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The Influence of Household Fluidity on the Health and Well-Being of the Child

Stella Angela Fleetwood

Submitted in fulfilment of the requirements for the degree of

MASTER OF SCIENCE

Faculty of Health Sciences, University of the Witwatersrand

Johannesburg, 2012

Declaration

I, Stella Angela Fleetwood, declare that this dissertation is my own work. It is being submitted for the degree of Master of Science at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

Stella Angela Fleetwood

Signed: …….....….

26 February 2013

Dedication

This dissertation is dedicated to my loving husband. Without your encouragement and love I never would have been able to complete this.

Dissertation Materials

Publications and presentations arising from this study

2005: *Household Fluidity and the Well-Being of the Child*. Poster Presentation. International Cohort Studies Workshop. Loughborough University, United Kingdom.

Fleetwood, S.A., Richter, L.M., Pettifor, J.M., and Norris, S.A. My Ever Changing Household: Household Fluidity in a Cohort of Sowetan Based Children. *The Sociological Review* (to be submitted).

Grants awarded to this study

The Wellcome Trust (United Kingdom): Masters fellowship.

Abstract

Introduction

Research indicates that there is a strong association between household composition and household stability, and child well-being. Black South African family life has historically been affected by the social, political and economic pressures of colonialism, the migrant labour system, and Apartheid policies. It has been shown that Black households have been in a constant state of flux as members move between rural and urban households, as well as, within urban environments. This situation of intense household fluidity and household compositional changes continues to persist. High rates of urbanisation, the fluid job market, and fast social change are all associated with high levels of mobility and household compositional change. Kin networks remain a significant informal safety net for households in order to absorb change. The movement of children between family members, or child fostering is an important mechanism for maintaining networks of support. Children are frequently moved between different households in urban areas so as to maximise their care and education. These changes could potentially influence their overall well-being and, in particular, their academic performance.

Aim of the study

This study describes the changing household structure of 199 urban Black children from a birth cohort study over time, and the influence that these compositional changes might have on academic achievement in terms of the number of grade repeats.

Methodology

By utilising longitudinal data this study is in the unique position to illustrate household compositional change among a sample of Black children born in 1990 that form part of the Birth to Twenty cohort. The focal point of this study will be the child and related changes in household size, form, and type over a 14-year period. Household compositional data collected at five time points was utilised to describe household compositional changes. Academic performance, measured as the number of grade repeats, was used as an outcome variable to examine the relationship of household fluidity on academic performance.

Results

The average household size in this study fluctuated between a minimum average of 6.4 household members and a maximum average of 7.7 household members during the 14-year period. Male-headed households decreased over time, and only 29% of biological fathers were present in the household at the time of the birth of the child. Interestingly, only 73% of biological mothers were present in the household by 2003.

The majority of households consisted of three generations, and extended single-parent households remained the most common household form. Results indicated that there is not a direct relationship between household fluidity and the number of grade repeats. Findings from this study indicated that 19% of the sample repeated at least one grade and only 2.5% repeated more than one grade.

Conclusion

In conclusion, households are becoming more nuclear with fewer members; however, high levels of household fluidity and household compositional change are present throughout the period. Household fluidity does not have a direct relationship on the number of grade repeats, thus it does not have a direct negative impact on school performance. In order to shape appropriate and effective policies for children, data and information on their status, as well as on the changes they experience, such as migration and change in household composition, are required. This requirement forms the rationale for this study.

Keywords

Household fluidity, household structure, family structure, Johannesburg-Soweto, Birth to Twenty, adolescent, grade repeats.

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keeping life interesting; and Lieve, for believing in me during the times when I could not believe in myself.

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Definitions of Terms and Abbreviations

Bone Health Study: Sub-section of the Birth to Twenty study that, in addition to the standard Birth to Twenty data collection topics, focuses on bone health and bone-density studies.

Cohort: A set of people being observed over time who share a common experience across time (Neuman, 2000).

Family: Anderson and Sabatelli (1999) define a family as a complex structure comprised of an interdependent group of individuals who (1) have a shared sense of history, (2) experience some degree of emotional bonding, and (3) devise strategies for meeting the needs of individual family members of the groups as a whole.

Household: The official South African census definition of household tends not to focus on relation but rather to define a household as a single person or group of people who live together for at least four nights a week, who eat from the same pot and who share resources (Statistics South Africa, 1996)

Abbreviations

ANC	African National Congress
Bt20	Birth to Twenty Cohort Study at the University of the Witwatersrand
HH	Household
HHF	Household fluidity
HHH	Head of household
HHFT	Household fluidity tertile
HSRC	Human Sciences Research Council
TOTHHF	Total household fluidity score
TOTREPEAT	Total number of school years repeated
NEPI	National Education Policy Investigation

Preface

Household composition and living arrangements have always been topics close to my heart. After being introduced to sociology of the family during my Honours year, it became clear to me that this is a field of interest. Working within the Birth to Twenty Research Programme and experiencing first-hand the fundamental impact that family and household life have on the well-being of the child, I decided to pursue this topic in more detail. The Wellcome Trust generously awarded me a grant to investigate household compositional changes by drawing on 14 years of data from the Birth to Twenty sample as part of my Masters topic. The funding afforded me the opportunity to focus on cleaning and coding the longitudinal household data collected over a 14-year period within the Birth to Twenty cohort.

All households experience some form of household fluidity, whether it is existing household members moving out of a household to start a new household or due to the death of a household member. The South African household structure has been shaped by several social, political and demographic developments, in particular the Apartheid system that physically dictated household mobility.

Household composition can positively or negatively influence individuals based on the number of individuals in the household and on the availability of resources. Children are particularly vulnerable to the influences of household composition and fluidity. Household fluidity and composition can negatively or positively influence the well-

being of a child by either contributing resources or draining already stretched household resources. The well-being of a child can be influenced on several levels, including education, psychological adjustment, and health. Within the South African context there are not many studies that explore the relationship between household fluidity and child well-being. This study thus hopes to add to the existing body of literature on the topic of urban household fluidity

Due to time constraints around coding data longitudinally I focused on a 14-year period and restricted the study sample to a representative sample of urban Black households living in the Johannesburg–Soweto area. These households form part of the Birth to Twenty study, the biggest and longest-running study in South Africa that focuses on child health and development.

By focusing on household compositional data I was interested in exploring changes that took place over time in terms of household size and headship, as these factors are generally strong indicators of child well-being. The aim of the study was:

- To investigate household composition of Black respondents participating in the Birth to Twenty study over a period of 14 years
- To record household compositional changes of a 14-year period
- To measure the extent of household fluidity within the households of the Birth to Twenty respondents.

This dissertation will follow a traditional outline and consists of the following chapters:

Chapter 1 – Introduction: The introductory chapter articulates the problem statement as well as noting the aims of the study. This chapter also highlights the need for the exploration of household fluidity within the South African context.

Chapter 2 – Literature review: Relevant sociological theory is outlined and the historical context of household fluidity in South Africa is discussed. A review of existing literature related to household composition and household fluidity is conducted.

Chapter 3 – Methodology: This chapter specifies the rationale for and the methodology of the Birth to Twenty study, including the gathering and processing of the historical information that was explored as part of this dissertation.

Chapter 4 – Results: The study findings are presented.

Chapter 5 – Discussion: The findings are discussed and contextualised in relation to the literature and the South African context.

Chapter 6 – Conclusion: The dissertation concludes with a final chapter drawing from the various chapters of the dissertation with recommendations in terms of household composition and the influence thereof on school progression.

“Why do people move? What makes them uproot and leave everything they’ve known for a great unknown beyond the horizon? Why climb this Mount Everest of formalities that makes you feel like a beggar? Why enter this jungle of foreignness where everything is new, strange and difficult? The answer is the same the world over: people move in the hope of a better life.” Yann Martel, *Life of Pi*

Chapter 1:

Introduction

Chapter 1: Introduction

Many sociologists regard the family as the cornerstone of society. The importance of the family is highlighted by the fact that it is difficult to imagine the existence of a society that could function without it (Haralambos and Holborn, 1998). Even though the composition of families may vary across different societies and cultures, the family has been seen as a universal social institution. Haralambos and Holborn (1998) reference a study conducted by George Peter Murdock (1949) that examined the institution of the family in 250 societies ranging from small hunter-gatherer bands to large-scale industrial societies. In his work, Murdock describes the family as a social group characterized by a common residence, economic cooperation, and reproduction. Murdock claims that some form of family does exist in every society, and based on these findings concluded that the family is indeed a universal construct.

It is suggested that households evolved from primitive, large, relatively undifferentiated, extended kin groups into small, specialised groups (Netting, Wilk and Arnould, 1984). Households differ in their adaptive capacities largely as a result of their composition, in term of the combination of age, sex, marital status and cohabitation status, and the role pattern of members residing in these households. Hoover (in Smith-Rice and Tucker, 1986) reports that households could be categorised by their commonalities, but also by their social and cultural differences, and unique behaviours, values and stresses.

The family is widely seen as the core of society; family relations are integral to the general well-being of its members, making families the most important source of social support to their members. The family and household is also seen as the most important source of human capital and development as children are born, raised, socialised and provided with opportunities to grow and develop into competent and productive adults. (Ellis and Adams, 2009)

Families and households are diverse and do not exist in isolation. Ellis and Adams (2009) notes that there is a reciprocal relationship between the family and society in that the family transmit societal values and norms, while society through the state, civil, religious and cultural organisations, provide the financial and material resources to families that enable families to perform their critical function. (Ellis and Adams, 2009)

The institution of the family and the concept of a household are essentially multidimensional in nature and that they affect and are affected by various social, economic, cultural and political institutions (Amoateng and Richter in Amoateng and Heaton, 2007). Demographic and socio-economic changes throughout the world influenced patters of household formation and family life, therefore family structures family and household structures are changing and that the “family” is in transition (Ellis and Adams; 2009). Fluid residential arrangements, changes in household

composition, and frequent mobility of individuals between domestic units are part of the life experiences of many South Africans. In South Africa these household arrangements have been influenced by historical political policies (Apartheid), the migrant labour system, ongoing urbanisation and social transition, and more women entering the workforce (Anderson and Sabatelli, 1995; Spiegel, Watson and Wilkinson, 1996; Van der Waal, 1996).

Limited studies into the composition of Black households were conducted pre-Apartheid (Moser, 1999). Jones (1996) concluded that in South Africa, particularly amongst poor Black families, household membership is decidedly dynamic and the early childhood years are "times of great flux, upheaval, fragmentation and uncertainty". The abolishment of Apartheid brought dramatic social change for Black households; however, elements of Apartheid are still mirrored in relationships between races, neighbourhoods and social classes.

South African literature on children, adolescents and youth has been reactive to the political environment (Bray, Gooskens, Kahn, Moses and Seekings, 2010). After the political changes that took place in the 1990's there has been a growing interest in the study of the South African demography, including the construct of the household and child well-being. Household composition and fluidity are strongly associated with a variety of well-being indicators (Moser, 1999).

The ending of Apartheid created several factors that influenced Black South African households, the first being the abolishment of the Apartheid policies that had previously shaped Black families and kept them apart. Families had to come to terms with the legacy that Apartheid had left behind and with the new possibilities available to them. Several studies and datasets were identified that could be used to identify post-Apartheid household structure; however, there is limited longitudinal data available in order to track changes over time (Bray et.al., 2010).

Moser (1999) notes that while studies exist about fluid households, the data come from micro-level studies and more data are needed to measure the scale of the phenomenon and its regional and urban/rural variations. Household composition studies in South Africa mainly focus on compositional changes between the various race groups and seldom focus on household fluidity over time but rather focus on a specific point in time. Furthermore, there are limited longitudinal child-centric studies focusing on household changes (Anderson and Sabatelli, 1995; Spiegel, Watson and Wilkinson, 1996; Van der Waal, 1996).

This study hopes to address some of the gaps identified in the literature, especially the lack of longitudinal studies focusing on household compositional changes and fluidity over time from a child-centric perspective. Based on data collected from the Soweto-based birth cohort study, Birth to Twenty, this study is in the unique situation of being able to explore child-centric household compositional changes and

household fluidity over a 14-year period and the influence thereof, if any, on a child's school performance in terms of the number of grade repeats.

1.1 Aims of the Study

As South Africa is undergoing significant social, economic and political transitions, it is important to understand how these transitions influence the residential situations and household composition of Black households. Therefore, the first aim of this dissertation is to document and describe household compositional change over the study period. In particular, the following household compositional changes will be described:

- Household types
- Household size
- Biological parents' presence in the household
- Changes in the headship of the households
- Number of generations present in each household
- Changes in types of households over time, and
- The level of household fluidity over a period of 14 years.

The second aim of the study is to explore the association between household compositional changes and school progression in terms of the number of grade

repeats during this period. This study thus aims to answer the following research questions:

1. How and to what extent has household composition changed over the study period?
2. What is the relationship between maternal factors and grade repeat?
3. What is the relationship between changes in household composition and the number of grade repeats during the study period?

Chapter 2 contextualises the study of households and family within a theoretical framework. Background information will also be provided in terms of the historical context of Black households in South Africa as well as a description of the current situation affecting households. The last section of Chapter 2 will also focus on the educational system in South Africa and the changes that took place within this system over time.

Chapter 3 provides information regarding the methodology, chapter 4 will discuss the results whereafter the results from chapter 4 will be integrated and discussed within the literature pertaining to the topic in Chapter 5. Chapter 6 will conclude the thesis.

Chapter 2:

Literature review

Chapter 2: Literature Review

This chapter focuses on the theoretical framework that underpins the dissertation. In this chapter, the relevant literature related to household composition and household fluidity will be reviewed and discussed. This chapter is divided into three sections. The first section clarifies the various terms that will be referenced in this dissertation, and focuses on the various theoretical frameworks pertaining to household composition and family. The second section discusses household composition in South Africa, including the various political factors that shaped the South African household as we know it. Lastly, the South African school system will be described, and the relationship between household fluidity and school progression in terms of number of repeats will be explored.

2.1 Household Concepts

There has been an impetus to separate the concept “household” from “family” in an attempt to replace a culturally defined unit with one that is based more on observation, so that it can be readily compared across cultures (Netting, Wilk and Arnould, 1984).

The contextual understanding of “household” and “family” differs between cultures. Siqwana-Ndulo (1998) notes that within Western cultures the concept of “family” is generally understood to refer to the conjugal pair who maintains a household with their offspring or adopted children. People outside this immediate circle are then referred to as “extended family”. However, within African society the term “family” holds various meanings and is often applied indiscriminately to several social groups, which, despite functional similarities, exhibit important points of difference. It is thus important to distinguish between the following sociological concepts.

2.1.1 Household

The World Bank defines a household as comprising of individuals who (1) live under the same roof or within the same compound/homestead/stand for more than 15 days out of the past 30 days; (2) share food from a common source; and (3) contribute to or share in a common resource pool. Non-residential members are excluded from the household composition definition (Amoateng, Heaton and Kalule-Sabiti, 2007; Blank and Grosh, 1999). According to Moultrie and Timeus (2001) the concept of the household in South Africa is problematic because of migrant labour patterns, entrenched between the 1920’s and 1970’s, which resulted in what is called “stretched households”. These refer to domestic units that are connected across space by kinship and remittances of income. Under these circumstances, a household can no longer be perceived as a spatially discreet unit. The architects of

the KwaZulu-Natal Income Dynamics Study (KIDS) modified the World Bank's definition of a household to include non-residential members who fulfil conditions (2) and (3), and added the further condition that they must have lived under the same roof or within the same compound/homestead/stand for at least 15 days out of the past year (May, Carter, Haddad and Muluccio, 1999). The official South African census definition of household tends not to focus on relation but rather to define a household as a single person or group of people who live together as a unit for at least four days a week, who eat from the same pot and who share resources (Statistics South Africa, 1996). Within the Birth to Twenty study, household members were defined as people coming together under the same roof where the Bt20 participant resides, and who share food, finances and material resources (Barbarin and Richter, 2001)

2.1.2 Family

Anderson and Sabatelli (1999) define a family as a complex structure comprised of an interdependent group of individuals who (1) have a shared sense of history, (2) experience some degree of emotional bonding, and (3) devise strategies for meeting the needs of the individual members of the group as a whole. Family structures vary from the most basic structure known as the nuclear family to larger units known as extended families, and consist of household members who are related to one another either through marriage or blood (Haralambos and Holborn, 1998).

(a) Nuclear Family

A nuclear family is the most basic form of a family and usually consists of a husband and wife and their biological offspring (Haralambos and Holborn, 1998).

