Strategies of the unemployed: Does moving allow the unemployed to get ahead?

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Abstract

This paper examines the survival strategies of the unemployed using the balanced panel sample of the first three waves of the National Income Dynamics Study (Southern Africa Labour and Development Research Unit [SALDRU], 2013c). We find that in response to unemployment and almost no unemployment insurance, unemployed individuals look to parents, relatives and friends for economic support. In many cases the unemployed delay setting up their own households while others may move back to family households when faced with persistent unemployment. We use a probit model to show that the unemployed who move in a successive wave are more likely to be employed. The effect of moving on employment status remains significant and positive when we take into account household and individual characteristics. Moving does allow the unemployed to get ahead.

SECTION 1: Introduction

It is easy to understand why unemployment has been of particular interest in South Africa as it has one of the highest unemployment rates in the world. In 2012 unemployment rates were 25% and 38%, in urban and rural areas respectively as reported in Table 1 below.

Table 1: *Unemployment Rates by Location*

Unemployment rate (%)	2008	2010	2012
Rural	36	39	38
Urban	28	22	25
All	30	27	29

Note: Own estimates using full samples of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using post-stratification weights.

Unemployment rates continue to differ considerably by race some 20 years after Apartheid ended in South Africa. Table 2 below reports these stark differences.

Table 2: *Unemployment Rates by Race*

Unemployment rate (%)	2008	2010	2012
African	34	31	32
Coloured	26	23	26
Indian	15	15	15
White	15	5	9

Note: Own estimates using full samples of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using post-stratification weights.

Africans have the highest unemployment rates across the panel (32% in 2012) followed by Coloureds (26% in 2012), Indians (15% in 2012) and lastly Whites (9%in 2012).

Little to no direct support for the unemployed exists in the form of unemployment insurance. Only 0.1% of the sampled unemployed in 2012 reported receiving payments from the Unemployment Insurance Fund (UIF). The fund only provides insurance to those who previously contributed to it while working. Unemployed youth are unlikely to be able to make use of this fund as they would not have had a chance to contribute to it. The high unemployment rates in rural and urban areas coupled with little insurance begs the question about the coping strategies the unemployed seek in order to survive.

In comparison to other continents, Africa has received little scholarly attention with regard to household composition and migration. However, increasingly, more work is surfacing around the topic in South Africa with attention being paid to the effect of the social security system and labour migration on household composition (Budlender & Lund, 2011) and to a lesser extent the effect of employment on household formation (Keller, 2004).

Household composition is endogenous to a variety of welfare issues and little is understood about the determinants of this composition. Migration is the movement of individuals from one location to another or a change in residence. Migration may be temporary, where the migrant leaves behind a family and returns to their household from time to time, or permanent, where the whole household might move from one district to another.

Understanding migration within South Africa and the household formation decision may improve our understanding of how the unemployed gain access to resources in order to survive.

Previous studies point out that the unemployed attach themselves to households where some sort of economic support exists (Klasen & Woolard, 2009; Keller 2004). In many cases the unemployed have to move to rural areas, where they have family and communities to support them. However, doing this takes them away from job opportunities that may arise in urban areas. Furthermore, supporting the unemployed becomes a bigger burden for the already resource constrained rural household, and may drag them deeper into poverty.

By investigating migration of the unemployed, we will bring to light some of the most important choices made by the unemployed in order to access resources and survive. This paper will investigate two main strategies of the unemployed: to stay in households that provide them with support, or to move to other households in search of employment or support. In section 2, we investigate both the local and international literature on unemployment, household formation and migration to inform our model of the strategies of the unemployed. In section, 3 we discuss the data and its suitability for this analysis. In section 4, we discuss migration and its effect on the unemployed, and finally in section 5 we make some concluding remarks.

In order to survive with no insurance and low employment prospects, the unemployed look to close and extended family for support. We see the unemployed delay moving out of their family home and some even moving back in search of this support. Our investigation leads us to believe that many unemployed remain in households with an income but those who move are more likely to gain employment than unemployed stayers when taking into account personal and household characteristics.

SECTION 2: Literature and Model

We examine the existing international and South African literature on the location decision of the unemployed. Using the previous literature to guide us, we develop an informed research approach to understand this issue in South Africa.

2.1 International Literature

The international literature on the survival of the unemployed is concentrated in developed countries. It focusses predominantly on the determinants of household formation for young people entering the labour market (Card & Lemieux, 1997; Ermisch & Di Salvo, 1997).

McElroy (1985) examines a model of household membership, employment and consumption. She proposes a Nash bargaining model for family behaviour that suggests that the decision whether to live with parents or to move out is decided jointly with the employment decision. So, for example, a youth will choose his consumption and leisure bundle and the associated household membership to maximise his utility (McElroy, 1985). She finds that families in the United Kingdom are likely to provide their young adult sons

with informal 'unemployment insurance' when faced with poor labour market opportunities

Rosenzweig and Wolpin (1994) examine the effect of support to children through transfers or co-residence in the USA. They suggest that young adults may choose to delay moving out of their family home in response to unemployment. This choice of co-residency can be viewed as an intergenerational transfer from parents to their children. The authors consider co-residency to be a less expensive way for families to support their unemployed children. In comparison to providing them with transfers, co-residency comes at a cost to one's privacy (Rosenzweig & Wolpin, 1994).

