

Poverty and minimum income aspirations in South Africa between 2009 and 2015

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Abstract

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This study examines the relationship between poverty and income aspirations in South Africa between 2009 and 2015. The study shows that as the income of households increases their need for higher income also increase. The aspirations gap of poor households were higher than those of not poor households. This indicates their need for higher income and also lack of financial resources when compared to the not poor households. The study shows that income aspirations are significantly and positively correlated with the extent of inequality. However, in a country with decreasing incidence of household poverty and inequality levels between 2009 and 2015 the influence of inequality on income aspirations decreased. As a result of declining incidence of household poverty and inequality levels, the importance of reference group income in determining income aspirations increased significantly.

Key words: poverty, aspirations, income aspirations, aspirations gap, inequality.

Opsomming

Armoede en minimuminkomste-aspirasies in Suid-Afrika tussen 2009 en 2015

Ntsweleng R. Khumalo

Hierdie studie ondersoek die verhouding tussen armoede en inkomste-aspirasies in Suid-Afrika tussen 2009 en 2015. Die studie toon dat namate huishoudings se inkomste toeneem, hul behoefte aan hoër inkomste ook toeneem. Die aspirasiegaping van arm huishoudings was groter as dié van nie-arm huishoudings. Dit dui op hul behoefte aan hoër inkomste en ook 'n gebrek aan finansiële hulpbronne in vergelyking met die nie-arm huishoudings. Die studie toon dat inkomste-aspirasies beduidend en positief gekoppel is aan die omvang van ongelykheid. In 'n land wat 'n afname toon in huishoudelike armoede en ongelykheidsvlakke tussen 2009 en 2015 het die invloed van ongelykheid op inkomste-aspirasies egter verminder. As gevolg van die afname in huishoudelike armoede en ongelykheidsvlakke, het die belangrikheid van die verwysingsgroep se inkomste by die bepaling van inkomste-aspirasies aansienlik toegeneem.

Sleutelwoorde: armoede, aspirasies, inkomste-aspirasies, aspirasiegaping, ongelykheid.

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ACRONYMS AND ABBREVIATIONS

CPI	Consumer Price Index
IES	Income and Expenditure Survey
LCS	Living Conditions Survey
MIQ	Minimum Income Question
NDP	National Development Plan
NPC	National Planning Commission
QLFS	Quarterly Labour Force Surveys
SASSA	South African Social Security Agency
Stats SA	Statistics South Africa

CHAPTER 1 - INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND

Poverty is multi-faceted and can be defined in multi-dimensional terms. There are various schools of thought when it comes to the definition of poverty. Poverty can be defined as lack of income, it can also be defined as social exclusion, as well as lack of access to facilities and services and it is also defined based on ownership of assets (Chambers, 1988). Poverty can also be defined as poor health (Bourguignon & Chakravarty, 2003), it can also be based on whether or not one is happy (Ravallion, 2012). Whichever way poverty is defined informs how it will then be measured. The measurement of poverty can be classified in three broad categories, i.e. objective, relative and subjective measures (Rio Group, 2006).

Objective poverty refers to an expertly derived definition. It results in a poverty line (either based on income, expenditure, etc.) which is derived through scientific calculations and people are then classified poor or not poor depending on whether they are below or above the line. This method is best used for the monitoring and reporting of progress (Lanjouw, 2001; Stats SA, 2012a). The line determines the standard, so progress (or lack thereof) can easily be determined. Therefore in the context of the study this is the definition that is adopted where being poor means that a household is living below a pre-determined poverty line. In 2007 Stats SA was tasked by government to produce poverty threshold measures that could be used as standardized money-metric measurements. Using household expenditure data, three poverty lines were produced: food poverty, lower-bound poverty, and upper-bound poverty (Stats SA, 2012b). To bring them in line with latest expenditure data the poverty lines were recalculated in 2015 based on data obtained from the IES of 2010/2011.

Relative poverty refers to poverty defined in relation to other elements of the population, e.g. to say the bottom 30 per cent of the population represents the poor (Lanjouw, 2001). This method requires ranking of different elements of the population (households or individuals) according to a welfare indicator, either income or expenditure, from the highest to the lowest (Lanjouw, 2001; Rio Group, 2006). People or households at the bottom, say 30 per cent, will then be referred to as poor. This seems to be the easiest method of determining poverty, however, in a country like South Africa where absolute poverty is still a problem this method is not ideal for planning purposes.

In addition, for the interpretation of the results over time, one will need to be careful as there will always be a bottom 30 per cent no matter how the situation has improved (Lanjouw, 2001).

Subjective poverty is based on self-perception of individuals or households, whether households/individuals see themselves as poor or not (Stats SA, 2012a). It entails asking households/individuals to classify themselves as poor, wealthy, doing fine, etc. Based on their responses poverty is then determined. This method can be tricky for policy implementation as people perceive themselves as poor for different reasons. One may think having a cellphone and airtime means you are not poor and therefore classify yourself as not poor even though you do not have enough food to survive. To some, one can have all the assets one can think of but if they feel they are not happy because there is no church for them to worship, then they might perceive themselves as poor.

Aspirations are defined as the social grounding of individual desires (Ray, 2006). The concept indicates that some effort would be made to realise these desires, while aspirations may determine the level of effort required for their achievement (Pasquier-Doumer & Brandon, 2015). To some people, aspirations simply mean aiming to just survive by maintaining current levels of existence (Chivers, 2017). Falling below it is interpreted as falling into poverty. The concept of aspirations is also multi-dimensional. Individuals might aspire to a better standard of living, however, they might also aspire for better health, political power and recognition (Ray, 2006). Depending on an individual's socio-economic status, these different dimensions of aspirations might be complementary or they might be substitutes. Aspirations should also be thought of as multidirectional, since its effects will be different depending on the situation faced by the individual (Chivers, 2017). Aspirations are socially determined and those that are classified as poor may lack the aspirations to change the condition of their own circumstances (Appadurai, 2004). Individuals will form their aspirations based on people around them by observing their lifestyle, economic wellbeing, political and social norms to inform their own aspirations. The income aspirations of individuals tend to increase with their level of income (Appadurai, 2004; Stutzer, 2004). Income aspirations also increase with the income of other society members. The MIQ has been used as a proxy for income aspirations in various studies (Stutzer, 2004).

It asks respondents to identify the minimum monthly household income that the household would need to make ends meet. It is a measure viewed as a lower-bound value of their income aspirations (Barr & Clark, 2010).

Aspirations are always forward-looking and not backward-looking and are formed in the present regarding the kind of future one desires. Future-oriented behaviour of individuals is influenced not by aspirations per se, but by what Ray (2006) calls an aspirations gap, which is the distinction between the desired future living standard that is aspired for, and the person's current living standard. The aspirations gap measures how far an individual is willing to go to achieve their intended future aspirations. For instance, in order for an individual to have a better living standard in the future, they have to invest in something such as education, income-generating activities or health while sacrificing current resources. The future rewards of their investment, i.e. the expected rise in the future standard of living as a result of their investment, will narrow the aspirations gap.

If an individual's aspirations closely resembles his or her current standard of living, such an individual has little incentives to put more effort into achieving them. However, individuals that have aspirations that far exceed their current living standard might often be less inspired to put more effort into raising them due to the little gains they think might be made in bridging the aspirations gap after making the investment. Thus they will regard the investment in aspirations as not worth taking the risk and effort because such aspirations are considered unachievable. This is regarded as an aspirations failure, a dilemma often faced by the poor, where if they aspire to become wealthy, the steps and effort relative to the amount of resources they possess to close the gap, is considered too high and inefficient, and therefore the rewards in terms of closing the gap, considered too low (Ray, 2006).

1.2. PROBLEM STATEMENT

Poverty is a key developmental challenge for South Africa. Forty percent of the population live below the lower-bound poverty line of R647 per person per month in 2015 prices (StatsSA, 2017). In other words, 21.9 million persons in South Africa are classified as poor when using the lower-bound poverty line. As a result, the complete elimination of poverty below the lower-bound poverty line and the reduction of inequality to 0.6 by 2030 have been made the overarching goals of the NDP (NPC, 2012).

Poor households adjust to their living circumstances (Dalton, Ghosal, & Mani, 2016). The problem with this adaptation to poverty is that it may constrain households' ability to anticipate a better future, thereby lowering their aspirations, resulting in them living in an aspirations trap (Posel & Rogan, 2019). Households that are caught in an aspirations trap are those households who have experienced long-spells of poverty and subsequently aspirations failure. These households may lack the capacity to aspire because poverty lowers their aspirations level relative to what they could aim to achieve (Apparadurai, 2004). Being in aspirations trap may also constrain the willingness of individuals to take risks and therefore adversely affect their levels of effort (Dalton, Ghosal, & Mani, 2016). If the poor lack hope this will affect their aspirations and behaviour. The implications are such that most of these households will continue to live in chronic poverty. This will also affect future generations who will be born into poverty and continue to be trapped by it. The dilemma is that such households might continue to be a burden for the state. This puts strain on its resources and might even result in the country becoming a welfare state where the majority of the people depends on the state for its welfare due to them not possessing employable skills. Evidence of how much social grants recipients are becoming a burden to the state is witnessed by the high increase in the number of social grants recipients from 13.0 million in the financial year 2008/2009 to 16.6 million recipients in 2014/2015 representing an increase of 27.3% (SASSA, 2019). During this period expenditure on social grants by national government increased massively from R70.7 billion to R120 billion representing an increase of 69.6% (SASSA, 2019). This study analyses whether high poverty levels encourages or discourages the formation of income aspirations.

1.3. HYPOTHESIS

There is no relationship between high levels of poverty and formation of minimum income aspirations in South Africa between 2009 and 2015.

