented the socio-economic diversity within Khayelitsha and could thus allow me, while falling short of making claims of representativeness, to meaningfully interpret the study results within the broader quantitative analysis.

The maps in **Figure 2** illustrate how the 2011 Census data was used, at the small area, sub-ward council level to select areas within Khayelitsha to sample households. Using this data and maps such as those reproduced below, data was collected in areas which ensured a basic degree of diversity – in terms of educational attainment, poverty status, concentration of informal housing, concentration of rural to urban migrants, household size, and labour market insertion. While this sampling strategy provided a guideline to the selection of areas, the input of field researchers, who live in Khayelitsha, was also invaluable in identifying appropriate areas for sample selection. **Figure 2** shows which areas within Khayelitsha where selected as study sites, and how these were chosen to guarantee a basic degree of socio-economic diversity.

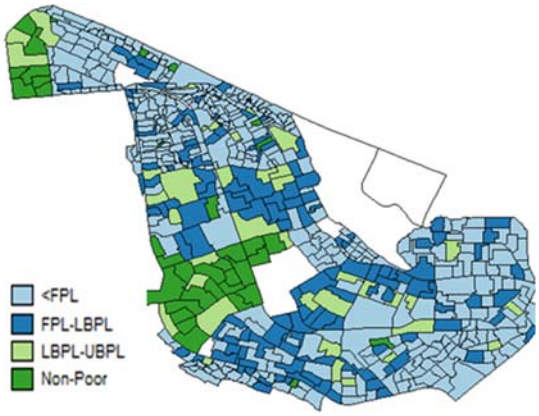
Figure 2. Sample selection

a) Formal versus informal settlements

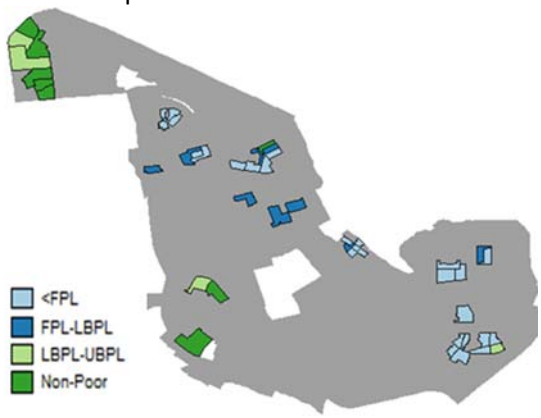


b) Poverty status based on approximated mean per capita income

Total

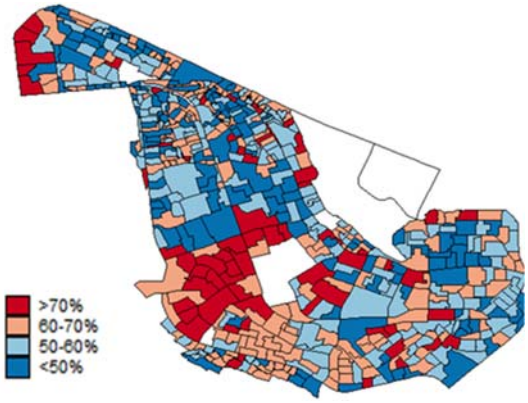


Selected Sample

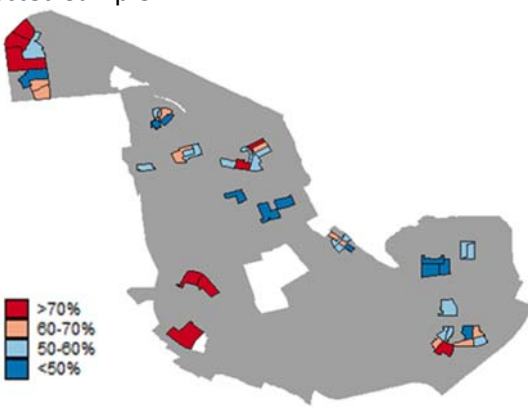


c) Share of households with household head in employment

Total



Selected Sample



Source: Calculations by the author during fieldwork planning, using 2011 South African Census data.
Note: FPL abbreviates Stats SA Food Poverty Line, UBPL abbreviates Stats SA Upper Bound Poverty Line. Similar maps were produced for various other variables used to inform sample selection. These maps are available from the author upon request.

3.3.2. Field research methods and post-collection analysis techniques

Using the sampling frame discussed above, in a first stage, 15 study areas were selected and within these study areas a random walk technique was used to select approximately 300 households to whom short surveys were administered.[12] These short surveys consisted of collecting basic demographic and household information, as well as administering a quick wealth assessment module. These 300 households became the sample which was used in further stages, and the surveys administered in this stage became the basis for the selection of individuals for participation in subsequent fieldwork stages.[13]

In the second stage of field research, four FGDs were held with groups which were selected from the sample collected in the first survey round. FGDs ranged from between 3 to 10 participants. Some groups were single gender, and others were mixed. Discussions lasted approximately two hours each. These were conducted in isiXhosa by a moderator who was intensively trained during preparation for fieldwork. As is common practice among qualitative researchers in South Africa, FGDs were simultaneously translated by a second research assistant, while I transcribed this translation (Du Toit and Neves, 2007a; 2007b; 2009; de la Hay and Beinart, 2017). Transcriptions and audio recordings of FGDs were then analysed and discussed with two research assistants in a post-FGD de-brief to ensure the accuracy of the translation and transcription and to analyse preliminary findings.

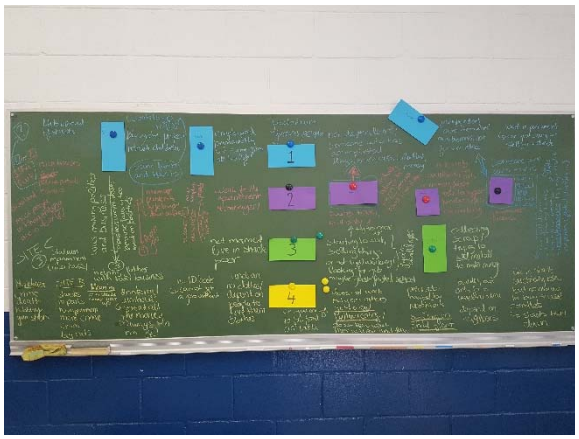
The purpose of these group discussions was two-fold: First, using visual aids in the form of four boxes arranged in ascending order from 4 (lowest box) to 1 (highest box), participants were prompted to discuss what it meant for someone to be in each respective box, representing different "levels" of society (see **Figure 3a** below). Second, participants were prompted to discuss what determines movements between boxes – both upward and downward mobility. In both elements of the discussion – defining boxes and discussing dynamics – participants drew on their own experiences and the experiences of people known personally to them. This proved to be an exercise which produced rich insights into the determinants of transitions, the nature of risk faced by the urban poor, and the role of social networks in determining upward and downward mobility. During FGDs, key points were transcribed onto a blackboard, an exercise which helped to anchor the discussions and to gauge both disagreement and consensus for particular claims (**Figure 3b**).

[12] Survey questionnaires and interview guides are available from the author upon request.

[13] Ideally, the selection of households to interview for the collection of qualitative data would be done by re-interviewing households from the NIDS panel. Unfortunately, this sampling strategy is not possible. NIDS has stringent ethical standards regarding anonymity of respondents, and as an ongoing nationally representative panel, has an interest in not allowing qualitative follow-up interviews for fear of introducing attrition bias.

Figure 3: Focus group discussions

a) Four boxes, with moderator and interviewees



b) Blackboard notes, post-discussion

Source: Author's photographs, Khayelitsha 2017.

These FGDs were designed to develop a means of measuring social and material wellbeing which could be used in LHIs. This measure of wellbeing was intended to be more subjectively meaningful than narrow money-metric proxies of income and expenditure, while at the same time facilitating a degree of comparability between cases which would allow an analysis to draw conclusions based on comparisons. This was achieved by introducing the box exercise to the focus groups through vague definitions such as "those in box one are the most well-off, and those in box four are the least well-off", and then prompting participants to populate these conceptually empty boxes with their own views of what it means to be in different societal "boxes". While the analysis of poverty dynamics in the quantitative element of this study is based around consumption-defined poverty transitions, in the qualitative analysis the study of welfare dynamics is based on mobility both within and between boxes. Being able to converge upon a common understanding of what it "means" to be in box one, two, three or four, and incorporating these categories in the qualitative research allows one to triangulate quantitative findings on the determinants of poverty transitions with qualitative findings on the determinants of "box transitions". The key characteristics of the various boxes which were converged upon in the FGDs are described in **Table 1** below:

Table 1: Box definitions

Box 1: Those in box one are the economic success stories of the township. They are usually successful entrepreneurs in the community – taxi and tavern owners are especially prominent. Some among those stably employed in permanent and well-paid work may also be considered to belong to this box. The children of those in Box 1 are educated, employed and/or married and live on their own.
Box 2: Those in Box 2 are neither poor nor wealthy. They are stably employed, usually in a lower-level white collar occupation. Compared to those in box one, they tend to face the need to support a larger number of dependents, which may also include members of the extended family.
Box 3: Those in Box 3 are considered poor. They have their most elementary needs such as food and electricity satisfied, but still need to economise a lot. They cannot put any money to the side, since all income is consumed. They may match most closely with those households falling below the UBPL. They tend to derive income from the labour market, but are typically in jobs that are poorly paid, of limited duration, unregulated by labour legislation, or subject to seasonal fluctuations. This box may also include smaller households that have access to an old age pension or disability grant.
Box 4: Those in Box 4 were repeatedly characterised as 'going to sleep on an empty stomach', which most closely matches with the conditions of those households falling below the FPL. They typically have no access to income from the labour market but survive off child support grants and/or support from others in the community, including food donations by neighbours. Some eke out a living from survivalist forms of self-employment and/or do ad hoc piece jobs. These people live hand-to-mouth. They have few assets, live in informal dwellings, and might not be able to afford electricity.

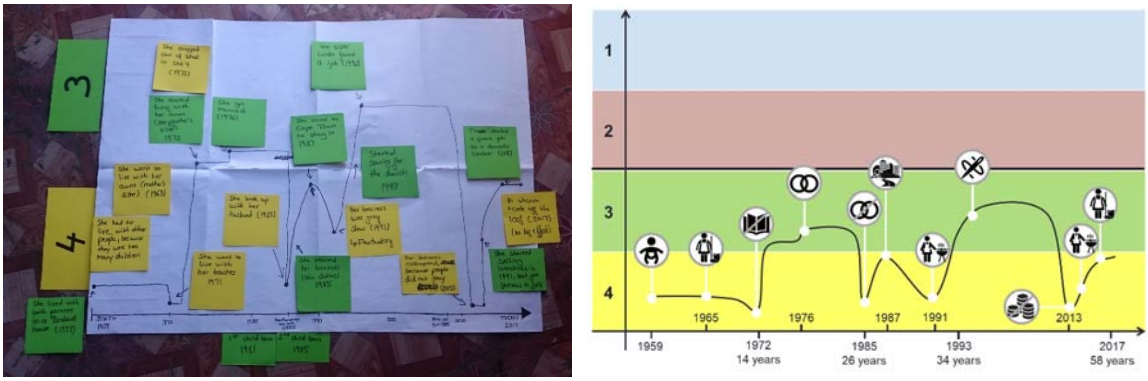
Having conducted these FGDs and having arrived at a definition of economic stratification as described above, I undertook the primary element of the field research, which consisted of semi-structured life-history interviews. These methods are drawn partly from the life-history interview techniques used by Davis (2011) and Davis and Baulch (2011) in rural Bangladesh and partly from Adato et al.'s (2007) "household events mapping" technique used in rural KwaZulu-Natal, South Africa. Both Adato et al. (2007) and Davis and Baulch's (2011) interviewing techniques follow a similar structure, and have similar aims, with the notable difference that Adato et al. focus on the household as the unit of analysis, while for Davis and Baulch (like us) the unit of analysis is the individual respondent. In both methodologies, the respondent/household recounts the individual's/household's history, with a focus on major events and processes which determined the wellbeing of the individual / household members. Both approaches make use of a large sheet of blank paper, on which major events, processes and coping strategies are mapped chronologically. In addition to the x-axis representing time, Davis and Baulch also incorporated a y-axis representing wellbeing. This allows the interviewer and interviewees to trace together the fluctuations of wellbeing over time and to link these fluctuations to their determinants.

In the fieldwork undertaken in this study, LHI's were structured in two stages. In the first stage, the LHI was conducted in isiXhosa by a fieldwork assistant while a second fieldwork assistant translated the interviewee's responses while I simultaneously transcribed this translation (as in FGDs described above). At the same time, either I or the second fieldwork assistant used coloured flashcards to make notes of major life events. In the second stage, the welfare mapping exercise was introduced to the interviewee, in which a large sheet of paper was

placed on the floor and an x-axis for time and a y-axis representing different boxes was drawn (as shown in **Figure 4** below). The coloured flashcards were then placed on the graph in chronological order, which the interviewee was asked to use to trace her/his welfare trajectory over his/her life-course, as shown in **Figure 4**.

It is encouraging that box characteristics as described in this process during LHIs, generally conform to the box definitions in **Table 1** above. It should be noted that, while during FGDs box definitions were primarily framed in terms of social stratification, these can equally be interpreted as expressing states of wellbeing. This interpretation of wellbeing has an interpretation which is both absolute (in terms of absolute material well-being) as well as relative (in terms of being situated within a schema of social stratification).

Figure 4: Mapping welfare trends over time



a) Life-history map from interview. b) Stylised resentation of the photograph in a)

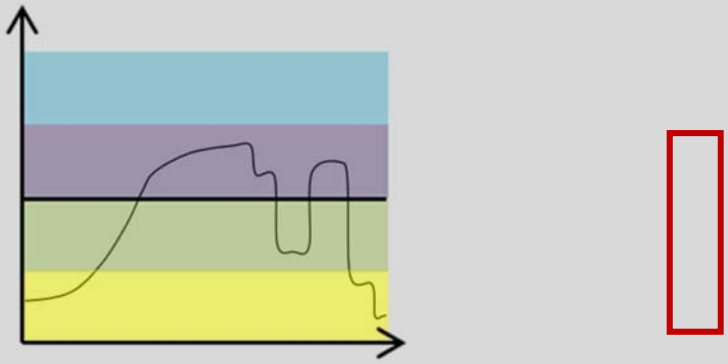
Notes: Author's photograph, Khayelitsha, 2017 (left) and post-analysis representation by the author (right)

It is worth reflecting on the role that local fieldworkers played in both the collection and analysis of qualitative data in LHIs and FGDs. I worked with a group of between two and eight fieldworkers and interpreters, depending on the stage of data collection. I benefitted from an especially productive relationship with one fieldworker, Mzulungile, who moderated most of the LHIs. His role evolved beyond the requirements of moderator and translator – his guidance and knowledge of the local context was invaluable for initiating me into a society which, as a privileged white South African, was foreign to me. He also picked up on many subtleties and undercurrents in interviews which I could not have noticed. These insights made post-interview debriefs, in which we reviewed transcriptions and analysed interviews at length, an essential step in the data-collection process. It is also worth noting that I believe he was able to diffuse much of the tension associated with my presence during interviews. As a white, privileged South African man and German woman in a highly racialized South African context, my presence could easily have been interpreted as invasive and prying and be received with justified instinctual hostility and distrust. However, Mzulingile's relatability and ability to explain the purpose of the research project in a way that people could sympathise with tangibly broke down barriers of mistrust and allowed interviewees to open up in interviews.

