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Household type and adolescent concurrent school and labour force participation in South Africa

Masters research report

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Declaration

I, Phindile Mvelase declare that this research report is my own original work. It is submitted as part of the requirements for a Masters of Arts degree in Demography and Population Studies. I declare that this work has not been submitted for any examination or degree at this or any other university.

Miss Phindile Mvelase

27 June 2014

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List of abbreviations

DBE	Department of Basic Education
HIV/AIDS	Human Immuno-Deficiency Virus/Acquired Immunodeficiency Syndrome
ILO	International Labour Organisation
IYDS	Integrated Youth Development Strategy
LFP	Labour Force Participation
UNICEF	United Nations Children's Emergency Fund
MDG's	Millennium Development Goals
NYDA	National Youth Development Agency
SAYP	Survey of Activities of Young People
SSA	Sub-Saharan Africa
Stats SA	Statistics South Africa
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
QLFS	Quarterly Labour Force Survey

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Abstract

Context: *The state of poverty in South Africa is a consequence of the country's racially segregated past. Coping mechanisms to buffer the experience of poverty have been employed by individuals within households (Klasen & Woolard, 2000). One such coping mechanism is that of intergenerational households. Intergenerational households are well established in South Africa, largely seen in Black families, however very few studies have embarked on the outcomes of adolescents belonging to these households such as concurrent school and labour force participation (Aliber, 2003; Edmonds & Pavcnik, 2005). Intergenerational households experience economic strain that may induce children belonging to these households to seek employment, resulting in children not attending school, having uncompleted schooling or concurrently schooling and participating in the labour force.*

The objectives of the study are to estimate the level of concurrent schooling and labour force participation amongst adolescents in South Africa and determine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents.

Methods: *Secondary data from the South African 2010 Survey of Activities of Young People (SAYP) is used with the sample size of* 2 650 116 *adolescents aged 7-17 years. Three levels of analysis are employed: univariate: frequency and percentage distribution tables, bivariate: Chi-square* (X^2) *and multivariate: binary logistic regression.*

Results: *Thirty-one percent of adolescents reside in intergenerational households; 18% in multi-generational and 13% in skip-generational households. The study found that 24.08% of adolescents are concurrently schooling and participating in the labour force. The odds of concurrently schooling and participating in the labour force were higher for adolescents residing in intergenerational households. There is thus an association between residing in intergenerational households and concurrent schooling and LFP amongst adolescents in South Africa.*

Conclusion: *Adolescents residing in intergenerational households have higher odds of concurrently schooling and participating in the labour force. It is thus important to focus on the living conditions such as the experience of poverty and household structures to which adolescents belong in order to understand their experiences and obstacles that may potentially hinder efforts made towards youth education and thus development in the country.*

Chapter 1: Introduction

1.1 Poverty in South Africa

Poverty in Sub-Saharan Africa is a common phenomenon, 41.1% of individuals live below the poverty line of one US Dollar per day (Kwasi, 2008). The state of poverty in South Africa is a consequence of the country's racially segregated past. The apartheid regime negatively affected those that were characterised as 'Black' and 'Coloured' (van der Berg, 2010). These racial groups had a lower standard of education than that of their 'White' counter-parts (Stats SA, 2009). As a result, Blacks held low-level jobs.

In 2000, 11% of the South African population were living below the poverty line (one US dollar per day); in 2006, a decrease was noted to 5.0% (Kearney & Odusola, 2011). However, inequality increased between and within racial groups (Gini coefficient was 0.72 in 2010) and so did the cost of living, leading to the question: has poverty and the standard of living in South Africa really improved? (van der Berg, 2010).

In 2006-57.2%, in 2009-56.8% and in 2011-45.5% of the South African population were reported to be living in poverty (Stats SA, 2014). These percentages illustrate that the level of poverty has been decreasing but the issue is still very important as almost half of the population are poor. Poverty still persists today after years of democracy has been realised. Poverty can be measured in a number of ways; such as examining the household as the unit of analysis. In 2009 32.9% of households were living below the poverty line, those are individuals that cannot purchase adequate food and non-food items (Stats SA, 2014) This is of relevance to the current study as decisions, inclusive of the activities that household members part take in, are made within the household (Pittman, 2007).

Coping mechanisms to buffer the experience of poverty have been employed by individuals within households (Klasen & Woolard, 2000). One such coping mechanism is that of intergenerational households, where-by three generations within a family (grandparents, parents and children) all reside in a single dwelling to share resources. Intergenerational households are well established in South Africa's history and present, largely seen in black families (Aliber, 2003; Edmonds & Pavcnik, 2005).

Intergenerational households may also be in the form of parents being absent where the grandparents are the heads of the family living with their grandchildren, forming skip

generational households. A study found that in South Africa 15% of black children aged 12 years lived with neither parents but in 'skip generational' households where sharing of pension income with children is common (Anderson, Case & Lam, 2001). In 2003, 3.6% of skip generational households and 40% of multi-generational households were reported in rural South Africa (Madhavan & Schatz, 2007).

Skip-generational households are where grandparents live with grandchildren in the absence of both parents, thus forming 'granny headed' households. There are a number of difficulties inherent in any of these forms of intergenerational households that have consequences for the grandparents and children, one being economic strain (Edmonds, 2005). Income into the household thus needs to be stretched to provide for all household members.

The results of economic strain in intergenerational households may induce children to seek employment. Child labour has been noted to be a symptom of poverty (Edmonds & Pavcnik, 2005). Resulting in children not attending school, having uncompleted schooling or concurrently schooling and participating in the labour force. These situations in which children of intergenerational households may find themselves in may have far-reaching consequences for educational attainment and youth development. For example, family structure has been correlated to schooling outcomes; children living with neither parent have fewer completed grades, thus weakened educational attainment (Anderson, Case & Lam, 2001).

In South Africa concurrent schooling and LFP amongst adolescents have not been well documented nor studied. The United Nations Children's Emergency Fund (UNICEF) estimated that globally 73% of children are concurrently schooling and participating in the labour force (Edmonds & Pavcnik, 2005). According to the univariate analysis of the study it was found that in South Africa 24% of children of school going age were concurrently schooling and participating in the labour force. The current study found large percentages (96.49%) of adolescents in primary and secondary educational levels in 2010.

1.2 Definition of terms

1.2.1 Adolescents

Adolescents are aged 10-19 years old, however for the purpose of the current study adolescents are those individuals whom are of a school going age, which is 7-17 years old.

The study has therefore been limited to children of the ages of 7-17 years old because in South Africa most pupils enrol in grade one at the age of 7 (UNFPA, 2010). The age range of the study population is relevant as the current study's enquiry includes schooling (Fiske & Ladd, 2003).

Household type

There are three household types that the study used, namely nuclear, multi-generational and skip generational households. Nuclear (traditional) households are those that have the parent (mother or father: single headed in the context of South Africa) or parents (mother and father) and children**.** Multi-generational (co-residing) households are those households that have grandparents, parents and grandchildren within the household. Skip generational (custodial) households have grandparents as members without the presence of parents (mother and father) (Aliber, 2003; Pittman, 2007). The last two (multi-generational and skip generational households) are collectively termed intergenerational households.

1.2.2 Schooling

Schooling refers to an individual presently attending any formal education institution.

1.2.3 Labour force participation

Labour force participation refers to an individual taking part in an economic activity; which includes work paid for by wages and/or in-kind (Edmonds & Pavcnik, 2005).

1.3 Problem statement

In South Africa intergenerational households come about as a coping mechanism to poverty and due to other life circumstances such as death or absence of parents in the household (Anderson, Case & Lam, 2001). Aliber in 2003 noted that in South Africa there are 17% skip generational households. As a result, it is often the grandmother who takes care of children in the household and is often the sole provider. If the grandmother is of a pensionable age, the sole income going into the household is from social grants for the elderly (Edmonds & Pavcnik, 2005).

There are a number of social grants in South Africa targeted at specific members of the population such as disability, child support and old age grants (Neves et al, 2009). Pensioner or old age grants are given to those that are viewed as senior citizens; qualification for this

grant is based on age, specific to gender. A female is eligible for pension at age 60, a male at age 65 (Edmonds, 2005). These social grants are not sufficient for the elderly to take care of themselves, let alone any other dependents (the grandchildren) (Schatz, 2007). Economic strain is therefore a huge problem amongst intergenerational households bringing about a number of consequences for the children of the household such as early labour force participation often concurrently done with schooling.

According to UNICEF data, 73% of children globally who attend school are concurrently working, 23% of the children are economically active and are estimated to be from Sub-Saharan Africa (SSA), whilst 30% aged 5-14 years old are participating in the labour force exclusively (Edmonds & Pavcnik, 2005).

Adolescents involved in concurrent schooling and labour force participation are likely to get employment that offer the bare minimum wage, individual growth and optimisation of individual potential because of their level of education and lack of work experience. Hence, it results in adolescents participating in the labour force through non-sustainable employment, which can be casual or temporary employment that offers no growth (Banerjee et al, 2008). Intergenerational households are an impediment to poverty reduction strategies and these households tend to create a vicious cycle of poverty (van der Berg, 2010).

Lack of educational attainment, individual growth and non-sustainable employment amongst adolescents compromise youth development. Youth development may be defined as a holistic approach aimed at young people providing avenues for personal development and societal development such as economic development (The South African Presidency, 2009).

Possible consequences of poor youth development include youth unemployment, skill shortages, increase in economic inequality, poor living conditions which may put them at risk of ill health caused by bacteria and diseases, strain on the national budget through social grants and health care provision to mention but a few (van der Berg, 2010). Concurrent schooling and labour force participation may very well be the factor that brings about high repetition rates, low-grade advancement and low-grade attainment reported in South Africa (Anderson, Case & Lam, 2001).

South Africa has a large adolescent population (7-17 years old) of 22.4% (11 million) of which 85.3 % of that proportion are black (Stats SA, 2010). This presents the country with an opportunity to develop a healthy and skilled future labour force. However, among the many

challenges that face the youth including transitioning into healthy and skilled adults is school incompletion. In South Africa, a reported 19.1% of persons aged 15 years and older have less than a primary education and 38.5% of persons aged 20 years and older have less than a secondary education (Stats SA, 2011). A possible explanation for poor school completion is household structure.

1.4 Hypothesis

Null hypothesis: There is no association between residing in intergenerational households and concurrent schooling and LFP.
Alternative hypothesis: There is an association between residing in intergenerational households and concurrent schooling and LFP.

The research hypothesis is based on the premise that poverty is correlated to concurrent school and labour force participation. It is further informed by the fact that intergenerational households have been reported to experience more poverty than other household types (Moyi, 2011). The luxury axiom of the fundamental framework of child labour states that a child will only be sent into the labour force if income generated from non-child labour sources is insufficient (Basu & Van, 1998). Thus the research hypothesis: there is an association between residing in intergenerational households and concurrent schooling and LFP.

1.4.1 Research question

Is there an association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa?

1.4.2 Research objectives

Main objective

- To determine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa.

Specific objectives

1. Estimate the level of concurrent schooling and labour force participation amongst adolescents in South Africa.

2. Examine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa.
3. Identify the determinants of concurrent schooling and labour force participation amongst adolescents in South Africa controlling for other factors (demographic and activity factors).

1.5 Justification for research

After the 2004 elections, the South African government outlined five developmental goals in the government's contract with the people of South Africa (Kearney & Odusola, 2011). These goals included the reduction of poverty by half through economic development and reduction of unemployment by half through new jobs and skills development. The Integrated Youth Development Strategy (IYDS) of South Africa 2012-2016 states that a large share of poverty, unemployment reduction and skills development strategies amongst the youth focus on educational attainment and skills development (National Youth Development Agency (NYDA), 2011).