(b) Extended Family

An extended family can consist of more than one nuclear family and/or other adult blood-related family members. These families usually consist of extensions that could be vertical, for example a third-generation addition, or horizontal, in the case where adult members join the household. From a functionalist point of view, an extended household is perceived as any grouping broader than a nuclear family (Haralambos and Holborn, 1998).

2.1.3 Head of household

Budlender (2002) argues that the term “headship” could refer to various social concepts, such as being the main economic provider, the main decision maker, the person designated by other household members as the head, and so on. When implementing the term “headship” one immediately assumes that the household consist of a hierarchical relationship between members of the household. Much of the interest in headship arises from the differences between households headed by men

and those headed by women. These differences play a major role in household fluidity and could directly impact on child well-being.

2.1.4 Household fluidity

Households within the South African context are fluid in that individuals move between households as well as porous referring to that individuals might be members of more than one household at the same time (Seekings, 2008; Spiegel, 1996). Seekings (2008) furthermore notes that household fluidity generally correspond to changes over the child's life-course. Ross (1995) defines household fluidity as domestic relationships that are not stable over time. Children's lives are especially affected by household fluidity or fluid residential arrangements due to life course in terms of schooling opportunities, mobility of their parents, socio-economic related situations as well as the death and/or birth of a new household member. (Ross, 1995; Seekings, 2008; Spiegel, 1996)

The terms "family" and "household" are two very different constructs that are often mistakenly used interchangeably. It is thus very important to note not only the difference between the concepts but the various types of households that could exist within a society. In order to gain an in-depth understanding of the types of households, as well as the possible influence that these households might have on

child well-being, it is important to study the household and take into consideration the political context of the country in which it exists.

2.2 The Universality of the Family

This section explores the universality of the family and households as a sociological construct. Different sociologists hold different perspectives on the concept of family. Table 1 provides a brief description of the basic premises of two of the most well-known sociological theories, the functionalist perspective and the Marxist perspective, as compared with the theory that holds itself the most relevant to this study, the life course theory.

Table 1. Sociological perspectives on the family

Functionalist perspective	Marxist perspective
Functionalists view society as a system that consists of interconnected parts that contribute to the whole.	Marx believed that people create societies themselves by their own actions, yet people are also a product of the society that they live in. Thus the various parts can only be understood in terms of their mutual effect on one another.

The Family Systems theory	The life course perspective
The Family Systems theory suggests that individuals cannot be understood in isolation from one another, but rather as part of their family. This theory assumes that the family is an emotional unit consisting of systems of interconnected and interdependent individuals who cannot be understood in isolation from one another	This perspective takes into account an individual's life history, including family context, in order to predict certain outcomes in later life.

(Broderick, 1993; Haralambos and Holborn, 1998; Bengston and Allen, 1993; Eliot, 1986; Hunt, 2005)

2.2.1 Functionalist perspective on the family

The functionalist theory is founded on the conception of societies as systems of interrelated and interdependent parts that adapt to each other so that society may reach a state of equilibrium. These components in turn perform functions within society that contribute to the social and political systems that in turn form the whole of

the system (Elliot, 1986). Therefore, social integration is vital and the whole cannot exist without the integration of its parts. From the functionalist perspective any change in any part of the society affects the family. The analysis of the family from a functionalist perspective involves three main questions (Haralambos and Holborn, 1998):

1. What is the function of the family?
2. What are the functional relationships between the family and other parts of the societal system?
3. What is the function of the family for its individual members?

This functionalist perspective furthermore aims to identify the functions of the family. According to this perspective the social structure of the family is universal but is dynamic in the sense that it adapts in certain ways to fit in with the changing parts of the society (Amoateng, 2007; Elliot, 1986).

Critique of the functionalist perspective

Amoateng (2007) notes that even though functionalist theory has made a significant contribution to the body of literature on families, this theory has been accused of a conservative bias based on its systemic view of society. Elliot (1986) furthermore states that the functionalist emphasis on the importance of the nuclear family to the stability and continuity of society is limited, since this perspective neglects to take into consideration the role of the extended family.

2.2.2 Marxist perspectives on the family

Marxist theory is founded on the political theories of Karl Marx, which provide a distinct alternative to functionalism. Marx himself did not indicate a strong interest in the study of the family; however, his colleague, Friedrich Engels contributed significantly in this regard.

Marxist theory states that the social world is based on the simple observation that human beings must produce food and material objects in order to survive. These needs are central to the ordering of society's productive activities. Marx maintained that the forces and relations of production form a base for all other aspects of the social order, including the family; educational, political and legal institutions; and systems of knowledge, beliefs and values (Elliot, 1986).

To Marx, the crucial feature in the social organisation of production is the division of society into two opposing classes on the basis of ownership or non-ownership of the means of production. He referred to the fundamental class division between the capitalist class who owned the means of industrial production (the haves) and a non-property-owning proletariat who sells their labour power to the capitalists in return for wages (the have-nots). Marx argued that ownership of the means of production brings not only wealth but also political power. Accordingly, the property-owning classes are perceived to be dominant and to oppress the non-property-owning, subordinate classes.

Marx believed that social relations are historically specific and subject to change. As technology expands, developments in the forces of production give rise to tension in the social order and lead to changes in the social relations of production. Class conflicts erupt and the existing relations of production give way to a new social order based on a new mode of production that comes into being.

Marx saw the family as a natural institution for the propagation of the human species lying outside the relations of production. Thus the family was treated as peripheral to the analysis of social life. However, Marx's collaborator Friedrick Engels developed an elaborate account of the origins of the monogamous nuclear family. According to Marxist theory the family, and more specifically the nuclear family, serves capitalism in four ways (Elliot, 1986; Haralambos and Holborn, 1998):

- The family socialised children, thereby reproducing labour power as well as the acceptance of capitalism or false consciousness
- Women's domestic work is unpaid, which benefits capitalism
- The family acts as a safety valve for the stresses and frustrations of working-class men
- The family unit is seen as consumers who purchase products and goods in the service of capitalism.

Critique of the Marxist perspective

It is argued that the Marxist view of the nuclear family as a vehicle for oppression is inaccurate, as the emergence of the nuclear family does not coincide with the emergence of capitalism. The Marxist theory holds that the family construct aids capitalism and that children are socialised into accepting capitalist values. However, role diversity within the family is ignored, as well as the fact that there is movement between the various classes within the same family. Marxist theory also does not take into consideration the diversity of family structures. (Haralambos and Holborn, 1998

2.2.3 The Family Systems theory

Individuals do not exist in a vacuum and social interaction happens on a daily basis. According to Broderick (1993) the most universal group that exists is the family. The Family Systems theory suggests that individuals cannot be understood in isolation from one another, but rather as part of their family. This theory assumes that the family is an emotional unit consisting of systems of interconnected and interdependent individuals who cannot be understood in isolation from one another (Broderick, 1993).

According to this theory, each family member has a role to play as well as rules to respect. Members of this system are expected to respond to each other in a certain way as dictated by their role. This response is determined by their relationship and/or

association with each other. Within the boundaries of the system certain patterns develop as certain family members' behaviour is caused by and causes other family member's behaviour in predictable ways. By maintaining these patterns of behaviour, balance is created within this system. As per the functionalist theory, dysfunction within this system causes imbalances that need to be rectified. This theory is relevant to households, as household can also be seen as systems in which people live.

The Family Systems theory is based on several basic assumptions, which are as follows:

- Each family is unique, due to variation in its construction, personal characteristics, and cultural and ideological styles
- The family is an interactional system whose component parts keep on shifting boundaries with varying degrees of resistance to change
- Families must fulfil a variety of functions for each member, both within the collection as well as individually as family members grow and develop, and
- Families pass through developmental and non-developmental changes that produce varying amounts of stress affecting its members.

(Broderick, 1993)

The Family Systems assumptions could be summarised as follows in Figure 1.

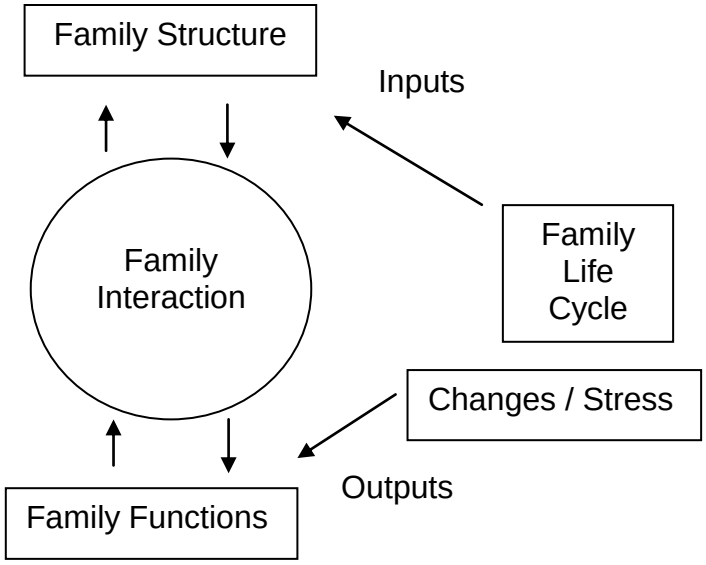


Figure 1. The Family Systems theory

The Family Systems theory as introduced by Dr Murray Bowen identified several interlocking concepts that must be considered:

1. Triangles: The smallest stable relationship system. It is assumed that one side of the triangle is in conflict and two sides are in harmony, which contributes to the development of clinical problems.

2. Differentiation of self: This concept refers to the variance in individuals in their susceptibility to depend on others for acceptance and approval.

3. Nuclear family emotional system: According to this concept, the four relationship patterns that define where the problems may develop in a family are as follows:

- Marital conflict
- Dysfunction in one spouse, for example psychological problems
- Impairment of one or more children
- Emotional distance in relationships.

4. Family projection process: This happens when an emotional problem experienced by one parent is transmitted to a child.

5. Multigenerational transmission process: The transmission of small differences in the levels of differentiation between parents and their children.

6. Emotional cut-off: The act of cutting off emotional contact with family as a way of managing unresolved emotional issues within the individual.

7. Sibling position: The position in which a child is born could potentially have an impact on the child's behaviour and/or development.

8. Social emotional process: Emotional systems govern behaviour on a social level that could promote progressive or regressive periods in society.

2.2.3.1 Balance within the family

Each family member is responsible for maintaining balance within the family by contributing his or her part. The actions of one family member can affect all the other family members. That member can then in turn be affected by the reactions of the other family members. During periods of change, this delicate balance is threatened. It is thus important to note that a change in the family situation means readjustment of the total family system. This change could potentially prove problematic for individual family members. (Broderick, 1993)

2.2.3.2 The family as an open system

Broderick (1993) states that when individuals live together in an intimate environment they start to set limits on each other's behaviour. This means that there is a range of behaviour that is seen as acceptable and some behaviour that could be perceived as deviant that could be tolerated. When individual behaviour threatens to violate these limits, whether they are spoken or unspoken, family members will respond by re-establishing the limits in order to maintain stability within the system.

Each member in the system actively participates in and is responsible for maintaining the stability of the system. It is thus important not only that the individual be viewed in isolation, but also that the system as a whole be assessed. (Broderick, 1993)

2.2.3.3 The characteristics of the Family System

Large families that include three generations of members are very different from what is considered to be a nuclear family. Families are organised differently, and thus it is important when looking at families to look at the composition and characteristics within each. Within the context of household composition it is important to look at household and family boundaries. (Broderick, 1993)

2.2.3.4 External and internal family boundaries

Family boundaries can be defined as the invisible lines that separate what is inside the family and what is considered to be outside the family. Individuals still have daily contact with elements from outside the boundary, for example schools, place of work and/or other families. It is important to identify what family members perceive as boundaries in order to distance themselves from other families, for example boundary fences (Broderick, 1993).

In addition, Broderick (1993) notes that a family has many attitudes, rules and communication patterns that help to define its boundaries. These boundaries specify who is considered part of the family system and who is given access to the family system, for example external family members. Boundaries differ in terms of quality, and range from an extremely closed quality to an extremely open quality.

A closed quality family can be identified by the following characteristics:

- Tightly controlled access to family space
- Controlled access to outside members
- New outside links are difficult to establish
- Privacy is valued
- Values and rules tend to be rigid
- Communication is tightly channelled with little expression of conflict
- High priority is given to allegiance to the family
- Controlled in expression, but can be affectionate
- Low tolerance for differences, while discipline and traditions are valued; and
- Change is difficult and threatening.

Broderick (1993) notes that on the other side of the continuum are families with extremely open boundaries, where the opposite for the above is found.

Critique of the Family Systems theory

The Family Systems theory excludes experiences, interactions and socialisation within the broader social context. This theory can be perceived to be one-dimensional as it only considers the influence that the family has on the actor and does not take into consideration other agents of socialisation. This theory also assumes that the family is the strongest socialisation factor but does not note the possible strong influence that other institutions may have on the family overall. (Murphy and Callaghan, 2006)

2.2.4 Life course perspective

The life course perspective is an approach that is generally applied when analysing an individual's life course within a structural and cultural context that is predictive of social change. This approach takes into account an individual's life history that could predict certain outcomes in later life. In particular, this approach specifically focuses on the connection between the individual and his or her historical and socioeconomic context. The theory details the importance of time, context, process and meaning on human development and family life (Bengston and Allen, 1993; Hunt, 2005).

Hunt (2005) focuses on childhood from a life course perspective, and specifically examines on the following:

2.2.4.1 Discontinuities in childhood

According to the life course perspective the family can be perceived as a micro group within a macro social context (Bengston and Allen, 1993). Within this context Hunt (2005) specifically looked at factors that cause discontinuities of early childhood, such as disruptions in the family. The life course perspective states that residential moves are often associated with age and corresponding life events such as leaving home, marrying and searching for stable employment (Pribesh and Downey, 1999). According to this perspective, an event such as the birth of a child may prompt a move as a result of overcrowding. Along with sensitivity to the life course perspective, Pribesh and Downey (1999) argue that a move could also be prompted by the

interaction between characteristics of the living situation and subjective evaluation of satisfaction with the current residence. Hunt (2005) notes that family change is seen as a “crisis” of childhood, and that the many traumatic childhood events caused within this context could potentially influence subsequent stages of development.

2.2.4.2 Childhood and formal education

Hunt (2005) notes that it is important to consider the childhood phase of the life course in relation to the formal education system. According to Hunt (2005) there is a link between family breakdown and educational performance, which in turn has an impact on life chances in adulthood.

Critique of the life course perspective

The life course perspective has been criticised for focusing mainly on the nuclear family and for therefore not taking into consideration the complexity associated with studying more complex or extended family structures (Bengston and Allen, 1993).

In summary, it could be argued that the family is a universal sociological construct. Various perspectives have been developed in order to clarify the role of the family within society. However, these theories differ fundamentally. The life course approach was selected as the theoretical framework upon which this dissertation was based. This approach is generally applied when analysing an individual’s life course within a structure or cultural context. The life course approach is also ideal when looking at

associations between the specific social contexts and certain outcomes or social change.

2.3 The South African Context

South Africa has a very specific political history that has influenced the formation of Black households over hundreds of years. When studying Black households it is thus important to take into consideration the political background that has shaped and positioned them.

2.3.1 Historical events that influenced Black household formation

In 1948 the conservative National Party (NP) won the parliamentary election and gained control of the South African government. The NP began to take steps towards implementing the Apartheid or racial separation policy. The Apartheid system consisted of four pillars that were put into place between 1950 and 1953.

- The first of these pillars, the Group Areas Act 41 of 1950, segregated racial communities and relocated the Black population to a minor percentage of the country's land.
- The Population Registration Act 30 of 1950 required all South Africans to register their race with the government, thus establishing race as the defining social and legal marker.

- The Pass Laws act was implemented in 1952 that required Black South Africans to carry a passbook so that the government could regulate their travel through the country. Bray, Gooskens, Kahn, Moses and Seekings (2010) note that this law separated a large number of Black household members as, together with the Group Areas Act, it created a system of migrant labour characterised by gender divisions: men were forced to move to urban areas to follow work opportunities, while women and children were required to stay behind in rural areas.
- The fourth pillar to the implementation of the Apartheid system consisted of the Separate Amenities Act, which established separate public facilities for Whites and non-Whites.

