

ABSTRACT

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**INTRAHOUSEHOLD RESOURCE
ALLOCATION IN SOUTH AFRICA:
ITS IMPACT ON CHILDREN'S WELFARE**

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This study is an analytical and empirical assessment of the impact of household structures on children's welfare using household level data from South Africa. Specifically, the thesis measures the relationship between different types of household structures and their impact on children's health, namely their height-for-age z scores. Households are classified as "Female-only" and "Mixed-gender", with the latter further differentiated as "Nuclear" and "Extended". The study thus moves beyond the traditional "male-female" headship commonly adopted in the Women in Development (WID) literature in defining households. Instead, the classification suggest that gender, kinship and other relationships characterize households and that children live not only in nuclear families but also in various forms of extended families. The study analyzes children's welfare from within the reality of these complex household structures. This framework is used to look at resource allocation impact of different household structures on children's welfare – the focus of many studies in the WID literature. It also analyzes the impact of non-tangibles on

children's welfare, such as the presence of fathers *and* mothers – an emphasis placed in household studies in industrialized countries.

While confirming the findings of the research in WID literature that “female-only” households are on average poorer compared to other types of households, the results suggest that welfare of children in “female-only” households is not protected through an expenditure-switching strategy. The impact of lower income is not compensated by a preference for higher spending on children. The results suggest that *ceteris paribus*, children's welfare is enhanced in family structures that have a presence of both males and females. This latter result has been confirmed in many of the household studies for industrialized countries. The analysis implies that the relationship between household structures and children's welfare is far more complex than suggested by the simple dichotomy of “male-female” headship commonly adopted in the WID literature.

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By

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Dedication

This long, difficult yet fulfilling process of completing my dissertation would not have been possible without the ceaseless support of my beloved family. I wholeheartedly dedicate my work to my husband, Junaid Ahmad, and my two beautiful children, Irum and Abraar. This dedication must also be extended to my mother, Dr. Arifa Rahman, my father, Mr. Mahbubar Rahman, my mother-in-law, Ms. Shaista Ahmad and my father-in-law, Mr. Muslehuddin Ahmad, all four of whom stood by me through these many years of work and always believed that I will be able to bring my work to fruition.

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Chapter 1: Introduction

When it comes to considering children's welfare, does it matter who controls the intra-household resources, especially monetary resources? A growing body of evidence indicates that more resources in the hands of women mean greater household resource allocations to children (The World Bank, 2001). In Brazil, for example, additional income in the hands of mothers is associated with substantially larger improvements in child survival and nutrition than additional income in the hands of fathers. For child survival the marginal effect of female income is nearly 20 times larger than that of male income (The World Bank, 2001). And for child nutrition, the effect is four to eight times larger (Thomas 1990, 1997). Rogers (1996) too, suggests a positive relationship between women's control over resources and the welfare of children. Wang (1997), using a data set from Zambia, confirms the importance of gender in the allocation of household resources but also suggests a more complex relationship in terms of the final impact on the welfare of children.

This story has been significantly influenced by a rapidly growing literature on Women in Development (WID) which advocates that public policies should focus on creating income-earning opportunities for women for important reasons.

First, currently women are heading many households with young children. This is attributed to male absence, due to widowhood, divorce or desertion (Desai and Ahmad, 1998). Given labor market segmentation and discrimination against women, these households are considerably poorer compared to households that contain men (Buvinic and Gupta, 1994; Bruce, 1989).

Second, even when men are present in the household, women contributing to a large proportion of household income are likely to have some control over how income is spent. Since women are more child-centered than men (Bruce, 1989; Rogers, 1995), income under female control has greater positive impact for children's health, nutrition and education than that earned by men (Blumberg, 1986; Knudsen and Yater, 1981; Tripps 1981).

Thus on the one hand, the argument is that children in "Female-only" households are more vulnerable because women are poorer, and on the other hand, children in these households are better off because women have greater pro-child expenditure preferences. These two approaches have coalesced into the literature on 'female-headed households' (FHH) which attempts to link female headship with positive child outcomes.

This study attempts to examine gender differences in resource allocation within the household and its relationship to children's welfare in the South African context. Specifically, height-for-age of children between ages 0 to 90 months will be used as a proxy for a welfare measure. Data from the South African Living Standards Measurement Study (LSMS) from 1994 will be used.

The framework of this thesis is embedded in the approach adopted by researchers that view household outcomes as part of a bargaining process within the household. However, in classifying households along a gender dimension, the study moves beyond the simple "male-female" headship dichotomy, introducing instead a more elaborate taxonomy that recognizes that relationships within households are not

only influenced by gender but also by kinship and other connections¹. The status of children in “female-headed” households – in this thesis classified as “Female-only” – is compared to “Nuclear”, “Extended” and “Other” households – collectively called “Mixed-gender” households – instead of the simple “male-female-headship” dichotomy.

The overall analysis suggests that “Female-only” households are on an average poorer compared to other types of households. However, the thesis does not confirm that the welfare of children in “Female-only” households is protected through expenditure-switching strategy despite the lower incomes in these households. In fact the results suggest that children’s welfare is enhanced in family structures that have the presence of both males and females. The relationship between household structures and children’s welfare is far more complex than suggested by the “male-female-headship” dichotomy.

1.1 The South African Context

In 1990, South Africa embarked on a transition from White *apartheid* rule to an all-inclusive democratic regime (Klasen, 1997). It culminated in the first democratic elections of April 1994 and the installation of a Government of National Unity under President Mandela in May 1994.

A critical element of the mandate of the new government has been to address poverty and inequality. In fact, the White Paper on Reconstruction and Development

¹ I would like to thank my dissertation committee for introducing this important idea during the defense of my proposal in July of 2003 (see Appendix II).

states unequivocally that “at the heart of the Government of National Unity is a commitment to effectively address the problems of poverty and the gross inequality evident in all aspects of South African society.” (The Government of South Africa, 1994).

The determination to address poverty and inequality necessitated more and better background information on the problem and its root causes. The existing official statistics were gravely inadequate and its validity suspect. For example, the existing database had excluded four of the poorest nominally independent ‘homelands’ since 1970 (which are home to about 20% of the population and about 30% of South Africa’s poor) and under-sampled poor peri-urban areas and were therefore of limited value.

At the request of the government-in-waiting, the Southern African Labor and Development Research Unit (SALDRU) at the University of Cape Town, was commissioned to undertake the first nation-wide, representative household survey in South Africa. Technical assistance was provided by the World Bank, and funding from the Governments of Denmark, Netherlands, and Norway. The survey sampled 9,000 households in late 1993 and included a broad range of information on family composition, income, employment, health status, education, transport, housing, agriculture, as well as questions on perceptions and aspirations of the population (Rural Development Program, 1995). This array of topics covered has opened up possibilities for conducting a large variety of much needed research related to issues of poverty and inequality in South Africa.