1.4. RESEARCH QUESTIONS

The study tries to answer the following two questions:

- What determines household income aspirations formation between 2009 and 2015?
- What is the relationship between poverty and minimum income aspirations between 2009 and 2015?

1.5. AIMS AND OBJECTIVES

The aim of this study is to determine whether living in poverty have an effect on the formation of minimum income aspirations of households in South Africa between 2009 and 2015. To evaluate this relationship between poverty and minimum income aspirations the following four objectives for the study have been formulated:

- To test for evidence of aspirations failure among poor households between 2009 and 2015.
- To investigate the formation of income aspirations between 2009 and 2015.
- To investigate whether and how the aspirations gap differ amongst poor households between 2009 and 2015.
- To explore the relationship between poverty and minimum income aspirations between 2009 and 2015.

1.6 STRUCTURE OF THE THESIS

Chapter 1 introduces the concepts of poverty and aspirations and also presents the broad outline of the problem to be studied. Chapter 2 provides a detailed literature review pertaining to the relationship between poverty and aspirations concentrating on the effects of aspirations, the models of aspirations, adaptation and formation of aspirations. Chapter 3 discusses the research methodology and data sources. Chapter 4 presents the empirical analysis and chapter 5 provides conclusions regarding the study.

CHAPTER 2 - LITERATURE REVIEW

2.1 INTRODUCTION

As a result of interest in behavioural economics, the role of individual behaviour in the persistence or reduction of poverty and inequality and the improvement of living conditions has resulted in a growing number of approaches focusing on their contribution (Cardenas & Carpenter, 2008). One such approach is the topic of aspiration formation and aspirations traps (Flehtner, 2016). Apparadurai (2004), an anthropologist, stimulated the debate on aspirations traps through his work on 'capacity to aspire' in the context of inequality and persistent poverty which mainly discusses the conditions under which an individual is able to create the capacity to build and pursue aspirations that benefits his/her interests. This means that individuals' aspirations originate from ways of thinking that are part of a given community's philosophy (Lybbert & Wydick, 2016). People who are poor are more likely to aspire to lower goals than those who are not poor as a result of their capacity to aspire a meta-capacity which allows people to build rightful aspirations. Capacity to aspire is mostly developed through personal practice emanating from experiences of trial and error learning processes. These experiences of trial and error teaches individuals about their preferences, capacities, talents, resources and constraints (Flehtner, 2016). The poor have lower capacity to aspire due to them having fewer resources and opportunities for the trial and error learning processes (Flehtner, 2016). However, those that are not poor will have more opportunities that allows them to identify appropriate aspirations based on their preferences, talents and constraints, including strategies to achieve them (Flehtner, 2016). Those that are not poor will experience successful trial and error experiences more often which they will credit to their abilities instead of favourable circumstances. This in turn will make them to have more confidence in their abilities and capacities.

Due to being disadvantaged and socially excluded, low aspirations are prevalent among the poor which brings a negative outlook on their life and on the opportunities and abilities an individual could have (Flehtner, 2016). Living conditions of the poor have dampened their aspirations resulting in them being trapped in fatalism, poverty and inequality. Bernard, Dercon & Tafesse (2011) agrees. Their findings indicate that in Ethiopia low aspirations and negative outlook on life are common among the poor.

Low aspirations corresponds with lower long-term credit demand and its productive use (Pasquier-Doumer & Brandon, 2015). Although low aspirations and fatalism could be the result of poverty and lack of better opportunities for the future, aspiration failures cannot be convincingly pointed out as the original cause of poverty (Flechtner, 2016). Aspirations instead may contribute towards the persistence of poverty. Aspiration traps might be as a consequence of life in poverty which could make its reduction even harder (Flechtner, 2016). Even though dampened aspirations may contribute towards the persistence of poverty, by ignoring them could also prove to be a bad choice. Similarly, Camfield et al (2013) notes that if people fail to aspire to begin with, aspirations failure can occur.

The formation of aspirations and aspirations trap, which are endogenous, are centred on the cognitive, psychological, behavioural mechanisms and processes (Flechtner, 2016). Aspirations might not sometimes be in a person's best interest or be optimal.

2.2 EFFECTS OF ASPIRATION TRAPS

The current literature on aspirations is mainly centred on the effects of aspirations with regard to the persistence of poverty and inequality whilst ignoring the role that behavioural mechanisms may play (Flechtner, 2016). Two models that are central to the analysis of the effects of individual aspirations in the context of poverty and inequality were devised by (Genicot & Ray, 2017) and (Dalton, Ghosal & Mani, 2016). Genicot & Ray (2017) looked at how aspirations can contribute to inequality and growth dynamics through individual investment decisions in a society, while Dalton, Ghosal & Mani (2016) studied how psychological poverty traps occur when the aspirations of individuals embark on a downward path. Aspirations are naturally social but they are also the result of a person's psyche and mind as well as their economic circumstances (Flechtner, 2016). Therefore, the aspirations that people hold will influence their behaviour. People with higher aspirations are more likely to achieve higher goals and there is a positive correlation between individual aspirations and their socio-economic circumstances (Flechtner, 2016). Therefore, individuals judge their future based on their current aspirations which have been established based on past experience (Easterlin, 2001).

High levels of poverty are often accompanied by high income inequalities and access to opportunities, resources and services (Flehtner, 2016). However, the relationship between the incidence of poverty and levels of economic inequality does not necessarily constitute a straightforward correlation since most poor people reside in countries where there are also many wealthy people. As a result of income inequality there is often unequal access to resources and services such as health services, educational facilities, credit facilities, insurance or legal services which contribute to the continued high levels of poverty. The inability to easily access credit and the limited access to economic resources are the main contributing factors preventing individuals from improving their living conditions such as the lack of resources to invest in the education of their children, setting up a business or adopting new technologies. The poor also have limited access to insurance. This makes them vulnerable to events beyond their control. Poor people face major constraints about the alleviation of poverty, many of which are beyond their personal control and thus it cannot be claimed convincingly that they are primarily responsible for their adverse living circumstances.

A life of poverty and exclusion does not only result in limited access to education, insurance and credit facilities for people but it can also impact their aspirations (Flehtner, 2016). In overcoming poverty, aspirational traps are an additional item on the list of factors that make it harder to overcome it. Poverty is not an individual failure, nor are low aspirations which contribute to its existence. Therefore aspiration traps are about the condition of poverty, not a statement about people who are poor (Ray, 2002). The aspirations that are developed by people mirror the exclusion and inequalities of resources, privileges, experiences and opportunities and cannot be viewed in isolation of the social environment that assisted in shaping them (Flehtner, 2016). Aspirations can be shaped by parents' aspirations for their children (Mookherjee, Napel & Ray, 2010). Poor households mostly neither save nor invest, even when the returns for such actions appear high (Janzen, et al., 2017). Most poor households do not strive to improve their future living circumstances and levels of income or those of their children by investing in education (Glenhue & Kremer, 2006). This might be due to a lack of money. Another possible explanation could be because of informational constraints where the parents are misinformed about the benefits of education (Nguyen, 2008; Jensen, 2010; Janzen et al., 2017).

However, Jensen (2010) indicates that even after being informed about the benefits of education, parents and the students in rural areas of the Dominican Republic still had lower aspirations for higher educational achievements.

Narayan et al. (2000) offers a possible explanation, motivated by cognitive and psychological motives, which are a combination of poor educational background, lack of skills and lack of connections resulting in poor people lacking self-confidence. They indicate that as result of being in a poverty trap and also being socially excluded, the poor lack the basic understanding of how the roadmap to achievement in their community works. As a result, this can unleash the feelings of low self-confidence and inability as well as those of personal failure. Clark & Qizilbash (2008) agrees with Narayan et al (2000) by arguing that if a person has been living in poverty for a very long-time there is a possibility that they might have a restricted view of what constitute a minimal decent quality of life. Therefore, life of poverty might change how people make decisions and behave (Duflo, 2006).

The extent to which people can explore their abilities and develop their aspirations is determined by the opportunities that become available. A life in poverty generally offers few opportunities (Flehtner, 2016). On the other hand, Fishkin (2014) and Dalton, Ghosal & Mani (2016) posit that the aspirations and abilities shaped by the opportunities people face occurs independently of their living conditions. Aspirations and their preferences adapt to the opportunities that people face. Aspirations, expectations, preferences and beliefs about one's abilities and goals are endogenous, thus indicating a reflection of a person's earlier opportunities (Flehtner, 2016). Preferences, desires and behavioural standards are social constructs that depend on an individual's living conditions, cultural experiences and cultural and social constructs. As a result of the influence of the social environment, experiences and opportunities on aspirations, people develop a capacity to aspire (Apparadurai, 2014). People will then choose goals that are attainable, appropriate and beneficial to them based on personal abilities, preferences and societal structures. To train this capacity to aspire it is limited for people who live in poverty due to fewer opportunities that are presented to them. The consequence is that beneficial opportunities such as education, investments or occupations are easily foregone by poor people because they have not aspired for them.

Social exclusion and experiences of poverty and aspirations co-evolve over time. Goals, achievements and activities that people can aspire to, can be influenced by the absence of role models, hopelessness, discrimination, low self-confidence, social hierarchies, experiences and lack of information (Fishkin, 2014).

People living in life of poverty and high inequality are characterised by feelings of hopelessness with regards to social advancement (Lybbert & Wydick, 2016). This often constitutes states of fatalism and paralysis. Hopelessness among those living in poverty is accompanied by low aspirations. This leads to low levels of investment and low outcome levels (Duflo, 2012). Hope should also be classified as a capability similar to health, education, nutrition, due to the important role it plays in the lives and behaviour of the poor (Duflo, 2012). In a society with high levels of inequality there will be higher pursuit for status in a society (Stark, 2006).