In addition, the promulgation of the Bantu Self-governance Act (No. 46 of 1953) provided for the separation of Black people into eight different ethnic groups, each consisting of its own commission-general who was assigned to national, self-governing units. However, in spite of the legislative framework that underpinned a structural division of Black families, society and identity, there were expressions of Black Nationalism in terms of ideologies of social and cultural identity and political resistance through the following structures:

- The movement for revolutionary violence based on the Bhambatha ideology
- Tribal nationalism that evolved under pressure from the government

- The African National Congress, characterised by an inclusive South African nationalism
- The Pan African Congress, characterised by an exclusive African nationalism.

The increase in Black nationalism created greater resistance against the National Party government. Resistance in the form of civil unrest eventually led to the banning of the ANC as well as the PAC (Booyse, Le Roux, Seroto and Wolhuter, 2011).

Opposition grew strongly both on a national and an international level, and was met with often violent responses from the South African government. On June 26, 1955, the Freedom Charter calling for equal political rights for all races was adopted by opposition groups. Members of the ANC became impatient with the inability of peaceful protest to achieve results, and therefore broke away to form the PAC in 1959. The Sharpeville massacre in March 1960, in which 69 people were killed and 180 people injured, resulted in the banning of all opposition groups. The formation of underground armed struggles ensued. Two years after South Africa withdrew from the Commonwealth and declared itself a republic in 1961, South Africa was suspended from the United Nations. In June 1964 Nelson Mandela, the leader of the ANC, was convicted of sabotage and attempting to overthrow the government, and was sentenced to life imprisonment.

During the 1970's South Africa was faced with an economic depression due to a dramatic increase in inflation and the petrol price, declining gold prices, international boycotts, a decrease in the value of the rand, as well as a severe drought. In 1973 South Africa was brought to its knees by a country-wide strike by Black labourers. Prime Minister P.W. Botha initiated a general restructuring of South African politics in 1983 in the form of a tri-cameral parliament that nominally included the Indian and coloured sections of the population, but still defined citizens politically according to race, and still excluded Black South Africans, the majority of the population. Black South Africans started participating in political action by means of boycotts, large-scale street demonstrations and stayaways. The international community lent their support in the forms of boycotts and increasing pressure on the South African government (Booyse et.al., 2011).

On June 12, 1986, a national state of emergency was imposed following widespread strikes and riots. On September 14, 1989, F.W. de Klerk of the National Party was elected president. During his rule he announced the repeal of the Separate Amenities Act and unbanned all 33 opposition parties (Booyse et.al., 2011; Cameron, 2003).

The release of Nelson Mandela in February 1990 heralded an end to the political system of Apartheid. The first freely elected non-White government came to power in 1994 and initiated a number of social and economic reforms aimed at alleviating the inequalities caused by the Apartheid system (Cameron, 2003).

In summary, Table 2 highlights the events that have influenced and shaped the composition and functioning of Black South African households.

Table 2. Timeline of events shaping Black South African households

Year	Event
1832	The slave trade is abolished
1876	The English and the Boers initiate a war of conquest against African people
1886	The discovery of gold on the Witwatersrand and the establishment of Johannesburg
1910	The formation of the Union of South Africa
1912	The African National Congress (ANC) is founded
1925	Afrikaans is designated as the official second language, and English as the first
1931	The construction of the first Black township in Johannesburg, named Orlando
1937	The Native Urban Areas Act is passed
1937	The Native Laws Amendment Act is passed – this Act prohibited Black people from acquiring land in urban areas, including Johannesburg
1948	The National Party is elected as the ruling party and the Apartheid policy is

	adopted
1950	The Group Areas Act is passed – Black South Africans are excluded from residential and business areas
1961	The Bantu Education Act is passed, by means of which the system of education for Black people is segregated and limited
1961	South Africa is declared a republic
1964	ANC leader Nelson Mandela is sentenced to life imprisonment
1970	The Bantu Homelands Citizenship Act is passed
1975	Maths and social studies are to be taught to Black South Africans in Afrikaans only
1986	The Influx Control Act and pass laws are abolished, and the South African Citizen Act is restored
1990	Nelson Mandela is released from prison
1991	The Group Areas Act is revoked
1994	The ANC wins the first non-racial election, and Nelson Mandela is elected president
2000	South Africa finalises the reversal of Apartheid policy

(Barbarin and Richter, 2001)

2.3.2 Positioning the family and household within South African history

Based on its unique political situation, South Africa has unique household situations. Amoateng, Heaton and Kalule-Sabiti (2007) suggest that South Africa is a culturally diverse society which exhibits different household formation rules that are ultimately affected by living arrangements of people over the life course, with factors such as politics, access to housing, health, education and other social and economic amenities also being important in the decision about living arrangements.

Traditional kinship structures and the extended family were the norm for Black South African households during the pre-colonial period (Viljoen, 1994). Family members were related to the household by an enmeshed web of relationships involving tribal lineage and kinship groups. These societal structures changed fundamentally during the periods of colonialism and Apartheid. Viljoen (1994) notes, for example, that during the 1970's labour was controlled by Apartheid policies and the concept of "homelands". Strict influx control was applied and people could not migrate as a family and/or household unit to the place where the breadwinner worked. This policy prevented wives, children and the elderly from legally staying in White areas and forced these family and household members to remain in the homelands. This law affected not only the living arrangements of Black families but also the population structure in the homelands (Viljoen, 1994). Relocation resulted in the disruption of community ties. Moser (1999) notes two aspects of Apartheid that especially influenced the structure of the Black family:

1. The migrant labour system and influx control measures that separated workers, the majority being men, from their family for long periods
2. Separate development — spatial planning and settlement policies that relocated communities, forcing them into “bantu homelands” and forcibly dispossessing households of their land and cattle.

The Apartheid system left behind a socio-economic environment characterised by widespread poverty, poor access to basic services and inequality in the distribution of resources across households. The ANC-led government that came into power in 1994 has committed itself to the implementation of various programmes and policies aimed at improving the well-being of the previously disadvantaged (Casale and Desmond, 2007).

Several social, political, and demographic developments in the country since the abolition of Apartheid have warranted the revisiting of the issue of family change within the South African context. Amoateng, Heaton and Kalule-Sabiti (2007) identify three factors that have contributed to the changes in living arrangements of South Africans:

1. The new South African government’s transformation agenda in areas such as housing, education and health that is potentially influencing not only kinship organisation but the living arrangements of South Africans.

2. The decrease in mortality through better health systems as well as the decrease in fertility and large-scale urbanisation. It is estimated that 56% of the South African population now lives in urban areas.
3. The fact that more funds have been made available for research on the situation of the family, including aspects of the economy and social characteristics.

Policy reforms since the end of Apartheid have allowed for rapid urbanisation on the part of Black South Africans. Bray et al. (2010) find that in the process a number of women have left their children with other family members in the rural areas; however, a large number of women have migrated with their children to urban cities. This has given rise to overcrowding in certain urban areas as well as an increasing demand for schooling. Even with the reform of the Apartheid policies, poverty and unemployment remain a huge social issue for many Black families. Bray et al. (2010) attribute one of the causes of the breakdown of families to the economic situation. Revised social policies such as pension funds, and other social grants such as child-care grants, have also allowed females more independence and have made it easier for men to be excluded from households.

Within the current South African situation it is hypothesised that Black households in urban areas are becoming increasingly nuclear, while rural family structures remain extended (Amoateng, Heaton and Kalule-Sabiti, 2007). This is especially the case in

metropolitan areas in South Africa. The following section will specifically look at the greater Johannesburg Metropolitan area including Soweto, where the Birth to Twenty study is located.

2.3.3 The study area: Greater Johannesburg Metropolitan

The greater Johannesburg metropolitan area denotes the Johannesburg, which includes the East Rand, the West Rand, Lanseria and Soweto, and which had a total population of 10 267 700 in 2007. Johannesburg is the largest city in South Africa and one of the 50 largest metropolitan areas in the world. According to the 2007 Community Survey, the population of the greater metropolitan area was 7 151 447 (Barbarin and Richter et al., 2001; Statistics South Africa, 2003). This area is characterised by a vast variety of socio-economic conditions that range from high socio-economic groupings to low socio-economic groupings. Bray et al. (2010) note that South Africa remains segregated and that several communities still struggle with compromised infrastructure and services. Over the past decade, service delivery in the Soweto area has dramatically improved, with better access to electricity and water. According to the 2001 South African National Census, the estimated 7 million individuals live in 1 006 930 formal households within this area, of which 86% have access to a flush toilet, 91% have refuse removed once a week by their local municipality, 81% have access to running water and 80% use electricity as their main source of energy. Blacks account for 74% of the population, followed by 16% Whites,

6% Coloured and 4% Indian. The greater Johannesburg population is considered to be fairly young, as 42% of the population is under the age of 24%, while only 6% is over the age of 60 years (Statistics South Africa, 2003).

2.4 Household Composition

This section of the literature study will focus on household compositional factors and current trends in household composition, as well as possible influences on child well-being.

All households perform the same basic tasks. These tasks are based on strategies and rules that guarantee the survival of the households. For the household to function optimally, the basic tasks of managing individual identities, maintaining boundaries, managing the household, regulating the emotional climate and managing family stress need to be completed. Households adapt according to their own unique composition, structure and circumstances. The household's ability to adapt in terms of household composition is dependent on its ability to acclimatise to ordinary and extraordinary stresses, and on the availability of resources (Anderson and Sabatelli, 1999).

Households differ in terms of composition and function, as well as across cultures. Historically, Black households have been perceived as extended households. The

previous section touched on the political factors and legislation that have influenced Black household composition. Sibanda (2001), however, noted that Black households are becoming increasingly nuclear. Several factors could potentially influence household composition (Sibanda, 2001; Amoateng, Heaton and Kalule-Sabiti, 2007), some of which include:

- Socio-economic status
- Place of residence (area)
- Characteristics of the head of the household, such as sex, level of education, marital status and employment
- Socio-economic status of its members
- Number of household members
- The dependency ratio between adults and children.

Jones (1996) dealt with two types of mobility of children, namely urban–rural migration (children moving between the homes of their parents, who are based in urban areas and various locations in the countryside) and circular migration (children shifting between the homes of geographically dispersed kin). He also noted the contradictory nature of mobility. On the one hand, mobility can result in insecurity and emotional distress in children, and on the other, the wider kin network group can act as a financial and emotional support system for children.

2.4.1 Household types

Researchers have been critiqued for their narrow categorisation of types of households. Siqwana-Ndulo (1998) argues that when researchers look at Black household types, they tend to follow the norm of Westernised classification techniques, and thus miss out on the true nature of Black households.

Households in South Africa have been fundamentally affected by Apartheid. The structure and composition of poor households has been fundamentally changed due to, and as a response to, the broader political and socio-economic environment. The labour migration policy of Apartheid is no exception. This policy forced men to leave rural areas and move to cities to work as mine labourers and thus become removed from their families (Townsend, Madhaven, Collinson and Garenne, 2005).

Stretched, fluid, dispersed and divided are just some of the terms used to underscore the difficulty in understanding what constitutes a household. Social relationships between household members might provide access to resources (material, social and cultural). Townsend et al. (2005) note that these resources might be as diverse as income, food, opportunities for employment and education, marriage partners, child care and political support. The authors warn though that household members may also channel less desirable outcomes such as the transmission of disease, demands on economic resources, obligation to provide care, violence and/or victimisation.

The formation of a residential household could have an impact on the quality of the household members' lives. The differences in relationships between members of a household could influence various aspects of their lives, such as their level of income, their nutrition level, the degree of supervision they receive, their workload and their access to health care, as well as other aspects of their lives (Townsend et al., 2005).

Bronte-Tinkew (1998) notes that household decision making regarding the allocation of resources, childbearing and childrearing is dependent on the person's household status. Children related to the head of the household tend to receive certain benefits when it comes to the allocation of resources and this could result in unequal child outcomes.

2.4.2 The impact of household composition on its members

Household composition could either act as a buffer, shielding children from negative impacts, or contribute to the negative impact on a child's well-being. Household compositional changes affect household stress levels and the household's coping mechanisms, modify the identity of the household and alter the way in which the household functions. Compositional changes may alter the availability of financial resources. Household members moving in or out of the household could influence and reshape social relationships, including sources of support such as friends and family. These changes do not just have an impact on a practical level, but could affect

on the emotional environment as well. According to Anderson and Sabatelli (1999), household compositional changes become a problem when the accumulation of demands outweighs the household's available resources for coping.

2.4.3 Children's vulnerability to being moved to other households

Children are especially vulnerable to change. Changes could potentially influence caregiving strategies, which in turn could influence well-being outcomes for the children. Children are often shunted between households, as households may respond to stresses and shocks by moving children out of the household. For example, if the household burden becomes too great, a child may be moved out into a new household as a rebalancing strategy to reduce the dependency ratio. A number of factors may contribute to a child's vulnerability to being moved out of a household. These factors include:

- The availability of caregivers to provide care for the child
- The child's contribution to the household and the well-being thereof — these tasks may be directly or indirectly linked to financial contributions, and may be functional contributions such as cleaning or cooking
- The child's level of consumption of limited household resources
- The child's health and development needs
- The father's level of involvement and or contribution

- The extent to which the move might strengthen and/or weaken ties between the sending and the receiving household

(Anderson and Sabatelli, 1999, Madhaven, Schatz, Clark and Collinson, 2012)

Depending on the age of the child, it might be desirable for the household to keep the child in order to contribute to household chores, such us collecting firewood or water, cooking, cleaning or looking after younger household members. However, fostering a child out to another household may improve the opportunities available to the child. Madhaven et al. (2012) specifically refer to cases in which children are sent to another household in order to have better access to education. Childhood transitions can shape a person's adult life course, channelling individuals along alternative life paths (Aquilino, 1996).

2.4.4 Household composition outcomes: Socio-economic status

The economic circumstances of a family are closely correlated to household structure or composition. Household structure is affected by the household's ability to adjust to changes in the external and internal economic environment. Moser (1999) provides two reasons for this:

1. The composition, structure and cohesion of household members determine the household's ability to mobilise household labour as an asset.

2. Households are also seen as important adaptive social institutions for pooling income and other resources, especially under economic hardship or political instability.

Madhaven et al. (2012) indicate that household livelihoods are dependent on several factors, including the number of resources that each household member contributes and the household's flexibility to sustain each member. Livelihood can be defined as the process through which people sustain themselves in order to meet consumption and economic needs, cope with uncertainties, respond to new opportunities and choose between different value propositions. Thus households act as important safety nets before outside assistance is provided.

Households provide key resources to children in the form of financial contributions and time. The combination of these resources is strongly associated with positive child outcomes. Measures for child well-being are especially sensitive to changes in household economic resources. Household members moving in or out of households influence the economic equilibrium, either by contributing to household resources or by drawing on household resources. Household structure therefore shapes the availability of economic resources, and the availability of household resources influences household structure. Several studies note the changes in socio-economic conditions that result from changes in family structure. Often these changes lead to poverty. Childhood poverty has been linked to several negatively associated child

well-being indicators (Aquilino, 1996; Bronte-Tinkew, 1998; McLeod and Shanahan, 1993).

Bronte-Tinkew (1998) reports that children living in poverty experience impaired physical growth, cognitive development and socio-emotional development. Clear evidence exists of the link between childhood poverty and children who experience high levels of conduct disorder, behavioural problems, depression, and low levels of self-confidence, as compared with non-poor children in the same age group. The income of the majority of people tends to fluctuate appreciably over their life course. For some families a state of poverty is short-lived as it is a direct consequence of a loss of a job or a divorce, and will last only until a new job has been attained and/or remarriage occurs. However, for the majority of South African families, poverty lasts a lifetime. McLeod and Shanahan (1993) have established that the length of time spent in poverty is an important predictor of children's psychological well-being. As the length of time spent in poverty increases, so do children's feelings of unhappiness, anxiety and dependence.

Childhood poverty plays a major role in explaining the differences in educational attainment between children from single-parent and two-parent families. Lower rates of high school completion and higher rates of teenage pregnancy amongst children have also been associated with lower socio-economic conditions (Aquilino, 1996).

Two-parent households are believed to provide a more positive environment for child development since time spent on economic activities is divided between two people, thus leaving more quality time available to invest in the child. Extended households could potentially also offer additional economic and child-rearing functions; however, this is dependent on the adult–child ratio, as well as the number of economically active household members (Aquilino, 1996).

Moser (1999) finds that certain types of household composition could be associated with poverty. A South African Labour and Development Research Unit (SALDRU) study concluded that the average household size for the poor tends to be around 5.9 members, compared with only 3.5 members for more affluent households. Female-headed households are expected to be poorer and more vulnerable to economic shifts than households with two parents (Bronte-Tinkew, 1998).