This study, for instance, is attempting to look at the issue of poverty and inequality in terms of allocation of resources in different types of household

compositions and how this, in turn, affects the welfare of household members, and specifically the welfare of children. The information available on household structures, income, expenditure patterns, and health status make it possible to develop a quantitative analysis in order to substantiate the story of intra-household resource allocation and its impact on children's welfare. The hope is that this assessment will add to the understanding of the dynamics of poverty and its impact on children in the context of South Africa.

1.2 The Map of This Study

Chapter II provides an overall literature survey which embeds this study within the realm of an important debate on contending theories of *household structures* and *household preferences*. The study situates the gender analysis of resource allocation in the larger context of the multiplicity of household structures. In doing so, the thesis moves beyond a simple construct of household structure based on a gender dichotomy. Recognizing that household structures are influenced by gender, kinship and other relationships this chapter suggests that a *broader* classification of households may be needed. The literature surveyed in Chapter II provides the motivation for the household classification offered in Chapter IV.

Chapter III discusses the South African context. A historical overview of the *apartheid* era is followed by an overview of the social, economic, and political conditions in the post-*apartheid* era and includes women's situation within South Africa's social and economic structure.

Chapter IV presents the analytical framework and the main hypotheses to be tested. Drawing on the analysis of Chapter II, and data on household types in Chapter

3, this chapter extends the household typology and specifies the main relationship between household structure and children's welfare to be tested using the SALDRU data.

Chapter V describes the original SALDRU data set including the way the sampling was conducted, the definition of weights, and the range of topics covered by the questionnaires. This is followed by a description of the sample used in the analysis and an account of the dependent and the independent variables of this particular study.

Chapter VI presents the analytical model, the results and the discussion of the results for the full sample.

Chapter VII includes a summary, conclusion, policy implications and possible directions for future research.

Chapter 2: Setting the Context: A Literature Overview

This thesis looks at the relationship between household structures and the welfare of children. The underlying assumption of the analysis is that different household structures have different combinations of individuals whose aggregate preferences determine the welfare of children. But the aggregate preferences do not necessarily emerge automatically and are generally a result of a bargaining process between the members of the household. Traditionally, the “Women in Development Literature” has focused on defining household structures based on the gender of the head of the household – with the assumption that gender-based bargaining determines the allocation of resources.

This chapter provides a literature survey of key research work that focuses on gender as the defining parameter of household structure and key determinant of intra-household bargaining. While accepting the gender emphasis of the WID literature, this chapter concludes that the definition of household structure would need to incorporate other dimensions of family structure. The analysis of this chapter thus sets the stage for the analysis in Chapter 4 which describes the household typology used and the hypotheses to be tested. In particular, Chapter 4 goes beyond the traditional gender-headship construct described in this chapter and suggests that within a household bargaining model, gender, kinship and other relationships characterize households and that children live not only in nuclear families but also in various forms of extended families. The study analyzes children’s welfare from within the reality of these complex household structures and the bargaining that goes on within these households.

2.1 Decision-making in a household: How is this done?

Households are complex entities made up of the aggregation of different individuals that can be differentiated by gender, age, and kinship relations. For example, a nuclear family is traditionally defined as a married couple and their offsprings. An extended family can include a nuclear family and other relatives. A polygamous family comprises of one husband with several wives and their respective offsprings. An important social issue that arises in the context of these various households is how resources are allocated within the household. Given that households are made up of different individuals how are the preferences of different individuals aggregated within a household? Given competing preferences, how are these mediated? Two different approaches – the Unitary and the Bargaining Household Models – offer dramatically differing answer to these questions.

2.1a) The Unitary Household Model

The *Unitary Model* of household decision-making has dominated empirical research until recently. In this approach households are treated as monolithic entities, endowed with a single set of preferences as if the household were an individual (Deaton, 1997). Among such modern constructs of household behavior, the New Household Economics [NHE] (Becker, 1981) is one of the most prominent. Drawing on the models of altruism, the Beckerian household model assumes an internal harmony of interests and that all household resources are (at least notionally) pooled (Kabeer, 1994).

An alternative model, within the unitary framework, assumes that the household is one of a dictatorial model, in which (presumably) a benign *paterfamilias* decides on behalf of everyone so that the consumption behavior of the household looks very much

like the behavior of the individual consumer of the textbook. In other words, the aggregate household is assumed to function as “one individual”. Methodologically, these assumptions emanate from the core of the neo-classical theory which is based on the assumption of rational choice (Kabeer, 1994) — that all human behavior is explained as an attempt to maximize individual utilities in the face of economic scarcity.

It is important to note that within this unitary household framework, *total income* – but not its *distribution* across household members – is critical in determining how resources are allocated (The World Bank, 2001). Wages and other prices are also seen as important. However, a broader set of factors that affect individuals’ bargaining power in the household – such as their control of resources or laws and norms that shape their options outside the home – are not typically seen as integral to household allocations and investments.

2.1b) The Bargaining Household Model

A differing viewpoint, put forward by the *Bargaining Household Model*, recognizes *the household as consisting of a group of individuals who bargain with each other over household resources*. One of the key arguments of the bargaining models is that the household is not necessarily a single unit, but rather consists of individuals who are members of the household who may *not* present coinciding preferences. *Nash* (1953), for example, and *Manser and Brown* (1979) postulate family members formally *contend and exchange* to gain their individual ends. Similarly, *Ben-Porath* (1980) proposes a *transactions* framework which views family relationships as *contracts between individuals* of different generations or between conjugal pairs where

individuals mediate external risk and uncertainty through exchanges with family members.

Amartya Sen (1984, in Kabeer 1994) challenged the notion that only the household head's view of the collective welfare should count, arguing that the importance of the 'subordinated' and the 'subjugated' members regarding their own and family welfare needs to be recognized. Within the bargaining framework, Sen (1985) also includes the notion of "cooperative conflict". He believes that individuals within the household contend, but in many cases cannot bargain in the precise sense of this word, because *individual utilities may overlap* in some areas. For example in poor economies, the ends to be attained are often fundamental elements of survival, common to all, and not simply "utilities" such as individual satisfaction or pleasure.

2.2 Bargaining Between Whom?

Increasingly the literature on household research has opted to look at intra-household decision making from a bargaining perspective. But who are the key players in this bargaining process within households? The *feminist* viewpoint applies the bargaining model directly to *gender relationships* in a household. Folbre (1988) has argued that it is inconsistent and arbitrary to separate gender dynamics at the micro level from the known society-wide dimensions of gender differentiation and asset distribution.