Aspirations are not goals that are well-informed, developed by people conforming to the principles of rational choice theory, instead they are the outcome of complex cognitive and social processes which are susceptible to influences that can drive them upwards or downwards (Fletchner, 2016). Aspirations that are not realistically achievable are not considered aspirations (Bernard & Taffesse, 2014; Fletchner, 2016).

2.2.1 Aspiration models

The interrelation of aspirations, poverty and inequality is modelled by (Ray, 2006). The occurrence of a psychological aspiration trap on a socially excluded individual who cannot see how aspirations, efforts and achievements co-evolve is modelled by (Dalton, Ghosal & Mani (2016). These models are utility-maximisation models which have integrated aspirations in their frameworks by using aspirations as reference points and where individuals make optimal choices given their preferences over certain outcomes and their limitations. Bogliacino & Ortoleva (2014), Dalton, Ghosal & Mani (2016) and Janzen et al. (2017) treat aspirations as reference points for life goals using a prospect theory model that was established by (Kahneman & Tversky, 1979).

The model assumes a convex utility function up to the reference point. Individuals' preferences are connected with their actions by their beliefs about ends-means relationships, where they include the individual's beliefs of what needs to be done to accomplish their preferences. Expectations are part of these beliefs which entails the expected results from the individuals' actions or choices.

Expectations differ from aspirations because aspirations are goals that a person consciously or unconsciously pursue whereas expectations are about probabilities. Aspirations are not equivalent to preferences, but preferences together with beliefs, expectations and constraints could be understood as determinants of aspirations in a utility-maximisation framework.

2.2.1.1 Aspiration windows and aspiration gaps

The first prominent paper on aspirations in the context of poverty, inequality and development which looked at aspirations as the origin of poverty traps was by (Ray, 2006). Individual desires, preferences and behaviour are influenced by social environment and interactions and not determined in isolation (Ray, 2006). Individual behaviour and desires are shaped by experience and an individual's social environment. The formation of preferences might be influenced by social interactions, social hierarchies, group dynamics, space and time. Individuals base their aspirations on living conditions, achievements, failures of those who are spatially, socially and economically closer to them such as the neighbourhood where one resides (Ray, 2006). This is what Ray (2006) refers to as aspirations window. Individuals aspirations window include people who are similar to them (in terms of age, race, ethnic group, occupation, marital status, neighbours, peers, etc.) and they assist as a barometer of what people with similar characteristics can achieve and, therefore, serve as role models. The first group of people in the aspirations window of a person determines boundaries around future possibilities (Lyddbert & Wydick, 2016). The more similar people one include in their aspiration formation, the better, as they provide better content in informing decisions. An individual's aspirations correspond with the outcomes of those in his/her social network whose status is higher compared to those of lower status (Janzen et al., 2017). An aspirations window might also include people whom one physically observes but exclude those that one is separated from. However, as Ray (2002) points out, the correct determinants of an individual's aspiration window will be mostly society-specific.

The greater a person's social mobility the greater his/her aspirations window will be because social mobility will allow for a diverse set of role models. In the process of aspiration formation, a person's aspiration gap can either be very big or there could be no gap.

The size of the aspirations gap is decisive because those that are inside a person's aspiration window determine the person's aspiration gap as the distance between his or her status relative to the status of the other people in the window (Flechtner, 2016). Ray (2006) uses aspirations gap to explain how aspirations affect behaviour.

The implications of high aspirations are the effect it has on the subjective well-being of people when their aspirations are frustrated (Copestake & Camfield, 2010). An aspirations gap will need an individual to close it, this will require the individual to invest in closing the gap where the individual will incur the costs during the process. If the required investment and effort are too large they are likely to discourage the person from closing the gap because they might perceive the effort insufficient to catch up. On the other hand if the aspirations gap are too low the individuals might also be discouraged because they might think their efforts are not worth the little improvement they expect. This is what Ray (2016) refers to as aspirations failure where the aspirations windows are either too large or too small from the aspirations gap (Lyddbert & Wydick, 2016). Aspirations failure might be as a result of low educational attainment, underinvestment in business, education, etc (Lyddbert & Wydick, 2016).

Aspirations failure in a certain dimension might lead to wilful aspirations elsewhere. For instance, aspirations failure in education may result in a person aspiring for leadership in criminality (Lyddbert & Wydick, 2016). Aspirations correspond with future-oriented behaviour of individuals where the investment in the future would increase with aspirations (Janzen et al., 2017). However, this only applies up to a certain point, where, if the aspirations gap between an individual's present status and aspirations become too large, investment would decline. In Ethiopia fatalism showed by farmers indicates evidence of aspirations failure corresponding with negative behaviour about their future economic prospects (Bernard, Dercon & Taffesse, 2011).

In a society where there are two groups, the poor and the not poor, there are two possible outcomes with regards to formation of aspiration windows (Ray, 2006). The poor might include the not poor in their aspiration windows because they are aware of their living conditions since they see them or they might not include them. With the inclusion of the not poor in the poor's aspiration window the aspiration gap might remain too large because the poor might not expect to catch up to them, this results in them ending up being discouraged and frustrated. Janzen et al (2017) support this claim with their findings where they found in their study that if, compared to current status, aspirations are too large, they result in frustration and failure.

However, with the exclusion of the not poor in the poor's aspiration windows, the perceived aspiration gap will be small. This is associated with a divided society as a result of discrimination, caste system or slavery where the not poor and the poor live isolated lives and the not poor do not have an influence on the aspiration windows of the poor.

In an equal society where everyone is poor, there will be no incentivising and inspiring role models in people's aspiration windows, causing the aspiration gap to be small (Ray, 2006). Equality, therefore, might depress aspirations when combined with poverty and low income levels. In a reasonably connected society where the aspiration windows of people are large enough to provide incentives, yet at the same time provide reasonable balance not to depress aspirations through too large gaps, will result in the formation of productive aspirations.

Inequality dynamics shape aspirations for the future in a non-linear way where aspirations might first be encouraged by increasing inequality in a society, however, when it increases for an extended period it might stifle aspirations (Ray, 2010). When people observe the living conditions and income of people in their aspirations window improving, they also would have the same expectations but will become discouraged after a while when their living conditions do not improve (Knight & Gunatilaka, 2012). Their discouragement will stifle their aspirations after no change has occurred, yet inequality is increasing and realise that the benefits of economic growth does not include them.

The subjective well-being of people affected by the perceptions of the undesirability of inequality in a homogeneous society in Antananarivo city in Madagascar, show that the basis of good social relations is social homogeneity and that inequality in their society reduces subjective well-being (Herrera, Razafindrakoto & Roubaud, 2006).

Genicot & Ray (2017) models how aspirations that are driven socially, influence inequality within a given society (Janzen et al, 2017). They also show that aspirations are built under social influences. They illustrate how behaviour is influenced by aspirations and also how society-wide outcomes are shaped by aggregated individual behaviour. Therefore, poverty is partially shaped by aspirations (Pasquier-Doumer & Brandon, 2015). With aspirations being socially determined and affecting behaviour, there is scope for interventions within a community that could result in concrete improvements (Janzen et al., 2017). Accordingly, if a program increases the status of those within an individual's aspiration window or it expands the poor individuals' aspiration window as a result of them having gained in status, then there is a likelihood that their aspirations will increase.

Janzen et al. (2017) provide further examples of interventions such as those found by Bernard, Dercon & Taffesse (2014) and Lybbert & Wydick (2018) which showed that inspirational videos tend to increase aspirations and in some instances led to increased investment such as in education (Bernard et al 2014). It was found that this could also lead to positive spillover effects. In cases in Ethiopia and Mexico it was found that peers, who did not watch the videos, increased their investment in education (Bernard, Dercon & Taffesse, 2014). Aspirations are part of the utility functions of individuals where they directly affects preferences of parents and children and therefore shapes the decision-making of investment in education (Pasquier-Doumer & Brandon, 2015). When the income aspirations of parents for their children are exceeded they will enjoy additional gratification.

2.2.1.2 Psychological aspiration traps

The model that concentrates on the psychological dynamics in a society where a socially excluded individual might become trapped with low aspirations was developed by (Dalton, Ghosal & Mani, 2016). Janzen et al (2017) posits that the theoretical model by Dalton, Ghosal & Mani (2016) mainly focuses on the internal drivers of aspirations. Aspirations traps are modelled as a consequence of poverty rather than its cause. Poverty tends to incite detrimental outcomes in individuals who share the same behavioural patterns with individuals that are not poor and it is the specific traits that poor individuals carry that cause aspirations traps. Aspiration traps are the results of the interaction between pessimistic beliefs, low aspirations and low efforts. Therefore, individuals can embark on a downward spiral as a result of low aspirations inciting lower efforts where the achievements of such individuals are fewer and as a result might continue setting lower goals (Dalton, Ghosal & Mani (2016); Genicot & Ray (2017); Bogliacino & Ortoleva (2013); Lybbert & Wydick (2018)). When making decisions, individuals that are not rational, irrespective of their poverty status, fail to understand the connections between aspirations, decisions and utility (Dalton, Ghosal & Mani, 2016).

There are usually three causes for the failure to see the connections. Firstly, individuals fail to realise that aspirations are influenced by their social environments instead of them being naturally given. Secondly, aspirations are not constant. They tend to change according to successes and failures, new experiences and other influences. Thirdly, the level of efforts change according to the aspirations that an individual hold. Although individuals may realise that higher aspirations correlate with higher efforts, they might ignore the fact that earlier achievements and social environment influenced their initial aspirations.