Card and Lemieux (1997) find in Canada that poor labour market conditions are a cause of higher percentages of youth remaining with their families in comparison to the USA. They make use of panel data over a 25 year period and examine the effect of labour market forces on household composition, school attendance and workforce participation.

Ermisch and Di Salvo (1997) suggest that in response to unemployment, youth in the UK will delay leaving their family homes and may even return. They examine the effect of the price of housing, parental income, potential future income and individual characteristics on the household formation decision of a cohort of British youth. The authors use a dynamic two-stage model. In the first stage they model the utility of parents providing transfers to their children, among other variables, conditional on their budget constraints. In the second stage the authors model the choice of the youth to remain with their parents. This is based on the transfer from their parents as well as their wage income. The authors find that youth are likely to leave their parental home in response to employment and that in the face of higher house prices a female child will delay leaving the family home.

Ermisch and Di Salvo (1997) find that a higher parental income will lead to youth moving out. However, Keller (2004) suggests that in the South African context, a higher parental income will reduce the likelihood of moving out since employment prospects are low.

Pekkala and Tervo (2002) use data from the Finnish longitudinal population census to investigate whether moving helps the unemployed. The authors argue that those with more favourable employment prospects are more likely to migrate which would cause a selection bias. To deal with this issue the authors use housing prices and household ownership as

the instruments for migration. They show that the instruments are uncorrelated with employability and use the instrumental variable approach to deal with the problem of selection bias. They find that moving does not have a significant effect on employment status for a sample of working-age Finnish in 1996.

We are cautious in mechanically applying the international literature to the South African context. Unemployment in South Africa is concentrated amongst the youth and in rural areas with limited labour market opportunities and access to information. We also note that the household formation decisions are likely to be influenced by cultural and ethnic norms of South Africa (Neves & Du Toit, 2008).

2.2 South African Literature

The local literature on the unemployed, household composition and migration within South Africa has been dominated by discussions on the South African non-contributory old-age pension and the effect on labour supply (Ardington, Case & Hosegood, 2009; Edmonds, Mammen & Miller, 2001; Madhavan et al., 2012; Posel, Fairburn & Lund, 2006).

Edmonds, Mammen and Miller (2001) use a regression discontinuity design to measure the household response when a member becomes eligible for an old-age pension at the age of 60. The authors use census data and find that the presence of a pensioner has an effect on household composition. In response to a woman receiving a pension income, the household will include more young children and fewer prime aged women who migrate in search of work. In response to a man receiving the pension, the household will see an increase in school aged children and lose its prime aged men to labour migration.

Households living below the poverty line in rural areas tend to be structurally different from better-off households. They are more likely to be bigger in number as they are often multi-generational (Keller, 2004). Pensioners living in multigenerational household share their pension income with their families which affects the resources available for the unemployed (Møller & Sotshongaye, 1996; Sagner & Mtati, 1999).

Ardington, Case and Hosegood (2009) examine the effect of the presence of a pensioner in the household on employment and migration using panel data from a poor rural district in KwaZulu-Natal. They find that the old-age pension to the elderly in South Africa leads to higher employment rates for prime-aged household members, as well as increased labour migration among the prime-aged members.

Using a combination of panel and cross-sectional data, Klasen and Woolard (2009) study the household formation choices of the unemployed with the use of a multinomial logit model. The authors look at the effect of unemployment on their relationship to household head. Under the hypothesis that the unemployed are likely to attach themselves to a household for economic support, the authors suggest that the unemployed are less likely to be the head of a household. They find that the unemployed are more likely to live with their parents, family or non-family to seek support relative to being the household head or spouse of the household head. In line with the international literature, Klasen and Woolard (2009) also find that unemployed youth will delay setting up their own households and remain with their family.

Keller (2004) models the effect of employment status on household head status using a cross section of male Africans in rural South Africa. She uses a probit model with selection to capture the simultaneous determination of employment and household head status. The results from the model are similar to that of Klasen and Woolard (2009); that is, the unemployed are less likely to move out and set up households while the employed are more likely to be household heads.

The South African literature has thus far used national cross-sectional data or panel data from specific areas citing the need for national panel data to examine the strategies of the unemployed (Keller, 2004; Klasen & Woolard, 2009). Panel data is often preferred as it allows one to overcome the problem of potential unobserved heterogeneity as form of omitted variables bias. In the context of employment, personal characteristics such as innate ability do not change over time.

2.3 Model – The location decision of the unemployed

The international literature models the choice of the unemployed between moving and staying with parents. In the South African context, this idea has been extended to include other options such as staying with extended family, or non-family, taking into account the cultural norms (Neves & Du Toit, 2008) and the findings in the South African literature (Keller, 2004; Klasen & Woolard, 2009).

This extension also affects the kind of income variable used in our model. In the international literature, parental income is often used as a factor to determine the location decision of the youth. In South Africa, in the extended family living context, the income of

other household members is shared with everyone in the household (Møller & Sotshongaye, 1996; Sagner & Mtati, 1999). Furthermore, the South African literature tells us that many parents may have temporarily migrated for work and it is the income of the remaining household members that affects the household composition. We thus use household income instead of parental income in our model.