The conventional Neoclassical version [of the household] subsumes the interests of individual family members within a joint utility function; the conventional Marxian version treats the family as though it were a miniature utopian socialist society, untroubled by internal conflict....Why are both the neoclassical and the Marxian paradigms so silent on the issue of [gender] inequality within the home?it is entirely inconsistent to argue that individuals who are wholly selfish in

the marketplace (where there are no interdependent utilities) are wholly selfless within the family where they pursue the interest of the collectivity.” (Folbre, 1986, p. 6)

Explicit in this view is that the fundamental bargaining process within the household is along the gender divide. Bruce (1989) argues that given societal or macro-level gender inequalities, men and women have very different prospects in life even in same cultural settings and class groups. The contrasts are often dramatic, in their participation in labor markets, the content of their work, the returns to their labor, the pattern of economic participation over the lifecycle, daily time use, and parenting responsibilities. Women’s possibilities for finding adequate livelihoods, retaining assets, and maintaining their social status when marriages dissolve -- whether through separation, abandonment, migration, or death -- are often markedly poorer than men’s. Given this scenario, Bruce argues that it is only natural that such societal inequalities between men and women will play up within households also.

2.2 a: Gender differences in Resource Allocation

The assumption that individual preferences differ along gender lines and have an important impact on household decision-making is reflected in the empirical literature on intra-household resource allocation, especially focusing on the impact on children. In diverse cultural settings, it has been established that women typically contribute the whole of their earned income and devote other resources they control to meeting the most pressing basic human needs of the household such as food, education and health care.

“A central impetus to women’s earning – attaining a better life for their children, which many women view as an extension of “good mothering” – may explain the allocational priorities they apply to their own income and other income they control” (Bruce, 1989 p 985).

Such allocation priorities displayed by women is interpreted as an extension of the *biological* fact that women are the physical bearer of children and hence are perceived as directly responsible for the care of children and therefore need to be more aware of their needs (Rogers, 1995). Some studies on various African societies have in fact noted explicit gender-based responsibilities towards children. In such societies, husbands are responsible for the provision of lodgings, children's tuition and other educational costs. Providing income for food and clothing for children may vary as a male or female/male joint obligation. However, almost universally, women in Africa are viewed as ultimately responsible for fulfilling children's food needs (Nelson, 1981). Analyzing domestic budgets among Beti in Cameroon, Guyer (1988) finds distinctive male and female economies within households. Women are responsible for providing the day-to-day food, and, to a greater and greater degree, the education of children.

At issue is not simply the ways in which women's income is used, but also the *degree to which men and women differ in withdrawing personal spending money from their earnings* (Bruce, 1989). Although the specifics of women's consumption responsibilities vary across the world, it is quite commonly found that *gender ideologies*, (perception of oneself, as Sen [1985] describes it, as well gender perceptions supported by society) support the notion that men have a right to personal spending money. It is perceived that men need or deserve personal spending, and that women's income is for collective purposes. Mencher (1988), Hoodfar (in Bruce, 1989), Maher (1984), Roldan (1988), Engle (1986), and Guyer (1988) – commenting on India, Egypt, Morocco, Mexico, Guatemala, and Cameroon, respectively – confirm men's tendency

to withhold portions of their income for not directly productive purposes, even when families live in or near poverty. For example, Mencher (1988) in describing income levels and relations in landless families in Tamil Nadu and Kerala documents that in a variety of poor classes in 14 different villages, women consistently devote a higher proportion of their income (nearly 100 percent) to family needs than do men. Men use some portion of their wages for personal use even when overall income is clearly inadequate. Maher (1984) suggests that one reason for this is the *socialization of male children*. She traces its development in rural Morocco from a relatively early age:

“In the hamlets, by the age of 15, they [the boys] are men and begin to avoid all work connected with the domestic enterprise ... Most adolescents of this age are unemployed, partly because they do not have the strength or skills needed for most jobs. However, this does not deter them from seeking the kind of consumption which they consider proper to men – clothes, cigarettes, cinema, prostitutes. Consumption is more important than work to the social role of the adult male.”
(Maher 1984, p. 181)

2.3 Focusing on Female Headed Households: The “Women In Development”

Literature

The dominance of the view that gender is a primary determinant of resource allocation decisions within household has led to a body of analysis of the differences in behavior patterns of female-headed versus male-headed households. With the growth of female-headed household in the developing countries, researchers naturally began to focus on comparing the welfare outcomes of household decisions by females and males with a special focus on the well-being of children. The “Women In Development Literature” that emerged as a consequence shows that female-only households are more

vulnerable, both economically as well as in terms of time, compared to male-present households. In particular, residents of female-only households face greater poverty and face greater time-constraint in taking care of their respective families, especially young children. On the other hand, empirical research also suggest that in spite of their vulnerability, female-only households tend to stretch their monetary income more and make better use of it thereby positively affecting children's welfare. This latter result thus confirmed the assumption that gender matters in the decision making process of households.

2.3a) Are Female-headed Households more Vulnerable to Poverty compared to Households with Adult Male Members?

Buvinic and Gupta (1994) provides significant insight into this area. Their research presents information from roughly 65 studies covering countries from Africa, Asia, Latin America and the Caribbean. These studies used *self-reporting* and the *physical absence of men* due to migration, death, divorce, or abandonment as the most commonly used definitions to classify headship². Of the 65 studies, 61 examined the relationship of female headship to poverty, using a variety of poverty indicators including total or per capita household income, mean income per adult equivalence,

² Some, however, checked this definition against marital status (widows, divorcees, or single mothers) while others added the criterion of main earner or main worker. In addition, some of the studies distinguished between *de facto* and *de jure* female headship, and a few examined the situation of functional families headed by women residing in larger households.

total or per capita consumption expenditures, earnings of the head, access to services and ownership of land and assets. A majority of the studies but found *that female-headed households are over-represented among the poor*. The evidence summarized in Buvic and Gupta's research shows that the association between female headship and poverty is robust across a variety of conditions and points to *three sets of factors* that determine the greater poverty of these households. They emerge, respectively, from *characteristics of household composition, the gender of the main earner, and the unique circumstance of being a female-headed household*.

Female-headed households, despite their smaller size in comparison to other types of households, often carry a ***higher dependency burden*** and contain a higher ratio of non-workers to workers than do other households. Data from rural Botswana, Ghana, Kenya and Malawi, Brazil, Pakistan, and Peru shows relatively more dependents, young and old, among female-headed households (Kossoudji and Mueller 1983; Kennedy, Peters and Haddad 1992; Kazi and Raza 1989; Merrick and Schmink 1983; Rosenhouse 1989).

The main earners of female-headed families are by definition women, who have lower average earnings compared to men, fewer assets, and less access to remunerative jobs and productive resources, such as land, capital and technology. This gender-related economic gap contributes to the economic vulnerability of female-headed families. A counterfactual simulation to explain the wage gap between Brazilian female-headed households (FHH) and male-headed households (MHH) reveals that FHH have lower incomes not only because they have more children or fewer adults but also because the female head earns less than men (Barros et al. 1993) may. The lower earning power of

women heads of households is a function of their lower education in Peru (Tienda and Salazar, 1980) and of their restricted access to land and credit in El Salvador and in villages in India (Lastarria-Cornheil, 1988; Jain, 1989). This inability to acquire resources also results in women making inappropriate or inefficient choices. For example, McLeod (1988) documents that, despite the fact that housing is a more expensive long-term alternative than purchasing it, many poor women in Jamaica remain renters, lacking access to assets and credit.