2.4.5 Household composition: Household types and influence

High rates of spousal separation due to migration, divorce and non-marital childbearing have contributed to the changing face of the Black South African household. Amoateng, Heaton and Kalule-Sabiti (2007) found that according to the 2001 census data only one out of every five Black husbands was living apart from their wife. Sibanda (2001) found in his study that a significant number of children do not reside with their parents, even though their parents are married. Less than 65% of

Black children between the ages of 0 and 5 live with their biological mother, compared with 85% of White and Indian children. The mother's marital status and the child's sex influence where the child lives because of cultural practices or views about the needs of male children in contrast with those of female children. Some households may be better able to take care of children based on their gender and age. The survival status of the biological parents, household size and whether the child is currently attending school are factors that may influence the child's living arrangements. (Sibanda, 2001)

2.4.5.1 Living in extended households

The survival of children's biological parents continues to be a strong predictor of where they reside. In cases where children have lost one or more parents they are significantly more likely to live in extended households. Extended households take on different forms and vary in terms of the number of household members present. The most common types of extended households are:

1. Three-generational households
2. Extended households that include at least one biological parent
3. Extended households that exclude biological parents.

(Sibanda, 2001)

The number of children living in extended households within the South African context seems to increase with age, to the extent that 50% of children between the ages of 13 and 18 reside in extended households (Sibanda, 2001).

a) Living in a three-generational household

Within the South African context, grandparents play a prominent role in the lives of their grandchildren. Aquilino (1996) found that empirical studies of grandparent–grandchild co-residence and its impact on child outcomes have demonstrated mixed results. One of the positive aspects of such household structures identified by Aquilino (1996) includes child-care assistance in the form of child minding, which gives the biological parents the opportunity to improve their education and/or play an active role in the labour market, thus contributing the financial well-being of the household.

Co-residing grandparents provide considerable support for both their children and their grandchildren and help to compensate in cases where teenage mothers lack parenting experience. Aquilino (1996) found that living with a parent in a three-generational or extended household appeared to bring a measure of stability to children's lives. This form of extended living arrangement was associated with higher educational attainment. Thus it could be argued that children living with single parent may benefit from the additional attention and supervision that grandparents and/or other relatives can provide, as long as their primary parent does not relinquish

responsibility for raising them. Having more adults who can act as parents in the household is found to benefit children. The three-generational effects may also stem from the greater economic stability the family gains by living in a grandparent's household. Multigenerational living arrangements also encourage greater educational and career achievement by single mothers. Solomon and Marx in Aquilino (1996) found that the level of educational achievement of children raised exclusively by grandparents compared favourably with the level of achievement of children of single parents. Respondents in Aquilino's (1996) study who reported that a grandparent or relative lived in their household with their biological parent present, were significantly more likely to finish high school and were more likely to obtain post-secondary training than those who had never lived in an extended family. Aquilino (1996) attributes this phenomenon to the possibility that grandparents and relatives can make more positive contributions to children's well-being when they act as a supplement to a parent's childrearing than as a substitute for parental care.

A second form of grandparent–relative care identified by Aquilino (1996) is that of informal adoptions. Informal adoptions are situations where children do not reside with either one of their biological parents. Those whom Aquilino (1996) describes as "gift children" receive primary care from kin and often have little or no involvement with their absent parents. Informal adoption by kin has been described as a traditional response in the Black community to unwed births as well as an adaptation to socio-economic conditions.

Negative effects of co-residing grandparents have also been reported (Aquilino, 1996). It was reported in a study conducted in Baltimore (United States) that longer periods of co-residence had a negative effect on the mothers' economic success and their children's social and academic outcomes. Chase-Landsdale, Brooks-Gunn and Zamsky in Aquilino (1996) found in their observation study that multigenerational co-residence was linked to lower support for children, less use of authoritative discipline and greater disengagement. These negative effects have been attributed to the strains placed on grandmothers and mothers by co-residence, and on the possible diffusion of responsibility between the two generations. Informal adoption by grandparents and/or relatives had a negative effect on children's completion of high school and a significant negative effect on their post-secondary enrolment compared with those raised exclusively in single-parent families. The impact of being raised by grandparents or relatives differs markedly from the impact of co-residing with grandparents or relatives with a parent present. (Aquilino, 1996)

b) Living in extended households: Number of household members

The literature indicates a strong relationship between the number of children present in a household and school completion, compared with extended households where more adults and fewer children are present (Aquilino, 1996).

c) Number of children living in the household

Aquilino (1996) associates larger numbers of siblings or children with lower rates of high school completion. Large family sizes (three or more dependent siblings) also lower the probability of additional schooling beyond high school. Aquilino's (1996) findings were confirmed by Furstenberg et al. (in Aquilino, 1996), who reported that the higher the number of child dependents in a household, the higher the levels of school problems and school failure among children living in that household. Living with a large number (three or more) of step-siblings or half-siblings during childhood was also associated with decreased chances of high school completion. Not only is the number of children living in a household associated with school performance, but the number of adults living in the household also plays a significant role.

d) Number of adults

Sibanda (2001) found that children living in a large household with more adult members present are less likely to drop out of school than children living in households where there are three children or more. He argues that this is most likely due to the fact that older household members provide a substitute for child labour or contribute some of their earnings to educating younger members of the household. Older siblings and/or other adults in the household could also contribute to intra-household resources, such as child-rearing and education.

2.4.5.2 Living in nuclear families

Childhood poverty is often associated with the biological parent's absence from the household. Biological parents' presence or absence also plays a major role when exploring the differences in educational attainment between children from single-parent and two-parent families. Nuclear households are often perceived to be in a better socio-economic position than extended or single-parent households. Two-parent adoptive families have been identified as having the highest level of socio-economic status compared with other family types. On average, children in two-parent families have access to more economic resources than children living with a single parent. Amoateng, Heaton and Kalule-Sabiti (2007) found that family structure and living arrangement are influenced by the level of education of the parent couple, and that the presence of nuclear households increases in relation to the parents' level of education.

However, it could be argued based on the working status of the parents that children living in households where both biological parents work have less emotional and academic support due to the parents' time constraints (Aquilino, 1996).

2.4.5.3 Living in single-parent households

Moser (1999) found that female-headed households tend to be the most common single-parent household form amongst Black South Africans. The transition to single-

parent, step-parent and non-parental living arrangements has been linked to lower academic performance and behavioural problems, a lower probability of completing schooling, and an increased likelihood of adolescent childbearing. Single parents are more likely to experience role overload and have less time and energy to supervise their children's activities, support them emotionally or help them out with schoolwork. Adolescents residing in single-parent households and step-parent families may receive less encouragement to achieve on an academic level. Living in a single-parent household has been associated with an increased risk of children dropping out of high school and a lower probability of obtaining post-secondary education (Aquilino, 1996).

2.6 Household Compositional Changes (Household Fluidity) and Child Well-being

The sequencing, number and timing of transitions may be critical aspects of childhood experience. Several studies have emphasised the harmful effects of multiple transitions on children's lives (Aquilino, 1996). Changes in family composition may be stressful for children. More transition results in greater stress, and greater stress leads to poorer long-term outcomes for children. The number of changes in family structure during childhood is more important than the specific types of family structures experienced (Wu and Martinson in Aquilino, 1996).

The impact of changes in family structure on children's later life course may depend on the timing of the transition. Changes in family structure at later ages have a less negative impact on children than early transitions. Aquilino (1996) demonstrated that children under the age of six years were more likely to experience the negative effects of household fluidity associated with divorce than older children. However, several studies have been unable to substantiate the effects of the timing of compositional changes and its effects (Aquilino, 1996; Sibanda, 2001).

Physical relocation could be associated with stressful life events such as the death of a caregiver, and could produce additional life stressors for the child that can negatively influence academic achievement. Many stressful life events may occur in conjunction with moving, making it difficult to discern whether moving per se affects academic performance or simply its association with the negative event.

Compositional change may also occur when a person in the household is involved in migrant work and/or work in a different town, as in the case of stretched households, where a person is perceived to be part of a household but stays in another town in order to pursue employment opportunities. The way in which the household compositional shift comes about is a good indication of the type of stressors that the remaining household members will have to cope with. Compositional changes result in the reorganisation of the division of tasks, allocation of resources and distribution of power and authority within the household system. These changes have the potential

to strain the existing or remaining relationships in the household, and to overburden the coping resources of the household system (Anderson and Sabatelli, 1999). For instance, the birth of a child to a teenage household member may be perceived as more stressful than the birth of a child to a married couple.

2.7 Household Structure, Fluidity and Academic Achievement

Within a sociological context, schooling involves the transfer of culture, values and norms, and provides children with a historical context within which to understand events (Booyse, Le Roux, Seroto and Wolhuter, 2011). Household structure plays an important role in children's academic achievement. One household type maybe supportive and encourage education, while another could have a negative influence on education, for example if a large number of children in the household are dependent on shared monetary and time resources. The former Apartheid policies in South Africa played a huge role in the formation and shaping of the educational system. It is thus important to look at the education system in South Africa from a historical point of view in order to understand its current status.

2.7.1 Schooling within the historical South African context

In order to understand academic achievement as an outcome of household fluidity, it is important to look at the South African schooling system from a historical perspective.

Schools were officially segregated by the School Board Act of 1905 into those for White and those for non-White children. According to Booyse et al., (2011), schools for Black learners in the then Transvaal were less than adequate. When the National Party came to power in 1948, the new government was confronted with an increasing need for Black education. The government appointed the Eiselen Commission to investigate this need and their report was published in 1951. This report was used to inform a new educational system for Black people. This educational system was designed to be culturally based, and thus to limit Western influence, but to be on par with that of White people, which resulted in the promulgation of the Bantu Education Act of 1953 (Booyse et al., 2011).

In 1967 the national minister of education, arts and science was tasked with determining a general educational policy that would integrate the different provincial schooling policies into a single policy, centralised and enforced by the national government. Booyse et al. (2011) note that under the National Advisory Education Council, the minister had to take into account the following principles:

- Education in schools was to be maintained, managed and controlled by a State department under Christian values; however, the religious convictions of the parents and children had to be respected
- Teaching had be conducted in either English or Afrikaans (mother tongue)

- Uniform requirements in terms of compulsory education, school age limits, the condition of service of teachers and teachers' salary scales were to be set
- In schools maintained and managed by the state, all education, including books and stationary, was to be provided free of charge to full-time pupils whose parents resided in the republic or were South African citizens
- Education was to be provided in line with the ability, aptitude and interest shown by the pupil
- Syllabi, examination standards as well as research, investigation and planning in the field of education were to be coordinated on a national basis
- Parent communities were to be given an adequate say in the education of their children.

Schooling under Apartheid was characterised by inequalities in the allocation of public resources, in the quality of education and in educational outcomes. Under Apartheid, Black South Africans generally attended poorly resourced schools and were taught by underqualified teachers. The dropout rate for Black South Africans was very high and in 1970 only 16% of Black South Africans enrolled into secondary school. This led to considerable inequalities in skills and qualifications. (Bray et al., 2010)

Booyse et al., (2011) argue that the Soweto unrest in the 1970's made it clear that the government's approach had proven to be less than effective, with businessmen increasingly complaining about a shortage of skilled Black manpower. In the early

1980's the Human Science Research Council (HSRC) was requested to investigate guidelines for the implementation of a revised education policy that would focus on equal education for all population groups in South Africa.

The 1981 HSRC report recommended that the current schooling structure be abolished and replaced with an education policy that would accommodate all population groups based on the following principles:

- Equal opportunities for education and freedom of choice
- Education reflecting a positive recognition of what is common as well as of what is diverse in terms of religion, culture and language
- The provision of education focusing on the needs of individuals as well as those of broader society and economic development in the country
- Education achieving a positive relationship between the formal and informal aspects of education in schools, society and the family
- Education being responsibility of the state, with provisions made for shared responsibility with parents and organisations within society
- The private sector and state sharing responsibility for informal education
- Provisions being made for the establishment and State subsidisation of private education
- Recognition of the professional status of the teacher
- The effective provision of education based on continuing research.

(Booyse et al., 2011)

A White Paper was later published in 1983 indicating that the government had accepted most of the recommendations of the HSRC report (Booyse et al., 2011).

In the early 1990's various pressure groups called for radical educational change and a vigorous process of policy development began. Several documents were published pertaining to the envisaged new education policy, including "Education realities in South Africa" (HSRC, 1991) as well as "A curriculum model for education in South Africa: discussion document" (HSRC, 1991). According to Booyse et al., (2011) three guiding principles were suggested for the curriculum for pre-tertiary education:

1. Equal opportunities had to be created for all South Africans regardless of race, colour, creed or gender
2. The religion, culture and language of all South Africans had to be recognised
3. Provision of education had to be directed not only at the needs of the individual and society, but also at satisfying the demand for development.

The curriculum model provided the following broad education aims:

- Developing learners into individuals with an advanced intellect, a strong and good moral character, a tolerant and balanced personality, and the ability to think critically
- Enabling individuals to realise their full potential through the development of all their physical and intellectual abilities

- Preparing learners for an independent successful existence both physically as well as intellectually
- Providing individuals with the required basis for further development, occupational competence and economic independence
- Educating learners in order for them to become responsible and useful citizens.

(Booyse et al., 2011)

The ANC's dominance in the National Education Coordinating Committee initiated a process that led to the launch of the National Education Policy Investigation (NEPI) in the early 1990's. The NEPI was responsible for investigating the possibilities for a future education system in a democratic South Africa. Findings from this investigation in terms of requirements for transformation in education were drafted and reworked into the 1994 ANC Policy Framework. This policy (Booyse et al., 2011) indicated that education should:

- Promote non-racial and non-sexist values
- Prepare individuals for the world of work
- Develop an understanding of skills, values and sustainable development
- Be learner-centric and encourage active participation
- Promote problem-solving and information-processing skills
- Foster self-discipline, and
- Problematise knowledge as provincial and contested.

Education became one of the major concerns of the ANC after the 1994 elections. Education up to Grade 9 became compulsory, and public funds were reallocated in order to reduce the teacher–pupil ratio and to invest in infrastructure for previously disadvantages schools. In 1997 a new curriculum was introduced, with a shift in focus onto skills development rather than rote learning. The new education model, Outcomes-based Education (OBE) was introduced in South African schools (Bray et al., 2010; Booyse et al., 2011).

The new Bill of Rights was drafted and approved, and became law. Section 29 states that everyone has the right to basic education and that the state is responsible for making such education progressively available and accessible. Booyse et al. (2011) furthermore note that the Bill of Rights states that:

- Everyone has the right to receive education in the official language or languages of their choice, and that
- Everyone has the right to establish and to maintain independent educational institutions that:
    - do not discriminate on the grounds of race
    - are registered with the State, and
    - maintain standards that are not inferior compared to those of public institutions.

2.7.2 Outcomes-based education in the South African context

Outcomes-based education under the new South African government implied a new system of assessment. Booyes, et. al. (2011) note that students' progress is now measured in terms of mastery of outcomes rather than mastery of content. Thus, a distinction is made between three types of outcomes:

1. Learning area outcomes
2. Specific outcomes such as the exact skill and information, and
3. Critical outcomes.

Outcomes-based education is structured from Grade 1 to Grade 12 (the American ladder) and distinguishes between eight learning areas:

1. Languages
2. Mathematics
3. Natural sciences
4. Social sciences
5. Technology
6. Economic and management sciences
7. Life skills, and
8. Art and culture.

Booyse et al. (2011) note that outcomes are specific for each learning area. Table 3 specifies the subjects related to the various school phases:

Table 3. Subjects per school phases

Phase	Grades	Subjects
Foundation phase	1-3	Literacy, numeracy, life skills.
Intermediate phase	4-6	Languages, mathematics, natural sciences, life skills, technology, social sciences, economic and management sciences, and arts and culture.
Senior phase	7-9	Languages, mathematics, natural sciences, life orientation, technology, social sciences, economic and management sciences, and arts and culture.
Further education and training (FET) phase	10-12	Languages, mathematics or mathematical literacy, life skills, technology and core skills.

(Booyse et al. 2011)

One of the aims of the post-1994 educational reform policy has been to reform education so as to produce employable school leavers and graduates (Booyse et al., 2011).