Following the completion of fieldwork data collection, post-collection data analysis was undertaken by analysing transcriptions of FGDs and LHIs, and returning to audio recordings when necessary. Photographs of participatory life-course welfare trend graphs (as in **Figure 4** above) were especially important to gauge the magnitude of the impact of particular events in determining mobility patterns.

Mobility determinants are analysed separately in cases of upward versus downward mobility. A finding which emerged strongly from qualitative fieldwork was that the effect of particular drivers of mobility hinged crucially on how these interacted with other events, processes or contextual factors. This finding informs the development of a schema which was used to analyse economic mobility and welfare trajectories in LHIs. This schema approaches the analysis of any particular event by implicitly assuming a counterfactual world in which the event/process determining mobility does not occur. For example, a driver of downward mobility is understood as an event or process which results in downward mobility being greater than that which would have been expected if the event/process had not occurred. However, this event might occur in conjunction with another event/process/contextual factor, which might compound the negative effect on welfare. Equally, the effect of the same event may be offset by an event/process/contextual factor which moderates the impact of the driver of downward mobility. For example, if a member of a household loses a job (a potential driver of downward mobility), but this event is linked to a decrease in household size, the moderating effect of this household event may cancel out the downward pressure of the labour market event. **Figure 5** demonstrates how this schema was applied to the analysis of events in LHIs by drawing on an illustrative example.

Figure 5: Illustration of the analysis of LHI events – Sicelo's life history



Sicelo's stylised life-course welfare-trajectory

Biographical summary:

Sicelo grew up in a village in the Eastern Cape in a large, poor household with a single parent. After failing to complete high school and struggling to find work in the Eastern Cape, he moved to Cape Town to find a job. He worked for a short time as a construction worker and as a security guard. He soon quit to attend a training course to become a petrol attendant. For the next six years he was formally employed at various petrol stations in Cape Town. During this time, he married a woman who was working as a cashier at a petrol station. Their combined incomes allowed them to escape poverty while at the same time supporting their two children. This poverty escape is represented by the movement into Box 2 in the graph above. This period of economic wellbeing and stability ended when Sicelo was fired from a string of jobs and suffered a severe accident at the workplace. After several years, he once again found a position as a petrol attendant in Cape Town. However, in 2016 he was fired once again.

The effect of this more recent job loss is represented in the red box in the figure above, and analysed below:

Analysis of job loss event:

Description:

Fired from his job as a petrol attendant for unintentionally damaging a client's car.

Cause:

Poor performance due to stress caused by family disputes surrounding his grandfather's funeral, and marital strife concerning his infidelity.

Event:

Lost his wage job as a petrol attendant.

Compounding factor(s):
Sicelo's wife left him shortly after he lost the job. She left with their household possessions.
Moderating factor(s):
Meagre support from his girlfriend and from his cousin.
Consequences:
Severely compromised mental health. Material poverty. Social humiliation from unemployment and need to rely on a girlfriend to survive. Estrangement from children.

Notes: Author's photograph, Khayelitsha, 2017 (left) and post-analysis representation by the author (right). Participant names are anonymised, as throughout the study.

This example captures how demographic and labour market events interact in complex ways to determine major shifts in life-course welfare trajectories. In this case, Sicelo's job loss seems to have been partly due to bad luck and partly the consequence of domestic and family issues which compromised his performance at work. Marital strife was both a cause and a consequence of the job loss, and ultimately compounded the effect that job loss had on Sicelo's wellbeing. At the same time, his relationship with another woman was also implicated in causing the job loss, but in this case also functioned as a way of coping with the impact of the event. The compound effect of this event has pulled Sicelo into a highly precarious economic situation. If Sicelo were to suffer another shock he would have no way of coping. Despite this, Sicelo may well move back out of poverty if he is able to find work. His past experience indicates that, while losing work is not infrequent, he is usually able to find work after a spell of unemployment. If this occurs, Sicelo may, once again, move out of poverty. This example illustrates how important it is to take these interactions into account when analysing events, and how this analysis was undertaken using the data collected in LHIs.

4. Poverty dynamics and employment volatility - a quantitative perspective

This section undertakes the initial LNA used in this study to investigate the relationship between labour market volatility and wellbeing. In this section, per capita household consumption and poverty status is used as a proxy for material wellbeing. The intention of using consumption expenditure as a proxy for wellbeing is to reproduce a "standard" quantitative analysis of the relationship between labour market status and wellbeing. In Section 5 this assumption will be relaxed, and a broader conception of wellbeing will be adopted. Anticipating the results of the qualitative analysis, it will be shown that the quantitative results in this section are in broad agreement with the qualitative results in Section 5. That is, using qualitative or quantitative data and different proxies for wellbeing in the two cases, labour market events appear to be key determinants of economic mobility. However, I will also show how a qualitative analysis is able to illuminate important heterogeneity in the determinants of economic mobility and employment behaviour, the analysis of which is beyond the reach of the quantitative investigation undertaken in this section.

4.1. Descriptive statistics

In this subsection, I present a broad overview of South Africa's poverty landscape using NIDS data from 2008 to 2014, with a focus on exploiting the panel dimension of this data to provide an insight into the extent of poverty dynamics over this period. I also present summary statistics on the extent and nature of employment dynamics – on the assumption (which will be addressed later in this section) – that employment dynamics are closely associated with poverty dynamics.

Table 2 reports the poverty headcount ratio for the three different poverty lines discussed in Section 3. Row one shows that approximately one third of South Africans find themselves in a situation of extreme poverty – unable to afford to meet even their most basic caloric requirements even if all expenditure is dedicated to food. A further third (or slightly more if Budlender et al.'s (2015) poverty line is used) find themselves below the UBPL, affording to meet their food needs but having to sacrifice essential non-food needs to do so. Only approximately one third of South Africans are non-poor.

Table 2: Poverty rates (%) for South Africa, 2008-2014/15

Poverty Line (PL)	2008	2010/11	2012	2014/15
<Stats SA Food PL (R430)	0.35	0.40	0.36	0.29
<Stats SA Upper Bound PL (R992)	0.62	0.66	0.64	0.57
<SALDRU UBPL (R1283)	0.67	0.71	0.69	0.65

Source: Author's calculation based on NIDS waves 1 to 4 (using post-stratified weights).

In line with the macroeconomic downturn in 2008, poverty rates appear to have increased on average between 2008 and 2010 across all poverty lines. Between 2010 and 2012 there appears to have been a slight decrease in poverty rates, which was consolidated between 2012 and 2014/15. However, the apparently impressive progress between 2012 and 2014/15 ought to be interpreted with caution and is unlikely to be nationally representative, even after correcting for panel attrition.[14]

Behind these aggregate, cross-sectional poverty figures, a great deal of economic mobility is hidden. Fortunately, NIDS panel data allows us to follow individuals over time to observe changes in their economic fortune, thereby illuminating these dynamics of poverty. **Table 3** reports a poverty matrix for between-wave poverty transitions by pooling transitions between 2008 to 2010, 2010 to 2012, and 2012-2014/15. Transition matrices for each of these sub-periods are reported in **Table A1** in the Appendix. These matrices distinguish between three gradations of poverty – the non-poor, the poor, and the food-poor – and illustrate the extent of movements between these gradations. In all three matrices, the most stable categories are the non-poor and the food-poor. For example, 64 percent of the food poor and 76 percent of the non-poor remained in the same state, while only 41 percent of the poor remained poor, with 32 percent moving into food poverty, and 26 percent moving out of poverty. Consistent with the cross-sectional perspective conveyed in **Table 2**, the trend in poverty dynamics over time also suggests a gradual reduction in poverty, with an increase in resilience to poverty, and a decrease in the persistence of extreme poverty (as shown in **Table A1** in the Appendix).[15]

[14] Kanishka Kuker (2016) has suggested that the reduction in poverty between Wave 3 and Wave 4 is unrealistic and is not reflected in any concomitant trend at the macro-level. These poverty reductions in NIDS are also not reflected in other nationally representative survey data, such as the Income and Expenditure Surveys collected by StatsSA There are thus good reasons to believe that the poverty dynamics observed in NIDS are not fully representative at the national level, even correcting for attrition.

[15] Again, to be interpreted with caution – see previous footnote.

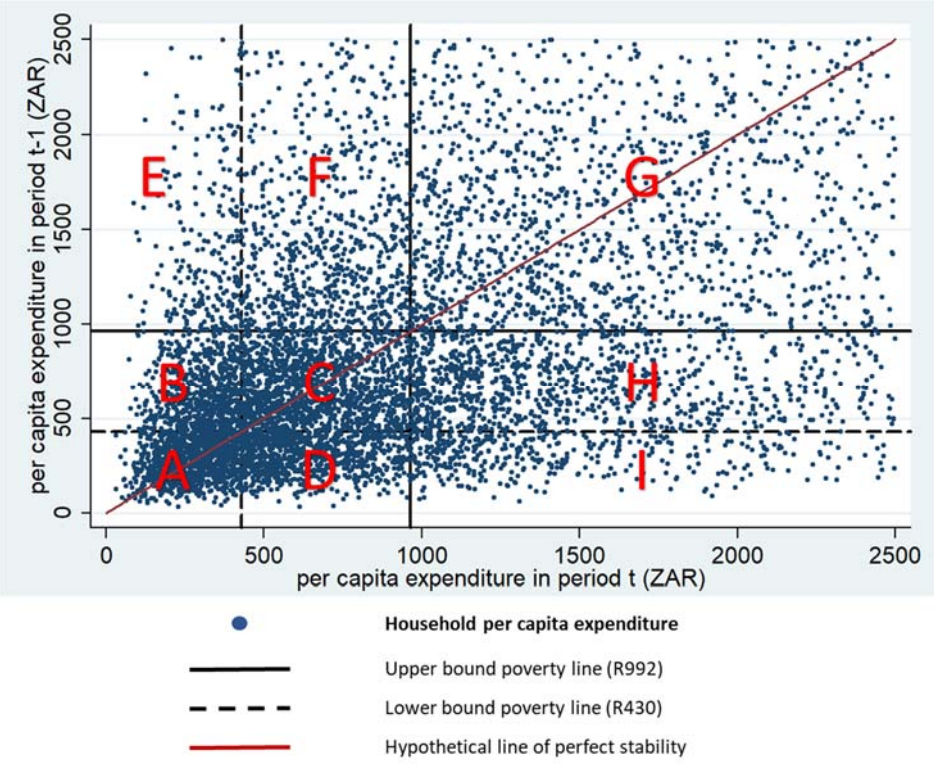
Table 3: Poverty transition matrices for South Africa, 2008-2014/15

Pooled		t **(destination)**		
		Non-poor	Poor	Food poor
t-1 **(origin)**	Non-poor	0.76	0.17	0.07
	Poor	0.26	0.41	0.32
	Food-poor	0.10	0.26	0.64

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Table 3 illustrates how many among the non-poor remain vulnerable to poverty, just as many among the poor remain highly vulnerable to falling further into extreme poverty. **Figure 6** below graphically illustrates the extent of this volatility. The vertical and horizontal black lines in **Figure 6** mark the two poverty lines which are used in the transition matrices in **Table 2** – the Stats SA FPL and UBPL respectively. The concentration of points in the bottom left corner (A) represents those who remained trapped in food-poverty between waves, while those points in box B (above A) represent those who moved from food-poverty to poverty (between the FPL and UBPL) between waves, and so on. The 45˚ red line, which intersects boxes A, C and G, represents the hypothetical line of stability – that is, if there was no change in an individual's expenditure between periods, all points would lie on this line. **Figure 6** also illustrates the extent of within-threshold volatility which is experienced, even where poverty transitions across poverty thresholds do not occur. **Table 3**, on the other hand, fails to reflect the extent of this volatility by only reporting between-threshold volatility.

Figure 6: Between-wave expenditure volatility, pooled sample (urban sample only)



Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (unweighted).

A natural starting point for examining the determinants of economic mobility is to investigate earnings volatility. Earnings volatility describes the magnitude and frequency with

which wages vary over time and is determined partly by wage fluctuations and partly by transitions into and out of employment. Ranchhod (2013) has shown that, in South Africa, transitions into and out of employment dominate wage fluctuations as a determinant of earnings volatility. **Table 4** illustrates the extent of these employment transitions. Note, however, that NIDS only surveys respondents every two years, so employment transitions within these periods may be overlooked. It is thus likely that **Table 4** underestimates the extent of mobility.

Table 4 shows that the two states of being "not economically active" and "employed" are the most stable, with the state of "unemployment" being most volatile. While employment appears to have become more persistent between 2008 and 2014/15 (as reported in **Tables A2** in the Appendix), on average approximately one fourth of those in employment moved out of this state between waves - with most moving into the "not economically active" category and the remainder moving into the unemployed category. Among the initially unemployed, approximately one third moved into employment and another third joined the ranks of the "not economically active" – with a shift in the trend towards moving into employment observed over the 2008-2014/15 period (**Table A2** in the Appendix).

Table 4: Employment transition matrices for South Africa, 2008-2014/15

Pooled sample		t **(destination)**					
		Entire sample			**Urban black sample**		
		Not Econ. Active	Unemployed	Employed	Not Econ. Active	Unemployed	Employed
t-1 (origin)	Not Econ. Active	0.67	0.16	0.17	0.61	0.18	0.21
	Unemployed	0.35	0.29	0.37	0.34	0.27	0.39
	Employed	0.16	0.09	0.75	0.13	0.09	0.78

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Table 5 further illustrates how labour market volatility varies across occupational categories. The self-employed and casually employed are clearly distinct from other occupations in terms of the likelihood that they will transition out of employment. Service and sales workers as well as those in elementary occupations are also more likely to exit employment than other occupations, which is consistent with the fact that outsourced and subcontracted wage work is most prevalent among these workers (Bhorat et al., 2016). Further, these four occupational categories are also the four occupational groups with the highest percentage of workers earning wages below the working poor threshold, as shown in the last column of **Table 5**. It should be noted, however, that the usefulness of distinguishing between occupational categories in this way is of limited value, since each occupational category masks a substantial degree of heterogeneity.