Some reasons for the higher poverty of woman-maintained families cannot be attributed to household structure factors *per se* or, strictly, to gender-related differences in economic opportunities, but to a combination of both. First, women who are heads of households also have to fulfill home production or domestic roles. They therefore face greater time and mobility constraints, which can result in an apparent “preference” for working fewer hours for pay. They tend to “choose” lower-paying jobs that are nevertheless more compatible with childcare. Chipande (1987) describes how women farmers in Malawi were inclined to limit their labor time in farm activities due to a heavy commitment to domestic chores.

In addition, women who head households may encounter discrimination in access to jobs, resources or services beyond that which they encounter because of their gender. This is due to the stigma associated with being un-partnered mothers or divorced women, or may themselves, because of social or economic pressures, make inappropriate choices that affect the household’s economic welfare. In Chile, for instance, Schkolink (1991) found that female heads had significantly less access to government subsidies than other heads.

Finally, female heads may have a history of premature parenthood and family instability that tends to perpetuate poverty to succeeding generations. Premature unpartnered parenthood is an increasing phenomenon in Latin America and the Caribbean. It is likely that a substantial number of teenage mothers become responsible for the economic welfare of their children and influence their life course trajectories, as has occurred with teen mothers in the United States. These U.S. studies show that early sexual experiences and early childbearing, as well as low educational attainment and remaining unmarried, are key links in the intergenerational transmission of poverty between mothers and their children (Furstenberg et. al. 1987).

2.3b) Consequences of Female Headship for Children's Well-being

In spite of the persistent evidence of greater poverty and time-constraint among women compared to men, empirical evidence covering vastly different geographic locations seem to support that women look after children's welfare better compared to men. Studies and project evaluations in Jamaica, St. Lucia, Ghana, Kenya, Botswana, Sri Lanka and Guatemala strongly indicate a greater devotion of women's than men's income to everyday subsistence and nutrition. [(Blumberg, 1986; Knudsen and Yater, 1981; Tripps 1981) and (Carloni, 1987; Benson and Emmert, 1977 – in Bruce, 1989)]. Kumar's (1977) study in Kerala, India indicated that a child's nutritional level correlated positively with was the size of the mother's income. Significantly, children's nutritional level did not increase in direct proportion to increases in paternal income. Wilson (1981) noted that the children of working mothers have more adequate home diets at 18 and 30 months than the same-aged children of non-working mothers in a set of Guatemalan villages studied. Research by Engle (1986), also in Guatemala,

confirmed the positive contribution of maternal earnings (of non-domestic workers) to the welfare of one-and-two year olds, and noted that two-year old children of working mothers were significantly heavier than non-workers' children. Similarly, Handa's (1994) study in Jamaica indicates that children between the ages of 14 to 17 years of age have the highest school enrolment among working female-headed households ³ as opposed to working male-headed households.

Studies that report a positive effect of female headship on child nutrition find this effect to be more significant in poorer than better-off households do. Kennedy and Peters (1992) find this for Kenya and Malawi, as Engle (1991 and 1993) does for Guatemala and Buvinic et al (1992) for Chile. A credible explanation for the positive effect is that there are gender differences in expenditure preferences. This explanation rests on the notion that women's greater preference to invest in children is more easily realized in a household she heads, where there are no conflicts or negotiations with a male partner over the use of household resources. This preference appears in poorer families rather than in better-off ones, either because investments in children yield greater returns at lower levels of income or because there are fewer competing alternative investments than in higher-income households (Kennedy 1992).

Not all research, however, report positive outcomes for children. Given lack of labor and low income levels in households headed by women, children are often forced to drop out of school to earn wages or assist in housework and childcare (Barros et. al. 1993). It is likely that poor child outcomes emerge when the resources that are available

³ Handa's paper defines "working" as the main economic provider and perhaps the decision-maker.

to FHH are simply not sufficient to insure child well being. The same can be argued for the observation of both protective and high-risk effects of female headship on child nutrition. That is, the protective effects from gender-related preferences are likely to break down with increasing impoverishment.

Overall, however, the conclusion of the WID literature is clear: women headed households are poorer, but despite this disadvantage, children in women-headed households are not disadvantaged as preferences within female-headed households ensure greater protection of the welfare of children.

2.4 Assessing the Concept of “Household Headship”.

The “Women In Development” literature summarized so far suggests that *gender differentials* could be conceptualized through the notion of *household headship*, namely along a spectrum defined by *male-headed–female-headed* households (Rosenhouse, 1989; Handa, 1994; Rogers, 1995). However, empirically, it has been difficult to adopt a common criterion to measure household headship.

First, *censuses* and *surveys* have implicitly allowed the respondent to define headship, by asking simply, “Who is the head of this household?” In such circumstances the household head is *normatively* assigned often on the basis of age, gender, relationship vis-à-vis other members (usually the eldest, male member) of the family. This analytical construct has correctly come under criticism since it does not necessarily address the issue of *income or control of household resources* (Desai and Ahmad, 1998). For example, the oldest male household member is not necessarily

always the *main earner* or the *main decision-maker* regarding resource allocation. More generally, age and gender are not sufficient as indicators of decision-making in terms of allocation of household resources.

A **second** approach attempts to identify *female-headship* status by default, mainly on the basis of *marital status*. According to this definition a household is *female-headed* by default through the absence of the adult male partner [*de jure*] (Desai and Ahmad, 1998). Male absence can occur through the economic migration of the male partner, through divorce or separation or polyandrous unions, or through widowhood. A nationally representative household income, expenditure, and food consumption survey conducted in the Dominican Republic in 1986, households were categorized as FHH, within the *absent male* definition, only if they contained no males between ages 18 to 60 inclusive (Rogers 1995).

An implication of the *absent male* definition is that households that are not FHH according to this definition are assumed to be MHH by default. The problem is such a definition is not symmetric. Households defined as MHH will, in most cases, contain adult women while an “absent male” FHH will usually contain no adult men. Therefore, it is possible that within MHH allocation decisions are made jointly by both men and women, as can be the case within traditional nuclear families. On the other hand, in FHH only women are making decisions.

Moreover, within the same FHH category, it is important to know the cause of the absence of the male partner. For different marital status, – married, never marry, widowhood, migration of the male partner, divorced or separated – imply different behavioral and economic conditions for each type of *absent male* households. For

example, members of households headed by married women linked to a working migrant husband are likely to be better off, say compared to those residing in households headed by widows or divorced women who may lack a similar source of income. Access to financial resources is likely to be greater in the former type of households. In other circumstances, the degree of economic commitment (e.g. through remittances) by a male non co-resident spouse is likely to be greater than that of an ex-spouse.