Politics and macro social organisations have played a major role in the shaping of South African education. With the steady decline in matric pass rates from 73.3% in 2003 to 62.5% in 2008, one could argue that there are several forces eroding the quality of education. It is also important to take into account the role that micro social institutions could play in academic outcomes. The next section will explore the relationship between educational achievement and household composition. (Booyse et al., 2011)

2.7.3 Household composition, fluidity and academic achievement

Household composition and change play a significant role in academic achievement and performance. Children's successful progress in school is an important marker for child well-being. Failing a grade may be the first indication that a child is not progressing as he or she should be. It could furthermore be a predictor of future negative academic achievement and social adjustment outcomes. Failing a grade is also a strong predictor for dropping out of school, which in turn is a strong indicator for:

- Non-marital pregnancy
- Long-term unemployment
- Receipt of grants, and
- Persistent poverty.

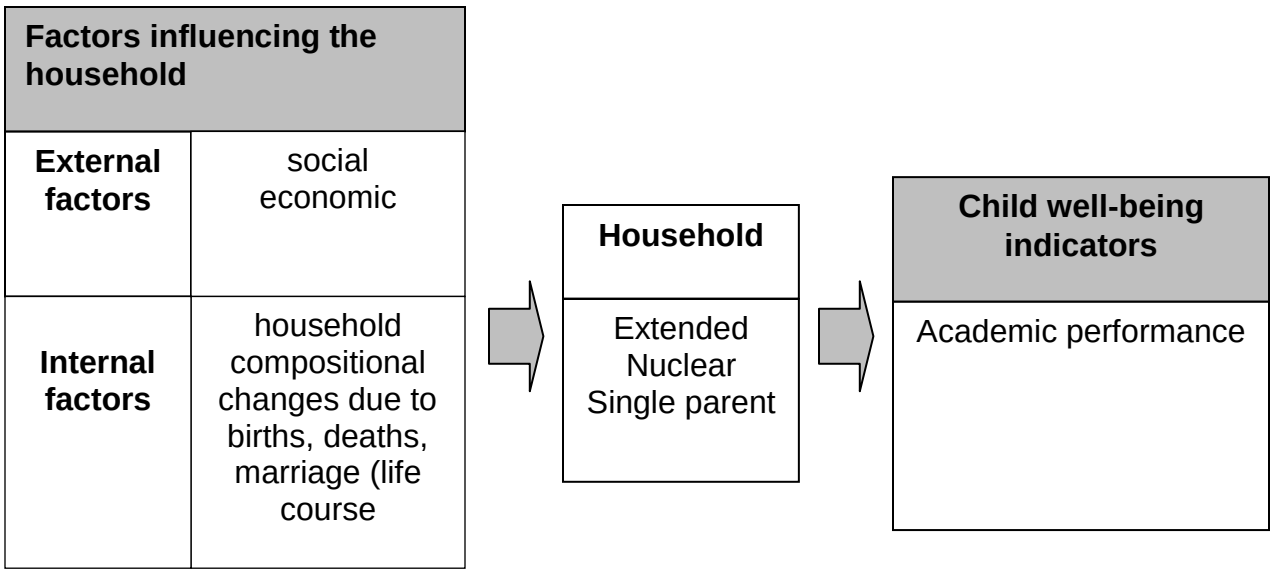
(Field and Smith, 2006)

Research indicates that changing schools due to migration or household compositional changes is often associated with reduced academic performance and a reduced likelihood of school completion, as well as reduced social competence and self-esteem. This could be due to the disruption of the child's routine and of relationships with parent, peers and teachers (Pribesh and Downey, 1999).

2.8 Summary

Several factors have been identified that influence household composition over time (see Figure 1). Black household composition in particular has been influenced by the political situation in South Africa over the past 100 years. Households differ in their adaptive capacities largely due to their composition and to the mixture of age, sex, marital status and role patterns of the members residing in these households. Various household forms can be identified and range from extended households, which are more often associated with Black household formation, to nuclear families (consisting of two biological parents and their kin). Fluid residential arrangements, changes in household composition, and high mobility of individuals between domestic units are part of the life experience of many Black South Africans, and are precipitated by socio-economic conditions and the increase in urbanisation in South Africa. Household composition has a direct influence on child well-being in terms of academic performance, behaviour, emotional health and social well-being.

Figure 2. Household composition and academic performance



Chapter 3:

Methodology

Chapter 3: Methodology

This chapter provides detailed information on the Birth to Twenty cohort, including the demographic profile of the study participants. Special mention will be made of the Bone Health study from which the current study sample was drawn. The study methodology will also be explained in detail, including the measurements used to determine household fluidity and household composition over time.

3.1 Study Hypotheses

Ben-Arieh (2005) notes that rapid changes in family life have prompted an increased demand for the skills of child development professionals and social scientists in order to establish more accurate assessments of child well-being.

This dissertation will explore the following broad hypothesis:

Hypothesis 1:

Levels of household fluidity will not be associated with a child's schooling progression.

3.2 From Birth to Ten to Birth to Twenty: A Historical Perspective

Birth to Twenty (Bt20) is both the largest and the longest-running longitudinal birth cohort study focusing on child health and development in Africa (Richter, Norris, Pettifor, Yach and Cameron, 2007). From its inception, the Bt20 programme planned to be a multidisciplinary tracking study that specifically tracked elements pertaining to the growth, health, well-being and educational progress of urban children living within a rapidly changing urban environment (Richter et al., 2007).

In 1990, a longitudinal birth cohort study of individuals born in the greater metropolitan area of Johannesburg began. This birth cohort came to be known as "Mandela's children", as the respondents were born in the seven weeks following the release of Nelson Mandela from prison on February 11, 1990. Singleton infants born between April 23 and June 8, 1990 (*n*=5 449) were enrolled in a multidisciplinary tracking study called Birth to Ten (Richter, Norris and de Wet, 2004). According to Richter et al. (2007) the recruitment for the study took place in several waves at antenatal clinics, hospitals and clinics at the time of delivery. One of the recruitment criteria stipulated was that mothers had to be a resident of the Greater Johannesburg metropole including Soweto metropole living in the Johannesburg/Soweto area for at least six months after their child's birth. Infants who were born and registered as part of the cohort and moved out of the study area were excluded and classified as "lost to follow up". The final sample consisted of 3 273 families to be tracked over the initial 10-year period (Richter et al., 2007). The Birth to Ten study broadly collected data on

children's health and development. During the early years the focus was predominantly on the following issues (Richter et al., 2007):

- Environmental influences such as poverty, migration and political violence
- Access to health services
- Nutrition
- Child care, and
- Growth and development.

The Birth to Ten study's name was amended in 2000 to Birth to Twenty when the 10-year follow-up goal was reached and it was resolved to continue the study until the respondents were aged 20 years (Richter et al., 2007). The second phase of the study encompassed the same aspects as the first phase but collected further data on risks associated with lifestyle, which included sexual and reproductive health, cardiovascular disease and diabetes (Richter et al., 2007).

3.3 Birth to Twenty Sampling

According to the Birth to Twenty records, 5 449 births were registered during this period, of which only 3 273 met the cohort entry criteria of continued residence in the area. The majority of families enrolled were Black (78%) with a small percentage White (6%), Coloured (12%) and Indian (4%) respondents. The ages of the mothers who gave birth within the selected area ranged from younger than 17 years old (3%)

to 40 years and older (3%). The majority of births were to women aged 20–38 years old (82%) with only 17% of women giving birth aged 17–19 years old. Only 10% of the mothers had recorded any form of post-secondary school education, while the majority of the mothers (65%) had achieved between a Grade 8 and Grade 12 level of education at the time of the birth of their child. Fifty-five percent (55%) of the children were born into single-mother households, 37% to married mothers and 7% to mothers living together with their partners (see Table 4).

In 1999, a random sample of children (*n*=521) who were stratified by race (Black and White), gender, and socio-economic status, and who were already participating in the Birth to Twenty cohort, were enrolled into the Bone Health study, a longitudinal study that in addition to the Bt20 aims and objectives aimed to assess factors influencing growth and bone-mass acquisition during childhood and adolescence.

Over two thirds of the study participants were Black (78.3%), with a more even distribution between male (52.4%) and female (47.6%). The majority of children were born to mothers aged 20-38 years (82%). The majority of mothers (66%) indicated that they had obtained between a Grade 8 and Grade 12 level of school education, and the majority of mothers (60%) were single at the time of the birth (see Table 4).

The cohorts of the Bt20 study and the Bone Health study differ in that the Bone Health study participants were stratified by race, the white respondent base having

been boosted by the enrolment of additional white respondents who were born in the sample area in 1990. As a result, the size of the white sample was boosted from 6% in the Bt20 cohort study to 22% in the Bone Health study. The gender split within the two cohorts is very similar, as is the age and level of education of the mothers at the time of the birth of the children. There is, however, a slight difference in terms of the number of children born to single parents in the Bone Health cohort (60%) versus the number in the Bt20 cohort (55%) (see Table 4).

Table 4. Birth to Twenty and Bone Health cohort characteristics

Characteristics	Bt20 cohort		Bone Health cohort	
	(n=3 273)	%	(n=521)	%
Race				
Black	2 568	78	408	78
White	207	6	113	22
Coloured	383	12	0	0
Indian	115	4	0	0
Gender				
Male	1 591	49	273	52
Female	1 682	51	248	48

Mother's age at time of birth				
Younger than 17 years	92	3	17	3
17–19 years	392	12	69	13
20–38 years	2 692	82	427	82
39 years and older	95	3	8	2
Mother's level of education at time of birth				
No formal education	47	2	7	1
Grade 5 or less	200	7	23	4
Grade 6-7	208	6	22	4
Grade 8–10	1 256	38	186	36
Grade 11–12	893	27	155	30
Post-secondary school training	328	10	90	17
Don't know	341	10	39	7
Mother's marital status at time of birth				
Married	1 202	37	195	37
Living together	213	7	8	2
Widowed/Separated/Divorced	47	1	3	1
Single	1 789	55	315	60

3.4 Study Sample

Funding received from the Wellcome Trust facilitated access to the Bone Health historical data. Purposive sampling (Neuman, 2000) resulted in 199 families from the Bone Health study cohort qualifying for this study. The following qualifying criteria were used to select the families:

1. The respondents were Black
2. The respondents completed the household composition section of the questionnaire at the following data-collection points:
    - Antenatal (1990)
    - Year 2 (1992)
    - Year 5 (1995)
    - Year 10 (2000)
    - Year 14 (2004)
3. The respondents were at the time attending school in the Johannesburg–Soweto area in order to confirm residence
4. The respondents had completed the school progression questionnaire in Year 14 (beginning of 2005).

Household compositional data were not collected at each data-collection point and/or year. The remainder of the cases were excluded based on the fact that incomplete information was collected at the specified data points.

3.5 Birth to Twenty and Bone Health Data Collection

Data collection was primarily achieved by face-to-face interviews with the Bt20 child's caregiver, and in later years the Bt20 child. Questionnaires were designed by the various researchers involved and, where possible, standardised instruments were used. Reliability and validity were established for all Bt20 questionnaires through pilot studies and interviews prior to the start of the data-collection wave. After the pilot phase the questionnaires were translated into:

- isiZulu
- isiXhosa, and
- Sesotho.

Interviewers were trained on the respective questionnaires before the start of each wave of data collection. During these training sessions, general research issues were discussed, including topics on working with children, administration of questionnaires that are sensitive in nature, ethics, and ethical conduct in terms of working with respondents. The same questionnaires were administered to both the Bt20 and the Bone Health study cohort participants. Blood samples were collected across the two cohorts and additional Duel-energy X-ray absorptiometry (DXA) scans and Peripheral Quantitative Computed Tomography (PQCT) scans were collected on Bone Health participants.

The Bt20 study began during the antenatal period, during which information was collected on pregnancy and birth. Employing a life course approach, the study covered an array of topics that were pertinent to the respective developmental stages and that aligned with the overarching main research themes of the Bt20 study. Data collected in Bt20 are illustrated in Table 5. Subsequent data-collection data waves for the Bt20 study is scheduled until 2012.

For the purposes of this study, household composition data collected during the caregiver interview covering the first 14 years of data were utilised (see Table 5). Household compositional data were collected every second year during the study. Data for household composition are available up to year 20; however, due to the time constraints linked to the Master's dissertation and the type of analysis involved in the calculation of household fluidity scores, the data for the subsequent years were not explored.

Table 5. Birth to Twenty and Bone Health data-collection points

Data-collection wave	Year	Where data were collected	Data-collection point for thesis
Antenatal	1989–1990	Clinics	Household compositional data
6 months	1990	Clinics & homes	n/a
1 year	1991–1992	Clinics & homes	n/a
2 years	1992–1993	Clinics & homes	Household compositional data
3/4 Years	1993–1995	Homes	n/a
5/6 Years	1995–1996	Homes	Household compositional data
7/8 Years	1997–1999	Homes & school	n/a
9/10 Years	1999–2001	Homes & school	Household compositional data
11/12 Years	2001–2003	Study sites	n/a
13/14 Years	2003–2004	Study sites and home visit	Household compositional data
15/16 Years	2005–2007	Study sites and home visit (6 month interval)	Number of school repeats

17/18 Years	2007–2009	Study sites and home visit (6 month interval)	n/a
19/20 Years	2009–2011	Study sites and home visit (6 month interval)	n/a

3.6 Ethical Clearance and Informed Consent

Ethical clearance for each year of data collection was obtained from the University of the Witwatersrand Ethics Committee. In addition, the interviewers were trained on the informed-consent process. Interviewers had to explain the research process and the procedures that were going to be conducted on the day of the interview to the caregiver of the Bt20 child and ensure that the caregiver/respondent understood. The Bt20 caregivers had to sign informed consent for all of the procedures and the completion of the questionnaire. The questionnaire was also signed by the interviewer, who thus acknowledged that the information that was given was true and correct, and that the person understood the informed-consent process. If the caregiver could not read or write, the process was explained to the caregiver, whereafter verbal consent was given, and the caregiver was kindly requested to make an X next to his or her name. In cases where the child was not accompanied by his or her caregiver to the data-collection site or clinic, or where the caregiver was not at home with the child, the caregiver was contacted telephonically and consent was obtained. During this process it was standard procedure for two interviewers (one to

talk to the caregiver on the phone and the other to witness the informed-consent procedure) to sign the informed consent form. Respondents are guaranteed anonymity since each family is assigned a unique ID number. This study mainly utilised historically collected data. However, this study obtained an independent ethics clearance certificate (M041050, see Appendix A).

3.7 Study Data Collected

The caregiver of the child, assisted by a trained research assistant, completed a questionnaire on site at each data-collection wave. These questions related to household composition, and respondents were asked to identify all household members in accordance with the official Bt20 definition. Within the Bt20 study, household members are defined as people coming together under the same roof where the Bt20 participant resides, and who share food, finances and material resources (Barbarin and Richter, 2001). According to Dasgupta and Serageldin (2000), this definition adopted by Bt20 is appropriate since it is in accordance with the definition used by most modern household surveys. Information regarding household members' name, age, gender and relationship to the Bt20 participant was recorded. Townsend et al. (2005) identified that different cultures have different kinship terminologies. In the Bt20 study, all household members' status was established in relation to the Bt20 child. The relationship to the child was categorised as follows: biological/step-mother, biological/step-father, sibling, grandparent, other relative and

other non-relative household member. At each data-collection wave, biological mother and/or biological father presence in the household was recorded, as well as the number of generations present in the household. Data pertaining to age at school entry, number of grade repeats and whether primary schooling was completed were also collected as from the 7/8 Years data-collection wave (see Appendix B).

Household composition, as well as compositional changes, was manually computed. Individual respondent questionnaires were pulled from the respondent file. The household roster was captured for each year of data collection. Biological mother's and biological father's presence were separately recorded, as well as the head of the household and his or her relationship to the child.

Household types were manually calculated for each household at each data-collection point. Household members were manually tracked over time, confirming names, relationship to child as well as age, and indicating fluidity. In addition, physical addresses were used as an indicator of mobility. The following section will provide detail on the process that was followed.

3.7.1 Household types

Household compositional data (household members' name, age, gender and relationship to the Bt20 participant) were used to code the household structure. Households were individually coded per year into the following categories based on compositional construction of the household (Ziehl, personal communication; Haralambos and Holborn, 1998; Barbarin and Richter, 2001) :

1. Single-parent family — mother or father and children
2. Nuclear family — mother, father and children
3. Extended single-parent household (three-generational) — mother or father, grandparent(s), children, other family members and other non-family members
4. Extended nuclear household — mother and father, grandparent(s), children, other relatives and other non-family members
5. Extended single-parent household (two-generational) — mother or father, children, other relatives and other non-relatives
6. Other — this category consisted of combinations of the following where neither the mother nor the father was present in the household: grandparent(s), sibling(s), other relatives or other non-relative household members.