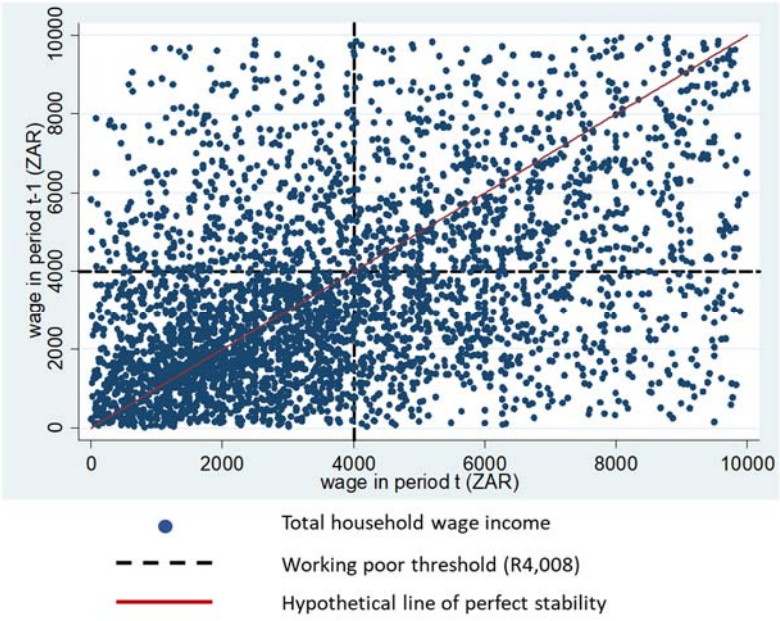
Table 5: Employment status in t and average per capita household wage income in $t-1$ for those in different occupations in $t-1$

		Employment status			Wage (Jan. 2015 Rands)	
		Time period: t (destination)			Time period: t-1 (origin)	
		Not econ. active	Unemployed	Employed	Average wage income per worker in the household	% falling below the R4,008 working poor threshold
Occupation	Managers	0.07	0.06	0.87	14666.66	12.59
	Professionals	0.08	0.05	0.87	14716.2	11.75
	Techn. & assoc. professionals	0.06	0.04	0.90	10003.39	28.95
	Clerical support workers	0.06	0.08	0.87	8575.117	26.51
	Service and sales workers	0.10	0.09	0.81	5789.96	60.45
	Craft & trades workers	0.09	0.09	0.82	4882.799	56.13
	Plant & machine operators	0.10	0.06	0.84	4850.762	51.96
	Elementary occupations	0.14	0.08	0.78	2884.855	80.42
	Self-employed	0.29	0.11	0.61	4979.078	69.84
	Casual/help others	0.30	0.18	0.52	1954.669	89.31
	Total	**0.17**	**0.09**	**0.74**	**6330.428**	**56.34**

Source: Author's' calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).
Note: "Skilled agricultural, forestry and fishery workers", "Subsistence farmers", "Missing/Other" categories omitted.

In addition to employment transitions, fluctuations in household wage income, illustrated graphically in **Figure 7**, also determine earnings volatility and its association with economic mobility. As with **Figure 6** above, the lack of any clear convergence of points around the 45^{o} line of perfect wage persistence illustrates the extent of wage fluctuations, even among those households that maintain access to income through the labour market. The vertical and horizontal lines represent the Finn's "working poor threshold" of R4,008 per household, per month. This illustrates that, while there is a concentration of households with workers who are stuck in chronic "working poverty", there is nevertheless substantial churning around the working poor threshold.

Figure 7: Between-wave earnings volatility, pooled sample (urban sample only)



Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (unweighted).

4.2. Routes into and out of poverty: The role of labour market events

In this subsection, I investigate the effect that earnings volatility due to labour market events has on per capita household consumption. To aid this investigation, I anchor the analysis of consumption volatility around two thresholds – the Stats SA FPL and UBPL – and in this way attempt to identify the association between labour market events and transitions across these poverty thresholds. Using a methodology developed by Jenkins (2011), I identify associations between poverty transitions and labour market "trigger" events. While this approach does not allow us to give a causal interpretation to the impact of labour market events, it does permit us to understand something of the strength and nature of the association between earnings volatility and poverty transitions.

The results from this analysis are reported in **Tables 6** and **7** below for transitions into and out of food poverty as defined by the Stats SA FPL. The results for transitions into and out of poverty, as defined by the Stats SA UBPL, are reported in **Tables A3** and **A4** in the Appendix.

I begin by defining various labour market "events", as listed in **Tables 6** and **7**. These are split between labour market events, non-labour market income events, and demographic events. Once defined, I report the prevalence with which the event occurred for those who were poor (**Table 6**) or non-poor (**Table 7**) in the initial period. These prevalence rates are reported in the first column of the respective tables.

Following this, I calculate the poverty exit rate (**Table 6**) or entry rate (**Table 7**), conditional on event occurrence - that is, the poverty exit/entry rate among the subset of the population which experienced the trigger event in question. This can be compared to the unconditional population poverty exit rate of 35.9 percent or entry rate of 17.9 percent, as reported in the second column of the two tables. This second indicator is a good measure for event intensity – the more intense the event, the more likely a transition out of or into poverty is, conditional on the experience of the event. However, here it is also worth flagging that the event intensity indicator reveals one of its limitations: Intensity rates are biased by the confounding impact of other factors not considered in this associational analysis. For example, while the results in **Table**

7 suggests that the loss of a formal job actually decreases the likelihood of entering poverty, this is merely because those with access to formal jobs in the first place are also more likely to have access to other mechanisms which protect them from poverty descents.

The final column in **Tables 6** and **7** indicate the proportion of total poverty transitions which are associated with particular events. These figures are jointly determined by those reported in columns 1 and 2: The total share of poverty transitions associated with an event will be a function of how frequently an event occurs, and how often it leads to a poverty transition when it does occur.

Table 6: Events associated with poverty exits (Stats SA Food Poverty Line), 2008-2014

	Event prevalence	**Poverty exit rate conditional on event**	**Share of poverty exists associated with event**
Poverty exit rate		35.9%	
Labour market events			
Rise in number of workers	32.6%	38.3%	34.8%
Rise in number of workers (formal)	20.5%	46.1%	26.3%
Rise in number of workers (informal)	23.4%	34.7%	22.7%
Rise in number of workers (household size constant)	10.7%	41.3%	12.3%
Rise in labour income (+10%) (number of workers constant)	8.3%	43.0%	9.9%
Non-labour income events			
Rise in income from public grants (+10%)	8.9%	33.1%	8.2%
Rise in income from remittances (+10%)	0.6%	61.5%	1.0%
Demographic events			
Change in household head from female to male	11.2%	45.2%	14.1%
Decrease in household size	36.3%	46.9%	47.5%
Movement from rural to urban	2.9%	76.2%	6.2%

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).
Note: Results do not change substantially when analysis is limited to the urban sample. Results available from author on request.

Table 7: Events associated with poverty entries (Stats SA Food Poverty Line), 2008-2014

	Event prevalence	Poverty entry rate conditional on event	Share of poverty entries associated with event
Poverty entry rate		17.9%	
Labour market events			
Fall in number of workers	22.2%	22.2%	27.5%
Fall in number of workers (formal)	18.2%	17.2%	17.5%
Fall in number of workers (informal)	19.4%	25.0%	27.1%
Fall in number of workers (household size constant)	9.1%	19.4%	9.9%
Fall in labour income (-10%) (number of workers constant)	12.0%	10.5%	7.0%
Non-labour income events			
Fall in income from public grants (-10%)	3.0%	40.7%	6.8%
Demographic events			
Change in gender of household head (male to female)	14.8%	17.2%	14.2%
Increase in household size	26.9%	32.3%	48.5%
Birth of a child (0 to 2 years)	20.6%	34.7%	40.0%
Death of a household member	7.0%	27.2%	10.6%
Death of a household member (with life insurance)	5.1%	11.5%	12.5%
Movement from urban to rural	1.4%	9.2%	0.7%

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).
Note: Results do not change substantially when analysis is limited to the urban sample. Results available from author on request.

These results are useful for getting a sense of the importance of labour market events in determining poverty transitions. The fact that more than one quarter of all poverty entries (whether into poverty (see **Table A4**) or food poverty) are associated with a job loss in the household suggests a strong link exists between the ability to maintain a job and economic resilience. Similarly, over a third of all poverty escapes are associated with job gains in a household (**Tables 6** and **A3**).

A change in household size, on the other hand, is associated with approximately half of all poverty entries and poverty exits respectively. While this suggests that demographic events are more important, this is at least partly explainable by the mechanical effect that a change in household size has on poverty measurement when household consumption is divided by household size to derive a per capita measure. Further, as noted above, this associational analysis fails to take into account that the strength of associations between job losses (gains) and poverty entries (exits) may be confounded by factors which the associational analysis fails to account for.

4.3. Multivariate analysis: employment exits and poverty entries

To better isolate the effect that losing a job has on the probability of entering poverty I use propensity score matching methods to estimate the effect that a change in employment status has on consumption, as realised in a change in poverty status. It ought to be emphasised that in

order for this analysis to be interpreted causally, I will need to assume that unconfoundedness holds, after conditioning on observable characteristics. Since this assumption is highly implausible in this context, the analysis which follows cannot be interpreted as anything more than a refined descriptive analysis.

4.3.1. Identification

First, I model the probability of not being employed in time $t+1$, given household and individual level characteristics in time t. In doing so, I assume that individuals can be characterised as having a latent propensity to falling out of employment if initially employed $empl^*_{it+1}$ which is, however, only observed as a binary employment status outcome $empl_{it+1}$. This relationship is modelled as:

$$empl^*_{it+1} = \boldsymbol{\beta}'\boldsymbol{X}_{it} + u_{it} \text{ and } empl_{it+1} = I(empl^*_{it+1} \leq 0.5) \quad (1)$$

where $i = 1, \dots, n$ indexes individuals, $\boldsymbol{X}_{it}$ is a vector of explanatory variables for each i, $\boldsymbol{\beta}$ is a vector of parameters to be estimated, and u_{it} is an error term which is assumed to follow the standard normal distribution ($u_{it} \sim N(0,1)$). $I(empl^*_{it+1} > 0.5)$ is a binary indicator function which takes on the value of 1 if the latent propensity is greater than or equal to 0.5, and zero otherwise.

Second, for each individual, I use the coefficients estimated in the previous step to predict the propensity of not being employed in time $t+1$. Each individual's propensity to being employed in $t+1$ is defined as:

$$p(x_i) = \Pr(empl_{it+1} = 1 | \boldsymbol{X}_{it}) \quad (2)$$

In a third and final step, I define those who fall out of employment between t and $t+1$ as "treated", and those who remain employed as the "untreated". According to the propensity score theorem (Rosenbaum and Rubin, 1983) as long as the assignment to treatment (in this case losing or not losing a job) is independent of potential outcomes (that is, experiencing a decline in per capita consumption) after having conditioned on $\boldsymbol{X}$, then potential outcomes are also independent of assignment to treatment, having conditioned on $p(x_i)$. That is, as long as I assume that all the variables associated with assignment to treatment are observed in $\boldsymbol{X}$ and are controlled for in (1) above, then I only need to condition on the propensity score $p(x_i)$ to ensure the independence of the assignment mechanism and potential outcomes:

$$W_i \perp Y_{0i}, Y_{1i} | p(X_i) \quad (3)$$

Under these conditions, the difference between the outcomes (consumption, in this case) of the treated and untreated individuals, having conditioned on $p(x_i)$, can be interpreted as the causal effect of treatment according to the following estimation procedure in (4) below.

$$Average\ treatment\ effect\ on\ the\ treated = \frac{1}{N_T} \sum_{i:w_i=1} \left(y_{1,i} - \sum_{j:w_j=0} \phi(i,j) y_{0,j} \right) \quad (4)$$

where $w = 1$ denotes treated individuals, and $w = 0$ denotes untreated individuals. $\phi(i,j)$ is a weight which is assigned to each untreated individual. I use a nearest-neighbour matching approach to assign these weights, where $\phi = 1$ for treated and untreated individuals with the most similar propensity scores and $\phi = 0$ otherwise.

However, since in this context affirming (3) with any confidence is unfeasible, proceeding to (4) and interpreting these results as the causal effect of exposure to treatment will not be possible. Results in this subsection therefore cannot be given a causal interpretation.

4.3.2. Estimation

I fit a probit model to NIDS data to regress employment status in $t+1$ on individual and household level characteristics in t, as described in (1) above. The outcome variable is the propensity to fall out of employment if initially employed. This can either be defined as transitioning out of employment into a state of unemployment or being economically inactive, or can be defined as transitioning out of employment into unemployment (i.e. dropping those who transitioned into the ranks of the economically inactive).[16] While there might be good reasons to prefer the second definition because it more precisely identifies those who fall out of employment into an involuntary state of not being employed, for practical purposes it is better to use the first definition because it guarantees better balance between the positive and negative values of the dummy outcome variable (treatment and control), as shown in **Table 8** below. However, results for both outcome variables are reported in robustness checks in **Tables A6** and **A8** the Appendix.

Table 8: Comparing definitions for transitions out of employment

		t **(destination)**			
		Employed	Not employed, incl. NEA	Unemployed	Total
t − 1 **(origin)**	Definition 1:				
	Percentage	75.09%	24.91%		100.00%
	Frequency	12,733	4,223		16,957
	Definition 2:				
	Percentage	89.60%		10.40%	100.00%
	Frequency	10,620		1,233	11,853

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Explanatory variables in the base specification include household-level variables and individual-level characteristics. The former includes household size, a geographic area variable (distinguishing farm areas, traditional areas and urban areas), main source of household income, number of employed household members, total number of grants in the household, province, and year fixed effects. Individual-level characteristics include a gender dummy, a race variable, education, a dummy for household head status, age and age squared. The model is run on 12,952 observations under this base specification and successfully predicts job losses in 69,1 percent of cases.[17] In a second specification, I add controls for type of employment (employed, self-employed, casual worker, subsistence worker). Under this specification observations drop to 12,346, and job losses are correctly predicted for 72,1 percent of observations. In a third specification, controls for employment type are dropped and replaced by a dummy for whether an employee's contract is written or unwritten, a dummy for union membership, and a dummy for whether the employment agreement is permanent or of temporary/fixed-duration. Observations drop to 8,631 under this specification, while percent of job losses correctly predicted drops to 57.9 percent. In a final specification, I drop all employment controls and replace these by a single dummy for formal or informal employment in t. The model is run on 12,201 observations, with 69.1 percent of job losses correctly predicted. Because of the relatively larger sample size and superior predictive power, the second specification is preferred. The

[16] Unemployment here is defined using a broad definition – that is, including discouraged job-seekers.
[17] While the model correctly predicts employment status in *t* in 75.8 percent of cases, this is distorted upward by the relative ease in predicting job retentions vis-à-vis job losses, as illustrated in **Table 8**. For this reason, I prefer to report the percentage of job *losses* correctly predicted since while this is more conservative, it also is a better indicator of the predictive power of the model.

marginal effects of all four specifications are reported in **Table A5** in the Appendix. In addition, **Table A6** reports marginal effects for the same four specifications where "transitions into unemployment" is used as the outcome variable rather than "transitions out of employment".