Similarly, (Barr & Clark, 2010) found that the subjective well-being of individuals is dependent not only on their current circumstances but also on their aspirations. These aspirations depend in turn on their own past circumstances as a result of habituation processes and on the circumstances of those in their aspirations window. When individuals build higher aspirations, they correlate them with higher efforts and therefore higher achievements. As a result higher aspirations act as a stimulus for future higher achievements.

Rational individuals would aspire to goals that fully satisfy their utility and therefore select levels of effort that result in an optimal outcome (Dalton, Ghosal & Mani, 2016). Individuals are only able to foresee one rung at a time, not the full dynamics of aspirations over a lifetime. Therefore, as a consequence, once an individual holds low aspirations this might result in them getting caught in an aspiration trap. Individuals that are sufficiently above the poverty line tend to take on riskier investment projects and are able to aspire for more successes in contrast to those that are just above the poverty line and who are careful on taking riskier investments due to their fear of falling into poverty (Chivers, 2017). However, in contrast, individuals that live well below the poverty line may undertake riskier investments even if the expected returns are lower compared to those of safer investment projects. They do this because they believe that they have nothing more to lose since their aspirations are simply to escape poverty. Individual aspirations that are aimed at avoiding poverty could result in poverty traps due to the behaviour of individuals in terms of their chosen preferences. Irrespective of their economic circumstances, individuals are subjected to these biases. However, for those that are poor, the result is made more perverse for two reasons. Firstly, other external associates of poverty make the achievement of goals harder. Secondly, poor individuals are more likely to be cautious when building their initial aspirations. External constraints affect the productivity of poor individuals compared to those that are not poor who have easy access to resources such as credit, information or networks (Pasquier-Doumer & Brandon, 2015). The wealth that an individual finally ends up with is a function of their initial wealth combined with their level of effort.

Effort levels of individuals are influenced by their social environments such as family background, community norms, individual characteristics, poverty and living conditions. The aspiration levels of individuals are consistent with their expected final level of wealth which is closely connected to their living conditions. Individuals that are rational will choose effort and aspiration levels that correspond with the expected results given their level of initial wealth. Therefore, individuals that are rational will not choose aspirations that are beyond their capabilities or means because of the link between aspiration levels and expected benefits. The social determination of aspirations make their distribution uneven across the various wealth strata within a society (Camfield et al, 2013).

The aspiration and effort levels of poor individuals will always be lagging behind those of not poor individuals because their productivity tends to be lower as a result of external constraints. If the aspirations of the poor is behind those of the not poor it does not necessarily imply an aspirations trap. Instead, it could mean that rational poor individuals choose aspirations that are lower because they have adapted their aspirations to their expected possibilities. Compared to individuals that are rational, most individuals take their levels of aspirations as given, not taking into account that they are influenced by their past achievements. Internal constraints also affect an individual outcome where they do not aspire for the highest possible outcome they could achieve which could be the origin of the aspirations trap.

2.3. DEVELOPMENT OF ASPIRATIONS TRAP

2.3.1 Adaptive processes

Preferences and similarly aspirations are adaptable based on their experiences, living conditions and situations in changing ways (Flehtner, 2016). Individual's aspirations adapt in response to their changing income (Knight & Gunatilaka, 2012). The level of happiness of individuals increase as their levels of income increase (Easterlin, 2001). However, the opposite was found in time-series studies at the national level, i.e. the increase in income on well-being is accompanied by the negative effect of the resultant increase in aspiration income (Knight & Gunatilaka, 2012). As Sen (1987) argued, this could be because of poor people adapting their aspirations as a result of their low incomes and inferior living conditions. The adaptable nature of preferences, desires and life goals and by analogy aspirations, is seen by Sen (1987) as a survival strategy by disadvantaged people (Flehtner, 2016).

Frederick & Lowenstein (1999) agreed with Sen's (1987) argument that aspirations are linked to perceptions. Using quantitative and qualitative data in Thailand, Camfield et al. (2013) found that the poor were not aspiring for what they believed because they were unable to achieve and being satisfied with their lives. They found that the reduction in aspirational achievements due to socio-economic status suggests that those that are poor tend to struggle to enjoy the benefits of a good life.

Using data from Essentials of Life Survey in South Africa, Barr and Clarke (2009) found that the adaptation of households to low incomes and limited opportunities is mainly due to the fact that people who live in poverty keep on being aware of what they lack. Posel & Rogan (2019) came to similar conclusions in their study using data from the LCS 2008/2009. They also found that in South Africa, as a result of relatively high poverty and inequality levels, people living in poverty seem to adjust to their living conditions. Similar to the findings of Barr & Clark (2010) and Posel & Rogan (2019), Knight & Gunatilaka (2012) found that in rural China, the minimum income that a household requires to make ends meet, increases as household income increase. According to Easterlin (2001), at the beginning of their life-cycles, individuals have similar aspirations, however, depending on their level of educational attainment, they will follow different life courses because their aspirations adapt according to their income gains. Knight and Gunatilaka (2012) and Pradhan & Ravallion (2000) studied subjective poverty in developing countries using consumption adequacy questions. The welfare functions and minimum income adequacy literature provide evidence of adaptation since it concentrates on the relationship between an individual's actual income and their response to questions on the minimum level of income needed to make ends meet, a measure which could be regarded as a lower-bound of their income aspirations (Van Praag & Kapteyn, 1973; Barr & Clark, 2010).

Income aspirations is a function of current income and reference income (Knight & Gunatilaka, 2012). They measured aspiration income and its determinants by including actual income and aspiration income as determinants of subjective well-being. In ground-breaking research Stutzer (2004) used the same methodology although the study focused on wealthy society in Switzerland where the relationship between subjective well-being, income and aspirations were modelled.

Subjective well-being is reduced by higher aspirational income and that aspiration income is a positive function of past, current, future and reference group income (Stutzer, 2004). Where aspirational income increases with previous and reference group income due to 'hedonic adaptation' processes, income gains only produce temporary satisfaction increases because as individuals get used to their higher incomes, the extra satisfaction that it derived, decreases (Clark, 2009). Previous, current and reference group income have an influence on aspirations income (Knight & Gunatilaka, 2012).

The latter does not fully adapt to a reduction in income. Rather, it follows aspirations window income where it possibly lags behind it and that people are unable to predict their aspirations income accurately.

In Germany, the subjective well-being of individuals decrease with the income of the reference group (Ferrer-i-Carbonell, 2005). The probability of individuals considering their consumption adequate decreases with the total household consumption within their reference group in Nepal (Fafchamps & Shilpi, 2008).

Aspirational income is also influenced by educational attainment where the higher the educational attainment of the respondent the higher the aspiration income needed (Knight & Gunatilaka, 2012). Similarly, Barr & Clark (2006) found that in South Africa, education generates higher income aspirations, something that possibly cannot always be realised in the South African labour market. Education resulting in higher income aspirations are referred to as “feedforward” (Frederick & Lowenstein, 1999) meaning the anticipation of future stimulus levels. The minimum level of income needed does not only reflect the objective income need for the household but also reflect their subjective aspirations. This is because current household income increases the measure of perceived minimum income needed. However, it is possible that the relationship between actual income and aspirations might contain reverse causation, i.e. people that have higher aspirations put in more effort to increase their incomes (Knight & Gunatilaka, 2012).

There is a positive correlation between subjective well-being and the level of income even though this correlation is not perfect due to the existence of other dimensions of well-being such as health, education, employment, reference group income, etc. It also correlates negatively with aspirations (Easterlin, 2001; Herrera, Razafindrakoto & Roubaud, 2010). As people’s level of income increases their aspirations increases by the same magnitudes resulting in their subjective well-being remaining the same.

However, Herrera, Razafindrakoto & Roubaud, (2010) argues that the weakening or disappearance of the correlation between the level of income and subjective well-being can occur as a result of changes in aspirations and the growing importance of other areas of well-being such as health and family life. They also find that in Madagascar the correlation between household income and minimum income required to make ends meet were low for poor households implying that they aspire for a basic consumer basket. In Madagascar, households residing in neighbourhoods where income levels are higher than they are more likely to be frustrated, and this affects their social well-being. This also includes the level of inequalities in the neighbourhood which has a negative impact on well-being in Madagascar, but the same has a positive impact in Peru. Individuals' social well-being increases if their reference group's well-being is lower or progresses slower than their own. Similarly, Ferrer-i-Carbonell (2005) in a data from Germany found that the income of the reference group is equally as important as one's current income for individual happiness, however, the bigger the individual's income difference from their reference group, the happier they become. Income on its own does not explain all regarding social well-being (Herrera, Razafindrakoto & Roubaud, 2010). Other non-monetary dimensions are needed to explain social well-being, factors such as health, education, employment doubles the explanatory power of the econometric models. Fafchamps & Shilpi (2008), using data from Nepal, show that isolated poor households do not care less about relative consumption instead they are more interested in what their neighbours are consuming. This means that the poor are also interested in their relative position in society, implying that for their subjective welfare to be improved, inequality within their societies needs to be reduced.

This differs from findings of Ravallion & Lokshin (2005) where the subjective welfare in Malawi decreases with the average income of a society for high income households. Therefore, the main concern of the poor is absolute deprivation (Ravallion & Lokshin (2005); Ferrer-i-Carbonell (2005)).