New variables were created in order to identify the number of generations in the household based on the relationship variable. Furthermore, an age variable was constructed that classified household members into the "under 16" or "16 and older"

category. A separate variable was also created to confirm the biological mother's and/or father's presence in the household.

3.7.2 Household compositional changes

The 1990 Antenatal household composition data collected prior to the birth of the child was seen as the baseline. The following changes over time were manually recorded and a new variable was created in the dataset noting each movement:

1. A person under the age of 16 years moving into and/or out of a household as well as that person's relationship to the child
2. A person over the age of 16 years moving into and/or out of a household, as well as the individual's relationship to the child
3. Formations of new households. This could be due to a child moving into a new household as well as a new physical address, or where the child stays at the same residence but the composition of the household completely changes
4. The Bt20 child moving to a house at a new physical address, but where the household composition remains the same.

The number of changes for each of the years (1992, 1995, 2000 and 2003) were calculated based on the above score, and were added to form a longitudinal household fluidity index of the number of household membership changes that took place over the 14-year period. These time points were specifically chosen by making

use of a life-course approach to capture key developmental periods: birth, infancy, pre-school, late childhood and early adolescence.

The household fluidity index was then divided into tertiles to reclassify household fluidity according to:

- Low levels of household fluidity
- Medium levels of household fluidity
- High levels of household fluidity.

3.7.3 Number of grade repeats

Data on child well-being indicators were collected on an annual basis. These variables included indicators on academic performance, emotional status and physical health. For the purpose of this study grade repeats during primary school was selected. The collection of school reports started in year 5. In addition the caregiver of the child was asked to confirm the Bt20 child's current school grade. These results were collected in a separate database and a variable was created to record each year of repeat.

3.7.4 Dependency ratio

For the purpose of the Bt20 broader objectives in Year 2, data collection there distinguished between household members younger than 16 years old and household members 16 years and older, and thus actual age was not collected. In order to keep the age brackets consistent, the data for this study were coded for household members younger than 16 years old and household members 16 years and older. It could be argued that a person younger than 16 years will drain more of the household resources due to his or her need to be taken care of, and the strong likelihood that the person may still be at school, and thus need more resources. Persons older than 16 years could potentially add to the household resource pool by earning money through informal labour, or by performing household tasks such as cooking, cleaning or looking after younger siblings. For the purpose of this study, the dependency ratio was calculated as the total number of household members over the age of 16 divided by the total number of household members under the age of 16.

3.7.5 Wealth index

The wealth index is a continuous variable ranging from 0 to 9. This score was derived from several variables, including home ownership, home type, access to electricity in the home, and ownership of a television, car, fridge, washing machine and phone. The higher the score, the more items the household had access to. For the purpose of this study, the wealth index was divided into tertiles.

3.8 Statistics

The Pearsons Chi Square Test for independence and Fisher's Exact Test (for two-way tables) were used to assess the representivity of the sample compared to the Bt20 cohort. Analysis of variance (ANOVA) was used to establish significant differences between the average household sizes across time.

In addition, assuming a normal distribution, proportional testing was used to identify significant differences between the various household types between 1990 and 1992, 1990 and 1995, 1990 and 2000, and between 1990 and 2003 (McClave, Benson and Sinich, 1995).

A chi square test was further utilised to establish whether household fluidity has a significant effect on completion of primary school, or on the number of repeats during primary school. Table 6 provides the statistics that were used to analyse the data in order to establish whether there is a relationship between household fluidity and the descriptive variables.

Table 6. Statistics utilised for this study

Variable 1	Variable 2	Type of analysis
Continuous	Continuous	Correlation analysis
Continuous	Categorical	ANOVA with post hoc analysis
Categorical	Categorical with two categories	T-test
Categorical	Categorical	Chi square

Table 7. Variable classification

Variable	Scale
Household fluidity index	Categorical
Household composition	Categorical
Gender	Categorical
Age	Continuous
Wealth index	Categorical
Number of repeats	Scale

In Chapter 4 the results derived from this analysis will be discussed.

Chapter 4:

Results

Chapter 4: Results

This chapter focuses on specific data and findings. The study sample will be compared with the larger Bt20 study cohort in order to examine representivity. Household specifics will be described in the same order than the aims of the study was presented in terms of the number of members in the household, household headship, generational representivity and household structure. The final section of this chapter will examine specifically levels of household fluidity and their association with schooling.

4.1 Sample Representivity

The total sample size for Black respondents in the Birth to Twenty study was n=2 568. To examine study sample representivity, key demographic variables were compared between the 199 families selected for this study and the remaining 2 369 Black families in the Bt20 study (excluding the analytical sample). Significant differences were found in terms of age since slightly more mothers in the study sample were in the younger category (mean age 24.8; ± 5.9 in study sample versus 25.0; ±6.3 in the Black Bt20 sample). Significant differences were also noted in terms of the marital status category and that more mothers were single in the study sample compared to the Black, Bt20 sample. (see Table 8 below).

Table 8. Demographic representivity of the sample in relation to the larger Birth to Twenty study

Characteristics	Black Bt20 cohort n=2 568	Black Bt20 cohort n=2 369 *(excluding analytical sample)*	Study sample n=199
Gender of child			
Male	48.6%	48.1%	52.8%
Female	51.4%	51.9%	47.2%
$X_{(1)}^2 = 1.75$; $p = 1.75$; *NS*			
Mother's marital status at birth			
Married/Living together	36.1%	38.4%	23.1%
Widowed/Separated/Divorced/Single	63.8%	61.6%	77.9%
$X_{(1)}^2 = 19.25$; $p < 0.001$; *Sig.*			

Maternal age (years)			
<17 years	3.2%	3.1%	4.0%
17–19 years	12.9%	12.4%	18.6%
20–38 years	80.9%	81.4%	75.9%
39+ years	3.0%	3.1%	1.5%
$X_{(3)}^{2} = 8.32; p<0.001;$ *Sig.*			

4.2 Household Size

The average household size for the years 1990, 1992, 1995, 2000 and 2003 are shown in Table 9. The average household size in 1990 was 6.5; this increased to 7.7 in 1992 and then decreased to 6.4 in 2003. Changes in household size were significantly different between years 1990 and 1992 ($p<0.01$), years 1992 and 2000 ($p<0.05$), and between years 1992 and 2003 ($p<0.001$).

Table 9. Total number of people in the household per year

Number of people	1990	1992	1995	2000	2003
2	13 (6.5%)	0 (0%)	1 (.5%)	1 (.5%)	3 (1.5%)
3	10 (5.0%)	17 (8.5%)	13 (6.5%)	13 (6.5%)	21 (10.6%)
4	32 (16.1%)	13 (6.5%)	20 (10.1%)	30 (15.1%)	26 (13.1%)
5	27 (13.6%)	21 (10.6%)	33 (16.6%)	37 (18.6%)	43 (21.6%)
6	31 (15.6%)	24 (12.1%)	25 (12.6%)	24 (12.1%)	26 (13.1%)
7	23 (11.6%)	32 (16.1%)	29 (14.6%)	22 (11.1%)	21 (10.6%)
8	21 (10.6%)	23 (11.6%)	25 (12.6%)	22 (11.1%)	17 (8.5%)
9	13 (6.5%)	20 (10.1%)	17 (8.5%)	15 (7.5%)	16 (8.0%)
10+	29 (14.5%)	49 (24.6%)	36 (18.0%)	35 (17.5%)	26 (13.0%)
Total	**199 (100%)**	**199 (100%)**	**199 (100%)**	**199 (100%)**	**199 (100%)**

In 1990 the average number of household members over the age of 16 years living in the household was 4.6, and this number gradually decreased to 3.8 in 2003. Conversely, during 1990, 1.9 household members on average were under the age of 16 years and this number increased rapidly to 3.3 in 1992, and then remained relatively constant until 2003, when the figure decreased to 2.6 (see Table 10 below).

Table 10. Household size and age distribution

	1990	1992	1995	2000	2003
Average household size	6.5	7.7	7.1	6.9	6.4
Standard deviation	2.8	3.2	2.8	2.9	2.6
Adults in household	4.6	4.5	4.2	3.9	3.8
Standard deviation	2.0	2.0	1.9	1.9	1.9
Children in household	1.9	3.3	2.8	3.0	2.6
Standard deviation	1.7	1.8	1.6	1.6	1.2

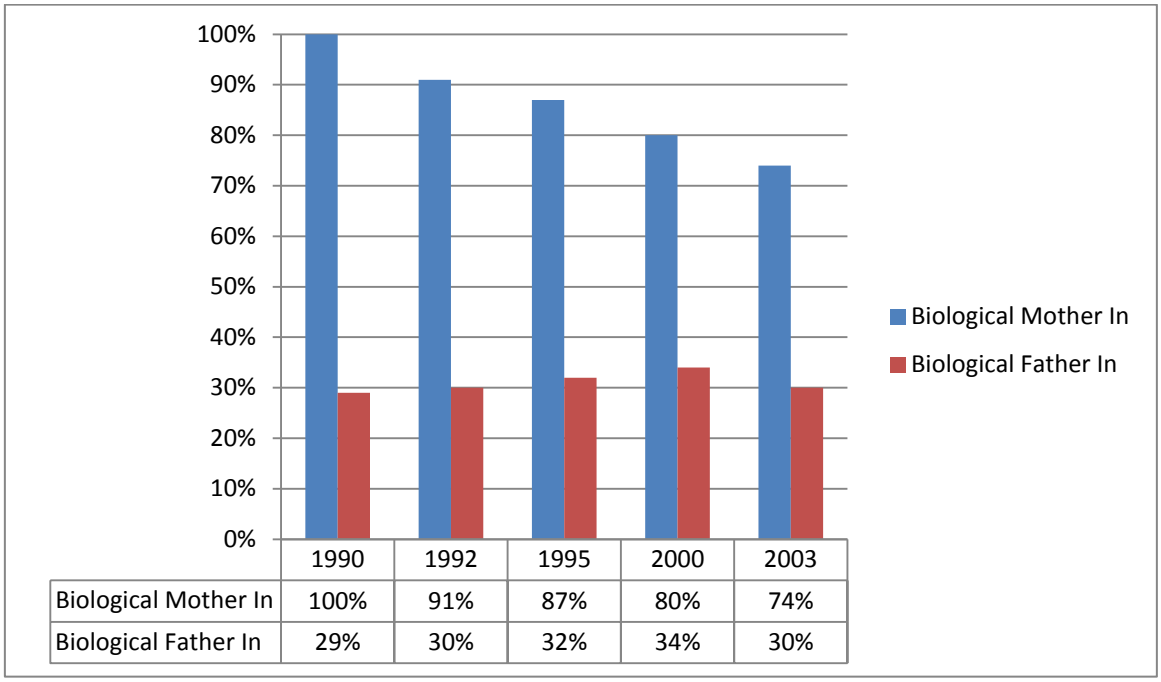
Before the birth of the Bt20 child, the mean dependency ratio was 1.8 indicating that there were more adults in the household than children and 55 households did not have any household members under the age of 16 present. The dependency ratio did not significantly change during the 14-year study period (see Table 11 below).

Table 11. Mean dependency ratio

	1990	1992	1995	2000	2003
Mean dependency ratio	1.8	1.7	1.9	1.6	1.7
Standard deviation	1.9	1.1	1.4	1.1	1.2
Dependency ratio range	.00–9.0	.30–7.0	.30–8.0	.20–6.0	.33–8.0

4.3 Biological Parent's Presence in Household

In 1990, only 29% of the biological fathers were present in the same household as the biological mother and the Bt20 child, and this figure changed little over the 14 years of the study. However, the biological mothers' presence in the household decreased from 100% in 1990 to 73.4% in 2003 (see Figure 3 below).



	1990	1992	1995	2000	2003
Biological Mother In	100%	91%	87%	80%	74%
Biological Father In	29%	30%	32%	34%	30%

Figure 3. Biological parents' presence in the household

4.4 Head of Household

In 1995 and 2003, the caregiver of the Bt20 child was asked to supply the interviewer with details about the head of the household. In 1995, over half of the households

(58.8%) were considered to be headed by men. This number fell to 37.2% in 2003. Upon further investigation, in 1995 only 2.5% of mothers were considered to be the head of the household, but this number increased to 21.1% in 2003. Twenty-two percent (22%) of households were headed by the biological father, step-father or mother's partner in 1995, and this number increased slightly to 27.6% in 2003. The majority of households were headed by the child's grandparents in 1995 (55.3%) and 2003 (43.2%). The lowest proportion of households was headed by other relatives (6.0% in 1995 and 6.5% in 2003) (see Table 12 below).

Table 12. Relationship of the head of the household to the child

Year	1995	2003
Head: male	117 (58.8%)	74 (37.2%)
Head: female	52 (41.2%)	125 (62.8%)
Mother	5 (02.5%)	42 (21.1%)
Father	44 (22.1%)	55 (27.6%)
Grandparent	110 (55.3%)	86 (43.2%)
Sibling	0 (0.00%)	1 (0.50%)
Other relative	12 (06.0%)	13 (06.5%)
Non-relative	1 (0.50%)	0 (0.00%)
Missing value	27 (13.6%)	2 (01.0%)

4.5 Number of Generations in a Household

The largest proportion of households within this study consisted of three-generation households (see Table 13). During 1990, the majority of biological mothers still resided with their parents, and thus the highest percentage (73.4%) of these three-generation families was recorded in 1990. This number steadily decreased to 44.2% by 2003. However, even though the percentage of three-generation households diminished over time, this type of household remained the most common within this study over time. The second most common household category in relation to number of generations in this study consisted of two generations. Two-generation households increased from 24.1% in 1990 to 51.3% in 2003. The third most common household category in relation to number of generations in this study was the four-generation household, but this category never accounted for more than 5% over the study period. One-generation households were only noted in the later part of the study period, when in 2000 one household was headed by an older sibling (0.5%) and in 2003 when two children (1%) were household heads (see Table 13 below).

Table 13. Number of generations present in the household

Generations	1990	1992	1995	2000	2003
One	0 (0%)	0 (0%)	0 (0%)	1 (0.5%)	2 (1.0%)
Two	48 (24.1%)	50 (25.1%)	65 (32.7%)	84 (42.2%)	102 (51.3%)
Three	146 (73.4%)	138 (69.3%)	131 (65.8%)	104 (52.3%)	88 (44.2%)
Four	4 (2.0)	10 (5.0%)	3 (1.5%)	10 (5.0%)	7 (3.5%)
Missing data	1 (0.5%)	1 (0.5%)	0 (0%)	0 (0%)	0 (0%)
Total	**199 (100%)**	**199 (100%)**	**199 (100%)**	**199 (100%)**	**199 (100%)**

4.6 Household Types

Single-parent families increased from 0.5% in 1990 to 8.5% in 2003. The number of nuclear families doubled between 1990 (12.1%) and 2003 (26.1%). Extended single-parent households (three-generation) despite being the most common household type in 1990 (66.8%), decreased to 25.6% in 2003 (see Table 14).

Extended single-parent households (two-generation) were significantly less common than three-generation extended single-parent households, but no consistent pattern over the study period was noted, with percentages fluctuating between 4% and 10.6%.

Although extended nuclear households decreased from 16.1% in 1990 to 6.0% in 2003, there was no consistent tendency over time. The category ‘other’ even though longitudinally increased over the years, proved to be the minority category over time.

Proportionate testing demonstrated that there were no significant differences ($p>0.05$) for single-parent households between 1990 and 1992, or between 1990 and 1995, but significant differences ($p<0.05$) were found between 1990 and 2000, and 1990 and 2003. There was no significant change ($p>0.05$) between 1990 and 1992 for nuclear families; however, there were significant differences between 1990 and 1995, 1990 and 2000, and 1990 and 2003 ($p<0.05$). Extended single-parent households (three-generation) showed no significant differences ($p>0.05$) between 1990 and 1992; however, significant differences ($p<0.05$) for this household type were identified between 1990 and 1995, 1990 and 2000, and 1990 and 2003. The inclination for extended single-parent households (two-generation) and extended nuclear households stayed the same between 1990 and 1992, 1990 and 1995, and 1990 and 2000, with the only significant difference ($p<0.05$) identified between time points 1990

and 2003. Significant differences ($p<0.05$) were identified for other types of households between 1990 and 1992, 1990 and 1995, 1990 and 2000, and 1990 and 2003 ($p<0.05$).