Using these results, each individual in the sample is assigned an employment transition propensity score, as in (2) above. Following this, and for the moment assuming (3), I proceed to estimate the average treatment effect on the treated (ATT), as in (4). The results, reported in **Table 9** below, indicate that the loss of a job increases the probability of falling into food poverty by approximately 10.2 percent. The effect of losing a job on a descent into poverty is slightly higher at 14.0 percent. It should be noted that these are the most conservative estimates, and that under different specifications the ATT of job loss on poverty transitions is higher, as reported in **Table A7** in the Appendix. When using transitions into unemployment rather than job loss more broadly as the outcome variable, the ATT of job loss rises further to 19.7 percent for poverty and 12.0 percent for food poverty under the preferred specification, and further still under other specifications (**Table A8**). The estimates reported in **Table 9** below can thus be interpreted as lower bound estimates of the effect of losing a job on the likelihood of falling into poverty.

Table 9: Estimated ATT of transitioning out of employment on the likelihood of experiencing a descent into poverty

	Coefficient	AI robust SE	z score	p value	95% conf. interval		no. of obs
Stats SA UBPL (R992)	0.140	0.031	4.45	0.00	0.078	0.201	5125
Stats SA Food PL (R430)	0.102	0.022	4.61	0.00	0.059	0.146	9033

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions.
Notes: Abadie and Imbens (2008) robust standard errors reported.

However, as discussed above, in order to interpret the results of this third step as providing a causal estimate of the effect of job loss on consumption, one has to assume that the assignment mechanism (i.e. the propensity to losing or retaining a job) is independent of the potential outcomes (i.e. experiencing a poverty descent). This assumption almost certainly does not hold. It is likely that unobservable variables such as ability, ambition, and discrimination jointly determine both the propensity to losing a job as well as the propensity to falling into poverty through other mechanisms. This violation of conditional unconfoundedness will bias the estimates and potentially overestimate the effect attributed to job loss on the propensity of transitioning onto poverty. Since (3) is almost certainly violated, the results in **Table 9** cannot be interpreted causally, but should be interpreted as a more sophisticated descriptive analysis of the association between job loss and poverty transitions. In this sense, it supplements the analysis of trigger events above by additionally controlling for confounding variables when deriving an indicator of the strength of the association between labour market events and poverty transitions.

4.4. Reasons for cessation of employment

The preceding subsections suggest that job losses (gains) are strong predictors of downward (upward) mobility. In this subsection, I approach the issue of job losses from a different angle – investigating the differences between what white and black respondents cite as the reasons they ceased working at their previous job.

I undertake this analysis using Quarterly Labour Force Survey (QLFS)[18] data from 2008 to 2015, the same period covered by NIDS. The broadest pattern which emerges is that white

[18] While a similar question is asked in NIDS, non-response it too high to undertake the comparisons in this analysis, which is why I use QLFS data in this case.

workers tend to cite what could be interpreted as positive reasons for leaving employment, while black workers tend to cite decidedly more negative reasons for leaving employment.

White workers over 55 years old are two times as likely as black workers of the same age to leave jobs to pursue retirement, while white workers between the age of 25 and 44 are six times as likely as black workers to exit the labour market to look after children or relatives. In both cases, this suggests that white workers have the luxury of prioritising forms of non-monetary wellbeing over their attachment to the labour market.

In addition, white workers under the age of 24 are three times as likely as black workers of the same age to leave their jobs to continue their education (highlighted in green in **Tables 10** and **11)**. Over one in five young white workers who leave the labour market do so in order to invest in skills development, which may improve their fortunes in the labour market in the long run, compared to only 7.1 percent of black workers. At the same time, black workers of the same age are almost twice as likely to leave their jobs because of involuntary job termination, either because of being fired or laid off, or because a job ended or a business closed (highlighted in orange in **Tables 10** and **11**).[19] This pattern is constant across the life-course - 69.9 percent of black workers cited job loss/being laid off as the reason for the termination of their previous employment, compared to only 35.0 percent of white workers.

For young white workers, labour market volatility is often related to skills development, and is therefore much more likely to be benign. For young black workers, on the other hand, employment volatility is more likely to lead to spells of unemployment, which stands in the way of accumulating experience or skills. For young black workers, this may well consolidate a life-course trajectory of reliance on low-skill and precarious wage employment.

In a context in which the costs to the loss of employment seem to be disproportionately high for black workers, it may be surprising to find that young black workers are approximately as likely to decide to leave their jobs because of "dissatisfaction" as white workers of the same age (highlighted in yellow in **Tables 10** and **11**). If those for whom work is seen as especially necessary frequently choose to leave their jobs, this poses a fundamental challenge to the assumption that work is a universally "good thing". It will be important to understand under what constraints these voluntary choices are made – that is, under what conditions the poor and vulnerable are driven to give up on such an apparently valuable social and economic asset.

[19] Unfortunately, for these job losses, it is not possible to distinguish between those which could be interpreted as being determined endogenously (by poor performance, for instance) or exogenously (by limited duration contracts, for instance). If job losses are primarily exogenous, this would suggest that black workers are disproportionately exposed to the most precarious forms of employment. Endogenous determinants of job losses would require an alternative explanation. Evidence from the qualitative data that was collected for this project as well as related research in the economic literature suggests that the job losses could reflect the low value that the worker places on a job (Akerlof and Yellen, 1990). That is, workers may withhold effort if their work is tedious and/or perceived to be unfairly unremunerative, which Akerlof and Yellen describe as a way of "getting even" (1990). This, in turn, may increase the likelihood of job loss. However, **Tables 10** and **11** suggest that exogenous reasons for job loss outweigh endogenous reasons. Relative to older workers, younger workers are disproportionately likely to quit jobs because of dissatisfaction, which suggests a relatively low value placed on employment for younger workers. However, this pattern is not reflected in the likelihood of job loss, which stays stable across age groups. This suggests that the disproportionately high incidence of job losses among black workers is primarily determined by exogenous precariousness of employment.

Table 10: Main reason for cessation of last work activity, pooled QLFS sample 2008-2015 BLACK SAMPLE

Age	15-24	25-34	35-44	45-54	55+	Total
	%	%	%	%	%	%
Health reason	3.97	5.84	9.95	17.47	19.57	**8.85**
Caring for own children / relatives	1.60	2.12	2.27	1.92	1.46	**1.97**
Pregnancy	4.05	4.15	2.04	0.18	0.05	**2.87**
Other family/community responsibility	1.07	1.29	1.49	1.96	1.66	**1.40**
Going to school	7.11	1.57	0.72	0.38	0.14	**2.10**
Lost job/job ended/laid off/business closed	70.12	74.47	73.72	68.78	37.63	**69.85**
Changed residence	1.21	1.14	1.16	0.87	0.46	**1.07**
Dissatisfied with job	8.94	7.59	6.22	4.63	2.03	**6.72**
Retired	0.05	0.08	0.12	1.31	35.38	**3.18**
Other	1.89	1.75	2.31	2.48	1.55	**1.97**

Source: Author's calculation using eight pooled waves of QLFS rotating panel data 2008-2009, design weights applied.

Table 11: Main reason for cessation of last work activity, pooled QLFS sample 2008-2015 WHITE SAMPLE

Age	15-24	25-34	35-44	45-54	55+	Total
	%	%	%	%	%	%
Health reason	3.11	4.24	8.17	14.94	10.60	**8.74**
Caring for own children / relatives	2.75	13.98	12.67	4.68	1.15	**5.89**
Pregnancy	6.04	9.27	3.10	0.18	0.00	**3.07**
Other family/community responsibility	0.93	4.47	5.64	5.00	1.34	**3.01**
Going to school	21.50	4.98	0.70	0.79	0.21	**4.51**
Lost job/job ended/laid off/business closed	43.55	41.86	50.27	44.82	17.53	**34.95**
Changed residence	4.64	7.46	6.83	5.94	1.20	**4.47**
Dissatisfied with job	8.64	8.01	5.81	5.44	1.83	**5.11**
Retired	0.23	0.09	1.31	10.97	64.30	**25.31**
Other	8.62	5.65	5.50	7.24	1.76	**4.92**

Source: Author's calculation using eight pooled waves of QLFS rotating panel data 2008-2009, design weights applied.

There are two stories which together may help explain the finding that young black and white workers are equally as likely to quit work. On the one hand, high levels of job quit decisions among young workers may reflect that both black and white workers have relatively strong outside options and less responsibility for dependants relative to older workers. On the other hand, while job quits among young white workers may be motivated by the expectation of finding better job opportunities, for black workers, job quits may be driven by a low tolerance for the low quality jobs that they can compete for. If the only kinds of jobs available to many young black workers are of a very low quality, employment may be judged to not be worth the effort. A similar narrative can be applied to explain the lower rates of quits among both older black and white workers. Older black workers, with relatively weaker outside options and greater responsibilities, may be more likely to persist in "bad" forms of work because of the lack of alternatives. Older white workers, on the other hand, may be less likely to quit because of having settled, over time, into employment with which they are satisfied. These explanations will require further investigation than is possible using QLFS data. It is to this which I now turn.

5. Is employment a panacea to poverty? A qualitative perspective

The initial LNA element of the research process has failed to meet the standards of rigour in terms of causal identification that would have been needed to justify proceeding to a model-testing SNA (Lieberman, 2005). However, the LNA has been valuable in providing a broad birds-eye view of the problem landscape, identifying an empirical puzzle, and suggesting a direction in which an answer to this puzzle may lie. Accordingly, instead of using qualitative data to test and confirm a well-developed model, I instead proceed to model-building SNA, where I use qualitative evidence to develop a model for how volatility in the labour market is related to the dynamics of wellbeing among the poor, urban, black population in South Africa. As Lieberman notes, a model-building SNA will need to select both cases which are not well-predicted by the quantitative model above, as well as cases which are well explained by the quantitative model. This will mean analysing cases where individuals lost jobs and did experience negative welfare consequences (as predicted by the model above), as well as cases where individuals lost jobs and did not experience negative welfare consequences (against the findings of the model).

While the quantitative model in Section 4 predicts that job losses result in declines in wellbeing, there are at the same time indications that the effect of job loss on wellbeing may be heterogenous. Evidence from both LHIs and nationally representative panel data suggests that poor, young, urban, black workers choose to leave work surprisingly often. In a high unemployment context in which job losses are associated with poverty descents, this finding raises an uncomfortable challenge, putting strain on the assumed truth of the simple relationship between job creation and poverty reduction. This section attempts to resolve this paradox by proposing a more textured understanding of the relationship between jobs and wellbeing, and in doing so developing an account of the conditions under which jobs are good for the poor, and under which conditions they might not be.

This section develops a hypothesis that the effects of volatility in the labour market on individual wellbeing will depend jointly on the strength of a worker's outside options and on the margin by which the benefits of work outweigh (or fail to outweigh) the costs associated with work. That is, if workers with relatively strong outside options only have access to types of work which are very "costly" then these workers are more likely to turn down work, or quit their job once employed. This hypothesis is tested by investigating the conditions under which poor, urban black workers in the LHI sample quit their jobs and to discuss what this reveals both about the strength of their outside options as well as the typical costs of low-skill work. Cases in which workers never quit even very "bad" forms of work are analysed for what these cases reveal about the weakness or strength of these workers' outside options.

5.1. The role of labour market events in welfare trends

Confirming the results presented in the quantitative analysis in Section 4 above, the most straightforward take-away from the evidence collected in LHIs is that, for the majority of households, labour market events dominate as determinants of major trajectory-shifts in wellbeing. In graphs tracing life-course trajectories in wellbeing (see **Figure 3** in Section 3), most major troughs are associated with negative labour market events, just as major peaks are associated with positive labour market events.

Both quantitative and qualitative descriptive analyses illustrate the centrality of labour market status in determining wellbeing, and labour market events in determining economic mobility. Drawing on evidence from LHIs, it emerged strongly that the societal "boxes" defined in Section 3 above are clearly distinct in terms of their labour market characteristics. The top two

non-poor boxes – Boxes 1 and 2 – are characterised by stable, formal work or profitable self-employment. Those in Box 3, on the other hand, while often employed, are incorporated into the labour market on adverse terms. Their work is frequently characterised as "piece work" – short term, insecure, informal and unregulated. They appear just as likely to find formal employment (and potentially move out of poverty into Box 2) as they are to become unemployed (and potentially move into Box 4). There appears to be a high degree of churning between Boxes 3 and 4. Those in Box 4 are at the bottom of the societal ladder primarily by virtue of their exclusion from the labour market. This illustrates how fundamental a transition within the labour market can be in determining poverty entries and exits. These findings are consistent with the evidence presented in Section 4 regarding the extent of short term economic mobility, the degree of churn around the poverty line and how this mobility is determined by changes in the labour market. This qualitative evidence also confirms how chronic and extreme poverty is determined largely by structural exclusion from the labour market.

It should be emphasised that these events are often observed to occur in conjunction with other demographic or labour market events, processes or contextual factors. These associated events, processes or contextual factors interact with labour market events to either compound the impact or moderate the impacts of these events, in the manner that is discussed in Section 3. For example, when a job loss is combined with an increase in household size, the impact of the labour market shock on household wellbeing is exacerbated, while if a job gain is combined with an increase in household size, the consumption windfall of the positive labour market event is moderated. Similarly, if a household loses a wage earner due to death, the loss of an income stream is combined with ceremonial expenses which can, if uninsured, have a major impact on household wellbeing.

For example, formal jobs are often insured at least partly through the state Unemployment Insurance Fund and employer provident funds which help to buffer employment shocks. In most cases of involuntary job loss among those in the LHI sample, negative labour market events were at least partly off-set by these formal insurance mechanisms in the short term. Those who are self-employed in the informal economy, on the other hand, cannot avail themselves of similar coping mechanisms. Even when small businesses appear to be profitable for a period of time, when those in informal self-employment experience an economic shock, they appear to have a much harder time getting back on their feet. Because most of these informal businesses do not have savings or insurance, these self-employed workers seldom have enough capital to start a new business after a negative shock occurs, and hence often end up doing unstable piece jobs to cope with adversity in the short term.