We consider a similar framework to that of Klasen & Woolard (2009). We treat employment as exogenous and acknowledge that in the medium to long term the labour market situation and location decision may be a joint one. We assume the individual maximises his or her utility according to the budget constraint determined by the different household arrangements and their locations.

Variables in the utility function of moving out include the individual's wage income, non-wage income and the prices of consumption goods.

When attaching to a household the unemployed benefit from a share of the income of the other household members. We account for this by including per capita household income, however it may be endogenous so we consider the model with and without the variable (Klasen & Woolard, 2009).

The cost of attaching to a household includes the cost to one's privacy and the discounted future value of wages constrained by the location of the household. That is, if the household is in a rural area the unemployed are removed from possible employment opportunities (Klasen & Woolard, 2009:9).

$$v(moving\ unattached) = f(w, I, p, G) \quad (1)$$

$$v(staying\ attached) = \left(w, I, p, c_p, \delta \Pr(w), \frac{Y_h}{n_h}\right) \quad (2)$$

Equation 1 represents the indirect utility of living alone; w represents the wage rate, I is the non-wage income and p refers to price. Equation 2 describes the indirect utility of sharing a household with others; c_p refers to the privacy cost, $\delta \Pr(w)$ is the lost wages or discounted future value of wage from being attached to a household with limited employment prospects and finally, $\frac{Y_h}{n_h}$ represents the income per capita in the household calculated as the household income divided by the household size.

Within this framework it is the employed who earn a wage enabling them to move out and live alone. Living with others becomes less likely as the benefit of the shared income

becomes lower, and the cost of privacy increases with age. Being older, married and employed will place greater value on privacy costs and reduce the likelihood of living with parents or others. In addition, the cost of being attached to another household is the location of that household. If the choice of where to live brings the unemployed closer to improved labour market conditions, this situation makes someone who moves more likely to be employed.

In this framework, it is more appealing for someone with no wages to attach themselves to a household in order to share in the income of other members. The higher the household's per capita income the more attractive it will be for an unemployed person but the discounted future earnings may be low depending on the location of the household and the surrounding labour market conditions.

With the use of this framework we examine the strategy of the unemployed to remain in income bearing households or move in search of support. We then show that moving has proved beneficial for the unemployed.

SECTION 3: Data and Descriptive situation

3.1 Data

The National Income Dynamics Study (NIDS) (SALDRU, 2013a, 2013b, 2013c) tracks a nationally representative sample of South Africans over time. It is the change in location that is unique to NIDS and particularly important for this study. Each wave of the fieldwork tracks those who move around South Africa and interviews them at their current residence. It gathers data on the household with whom they currently live. The dataset contains variables related to whether people had moved or stayed within the same location as well as the distance they had moved.

The NIDS panel currently consists of three waves of survey data conducted in 2008, 2010 and 2012. A total of 28,247 individuals were interviewed in the first wave, 28,641 individuals in the subsequent wave; and 32,633 individuals in the third wave in 2012.

As is generally the case with panel data, NIDS suffers from attrition. The attrition is largely due to non-response at the household level (De Villiers et al., 2013). However, in wave 3 there was a lower net attrition than wave 2 as some individuals who attrited in wave 2 were tracked down and interviewed. Our results will be biased if attrition affects the

unemployed in the pooled sample and the balanced panel differently. In the subsequent sections we look at attrition more closely to ensure it will not have an effect on our results. To account for the household and individual level attrition we use post-stratification calibrated weights when reporting cross-sectional analysis and panel weights when reporting on the balanced panel.

3.2 Sample characteristics

Our central interest lies in changes over time in location of the wave 1 unemployed individuals. For this reason we exclude the wave 1 non-resident household members who do not continue as members of the sample. We further exclude individuals who left the sample in waves 2 and 3. Taking into account these exclusions, there are 18,818 individuals that are continuing sample members making up the balanced panel.

Table 3: *Characteristics of sample members*

Wave 1 Unemployed		
	Full Sample (%)	Balanced Panel (%)
Race		
African	84.9	88.3
Coloured	8.1	7.0
Indian	1.4	1.6
White	5.6	3.1
Gender		
Men	37.1	34.5
Women	62.9	65.5
Location		
Urban	36.1	38.6
Rural	63.9	61.4
Age categories		
15-18	5.2	4.7
19-23	23.3	22.0
24-28	21.1	20.8
29-34	19.0	19.1
35-44	19.5	20.2
45-59	11.9	13.2
Education		
No Schooling	5.6	5.8
Primary School	17.7	16.9
Some Secondary	47.8	48.3
Secondary School	28.2	28.6
Post-Secondary	0.7	0.5
Number of observations	3,338	2,237

Note: Own estimates using full samples of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations in the full sample weighted using post-stratification weights and observation in the balanced panel sample weighted with calibrated panel weights.

We examine and compare the unemployed from all those sampled in wave 1 and the unemployed from the balanced panel to see how attrition may affect our variables of interest. We describe these differences in Table 3 above.