Poverty reduction is also one of the Millennium Development Goals (MDGs) stating the eradication of poverty and attainment of universal primary education (Kearney & Odusola, 2011). Goal 1 is the eradication of poverty that takes into account individuals living below the poverty line, where progress still needs to be made in light of inequality and the current economic climate in the country (van der Berg, 2010). The deadline for MDGs is near-2015 (Kearney & Odusola, 2011). Thus, the research can be used to provide a possible explanation for results reported that are less than the achievement level of the goals laid out pertaining to education. Goal 2 of the MDGs is to achieve universal primary school education for both girls and boys everywhere. In 2009 the net enrolment rate was 98.8% as reported by the United Nations Development Programme's (UNDP) country report further noting that South Africa is likely to meet the 100% primary school completion target (UNDPA, 2010). These results may be attributed to the South African School Act (1996) that states that school attendance is compulsory from grade one to nine (ages seven to 15 years old) (Stats SA, 2011).

However, concurrent schooling and labour force participation amongst adolescents is still a concern because it may affect adolescents' schooling process. Taking time and focus away from studies that may possibly result in low grades and level advancement.

This study examined if living in an intergenerational household is associated with concurrent schooling and labour force participation among adolescents in South Africa. Furthermore the study controlled for other factors that may influence concurrent schooling and labour force participation such as demographic and socioeconomic characteristics of adolescents and the number of hours spent on school tasks and work per week. In doing so the study will highlight whether labour force participation is jeopardising time spent on education for adolescents from intergenerational households.

Thus, the importance of the current study is that the association of the variables of interest has a number of consequences. Consequences include compromised youth educational attainment, youth development, the immediate experience of poverty and the perpetuation of poverty that is transferred through generations, thus compromising poverty reduction and educational attainment goals envisioned by South Africa, its departments of labour and education and the MDG initiative (Kearney & Odusola, 2011). The study also benefits the other household members such as parents and grandparents because members of these households will make better-informed decisions once knowing the consequences of concurrent schooling and LFP amongst children of school going ages.

Chapter 2: Literature Review and Conceptual Framework

2.1 Review of relevant literature

2.1.1 Intergenerational households in South Africa

Intergenerational households in South Africa are common in both the country's history and the present, particularly in the black and coloured population. Stats SA noted in the 2001 Census that 30.64% of households in South Africa are intergenerational, meaning that grandparents make up part of the household. Furthermore different levels of intergenerational households are noted amongst the racial groups and the rural/urban distinction (Amoateng, Heaton & Kalule-Sabiti, 2007).

There are different kinds of intergenerational households (Kearney & Odusola, 2011). One contains three generations; where grandparents are co-habituating with the parents and grandchildren. The other is skip-generational households where parents are absent; the household is headed by grandparent (s) whom is the sole provider and care giver of the grandchildren. The former arrangement may be termed a co-parenting arrangement whilst the latter may be referred to as custodial grand parenting (Carlini-Marlatt, 2005).

There are a number of factors that may be attributed to the formation of these types of intergenerational households, namely migrant labour- a legacy of the apartheid policies, HIV/AIDS and cultural factors, but the prominent factor that may be employed as the umbrella term to encapsulate all the factors is poverty (Carlini-Marlatt, 2005). Co-parenting intergenerational (multi-generational) households have been noted as forming where grandmothers assist financially and are the caregivers of the child. Custodial parenting intergenerational (skip-generational) households form in more adverse and unanticipated circumstances where grandparents are needed to step in to fulfil the parenting role to grandchildren. Complete parent absenteeism may be a result of behavioural and emotional disorders of the parents, migrant labour and loss of parents often due to HIV/AIDS (Edwards & Daire, 2006; Schatz, 2007).

The dynamics of intergenerational households are vast and so are the difficulties that have to be negotiated by the household members with particular attention to the adolescents that are adapting to the transition into adulthood (Hunter & May, 2002). Thus, the outcomes of these adolescents belonging to intergenerational households are of importance. Children of intergenerational households have been noted to experience both positive and negative outcomes (Pittman, 2007).

Children in multi-generational households have been noted to experience less material hardships and more parental engagement compared to those who have a lesser level of grandparent's involvement and in skip-generational households. The Agincourt study of an area classified as rural in South Africa noted that often the grandparent's pension money is used to provide for the grandchildren and is often not sufficient (Schatz, 2007). Skip-generational households are more likely to be living in poverty compared to nuclear households headed by parents or in grandparent-headed households without grandchildren (Pittman, 2007).

The behaviour of children of intergenerational households differs with the type of grandparent involvement. Adolescents of intergenerational households tend to fare better than children living in single-parent households, thus the grandmother is perceived as serving as an additional parent in the household in so doing minimising the negative effects on the adolescent's socio-emotional functioning (Pittman, 2007). Children who have a grandparent co-residing (multi-generational) in the household have lower depression levels than those of skip-generational and nuclear households. Rebellious behaviour over time has been constantly noted in young adolescents raised solely by grandparents (Pittman, 2007).

It is without fail that education and labour force participation are important factors that must be considered as one of the outcomes of adolescents from intergenerational households. These factors combined with the above, impact on the youth development of the country and ultimately the current and future poverty status of the country (Edmonds, 2005). Educational and labour force participation outcomes may be influenced by a number of factors which are often interlinked and somewhat integrated. Firstly, the country's state of education and labour force participation amongst adolescents must be noted.

2.1.2 Education in South Africa

Primary education in South Africa is from grade one to grade seven, spanning over seven years and is usually from the age of seven years old; whilst secondary education/high school is from grade 8 to grade 12, with individuals usually matriculating at age eighteen before possibly moving to tertiary education (Kearney & Odusola, 2011). In the country 93 % of learners attend public schools and the national gross enrolment rate stands at 93% for grades one to seven, 87% for grades eight to twelve and 91% for grades one to twelve combined (DBE, 2013). Though enrolment rates are high, the completion rates are still of concern and they impact on the ultimate educational attainment and youth development of the country.

Furthermore, the numbers may be impressive but it cannot be ignored that in an individuals' life the picture may be different, as the schooling process is affected by a number of factors such as the legacy of apartheid inclusive of race and poverty, the quality of education received and the family structure amongst others (Grimsrud, 2003). In the South African General Household Survey of 2008 it was reported that 0.18% of individuals attended primary school, 15% attended secondary school and 3% received tertiary education (Kearney & Odusola, 2011).

Anderson, Case & Lam (2001) reported that 90% of whites of younger age cohorts (10-24) had completed grade 12 while only 35% of the black population have. Grade advancement of the black population is also of concern, not necessarily due to dropping out of schools but due to higher grade repetition (Hunter & May, 2002). It is thus important to examine the factors that impact on the schooling process and outcomes of adolescents and thus ultimately the educational attainment of the youth of South Africa. Concurrent schooling and labour force participation amongst these individuals cannot be ignored as time and focus is split between the two activities. One must then consider labour force participation of adolescents in the country.

2.1.3 Adolescent labour force participation in South Africa

Child labour has globally been a concern; 18% of children aged 5-14 are participating in the labour force with 30% of them believed to reside in SSA (Edmonds & Pavcnik, 2005). Child labour is defined as regular labour force participation of school-aged children to earn a living for himself or herself or the household to which they belong (Andvig, 1998). Most working children are contributing to the household and often work on family farms and businesses, child labour is recognised as a symptom of poverty hence the need to focus on the household structure (Moyi, 2011).

There is little information on labour force participation of adolescents in South Africa. The working age or cut-off age of inclusion in the labour force is from 15 years old as defined by the Labour Force Survey (Stats SA, 2009). It is difficult to attempt to obtain valid levels of child labour force participation in the country, as a large proportion might be in the informal sector. The International Labour Organisation's (ILO) Minimum age convention stipulates that children above 12 or 13 years old may take part in a specific type of light work under certain conditions which should not be harmful to the adolescent; in terms of health, development and interference in schooling (Moyi, 2011).

Unemployment in South Africa is well-known and documented. The youth feel its impact, and often adolescents must settle for low paying jobs that are formulated specifically to absorb this age group into the labour force. 85% of black adolescents are involved in domestic or market related work and 29% are involved in market related work only (Edmonds, 2005). Retention in these positions is low as it is usually in the form of casual and temporal work targeting mainly students; raising the consequences of compromised youth development and poverty (Banerjee et al, 2008).

2.1.4 Concurrent schooling and labour force participation amongst adolescents

Countries in SSA and Asia that lack universal primary education often have high percentages of children working (Grimsrud, 2003). Globally 73% of children participating in the labour force are also attending school (Edmonds & Pavcnik, 2005). Even though many adolescents participating in the labour force attend school, educational attainment is still of concern, as the relationship between concurrent schooling and labour force participation is understood to be negative even though some literature have found that the effects of labour force participation on education may not be straight forward (Bhalotra & Tzannatos, 2003; Moyi, 2011).

The relationship and outcomes of concurrent schooling and labour force participation amongst adolescents are better examined when the hours spent working are taken into consideration, and thus this may be an important determinant of educational achievement (Grimsrud, 2003). Adolescents participating in the labour force often utilise their earnings for payments on school fees and books. Edmonds (2005) noted that in South Africa only 2% of black adolescents aged five-17 years old reported labour force participation without attending school. Reporting on more recent levels of concurrent schooling and labour force participation amongst adolescent will be insightful especially since literature on this matter is barely available in this country.

2.1.5 Consequences of concurrent schooling and labour force participation amongst adolescents

Concurrent schooling and labour force participation has been proven to somewhat affect the schooling process and performance of adolescents. A study conducted in South America amongst grade seven pupils reported that children who were working obtained low performance ratings in school (Grimsrud, 2003). Furthermore, on a larger scale the educational system of a country is weakened by labour force participation of adolescents as it may lead to low grade advancement and educational attainment rates.

The developmental and economic consequences for adolescents' ability to maximise their potential in the future through economic and technological innovations is weakened (Hunter & May, 2002; Edmonds, 2005). Poverty may also be a pivotal consequence of concurrent schooling and labour force participation amongst adolescents. The highest levels of poverty are noted within the younger age cohorts. In 2006, 68.9% of individuals aged 17 and younger

lived in poverty but a decrease was seen in 2011 to 55.7%. This indicates that there is some improvement, but still half of this age range is affected by poverty (Stats SA, 2014).Furthermore individuals with no or little education have illustrated higher levels of poverty. Thus, the relationship between poverty, age and education cannot be ignored.

The importance of the current study is thus highlighted by these consequences of concurrent schooling and labour force participation, not excluding how these combine with the conditions and outcomes that adolescents of intergenerational households often stark with poverty are confronted with (Schatz, 2007).

2.2 Theoretical and conceptual framework

2.2.1 Theoretical framework

As discussed earlier, intergenerational households are often prone to poverty compared to the nuclear household structures because the very formation of these households is often a result of attempts to buffer financial strain (Moyi, 2011). Adolescents are members of these households and need to survive and progress in such circumstances. The household must seek a solution to its financial strain, which may result in adolescents participating in the labour force.

Consequently the relationship between adolescent labour force participation and schooling may be understood by looking at the households from which these adolescents come (Moyi, 2011). That includes socio-economic status and the household structure in which decisions are made. Thus the current study's enquiry: to determine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa. Thus, a theory that highlights the household as a factor in the status of adolescents concurrently schooling and participating in the labour force is employed by this study, namely a poverty based theory of school disruption and micro-economic theory (Hunter & May, 2002; Moyi, 2011).