The interaction between social networks and the labour market is relevant in understanding how labour market events determine mobility patterns. Associational quantitative analyses, such as that undertaken in Section 4, are unable to illuminate the direction of causation between events. For example, whether an exogenous increase in household size leads to a household member searching for and finding a job is indistinguishable from an exogenous increase in household wage income leading to the in-migration of a household member. Qualitative analyses, on the other hand, are better suited to "causal process observation" (Lieberman, 2005: 440), and can therefore shed light on the direction of causation in cases such as these.

Drawing on data from LHIs, I find that social networks tend to facilitate upward mobility through lowering search costs and providing a pathway into employment. However, it also emerged strongly that once employment is found, social networks lead to an increase in distributive demands being made on the wage-earner, thereby offsetting the ability to use employment as a means of achieving upward economic mobility. Social networks thus appear to

play a dual role - both enabling and constraining upward mobility through the labour market. An implication of this is that the lack of covariate upward mobility – "a tide that lifts all boats" – means that idiosyncratic upward mobility is compromised in South Africa's urban townships.

Episodes of unemployment for those in all boxes except Box 4 seem to be of relatively short duration. Those who have worked in a formal job for a longer period generally find a new job much more easily, and hence, unless materially constrained in the short term, often appear to have the "luxury" of being able to quit a job when unsatisfied. Even those employed in Box 3 (especially younger workers without dependents) seem to quit unsatisfying work frequently, only to find similar work after a short spell of unemployment. In a preliminary way, this suggests that, for some workers, exit and entry costs are low and that this may be a determinant of the high degree of worker flows.

5.2. Analysing voluntary job quits

A narrative has emerged in which economic mobility – both upward and downward – appears to be largely determined by changes in the labour market. In the South African context of chronically high levels of poverty and unemployment, gaining a job is experienced, by many, as a route out of poverty, while losing a job can often plunge a household into poverty.

However, there are indications in both quantitative and qualitative data which suggest that wage employment may not always represent a pathway to improving individual wellbeing. As discussed in Section 2, a recent literature in several African countries has emerged which argues that there is little reason to suggest that workers always prefer wage employment to other livelihood strategies, even when wage employment is an option. Implicit in these arguments is the suggestion that those who are employed in wage jobs fall into two categories of workers. On the one hand, workers with weak outside options tend to depend heavily on wage employment when they have access to it, meaning that these workers are unlikely to choose to leave wage work. On the other hand, those workers with stronger outside options are unlikely to rely heavily on wage labour, except when a shock leads them to seek wage work as a means of dealing with temporary material adversity. This second group are more likely to leave their jobs as soon as the temporary constraint which drove them into employment is no longer binding (Blattman and Dercon, 2016; Teal, 2017; Dawson, 2018). Blattman and Dercon summarise this distinction, arguing that "workers with the poorest outside options remain [employed]", while those with stronger outside options "use industrial jobs as temporary employment to cope with adverse shocks and unemployment spells" (2016: 5, 45).

I can consider the strength of this outside option as being jointly determined by human, social and financial capital. For simplicity, I label the combination of these endowments as "resources". I also assume for the moment that jobs on offer are identical in terms of being of a uniformly low quality. In this set-up, I might imagine that a resource threshold exists, where those whose resources fall below the threshold do not possess an outside option strong enough to permit them to turn down or leave low-quality jobs. On the other hand, those whose resources place them above the threshold may be inclined to refuse these jobs. In other words, workers can occupy two states depending on which side of the resource threshold they fall onto: Workers with resources which place them below the threshold (for simplicity of exposition referred to as "resource poor") will engage in wage labour as a core livelihood strategy, while workers with resources at a level above this threshold (for simplicity of exposition referred to as "resource non-poor") may choose to avoid certain forms of wage labour and either wait for better work, or, if their endowments permit, invest in profitable forms of self-employment or other livelihood strategies.

This simple model predicts static states but fails to explain labour market volatility, for both the asset poor or asset non-poor. Since the above model predicts that the asset non-poor will choose to not be employed when the only available jobs are of poor quality, volatility among this group will be driven by decisions to *enter* employment. The opposite will be true of the asset poor, for whom volatility will be driven by job losses. However, the model fails to explain the situations in which either of these transitions would occur. Fortunately, drivers of volatility in the two cases can easily be incorporated.

Workers who belong to the resource non-poor category may transition *into* unfavourable forms of wage labour if they suffer a shock and "stochastically" fall below the resource threshold, such that they engage in wage work as a temporary coping mechanism (*à la* Blattman and Dercon, 2016). In this case, spells of employment are likely to be temporary – either terminated voluntarily, or simply because many low-skill jobs are temporary by nature. For township-dwelling black workers who count among the resource non-poor, deliberately temporary employment appears to represent a mechanism for maintaining a constant, albeit low, level of wellbeing.

On the other hand, workers who are counted among the resource poor may transition out of employment as temporary jobs end or as they are fired. In other words, this labour market volatility is not being driven by the decision to optimise wellbeing under certain constraints (as for the asset non-poor), but is being exogenously imposed on them by the fact that the employment arrangements for unskilled workers are typically temporary and highly precarious (as discussed in Section 2). However, because wage labour for these workers represents the core element of their livelihood portfolios, the loss of a job will have a severe impact on wellbeing.

From an aggregate perspective, workers in both states are observed to transition frequently into and out of employment, driving the extent of aggregate labour market volatility and poverty dynamics discussed in Section 4. However, I have argued that the consequences of this volatility on individual wellbeing is fundamentally different.

So far, I have focussed on how the welfare cost of job loss is determined by the strength of outside options, assuming job quality is uniformly low. However, the welfare effects of job loss will also be determined by the benefits of employment, and these benefits will differ for different jobs. These benefits will be offset or outweighed by the costs associated with employment to a varying extent across different jobs. Because of this, distinguishing between the resource poor and resource non-poor does not adequately capture the welfare consequences of job losses, since welfare costs are jointly determined by outside options and employment quality. Taking account of both the strength of outside options and the costs of employment will be necessary to determine how job losses may affect wellbeing under different conditions. In what follows I focus on some of the "costs" involved in low-skill service, retail and construction sector work, since these sectors dominate the wage employment landscape of the urban poor. I show how these costs are directly implicated in the job quit decisions of a number of respondents in LHIs who appear to have relatively strong outside options. These cases are contrasted with instances in which workers with weaker outside options persisted in employment arrangements which exhibited similar costs.

Before proceeding, however, it is important to emphasise that both these elements – outside options and costs of employment - are dynamic and may change rapidly for any particular individual. The loss of a source of support in the household or the accumulation of a dependant may weaken a worker's outside option to the extent that they accept the kind of job they had previously been inclined to turn down. Equally, a deterioration of working conditions or an improvement in an available outside option may lead a worker who had accepted a job to later quit. Thus, whether costs of employment and outside options determine a worker to be averse to

certain forms of employment is descriptive of a state of being which is fluid and dynamic, rather than descriptive of a static category of person.

5.3. The "costs" of work

In this subsection, I draw on evidence from LHIs and FGDs to understand how the benefits to employment may be offset or outweighed by the costs of certain forms of work. In those cases where the degree by which the benefits are greater than the costs is marginal, I investigate how individual resources determine whether workers remain employed or decide to quit. In LHIs, respondents who had chosen to leave work or who had lost their jobs were prompted to explain how they had motivated their decision to quit work or what course of events led to the termination of their employment. They were also asked to explain what welfare effects these events had resulted in. From these interviews, it became clear that, especially among the poor, black and urban demographic, the many disadvantages of employment had, for several respondents and in several instances, been perceived as greater than the anticipated benefits of alternative non-wage livelihood activities, thereby precipitating either a voluntary quit or a reduction of effort leading to a job loss. In what follows I identify and analyse some of these costs of employment. These are organised under categories which are primarily of heuristic value, since distinctions between categories are often porous.

The sample of respondents from LHIs and FGDs is largely split between those who work in the informal sector – either in survivalist self-employment, or doing piece jobs – or in the formal sector. Those who work in the formal sector are primarily low-skilled workers, with a high concentration of security guards, construction workers and petrol attendants among men, and cashiers and cleaning sector workers among women. In what follows I focus primarily on formal wage employment.

5.3.1. Low wages

Wages in the kinds of low-skill work in which the participants in the study were employed are generally very low. The vast majority of these workers earn below the level that Finn (2015) has estimated as a "working poor threshold" in South Africa. Average monthly household expenditure in the sample is R2,963 - well below the working poor threshold of R4,008. Approximately one third of those in the life-history sample reported having left jobs because their pay was considered too low.[20] Some report having made this decision on multiple occasions. Those who voluntarily quit jobs because of low pay worked in fast-food restaurants, as gardeners, private security guards, cleaners, retail workers, petrol attendants or warehouse workers. Most worked for private (usually white) households or were contracted through labour brokers. Neither of these employment arrangements typically offer employment protection or comply with sectoral minimum wages.

Generally, those who quit were mostly young men who (at the time they quit) had few dependants and had strong sources of support within their own households. One young man, for example, quit his job at a fast-food restaurant because he made more money stealing cars. In other examples, Sicelo and Mavo left their jobs without having yet found alternative jobs, but could afford to do so because they did not yet have dependants and were being supported by their households.[21] Sicelo's decision to quit his job as a security guard and then as a construction worker, and Mavo's decision to quit his job as a car guard and then as a warehouse worker, were not considered by either as negative events. These observations of transitions out of employment

[20] Included among these are those workers who were fired because of theft or withdrawal of effort, if the respondent justified this in terms of "getting even" for unacceptably low pay.
[21] Blattman and Dercon (2016) report similar behaviour in their sample.

without concomitant negative welfare effects are evidently not well-predicted by the quantitative model in Section 4, and suggest that the model developed in Section 5.2 above is appropriate as an alternative explanation.

At later points in both their lives, both Mavo and Sicelo experienced the loss of similar jobs, which were also considered unfairly paid. However, in later life these job losses were perceived as negative, sometimes catastrophic, events. During these later job losses, both Mavo and Sicelo had children and were supporting wives/girlfriends. Sicelo, in addition, did not have alternative sources of support. These examples illustrate clearly how the interaction between job loss and contextual factors jointly determine the welfare impact of a job loss, even when a job is poorly paid. In their more recent job losses, both had much poorer outside options relative to their earlier job losses. Importantly, in these later experiences, the welfare effects of job loss are well-predicted by the quantitative model, suggesting that this model applies most closely to those cases where workers have weak outside options and dependants. Cases such as these mark a point of convergence between the simple quantitative model of Section 4, and the model proposed in Section 5.2.

Among those who complained of low wages and poor working conditions in their employment history, it is particularly illuminating to compare those who quit (or withdrew effort) with those who persisted. Just as I find that those who gain dependants became more likely to persist in low wage work, those who always had dependants and / or no alternative sources of support while working, appeared much less likely to voluntarily quit or withdraw effort, even if they acknowledged the exploitative nature of their work.

5.3.2. Variable wages and expensive commutes

Not only are wages low, they are typically highly variable. Volatility in income imposes a psychological and material burden on poor households, for whom it adds to the stress of getting by on extremely limited resources (Cafiero and Vakis, 2006). Very few respondents reported having been employed in jobs where they were expected to work regular days and/or hours. When employees are paid an hourly rate, this volatility in hours worked translates into income volatility. Importantly, those who had work with set hours and a set monthly wage were typically workers of an older generation, who had been permanent employees of large retail or manufacturing firms since the 1980s or 1990s. None of the younger participants reported having access to this kind of employment. It is significant that even those younger participants who worked at (rather than *for*) large multi-national retail chains or similar corporations, reported being employed through a labour broker, for whom they worked variable hours, for low wages and without benefits. As discussed in Section 2, an established literature has observed a dramatic and rapid shift towards outsourcing and flexible working arrangements, as corporations and even government departments and universities have come to rely on independent contractors to provide services such as cleaning and private security, which are considered beyond an employer's "core competencies" (see Tregenna, 2010; Theron 2010).

Highly variable income is only one consequence of the predominance of flexible employment arrangements. South African cities are characterised by what scholars have termed "spatial mismatch", meaning that the concentration of the economically active population is highest in parts of the city which are furthest from the highest concentration of jobs and economic opportunity (Turok, 2001; Budlender, 2016; Visagie et al., 2017). Since the poor are most negatively affected by this spatial mismatch, poor, black workers are disproportionately burdened by high transportation costs in terms of commute time and transportation expenses.

The consequences of spatial mismatch are compounded by the predominance of highly variable working times, since the burden of transportation costs increases when hours are

irregular. This can happen through two mechanisms: First, it is common for workers to purchase monthly train or bus tickets to travel between home and work. This purchase is a sunk cost, with the consequence that transport expenditure relative to income increases if a worker ends up working fewer hours than anticipated. Second, train and bus travel is usually the cheapest form of transportation available to black workers living in townships on the peripheries of major cities. However, trains and busses only run reliably during daylight hours, meaning that those working irregular hours and night shifts need to travel on minibus taxis, which can be significantly more expensive. When these transport expenses are imposed on top of the sunk cost of the monthly train ticket, transport costs for township dwellers can account for a disproportionately high share of their total expenditure. Kerr (2017), for example, finds that the time and money costs of commuting are exceptionally high in South Africa by international standards, and that black workers face especially high commuting costs. Kerr argues that these high transport costs can be considered an effective tax that commuters pay on the income they earn from work. He calculates that those using minibus taxis as their primary form of transportation experience an effective reduction in their median hourly wage of over 26 percent, while those using multiple forms of transportation (which disproportionately includes those who work irregular hours) experience a median reduction in hourly wages of 39 percent. Furthermore, beyond the costs in terms of variable income and expenditures, night shift work in particular represents a significant health risk, which has led the World Health Organisation to list it as a probable carcinogen and risk factor for cardiovascular disease (Gu et al., 2015).

Manning (2003) argues that, if workers do not on average receive full compensation for longer commutes, then average utility from employment falls in proportion to the length of the commute. Further, Manning argues that an implication of this is that "if there is, on average, less than full compensation, we would expect to see higher separation rates for those with long commutes" (2003: 117). Since Kerr (2017) finds that South African workers do not receive full compensation for their commutes, and that black workers are disproportionately affected by this lack of compensation, we could expect, according to Manning, to find that utility from employment falls for workers with the longest commutes and that these workers are disproportionately likely to leave their jobs. This hypothesis finds support in both the quantitative evidence in Section 4, in which black workers are found to be disproportionately likely to lose or quit their jobs, as well as in the qualitative evidence collected in this study.