Table 14. Types of households identified in this study

Type / Year	1990	1992	1995	2000	2003
***Single-parent family**	1 (0.5%)	0 (0%)	1 (0.5%)	8 [a] (4.0%)	17 [a] (8.5%)
Nuclear family	24 (12.1%)	26 (13.1%)	39 [a] (19.6%)	44 [a] (22.1%)	52 [a] (26.1%)
Extended single-parent household (3-genrational)	133 (66.8%)	124 (62.3%)	98 [a] (49.2%)	71 [a] (35.7%)	51 [a] (25.6%)
Extended single-parent household (2-generational)	9 (4.5%)	8 (4.0%)	18 (9.0%)	11 (5.5%)	21 [a] (10.6%)
Extended nuclear household	32 (16.1%)	31 (15.6%)	19 (9.5%)	30 (15.1%)	12 [a] (6.0%)
***Other (No biological parent present)**	0 (0%)	10 [a] (5.0%)	24 [a] (12.1%)	35 [a] (17.6%)	46 [a] (23.1%)
Total (%)	199 (100%)	199 (100%)	199 (100%)	199 (100%)	199 (100%)

[a] Significantly different compared to 1990 at the 5% level of significance ($p<0.05$)

* Please note that the sample for the categories for ‘single-parent family’ and ‘other’ are too small for analysis.

4.7 Household Compositional Change

Forty-six (46) new households were formed in 1992, 32 in 1995, 49 in 2000 and 32 in 2003. Over the complete study period, half of the households (49.7%) had no new household formations, 29.6% of households experienced only one new household formation, 12.6% of households experienced two new household formations and 7.0% experienced three new household formations (see Table 15 below).

Table 15. Changes that took place within each household

Year	1992	1995	2000	2003
Newly constructed household / residential move	46	32	49	34
Person over the age of 16 years moved into household	111	125	127	135
Person over the age of 16 years moved out of household	92	69	72	55
Person under the age of 16 years moved into household	40	71	37	57

Person under the age of 16 years moved out of household	104	70	114	63

Over the 14-year period, the children in this study experienced on average 8.5 household compositional changes. On average these children experience approximately two household compositional changes per year. A Chi Square test reveals no significant gender difference with regard to household fluidity and the child's gender (x^2 = 1.40; df = 2; p = 0.496) (see Table 16). Nor is there an association between maternal education at the birth of the child and household fluidity (x^2 = 4.96; df = 2; p = 0.291)

Table 16. Frequencies of household compositional changes

Household compositional change	1992	1995	2000	2003	Longitudinal total
No household composition changes	17%	23%	15%	16%	31%
1–5 changes	76%	71%	78%	78%	44%
6–10 changes	7%	6%	7%	6%	25%
Mean number of household composition changes	2.2	1.9	2.2	2.1	8.5

4.8 Academic Performance: Number of Repeats

The majority of respondents did not repeat a grade (79%). Of those who did repeat a grade (n=43), 19% repeated a grade once and 3% repeated a grade twice (see Table 17 below). This study did not detect any association between high household fluidity and the number of grade repeats.

Table 17. Number of grade repeats

Number of repeats	Percentage
0 repeats	79%
1 repeat	19%
2 repeats	3%

4.9 The Relationship between Gender and Maternal Factors, and Household Fluidity

In order to establish that repeat for grade is not influenced by other external factors, the relationship between sex and household fluidity, as well as, maternal factors and household fluidity were examined.

4.9.1 Gender

The results indicated no significant relationship between the gender of the child and household fluidity (p=0.541) (see Figure 4 below).

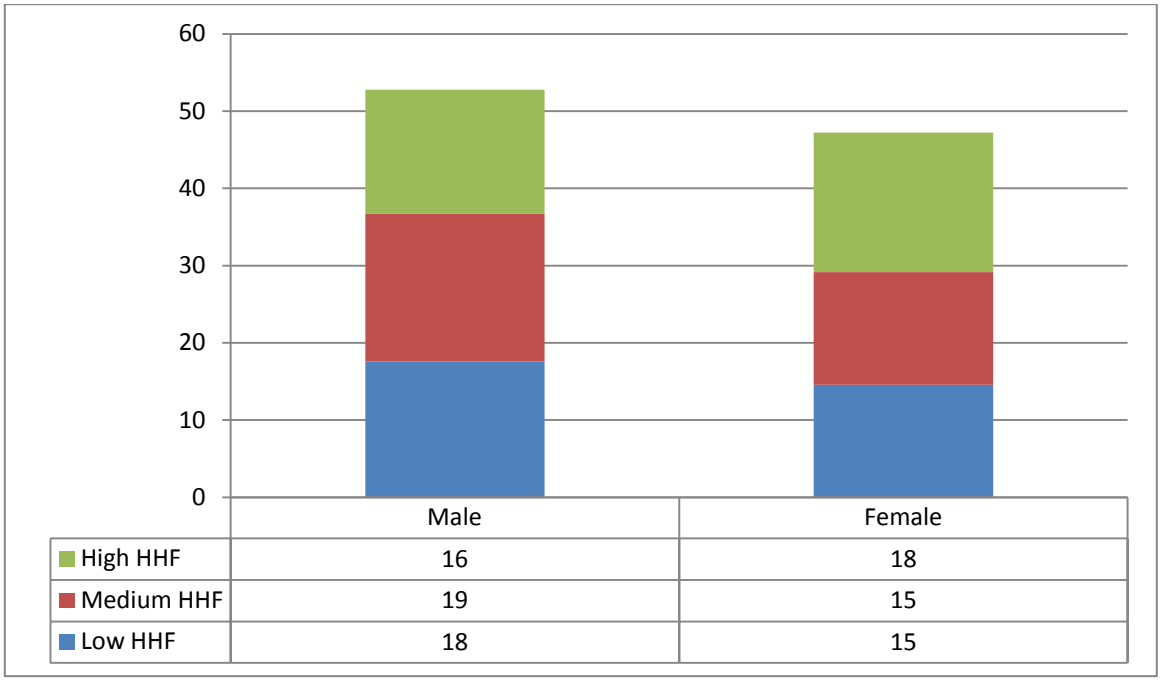


Figure 4. Child's gender in relation to household fluidity tertiles

4.9.2 Maternal factors and household fluidity

Maternal age

- The results indicated that there was no significant relationship between maternal age and the household fluidity index (p=0.779).
- The results indicated that there was no significant relationship between maternal age and the household fluidity tertiles (p>0.05).

Maternal marital status at birth

- The results indicated that there was no significant relationship between marital status and the household fluidity index (p=0.997).

Maternal education at birth

- The results indicated that there was no significant relationship between maternal education and the household fluidity index (p=0.741).
- The results indicated that there was no significant relationship between maternal education and the household fluidity tertiles (p=0.318).

Maternal household wealth index at birth

- The results indicated that there was no significant relationship between the wealth index and the household fluidity index (p=0.741).
- The results indicated that there was no significant relationship between the wealth index and the household fluidity tertiles (p=0.318).

4.10 The Relationship between Education and Maternal Factors

Maternal education is an important variable that could potentially predict the Bt20 child's performance on a scholastic level. The relationship between the education variable (number of grade repeats) and maternal factors was examined in order to

establish whether there are any relationships with repeat of grade and maternal factors.

Maternal age

- The results indicated that there was no significant relationship between maternal age and number of grade repeats (p=0.222).

Maternal marital status at birth

- The results indicated that there was no significant relationship between maternal marital status at birth and number of grade repeats (p=0.150).

Maternal education at birth

- The results indicated that there was no significant relationship between maternal marital status at birth and number of grade repeats (p=0.089).

Maternal household wealth index at birth

- The results indicated that there was no significant relationship between maternal wealth index at birth and number of grade repeats (p=0.646).

Chapter 5 will integrate the results from this study with the literature, and the findings of this study will be compared with similar studies conducted.

Chapter 5:

Discussion

Chapter 5: Discussion

This chapter focuses on integrating the study findings with the literature, as well as comparing results with those of similar studies. The theoretical relevance of the research will be explored, and finally the study conclusions will be presented.

5.1 Consolidated Findings

Ellis and Adams (2009) notes that research on families often focuses on limited dimensions of family life, this study (dissertation) reports on households rather than families in order to include broader issues. This study (dissertation) has explored several research objectives pertaining to household composition changes over a period of 14 years. The main findings linked to each research objective are summarised below in Table 18, after which the two original hypotheses of the study are tested.

Table 18. Main findings from the study

Objective	Main Finding
Household size	The average household size increased from 6.5 in 1990 to 7.7 in 1992, whereafter it decreased to 6.4 in 2003. The number of children in the household increased over time. The mean dependency ratio remained stable over the period of 14 years.
Biological parents' presence in the household	Biological mothers' presence in the household decreased from 100% in 1990 to 74% in 2003. Biological fathers' presence remained low over the same period, fluctuating between 29% and 34%.
Head of household	Households were mostly headed by a third-generation household member. In 1995 households were mainly headed by males (58%), but became mostly headed by females in 2003 (63%).

Number of generations	The majority of households consisted of three generations in 1990 (73%). However, households became increasingly two-generational, and three-generation households decreased to 44% in 2003.
Change in household type	Nuclear households increased from 12% in 1990 to 26% in 2003. Extended single-parent households decreased from 67% in 1990 to only 26% in 2003. Even though households remain extended, there is an inclination for households to become increasingly nuclear.
Level of household fluidity	Forty-four percent (44%) of the sample experienced between 1 and 5 household compositional changes over the 14-year period. The average number of household compositional changes was 8.5.
Number of grade repeats at age beginning of age 15	The majority of the sample did not repeat a grade (76%). Nineteen percent (19%) of the sample repeated one grade.

	Only 5 respondents repeated more than one grade (2.5%). No relationship was identified between high levels of household fluidity and the number of grade repeats.

At the beginning of the study the following hypothesis was put forward to be tested:

- Hypothesis 1: Levels of household fluidity will not be associated with a child's schooling progression.

The consolidated research findings accept the hypothesis, as levels of household fluidity are not associated with a child's schooling progression.

5.1.1 Household size

Ellis and Adams (2009) notes that South Africa has experienced a remarkable fast transition in household size over the past 15 years (1994-2006). Several factors contributed to this including the following global factors such as modernisation, urbanisation, education and a decline in fertility rates. South Africa has been experiencing similar trends in terms of urbanisation, education and fertility rates. In addition the HIV epidemic has had a major influence on the decline in household size. (Ellis &Adams, 2009). Beitel (in Smith and Wallerstein, 1992) reported that the size of

the average Black household in the same study area where the Birth to Twenty study was conducted from the early 1960's to the mid 1980's was around 5.5 persons per household. Ellis and Adams (2009) found a decrease in household size from 4.48 in 1996 to 4.15 in 2001. These percentages are even smaller on a provincial level where the average household size decreased from 3.74 in 1996 to 3.33 in 2001 within the Gauteng province. It could be argued that this is due to the high urbanisation levels within this province. Within this child-centric study, the average household size increased from 6.5 persons per household in 1990 to 7.7 in 1992, thereafter the average household size started decreasing to 6.4 persons per household by 2003. It could be argued that the sample of for the Bt20 study does not include single-headed households, thus this study is not representative of households without children. Amoateng, Heaton and Kalule-Sabiti (2007) note that urbanisation tends to support lower average household sizes and is furthermore believed to encourage the 'modern' nuclear family setup. Within this study (dissertation), the slight decrease in household size observed was attributed to deaths, movement patterns as well as changes in residential patterns, which altered household composition.

Household size also is also related to dependency ratios. Ziehl (2002b) notes that the dependency ratio can illustrate the relationship between those who are economically active and those who are economically dependent. In this regard, Moser (1999) notes that the dependency ratio of poor households is twice as high as households that are economically better off. In this study (dissertation) the

dependency ratio ranged between 1 and 8 based on the number of household members in each household. This could be considered high, and is likely to have a negative effect on the economic status of household members. According to the Department of Social Development (1998), the age dependency ratio for South Africa was 0.7 in 1991 and 0.4 specifically for Gauteng.

Household compositional change in terms of the number of household members moving in or out of the household could play a significant role in the well-being of the child. Changes in dependency ratios are often seen as part of a normal life cycle where children might be born into the household, while elderly household members might pass away. More adults moving out of the household would lead to a higher dependency ratio that could possibly have a negative effect on the child. For example the adult might not be in the position to adequately support the child with homework due to the sharing of resources and time that could influence on academic achievement. Furthermore, another child moving into the household could also have a negative effect on the child's well-being if the new child drains household resources. Another adult moving into the household could potentially have a positive effect on the child in terms of support and resources. Van der Waal (1996) indicates that household resources are not always evenly distributed, especially in the absence of a biological parent in the household, where biological children tend to be favoured.

5.1.2 Biological parents' presence in household

Numerous studies have shown that children raised by two biological parents generally tend to be more successful in life than children who are not; this is based on the assumption that two-parent households tend to have more resources available in terms of time and income (Morrell, Posel and Devey, 2003). Madhaven et al. (2012) extends this by suggesting that fathers also play an important role in decision making. The results from this study (dissertation) clearly indicate that on average only a quarter of the biological fathers live with their children. On the surface this finding appears alarming; however, Morrell et al. (2003) caution that the importance of fathers should not be overrated and that the presence of a father in itself is not necessarily a predictor of better child well-being. These findings should be interpreted in the context of South African social, political and economic history, as the migrant labour system and Apartheid had a powerful effect on South African family life (Morrell et al., 2003).

In this study (dissertation), the number of biological mothers present in the same household as the Bt20 child declines from 100% in 1990 at the birth of the child to 73.4% in 2003. Circular migration for women has increased in the post-Apartheid era (Madhaven and Schatz, 2007). This could be due to greater freedom of movement and the fact that more women are involved in the labour market. Madhaven et al. (2012) note that mothers are increasingly becoming more mobile in pursuing job opportunities and educational opportunities. This was also evident from their findings

on children living in rural Mpumalanga: most of the children's mothers were living with them after their birth, but the mothers' presence decreased as the children aged. Within the Bt20 study the decline in biological mother's presence was mainly due to death or an inability to take care of the child. Children are often fostered out to other households that might be in a better position to provide to their needs.

Reynolds (in Ross, 1995) found that frequently the main caregiver in a child's upbringing is not the biological parent. Children are fostered between caregivers and/or household units, and frequent household and residential changes are evident. Jones (in Ross, 1995) found that children are often separated from their biological parents for extensive periods of time, and also experience frequent movement themselves, which results in drastic alterations to the structure and the functions of the household units into and out of which they move.

In this study (dissertation), the number of children living with both biological parents increased from 12.1% in 1990 to 26.1% in 2003 (see Table 14). This could be explained by the increase in the number of nuclear, and nuclear extended households, as well as by the decline in three-generation households. Russell (2004) refers to the South African Labour and Development Research Unit Study (SALDRU), which found that in 1993 only 34% of the children in the units studied (8 800 households) were residing with both their parents. Ziehl (2001) refers to the October Households Study (OHS), which found in 1998 that only 40% of children live with both

their biological parents. Forty-six percent (46%) of children reside with only their biological mother and 2% of children reside with their biological father. Thirteen percent (13%) of children in the OHS study resided with neither of their biological parents. In this study, 5% of children aged two years were not living with either of their biological parents. This number increased to 12.1% in 1995, and further increased to 17.6% in 2000. At age fourteen, 23.1% of the children did not live with their biological parents and were commonly fostered by grandmothers or aunts related to the father's side of the family. The Cape Area Panel Study (CAPS) found that the proportion of life spent living with both parents is less than 50% for the average Black 15-year-old (Anderson and Lam, 2003).

5.1.3 Head of the household

Female headship of households is on the increase in the South African context (Brydon and Chant, 1989). Cunningham, Boult and Popenoe (1998) demonstrate an increase in the number of female-headed households and the number of women participating in economic activities, which was estimated at 43.8% in 1995. Even though this study is child- centric, it demonstrates that between 1995 and 2003, there was a dramatic change in household headship. During 1995, more than half of the households (58.8%) in this study were headed by men, but this was reversed by 2003, when 62.8% of households were headed by women. Mazur and Quangule (1995) found in their study that 40% of households are headed by women. The 1996

South African census found that 67.7% of Black households in Gauteng were headed by men, while only 32.3% of households were female-headed households (Statistics South Africa, 1998). The number of male-headed households had decreased by the 2001 South African census to 61.6%, with a commensurate increase (38.4%) in female-headed households (Statistics South Africa, 2003).

Female-headed households make up a third of households worldwide (Chant, 1992) and are a common feature in Black African family life (Campbell, 1995). Female-headed households are most often found in conditions of poverty and high unemployment, as well as in areas where the level of migration and urbanisation is high. In the South African context it is usually the oldest woman in the household that is considered to be the head of the household (Brown, 1996).