A **third** criterion of establishing household headship is based on the *earnings* of the different members of the family – the underlying assumption being that, at the margin, the individual’s income and not household income affects child welfare. The various earning-based criteria to identify FHH are *Major Earner*⁴, *Major Income Contributor*⁵; and *Working Head*⁶ (Rosenhouse 1989; Handa 1994; Rogers 1995). These households known as *de facto* FHH, are based on the different levels of economic contribution of members of the household.

The preceding discussion on the definition and measurement of female-headed households raises some important issues. The fact that so many criteria have been suggested to assign headship implies social and cultural variations in the meaning of the term *household*. For example, the *absent male* headship criterion alone suggests

⁴ The person/persons who contribute(s) 50 % or more of the total household earnings.

⁵ The person/persons who contribute(s), through his/her/their earnings, 50 % or more of the total household income from all sources, including those other than wages.

⁶ The person/persons who work(s) the greatest proportion of hours, exclusive of housework, on behalf of the household.

numerous ways of a household being FHH. Implicit in the hypothesis that female headship alters household consumption patterns is the assumption that female headship, carries with it increased control over decisions. This is reasonable but not necessarily always true. The process of household decision-making is complex and not completely understood. Where no adult males are present in the household, women by definition are in control of all household decisions, unless a male family member living outside the household exercises control. But where headship is defined in terms of economic contribution, it is plausible that the earning member or members of a given household will control and allocate resources. However, the degree of decision-making power conferred by a woman's economic contribution to the household is also likely to be determined by cultural norms and by how that contribution is perceived, as well as by the size of the contribution. The story gets further complicated when households contain both male and female earners, as in most MHH.

2.5 Complex Household Structures

The emphasis of the WID literature not only faces difficulties in the definition of headship used in the research, it also under-emphasizes the complexities of household structures. While gender is an important defining aspect of households, household structure is further differentiated along several other dimensions. To begin with there is a large literature that looks at the role of *nuclear family structure* and its impact on various aspects of family welfare. This is particularly the case of the research work in the USA that looks at the linkage between children's welfare and the presence of fathers. In many ways the empirical literature around the role of the biological father in the US demographic literature suggests that the presence of fathers is positively

correlated with the welfare of children. Indeed, the empirical work in the US suggests the importance of *nuclear families* in the overall welfare of family members including children (Garfinkel & McLanahan 1986; Duncan & Rogers 1988; Weiss 1984).

The literature on household structures from Asia and Africa adds further complexity, suggesting that nuclear families may not be the norm in poorer societies. As De Voss (1987) concludes “Living in an extended family household may only be a survival strategy of the poor that would not be preferred if people could afford separate residences at a certain standard of living” (De Vos, 1987). In this context, *extended family* structures may be dominant in certain countries. The implications for children are, however, not straightforward. For example, the availability of related adults, other than biological parents in the household, may provide a child with greater access to financial resources and responsible childcare arrangements (Lloyd and Desai, 1992). On the other hand they may also compete for scarce resources.

Factors such as marriage also affect the structure of households and the relationships between family members. Recent research suggests the possibility of lesser *commitment* among partners in consensual unions than in formal marriages (Desai 1991) and of *competing demands* on polygamous husbands for the support of children of different mothers (Bledsoe 1988). In polygamous settings, where the expectation prevails that a husband must treat his wives and their respective children fairly, competition from the children of other wives may limit the resources available to each set of uterine siblings (*i.e.*, siblings born of the same mother) (Bledsoe 1988).

Conclusion: From Gender Head-Ship to Complex Household Structures

This chapter has summarized a body of analytical and empirical work that suggests that aggregate household preferences emerge from a bargaining process and that gender is the critical determinant in intra-household bargaining. In this framework household structures are defined in terms of gender headship and female headed households are assumed to be different both in terms of income and behavioral factors from male-headed households, particularly when it comes to the welfare of children. While accepting that aggregate household preferences emerge from a bargaining process and that gender roles are important in this process, the chapter concludes that other relationships beyond gender determine household structures and the bargaining that goes on within households. Chapter 4 extends the gender based household bargaining framework of this chapter by expanding the household typology beyond the female-male headship structure and establishes the hypotheses of how these household types influence the welfare of children. But before turning to this extension, however, the next chapter provides a detailed background of the South African context which serves as the empirical setting for testing the relationship between household structure and children's welfare.

Chapter 3: The South African Context

A study on gender differences in intra-household resource allocation and its relationship to children's welfare in South Africa must include a review of its unique past. For any research interest must be situated within the context of *apartheid*, or the systematic racial division. Findings from research conducted in the post-*apartheid* era (e.g. Reconstruction Development Programme, 1995; South African Participatory Poverty Assessment, 1998) has been useful in presenting the social and economic conditions of the South African population – both in the context of race as well as gender.

3.1. The Apartheid Era in South Africa

The *apartheid* era is unique to the history of South Africa. *Apartheid* is a system that was created to impose strict racial divide on all grounds – geographic, political, economic and social. It favored the White minority disproportionately, while disadvantaging the non-white communities, the African/Black (which comprise a vast majority of the population), the Coloured and the Indian, to various degrees. Therefore the irony of it is that in spite of the existing wealth of the country, a large share of the population has not been able to benefit from it, and a long legacy of poverty and inequality remains for a substantial portion of the population of South Africa. This has resulted in the inequality in access to jobs, services and economic resources among the races, as well as other opportunities to escape poverty (afforded through education, skills training, and better health, for example). Poverty and employment are closely linked: most of the poor do not have jobs, and those who do, work for low wages –

often far away from their families. This has made the poor very dependent on pensions and remittances, and hence vulnerable. *Apartheid* has also resulted in the separation and disintegration of families and communities among the non-white races.

Apartheid: A Historical Overview.

Racial ideology in South Africa and the political practice in which it is reflected has always stood in a complex reciprocal relationship with changing social and economic conditions. As Rogerson and Pirie (1979) have put it, policies falling under the rubric of “urbanization and regional planning” in the Republic of South Africa are inextricably linked to the evolution of the national economy, society, and polity. Consequently, an understanding of the *apartheid* complex must be rooted in an initial appreciation of this symbiosis of the economy, society, and political ideology.