Zandiswa's story is illustrative of how flexible employment arrangements erode earnings while at the same time inflating transportations costs. In 2017, Zandiswa was employed as an on-hold worker by a recruitment agency. She would only work when another of the agency's employees could not work on a particular day. She was also required to travel to different, distant locations across the city depending on where she was needed. Unpredictable working days and varying workplace location made it especially difficult to economise on transportation, as well as imposing a psychological burden of uncertainty (Cafiero and Vakis, 2006). In her words, this was an "expensive job" – suggesting in Kerr's language that she was heavily "taxed" on her income (Zandiswa, Aug. 2017). Not only were her expenses high, her income was also lower then she had expected. She anticipated earning approximately R3,000 a month, but ended up bringing home about R1,000.

Others reported experiencing similar issues regarding the risky combination of variable income and high transportation costs. Sicelo, for example, worked as a petrol attendant in Cape Town where tips from clients for washing windscreens constituted the most important component of his salary. He estimated that he earned approximately R1,000 in a good month from tips, and only R1,600 from his salary.[22] However, during rainy months his income from tips

[22] These figures are nominal form the early-2000s, and are not adjusted for inflation.

fell because there was less demand for washing windscreens. His expenditure on transportation was fixed at R350 a month, with the consequence that in rainy months his take-home pay after transportation expenses was eroded substantially. The effective tax on his income would therefore skyrocket just as his income diminished. As explained by Manning (2003), the insufficient compensation he received for his commute led Sicelo to quit this job to find employment at a petrol station which was closer to where he lives. In another example, Mavo specifically discussed how a combination between variable wages and high (and variable) transportation costs "drove him crazy" – suggesting that risk and uncertainty also imposed a psychological burden on him (Mavo, Sept. 2017). Siyabonga, working as a gardener in Stellenbosch, recalled that "the money was enough to put food on the table, but transport as a big issue" (Siyabonga, Aug. 2017). Several other respondents discussed the same issue.

5.3.3. Burden of dependents

The relationship between the accumulation of dependants and attachment to employment is complex. In the data collected toward this study, there is evidence of this relationship working in two directions. On the one hand, the accumulation of dependents, when occurring as an exogenous demographic change, often leads to an increased attachment to work. However, it is not always clear that the accumulation of dependants is exogenous to an individual's labour market status. That is, it may be precisely because of having a job that the household accumulates dependants. Becoming responsible for additional dependants, in turn, increase the welfare cost of losing a job. This potential causal circularity makes identifying the welfare effects of this interaction especially complex.

One might imagine three stylised scenarios: In the first scenario, an individual is employed and is responsible for a number of dependants, such that the welfare cost of losing a job would be severe and would be shared by the household members. If this household's capacity to support dependants is saturated given their income, then there will be limited scope for the further accumulation of dependants. In this case, the wage earner faces strong incentives not to leave employment, and is only likely to transition out of employment in the event of an exogenous labour market shock.

In the second scenario, an individual is employed, but has no dependants or has fewer dependants than (s)he could potentially support. In this case, the "risk" of accumulating dependants by remaining employed is non-negligible. In the third scenario, an individual is part of a household which has other wage earners. The other wage earners in the household only make distributional demands on the individual to contribute their share to the household when that individual is employed.

Because in the first scenario household absorptive capacity is saturated, it is only in the latter two scenarios that the employed individual faces the risk of being "taxed" on their income. This income reduction through the leveraging distributional claims by others, when combined with some of the other costs of employment discussed here (low pay and high transportation costs, among others) may act as a disincentive to entry into the labour market or to remaining employed.

This hypothesis finds support in this study's qualitative data: Two individuals report that the overly-demanding distributional claims made by other household members factored strongly into their decision to quit their jobs. A third individual reported that she intended on leaving her job in the near future, and made it clear that she would be supported by other household members during the spell of unemployment she intended to enter, but that while employed she was expected to support herself. All three of these workers were young, had few dependents, and lived in households with other older working members. It was clear that these three young

workers did not depend on their employment to survive, and had alternative means of support through channels of within-household distribution. In addition, these workers were also doing unsatisfying jobs, working irregular hours and for low pay. A combination of low job quality and relatively strong outside options can be used to explain these job-quit decisions. These young workers quit work because of considerations in which they traded off wage income for other factors affecting wellbeing. In these cases, a quantitative analysis such as that undertaken in Section 4 would misleadingly suggest that the loss of work has imposed a welfare cost on these workers, while in fact these decisions were motivated by a welfare-maximising calculus.

However, it would be wrong to overlook the significant psychological and social costs of unemployment, even for those with relatively strong outside options. As an able-bodied adult, depending entirely on others in a household imposes a heavy psychological burden. In a society where ideas of masculinity are inextricably tied up with the notion of being able to provide for others through work, finding oneself at the bottom of a distributional hierarchy as a young man can be deeply humiliating (Dawson, 2018). This perceived humiliation is worsened when these young men are dependent on elderly female grant recipients – a post-apartheid inversion of distributional hierarchies to which Ferguson (2013, 2015) and Du Toit and Neves (2009) have devoted careful attention. Mavo, for instance, spoke frankly about his psychological state during spells of unemployment where he was dependent on his family: "When you are a man and you are not responsible, people look at you funny, even your family. They treat you funny, look at you funny, look at you as a no-body. Even your mother will say things that she wouldn't say to you if you were working" (Mavo, Sept. 2017). The shame that Mavo felt eventually led him to isolate himself and to drink heavily.

This example serves to illustrate the fraught and complex relationship between labour market events and household dynamics and their effects on welfare. Young workers in particular are subject to conflicting incentives: On the one hand, the risk of becoming the subject of a "social tax" creates a disincentive to wage work in a similar way that commuting costs can be considered a disincentive by leveraging a tax on income. On the other hand, the perceived shame of unemployment and dependency disincentivises unemployment. How exactly individual workers navigate the horns of this dilemma is often unclear, even to workers themselves.

5.3.4. Perception of unfairness

Akerlof and Yellen (1990) introduced what they coined the "fair-wage hypothesis" – the hypothesis that workers have a conception of a fair wage, and that they withdraw effort to the extent that their actual wage falls short of the fair wage. That is, in order to maintain a balance between labour inputs (effort) and outputs (wage), workers withdraw effort when they perceive the balance is not satisfied by the wage. For Akerlof and Yellen, the fair-wage hypothesis is motivated by a basic observation of human behaviour: that "when people do not get what they deserve, they try to get even" (1990: 256).[23] I would further argue that, when a worker has to withdraw so much effort in order to achieve this balance that avoiding being fired becomes unfeasible, the worker may at this point simply decide to quit.

In Akerlof and Yellen's model, the worker's conception of a fair wage is formed by means of comparison with the wages of "salient others" (1990: 259). For Akerlof and Yellen, these salient others are comparable workers in the same firm, while for Summers (1988) they may also be comparable workers in other firms. In high inequality contexts, such as South Africa, it is possible that the wages of dissimilar others would also form part of the comparison group which

[23] While Akerlof and Yellen focus on withdrawal of effort as a means of "getting even", theft from the place of work would fulfil the same purpose, and was a recurring theme during LHIs.

determines the fair wage, to the extent that wage disparities are considered by lower-wage workers as unfairly inequitable.

As discussed above, several LHI participants lamented that their wages in past and present jobs were "too low"[24]. This "too low" can be interpreted in an absolute sense, as "too low to survive", or in a relative sense which invokes ideas of justice, as "unfairly low". It is likely that in many cases it may be both of these things. In this subsection I focus (conservatively) on cases in which respondents explicitly discussed their wages as being unfairly low.

In the following three cases, a perception of unfairness played a role in determining job loss. In the first example, Xolile was working as a merchandiser in a Table Mountain Cableway tourist shop on Table Mountain. His initial wage was low, but when he was trained to work as a barista in the Cableway's café, he anticipated a pay-rise in accordance with what he perceived as a promotion. When his anticipated pay rise did not materialise, he became disillusioned and decided to quit the job out of frustration for what he saw as an unreasonable lack of potential for upward mobility. Mncwango (2016) finds that the perception of opportunities for advancement is ranked highly in what South Africans value in a job, second only to job stability. In Xolile's case, his decision to quit his job can be understood partly as reflecting the low value he placed on this work because of what he perceived as an unfair lack of opportunity for advancement.

Another young male respondent, Thembani, worked as a petrol attendant in Khayelitsha. He was employed in what appears to have been a legally irregular employment arrangement – he did not sign a contract, was not paid a fixed salary, was not given a payslip, and was paid in cash. Thembani was quick to mention that the owners were Muslim, suggesting that racial or xenophobic tensions may have played a role in his perception of unfairness in his employment arrangement. Thembani's anger at what he saw as arbitrary deductions from his salary led him to become involved in credit card fraud in order to, in Akerlof and Yellen's terms, "get even". When the fraud was discovered, Thembani was fired.

In the third example, Mavo, while working at a pharmacy, was angered by what he perceived as unfair intra-firm pay differences. Commission on sales was included as an element of the pay package. However, some employees were fortunate in that they were assigned to aisles which earned substantial commission, while others, such as Mavo, were (arbitrarily) assigned to roles which earned little commission. This perception of unfairness, in combination with low wages, high transport costs, and irregular working days, led Mavo to quit after only a few months. Importantly, at the time he quit his job, Mavo was living in a household in which he was being supported by other working members and did not have dependents of his own. Mavo reports that his decision to quit this job did not negatively affect his quality of life, again suggesting that the quantitative analysis in Section 4 misses out on important mechanisms determining job quits and their welfare consequences.

5.3.5. Perception of exclusion

Dawson (2018), drawing on ethnographic research in urban Gauteng, South Africa, finds that many urban South African youth may "choose" unemployment over employment because, paradoxically, inclusion in the labour market through finding a job can be experienced as a powerful affirmation of a reality of structural exclusion. It is through wage work that unskilled workers are inserted into South Africa's so-called "first world economy". However, rather than this being experienced as meaningful "inclusion", Dawson shows how, for many unskilled workers, it is through this "inclusion" that disadvantaged workers become acutely aware of the

[24] As Debbie Budlender has suggested, it should be noted that in isiXhosa, no clear differentiation is made between "too" and "very", which may affect this interpretation.

reality of their structural exclusion, the apparent impossibility of meaningful upward mobility, and the deeply embedded injustices and inequalities in the labour market. In contrast, when remaining unemployed and thus "excluded" from the "first world" element of South Africa's economy, the unemployed draw on complex and improvisatory livelihood strategies within the township economy in order to survive. Dawson finds that by engaging in these township-based hybrid livelihood strategies, unemployed young men in particular feel empowered by being able to exercise agency, feel "included", and aspire to upward mobility within the townships in a way which they cannot in the white economy. In my own fieldwork, "zero-to-hero" stories[25] of those who had "made it" in the township economy were pervasive. Paradoxically, it is through their exclusion from the formal labour market that unemployed young men can engage in livelihoods which allow them to feel included within their own communities.

An unexpected outcome of my fieldwork research may help illuminate whether, for black workers, inclusion in the formal labour market is experienced as an affirmation of exclusion in the way that Dawson suggests it may be. In the data collected in LHIs and FGDs, a puzzling and unexpected tension emerged regarding the importance assigned to wage labour within livelihood portfolios: In FGDs, participants focussed on self-employment as a determinant of upward mobility, while in LHIs the labour market was almost universally seen to drive upward mobility. A confirmation of Dawson's hypothesis may depend on how this apparent contradiction is explained and interpreted.

As described in greater depth in Section 3, FDGs were designed to facilitate discussions of what constitute different "levels" of wellbeing and what determine transitions between these levels of wellbeing. Based on preliminary quantitative analyses and on intuitive notions of the importance of jobs in determining welfare, I expected these FGDs to focus on the labour market as determinants of status and transitions. What I found during the course of running the FGDs was that participants spoke surprisingly little about the role of jobs in determining wellbeing, and instead centred the discussion on various forms of self-employment. For example, in all four focus groups which were held, minibus taxi owners, tavern owners and other successful entrepreneurs were considered emblematic of Box 1. This perception was common across male-only, female-only, young mixed-gender and elderly mixed-gender groups, suggesting it is not merely a product of masculine valorisation of a "big man" figure. In contrast, all four focus groups independently converged on a definition of Box 2 which was characterised primarily by stable, formal employment. In the young mixed-gender group and the female-only group, government employees were perceived as typical of Box 2, while in the male-only group those in Box 2 spanned the semi-professional and professional/managerial class – with no mention, however, of successful entrepreneurs.

This suggests that a clear hierarchical stratification is acknowledged across age and gender divides – that in the township, successful entrepreneurs are situated above wage workers in a social and economic hierarchy. When participants were pressed to justify this stratification, they stressed the fact that the successful entrepreneurs they associated with Box 1 were autonomous and did not depend on others. It is by virtue of this autonomy that they were assigned to Box 1. Analogously, stable employees were relegated to a lower rung in society by virtue of their dependence on a "boss".

When discussing determinants of upward mobility, in all four groups participants focussed almost exclusively on entrepreneurial pathways out of poverty. Those who could move up from Box 3 to Box 2, or Box 2 to Box 1 were those who could access capital to start their own businesses, who were ambitious and business-minded and who did not have dependents who soaked up resources which could otherwise be profitably invested. Particularly striking is the fact

[25] The South African township's "rags-to-riches" equivalent.

that among the few times that formal jobs were mentioned as routes out of poverty, these were discussed as a means of accumulating capital or experience to start businesses (see Teal, 2017). The male-only group emphasised that access to credit to start businesses was only possible if you could demonstrate your reliability as a borrower by "showing your payslip" to a lender (FGD participant, July, 2017). The younger mixed-gender group stressed that the experience gained on a job was valuable for starting one's own business, citing the example of an entrepreneur whose experience working as a private security guard helped him establish his own successful private security firm. It seems from these discussions that, to the extent that the labour market is seen as a means of achieving upward mobility, this is limited to acting as a causal pathway to success through entrepreneurship.

However, in sharp contrast to the FGDs, self-employment featured only peripherally as a determinant of economic mobility in LHIs. Rather, the type of wage employment available to an individual appeared to be an especially important determinant of welfare. Welfare transitions – especially major, trajectory-shifting changes – appeared to be determined most often by labour market events. At face value, the quasi-obsession with self-employment as a determinant of mobility in FGDs is inconsistent with the near total neglect of self-employment as a determinant of mobility in the LHIs.