According to Table 3 the balanced panel is broadly similar to the full sample in the characteristics shown. There are small differences in our balanced panel. The balanced panel has a slightly higher representation of Africans and Indians and a lower representation of Whites and Coloureds than the full wave 1 sample. The full sample of unemployed has a slightly lower ratio of men to women in comparison to the balanced panel. The balanced panel of unemployed consists of a higher ratio in urban than rural areas. There is very little difference between the full sample and the balanced panel with respect to age categories as well as education.

While there are some small differences between the two samples, we wish to track the movement of those in the sample. For this purpose the panel sample of unemployed is better suited as our analytical sample over the pooled sample as it will allow us to track an individual's response to changes in employment status in successive waves.

Table 3 above makes use of the panel weights in the balanced panel and all subsequent analysis will do the same. The panel weights are based on the calibrated weights of the sampled individuals and account for attrition bias in basic demographic variables. As can be seen from the table, when using the panel weight, our balanced panel seems to retain reasonable representativity.

In our empirical work we rely on the broad definition of unemployment; those who report being unemployed and searching as well as those desiring to work but not looking for a job.

3.3 Employment status

Cichello, Leibbrandt and Woolard (2012) note that the unemployment rates in wave 2 of the data are lower than expected perhaps due to some of the unemployed being categorised as not economically active, when in fact they were unemployed. To address this issue we look at the wave 1 unemployed and their decisions to stay or move in waves 2 and 3. In the subsequent sections we focus our analysis on the wave 1 unemployed.

When examining a change in employment status we include adults of a working age. We choose a lower age limit of 15 as some teenagers are not in school but are working to

support their families and an upper age limit of 59 as those older are eligible for the state old-age pension.

Below, in Table 4, we present the household-level analysis of the number of unemployed members per household.

Table 4: *Number of Unemployed per Household*

Household-level analysis						
	All (%)			African (%)		
	2008	2010	2012	2008	2010	2012
No unemployed	68.2	77.9	75.7	66.8	75.5	73.7
1 person unemployed	25.7	17.9	19.3	26.2	19.6	20.8
2 people unemployed	4.9	3.0	3.7	5.6	3.4	4.1
More than 3 people unemployed	1.2	1.2	1.3	1.4	1.5	1.5

Note: Own estimates using full samples of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

With the high unemployment rate in South Africa it comes as no surprise that 31.8% of households contain at least one unemployed member in 2008. In 2008, 25% of households had one unemployed person, 4.9% contained two unemployed persons and 68.2% contained no unemployed persons. The percentage of households with one or more unemployed person is slightly higher for the African sample. In South African between 25% and 34% of households are supporting unemployed members.

3.4 Remittances, Pensions and Grants

We begin our examination of the unemployed by looking at the households in which they live. Below we show that the economic support available to the unemployed goes beyond income from an employed household member. Some households derive their income from remittances or the social assistance system which we describe earlier as private and public safety nets, respectively. We now look more closely at these safety nets.

During the apartheid era the South African government forced Africans, Coloureds and Indians into different areas through the Group Areas Act (Act No. 41 of 1950). Africans were specifically forced into homelands far away from the labour market. During this time movements of Africans, Coloured and Indians were also restricted through an elaborate system of pass laws (Thompson, 1990). The government allowed for African individuals to migrate to urban areas to work, but they could not have their families move with them (Thompson, 1990:194). This forced many families to live far apart and created a culture of

regular remittances from the breadwinners to their rural households. Individuals who were working would remain in urban areas for extended periods so that they could send money home periodically.

While post-apartheid South Africa still has a large migrant labour system (Keller, 2004), we look at whether this is also the case in the balanced panel. Approximately 15% of households in wave 1 report receipt of remittances from a family member working away from home, more than 7% in wave 2 and 12% in wave 3 as reported in Table 5[1]. These proportions are similar for African headed households. In all waves we see that more than 50% of households receiving remittances are located in rural areas.

During the apartheid era the old-age pension was racially discriminatory favouring means tested, poor, White individuals (Woolard & Leibbrandt, 2010). In the governments' determination to achieve parity in the eligibility of the grant, they extended the benefit to include all race groups by 1993 (Keller, 2004; Woolard & Leibbrandt, 2010). The old-age pension is considered one of the largest non-contributory schemes in the world (Case & Deaton, 1998). Keller (2004:15) suggests that the South African old-age pension scheme can have a big impact on household behaviour due to its extensive reach.

While the old-age pension is the largest social scheme in South Africa, there are four other social grants namely the child support grant, the care dependency grant, the child foster care grant and the disability grant. These grants also form part of the safety net that households provide to the unemployed.

In Table 5 below we check whether remittances and social grant are important sources of income for households in South Africa. Table 5 reports the proportion of households that receive remittances and grant incomes. The proportion of households in rural areas for each wave hover around 45% for all race groups. The share of household in rural areas headed by Africans are approximately 50% across the waves.

In 2008, almost 15% of households in the balanced panel report receiving remittances, the majority of which are located in rural areas. The percentage of households that receive a remittance income in 2010 drops sharply. We suspect that there may be a measurement error in the remittance variable in the wave 2 sample.

[1] We report the household level results as remittances are often sent to a household and not only to a specific household member or shared among the members of the household.