It is often assumed that men are absent in female-headed households. This is not necessarily the case and Brown (1996) argues that men function in varying roles in these households. In female-headed households young men are seen as providing a measure of protection, since women living alone tend to be vulnerable (Brown, 1996). In the absence of economically active men, women often adapt by forming multigenerational female-headed households. Men might, however, occasionally contribute economically to these households. Worobey and Angel (1990) find that female-headed households serve two purposes. This household form might be the only option available to a young woman who is unable to head her own household

due to the fact that they have joined the job market and/or a female-headed household may result from an older woman's need for care and support. In this study, female-headed households were mainly headed by the grandmother of the Bt20 child, demonstrating the importance of grandparenthood as a safety net for many parents to rely on. Male-headed households decreased over time and only 29% of biological fathers were present in the household at the time of the birth of the child. Interestingly, only 73% of biological mothers were present in the household by 2003. The majority of households consisted of three generations, and extended single-parent households remained the most common household form.

5.1.4 Number of generations residing in the household

Multigenerational families have been steadily increasing as a consequence of better health, longer average lifespan and a higher rate of divorce that forces single parents to seek help in child rearing from relatives (Smith-Rice and Tucker, 1986). Mazur and Qangule (1995) argue that multigenerational households tend to form in less affluent households. Multigenerational households are a familiar phenomenon in Black South African households and family life. Ziehl (2001) acknowledges the work of Moller, who found that Black South African multigenerational households are not on the decline. Amoateng, Heaton and Kalule-Sabiti (2007) find that a higher percentage of Black children live with their grandparents compared with other race groups in South Africa. In their analysis of the 2001 census data, the authors found that almost one third of all

South African households are three-generational, with important racial variation in urban and rural areas. They argue that urban dwellers still tend to send their children to rural areas to live with their parents or grandparents.

Factors that contribute to multigenerational households in the South African context include respect for the elderly, improved services and government grants to the elderly and demographic trends. The combination of a low marriage rate and a high birth rate may be primarily responsible for the incidence of three-generation households. (Amoateng, Heaton and Kalule-Sabiti (2007)

The current study has found that the majority of households in 1995 were three-generation households (65.8%), but this number declined to 44.2% in 2003 as the children were growing older and were more likely to be living with their biological mothers. Townsend, Madhaven, Collinson and Garenne (2005) found in their rural household composition study that 36% of households within the Agincourt study area are three-generational.

5.1.5 Household structure

A number of studies have found a strong association between household structure and various measures of child development, including academic performance, growth and psychological well-being, and that various child outcomes may be explained by changes in household composition. (Bronte-Tinkew, 1998)

Wittenberg and Collinson (2007) note that household structure has become a contentious matter in the South African context. Academics like Ziehl have suggested that Black South African households may become more nuclear within the urban setting. Contrary to Ziehl's argument, Russell (2004) alludes to the fact that urban Black South Africans are still embedded in a broader set of relationships and that there is a natural tendency for households to become extended. According to Wittenberg and Collinson (2007), these matters might become a public policy concern. A key issue around the debate of household surveys that Wittenberg and Collinson (2007) identify is the reliability of national household surveys for addressing questions on household structure and whether household structures are changing or not in the absence of longitudinal studies.

There has been an increase in the number of single-person households among Black South Africans, as indicated by the 1991 and 1996 census data. Ziehl (2001) cautions that due to changes in the census methodology as well as other social changes that have taken place in the South African context, this data cannot be used to draw generalisations about whether or not Black South Africans are moving away from the extended family pattern.

Family structures around the world have been gradually changing over recent years towards the nuclear family form. This trend seems to be associated with urbanisation,

industrialisation and the worldwide modernisation of societies (Cunningham, Boult and Popenoe, 1998). Ziehl (2001) suggests that there is a substantial body of evidence that indicates that Black South African households are reflecting a nuclear family pattern. This pattern is also observed within this study, where 12.1% of the study cohort resided in households consisting of nuclear families in 1990. This percentage steadily increased over time to 26.1% of all households in 2003. Jones (1996) found that there is a tendency on the part of urban Black families towards nuclearisation. According to Jones (1996), it could be argued that nucleation is occurring in more affluent Black households where there is no need for resources to be pooled. These changes could be attributed to the availability of social grants, to the availability of RDP housing, and to the general social upliftment experienced by Black South Africans since the end of the Apartheid era. Even though there is an increase in the number of nuclear households according to the study data, it is important to note that the majority of children still stay in extended household forms, where more than one generation is present.

5.1.6 Household compositional change and fluidity

Moser (1999) notes that differences in household composition in the South African context can be observed between rural and urban areas as well as within rural and urban communities. These differences refers to the composition of rural households that tend to be more extended and three-generational in nature, while urban

households tend to be more nuclearised. Ross (1995) states that the boundaries of domestic units tend to be fluid and constantly shift in order to realign with the ever changing political, social and economic climate. Longitudinally, in this study there were no households that experienced no household compositional changes over the 14-year period. The notion of a bounded household with static composition is inappropriate according to Spiegel, Watson and Wilkinson (1994). Ross (1995) indicated high levels of mobility in her research conducted in “Die Bos”. Sixty-six (66) out of a sample of 100 households experienced compositional changes of some sort over a period of seven months. Some of these movements were attributed to changes resulting from the normal household life cycle, such as marriages; but the majority of movements were attributed to insecurity of tenure and violence. Ross (1995) argues that the movement patterns of children are a good indication of how “unstable [the] systems of domestic interactions are”. Reynolds (in Ross, 1995) found in her research on 15-year-olds in Crossroads, that all the adolescents had experienced at least three or more residential moves and concomitant household compositional changes in their lifetime. It is interesting to note that the situation in the context of the new, reformed South Africa has not changed much for children, and it seems from this study that children are inclined to experience even more household shifts. It would be interesting to establish whether these shifts have a positive or negative impact on child well-being, seeing that the motivations for contemporary shifts could be different from the motivations for those shifts that occurred under the Apartheid regime.

The literature on the consequences of HIV/AIDS on households is ever growing and that nearly all studies suggest an alteration in household organisation (Madhaven and Schatz, 2007). The South African literature suggests that adult HIV/AIDS mortality is only partly responsible for children's mobility and residential arrangements. According to Madhaven and Schatz (2007), two thirds of households in South Africa have lost income because of HIV/AIDS. Furthermore, approximately one quarter of all South African children are living in households where they have already lost one parent to AIDS.

Madhaven et al. (2012) found in their study of rural child mobility in Mpumalanga, that household mobility is significantly higher in the younger age category (0–9 years). The team furthermore found in the lower mobile older age group (10–14) that girls are more likely to be moved out than boys in the same age category.

5.1.7 Socio-economic status

Children living in poverty experience impaired physical growth, cognitive development and socio-emotional development. Households provide key resources to children in the form of financial resources and time. The combination of these resources is strongly associated with positive child outcomes. Measures for child well-being are especially sensitive to changes in household economic resources. Household

members moving in or out of households influence the economic equilibrium either by contributing to household resources or by drawing on household resources. Household structure therefore shapes the availability of economic resources and the availability of household resources influences household structure. However, in this study socio-economic status in terms of assets was not significantly associated with household fluidity. (Bronte-Tinkew, 1998)

5.1.8 Academic performance

The South African government prioritised overall child well-being as the highest priority (Ellis and Adams, 2009). Section 28 of the Bill of Rights detail the care and protection that children should receive. These include issues on housing, health care, food, water, social security and education. According to Ellis and Adams (2009) the number of children attending school in South Africa has seen a dramatic increase over the past 15 years. In Gauteng, one in five children was attending a pre-school. Field and Smith (2006) argue that children's successful progress at school is an important marker for well-being. Failing a grade may be the first indication that the child is not progressing as he or she should. It could furthermore be a predictor of future negative academic achievement and social adjustment outcomes. Failing a grade is also a strong predictor for dropping out of school, which in turn is a strong indicator for:

- Non-marital pregnancy

- Long-term unemployment
- Receipt of grants, and
- Persistent poverty.

Grade repetition tends to be higher among males than females. Furthermore, Field and Smith (2006) identify a strong correlation between children from a single-parent household and grade repetition. This could be due to the circumstances around the reasons why it is a single-parent household. Household structure may also be a proxy for other problematic issues; for example, familial stress associated with marital conflict and divorce can negatively affect a child's development process. However, this study did not detect any association between high household fluidity and the number of grade repeats. This could be due to the fact that even though a child may experience high levels of household fluidity and compositional change, there are certain buffers in place that prevent the child from being negatively affected by this. These buffers could be in the form of financial contributions to invest in the child's education, the availability of social capital, and the fact that the dependency ratio in bigger households is such that the child gets adequate support from adults to assist him or her through the schooling process.

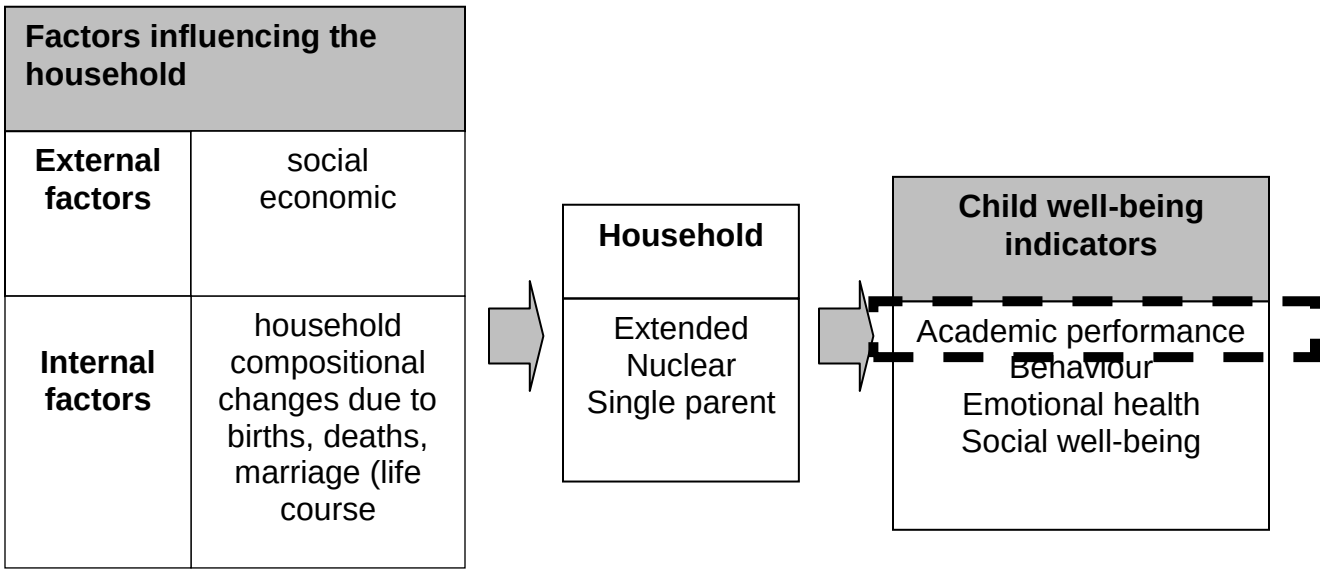
5.2 Key Findings

Several of the key findings are as a result of and/or part of the normal life cycle of households and families that include births, deaths, changes in relationship status and aging. The key findings from the study can be summarised as follows:

- There was a slight decrease in household size. This change is related to the finding that there is an increase in the number of nuclear families.
- Three-generation households are slightly decreasing in the wake of nuclear households, however three-generational households are still the most prominent household type.
- The biological mothers' presence in the household decreased while the biological fathers' presence in the household remained low
- The average number of household compositional change experienced over a 14 year period was 8.
- The number of primary school grade repeats was low and there was no relationship between high levels of household fluidity and the number of grade repeats.

This study added to the conceptual framework in terms of focussing on number of grade repeats in relation to household fluidity levels. However, several factors including behaviour, emotional health and social well-being remained to be explored in relation of household fluidity

Figure 5: Household fluidity and child well-being indicators



Ellis and Adams (2009) notes that the South African Population Policy adopted in 1998, advocates a holistic, multi-sectoral approach to influence and bring about changes in the determinant of the country's population trends. Specific objectives in the Program of Action pertaining to the family consist of:

- to develop policies and law that better support the family, contribute to its stability and take into account it plurality of forms;
- to establish social security measures that address the social, cultural and economic factors behind the increasing costs of child rearing; and
- to promote equality of opportunity for family members, especially the rights of women and children in the family.

It was also recommended that government maintain and further develop mechanisms to document changes and undertake studies on the family composition and structure;

especially on the prevalence of one-person households and single parent household as well as multi-generational families. This study contributed to the growing body of work conducted since the household and family have been placed on the agenda.

5.3 Limitations of the Study and Future Research Needed

By immersing oneself in a topic, new ideas are formed that were not originally explored in the study, and better ways in which the study could have been conducted emerge. This section will focus on the limitations of this study as well as future research prospects that could potentially be researched.

5.3.1 Limitations of the study

The following limitations could be identified:

1. The sample size of the study was only 199 respondents. This sample was differed from of the Black Birth to Twenty study in that the mothers were slightly younger and more mothers tend to be single; however, it is possible that this study did have sufficient power to detect small differences and associations.
2. This study utilized historic data collected in 1990, 1992, 1995, 2000 and 2003, and thus no additional probing could be done regarding the reasons why household members moved out of the household. Nor could the reasons for the move be established.

3. Data collection took place in 1990, 1992, 1995, 2000 and 2003, thus household movements that potentially took place in 1991, 1993-1994, 1996-1999 and 2001-2002 were not recorded. Based on the life-course theory sufficient information was not collected in terms of births, deaths and people marrying into the household.
4. It would have been interesting to explore the relationship between dependency ratio, household fluidity and grade repeats. This was however not conceptualised at the beginning of the study.
5. Making use of historical data the factors that influence changes in household composition could not be explored as these were not collected.

5.3.2 Recommendations and future research opportunities

The following recommendations could be made:

- This study included only 199 respondents of the total Birth to Twenty study. It is recommended that the subsequent data-collection waves be incorporated into the study and that household compositional data be collected on an annual basis.
- In order to improve on statistical validity, it is recommended that the study of household fluidity be incorporated into the maximum sample available.

- Based on the rich information collected by the Bt20 study, additional outcome variables representing health, psychological well-being and nutrition could be included in the analysis.
- Findings could potentially be coupled with longitudinal mobility and marital status studies.
- Qualitative studies could be implemented to probe the push and pull factors for household compositional changes
- The household fluidity index could be used to explore relationships between household fluidity and other markers of child well-being

5.4 Conclusion

Household fluidity is a direct consequence of the various lifestages that a person is subjected to over a life course. However, it is important to note that normal lifestages are influenced by socio-political as is the case of the composition of Black households within the Johannesburg context. The composition of Black households has evolved and is changing. This study adds critical longitudinal data that illustrates shifts to smaller household groups and female-headed households over time. This trend holds fundamental insights for legislation and policy. Furthermore, these trends raise important questions concerning the push and pull factors that household compositional changes are attributed to, and indeed this area warrants further investigation. There is a critical need to investigate the long-term effects of high levels

of household fluidity and household compositional change on academic achievement, psychological well-being and health, in order to shape effective legislation and policies for children that will promote and support the well-being of families by understanding the social determinants of child well-being.

“Nobody has ever before asked the nuclear family to live all by itself in a box the way we do. With no relatives, no support, we’ve put it in an impossible situation.” — Margret Mead

“The family. We are a strange little band of characters trudging through life sharing diseases and toothpaste, coveting one another’s desserts, hiding shampoo, borrowing money, locking each other out of rooms, inflicting pain and kissing to heal it in the same instant, loving, laughing, defending, and trying to figure out the common thread that bound us all together.” — Erma Bombeck

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Appendices

1990 - Antenatal questionnaire:

Can you please tell me how many people live in your home?

Name (initials)	Sex M=1 F=2	Age	Contributes to family income 1=Yes 2 = No	Relationship to your newly born baby

Interviewer instruction: record for each household member

1992 - Year 2 questionnaire to 2004 - Year 14 questionnaire:

Can you please tell me how many people live in your home?

Name (initials)	Sex M=1 F=2	Record if under or over 16 years	Contributes to family income 1=Yes 2 = No	Relationship to Bt20 Child

How often does the BTT child have contact with his / her **biological father**?

Daily = 1	Weekly = 2	Monthly = 3	Never = 4	Other = 5