In 1913 South Africa was divided artificially under the policy of separate development into the “common” area, comprising 87% of the land, and areas reserved for Africans, accounting for the remaining 13%⁷. This enabled the South African economic system to encompass two diverse modes of production, the white-focused capitalist mode and the black-focused redistributive mode (Wolpe, 1972). The South African economy, anchored on the growing domination of the capitalist mode, was based at first on mineral exploitation, a phase succeeded by burgeoning industrialization and expansion of the tertiary sector (Houghton, 1973). Together these events accounted

⁷ After the Nationalist Party victory in 1948, the latter were reconceived as nine “homelands” or “bantustans”. Since 1976 four of the bantustan areas had accepted “independence”, although their statuses as independent countries were not recognized by any “countries” other than themselves and South Africa.

for South Africa's economic advance from a pre-industrial stage of national economic development to Rostowian "drive to maturity" in less than 60 years. However there occurred another side to capitalist development in the country. According to Colin Bundy,

“...the crucial post-mineral period was one in which non-market forces predominated; in which discriminatory and coercive means were utilized by the wielders of economic and political power to disadvantage the African peasantry; and that an economy was created whose structure was such as to render “market forces” highly favourable to the White capitalist sector. The decline in productivity and profitability of African agriculture – and the corollary of greater dependence of Africans on wage labour – is in an important sense the outcome of the nature of capitalist development in South Africa. (October 1972).

The salient feature of black wage labor was its migratory and temporary nature, with migrants returning to the Reserves⁸ between periods of employment in “white areas”. The migrant retained a means of subsistence in the redistributive economies of the black areas, thus creating a geographical separation of the two processes of labor-force maintenance and renewal. The costs of welfare facilities, education, and social security were accordingly transferred to the communal context of the pre-capitalist economy. Thus it was possible to pay black workers less than might otherwise have been the case as the burden of labor renewal fell upon the subsistence economy (Magubane, 1975).

⁸ The term “Reserves” referred to the black areas, or black race space, in South Africa. The term had been superseded by the designation “Homelands”. Consolidation of the black areas had resulted in the creation of nine Homelands.

The roots of this exploitative labor system began to be undermined with the progressive dissolution of the traditional reserve economies. These areas' rural economy decayed as soil erosion and overpopulation made the extraction of a viable existence there increasingly arduous. It is in this setting that in 1948 a shift in the application of policies of *segregation* to those of *apartheid* took place. Although it is a widely held conception that *apartheid* is essentially little more than a continuation under a new guise of pre-1948 policies, Harold Wolpe argues the existence of fundamental differences (Wolpe, 1972). *Most important is that apartheid served to insure, in the period of South Africa's industrialization, the availability of a cheap and controlled labor force in the face of the disintegration of the pre-capitalist systems of production in the black areas.*

These changes from an economy based on capitalist and pre-capitalist modes of production to one founded essentially upon capitalism wrought a considerable *restructuring of Southern African geographic space* (Board, Davies, and Fair, 1970; Bowett and Fair, 1974). In the period of post-mineral discoveries, the Witwatersrand emerged as the economic locus of the subcontinent, and more generally all economic progress was geographically concentrated on the white metropolitan or core areas. By contrast, the black reserves, experiencing rural deterioration, economic decay, and pauperization emerged as the outer peripheries of national economic space.

The expansion of capitalism in South Africa resulted in the institutionalization of a massive structural imbalance in the relationship between the geographical location of job opportunities and the settlement pattern of the black population (Natrass, 1976). Thus, a situation was created whereby a rapid increase in the migration of blacks to the

white areas on either a temporary or permanent basis was inevitable. The advantages to capital and white fears of a permanently established black proletariat in the towns settled the issue in favor of migrant labor. The decision to work as a migrant was not in the hands of the black laborer him/herself; rather the decision was a byproduct of policies over which he/she had no input. The migrant labor system of South Africa, and the oscillating movement between a home in some rural area and place of work, is part and parcel of the political economy of capitalism (Magubane, 1975).

“The embedding of migrant labour in the economic structure conferred benefits upon all major interests which possessed a political voice in the State. For urban employers it meant that labour was kept cheap, unorganized and rightless, that overhead costs were kept to a minimum, and the formation of an urban proletariat was restricted. For White workers it provided the security of membership of a labour elite. For White farmers it meant that low wages and the impermanence of compound life kept the labour force close at hand.” (Bundy, 1972)

Predicated upon the belief that racial contact inevitably occasions racial conflict, the National Party began implementation of its *apartheid* programs. Faced with the dilemma of controlling a de facto multiracial society consisting of a white-dominated capitalist economy wedded to black labor, *apartheid* planners set about moulding two distinctive geographical spaces, namely, a racially-integrated economic space and a racially segregated social and political space (Smith, 1974). The separation of these two geographical spaces was a reflection of the state’s efforts to reorder the relations between capital and labor in South Africa. Sustaining a system of cheap labor made control over the geography of black employment and settlement imperative. These controls comprised a suite of policies that could be subsumed under the broad designation of “urbanization and regional planning.” Among the most notable of these

policies were constraints upon permanent black urbanization, resettlement programs, economic decentralization, and associated strategies for “development” of black areas.

3.2. Post-Apartheid South Africa

In 1990, South Africa embarked on a transition from white *apartheid* rule to a democratic regime open to all members of the population (Klasen, 1997). This transition culminated in the first democratic and all-inclusive elections of April 1994 and the installation of a Government of National Unity under President Mandela in May 1994.

A critical element of the mandate of the new government has been to address poverty and inequality. In fact, the White Paper on Reconstruction and Development states unequivocally that “at the heart of the Government of National Unity is a commitment to effectively address the problems of poverty and the gross inequality evident in all aspects of South African society.” (The Government of South Africa, 1994). However, what the new government inherited was an *apartheid* state machinery which had been set up, on the one hand, to provide quality services for a privileged minority of the population, and on the other, to ensure deliberate, systematic underdevelopment of the majority of South Africans. This had resulted in a huge backlog in basic service provision and remains a major challenge to the new government. Following is a discussion of the current situation of South Africa from various aspects – social, economic, geographic status of its population, gender and development.

3.2a Social indicators

Among comparable middle-income developing countries, South Africa has one of the worst records in terms of social indicators (health, education, safe water, fertility) and among the worst records in terms of income inequality (Reconstruction and Development Program [RDP], 1995).

It is useful to place South Africa's poverty and social deprivation in an international context by comparing social indicators in South Africa to countries with similar levels of incomes. Table 3.1 shows that in all of the key indicators, including life expectancy, infant mortality, illiteracy, fertility and access to safe water South Africa fares very poorly against comparable middle-income countries. Indeed, its social indicators are not very different from those of some low-income sub-Saharan African countries.

The legacy of *apartheid*, which created and maintained great inequalities between races in their access to income, productive resources and services (such as health, education, water, electricity etc.) is mainly responsible for this poor record of social achievements.

In fact, South Africa fares only slightly better on some of these indicators than much poorer countries in sub-Saharan Africa. If South Africa's indicators were restricted to include only the African population, black South Africa would do worse in terms of most social indicators than a much poorer country like Kenya.