The fundamental framework for child labour

The fundamental framework for child labour was developed by Basu and Van in 1998, positing two axioms through which child labour may be explained of which all are tied to the poverty status of the household (Fan, 2011). The Luxury Axiom and the Substitution Axiom;

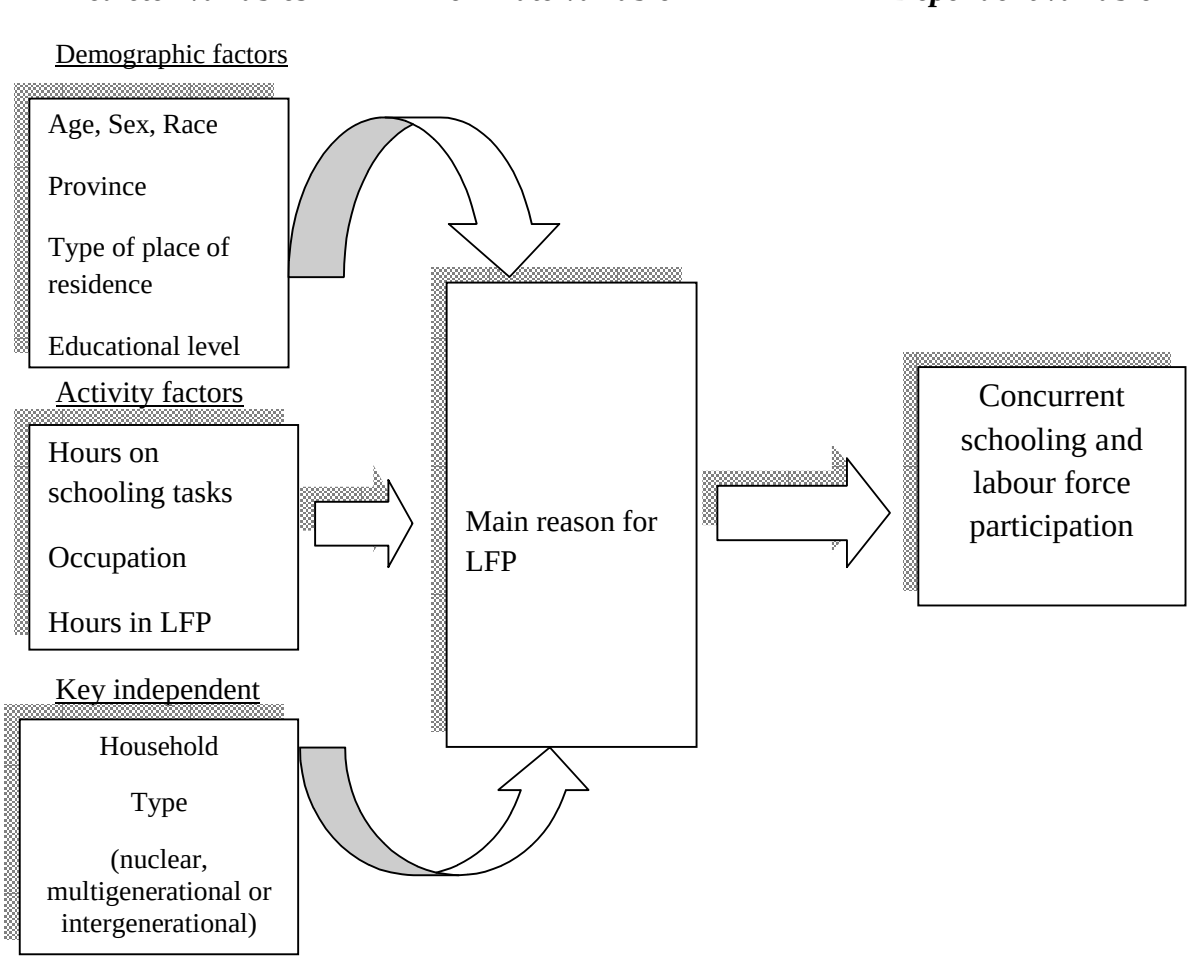
the luxury axiom states that a child (adolescent) will only be sent into the labour force if income generated from non-child labour sources was insufficient (Basu & Van, 1998). The substitution axiom stipulates that child labour force participation is a substitution for adult labour force participation within the household. The current study employs the luxury axiom of the fundamental framework of child labour.

The Luxury Axiom

School and other non-work activities may be termed as leisure; viewed in the household as a luxury, which may only be consumed when income within the household increases (Fan, 2011). Thus the decision of the adolescents attending school and/or participating in the labour force is made bearing in mind the household's wealth status. Literature provides evidence that adolescent labour force participation is symptomatic of poverty and adolescents of non-poor households are least likely to work even in the poorest countries (Basu &Van, 1998). Thus the assumption here is that households decide if the adolescent in the household is withdrawn from participating in the labour force as soon as the household is able to afford this luxury (Fan, 2011).

The current study argues that the type of household the adolescent belongs to determines the decision within the household of whether an adolescent participates in the labour force. The household type (nuclear, multi-generational and skip generational household) to which a South African adolescent belongs is associated with the status of the adolescent on concurrent schooling and labour force participation.

2.2.2 Conceptual framework



(Source: Basu &Van, 1998): Figure 1: Adapted from the fundamental framework for child labour-the luxury axiom

The above conceptual framework depicts predictor variables (key independent and control variables) in the study bringing about proximate variable (main reason for LFP) that lead to the status on concurrent school and labour force participation. The framework is adapted from the Luxury Axiom explaining child labour by Basu and Van (1998). In any context rarely if ever is an outcome brought about by one factor or a relationship that is strictly linear, thus the need to control the demographic and activity factors.

The key independent variable is household type (where different levels of poverty may be reported, as suggested by the literature review) hence the relevance of the Luxury Axiom to the current study's enquiry. A decision is made in the household whether the adolescent

concurrently schools and participates in the labour force depending on the affordability of luxury (non-work activities). A luxury may only be indulged in once there is 'sufficient income' received by the household and in this case the luxury is solely schooling (Fan, 2011). Based on the premise of the Luxury Axiom poverty (mainly experienced in intergenerational households) best explains child labour and thus concurrent school and labour force participation (Fan, 2011).

Chapter 3: Methodology

3.1 Introduction

Chapter 3 discusses the data used and the statistical methods that are employed to answer the research question of the current study.

3.2 Study design

3.2.1 The 2010 Survey of Activities of Young People (SAYP)

The SAYP is a household sample survey that collects information on the activities of adolescents who live in South Africa. Statistics South Africa (Stats SA) is responsible for the collection and processing of data. The purpose of the survey is to collect information on the educational, economical, health and safety issues of the adolescents aged seven to17 years. To understand the level of labour participation amongst adolescents, provide statistical base regarding the level of working children, supply information on the formation of informed policy to combat child labour and lastly to monitor the Child Action Plan (CLAP) (Stats SA, 2010).

The SAYP entails two stages. The first is the identification of households with children aged seven to17 years during the Quarterly Labour Force Survey (QLFS) that took place in the third quarter of 2010. The second stage is the follow-up interviews with adolescents in those households, to collect information on the activities and related aspects they take part in (Stats SA, 2010).

3.2.2 Study population and sample size

The study population of the current study is adolescents whom are of a school going age; seven to 17 years who live in South Africa. There are 11 004 021 adolescents who took part in the SAYP in 2010. There are 2 650 116 adolescents who were concurrently schooling and participating in labour, making up the sample size.

3.2.3 Questionnaire design

After the QLFS data collection, District Survey Coordinators checked questionnaires for eligible candidates for the SAYP. Thereafter Survey Officers went back to these households and administered the SAYP to the adolescents. At times parents would be present during the interviews and answer on behalf of the adolescent. The response rate nationally was 92.3 % (SAYP, 2010).

3.3 Variable definitions

3.3.1 Dependent variable

Table 3.1(a): Concurrent schooling and labour force participation (LFP) variable

Variable	Category
Schooling and LFP	No (0)- not concurrently schooling and participating in the labour force (reference category) Yes (1)- concurrently schooling and participating in the labour force

Question asked: A number of questions pertaining to the activities the adolescent takes part in were asked from which was translated into one variable. The concurrent schooling/labour force participation will be binary as indicated above in table 1.

In the dataset the variable is presented as follows:

1. Study only
2. Economic activity and study
3. Economic activity, study and household chores
4. Study and household chores

5. Economic activity only
6. Household chores only
7. Economic activity and household chores
8. Idle children

The variable named concurrent schooling and LFP was formed by manipulating the above categories. From the categories available in the data set the outcome variable was constructed in a manner that only two responses could be attained. All categories that do not involve an adolescent's activity as both schooling and participating in the labour force are placed under the 'no' response. This category contains groups 1, 4, 5, 6, 7 and 8. The second category which consists of adolescents who are concurrently schooling and participating in the labour force contained in groups 2 and 3.

3.3.2 Key independent variable

Table 3.1(b): Household type variable

Variable	Category
Household type	Nuclear household (reference category) Multi- intergenerational households Skip generation household

Key independent variable

The household type variable consists of three components i.e. nuclear, multi-generational and skips generational households. The choice of classification of categories is based on literature on intergenerational households (Carlini-Marlatt, 2005). As discussed earlier there are different types of intergenerational households and thus may be faced with different circumstances based on the type of grandparent involvement (Pittman, 2007).

Nuclear household (reference category)

The nuclear family will be made from the variable member in the data set. A number of questions were asked to form this variable: Is the adolescent's mother, farther, grandparent a member of this household (yes/no). The variable has five categories:

1. Only mother household member
2. Only father household member
3. Both parents household members
4. Both parents not household members
5. Parents not alive

The nuclear family variable was formed from combining 1, 2 and 3. Single parent households form part of nuclear households as in South Africa a large majority are households where only one parent is present. Category 4 and 5 were used to formulate the skip-generational variable.

Multi- intergenerational households and skip generation households

The multi-generational and skip generational household variables were formed from a variable which asks if grandparents are members of the household**.** A multigenerational household variable was formed by combining those belonging to nuclear households and had grandparents as members. The skip generational household variable was formed by combining those who had reported negatively to residing in nuclear households and those who had grandparents as members of the household.

3.3.3 Control variables

Table 3.1(c): Control variables in the study

Variable	**Definition**
Age of respondents	The current age of respondents at time of interview, continuous 7-17
Sex	Is the sex of the adolescent Male (1), Female (2)
Race	Asks the racial group to which the adolescents is classified as Coloured (1), Indian/Asian (2) ,White (3) and Black (4)

Province	Is the Province that the adolescent lives in within the country Western Cape (1) Eastern Cape (2) Northern Cape (3) Free State (4) KwaZulu-Natal (5) North West (6) Gauteng (7) Mpumalanga (8) Limpopo (9)
Type of place of residence	Asks to which geographical type the adolescent resides in Urban (1) Rural (2)
Educational level	Asks what educational level they are in Pre-school (1) Primary/Secondary (2) Higher education (3) Other (4)
Hours on schooling	Asks the number of hours spent on school tasks in a week <30 (1) =30 (2) >30 (3)
Occupation	Asks what occupation the adolescent holds Elementary (1) Sales and services (2) Other (3)
Main reason for LFP	Asks the adolescent the main reason that caused them to participate in the labour force Other reasons (1)

	Development reasons (2) Financial reasons (3)
Hours in LFP	Asks the number of hours the adolescent spends participating in the LF in a week <10 (1) =10 (2) >10 (3)

The table above contains the control variables in the study which are important to the enquiry of the current study. This is because these factors may influence the adolescent's status of concurrent schooling/LFP, as seldom in society can one find linear association without the impact of other variables (Moyi, 2011). The control variables may be categorised as demographic factors (age, sex, race, province and type of place of residence) and activity factors (hours on schooling tasks, occupation, main reason for LFP and hours in LFP).

Hours on schooling

For children concurrently attending school and participating in the labour force, the combined hours of school and work should not exceed 7 hours a day (8 hours a day for those aged 14-16) (Dr Kane & Dr Vemuri, 2009). Since 10 hours a week is the recommendation of work for those of school going age, hours spent on schooling is 6 hours a day: 30 hours a week (5 days). The study will thus take 30 hours a week on schooling as a standard (reference point).