Table 5: *Remittances and Grants as sources of Household income*

Household-level analysis	All (%)			African (%)		
	2008	2010	2012	2008	2010	2012
Proportion of household in rural areas	46.0	43.9	43.6	51.6	50.3	49.6
Receives remittance	14.8	7.4	13.6	15.6	8.1	14.1
Share of remittance receiving households in rural areas	56.6	45.1	47.1	52.2	41.2	42.7
Grant income	52.5	57.1	64.1	55.6	61.0	67.4
Share of grant receiving households in rural areas	50.9	44.8	47.2	46.3	40.6	43.0

Note: Own estimates using full samples of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

In comparison to remittance receiving households, many more households are in receipt of some state grant. In the balanced panel we see that 52.5% of households in 2008 report receiving a social grant. This figure rises to 57.1% in 2010 and 64.1% in 2012. In 2010 the age criteria for old-age pension receipt was changed to 60 years old for men (to align with that already in place for women) explaining some of the increase in social grants in the data in 2010 and 2012. A significant share of the households in receipt of a grant income are in rural areas.

Many households are in receipt of an income through means other than an employed household member. We confirm that remittance and grant income, beyond income from a parent, are important sources of income for households in South Africa. Households with an income are attractive to the unemployed as they can provide safety nets. However, many of these households are located in rural areas, away from labour market opportunities, making it harder to find employment.

3.5 Support for the unemployed

Using the balanced panel, Table 6 reports the type of households the unemployed seek support from. The top half of the table describes at the individual level where the unemployed seek support. The bottom half of the table describes at the household level the proportion of households with a connection to the labour market or are in receipt of a social grant that could provide support to the unemployed.

Table 6: *Household composition of the unemployed*

Individual-level analysis						
	All unemployed (%)			African unemployed (%)		
	2008	2010	2012	2008	2010	2012
1+ employed	45.8	38.5	41.2	42.8	36.3	38.8
No employed, remittances	7.9	6.6	7.8	8.2	7.1	8.4
No employed, no remittances, grants	33.8	31.9	33.9	35.8	32.7	34.8
No employed, no remittances, no grants	12.5	23.0	17.0	13.3	23.9	18.1
Household-level analysis						
	All (%)			African (%)		
	2008	2010	2012	2008	2010	2012
1+ employed	60.2	58.5	59.5	58.2	56.2	58.7
No employed, remittances	7.8	4.5	6.8	8.6	5.2	7.6
No employed, no remittances, grants	19.3	21.6	20.0	20.9	24.0	21.4
No employed, no remittances, no grants	12.8	15.4	13.7	12.4	14.6	12.3

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

In 2008, 45.8% of the unemployed resided in households with at least one person employed. This figure decreases to 38.5%% in 2010 and then increases to 41.2% in 2012. The figures for the African-only sample are slightly lower.

Almost 8% of the unemployed live in households that received remittances in 2008, with figures dropping to 6.6% in 2010 and increasing again to 7.8% in 2012.

The second largest proportion of the unemployed reside in households that receive state support but no remittances. In 2008, 33.8% of the unemployed lived in a household where no other member was employed, no member in the household received a remittance but someone in the household was in receipt of a grant income. In 2010 the proportion decreases to 31.9% and again increases to 33.9% in 2012. This puts pressure on grant holders to share their income but shows the reach of the social assistance system in South Africa as Keller (2004) suggests.

The remainder of the unemployed reside in households that do not receive state support and with no connection to the labour market; making up 12.5% of the sample in 2008, 23% of the sample in 2010 and 17% of the sample in 2012. These figures are comparable to those reported in Klasen and Woolard (2009) for 2004. It is of concern that so many unemployed are not protected through private or public safety nets. This group of

unprotected unemployed has almost no access to resources in order to find employment or move.

In 2012 about 51% of the unemployed are able to depend on the labour income of a household member while 49% of the unemployed live in households with no connection to the labour market.

The bottom half of Table 6 shows us the various household types from which the unemployed can seek support from. The table reveals that approximately one third of households are disconnected from the labour market with no employed household members present or absent.

Bringing it back to our discussion earlier, many of the households that receive remittances or social assistance that could provide some economic support to the unemployed are located in rural areas. This is particularly problematic as this takes them away from the labour market opportunities they would otherwise be exposed to in urban areas.

We have established that wage income and grant income to a household provide much needed safety nets for the unemployed. We now answer the questions: What is their household composition when they are persistently unemployed? How does their household composition change when they gain employment?

3.6 Household transitions for the unemployed

As unemployment could hinder the ability to set up one's own household we expect that unemployed individuals are unlikely to be household heads and more likely to attach to a household that receives an income. Setting up and maintaining a household requires some income and as discussed previously there is little unemployment insurance in South Africa.

We categorize living arrangements into two groups: a shared household or single-person household. In Table 7 we report the household transition of the wave 1 unemployed who remain unemployed in wave 3[2].

According to Table 7, of the wave 1 unemployed who remained unemployed in wave 3, 97% were in a shared household in both waves. Shared households often provide public or private safety nets as described in Table 6.

[2] We don't examine the case of those who remained unemployed in wave 2 due to the problem with employment status variable in wave reported by Cichello, Leibbrandt and Woolard (2012)

Table 7: *Household transition of the persistently unemployed*

	W3 Unemployed		
W1 Unemployed	Shared household (%)	Single-person household (%)	Total (%)
Shared household	96.9	3.1	96.9
Single-person household	17.4	82.6	3.1
Total	94.5	5.5	100.0

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

Only 3% of those who were unemployed in both waves 1 and 3 and were in shared household in wave 1, were found to be living alone in wave 3. With no income it is perhaps difficult to set up a household or move out of a support structure.