2.3.2 Social cognitive theory

Social cognitive theory (Bandura, 1997) provides an important framework for aspirations development (Flechtner, 2016). Together with the concepts of self-efficacy and locus of control determine if an individual is able to develop productive aspirations or not. Self-efficacy refers to an individual's confidence about his or her own abilities to complete specific tasks and achieve specific goals (Lybbert & Wydick, 2018; Flechtner, 2016). It mainly describes the confidence that an individual has in completing specific tasks successfully. It affects the outlook individuals have of their own future outcomes (Lybbert & Wydick, 2018; Flechtner, 2016). Having low self-efficacy beliefs implies that an individual might have difficulty in completing tasks successfully where such individuals have a future viewpoint of failure. However, by having strong self-efficacy beliefs in your abilities one is still able to remain strong and optimistic during periods of failure and drawbacks. An individual's motivation and information processing abilities are impacted by their self-efficacy beliefs. Pessimistic beliefs about an individual's abilities can discourage the amount of effort an individual is able to put in as well as perseverance through the motivational channel.

The second concept of locus of control beliefs (Rotter, 1954) refers to the extent to which individuals believe that they control the factors that are responsible for shaping their lives (Lybbert & Wydick, 2018). Beliefs such as luck, fate or predetermined destiny; or beliefs that other powerful individuals are in control; as well as other reasons beyond the control of the individual can result in external locus of control. Locus of control can also be internally determined, such as a person's abilities and capacities, or the combination of both internal and external extremes. Social and economic environments are vital for locus of control beliefs since they determine the opportunities and experiences people are likely to face and make (Fishkin, 2014). People's locus of control beliefs can be depressed considerably if they experience little control over their circumstances or life courses. An individual's view of probabilities of getting ahead are reflected by their aspirations which are an internalisation of objective probabilities. Locus of control beliefs are the mechanism through which objective probabilities enter aspirations. Life of poverty and social exclusion can harm the development of self-confident self-efficacy beliefs.

CHAPTER 3 – RESEARCH METHODS AND DATA SOURCES

3.1 INTRODUCTION

One of the difficulties with regards to the measurement of aspirations is that they cannot be directly observed. They are therefore mostly measured indirectly (Chivers, 2017; Janzen et al, 2017). However, Bernard and Taffesse (2014) posit that measuring aspirations directly through interviews is preferable to measuring them indirectly. However, in developing countries, if such questions are asked directly, they are often susceptible to strategic answering. The reason for this is because survey respondents might believe that what they say might affect their chances of getting something from the survey (Barr & Clark, 2010).

This is an empirical study which like the studies of Stutzer (2004), Knight & Gunatilaka (2012), and Posel & Rogan (2019) makes use of responses to the question on the minimum level of income a household would need to make ends meet as a proxy for income aspirations. The proxy for the household income aspirations is derived from a question that was posed to one person within the household responding on behalf of other household members about the net household income that is required per month for the household to make ends meet.

3.2. DATA SOURCES

The nationally representative surveys of LCS 2008/2009 and 2014/2015 that were conducted by Stats SA are used in the data analysis. The surveys were sampled using the master sample based on the 2001 population census enumeration areas that were utilised as a sampling frame. The LCS 2008/2009 dataset had a total of 25 075 households, 616 of these households did not provide any response to the MIQ and therefore were excluded from the analysis. From the reduced sample 476 households reported zero income even though they reported positive household consumption expenditure, similarly with Posel & Rogan (2019) these households were assigned an income value equal to their household consumption expenditure. Therefore the final dataset contains 24 459 households. The total annualised household income and debt were converted into monthly income and debt respectively.

The dataset for the LCS 2014/2015 had a total of 23 380 households with 504 households not providing any response to the MIQ and were also excluded from the analysis. This left the final working file of 22 876 households where 60 households had no reported income and their income were given an equal value to their consumption expenditure. Total annualised household income and debt were also converted to monthly income and debt respectively. The two data points are referred to as both in 2009 and 2015 because the data collection for the surveys were for a period of twelve months, therefore, the mid-points of data collection for the surveys were used to benchmark the survey data to adjust for the effects of inflation for the continuous variables such as income and expenditure. The mid-point of data collection for LCS 2008/2009 was March 2009 therefore the survey data was benchmarked to March 2009 prices, where data collected before that month were inflated using CPI data to March 2009 prices. The survey data collected after March 2009 were deflated back to March 2009 prices. The mid-point of data collection for LCS 2014/2015 was April 2015, the survey data was also similarly adjusted as that of 2008/2009. The two data points take advantage of economic shocks in the labour market during the 2008 to 2009 economic recession and the mild economic recovery of 2014 to 2015. Therefore one is able to determine what effects such shocks had on the poverty and inequality indicators and their subsequent effect on the determination of household aspirations income.

To ensure better consistency and compatibility between the two data points the population weights for the 2009 data point were updated and recalibrated to the population estimates of 2015 mid-year population estimates series (Stats SA, 2017). Household weights based on household headship rate method was also used to deal with the challenges of the underestimation of total number of households.

3.3 RESEARCH METHODS

This study uses ordinary least squares regression models to investigate the formation of income aspirations. The ordinary least squares regressions are used due to the dependent variable being a continuous variable. For the regressions only the coefficients of the independent variables are reported because the interest is to explore the factors that influence the formation of minimum income aspiration by looking at how each independent variable influence the dependent variable. Empirical analysis begins with descriptive statistics on the number and percentage distribution of households between 2009 and 2015. The number and proportion of poor households by population group, settlement type, province and sex of household head are also described. Inequality between 2009 and 2015 are also described. Comparisons of household minimum income needed and actual household income are also explored. The following variables province, employment, district Gini coefficient, settlement type, monthly household debt, monthly household income, household size, average monthly district income per capita, dwelling ownership, material used for the dwelling and the following personal characteristics of the household head sex, age, education and marital status are used as independent variables for the regressions.

Two ordinary least squares regressions are produced for 2009 and 2015 respectively for all households to estimate, as an example, the formation of income aspirations in a country with high poverty and inequality levels.

The MIQ is used as the dependent variable which was asked similarly in both the LCS' data points of 2008/2009 and 2014/2015. The natural logs of MIQ, monthly household income, average monthly district income per capita and household debt are used. Using natural logs for continuous variables have the benefit of making the distributions normalised and also ensuring that the estimated coefficients are easier to interpret (Barr & Clark, 2010; Janzen, 2017).

The upper-bound poverty lines of R709 and R992 per person per month for 2008/2009 and 2014/2015 data points respectively are used to identify poor and not poor households. Households that live below these poverty lines were classified as poor. The poverty indicators were derived using the annually adjusted upper-bound poverty lines using CPI data that were rebased and published by Stats SA in 2015.

Janzen et al (2017) posits that reference group is partly determined geographically in most studies. Therefore, in the study, variables concerning the neighbourhoods such as inequalities and the 52 districts of residence, which indicate differentiation in place of residence, are used in the models. The district of residence is used to serve as a variable indicating reference group. Hot spot analysis is used to display the spatial patterns of the aspirations gap.

3.4 LIMITATIONS OF THE DATA

The MIQ is asked at household level where the response is provided by only one person within the household responding on behalf of other household members. This approach assumes that all household members will have the same perception about the minimum income needed to make ends meet within the household. This assumption may not be valid in all instances because other members within the household might hold different opinions on the minimum income needed to make ends meet.

As a result of the design of the LCS' the unemployment rate cannot be estimated but can only determine the labour market status of an individual. The LCS' used moving samples, whereas the QLFS, also conducted by Stats SA, uses strict reference periods for the classification of people in the labour market categories. For this reason the two surveys are not directly comparable.

CHAPTER 4 – EMPIRICAL ANALYSIS AND CONCLUSIONS

4.1 DESCRIPTIVE STATISTICS

4.1.1 Population shares

Table 4.1: Number and percentage share of households by population groups between 2009 and 2015

Population group	2009		2015	
	Number	Percentage (%)	Number	Percentage (%)
Black African	10 408 131	77.8	13 028 799	80.7
Coloured	1 026 508	7.7	1 172 631	7.3
Indian/Asian	310 341	2.3	369 275	2.3
White	1 637 909	12.2	1 581 484	9.8
Total	13 382 890	100.0	16 152 189	100.0

Source: LCS 2008/2009, 2014/2015

Table 4.1 shows that between 2009 and 2015 black African households were the majority where their share increased from 77.8% in 2009 to 80.7% in 2015. In absolute numbers the total number of black African households increased from 10.4 million in 2009 to 13.0 million in 2015. White headed households were the second largest population group between 2009 and 2015, however, their share decreased from 12.2% to 9.8% respectively. Their absolute numbers decreased from 1.6 million to 1.5 million households. Coloured households were the third largest households where their share similarly with those of white households also decreased between 2009 and 2015 albeit marginally from 7.7% to 7.3% respectively. The total number of coloured households, however, increased from 1.0 million to 1.1 million households between 2009 and 2015 respectively. Indian/Asian households were the smallest population where their share remained the same between 2009 and 2015 at 2.3% respectively. However, in absolute numbers their total number of households increased from 310 341 households in 2009 to 369 275 households in 2015. The total number of all households increased from 13.3 million to 16.1 million households between 2009 and 2015.

4.1.2 Household poverty incidence and population group

Table 4.2: Poverty incidence of households by population groups between 2009 and 2015

Population group	2009		2015	
Black African	5 915 803	56.8	6 121 653	47.0
Coloured	371 908	36.2	385 783	32.9
Indian/Asian	21 654	7.0	16 342	4.4
White	17 074	1.0	11 904	0.8
Total	6 326 438	47.3	6 535 682	40.5

Source: LCS 2008/2009, 2014/2015

The proportion of poverty incidence of households by population group which decreased from 47.3% in 2009 to 40.5% in 2015 is shown in table 4.2. During this period the total number of poor households increased from 6.3 million to 6.5 million between 2009 and 2015 respectively. The incidence of poverty decreased for all the population groups between 2009 and 2015 with black African headed households experiencing the largest decrease from 56.8% to 47.0%. However, they still had the largest proportion of poor households during the period. Coloured headed households had the second largest proportion of poor households which decreased from 36.2% to 32.9% respectively. Indian/Asian households had the third largest proportion where it decreased from 7.0% in 2009 to 4.4% in 2015. White headed households had the lowest proportion of poor households where they experienced the smallest decline of the proportion of poor households declining marginally from 1.0% in 2009 to 0.8% in 2015.