Occupation

The occupation variable was manipulated to have three categories; elementary, sales and services and 'other'. Under elementary occupations are adolescents that held occupations that were manual and did not require qualifications. This category contains adolescents who held domestic, craft, plant and machine operator occupations. The sales and services category consists of adolescents who held jobs under services, shop and market sales. The 'other' occupations category consists of occupations held that require qualifications such as legislators, senior officials and managers, professionals, technical and associate professionals, skilled agricultural and fishery workers.

Main reason for LFP

The variable main reason for LFP was manipulated to contain three categories; financial reasons, developmental reasons and 'other' reasons. Reasons grouped under financial consists of participating in the LFP to assist the family with money, to obtain money for school fees/school uniform, to buy food or other essentials, to obtain pocket money, to pay outstanding debt and the duty to help the family. Under developmental are reasons that have to do with the advancement of the adolescent. Reasons such as participating in the labour force because they have finished school and no other activities were available, schools were not operating/teacher has gone missing or to gain experience/training. Those that gave reasons of LFP that could not be grouped under financial or developmental reasons were grouped under this category. This is where adolescents reported 'other' and unspecified reasons.

Hours in LFP

The standard as per the recommendation made by the International Labour Organisation (ILO) is 10 hours per week. The recommendation suggests that educational development is compromised when adolescents work 10 or more hours a week (ILO, 1973). Generally the ILO considers work to be non-hazardous where a maximum of 14 hours is done a week and does not interfere with the child's schooling (Dr Kane & Dr Vemuri, 2009). The study thus employs 10 hours of work per week as a standard (reference point).

3.4 Statistical package

Stata 12 was utilised for the management, manipulation and analysis of the data.

3.5 Ethical appraisal

The study uses secondary data. Therefore respondents were not engaged with at first hand because the data has already been collected. No ethical issues therefore need to be considered.

3.6 Data analysis used to achieve study objectives

3.6.1 Univariate analysis

> ***Specific objective 1:*** Estimate the level of concurrent schooling and labour force participation amongst adolescents in South Africa.

The study first utilised univariate analysis to describe the data used for the study, yielding descriptive statistics. The main aim for this initial step is to see the distribution of the study population and its characteristics. Using frequency distributions tables, descriptive statistics were obtained showing the levels of the key predictor (household type) variable and the outcome (schooling and LFP) variable.

3.6.2 Bivariate analysis

> ***Specific objective 2:*** Examine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa.

The study used the Chi-square test for the bivariate analysis. The Pearson's Chi-square (X^2) test is used to measure statistical significance for nominal variables (Placket, 1971). The test does not give information about the strength of the relationship between two variables (Galpin& Krommenhoek, 2011). It only tests whether there is a relationship. Thus the test was employed at this level of analysis because it allows one to determine whether examination of the relationship between variables is worth being continued. Furthermore the test is relevant because the variables of the study are variables with different categories (two or more) which the X^2 test permits. For the purposes of this level of analysis the p-value obtained from these tests are compared to the study's level of significance of 0.05 to determine if the association between the respective independent variables and the dependent variables are significant. Additionally the X^2 values are compared with the critical values from the Chi-square table listing critical values.

3.6.3 Multivariate

> ***Specific objective 3:*** Identify the determinants of concurrent schooling and labour force participation amongst adolescents in South Africa controlling for other factors (demographic and activity factors).

Multivariate analysis, analyses a number of variables simultaneously. For the study purposes the dependent variable is run with the key independent and control variables simultaneously (Nkamleu, 2009; Moyi, 2011). The main aim of this level of examination is analytical. The binary logistic regression is used. Binary logistic regression is a type of regression analysis as the dependent variable is a dummy variable coded (1, 0). This is applicable to the study as adolescents reported either positively or negatively to concurrent schooling and labour force participation. Thus, the dependent variable (concurrent schooling and LFP) is coded (1, 0) standing for yes or no. Logistic regression measures the relationship between a discrete response variable and a set of explanatory variables.

Logistic regression has two main uses. The first is the prediction of membership through the calculation of the probability of success versus that of failure presented as an odds ratio. Secondly logistic regression provides the relation and strengths of the relationships amongst the variables in the study (Galpin & Krommenhoek, 2011). Through odds ratios obtained one is able to determine what influence independent variables have on the dependent variable. The formula for logistic regression is

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \ldots \beta_k x_k$$

1. The y is the measurements on the response variable, school/LFP status: concurrent school and labour force participation (LFP) and no: concurrent school and labour force participation (LFP).
2. The Beta's (β) are the parameters in the logistic regression that the study wants to estimate which is the regression coefficients
3. x_1 is the measurements on the predictor variables in the model, in this study household type is the key independent variable with the respective control variables.

$$y_i = \beta_{Intercept} + \beta_1 \text{ (Household type)}$$

$$y_i = \beta_{Intercept} + \beta_{1(\text{nuclear household})} + \beta_2 x_{i2} + \ldots \beta_k x_k$$

$$y_i = \beta_{Intercept} + \beta_{1(\text{multi-generational household})} + \beta_2 x_{i2} + \ldots \beta_k x_k$$

$$y_i = \beta_{Intercept} + \beta_{1(\text{skip generation household})} + \beta_2 x_{i2} + \ldots \beta_k x_k$$

Logistic regression does not assume a linear relationship between the dependent and independent variables. The categories must be mutually exclusive and exhaustive. Larger samples are needed as maximum likelihood coefficients are large sample estimates and a minimum of 50 cases per predictor is recommended (Galpin & Krommenhoek, 2011).

Chapter 4: Results

4.1 Descriptive results

Objective 1: Estimate the level of concurrent schooling and labour force participation amongst adolescents in South Africa

4.1.1 Level of concurrent schooling and labour force participation

Table 4.1: Frequency and percentage distribution of concurrent schooling and LFP amongst adolescents in South Africa, 2010

Dependent variable	Frequency (n)	Percentage (%)
Concurrent schooling and LFP status		
No	8 353 905	75.92
Yes	2 650 116	24.08
Total	**11 004 021**	**100**

The first objective of the study was to estimate the level of concurrent schooling and LFP amongst adolescents in South Africa, 2010. Table 4.1 shows that 24.08% of adolescents in the country are concurrently schooling and participating in the labour force. A percentage of 75.92 reported no to concurrent schooling and LFP. Table 4.2 shows the characteristics of the study population and Table 4.3 the characteristics of the study population against the dependent variable of the study.

4.1.2 Characteristics of the study population

Table 4.2: Frequency and percentage distribution of the demographic and socio-economic characteristics of all adolescents in South Africa, 2010

Characteristics	Frequency (n)	Percentage (%)
Key independent variable (s)		
Household type		
Nuclear		
No	2 606 639	23.69
Yes	8 397 382	76.31

Total	**11 004 021**	**100**
Intergenerational		
Multi-generational	1 995 922	18
Skip-generational	1 424 969	13
Total	**3 420 618**	**31**
Multi-generational		
No	6 401 460	76.23
Yes	1 995 922	23.77
Total	**8 397 382**	**100**
Skip-generational		
No	1 181 670	45.33
Yes	1 424 969	54.67
Total	**2 606 639**	**100**
Control variables		
Age		
7	927 052	8.42
8	944 523	8.58
9	957 785	8.70
10	1 006 534	9.15
11	948 469	8.62
12	994 012	9.03
13	1 039 423	9.45
14	1 142 797	10.39
15	1 075 409	9.77
16	1 029 348	9.35
17	938 669	8.53
Total	**11 004 021**	**100**
Sex		
Male	5 530 781	50.26
Female	5 473 240	49.74
Total	**11 004 021**	**100**
Race		
Coloured	876 227	7.96
Indian/Asian	205 498	1.87
White	535 087	4.86
Black	9 387 209	85.31
Total	**11 004 021**	**100**
Province		
Western Cape	998 322	9.07
Eastern Cape	1 713 596	15.57
Northern Cape	230 027	2.09
Free State	598 711	5.44
Kwa-Zulu Natal	2 628 175	23.88
North West	731 682	6.65
Gauteng	1 848 500	16.80
Mpumalanga	894 103	8.13
Limpopo	1 360 905	12.37

Total	**11 004 021**	**100**
Type of place of residence		
Urban	5 198 557	47.24
Rural	5 805 464	52.76
Total	**11 004 021**	**100**
Educational level		
Not applicable	234 526	2.13
Pre-school	82 186	0.75
Primary/secondary	10 618 057	96.49
Higher education	39 483	0.36
Other	29 769	0.27
Total	**11 004 021**	**100**
Hours on schooling		
Less than 30	3 700 089	33.62
30 and greater	7 303 932	66.38
Total	**11 004 021**	**100**
Occupation		
Not applicable	10 736 003	97.56
Sales and Services	199 813	1.82
Elementary	53 223	0.48
Other	14 982	0.14
Total	**11 004 021**	**100**
Main reason for LFP		
Not applicable	10 736 003	97.56
Other reasons	40 390	0.37
Developmental reasons	5 594	0.05
Financial reasons	222 034	2.02
Total	**11 004 021**	**100**
Hours in LFP		
Less than 10	2 371 304	21.55
10	188 664	1.71
Greater than 10	482 090	4.38
Not applicable	7 961 963	72.36
Total	**11 004 021**	**100**

In terms of household type that adolescents in South Africa belong to, 76.31% reside in nuclear households. With regards to intergenerational household types, 23.77% of adolescents resided in multi-generational households and 54.67% resided in skip-generational households.

In relation to the total population 31% (3 420 618) of adolescents reside in intergenerational households; 18% reside in multi-generational households and 13% in skip-generational households.

The adolescents in South Africa are relatively evenly distributed across the ages. The lowest percentage (8.42%) was reported by adolescents aged 7 years and the highest percentage of 10.39 for those aged fourteen years. The sex distribution of adolescents in South Africa is almost equal; there are 50.26% of male adolescents and 49.74% of female adolescents. The majority (85.31%) of adolescents belong to the Black racial group, 7.96% are Coloured, 4.86% are White and only 1.87% are from the Indian/Asian racial group.

The largest proportion of adolescents (23.88%) resides in the Kwa-Zulu Natal Province, followed by 16.80% in Gauteng and 15.57% in the Eastern Cape. The lowest proportions are found in the Northern Cape (2.09%), Free State (5.44%) and North West (6.65%) respectively. The distribution of the type of place of residence that adolescents in South Africa reside in is similar to the sex distribution. Forty-seven percent of adolescents in South Africa reside in urban areas and 53% reside in rural areas.

The majority of adolescents (96.49%) are at primary/secondary educational level, 0.75% are in pre-school and 0.36% are enrolled in a higher education institution. Thirty-four percent spend less than 30 hours a week on schooling while 66% spend 30 and more hours on schooling tasks per week.

Adolescents holding sales and services occupations were 1.82%, elementary 0.48% and 'other' occupations 0.14%. The reasons for LFP were developmental (0.05%), financial (2.02%) and other reasons (0.37%). Twenty-two percent spent less than ten hours participating in the labour force per week, 2% spent ten hours, 4% more than ten hours.