Of those who were unemployed in wave 1 and 3 and living alone in wave 1, 17.4% were found in a shared households by wave 3. These are perhaps unemployed individuals who move back in with parents or other family which we describe in more detail in Table 8.

Table 7 confirms that those who remain unemployed have a higher propensity to live in a share household with the potential of sharing the resources of the household.

As discussed at different points in previous sections, households in South Africa are often multi-generational with income from various sources being shared. Table 7 highlights that very few of the unemployed live alone (3.1%) and are most found in shared living arrangements in order to seek economics support.

We take advantage of the panel in Table 8 and show how changes in employment status are related to movements in and out of households. In column 1 we report those who remained employed across the waves.

Almost 83% of those who remained employed in all three periods remained the household head or were able to set up their own household. In contrast, 22% of those who remained unemployed in all three periods remained with their parents. A small portion of them moved back into their parents' home and 13% moved in with other family in search of support. The delay of setting up a household, and remaining with parents, due to unemployment is also found by Card & Lemuiex (1997) and Ermisch & Di Salvo (1997) in international studies and by Klasen and Woolard (2009) and Keller (2004) in local studies.

Table 8: *Changes in household composition related to changes in employment status*

	Remain employed	Became employed	Remain unemployed	Became unemployed	Remain Not Economically Active	Became Not Economically Active
Remain HH Head/Spouse	74.6	37.6	30.6	51.9	25.6	47.2
Become HH Head/Spouse	8.3	17.9	19.2	10.6	9.5	11.6
Stay with Parents	7.2	18.8	22.2	14.8	29.3	14.9
Move to Parents	2.7	4.9	6.5	4.7	5.2	4.7
Remain with other family	1.2	6.2	8.5	5.4	14.6	7.9
Move to other family	6.0	14.3	13.0	12.3	15.4	13.6
Remain with other non-family	0.0	0.0	0.0	0.0	0.0	0.0
Move to other non-family	0.0	0.3	0.0	0.3	0.4	0.2

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

From those who were unemployed in 2008 but gained employment in 2010 and 2012, 18% become a household head where previously they were not.

It is interesting to note that of those who were employed in wave 1 but lost the jobs in wave 2 or wave 3, 12% moved in with other family while only 5% move back in with their parents. In the South African context it appears that the extended family plays a large role in housing the unemployed, and not just the immediate family, as many previous studies have found.

SECTION 4: Econometric results

We assume an individual maximises his or her utility such that their decisions are based on future costs and benefits (Pekkala & Tervo, 2002). We are interested in whether employment in wave 3 was due to moving. Employment status is thus determined as:

$$E_i = \beta' X_i + u_i \quad (3)$$

In the equation X is the vector that contains migration status, individual and household demographics. We are interested in the coefficient of migration status, that is, the effect of moving on employment status.

4.1 Moving and staying

The previous tables gives us information about the household composition as a strategy for survival of the unemployed. It shows that finding employment is associated with moving. However, we do not know the degree to which finding employment is driven by migration of the unemployed to survive or the support of living with parents or family.

Between wave 1 and 3 we observe that 2,097 individuals from the balanced panel had moved. Moving is defined as residing in a different building in a successive wave.

In very few cases all the members of the household move, most cases were individual moves leaving other household members behind. In trying to understand how moving affects the employment status we compare the household composition of movers and stayers of wave 1 (both the unemployed and all those in our wave 1 balanced panel sample) in Table 9 below.

From our sample of unemployed working-age individuals, 14.3% had moved between waves 1 and 3. The unemployed have a slightly higher propensity to move in comparison to the rest of the balanced panel of which 12.8% had moved.

Table 9: *Migration between waves 1 and 3*

	Wave 1			
	Unemployed (%)		All (%)	
Wave 3	Mover	Stayer	Mover	Stayer
All	14.3	85.7	12.8	87.2
HH Head/Spouse	83.0	57.9	74.3	60.5
Living with parents	8.4	23.5	10.0	23.7
Living with family	8.0	18.5	15.5	15.7
Living with non-family	0.6	0.1	0.2	0.1
Column Total	100.0	100.0	100.0	100.0
Unemployed	12.2	87.8	11.3	88.7
– HH Head/Spouse	87.2	51.6	74.4	44.9
– Living with parents	7.4	28.8	12.4	35.3
– Living with family	5.4	19.5	13.0	19.7
– Living with non-family	0.0	0.2	0.2	0.1
Column Total	100.0	100.0	100.0	100.0

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights

More than 16% of the unemployed have moved to join the households of their parents (8.4%) or family (8%). A sizeable share of the unemployed stayers (42.1%) remained living with parents, family and others. Both the unemployed stayers and movers are living with parents or family due to the comfort provided by the financial support of the household.

Those who are still unemployed in wave 3 have a higher propensity to stay with their support structures as can be seen in the bottom section of Table 9. A smaller percentage of those who are still unemployed move in comparison to the balanced panel.