Table 4.3: Number and percentage share of poor households by population group between 2009 and 2015

Population group	2009		2015	
	Black African	5 915 803	93.5	6 121 653
Coloured	371 908	5.9	385 783	5.9
Indian/Asian	21 654	0.3	16 342	0.3
White	17 074	0.3	11 904	0.2
Total	6 326 438	100.0	6 535 682	100.0

Source: LCS 2008/2009, 2014/2015

The over-representation of the black African headed households amongst the poor is clearly illustrated in table 4.3. In 2009 black African households represented 77.8% of all households, however, they constituted 93.5% of all poor households. In 2015 their share of the total households increased to 80.7% which is a 2.9 percentage points increase but their share of poor households decreased marginally to 93.7% representing marginal decrease of 0.2 percentage points but still above their share of the total number of households. All the other population groups were under-represented amongst the poor households. White households represented 12.2% and 9.8% of the total share of households in 2009 and 2015 respectively yet only 0.3% and 0.2% of such households were poor. Coloured households had shares of 7.7% and 7.3% in 2009 and 2015 respectively yet their share of poor households remained the same at 5.9% respectively. Indian/Asian households with a share of 2.3% of the total number of households between 2009 and 2015 only had 0.3% of poor households during the period.

4.1.3 Household poverty incidence and settlement type

Table 4.4: Poverty incidence of households by settlement type between 2009 and 2015

Settlement type	2009		2015	
	Number	Percentage (%)	Number	Percentage (%)
Urban formal	2 357 071	29.6	2 380 804	24.6
Urban informal	867 829	68.0	944 513	59.4
Traditional area	2 746 350	78.2	2 847 037	67.6
Rural formal	355 188	56.8	363 328	55.0

Source: LCS 2008/2009, 2014/2015

Table 4.4 shows that between 2009 and 2015 all settlement types experienced a decrease in the incidence of household poverty. Traditional areas had the largest proportion of poor households during the period where they decreased from 78.2% to 67.6%. However, they experienced the biggest decrease in the incidence of household poverty, a 10.6 percentage points decline. Households in urban informal areas had the second largest proportion of poor households during the period which declined from 68.0% to 59.4%, representing the second biggest decline, an 8.6 percentage points decline. Households in rural formal areas had the third largest proportion of poor households which decreased from 56.8% to 55.0%. Households in rural formal areas experienced the smallest decrease in the incidence of poverty, a 1.8 percentage points decline. Households in urban formal areas had the lowest proportion of poor households during the period decreasing from 29.6% to 24.6% respectively.

4.1.4 Household poverty incidence and sex of household head

Table 4.5: Poverty incidence of households by sex of household head between 2009 and 2015

Sex of household head	2009		2015	
	Number	Percentage (%)	Number	Percentage (%)
Male	3 190 811	40.2	3 152 594	33.4
Female	3 135 627	57.7	3 383 088	50.4

Source: LCS 2008/2009, 2014/2015

Table 4.5 shows that households that are most vulnerable to poverty are those headed by females where their incidence of poverty decreased from 57.7% in 2009 to 50.4% in 2015. However, households headed by females experienced the biggest percentage points decline of 7.3 percentage points. The incidence of poverty for households headed by males decreased from 40.2% in 2009 to 33.4% in 2015 representing a 6.8 percentage points decline.

4.1.5 Household poverty incidence and province

Table 4.6: Poverty incidence of households by province between 2009 and 2015

Province	2009		2015	
	Number	Percentage (%)	Number	Percentage (%)
Western Cape	461 615	30.4	473 125	25.5
Northern Cape	901 795	60.6	941 067	54.7
Eastern Cape	163 482	55.0	156 855	46.2
Free State	436 263	54.4	393 737	43.1
KwaZulu-Natal	1 209 503	54.5	1 350 368	49.2
North West	535 230	54.4	588 129	49.2
Gauteng	1 140 970	29.9	1 219 406	26.2
Mpumalanga	575 703	58.9	550 707	46.3
Limpopo	901 878	71.0	862 290	55.8

Source: LCS 2008/2009, 2014/2015

Table 4.6 indicates that the proportion of the incidence of household poverty by province between 2009 and 2015 decreased for all the provinces. However, Limpopo followed by Mpumalanga experienced the biggest proportional decline of poor households. The proportion of poor households declined in Limpopo from 71.0% in 2009 to 55.8% in 2015, a 15.2 percentage points decline. However, during the period Limpopo had the highest incidence of poor households. In Mpumalanga the incidence of poor households declined from 58.9% to 46.3% between 2009 and 2015 respectively representing a 12.6 percentage points decline. In 2009 Gauteng had the lowest incidence of household poverty at 29.9%, however, in 2015 the Western Cape was the province with the lowest incidence of household poverty at 25.5%.

4.1.6 Inequality between 2009 and 2015

Table 4.7: Income per capita Gini coefficient between 2009 and 2015

	2009	2015
Income per capita (including salaries, wages and social grants)	0.70	0.67

Source: LCS 2008/2009, 2014/2015

Gini coefficient is commonly used to measure inequality as an index that uses a scale of 0 to 1. A state of total inequality within a society is depicted by an index of 0 representing total equality where everyone shares similar income levels. A state of complete inequality is depicted by an index of 1 indicating that only one person earns all the income within the society whereas everyone else earns none. Table 4.7 shows the Gini coefficient based on income per capita (including salaries, wages and social grants) between 2009 and 2015 where it declined from 0.70 in 2009 to 0.67 in 2015.

4.1.7 Household minimum needed income and actual income

Table 4.8: Average household minimum income needed and reported income by income per capita quintile between 2009 and 2015

Income per capita quintile	2009			2015		
	Minimum Income Needed	Income	Aspirations gap	Minimum Income Needed	Income	Aspirations gap
Lower	3 712	1 681	2.2	3 583	1 541	2.3
2	3 315	1 906	1.7	4 931	3 326	1.5
3	4 240	3 179	1.3	5 613	5 429	1.0
4	7 116	6 465	1.1	10 061	10 576	1.0
Higher	20 211	24 081	0.8	20 515	36 906	0.6
Total	7 742	7 495	1.0	8 862	11 398	0.8

Source: LCS 2008/2009, 2014/2015

In order to describe the relationship between minimum income aspiration and reported income, aspiration gaps are measured within households. Table 4.8 depicts the average household minimum income needed and the reported household income by income per capita quintiles between 2009 and 2015 where it shows that income needed mainly increases across the quintiles. The reported household income also increases across the quintiles during the period, thereby indicating the need for higher income as household income increases.

However, the ratio of needed income to actual income (i.e. aspirations gap) decreases across the quintiles during the period. This shows that the poor as compared to the not poor households have higher income need and also lack financial resources compared to the not poor households. In 2009 the aspirations gap in the lower quintile was 2.2 and falls to 0.8 in the higher quintile. The cross-over point where the income needed is lower than the actual income is between the fourth quintile at the aspirations gap of 1.1 and the higher quintile at 0.8. In 2015 the aspirations gap mainly decreases when compared with those of 2009 where in the lower quintile the gap is 2.3 and falls to 0.6 in the higher quintile. The cross-over for 2015 is between the third quintile at 1.0 aspirations gap and the fourth quintile also at 1.0 aspirations gap.

Between 2009 and 2011 the overall aspiration gap decreased from 1.0 with the average needed income at R7 742 in 2009 declining to 0.8 with an average needed income of R8 862 in 2015, the average actual income in 2015 rose to R11 398 from an average of R7 495 in 2009.

Table 4.9: Average household minimum income needed and reported income by poverty status between 2009 and 2015

Poverty status	2009			2015		
	Minimum Income Needed	Income	Aspirations gap	Minimum Income Needed	Income	Aspirations gap
Poor	3 365	2 643	1.3	4 188	3 880	1.1
Not poor	11 666	11 845	1.0	12 038	16 508	0.7

Source: LCS 2008/2009, 2014/2015

When comparing the average minimum income needed and actual reported income of households by poverty status as shown in table 4.9 the poor still have a higher income need than the not poor households. In 2009 the aspirations gap for the poor household was 1.3 compared with a gap for the not poor households of 1.0. In 2015 the aspirations gap for the poor households decreased to 1.1 whilst that of not poor households declined to 0.7. However, between 2009 and 2015 the distance between the aspiration gaps of the poor and not poor households widened from 0.3 in 2009 to 0.4 in 2015.

Table 4.10: Proportion of households' minimum income aspirations greater than their current household income by poverty status between 2009 and 2015

Poverty status	2009	2015
	Percentage (%)	Percentage (%)
Poor	57.5	53.5
Non-poor	44.6	40.2
All households	50.7	45.6

Source: LCS 2008/2009, 2014/2015

Table 4.10 shows that for 57.5% of poor households in 2009 their minimum household income aspirations was greater than their current household income which is above the average of all the households of 50.7%. This proportion, however, decreased to 53.5% in 2015 but is still above the average of all households which declined to 45.6%.

In both 2009 and 2015 the proportion of poor households whose minimum income aspirations was greater than their current household income were still higher than those of not poor households. The proportion of not poor households whose minimum income aspirations was greater than their current household income decreased from 44.6% in 2009 to 40.2% in 2015. Poor households experienced the smallest decline in the proportion of households whose minimum income aspirations was greater than household income, a decline of 4 percentage points during the period compared with not poor households who experienced a decline of 4.4 percentage points. The fact that during the period the proportion of poor households whose income aspirations were greater than their current household income was higher than that of not poor households shows once again their aspirations for higher income need. This also proves that despite these households living within societies of high poverty and inequality they have not adapted to their living conditions instead they still have aspirations for higher income.