Table 3.1 Comparative Social Indicators: Selected Countries

	Middle-income countries						Sub-Saharan Africa			
	Thailand	Poland	Chile	South Africa*	Brazil	Malaysia	Venezuela	Kenya	Nigeria	Tanzania
GNP per capita US\$ (1992)	1,840	1,910	2,730	2,670	2,770	2,790	2,910	310	320	110
Life expectancy (years) (1992)	69	70	72	63	66	71	70	59	52	51
Infant Mortality Rate (1992)**	26	14	17	53	57	14	33	66	84	92
Adult illiteracy rate (%) (1990)	10	***	7	39	19	22	8	31	49	***
Total fertility rate (1992)	2,2	1,9	2,7	4,1	2,8	3,5	3,6	5,4	5,9	6,3
Access to safe water (%) (1990)	77	89	87	76	86	70	92	49	42	52

* The South African data is an average of all races. There are large differences between the races in these social indicators

** Deaths of infants under 1 year old per 1000 live births (1992)

*** No comparable data are available

(Source: World Development Report 1994, African Development Indicators 1994 [in RDP 1995], DBSA 'South Africa's Nine Provinces: A Human Development Profile' 1994)

3.2b Income and Inequality

South Africa has among the highest income inequality in the world. The Gini-coefficient, which measures the degree of inequality⁹, is shown in Table 3.2. South Africa's Gini-coefficient is much worse than most comparator countries, and about the same as the worst, Brazil.

Table 3.2 Inequality: South Africa and comparable countries

	MIDDLE INCOME COUNTRIES						SUB-SAHARAN AFRICA				
	Tunisia	Thailand	Poland	Venezuela	Brazil	South Africa	Malaysia	Chile	Kenya	Nigeria	Zambia
*Gini-Coefficient	0.40	0.43	0.27	0.44	0.63	0.61	0.51	0.58	0.57	0.45	0.46
International Poverty Rate	3.9	0.1	6.8	11.8	28.7	23.7	5.6	15.0	50.2	28.9	84.6

*All Gini-coefficients are based on income, except for those for Sub-Saharan Africa which are based on expenditure (a Gini of 0 signifies absolute equality, and 1 absolute concentration). Gini-coefficients and poverty rates are for different years in the late 1980's or early 1990's. (Source: RDP, 1995; Ravallion and Chen, 1996)

⁹ With a Gini-coefficient of 0 signifying absolute equality and 1 indicating absolute concentration.

3.2c A Profile of South Africa's Poor

Defining a Poverty Line

Defining a 'poverty line', which identifies the levels of income or expenditure, below which a person is considered to be poor,¹⁰ is a common approach for assessing the extent of poverty in a country. There is no uniformly agreed upon poverty line for South Africa. A poverty line has been defined in several ways, including lines based on both 'absolute' and 'relative' poverty definitions. In South Africa, these lines yield results showing a range in the proportion of the population that are poor from about 35-55%. Table 3.3 shows a comparison of selected poverty lines in South Africa.

Poverty and Race

Poverty in South Africa has a strong *race* dimension. **Nearly 95% of South Africa's poor are African**, 5% are Coloured; less than 1% are Indian or White. The percentage of population of each race group who are poor is 64.9% for Africans, 32.6% for Coloureds, 2.5% for Indians, and only 0.7% for Whites. Africans have nearly twice the unemployment rate (38%) of Coloureds (21%), more than three times the unemployment rate of Indians (11%), and nearly ten times the unemployment rate of Whites (4%).

¹⁰ 'Poor' has been defined as the poorest 40% of households and 'ultra-poor' as the poorest 20% of households (RDP 1995). According to these definitions, households that expend less than R352.53 per adult equivalent are regarded as poor; households that expend less than R193.77 per adult equivalent are regarded as ultra-poor.

Table 3.3 Comparison of selected poverty lines for South Africa (1993)

Types of poverty line	Rand Amount/Month Cut-off	% of population below the poverty line
1. Population cut-off at the:		
• 40 th percentile of households ranked by adult equivalence	301,0	52,8
• 20 th percentile of households ranked by adult equivalence	177,6	28,8
2. Minimum per capita caloric intake (at 2000 Kcal per day)	143,2	39,3
3. Minimum per capita adult-equivalent caloric intake (at 2500 Kcal per day)*	185,4	42,3
Minimum and supplemental living levels per capita set by the Bureau of Market Research, University of South Africa		
• Supplement Living Level (SLL)	220,1	56,7
• Minimum Living Level (MLL)	164,2	44,7
5. Per adult equivalent household subsistence level (HSL) set by the Institute for Planning Research, University of Port Elizabeth***	251,1	36,2

* The adjustment takes into account the energy requirements by age and gender as in the calculations for the adult equivalence figures, but does not include adjustments due to economies of scale (of items consumed within the household).

** For the minimum and supplemental living level, the values given for a family of five (the average family size in South Africa) was utilized.

*** HSL is an 'absolute poverty' line which provides two separate lines: one for urban areas where the minimum level of welfare required by a family of 2 adults and 3 children is specified as R825,1 per month; and a rural line where the minimum level of welfare for a family of 2 adults and 4 children is taken to be R723,1 a month.

(Source: RDP, 1995)

Where are the poor?

Poverty in South Africa has a strong *rural* dimension. **Some 75% of South Africa's poor live in rural areas, concentrated in the former homelands and TBVC (Transkei, Venda, Bophuthatswana and Ciskei) states.** In addition, the *burden* of poverty is largest in rural areas. Compared to the poor in urban and metropolitan areas, the rural poor suffer from higher unemployment rates, lower educational attainment,

much lower access to services such as water and electricity, as well as lower access to productive resources¹¹.

Employment and income among the poor

The South African labor market has long been characterized by *segmentation* – the existence of different sectors (Torres, Bhorat, Leibrandt and Cassim, 2000). The *formal sector* is divided into a *primary* and *secondary* labor market sector. In addition to this, there also exists a *non-market labor segment* comprising *informal* and *casual* labor, unpaid, domestic and family labor (Makgetla, 1997). The primary labor market is regulated and characterized by higher wages, an organized workforce, higher skill requirements and opportunities for training and upward mobility. Secondary labor market workers have lower skill levels, are paid less, their markets are less regulated, and opportunities for further training and upward mobility are limited. Poor people are often relegated to the secondary labor and informal markets and have difficulty moving out into the primary labor market. A variety of barriers allegedly exclude the poor from the primary labor market, in effect creating the secondary market. These barriers take the form of outright discrimination against minority or poor groups, as well as recruitment practices that emphasize skill, experience, and stable work histories,

¹¹ In South Africa, poverty also has a strong *regional* dimension. **Nearly two thirds of South Africa's poor live in three provinces: the Eastern Cape (24%), KwaZulu/Natal (21%) and the Northern Province (18%),** while Gauteng, the Western Cape and the Northern Cape have only a small proportion of South Africa's poor. Some 42% of the poor live in the Eastern Cape and Northern Province combined (i.e. the poverty *shares* of Eastern Cape and Northern Province are 42%) although only 28% of the population lives there. In contrast, the poverty *shares* of Gauteng and the Western Cape combined add up to only 10%, in spite of their population share of 26%.

prerequisites that poor job seekers can rarely satisfy. In addition, although participants in the SA-PPA (South African Participatory Poverty Assessment, 1998) perceived employment to be an important way in which their problems could be solved, the labor markets open to the poor appear to be highly restricted in terms of the possibility of any form of accumulation. This is particularly true in the case of agricultural work.