The results from Tables 7, 8 and 9 confirm that the unemployed are likely to attach to households in order to survive. This means that in the face of low employment prospects and no unemployment insurance the unemployed make use of private and public safety nets. The information about migration goes further and tells us that the main survival strategies for the unemployed are to remain in a household of their parents or family and to a lesser degree move into a household with parents or family. We now explore whether the strategies of moving enables the unemployed to get ahead.

In Table 10 we describe the gains of moving and staying on household real log per-capita income. The first row displays all the working-aged respondents in the balanced sample and the second row includes only the working-aged unemployed from the balanced panel. On the whole, movers gain more than stayers in terms of the change in the real log

per capita household income. When isolating the unemployed we see that the movers are making greater gains than the stayers in terms of household per capita income between waves.

Table 10: *Changes in real log per capita household income between waves*

	Wave 1 - Wave 3		
Population	Movers	Stayers	Both
All	0.5641	0.1956	0.2433
	(0.0659)	(0.0226)	(0.0234)
Unemployed	0.6321	0.3545	0.3948
	(0.1260)	(0.0413)	(0.0446)

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights Standard errors reported in parentheses.

The evidence from Table 9 and 10 suggests that moving allows the unemployed to get ahead by enabling them to attach themselves to households that have a higher real per capita household income than they were living in before. However, employment could be dependent on many other variables. We will now take into account all the other factors we think may be affecting employment to see if moving persists as a factor for getting ahead.

4.2 Moving as a strategy out of unemployment

In looking at the effect of moving on the sample of wave 1 unemployed, our expectation is that those who have more skills and education are likely to move in search of employment opportunities.

We consider a binary probit regression model predicting the possibility of employment due to moving. We use the binary employment status variable in wave 3 as our dependent variable, where 1 reflects being employed and 0 reflects being unemployed or not economically active. Table 11 reports the marginal effects of the probit regression. The marginal effect provides an estimate of the change in the probability of gaining employment associated with moving between waves 1 and 3. Controls include age categories, education levels, a dummy for female respondents and a dummy for those who live in urban areas in the base year.

Columns 2 and 3 include controls for household income characteristics. Column 4 combines both individual and household income characteristics. Lastly, column 5 includes log per capita household income.

Table 11: *Effect of moving on employment status for the Wave 1 unemployed*

	(1)	(2)	(3)	(4)	(5)
Wave 3 Mover	0.147***	0.145***	0.145***	0.133***	0.136***
	(0.0398)	(0.0393)	(0.0394)	(0.0382)	(0.0382)
Wave 1 - Base year					
HH receives grant income(=1)	-	-0.105***	-0.105***	-0.0790**	-
		(0.0364)	(0.0364)	(0.0381)	
HH receives wage income(=1)	-	-	0.00183	-0.00175	-
			(0.0400)	(0.0434)	
Male (omitted)					
Female (=1)	-	-	-	-0.138***	-0.147***
				(0.0310)	(0.0306)
Rural (omitted)					
Urban (=1)	-	-	-	0.0695**	0.0907***
				(0.0315)	(0.0327)
Age Categories:					
15-18 (Omitted)					
19-23	-	-	-	0.0925*	0.0878
				(0.0560)	(0.0551)
24-28	-	-	-	0.140*	0.141**
				(0.0742)	(0.0710)
29-35	-	-	-	0.192***	0.191***
				(0.0684)	(0.0667)
35-44	-	-	-	0.172***	0.163***
				(0.0633)	(0.0588)
45-59	-	-	-	0.102	0.104
				(0.0678)	(0.0668)
Education:					
No Schooling (Omitted)					
Primary School	-	-	-	-0.144**	-0.132**
				(0.0618)	(0.0626)
Some Secondary School	-	-	-	-0.107*	-0.0893
				(0.0606)	(0.0613)
Secondary completed	-	-	-	-0.00369	0.0289
				(0.0678)	(0.0668)
Post-Secondary	-	-	-	0.274*	0.311***
				(0.147)	(0.147)
Log Per capita Household Income					-0.0184
					(0.0201)
Observations	2,084	2,084	2,084	2,082	2,076

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights Standard errors reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Individuals residing in households in receipt of a grant income have a lower probability of being employed in wave 3. This may suggest that grant receiving households are

providing support while individuals are unemployed but this support may not be sufficient to enable to them to find work. This also supports the idea discussed earlier that the unemployed are stuck in households for support but are often located in rural areas.

While some unemployed are located in households that receive a labour wage through an employed household member or remittances, household wage income has no effect on gaining employment. In both columns 2 and 3, moving has a positive significant effect on finding employment in wave 3.

In column 4 we include both the household and individual characteristics. Age, as expected, is a significant determinant of employment, individuals between 19 and 44 years old are more likely to gain employment than those in the 15-18 category. Primary and secondary education has a negative impact on gaining employment if unemployed in wave 1. Having more than high school education has a positive effect on employment.

It also appears that unemployed women are less likely to gain employment than unemployed men. One possible reason for this may be that it is easier for men to find a job but at the same time it may also suggest that men and women move for different reasons.[3]

Being unemployed in an urban area, as expected, has a positive impact on gaining employment in wave 3. Urban areas in South Africa have lower unemployment rates than rural areas as we described in Table 1.