4.2 Cross tabulation of outcome variable and independent variables

Objective 2: Examine the association between residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa

Table 4.3: Frequency and percentage distribution of concurrent schooling and LFP by household type and control variables amongst adolescents in South Africa, 2010

Characteristics	Concurrent schooling/LFP status					
	No		Yes		Total	
	Frequency (n)	%	Frequency (n)	%	Frequency (n)	%
Key independent variable:						
Household type						
Nuclear						
No	1 756 912	67.40	894 727	32.60	2 606 639	100
Yes	6 596 993	78.56	1 800 389	21.44	8 397 382	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Multi-generational						
No	5 180 401	80.93	1 221 060	19.07	6 401 460	100
Yes	1 416 592	70.97	579 330	29.03	1 995 922	100
Total	6 596 993	78.56	1 800 389	21.44	8 397 382	100
Skip-generational						
No	825 628	69.87	356 043	30.13	1 181 670	100
Yes	931 284	65.35	493 685	34.65	1 424 969	100
Total	1 756 912	67.40	849 727	32.60	2 606 639	100
Control variables:						
Age						
7	826 246	89.13	100 806	10.8	927 052	100
8	815 508	86.34	129 016	13.66	944 523	100
9	801 053	83.64	156 732	16.36	957 785	100
10	815 175	80.99	191 359	19.01	1 006 534	100
11	720 339	75.95	228 130	24.05	948 469	100
12	702 802	70.70	291 211	29.30	994 012	100
13	744 610	71.64	294 813	28.36	1 039 423	100
14	789 691	69.10	353 106	30.90	1 142 797	100
15	738 502	68.67	336 907	31.33	1 075 409	100
16	720 729	70.02	308 620	29.98	1 029 349	100
17	679 252	72.36	259 417	27.64	938 669	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Sex						
Male	4 212 793	76.17	1 317 989	23.83	5 530 782	100
Female	4 141 112	75.66	1 332 127	24.34	5473 240	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Race						
Coloured	852 751	97.32	23 476	2.68	876 227	100
Indian/Asian	196 800	95.77	8 698	4.23	205 498	100
White	525 467	98.20	9 620	1.80	535 087	100
Black	6 778 887	72.21	2 608 322	27.79	9 387 209	100
Total	8 353 905	75.92	2 650 116	24.0	11 004 021	100

Province						
Western Cape	965 859	96.75	32 742	3.25	998 322	100
Eastern Cape	909 793	53.09	803 804	46.91	1 713 596	100
Northern Cape	176 839	76.88	53 188	23.12	230 027	100
Free State	552 788	92.33	45 923	7.67	598 711	100
Kwa-Zulu Natal	1 671 329	63.59	956 846	36.41	2 628 175	100
North West	574 839	78.56	156 843	21.44	731 682	100
Gauteng	1 809 892	97.91	38 608	2.09	1 848 500	100
Mpumalanga	798 890	89.35	95 213	10.65	894 103	100
Limpopo	893 685	65.67	467 220	34.33	1 360 905	100
Total	8 353905	75.92	2 650 116	24.08	11 004 021	100
Type of place of residence						
Urban	2 917 157	56.11	2 281 400	43.89	5 198 557	100
Rural	5 436 749	93.56	368 716	6.35	5 805 464	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Educational level						
Pre-school	68 156	82.93	14 031	17.07	82 186	100
Primary/secondary	7 993 370	75.28	2 624 687	24.72	10 618 057	100
Higher education	34 140	86.47	5 342	13.53	39 483	100
Other	23 714	79.66	6 056	20.34	29 770	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Hours on schooling						
Less than 30	2 486 432	67.20	1 213 657	32.80	3 700 089	100
30 and greater	5 867 473	80.33	1 436 460	19.67	7 303 933	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Occupation						
Sales and Services	71 796	35.93	128 016	64.07	199 813	100
Elementary	14 546	27.33	38 678	72.67	53 224	100
Other	5 107	34.08	9 876	65.92	14 982	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Main reason for LFP						
Other reasons	7 088	17.55	33 302	82.45	40 390	100
Developmental reasons	1 813	32.41	3 781	67.59	5 594	100
Financial reasons	82 548	37.18	139 487	62.82	222 035	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100
Hours in LFP						
Less than 10	363 108	15.31	2 008 196	84.69	2 371 304	100
10	27 743	14.71	160 920	85.29	188 664	100
Greater than 10	53 951	11.19	428 139	88.81	482 090	100
Not applicable	7 909 103	99.34	52 861	0.66	7 961 963	100
Total	8 353 905	75.92	2 650 116	24.08	11 004 021	100

Twenty-one percent of adolescents residing in nuclear households are concurrently schooling and participating in the labour force. With regards to intergenerational households: 29% of

those residing in multi-generational households and 35% of those residing in skip-generational households are concurrently schooling and participating in the labour force.

Those aged 15 years have the highest percentage (31.33%) reported on concurrent schooling and labour force participation, followed by those aged 14 (30.90%) and 16 years (29.98%). Adolescents aged seven to nine years reported the lowest level of concurrent schooling and LFP; 10.8%, 13.66% and 16.36% respectively. Males (23.83%) and females (24.34%) report the same level of concurrent schooling and LFP. Of the adolescents belonging to the Black racial group 28% reported concurrent schooling and LFP, 4% for the Indian/Asian race, 3% for coloureds and the lowest for those of the white race (2%).

The highest level of concurrent schooling and LFP of 46.91% is reported in the Eastern Cape, followed by 36.41% in Kwa-Zulu Natal and 34.33% in Limpopo. The lowest level of concurrent schooling and LFP amongst adolescents in South Africa of 2.09% is reported in Gauteng, 3.25% in the Western Cape and 7.67% in the Free State. Forty-four percent of adolescents in South Africa are concurrently schooling and participating in the labour force in urban areas and only 6% in rural areas.

Adolescents enrolled in primary/secondary education reported the highest level of 24.72% on concurrent schooling and LFP, those in the 'other' category- 24.34%, in pre-school 17.07% and 13.53% for those in higher education. Adolescents spending less than 30 hours on schooling had the level (32.80%) of concurrent schooling and LFP, those spending 30 and more reported 19.67%.

According to occupation, 73% of adolescents in elementary occupations reported concurrently schooling and participating in the labour force. Sixty-six percent in 'other' occupations and 64% in sales and services report positively on concurrent schooling and LFP.

The reasons for adolescents participating in the labour force are developmental, financial or 'other'. Adolescents participating in the labour force for financial reasons and concurrently schooling and participating in the labour force were 62.82%, while adolescents participating in the labour force for developmental reasons were 67.59% and 82.45% for those giving 'other' reasons. Adolescents spending less than ten hours in LFP reported positively by 84.69% on concurrent schooling and LFP, 85.29% of those reporting ten hours exactly and 88.81% for those reporting spending more than ten hours participating in the labour force.

Table 4.4: X^2 test statistics of concurrent schooling and labour force participation amongst adolescents in South Africa (2010) by key independent and control variables

Concurrent schooling and LFP			
	X^2 test statistics		
Variable	Pearson X^2	DF	P[z]
Key independent variable (s)			
Household type			
Nuclear	172.77	1	0.00
Multi-generational	107.13	1	0.00
Skip-generational	14.15	1	0.00
Control variables			
Age	494.58	10	0.00
Sex	0.58	1	0.81
Race	719.79	3	0.00
Province	2.50	8	0.00
Type of place of residence	3.10	1	0.00
Enrolment	128.89	1	0.00
Educational level	131.34	4	0.00
Hours on schooling	386.10	1	0.00
Employment status	141.96	1	0.00
Occupation	356.89	3	0.00
Main reason for LFP	371.60	3	0.00
Hours in LFP	1.30	3	0.00

Household type

The association between residing in a nuclear household and concurrent schooling and LFP is significant**:** X^2 (1, N=11 004 021) = 172.77 *p (0.00)* < .05. The p value is less than the study's level of significance. Furthermore the Chi-square value (172.77) is greater than the critical

value (3.841). Residing in multi-generational (X^2 (1, N=11 004 021) = 107.13 *p (0.00)* < .05) and skip-generational (X^2 (1, N=11 004 021) = 14.15 *p (0.00)* < .05.) households is significantly associated with concurrent schooling and LFP. In both the p value is less than the level of significance. Furthermore the respective Chi-square values are greater than the critical value (3.841).

Demographics

All demographic factors were found to be associated with concurrent schooling and LFP significantly, with the exception of sex.

There is a significant association between age and concurrent schooling and LFP **[**X^2 (10, N=11 004 021) = 494.58, *p (0.00)* < .05]. The p value is less than the study's level of significance. The Chi-square value (172.77) is greater than the critical value (18.307). With race [X^2 (3, N=11 004 021) = 719.79, *p (0.00)* < .05] the p value is less than the study's level of significance. The Chi-square value (719.79) is greater than the critical value (7.815). Thus there is a significant relationship between race and concurrent school and LFP.

Province [X^2 (8, N=11 004 021) = 2.50, *p (0.00)* < .05] has a significant relationship with concurrent school and LFP. The p value is greater than the study's level of significance. The Chi-square value (2.50) is less than the critical value (15.507).Type of place of residence [X^2 (1, N=11 004 021) = 3.10, *p (0.00)* < .05] also has a significant relationship with concurrent schooling and LFP. The p value is greater than the study's level of significance. The Chi-square value (3.10) is less than the critical value (3.41).

The relationship between sex [X^2 (1, N=11 004 021) = 0.06, *p (0.81)* > .05] and concurrent school and LFP is not significant. The p value is greater than the study's level of significance. The Chi-square value (0.06) is less than the critical value (3.841). Based on the p value that is greater than the level of significance sex is not significantly associated with concurrent schooling and LFP.

Education

There is a significant relationship between educational level [X^2 (4, N=11 004 021) = 131.34, *p (0.00)* < .05] and concurrent school and LFP. The p values are less than the level of significance and the Chi-square value is greater than the critical value (9.488).

Labour force participation

Occupation [X^2 (3, N=11 004 021) = 356.89 *p (0.00)* < .05] and main reason for LFP [X^2 (3, N=11 004 021) = 371.60 *p (0.00)* < .05] are significantly associated with concurrent schooling and LFP. The p-values are less than the level of significance and the Chi-square values are greater than the critical value of 7.815. Hours in LFP [X^2 (3, N=11 004 021)] = 1.30 *p (0.00)* < .05] is also significantly associated with concurrent schooling. The Chi-square value is greater than the critical values (1.30) and is less than the Chi-square value (7.815).

4.3 Binary logistic regression

The study's null hypothesis states that there is no association between adolescents residing in intergenerational households and concurrent schooling and labour force participation amongst adolescents in South Africa. The binary logistic regression was used to test the hypothesis. The results are in odds ratios indicating whether adolescents residing in different household types are more or less likely to be concurrently schooling and participating in the labour force. The significance of the odds ratios is given by the p-values (P[z]) based on a 5% level of significance.

The findings at this level of analysis pertain to the third objective of the study: to identify the determinants of concurrent schooling and labour force participation amongst adolescents in South Africa controlling for other factors (demographic and activity factors).