An important difference between LHIs and FGDs may explain this apparent tension – while in LHIs respondents discussed what had actually occurred in their lives, in focus groups, discussions were more often hypothetical. That is, while FGD participants were encouraged to speak about other people in the community they knew who fell into particular "boxes" and about hypothetical scenarios, LHI participants only spoke about their own past – discussing events which had actually occurred to them. It is important to note that most participants in the FGDs situated themselves in Boxes 3 of 4, below the poverty threshold (see Section 3 for discussion). An implication of the fact that most of the participants in these discussions identified themselves as belonging to "poor" boxes is that, in discussing Boxes 1 and 2, most participants were looking up at others, rather than discussing their own situations. In addition, while FGDs took place in a loud and social environment, where it is possible that participants fed off the affirmation of other participants, LHIs were typically much more intimate – allowing a calm and detailed recollection of lift events. These differences are relevant in terms of the way that the evidence ought to be interpreted in the two cases.

For the above reasons, I argue that a plausible explanation for this FGD-LHI inconsistency is that the FGDs were more expressive of aspirations and perceptions of social and economic stratification, while LHIs allow a more accurate description of actual events and a realistic account of the causal mechanisms which prevent or facilitate economic mobility. This suggests that it would be unwise to draw primarily on the evidence from FGDs to understand the actual pathways of mobility, just as LHIs do not lend themselves as well to providing an understanding of perceptions and aspirations.

With this understanding, those instances where LHIs and FGDs provide evidence which is apparently contradictory are of particular analytical value: My interpretation is that, for the poor, the most realistic hope of achieving upward economic mobility is through the labour market and that, conversely, transitions out of employment typically determine downward economic mobility. This is consistent with the broad narrative which emerges from the quantitative analysis in Section 4.

At the same time, however, for the poor operating on the margins of the formal, urban economy, it appears that getting such a job is perceived as a "second best" option, where there is a preference for the autonomy and social and economic power that comes with being a successful entrepreneur. However, constraints to capital, spatial mismatch (Visagie and Turok,

2017) and other barriers mean that, for most workers, this is not a viable option, with the result that many settle for wage work. This aspirational preference for success through entrepreneurship over wage labour would explain the consensus that taxi owners represent Box 1, while white collar workers represent Box 2.

This narrative corroborates Dawson's argument that, while wage labour is the most feasible means for achieving economic security and mobility, this very same mechanism serves as a confirmation of the more basic fact that the poor on the urban margins are unlikely to ever be meaningfully integrated into the urban society in which they sell their labour. Looking back on their lives, most of the LHI participants recognised that their only spells of economic upward mobility occurred through employment. However, the FGD participants appear to aspire to something else – the possibility of inclusion within their own society in a way that leaves their autonomy and dignity intact. These aspirations are fuelled by the township "success stories" – the taxi owners and tavern owners. Dawson goes as far as to argue that many among South Africa's urban youth may be unemployed by choice for this very reason – they resist employment as long as material need allows them to, preferring to pursue the hope of "making it" within the township economy by what many of my participants termed "hustling".[26]

This interpretation suggests that there are costs of employment which are not observable, and may not even be acknowledged consciously by those who bear these costs. These costs include the violation of the dignity of the urban worker, a negation of individual autonomy, and the acknowledgement of a reality of structural exclusion. While these may operate subconsciously, they may nevertheless be consequential in determining an aversion to wage labour, which is only overcome by intolerable material need.

5.3.6. Cumulative aversion to wage work

Investigating the cumulative aversion to certain forms of work is of special interest, since it can illuminate how an individual who willingly takes up work may later decide to leave the same job. If preferences are dynamic, then we would expect workers to get "fed up" with certain forms of work. Uninteresting and unstimulating forms of work may be more likely to have this effect. Equivalently, over time, workers may get "fed up" with the boredom and indignity of unemployment, and this may lead idle workers to seek employment. If preferences are dynamic, then what may be observed as labour market volatility leading to poverty transitions (as in Section 4) may, in fact, be experienced by those subject to this volatility as a welfare smoothing strategy. According to this strategy, workers would alternate between two sub-optimal states, each of which become less bearable over time until at a certain point the preference switches to the other state. This would help explain, for example, how some respondents who have in the past quit relatively good jobs would now accept "anything". For example, Xolile, who left his stable, formal job at the Table Mountain Cableway, now claims that "any job [he] comes across [he] will take – [he] is not in a position to reject anything" and that "pickers can't be choosers" (Xolile, Aug. 2017). In another example, Mavo, having decided to quit a formal job as a petrol attendant because he "just got tired of working there", later came to regret this decision after several months of unemployment (Mavo, Sept. 2017).

5.4. The role of weak outside options in job-quit decisions

Those who have been able and willing to quit unfavourable jobs have been discussed in the subsection above. In this subsection I analyse the LHIs and welfare trajectories of those participants who, despite being employed in jobs which are characterised by many of the burdens

[26] I interpret "hustling" to mean the use of local knowledge, social networks, ingenuity and creativity to get by on a day to day basis.

of employment described above, nevertheless persist in these "bad" jobs. An overwhelming finding is that these decisions to persist are determined by a compromised individual and household resource base. These individuals are older, less educated, less experienced, responsible for larger numbers of dependants, may not have access to grant income, have no or little other employment income in the household, and may have weak social networks. Further, because of the relatively greater importance of labour market income in the livelihood portfolios of the poorest workers during periods of employment, the exogenous loss of a job is observed to have a severe welfare impact. Thus, for those with weak outside options, these findings mark a point of convergence between the predictions of the quantitative model in Section 4, and the predictions of the model proposed in Section 5.2 above.

Most low-skilled jobs for urban workers are in the retail, security, domestic work, cleaning and construction sectors and are often temporary, precarious and unprotected. The consequence is that, while the most disadvantaged workers are unwilling to leave their jobs, the jobs that they find are nevertheless often of a limited duration and hence they transition into and out of employment frequently. For firms, which value labour market flexibility, these workers are the last to join the work force, and the first to be laid off. Just as Blattman and Dercon (2016) argued in the Ethiopian context, because these jobs are unskilled and require minimal training, and because unskilled labour is in plentiful supply, these workers are essentially "disposable" from the firm's perspective. The ease of replacing workers and the minimal investment needed to train new workers means that the cost of losing workers to firms is low. For workers with a limited resource base, however, when these job losses occur, they occur despite the lack of an outside option. Thus, while the flexibility of employment arrangements imposes negligible to modest costs to firms, to workers these transitions out of employment can represent large welfare shocks. In these cases, we would expect to observe attempts at smoothing consumption in the face of a job-loss – though engaging in what Ferguson (2013, 2015) terms improvisatory "distributive labour", such as survivalist self-employment and leveraging distributional claims through social networks.

Evidence from LHIs support the hypotheses that those who persist in "bad" forms of wage work have lower resource bases, and that, when they do experience an exogenous job loss, they engage in activities to attempt to smooth consumption. Of the eight participants who report having worked but never having chosen to leave work, all fell into the category of the chronic poor. That is, in their self-reported welfare trajectories, at no point in their life-courses had they risen above Box 3. One described the "good times" in his life as those times in which he had enough to feed his children. Another suffers from severe mental health issues, while another is a former street child who was sold into de facto slavery in the rural Eastern Cape during childhood. None of these respondents have completed their schooling, all appear to have relatively weak social networks, and most were over 50 years old at the time of the interview.

Consistent with the finding that the those who persist in bad forms of work have lower levels of human, social and economic capital, is the observation that involuntary job-losses have significant negative consequences. These workers are more likely to attempt to smooth consumption by engaging in survivalist livelihood strategies. While several respondents who voluntarily quit "bad" wage jobs (as described in the previous subsection) describe periods of passive unemployment after transitioning out of employment, those who involuntarily lost jobs and had weak outside options report engaging in survivalist self-employment to get through periods of unemployment. Noluvuyo, for example, describes selling "smileys" – roasted sheep heads – on the street. When asked how much profit she made on average from this business, she appeared to be confused by the question, explaining that "we must be clear that this business was not profitable – it was a plan to survive" (Noluvuyo, Aug. 2017). Several others report using self-employment as a survival strategy following job losses.

Finally, it is important to emphasise that the long-run nature of the LHI data facilitates the analysis not only of differences between those who can afford to leave work and those who cannot, but also an investigation into how individuals transition from one state to another. Mavo's LHI is an illustrative example of the value of this long-run data. Shortly after having finished school he found a job as a petrol attendant, but after a lack of interest in his job and heavy drinking affected his performance at work he decided to quit. Now almost 10 years later, Mavo has recently been re-employed at the same petrol station. Now, as a father, he appears to value the job more than he did as an 18-year-old, and is unlikely to quit voluntarily – he needs the job more now than he did then. However, recognising the fact that the work is inherently precarious and that he could lose his job without warning, he invested his first salary to purchase a large quantity of mandrax[27] – a common street-drug in Cape Town's townships, which he gave to a friend to begin a business. While he is not involved in selling mandrax on a day-to-day basis, the enterprise is a deliberate attempt to diversify his livelihood portfolio, thereby enabling him to anticipate and deal ex ante with the risk of potential job-loss.

There are several lessons from this example: First, recognising the precariousness of his wage job, Mavo has diversified his livelihood portfolio so that he does not need to rely exclusively on wage work. This illustrates how wage work functions as one of several elements in hybrid livelihood portfolios. Second, the example illustrates how the relative importance of wage work within this portfolio has increased as demographic events in Mavo's life led to an accumulation of dependants. Third, because of these demographic changes, the loss of the same job for the same individual will have dramatically different welfare effects. This illustrates the conditions under which the predictions of the quantitative model developed in Section 4 will converge on the predictions of the model proposed in Section 5.2, and the conditions under which this is an insufficient explanatory schema for identifying the welfare consequences of labour market volatility. In these latter cases, I have shown how the model in Section 5.2 provides a more flexible and sophisticated account of the relationship between wellbeing and attachment to the labour market.

6. Conclusion

The intimate relationship between unemployment and poverty in South Africa is undeniable, from both a static and dynamic perspective. Just as unemployment is a cause of poverty, so transitions into unemployment are closely associated with descents into poverty. However, it remains possible that some of the unemployed and some of those who leave employment actively *choose* unemployment. In this study, I set out to answer whether low-skill wage employment is indeed the panacea for poverty among unemployed workers on the margins of South Africa's urban economy that many perceive it to be. This study is set up to answer this question not merely as an empirical investigation, but also as a way of revealing what this empirical problem suggests about the way we conceptualise work and unemployment in a high poverty, high inequality setting such as South Africa.

While unemployment rates have remained stubbornly high since 1994, the post-apartheid period has experienced deep shifts in the labour market, with two interrelated phenomena especially relevant to this investigation. First, a sectoral shift in the concentration of employment has drawn unskilled workers away from mining and manufacturing and into the service sector. Second, especially within the formal service sector, labour brokering and outsourcing have led to the proliferation of forms of work which are largely exempt from formal labour protections, and are consequently highly precarious, lowly paid, and of limited duration. As urbanisation drew

[27] Methaqualone

millions into the townships on the margins of South Africa's cities from the late 1980s, many workers scrambled for these jobs. However, with half of all households with wage earners below the poverty line in 2015, it is apparent that these jobs are not always routes out of poverty. Just as importantly, the short-duration and precariousness of these jobs means that even if they do result in improvements in material wellbeing, these improvements are difficult to sustain as workers "churn" into and out of employment.

An existing body of research in the qualitative social sciences has approached the challenge of unemployment in South Africa from a different perspective. Ferguson (2013, 2015), Du Toit and Neves (2007a, 2007b, 2009, 2014) and others have focussed on understanding how the unemployed get by, despite their exclusion from the formal labour market. They find that the urban poor survive by drawing on a complex, improvisatory, highly diversified portfolio of livelihood strategies including casual work, survivalist self-employment, begging, stealing, hustling and drawing support from those in their households and broader networks. In this study, I adopt and extend this framework to attempt to understand what role low-skill wage work plays in the hybrid livelihood portfolios of the urban poor. In doing so, I challenge the notion that wage work, given the nature of the South African labour market, is universally "better" that the other livelihood activities which the urban poor use to survive.

Recent work in both economics and anthropology in South Africa and elsewhere has sparked a discussion about the need to rethink assumptions that wage employment is always a "better" livelihood strategy in developing countries. This work has begun to challenge the usefulness of prevailing linear views of economic development, in which full, formal wage employment is seen as the ultimate end-goal of economic development. As Feguson and Li (2018) put it, "stable waged and salaried employment is losing its plausibility as the universal solution, the obvious telos of a worldwide developmental process". Dawson (2018), Teal (2017) and Blattman and Dercon (2016), using evidence from South Africa, Ghana and Ethiopia respectively, all suggest that many poor urban workers may consider wage employment as a "second best" option, to be settled for only if other livelihood strategies are not viable. If wage labour is seen by many urban workers as a "second best" option, then when a preferred livelihood strategy is viable, workers may choose to turn down or leave wage jobs. If this is the case in South Africa, then the hierarchical assumptions regarding wage labour's position vis-à-vis other livelihoods strategies may need to be revisited.

In addressing these issues in the South African context, this study makes three contributions. First, this study provides a bridge between how poverty and labour market dynamics are analysed in qualitative and quantitative social sciences respectively. Both traditions are subject to their own strengths and limitations, and despite being natural complements, until now, disciplinary divides have stood in the way of quantitative and qualitative methods being fruitfully incorporated in the analysis of poverty and unemployment in South Africa. I show how, if designed appropriately, mixing qualitative and quantitative methods is not only mutually complementary, but fulfils a synergistic objective, in which the value of the research output is greater than the sum of the respective qualitative and quantitative parts. In this study, I show that an analysis of quantitative data alone leads to an incomplete and potentially distorted understanding of the relationship between labour market dynamics and wellbeing, and use qualitative data to fill this gap.

This relates to the study's second contribution – its empirical finding that the effects of volatility in the labour market on individual wellbeing will depend jointly on two factors: First, the strength of outside options as determined by social networks, individual characteristics and household resources, and second, the margin by which the benefits of work outweigh (or fail to outweigh) costs associated with low-skilled work. Younger workers with few dependents,

alternative sources of support in the household, and strong social networks through which they can find jobs and make distributional claims for support during spells of unemployment, can be said to have relatively strong outside options. These workers are more likely to turn down or quit "bad" jobs. On the other hand, older workers with dependants, less support within the household and weaker social networks often have no choice but to accept even the worst forms of work.