4.2 MINIMUM INCOME FORMATION REGRESSIONS

Table 4.11: Minimum income formation regressions for all households between 2009 and 2015

Dependent variable= log(minimum income aspirations)	2009		2015	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	3.365	0.195	4.110	0.217
District Gini coefficient (per capita)	1.958	0.186	1.135	0.207
Log (Household monthly income)	0.296	0.006	0.283	0.007
Log (Average monthly district per capita income)	0.130	0.022	0.176	0.027
Log (Monthly household debt)	0.025	0.002	0.031	0.002
Black African	-0.477	0.022	-0.432	0.023
Coloured	-0.354	0.029	-0.532	0.030
Indian/Asian	-0.099	0.042	-0.103	0.043
Female	-0.088	0.014	-0.095	0.014
Age	0.011	0.002	0.019	0.002
Age squared	0.000	0.000	0.000	0.000
Household size	0.023	0.003	0.021	0.003
Employed	0.081	0.015	0.089	0.016
Eastern Cape	0.582	0.031	0.192	0.034
Northern Cape	0.271	0.045	0.244	0.046
Free State	0.272	0.035	0.175	0.036
KwaZulu-Natal	0.355	0.031	-0.739	0.030
North West	0.182	0.033	-0.170	0.034
Gauteng	0.227	0.024	-0.191	0.023
Mpumalanga	0.143	0.035	0.031	0.035
Limpopo	-0.096	0.037	0.024	0.038
Urban informal	-0.075	0.022	-0.116	0.021
Traditional area	-0.115	0.020	-0.124	0.019
Rural formal	-0.093	0.029	-0.149	0.030
No schooling	-0.473	0.029	-0.527	0.031
Primary education	-0.498	0.025	-0.539	0.025
Matric	-0.356	0.020	-0.375	0.020
Married or cohabitation	0.050	0.014	0.028	0.014
House has brick wall or concrete	0.128	0.015	0.037	0.016
Access to free electricity	-0.036	0.015	-0.199	0.016
House is owned	0.037	0.014	-0.024	0.014
Owns a cellular phone	0.104	0.016	0.076	0.022
Sample (unweighted)	22 459		22 876	
R-squared	0.425		0.454	

Source: LCS 2008/2009, 2014/2015

Notes: The data are weighted. Reference variables: Population group: White; Settlement type: Urban formal; Province: Western Cape; Education: Post-matric education.

Table 4.11 shows the regressions for the formation of minimum income aspirations for all households within a country of high incidence of poverty and inequality. Only the coefficients and standard errors are reported. According to the regressions, minimum income aspirations is significantly and positively correlated with the extent of inequality in the district between 2009 and 2015. However, with declining household poverty and inequality levels in South Africa between 2009 and 2015, the influence of inequality on minimum income aspirations also decreased. Consistent with the findings in this study as well as in other studies between 2009 and 2015, minimum income aspirations increased with the current income of households, however, the increase was slightly smaller in 2015. Minimum income aspirations are also influenced by the average income of other households in districts with incomes being a positive predictor of minimum income aspirations. Between 2009 and 2015, the influence of income on minimum income aspirations of other households significantly increased. Having household debt causes higher minimum income aspirations. Higher minimum income aspirations increased slightly from 2009 to 2015 due to an average increase in household debt over this period.

The minimum income aspirations of all the population groups were lower than that of the white population in both 2009 and 2015. Female headed households had lower minimum income aspirations compared to male headed households during the period. The need for higher household income increasing with age of the household head were similar in 2009 and 2015. As the sizes of households increased so did the need for higher aspirational income. Being employed also causes an increase in aspirational income. In 2009 all the provinces except Limpopo had lower aspirational income than the Western Cape. However, in 2015, the North West, KwaZulu-Natal and Gauteng provinces had lower aspirational incomes than the Western Cape, while those of the other provinces were higher.

Their income aspirations of households not residing in urban formal areas were lower between 2009 and 2015. However, in 2015 the influence of urban formal households having higher minimum income aspirations than households in all the other settlement types, increased. An increase in the years of educational attainment of a household head leads to a higher need for income.

In both 2009 and 2015, household heads with post-matric qualifications showed a need for higher income compared to households with lower levels of education. This influence increased in 2015. A household that is led by someone who is married or cohabitating has a higher level of income aspiration. However, this influence was lower in 2015 compared to 2009. Households residing in a dwelling that has a brick or concrete wall have higher aspirational income. This influence was lower in 2015 than in 2009. Having access to free electricity lowers a households' aspirational income. This influence was significantly stronger in 2015 than in 2009. The impact of house ownership on aspirational income in a household was mixed between 2009 and 2015. In 2009, home ownership increased the income aspirations, a situation that was reversed in 2015. Owning household assets such a cellular phone significantly increases income aspirations. This might be the result of having broader reference groups. However, the impact declined by 2015.

4.3 HOT SPOT ANALYSIS BETWEEN 2009 AND 2015

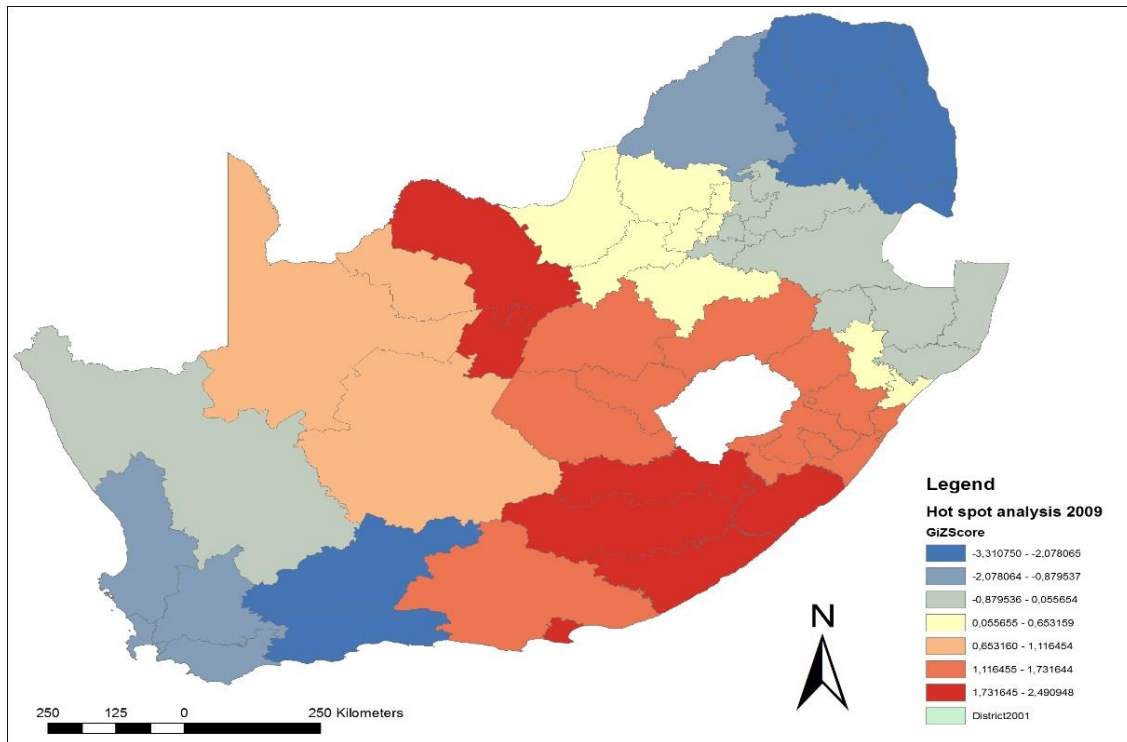


Figure 4.1: Proportion of poor households’ minimum income aspirations greater than their household income by district, 2009

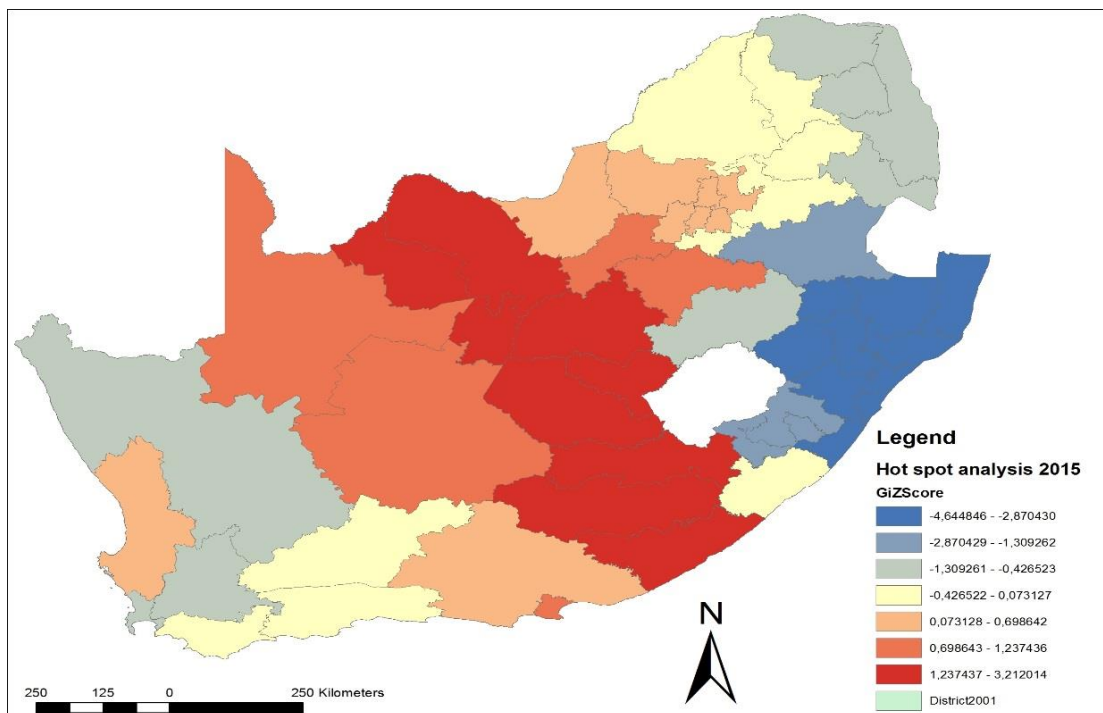


Figure 4.2: Proportion of poor households’ minimum income aspirations greater than their household income by district, 2015

Figures 4.1 and 4.2 show the spatial clustering of the proportion of poor households whose minimum income aspirations are greater than their household income by district for 2009 and 2015. The hot spot analysis (Getis-Ord G_i^*) tool is used for spatial clustering. It utilises a set of features which are weighted to identify statistically significant hot and cold spots utilising the Getis-Ord G_i^* statistic. It operates by looking at each feature within the context of neighbouring features and therefore identifies where features with high and low values spatially cluster. The tool produces the z-scores which are standard deviations describing how far the data is distributed from the mean.