Even after accounting for household and individual demographics the coefficient of moving remains positive and significant. The effect is only slightly diminished.

In column 5 we remove the remittance and the grant income variable. We include the log per capita household income variable instead. The effect of moving remains positive and significant but the impact of the household real log per capita income is negative and insignificant.

To check the robustness of our results we present a fixed effects model as well as a regression that controls for movement in wave 2. Column shows the results of the fixed effects model and column 2 controls for migration in wave 2.

[3] In separate regressions (not shown) we regressing men and women separately. It appears that moving still has a positive effect on women finding employment. Age becomes more significant while household in receipt of grant income becomes insignificant.

Table 12: *Fixed effect and probit model of Employment status*

	(1)	(2)
W3 Mover	0.580***	0.130***
	(0.140)	(0.0391)
W2 Mover	-	0.0770
		(0.0549)
Male (omitted)		
Female (=1)	-	-0.150***
		(0.0306)
Rural (omitted)		
Urban (=1)	-0.207	0.0866***
	(0.234)	(0.0326)
Age Categories:		
15-18 (Omitted)		
19-23	0.241	0.0891
	(0.236)	(0.0553)
24-28	0.401	0.138*
	(0.270)	(0.0713)
29-35	0.664**	0.190***
	(0.307)	(0.0670)
36-44	0.556	0.163***
	(0.350)	(0.0587)
45-59	0.365	0.107
	(0.395)	(0.0664)
Education:		
No Schooling (Omitted)		
Primary School	1.169*	-0.135**
	(0.610)	(0.0629)
Some Secondary School	1.204	-0.0927
	(0.750)	(0.0610)
Secondary completed	0.966	0.0279
	(0.785)	(0.0667)
Post-Secondary	0.705	0.291*
	(0.974)	(0.154)
Log pc Household Income	1.211***	-0.0212
	(0.0559)	(0.0201)
Observations	2,081	2,076

Note: Own estimates using working-age sample of NIDS (SALDRU, 2013a; 2013b; 2013c). Observations weighted using calibrated panel weights Standard errors reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In column 1 the fixed effects model shows that moving still has positive and significant on finding employment. Location is no longer significant in finding employment and most of the age categories became insignificant except the 29 to 35 years category. Primary

schooling remains significant. Log per capita household income went from being negative and insignificant in the probit regression model to positive and significant in the fixed effects model. The fixed effects model confirms that moving has a positive, significant effect on finding employment.

The final check we control for a movement in wave 2 that might affect employment in wave 3. The results are reported in column 2. While moving in wave 3 is only slightly diminished by adding the wave 2 mover dummy variable, the coefficient on wave 2 mover is not significant and thus has no impact on finding employment in wave 3. [4]

These robustness checks give us confidence in our results that moving has a positive effect on employment. Unlike the findings of Pekkala and Tervo (2002) for the Finnish population, moving does enable the unemployed to find a job and thus get ahead.

4.3 Shortcomings of the research approach

Prior to concluding we need to acknowledge some of the short comings of the chosen research approach.

A positive impact of moving on employment may reflect those who have more favourable employment characteristics creating a selection bias which has not been taken into account.

We show in table 1 that unemployment rates in rural areas are lower than urban areas, however, distance to economic centres with lower unemployment rates may also play a role in finding employment. This and other search costs may affect the prospect of employability (Pissarides and Wadsworth, 1989).

Lastly, the research approach does not deal with individuals who moved in wave 2 but return the original wave 1 location in wave 3. We suspect that this might not be a big problem as it is privacy costs are higher for those who are employed.

SECTION 5: Conclusion

The paper begins by questioning the location decision of the unemployed in the face of a lack of direct government financial support. We show, in Table 6, the dispersion of the unemployed; most of whom have access to financial support through labour income or receipt of a state grant by a household member. However, a large proportion of the

[4] We also check for differences in race but find no evidence that race has an effect on our results.

households receiving remittances or state support are located in rural areas. This moves the unemployed away from the labour market and will reduce their employment prospects and intensity of job search (Klasen & Woolard, 2009).

Between 12% and 18% of the unemployed in the balanced panel find themselves in households with no connection to the labour market or access to a state grant. It is these households that are likely to be pulled further into poverty through trying to support the unemployed.

Household composition appears to be important to the unemployed as they can seek income support from parents and family through co-residency. This paper extends the previous work done in international studies that only take into account parental characteristics.

In Table 7 we show that those who remain unemployed are more likely to remain attached to a household. Table 8 tells us that gaining employment is associated with being unattached to a household which leads us to question whether moving helps the unemployed find jobs. Table 9 confirms our suspicion that the unemployed have a higher propensity to move in search of support or employment. We also confirm that greater gains are being made by the unemployed movers through examination of the change in real log per capita household income in Table 10.

Through our probit regression analysis we have been able to show that moving plays an important role in enabling one to find a job when taking into account individual and household demographics.

One of the problems, however, is that moving and searching for a job comes at a cost that very poor households cannot bear the burden of. This leaves those who are potential members of the labour force stuck in areas far from labour market opportunities. The discussion of how employment affects setting up a household is important as it signals strongly that gaining employment will reduce the economic burden on a household.

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