Table 4.5: Logistic regression analysis: variables predicting concurrent schooling and labour force participation amongst adolescents in South Africa, 2010

Key independent variable	Household type								
	Nuclear			Intergenerational					
				Multi-generational			Skip-generational		
	(OR)	P[z]	(CI)	(OR)	P[z]	(CI)	(OR)	P[z]	(CI)
Household type **RC- no (0)**	**1.02**	**0.80**	**(0.86;1.22)**	**1.00**	**0.99**	**(0.79-1.23)**	**1.17**	**0.36**	**(0.85-1.58)**
Control variables									
Age									
7	(RC)			(RC)			(RC)		
8	1.26	0.43	(0.71;2.23)	1.32	0.41	(0.68-2.59)	0.97	0.96	(0.29-3.21)
9	1.30	0.32	(0.77;2.21)	1.43	0.27	(0.76-2.67)	0.84	0.76	(2.28-2.54)
10	1.45	0.16	(0.87;2.41)	1.59	0.13	(0.88-2.88)	0.97	0.96	(0.32-2.95)
11	1.46	0.14	(0.88;2.40)	1.86*	0.04	(1.03-3.35)	0.71	0.53	(0.24-2.07)
12	1.56	0.07	(0.96;2.55)	1.86*	0.03	(1.05-3.30)	0.84	0.74	(0.29-2.42)
13	1.66*	0.04	(1.03;2.69)	2.13*	0.01	(1.22-3.73)	0.81	0.70	(0.28-2.34)
14	1.51	0.08	(0.95;2.42)	1.89*	0.02	(1.09-3.30)	0.81	0.68	(0.29-2.25)
15	1.46	0.12	(0.91;2.32)	1.63	0.08	(0.95-2.80)	0.96	0.94	(0.34-2.73)
16	1.34	0.23	(0.84;2.13)	1.65	0.07	(0.96-2.85)	0.73	0.55	(0.26-2.06)
17	1.48	0.25	(0.91;2.39)	1.70	0.07	(0.97-3.00)	0.96	0.92	(0.34-2.74)
Sex									
Male	(RC)			(RC)			(RC)		
Female	0.91	0.25	(0.77-1.07)	0.87	0.19	(0.71-1.07)	0.97	0.83	(0.72-1.30)
Race									
Coloured	(RC)			(RC)			(RC)		
Indian/Asian	0.67	0.56	(0.16-2.85)	0.56	0.47	(0.12-2.66)	1(O)		
White	1.33	0.66	(0.35-5.02)	1.06	0.93	(0.27-4.20)	1(O)		
Black	1.23	0.56	(0.61-2.50)	0.97	0.94	(0.43-2.21)	5.72*	0.03	(1.17-19)
Province									
Western Cape	(RC)			(RC)			(RC)		
Eastern Cape	2.23*	0.03	(1.10-4.53)	1.71	0.18	(0.78-3.76)	36.74*	0.00	(3.28-412)
Northern Cape	3.49*	0.01	(1.45-8.41)	3.58*	0.01	(1.31-9.84)	41.94*	0.01	(2.58-681)
Free State	0.91	0.82	(0.42-1.97)	0.61	0.26	(0.26-1.44)	13.22*	0.04	(1.15-152)
Kwa-Zulu Natal	1.69	0.15	(0.83-3.44)	1.55	0.28	(0.70-3.43)	16.66*	0.02	(1.52-183)
North West	0.85	0.67	(0.41-1.78)	0.83	0.66	(0.36-1.92)	7.40	0.11	(0.66-83)
Gauteng	0.94	0.89	(0.37-2.38)	0.82	0.71	(0.29-2.33)	17.53	0.06	(0.94-328)
Mpumalanga	0.22*	0.00	(0.11-0.47)	0.22*	0.00	(0.10-0.50)	1.84	0.62	(0.16-21)
Limpopo	0.59	0.15	(0.291.20)	0.56	0.15	(0.25-1.24)	5.63	0.16	(0.51-63)
Type of place of residence									
Urban	(RC)				(RC)		(RC)		
Rural	0.42*	0.00	(0.32-0.56)	0.45*	0.00	(0.32-0.62)	0.40*	0.00	(0.23-0.68)
Enrolment(omitted)									
No									

Yes									
Educational level									
Not applicable	(RC)			(RC)			(RC)		
Pre -school	0.41	0.43	(0.44-3.76)	2.34	0.60	(0.10-53)	0.05	0.19	(0.00-4.34)
Primary/secondary	0.26	0.13	(0.45-1.51)	0.39	0.36	(0.05-2.97)	0.07	0.21	(0.00-4.47)
Higher education	0.09*	0.03	(0.01-0.75)	0.08	0.05	(0.01-0.98)	0.41	0.77	(0.00-160)
Other	1 (O)			1(O)			1(O)		
Hours on schooling									
Less than 30	(RC)			(RC)			(RC)		
30 and greater	0.69*	0.00	(0.58-0.84)	0.76*	0.02	(0.61-0.95)	0.55*	0.00	(0.39-0.78)
***Employment* status**									
No	(RC)			(RC)			(RC)		
Yes	0.70	0.34	(0.34-1.44)	0.35*	0.01	(0.15-0.79)	740*	0.00	100-5482
Occupation									
Not applicable	(RC)			(RC)			(RC)		
Sales and Services	411*	0.00	(197-855)	971*	0.00	(395-2387)	1.49	0.55	(0.39-5.67)
Elementary	1225*	0.00	(451-3322)	2383*	0.00	(730-7783)	321*	0.00	(23-4565)
Other	844*	0.00	(208-3415)	1579*	0.00	(312-8003)	1.74	0.71	(0.20-31.42)
Main reason for LFP									
Not applicable	(RC)			(RC)			(RC)		
Other reasons	6.49*	0.00	(2.21-19.05)	4.72*	0.01	(1.48-15.07)	1(O)		
Developmental reasons	7.37*	0.03	(1.18-46.23)	4.38	0.15	(0.60-32.10)	1(O)		
Financial reasons	1(O)			1(O)			1(O)		
Hours in LFP									
Less than 10	(RC)			(RC)			(RC)		
10	1.38	0.13	(0.91-2.09)	1.51	0.12	(0.90-2.52)	1.06	0.88	(0.51-2.18)
Greater than 10	1.72*	0.00	(1.26-2.35)	2.27*	0.00	(1.51-1.39)	1.05	0.86	(0.62-1.7)
Not applicable	0.00	0.00	(0.00-0.00)	0.00	0.00	(0.00-0.00)	0.00	0.00	(0.00-0.00)

RC= Reference Category

O = Omitted (dropped from the model)

***= P[z] <0.05, Significant**

4.3.1 Nuclear households

Adolescents aged 13 years old residing in nuclear households were 1.66 times more likely to be concurrently schooling and participating in the labour force. Adolescents residing in the Eastern Cape Province had odds of 2.27 while those in the Northern Cape had 3.49 odds of concurrently schooling and participating in the labour force.

Thus, adolescents in the Eastern Cape were twice more likely and those in the Northern Cape were three times more likely to be concurrently schooling and participating in the labour force. Adolescents residing in Mpumalanga were 0.22 times less likely to be concurrently schooling and participating in the labour force. In rural areas, adolescents were less likely to be concurrently schooling and participating in the labour force by odds of 0.42.

Adolescents residing in nuclear households enrolled at a higher education institution were 0.09 times less likely to be concurrently schooling and participating in the labour force. Adolescents spending 30 or more hours on schooling tasks were 0.69 times more likely to be concurrently schooling and participating in the labour force.

Adolescents in sales and services occupations had odds of 411 while those in elementary occupations had 1225 odds and those in ‘other’ occupations had 844 odds more likely of concurrently schooling and labour force participation. Adolescents who gave the main reason ‘other’ for LFP were 6.49 more likely to be concurrently schooling and participating in the labour force.

Those who gave developmental reasons for participating in the labour force were 7.37 times more likely to be concurrently schooling and participating in the labour force. Adolescents reporting more than 10 hours per week in LFP are 1.72 times more likely to be concurrently schooling and participating in the labour force.

4.3.2 Multi-generational households

Adolescents aged 11 and 12 years are 1.86 times more likely to be concurrently schooling and participating in the labour force and adolescents 13 years, are 2.13 times more likely and those aged 14 year are 1.89 times more likely to be concurrently schooling and participating in the labour force.

Adolescents in the Northern Cape are 3.58 times more likely and adolescents in Mpumalanga were less likely (0.22) to be concurrently schooling and participating in the labour force. In rural areas, adolescents were less likely to be concurrently schooling and participating in the labour force by odds of 0.45.

Adolescents spending 30 hours or more hours on schooling tasks were less likely (0.76) to be concurrently schooling and participating in the labour force.

Adolescents in sales and services occupations had odds of 971 while those in elementary occupations had 2383 odds and in 'other' occupations had 1579 odds more likely of concurrently schooling and labour force participation.

Adolescents who gave the main reason 'other' for LFP are 4.72 times more likely to be concurrently schooling and participating in the labour force. Adolescents reporting more than 10 hours per week in LFP are 2.27 times more likely to be concurrently schooling and participating in the labour force.

4.3.3 Skip-generational households

Adolescents of the Black racial group are 5.72 times more likely to be concurrently schooling and participating in the labour force. Adolescents in the Eastern Cape that belong to multi-generational households were 37.74 times more likely, and in the Northern Cape 41.94 times more likely.

In the Free State adolescents were 13.22 times more likely and in Kwa-Zulu Natal 16.66 times more likely to be concurrently schooling and participating in the labour force. Adolescents residing in rural areas were less likely (0.40) to be concurrently schooling and participating in the labour force.

Adolescents spending 30 hours or more on schooling tasks were less likely (0.55) to be concurrently schooling and participating in the labour force. Concerning occupation, adolescents in elementary occupations were 321 times more likely to be concurrently schooling and participating in the labour force.

4.3.4 Household types compared

Table 4.6: Comparison of significant odds ratios of control variables by household type

Key independent variable	Household type		
	Nuclear	Intergenerational	
		Multi-generational	Skip-generational
Odds ratio	**(OR)**	**(OR)**	**(OR)**
Demographics			
13 years old	1.66	2.13	-
Eastern Cape	2.23	-	36.74
Northern Cape	3.49	3.58	41.94
Mpumalanga	0.22	0.22	-
Rural	0.42	0.45	0.40
Education			
30 or more hours on schooling	0.69	0.76	0.55
Labour force participation			
Occupation: Sales & services	411	971	-
Elementary	1225	2383	321
Other	844	1579	-
Reasons: 'Other'	6.49	4.72	-
More than 10 hours in LFP	1.72	2.27	-

Adolescents in nuclear households aged 13 years had lower odds (1.66) than those of multi-generational households who were (2.13) twice times more likely to be concurrently schooling and participating in the labour force. For adolescents residing age was not a factor at all influencing on concurrent schooling and LFP.

Adolescents residing in nuclear households in the Eastern Cape had lower odds (2.23) than those of skip-generational households who had higher odds of 36.74 for concurrent schooling and LFP. In the Northern Cape adolescents residing in nuclear households had lower odds (3.49) compared to those in multi-generational households (3.58) and those belonging to skip-generational households were 41.94 times more likely to be concurrently schooling and participating in the labour force. In Mpumalanga, nuclear and multigenerational households were both less likely (0.22) to be concurrently schooling and participating in the labour force.

Adolescents in rural areas had less likely odds obtained by adolescents residing in all household types. Those in multi-generational households had the highest odds of being less

likely to be concurrently schooling and participating in the labour force (0.45), nuclear households (0.42) and 0.40 for those belonging to skip-generational households.

Adolescents working 30 or more hours a week were most less likely found in multi-generational households (0.76), followed by those in nuclear households (0.69) and those residing in skip-generational households (0.55) to be concurrently schooling and participating in the labour force.

Adolescents holding sales and services occupations from nuclear households had lower odds (411) compared to those of multi-generational households with 971 odd times more likely to be concurrently schooling and participating in the labour force.

The highest odds more likely of concurrently schooling and participating in the labour force from adolescents in elementary occupations were obtained from those residing in multi-generational households (2383) followed by adolescents in nuclear households (1225) and those in skip-generational households with odds of 321.

Adolescents in 'other' occupations belonging to nuclear households were 844 times more likely, while those from multi-generational households were 1579 times more likely to be concurrently schooling and participating in the labour force.

Adolescents giving 'other' reasons besides that of finance and development for LFP belonging to nuclear households were 6.49 times more likely while those in multigenerational households were only 4.72 times more likely to be to be concurrently schooling and participating in the labour force.

Compared to adolescents of nuclear households who reported 30 or more hours a week of LFP with odds of 1.72 times more likely to be to be concurrently schooling and participating in the labour force and those of multi-generational households were twice (2.27) more likely.

With regards to the hypothesis tested, based on the final results of multivariate analysis, the odds of concurrent schooling and labour force participation amongst adolescents residing in intergenerational households (multi-generational and skip-generational) were mainly higher than the odds of adolescents residing in nuclear households. Thus, the study rejects the null hypothesis in favour of the alternative.

Chapter 5: Discussion

The study's aim was to assess whether an association exists between residing in intergenerational households and concurrent schooling and LFP amongst adolescents in South Africa. This was done by having a number of objectives. The first objective was to measure the level of concurrent schooling and LFP amongst adolescents. The study found that 24.08% of adolescents of school going ages (7-17 years old) were concurrently schooling and participating in the labour force. That is close to a quarter of individuals of school going ages are participating in the labour force.