For poor, urban, black workers on the peripheries of South Africa's cities, both those with strong and those with weak outside options compete for relevantly similar jobs. I have shown that these jobs, primarily in the unskilled service sector, impose on workers a host of burdens which offset, and sometimes outweigh, the benefits of employment. Since these jobs are inherently precarious, both groups of workers are observed to enter and exit employment frequently. However, I show that the welfare effects of this volatility differ for workers with strong outside options compared to workers with weak outside options. For workers with weak outside options, wage work is more likely to represent a core element of their livelihood portfolios when employed, with the result that the loss of a job will have a severe impact on wellbeing. For workers with stronger outside options, on the other hand, wage employment occupies a more peripheral and temporary place in their livelihood portfolios, with the consequence that transitions out of employment have a less severe welfare impact – whether this transition is deliberate or exogenously imposed.

The third contribution of this study is conceptual: The findings discussed above are more than merely descriptive, but are intended to prompt a deeper reflection into the social value of low-skill work in a high unemployment context. By understanding that the material and psychological burdens of low-skill employment lead many poor workers to consider wage employment as a "second best" livelihood option, to be avoided if possible, we can begin to see that wage work is little more than a survival strategy for the poor, where the benefits are often only marginally greater than the costs. The fact that millions of South African workers settle for low-skill wage work should not be encouraging, but ought to be interpreted for what it is – reflective of the fact that most of these workers are not empowered to choose otherwise.

Through these contributions, this study provides a deeper understanding of both the causes and consequences of unemployment and employment transitions among South Africa's urban poor than either a qualitative or a quantitative analysis in isolation would permit. There are, however, several concerns which will require further research. The first would be an investigation into whether those urban workers with relatively strong outside options are stuck in an unemployment-poverty trap by virtue of the fact that they seem unable to compete with poorer workers for low-skill jobs (because of their higher reservation wages), and yet, because of the shortage of semi-skilled jobs, are also unable to compete for the jobs they would accept. Some evidence exists in support of this, which suggests that the declining numbers of semi-skilled jobs in the South African economy has led to a hollowing-out of the middle of the earnings distribution (Bhorat and Khan, 2018). According to this hypothesis, these workers remain trapped – privileged enough to be able to turn down or quit "bad" jobs, but not privileged enough to be able to compete for the better jobs they would accept. Answering this question would rely on a more in-depth quantitative investigation than this paper has provided.

Second, this paper has largely neglected a firm-side analysis of the causes and consequences of labour market volatility. Integrating this perspective, both through firm-level data as well as qualitative interviews with employers, would help address some of the questions which I have left unanswered. I have found that labour market volatility is more likely to be deliberate among young black workers than older workers, but that older unskilled workers still experience exogenous employment volatility because many are employed in inherently precarious jobs. However, while leaving low-skill jobs may impose negligible costs for young

workers in the short-term, if this volatility constrains the accumulation of skills and experience and provides negative signals to potential future employers, this may lead workers into a trap in which they are only eligible for "bad" forms of work. If this is the case, then deliberate churning early in the life-course may decrease the likelihood of workers being able to find stable employment when it matters, later in the life-course. Investigating how employment volatility for young workers affects their fortunes in the labour market over the life-course will be an important avenue for further research.

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List of interviewees

This study draws on original data collected from 310 participants. This was a multi-stage research design, with all 310 respondents included in an initial sampling survey. Of these, 28 participated in focus group discussions, and a further 30 participated in life history interviews. A detailed (anonymised) list of interviewees, broken down by participation in stages of research, can be provided on request. However, since names are anonymised, including such a list here would be of limited value.

Survey questionnaires, and interviewer guides to life history interviews and to focus group discussions can also be provided on request.

Appendix

Table A1: Poverty transition matrices for South Africa, 2008-2014/15

a) 2008 – 2010/11		Wave 2 (2010/11)		
		Non-poor	Poor	Food poor
Wave 1 (2008)	Non-poor	0.71	0.20	0.10
	Poor	0.19	0.39	0.41
	Food-poor	0.08	0.22	0.70

b) 2010 – 2012		Wave 3 (2012)		
		Non-poor	Poor	Food poor
Wave 2 (2010/11)	Non-poor	0.73	0.18	0.09
	Poor	0.26	0.43	0.31
	Food-poor	0.08	0.27	0.65

c) 2012 – 2014/15		Wave 4 (2014/15)		
		Non-poor	Poor	Food poor
Wave 3 (2012)	Non-poor	0.79	0.16	0.05
	Poor	0.34	0.42	0.24
	Food-poor	0.15	0.30	0.55

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).
Note: Stats SA UBPL used to define poverty, Stats SA used to define food poverty.

Table A2: Employment transition matrices for South Africa, 2008-2014/15

a) 2008 – 2010/11		2010/11					
		Entire sample			Urban black sample		
		Not Econ. Active	Unemployed	Employed	Not Econ. Active	Unemployed	Employed
2008	Not Econ. Active	0.72	0.15	0.13	0.69	0.15	0.16
	Unemployed	0.42	0.27	0.31	0.41	0.25	0.34
	Employed	0.23	0.10	0.68	0.17	0.10	0.73

b) 2010 – 2012		2012					
		Entire sample			Urban black sample		
		Not Econ. Active	Unemployed	Employed	Not Econ. Active	Unemployed	Employed
2010/11	Not Econ. Active	0.64	0.19	0.17	0.56	0.25	0.19
	Unemployed	0.32	0.32	0.35	0.31	0.33	0.36
	Employed	0.14	0.10	0.76	0.11	0.10	0.79

c) 2012 – 2014/15		2014/15					
		Entire sample			Urban black sample		
		Not Econ. Active	Unemployed	Employed	Not Econ. Active	Unemployed	Employed
2012	Not Econ. Active	0.66	0.13	0.21	0.60	0.14	0.26
	Unemployed	0.30	0.27	0.42	0.30	0.26	0.44
	Employed	0.13	0.07	0.79	0.11	0.07	0.82

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Table A3: Events associated with poverty exits (Stats SA Poverty Line), 2008-2014

	Event prevalence	Poverty exit rate conditional on event	Share of poverty exists associated with event
Poverty exit rate		16.6%	
Labor market events			
Rise in number of workers	29.2%	17.8%	33.4%
Rise in number of workers (formal)	21.3%	21.7%	27.2%
Rise in number of workers (informal)	19.9%	16.2%	22.5%
Rise in number of workers (household size constant)	12.3%	20.9%	14.5%
Rise in labour income (+10%) (number of workers constant)	12.8%	22.6%	13.2%
Non-labor income events			
Rise in income from public grants (+10%)	6.2%	10.2%	5.0%
Rise in income from remittances (+10%)	0.5%	17.0%	0.5%
Demographic events			
Change in household head from female to male	11.3%	22.8%	15.8%
Decrease in household size	25.9%	22.4%	41.6%
Movement from rural to urban	2.0%	47.0%	7.3%

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Table A4: Events associated with poverty entries (Stats SA Poverty Line), 2008-2014

	Event prevalence	Poverty entry rate conditional on event	Share of poverty entries associated with event
Poverty entry rate		24.3%	
Labor market events			
Fall in number of workers	22.8%	30.1%	25.2%
Fall in number of workers (formal)	15.6%	23.6%	18.5%
Fall in number of workers (informal)	21.1%	36.5%	24.5%
Fall in number of workers (household size constant)	8.4%	26.4%	9.4%
Fall in labour income (-10%) (number of workers constant)	9.5%	21.4%	13.0%
Non-labor income events			
Fall in income from public grants (-10%)	4.1%	58.7%	3.1%
Demographic events			
Change in gender of household head (male to female)	14.7%	23.0%	14.4%
Increase in household size	27.6%	43.3%	42.6%
Birth of a child (0 to 2 years)	26.7%	45.6%	31.8%
Death of a household member	9.9%	37.2%	8.0%
Death of a household member (with life insurance)	6.2%	13.7%	5.8%
Movement from urban to rural	2.0%	29.4%	1.0%

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (weights corrected for panel attrition).

Table A5: Average marginal effects on probability of falling out of employment between t-1 and t

Specification:	I	II	III	IV
Household characteristics (t-1)				
Household size	-0.003	0	-0.003	-0.003
Geographic location (base: traditional)				
Urban	-0.243***	-0.134***	-0.132***	-0.209***
Farms	-0.544***	-0.344***	-0.339***	-0.496***
Primary source of household income (base: Labour)				
Grants	0.54***	0.269***	0.261***	0.433***
Other	0.629***	0.282***	0.327**	0.507***
No. of other employed household members	0.084***	0.046***	0.055**	0.085***
Number of state pensions/disability grants in household	0.044	0.051*	0.033	0.048*
Individual characteristics (t-1)				
Female	0.306***	0.31***	0.262***	0.274***
Education (base: No schooling)				
Less than primary education	-0.065	-0.067	-0.011	-0.031
Primary education	-0.154**	-0.147**	-0.13	-0.125*
Incomplete secondary education	-0.208***	-0.183***	-0.049	-0.128**
Secondary education	-0.446***	-0.371**	-0.196**	-0.294***
Tertiary education	-0.725***	-0.63***	-0.373***	-0.517***
Race (base: Black African)				
Coloured	-0.029	0.003	-0.05	-0.012
Indian/Asian	0.048	-0.045	-0.111	0.054
White	-0.253***	-0.309***	-0.301***	-0.261***
Age	-0.128***	-0.107***	-0.119***	-0.116***
Age squared	0.002***	0.001***	0.002***	0.001***
Individual is Household head/spouse of household head	-0.097**	-0.138***	-0.136***	-0.113***
Employment characteristics				
Employment type (base: Employee)				
Self-employed		0.611***		
Casual		0.573***		
Subsistence		1.18***		
Employment agreement				
Written contract			-0.025	
Permanent contract			-0.252***	
Union member			-0.212***	
Formal sector worker				-0.428***
Year and province fixed effects	YES	YES	YES	YES
Constant	2.014	1.402	1.701	1.87
Log-likelihood	-6648.346	-6087.655	-3942.84	-6147.498
Model chi2	1797.185	1978.081	663.519	1938.447

Number of observations	12952	12346	8631	12201
Positive predictive value (% job losses correctly predicted)	69.05%	72.10%	57.92%	69.11%
Negative predictive value (% job losses retentions predicted)	77.07%	78.16%	80.76%	77.96%
Percentage correctly predicted	75.83%	77.13%	80.22%	76.40%

* p<0.10, **p<0.05, *** p<0.01

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (probability weights corrected for panel attrition applied).

Table A6: Average marginal effects on probability of falling into unemployment between t-1 and t

Specification:	I	II	III	IV
Household characteristics (t-1)				
Household size	-0.004	0	-0.006	-0.003
Geographic location (base: traditional)				
Urban	-0.166***	-0.087*	-0.08	-0.133***
Farms	-0.553***	-0.419***	-0.454***	-0.534***
Primary source of household income (base: Labour)				
Grants	0.367***	0.164***	0.143	0.273***
Other	0.504***	0.261**	0.423**	0.41***
No. of other employed household members	0.065***	0.036	0.034	0.065***
Number of state pensions/disability grants in household	-0.014	0.005	-0.019	-0.005
Individual characteristics (t-1)				
Female	0.127***	0.155***	0.132***	0.115***
Education (base: No schooling)				
Less than primary education	-0.009	-0.025	0.08	0.009
Primary education	-0.095	-0.088	0.007	-0.06
Incomplete secondary education	-0.054	-0.046	0.098	0.012
Secondary education	-0.292***	-0.248***	-0.089	-0.168*
Tertiary education	-0.535***	-0.464***	-0.194	-0.348***
Race (base: Black African)				
Coloured	-0.06	-0.043	-0.047	-0.058
Indian/Asian	-0.049	-0.156	-0.03	-0.089
White	-0.377***	-0.424***	-0.502***	-0.41***
Age	-0.051***	-0.036***	-0.024*	-0.043***
Age squared	0***	0*	0	0**
Individual is Household head/spouse of household head	-0.236***	-0.25***	-0.268***	-0.243***
Employment characteristics				
Employment type (base: Employee)				
Self-employed		0.406***		
Casual		0.509***		
Subsistence		0.957***		
Employment agreement				
Written contract			-0.005***	
Permanent contract			-0.287***	

Union member			-0.197***	
Formal sector worker				-0.365***
Year and province fixed effects	YES	YES	YES	YES
Constant	0.406*	-0.066	-0.198	0.324
Log-likelihood	-3554.83	-3288.664	-2137.829	-3279.642
Model chi2	626.919	791.902	393.67	706.305
Number of observations	10364	9837	7600	9727
Positive predictive value (% job losses correctly predicted)	58.54%	57.25%	n.a.	61.11%
Negative predictive value (% job losses retentions predicted)	87.55%	87.95%	90.68%	87.62%
Percentage correctly predicted	87.44%	87.52%	90.68%	87.47%

* p<0.10, **p<0.05, *** p<0.01

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions (probability weights corrected for panel attrition applied).

Table A7: Estimated ATT of transitioning out of employment on the likelihood of experiencing a descent into poverty

	Coefficient	AI SE	z score	p value	95% conf. interval		no. of obs
Stats SA UBPL (R992)							
Specification 1	0.148	0.023	6.521	0.000	0.104	0.193	5325
Specification 2	0.140	0.031	4.448	0.000	0.078	0.201	5125
Specification 3	0.177	0.027	6.494	0.000	0.124	0.231	4070
Specification 4	0.136	0.024	5.705	0.000	0.089	0.183	5078
Stats SA Food PL (R430)							
Specification 1	0.128	0.015	8.319	0.000	0.098	0.158	9415
Specification 2	0.102	0.022	4.609	0.000	0.059	0.146	9033
Specification 3	0.133	0.017	7.750	0.000	0.099	0.167	6764
Specification 4	0.114	0.016	7.116	0.000	0.083	0.146	8936

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions.
Notes: Abadie and Imbens (2008) robust standard errors reported.

Table A8: Estimated ATT of transitioning out of employment on the likelihood of becoming unemployed

	Coefficient	AI SE	z score	p value	95% conf. interval		no. of obs
Stats SA UBPL (R992)							
Specification 1	0.224	0.032	6.930	0.000	0.161	0.287	4614
Specification 2	0.197	0.036	5.490	0.000	0.127	0.267	4436
Specification 3	0.241	0.041	5.933	0.000	0.162	0.321	3698
Specification 4	0.216	0.033	6.630	0.000	0.152	0.280	4399
Stats SA Food PL (R430)							
Specification 1	0.137	0.021	6.631	0.000	0.096	0.177	7829
Specification 2	0.120	0.022	5.505	0.000	0.077	0.162	7491
Specification 3	0.164	0.025	6.646	0.000	0.116	0.212	6061
Specification 4	0.134	0.022	6.118	0.000	0.091	0.176	7417

Source: Author's calculations using NIDS waves 1 to 4 pooled panel of wave-to-wave transitions.
Notes: Abadie and Imbens (2008) robust standard errors reported.

SALDRU

Southern Africa Labour and Development Research Unit

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

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

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