A high positive Z-score indicates a spatial clustering of high values and is indicated in red on the map. The more intense clustering of high values is indicated by a higher Z-score. However, a low negative Z-score indicates a spatial clustering of low values which is indicated in blue on the map. The lower the Z-score, the more intense the clustering of low values will be. No spatial clustering is indicated by a Z-score that is close to zero and is indicated in a light yellow to cream colour on the map.

Figure 1 indicates that in 2009 the more intense clustering of high values are more prevalent in the rural provinces of the Eastern Cape, North West and Northern Cape. These provinces had incidences of household poverty of more than 50 per cent in 2009. However, despite their high poverty levels the residents of the districts of Bophirima in the North West, Francis Baard in the Northern Cape, Amathole, Chris Hani, OR Tambo, Nelson Mandela Metropolitan and Ukhahlamba districts in the Eastern Cape had high proportion of households with higher aspirational incomes compared to their reported incomes. Other districts from the Eastern Cape such as Cacadu districts had high hot spots although not as more intense. Other districts which had high hot spots includes those from the North West which are Xhariep, Motheo, Lejweleputswa and Thabo Mofutsanyane. KwaZulu-Natal province also had districts with hot spots although not intense from the districts of eThekweni municipality, Ugu, uThukela and uMgungundlovu. Other hot spots clustering although less intense were from the Northern Cape province from the Pixley Ka Seme and Siyanda districts.

The high intense spatial clustering of cold spots in 2009 is mainly concentrated also in rural based provinces of Limpopo and Mpumalanga. However, districts from the urban based provinces of the Western Cape also form part of cold spots districts. In Limpopo which is the province that had the highest incidence of household poverty in 2009 the districts which form these clustering are from Mopani, Vhembe, Capricorn and Sekhukhune. In Mpumalanga it's the district of Ehhlazeni and in the Western Cape it's the districts of Eden and Central Karoo. Clustering of other cold spots districts although not highly intense were mainly in the Western Cape from the districts of West Coast, Cape winelands and Overberg. In Limpopo the district of Waterberg also formed part of this clustering.

The district of Namakwa in the Western Cape, Amajuba, Zululand and Umkhanyakude in KwaZulu-Natal as well as Gert Sibande district in Mpumalanga form part of the cold spots which were less intense than the other cold spots. Districts from the urban province of Gauteng mainly formed part of districts with no apparent clustering.

Figure 2 shows that in 2015 where the incidence of household poverty and inequality declined in South Africa, high intense hot spots spatial clustering increased for districts from rural based provinces compared to in 2009. This again shows that the poor even though poverty in South Africa is rurally dominated these households have not lost hope they still have aspirations of higher incomes.

Xhariep, Motheo, Lejweleputswa and Kgalagadi districts in Northern Cape now form part of highly intense hot spots. However, the OR Tambo district no longer forms part of high intense spatial clustering but part of no apparent clustering in 2015. Nelson Mandela Bay Metropolitan district also no longer forms part of highly intense spatial clustering but its clustering still forms part of hot spots. Pixley Ka Seme and Siyanda district municipalities have improved their clustering ranking in 2015 compared to 2009 including the Southern district in the Northern Cape to a more intense spatial clustering. Another interesting observation is the lowering of cold spots clustering of Mopani, Vhembe and Ehhlazeni showing that these households also still have higher income aspirations despite living in societies of higher poverty and inequality. Capricorn district in Limpopo, Waterberg and Overberg districts now form part of the no apparent spatial clustering from cold spots clustering.

Another notable improvement in the spatial clustering of districts is seen from a change of no apparent clustering of Bojanala, Central, West Rand, Ekurhuleni and Johannesburg districts from no apparent clustering to hot spots spatial clustering. Cacadu district municipality in 2015 although still part of the hot spots clustering had a lower intense ranking. West Coast district in the Western Cape changed from a cold spots to a hot spots clustering. Overberg, Eden and Central Karoo districts changed from cold spots clustering to no apparent clustering. Comparing the spatial clustering of 2009 and 2015 it clearly shows that there has been an improvement to a more hot spot clustering of districts indicating that in a country of falling household poverty and inequality poor households become more aspirational than before.

4.4 ASPIRATIONS FAILURE

It's difficult to measure aspirational failure especially from cross-sectional surveys such as the two data points of the LCS. Longitudinal surveys where the same sample is followed for a considerable period one is able to easily measure aspirational failure. However, looking at the data there is some limited evidence of aspirational failure when observing the provincial incidence of poverty and the districts proportion of households whose minimum income aspirations were lower than their current income between 2009 and 2015.

Table 4.12: Proportion of poor households whose minimum income aspirations is less than their current income by district between 2009 and 2015

District	Proportion of households (%)	
	2009	2015
uThukela	52.8	78.2
uMkhanyakude	90.2	66.9
Bojanala	57.1	68.5
Greater Sekhukhune	52.6	59.4

Source: LCS 2008/2009, 2014/2015

Table 4.12 shows that between 2009 and 2015 the districts with the proportion of poor households whose minimum income aspirations were less than their current income mainly increased except for uMkhanyakude district which decreased from 90.2% to a still high proportion of 66.9%.

For the districts whose proportions increased, the proportions of their households' income aspirations being less than their current income was more than 50 per cent. These districts are all located in provinces with high incidence of poverty in KwaZulu-Natal, North West and Limpopo provinces between 2009 and 2015. The increase in the proportions of these households happened during the period in which the incidence of household poverty and inequality was decreasing in the country but instead their proportions increased. Therefore, one can state that some evidence of aspirational failure exists in these districts. The proportion of poor households whose minimum income aspirations is lower than their income increased for the two data points, and for the district with a decreased proportion, was still very high. This happened during a period where there was a substantial decrease in poverty and inequality where one would have expected a substantial increase in the proportion of households with higher aspirational incomes from these districts.

CHAPTER 5 - CONCLUSION

The purpose of this study was to explore the relationship between high levels of poverty and the formation of income aspirations in South Africa. South Africa is a country with high levels of household poverty and inequality, however, between 2009 and 2015 these levels declined significantly. This decrease in poverty and inequality has enabled poor households to have higher income aspirations. This was seen with the improvement of the highly intense hot spot districts between 2009 and 2015 of households with higher income aspirations compared to their current income. This could be as a result of poor households having witnessed those around them move out of poverty and therefore believe that they could also emerge out of poverty. During this period the fact that the proportion of poor households with income aspirations higher than their current income is also greater than that of households who are not poor, indicates that poor households are aware of higher income need in order to move out of poverty. Therefore, these households have not adjusted to their living circumstances and accepted a life of living in poverty and inequality resulting in them being caught in aspirational traps. Instead, these households still have higher aspirations. The higher income needs of poor households relative to the not poor households in South Africa is reflected in the former having a higher aspirations gap between 2009 and 2015 than the latter. As Posel & Rogan (2019) have argued, the fact that there are constantly service delivery protests in poor areas around the country indicates that poor households have not accepted their living conditions and that they believe they deserve to live under better conditions. This proves the hypothesis of this study that in South Africa there is indeed no relationship between poverty and the formation of minimum income aspirations.

The results of the regressions showed that consistent with other studies, minimum income aspirations increase with the current income of a household. Minimum income aspirations have also been proven to be influenced by the income of other households in their districts. The average income of other households in a district is a positive predictor of aspirational income. The inequality within a district is positively and significantly correlated with minimum income aspirations. However, as a result of falling poverty and inequality levels in South Africa the influence of inequality on income aspirations decreases as the levels of these indicators also decrease. Household debt results in having higher need of income.

This is also seen in the fact that between 2009 and 2015, average household debt increased, resulting in an increase in the influence of household debt on aspirational income.

The older the household head becomes, the higher the need for a higher income. The higher the level of education of the household head, the higher the need for an increase in income. This argument also applies to household heads being employed. This study has also proven that residing in urban formal areas compared to other settlement types results in a higher need of increased income.

Due to the fact that cross-sectional data were used in this study, measuring aspirational failure was a little more difficult. However, by observing the proportion of poor households whose aspirational income was lower than their current income between 2009 and 2015 at the district level, there was little evidence of such failure. Even though poverty and inequality were falling in the country over the study period four districts from mainly rural based provinces with high incidence of poverty displayed increased proportions.

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