The cut off-age of inclusion into the labour force in South Africa is 15 years old (Stats SA, 2009); the study found adolescents in the age range below 15 years old reported positively on concurrent schooling and LFP. For example, this study found adolescents aged 8 years reporting 13.66% and those aged 12 years reporting 29.30% on concurrent schooling and LFP. Thus, in this country adolescents that are below the cut off age of inclusion are participating in the labour force despite initiatives to eradicate this. Such an initiative is the Child Labour Action Programme (CLAP) formed to tackle child labour in the country. It was formulated to protect children under the age of 18 years old from work that is exploitative, detrimental to their schooling and social wellbeing (ILO & IPEC, 2003). Existing initiatives to curb child labour need to be assessed and possibly amended to completely diminish labour forced participation below the ages of 15 years since the issue persists as per the findings of the study.

The relationship between concurrent schooling and LFP is mainly understood to be negative in that educational attainment and ultimately youth development may be compromised (Moyi, 2011). The level of concurrent schooling and LFP found amongst adolescents in South Africa has to be understood within the context in which adolescents find themselves.

Adolescents are faced with a lot of materialistic pressure from their peers and communities (Selikow, Zulu & Cedra, 2002). For adolescents in need of money an alternative may be that of concurrent schooling and labour force participation. The study thus found females reporting slightly higher (24.34%) levels than males (23.83%) on current schooling and LFP.

In South Africa, intergenerational households are reported to experience more poverty than other household types (Moyi, 2011). The premise of the study is that poverty is associated with concurrent schooling and LFP, as mentioned earlier child labour is symptomatic of

poverty. At the bivariate analysis level the study found 62.82% of adolescents who gave financial reasons for LFP were concurrently schooling and participating in the labour force.

The study found that out of 11 004 021 adolescents in South Africa, 31% reside in intergenerational households; 18% in multi-generational and 13% in skip-generational households. The Census of 2001 found 30.64% of intergenerational households in South Africa-the proportion has remained stable over the years. Aliber (2003) reported 17% 'granny headed' or skip-generational households in South Africa, showing a decline of 4% in 2010 as per the findings of the study.

The social profile of vulnerable groups (2002-2011) study done by Stats SA revealed that 37.9% of children (under the age of 18 years old) lived in households containing three or more generations (multi-generational) (Stats SA, 2012). Further, a reported 8% lived in skip-generational households.

The second objective of the study was thus to examine the association between residing in intergenerational households and concurrent schooling and LFP amongst adolescents. The bivariate analysis showed that intergenerational household types (multi-generational and skip-generational) were associated (respective p-values are less than the level of significance) with concurrent schooling and LFP. Adolescents residing in multigenerational households (29%) and 35% of adolescents residing in skip-generational households were concurrently schooling and participating in the labour force.

Mainly the Black population (Schatz, 2007; Edmonds & Pavnik, 2005) employs intergenerational households as coping mechanism to poverty. The largest percentage (27.79%) of concurrent schooling and LFP amongst adolescents was reported within this racial group. Lower percentages were reported for Coloured (2.68%), Indian/Asian (4.23%) and White (1.80%) racial groups. Differences especially between the Black and White racial groups illustrate the legacy of South Africa's segregated past- that of inequality (van der Berg, 2010). The Apartheid regime by the government at the time discriminated against the Black race, it afforded other races opportunities (education, employment and land) that were less than that of the White race, years have passed but the legacy and inequality persists (van der Berg, 2010).

The third object was to identify the determinants of concurrent schooling and LFP amongst adolescents in South Africa. The bivariate analysis examined the significance of the

associations between the dependent variable and the respective independent variables. The multivariate analysis gave the level of association or influence of independent variables on the dependent variable, obtained through the odds ratio from the binary logistic regression. Adolescents residing in intergenerational households had higher odds of concurrent schooling and LFP than those of nuclear households, thus the theoretical framework employed by the study is suitable.

The luxury Axiom of the fundamental framework for child labour posits that the experience of poverty within households leads to a decision of whether a child within the household participates in the labour force (Basu & Van, 1998). Adolescents residing in multigenerational households aged 13 years old were twice (2.13) more likely than adolescents residing in nuclear households (1.66) to be concurrently schooling and participating in the labour force.

According to province, higher more likely odds were also obtained from adolescents residing in intergenerational households. What is interesting is that adolescents in the skip-generational household type of intergenerational households show very high odds of concurrent schooling and LFP than those of multi-generational household types also under intergenerational households. Suggesting that these provinces have higher frequencies of skip-generational than multi-generational households.

In the Eastern Cape adolescents residing in skip-generational households were 37.74 more likely to be concurrently schooling and participating in the labour force than adolescents of nuclear households who were only twice more likely (2.23). The highest percentage (35.1) of children living with neither biological parent was reported in the Eastern Cape Province (Stats SA, 2012). The largest percentage of children that lived in households without employed adults was also observed in the Eastern Cape (51, 0%). In South Africa as a whole 65% of children were found to be living in households that had a low per capita income, 78.1% was reported in the Eastern Cape (Stats SA, 2012).

In the Northern Cape, adolescents residing in multi-generational households were 3.58 times more likely to be concurrently schooling and participating in the labour force; those residing in skip-generational households were 41.4 times more likely. The Eastern Cape and Northern Cape are provinces that are predominantly rural and traditional and thus more likely to participate in agriculture: Eastern Cape (48.3%). Furthermore, children experiencing hunger

in 2011 were more likely to be found in the Eastern Cape, Northern Cape and the Free State. The Northern Cape reported 44.5% of children vulnerable to hunger highlighting the level of poverty that may explain the high odds of concurrent schooling and LFP amongst adolescents in the province (Stats SA, 2012).

With all occupation types as seen in Table 4.7, adolescents residing in multi-generational and skip-generational households showed higher odds of concurrent schooling and LFP compared to those residing in nuclear households. What is of concern is that these adolescents are participating in jobs that offer no advancement, are non-sustainable and which are often of casual and temporary nature (Banerjee et al., 2008).

The above highlight the state of employment amongst the youth of South Africa. South Africa has a high unemployment rate affecting the youth the most. Education assists in access to employment, 58% of youth who drop out of school at secondary level are unemployed, representing 42% of unemployed youth in the country (Marock, 2008). This may be the reason why the youth find themselves holding non-sustainable jobs.

The findings above pose a concern for the progress and attainment of the MDG'S, particularly the goal of poverty eradication that contains reducing unemployment. In 2008 the unemployment rate was 23.6% and in 2013 24.7% (Kearney & Odusola, 2011; Stats SA, 2013). The decrease in demand for unskilled labour has been posited as an explanation for the high unemployment rate in the country (Banerjee et al., 2008). Thus, the importance of youth and educational attainment, factors and situations (such as concurrent schooling and LFP) that may cause hindrance to the attainment of these goals must be alleviated.

Furthermore, of adolescents spending 10 or more hours in LFP, those residing in multigenerational households were twice (2.27) more likely than adolescents of nuclear households (1.72) to be concurrently schooling and participating in the labour force. This suggests that adolescents of intergenerational households are more likely to spend more hours participating in the labour force. This may highlight their need for money, often the more time spent in LFP the more income received. However, the more hours spent participating in the labour force the more likely schooling is compromised (Edmonds & Pavnik, 2005).

At the current moment, the youth population globally is at high levels not expected to be seen again in the near future (Sommers, 2010). The case holds true in South Africa. This youth bulge can be maximised to the gain of the country as a whole but could also be negative if not

approached efficiently. The youth bulge is brought about by the pre-transition high fertility rates resulting in a large number of individuals falling within the youth age group cohorts (Oosthuizen, 2013).

The youth bulge brings about an opportunity termed the demographic dividend. The demographic dividend may be defined as enhanced economic growth brought by a decline in a country's fertility which in turn changes the age structure of that population (Population Reference Bureau, 2013). It occurs when falling fertility rates change the age distribution of the population, allowing decreased investments for the needs of the youngest age groups to be met and in turn allowing increased investments towards economic development (Oosthuizen, 2013). With the most recent initiative geared towards youth development in the country, South Africa may be able to achieve demographic dividend.

The Youth Employment Accord signed on April 30, 2013 aims to assist the youth with the current state of unemployment. President Jacob Zuma signed the Employment Tax Incentive Act No 26 of 2013 on the 19th of December 2013 that took effect on the 1st of January 2014 (Minister of Finance, 2013). The act offers tax incentives for employers to hire young people. This may be the motivation for adolescents to complete schooling so that they are better equipped for the labour force. Additionally encourage households to decide against adolescents concurrently schooling and participating in the labour force in light of the recommendations made and potential prospects offered by the Employment Incentive Tax Act.

Chapter 6: Conclusions and recommendations

6.1 Conclusions

Across the globe, it is agreed that the youth of any country is the most important portion of a population (UNICEF, 2011). This is because young people hold the potential for further development of a country. This potential is seen through innovations that young generations usher in which impact positively on wide aspects of society including the economy, technology and health to mention but a few. The study at hand embarked on a matter that may compromise the potential held by the youth of South Africa, specifically focusing on adolescents.

Concurrent schooling and LFP amongst adolescents have been a matter not well documented and studied globally and locally. Thus, carrying out the study was a challenge due to the lack of work on the subject matter to draw from. However, this study and its results have laid some foundation and offered insight on the matter in South Africa. The study found that 24.08% of adolescents are concurrently schooling and participating in the labour force. The finding is of concern as it reveals that despite initiations formulated by the ILO, UNICEF and MDGs to curb labour force participation amongst children of school going ages, the problem still persists.

The study further wanted to understand what the possible explanation of concurrent schooling and LFP is and thus hypothesised that there is an association between residing in intergenerational households and concurrent schooling and LFP amongst adolescents in South Africa, and found this to be true. These findings reveal that one of the difficulties facing adolescents in the country is that of household poverty. UNICEF states that denying adolescents the best possible circumstances for their wellbeing holistically compromises their chances to maximise their potential (UNICEF, 2011).

Thus understanding their difficulties is pivotal in informing policies and initiatives that set out to alleviate social ills such as poverty, unemployment and crime that directly affect the youth. The youth bulge in South Africa presents a rare opportunity to achieve demographic dividend. However, efficient policies and initiatives by government and civil society that allow young people of South Africa to maximise their potential need to be formulated (National Planning Commission, 2011). The recommendations made by this paper contribute towards that goal.

The research has thus given enlightenment on the level of the under-researched issue of concurrent schooling and labour force participation amongst adolescents in South Africa. The issue is of concern as it may affect the educational attainment of adolescents. Furthermore, the research has shed light on the experience of living in poverty for individuals within intergenerational households. Compromised educational attainment and poverty within intergenerational households are both issues of concern that need to be acknowledged and addressed.

6.2. Data quality assessment

Assessment of data quality is important because it gives information on the relevance, accuracy, interpretability and comparability of data used for a certain function such as the current study (Stats SA, 2010). Assessment of data quality also gives the limitations of the data. The data ware accurate and interpretable because the SAYP sample is a sub-sample of the QLFS, though some children who were identified in the QLFS did not respond in the follow-up interview and acceptable national response rate of 92.3 % was obtained (Stats SA, 2010). Furthermore the data were relevant as it has the most variables needed to answer a question on adolescents residing in intergenerational households than any other nationally representative data source/ survey within the country.

6.3. Limitations

6.3.1 Bias

In some instances (18.8%), the parent was present during the interview with the adolescent and at times the parent answered on behalf of the adolescent. This raises the concern of biasness, as the parent may report an answer perceived as that which is favourable by the interviewee, thus yielding a response which is not accurate enough on the activities of the adolescent. This kind of biasness is termed the Halo Effect, where the response is in a manner that makes them appear ‘good’ or respond in a ‘socially acceptable manner’ (Bryman, 2004).

6.3.2 Under- reporting

There may be under-reporting of labour force participation. This is because labour force participation of individuals of school going age has been a prominent concern globally and in South Africa. Organisations such as the ILO and UNICEF focus on the impediment of child

labour, thus one may have difficulty reporting that they are participating in the labour force while they are of school going age in light of initiatives against this.

6.3.3 Wealth status variable

Making the connection between the experience of poverty and concurrent schooling and labour force participation amongst adolescents in South Africa would have been more effective if the data included a wealth status variable. Wealth status is central in profiling the socioeconomic status of the study population and is also key to the fundamental framework of child labour (the luxury axiom) employed in the study.

6.3.4 Missing data

The non-response rate for the data used in the study is 7.7%. Thus, missing data in the form of non-responses in the data set was a factor that did not compromise the study and its results. Even though some children who were identified in the QLFS did not respond in the follow-up interview, this still gave the SAYP an acceptable national response rate of 92.3 % (Stats SA, 2010).

6.3 Recommendations

South Africa needs to formulate more efficient and accurate measures to restrict LFP for adolescents below the cut off age of inclusion in the labour force. The paper proposes a monitoring system by the human resources departments within organisations that will conduct spot checks and for less formal organisations random inspections to take place-to note that all employers adhere to the cut off age of inclusion in the labour force as defined by the South African government. This is to ensure that youth initiatives formulated and implemented yield the desired results.

Youth development including education is an important factor contributing to future economic and technological innovations in the country resulting in the maximisation of the opportunity created by the youth bulge- to achieve demographic dividend.

Furthermore, more studies are needed that will focus on adolescents of intergenerational households nationally to understand their hardships and outcomes; such as concurrent schooling and LFP. Results yielded will firstly contribute to the lack of efficient data sources available pertaining to concurrent schooling and LFP, which should include for example a wealth variable. Secondly, such studies will contribute to the understanding of the common

phenomenon of intergenerational households in the country and lastly be insightful in formulating appropriate initiatives to assist members of these households including adolescents. Such studies should include qualitative studies to understand from the standpoint of adolescents the financial needs within these households.

South Africa experiences a number of issues. However, the study has brought high youth unemployment rates and household poverty in the country to the fore which concurrent schooling and labour force participation amongst adolescents has had a hand in directly or indirectly. Therefore the recommendations that follow contribute to how these issues may be tackled.

Household poverty has been declining- in 2003, 42.5% of households were living below the poverty line while only 32.9% were reported in 2009 (Stats SA, 2014). A large share (60%) of government spending goes towards 'social wages' and includes grants, free healthcare and education, to mention a few (Stats SA, 2014). Social grants are playing a pivotal role in being the source of livelihood in the reduction of poverty. The pension grant has already been noted as aiding members of poor households that are largely noted to be intergenerational households (Tangwe & Gutura, 2013).

Thus, what would further assist in addition to the aid currently available are household grants, where funds are given to respective households based on their poverty status. The main target of the proposed household grant is intergenerational households. Since 2003, the percentage of children who benefited from grants (all grants combined) increased from 15% in 2003 to more than 59, 2% by 2011 (Stats SA, 2012).

Initiatives targeting parents and grandparents are needed. The recommendation is that of programmes that do not specifically focus on members of these households but on the communities as a whole. This would be most effective in regions that are mainly agricultural, such as the Eastern Cape (Stats SA, 2012). Professionals in agriculture can educate these communities on sustainable crop farming and advise on how the surplus is traded resulting in poverty-stricken communities' geared towards entering the role of supplier.

The gains of the above recommended initiatives will affect members of these poor communities, the households to which they belong and the respective members of these households, including adolescents. The focus of the initiatives recommended is increasing

income into households thus reducing and ultimately eradicating the situation of household poverty that may lead to concurrent schooling and LFP amongst adolescents of South Africa.

References

Aliber, M. (2003). "Chronic Poverty in South Africa: Incidence, Causes and Policies", World Development 31(3), pp. 473–490

Anderson, K., Case, A. & Lam, D. (2001). "Causes and Consequences of Schooling Outcomes in South Africa: Evidence from Survey Data", Social Dynamics 27(1), pp. 1-23

Andvig, J.C. (1998). "Child Labour in Sub-Saharan Africa – An Exploration", Forum for Development Studies No. 2, pp. 327-362

Amoateng, A.Y., Heaton, T.B. & Kalule-Sabiti, I. (2007). "Chapter 3: Living arrangements in South Africa", Families and household in post-apartheid South Africa: Socio-demographic perspectives, pp.43-59, South Africa: HSRC Press

Banerjee, A., Galiani, S., Levinsohn, J., McLaren, Z. and Woolard, I. (2008). "Why has unemployment risen in the New South Africa?", *Economics of Transition,* Vol 16 (4), pp. 715-740

Basu, K & Van, P.H. (1998). "The Economics of Child Labour" The American Economic Review, Vol. 88 (3), pp. 412-427

Bhalotra, S & Tzannatos, Z. (2003)."Child Labour: What Have We Learnt?, Social Protection Discussion Paper Series, pp. 1-74

Bryman, A. (2004), "Social Research Methods", Oxford University Press.

Carlini-Marlatt, B. (2005). "Grandparents in Custodial Care of their Grandchildren: A Literature Review", Mentor UK Report, pp.1-18

DBE (Department of basic education). (2013). Educations statistics in South Africa 2011.

Dr Kane, J & Dr Vemuri, S. R. (2009). "Impact of the economic crisis on children: what the economic crisis means for child labour". Prepared for UNICEF conference East Asia and the Pacific Islands 6-7 January 2009, Singapore

Edmonds, E.V. (2005). "Child Labour and Schooling Responses to Anticipated Income in South Africa", Journal of Development Economics, Vol. 81 (2), pp. 1-33

Edmonds, E.V. and Pavcnik, N. (2005). "Child Labour in the Global Economy", The Journal of Economic Perspectives, Vol. 19 (1), pp. 199-220

Edwards, O. W & Daire, A. P. (2006). “Children (Education),Children (Psychological aspects) Grandparent and child (Analysis)”, Journal of Instructional Psychology, Vol 33 (2), pp. 1-9

Fan, C. S. (2011). “The Luxury Axiom, The Wealth Paradox, and Child Labor”, Journal of Economic Development 25, Vol 36 (3), pp.25-45

Galpin, J.S. & Krommenhoek, R.E. 2011. Statistical Research Design and Analysis. *University of the Witwatersrand:* 1-576.

Grimsrud, B. (2003). “Millennium Development Goals and Child Labour”, Understanding Children’s Work Project Working Paper Series, pp. 1-20

Hunter, N & May, J. (2002). “Poverty, Shocks and School Disruption Episodes among Adolescents in South Africa”, CSDS Working Paper No 35, pp. 1-42

ILO. (1973). "Minimum Age for Admission to Employment". Report number C138 of ILO

Kwasi, F.A. (20080. “Inequality and the impact of growth on poverty: comparative evidence for Sub-Saharan Africa, Research paper, UNU-WIDE, No. 2008.107

Kearney, M & Odusola, A. (2011). “Assessing Development Strategies to Achieve the MDGs in The Republic of South Africa”, United Nations Department for Social and Economic Affairs –country study, pp. 5-83

Klasen, S & Woolard, I. (2000). “Surviving Unemployment without State Support: Unemployment and Household Formation in South Africa”, IZA Discussion paper series, No. 237, pp. 1-31

Madhavan, S & Schatz, E.J. (2007). “Coping with change: Household structure and composition in rural South Africa, 1992–2003”, Scandinavian Journal of Public Health, 35(Suppl 69), pp. 147–154

Marock, C. (2008). “Grappling with youth employability in South Africa”, Employment, growth and development initiative-HSRC, pp. 1-29

Minister of Finance. (2013). Republic of South Africa Employment Tax Inceptive.

Moyi, P. (2011). “Child labour and school attendance in Kenya”, Educational Research and Reviews Vol. 6(1), pp. 26-35

National Planning Commission. (2011). “Chapter 2: Demographic trends”, National Development Plan-Vision for 2030, pp. 1-429

Neves, D., Samson, M., van Niekerk, I., Hlatshwayo, S and du Toit, A. (2009). "The use and effectiveness of social grants in South Africa", Finmark trust for PLAAS and EPRI, pp. 1-110

Nkamleu, G.B. (2009). "Determinants of Child Labour and Schooling in the Native Cocoa Households of Côte d'Ivoire", AERC Research Paper 190 African Economic Research Consortium; Nairobi, pp. 1-26

NYDA. (2011). "The Integrated Youth Development Strategy (IYDS) of South Africa 2012-2016", pp. 1-142

Oosthuizen, M. (2013). "Maximising South Africa's Demographic Dividend", Development Policy Research Unit working paper.

Pettifor, A.E., Rees, H.V., Kleinschmidt, I., Steffenson, A.E., MacPhail, C., Hlongwa-Madikizela, L.,Vermaak, K and Padian, N.S. (2005). "Young people's sexual health in South Africa: HIV prevalence and sexual behaviors from a nationally representative household survey", 19, pp.1525–1534

Pittman, L.D (2007). "Grandmothers' Involvement Amongst Young Adolescents Growing Up in Poverty", Journal of research on adolescence, 17(1), pp. 89–116

Population Reference Bureau. (2013). "The potential of youth for a demographic dividend: investing in health, education and job creation". A brief for the International Conference of Family Planning (ICPD), Addis Ababa; 12-15 November 2013, pp. 1-4

Plackett, R.L. (1971). "The Application of the Chi-Squared Test", The Mathematical Gazette, 55, 394, pp. 363-399

ILO & IPEC. (2003). National Child Labour Action Programme for South Africa- draft 4.10. Prepared for the Department of Labour, pp. 1-120.

Schatz, E.J. (2007). "'Taking care of my own blood': Older women's relationships to their households in rural South Africa", Scandinavian Journal of Public Health, 35(Suppl 69), pp. 147–154

Selikow, T., Zulu, B & Cedra, E. (2002). "The ingagara, the regte and the cherry: HIV/AIDS and youth culture in contemporary urban townships", Agenda, 17 (53), pp. 22-32

Sommers, M. (2010). "Urban youth in Africa", Environment and Urbanization, 22 (2), pp. 317-332

Stats SA. (2009). "Labour Force Survey, Historical Revision, September Series - September 2001 to September 2007", Statistics South Africa; Pretoria, pp. 3-31

Stats SA. (2010). Survey of Activities of Young People. Statistics South Africa

Stats SA. (2010). The South African Statistical Quality Assessment Framework (SASQAF) Operational Standards and Guidelines, First Edition. Pp.1-93

Stats SA. (2011). Census 2011 Statistical release – P0301.4 / Statistics South Africa

Stats SA. (2012). Social profile of vulnerable groups in South Africa, 2002–2011, Report 03-19-00, pp. 1-118

Stats SA. (2013). National and provincial labour market trends 2003-2013, pp. 1-79

Stats SA. (2014). Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2011, pp.1-84

Tangwe, P.T. & Gutura, P. (2013). "The Impact of the Old Age Grant on Rural Households in Nkonkobe Municipality in the Eastern Cape Province of South Africa", Mediterranean Journal of Social Sciences,4 (13), pp. 627-635

The Presidency. (2009). "National Youth Policy 2009-2014". Pretoria: The South African Republic

UNDP. 2010. Millennium Development Goals; Country Report. USA: United Nations Development Programme, pp. 5-83

UNFPA. 2010. "Adolescents and youth demographics: a brief overview". https:www.unfpa.org/public/adolescents

UNICEF. (2011). "The state of the world's children 2011: executive summary", Adolescents an age of opportunity, pp. 1-16

van der Berg, S. (2010). "Current poverty and income distribution in the context of South African history ", Stellenbosch Economic Working Papers: 22/10, pp.