Thus poverty in South Africa has a strong *employment* dimension. Not only are the poor plagued by lower paying jobs, but also by a very high level of unemployment. In addition, many of the poor are out of the labor force due to illness, disability, catching-up with education, or domestic duties. Since 1994, South Africa has changed its definition of the unemployment rate to count as unemployed all those who are currently not working but would like to work (and are either actively seeking work or have given up looking).¹² Using this definition, Table 3.4 (Unemployment rates by race, gender and location) shows that the **unemployment rate among the poorest quintile is 53%, compared to 4% among the richest 20% of households.** *Africans* have a much higher unemployment rate than all other races, at 38%. In addition, *women* suffer from a 36% unemployment rate, compared to only 26% among men.¹³ Finally, unemployment in

¹² The ILO uses a narrower definition of unemployment which excludes from the unemployed those who have given up looking. Using this narrower definition, the survey found that the unemployment rate in South Africa is 12.8%.

¹³ In addition, the unemployment rate for women may be an underestimate, since many women who declared that they were housewives and therefore out of the labor force would actually like to work outside of the home and should therefore properly be counted among the unemployed.

rural areas is nearly twice as high as in metropolitan areas. The overall unemployment rate is 30%¹⁴.

The poor rely on multiple sources of income as a coping strategy. While regular wage (including wages from agricultural labor) is the main source of income for only about 39% of the poor and 32% of the ultra-poor, it is the main source of income for 72% of the non-poor. The average household total monthly wage (from regular and casual labor) ranges from R281/month among the poorest African households, to R5,055/month among the Whites in the top quintile – almost 20 times higher. In contrast, **pensions for disability and old age (social pensions) and remittances are the main sources of income for over 40% of the poor and nearly 50% of the ultra-poor. The dependence on old-age/disability pensions and remittances is particularly strong in rural areas**, where these are the primary sources of income. In contrast, the metropolitan poor rely predominantly on regular and casual wages as their primary source of income. While the biggest problem for the poor is lack of employment, **low productivity resulting in low wages or income are another cause of poverty for those relatively few poor who are employed.**

¹⁴ The CSS October 1994 Household Survey found an unemployment rate of 33%, with similar differences by race, gender, and location.

Table 3.4 Unemployment rates by race, gender and location (%)*

Households ranked by consumption groups of 20% (quintiles)**						
	Quintile 1 (Ultra-poor)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (Richest)	Total
RACE						
<i>African</i>	54.3	44.2	32.0	19.7	13.1	38.3
<i>Coloured</i>	34.3	32.5	21.2	14.5	6.8	20.8
<i>Indian</i>	***	***	23.3	12.6	3.7	11.3
<i>White</i>	***	***	25.8	9.4	2.8	4.3
GENDER						
<i>Female</i>	56.7	46.2	37.2	23.3	5.8	35.1
<i>Male</i>	50.2	40.5	24.4	13.2	3.3	25.5
LOCATION						
<i>Rural</i>	53.7	44.3	30.6	13.2	5.9	39.7
<i>Urban</i>	49.9	38.5	30.3	16.1	4.2	25.6
<i>Metro-politan</i>	58.3	45.0	30.3	19.5	4.2	21.3
TOTAL	53.4	43.3	30.4	17.1	4.4	29.9

(Source: RDP 1995)

* The unemployment rate is calculated by dividing the number of people aged 16-64 who are not working but would like to work (and are either actively seeking work or have given up looking) by the number of people in the labor force (defined as those currently employed plus those not working who would like to work).

** This and all following tables are based on nationally ranked quintiles. No rankings by subcategory were done. For example, the 54.3% poverty rate among Africans in quintile 1 means that, among all Africans who live in the poorest 20% of all households, 54.3% are unemployed.

*** Since there are very few Indians and Whites who live in the poorest 20% of all households, there are too few observations in these cells to calculate reliable rates.

3.3. Women's Status in South Africa: Past and Present

Integral to this study is a review of how women have fared in a society, which has experienced both the *apartheid* as well as the *post-apartheid era*. For women's position within the household and how this in turn influences allocation of resources and the welfare of household members operate within the larger macro-level economic, political, social and cultural context. In South Africa, *apartheid* had been the underlying driving force in the macro context.

Following is a quote from a report originally written in late 1990 to form the basis of the annual report of the Secretary-General of the United Nations on Women under *apartheid*.

“...South Africa is still a racist society and will suffer the consequences of apartheid for many decades to come. The position of women in South Africa parallels this. ...Laws have been liberalised. Sex discrimination has in some cases been removed. Yet the current situation of women, particularly black women, and the opportunities open to them reflect their years of living in a racist and sexist society.” (Budlender, 1991).

South African women are not a *homogeneous* group. The situation of women are observed in their racial categories, not because this is how South African women should be categorized, but because the laws and customs of the land have treated women differently according to these categories and have been very effective in disadvantaging non-white women, especially African women. Most official statistics are also only available in racial categories.

Approximately *half* of the population in South Africa is women. However,

when the country is divided up along rural/urban, former “common” area/bantustan and similar lines the proportions of men and women are no longer equal. Particularly among Africans, men and women are not equally present in different areas. This primarily is because more men than women are and have been employed under the migrant labor system. Men could easily live and work legally in urban areas while women and children were forced to remain in the rural areas. Women consistently predominate in the economically disadvantaged regions (Budlender 1991; RDP 1995).

3.3a Variation in household structure in South Africa

Given its *apartheid* legacy, South Africa is characterized by a wide diversity of household structures (Bornstein, 2000). In fact, a large proportion of South African population is living in neither nuclear families nor traditional forms of the extended family (Budlender, 1991). For example, in rural areas three- and four-generation households are common, and empirical evidence suggests it is not the norm for children (below the age of 17 years) to live with both their parents (Bornstein, 2000). Upto three-fifths of children included in various surveys have been found to be living with only their mother, while just over a fifth live without either of their parents (Ardington, 1988; James, 1992; Ross, 1993).

‘Double rootedness’ has been used to describe patterns of migration as well as dual residence in which individuals have stakes in households in rural and urban areas, or multiple households within the urban areas. Although originally imposed by apartheid legislation, dual residence continues to be a strategy adopted by many

households in South Africa as a means of keeping their options open in rural and urban areas, thereby sharing risks between these areas (Mayer and Mayer, 1961; Bank, 1995; Cross et.al. 1992a,b).

Empirical evidence, including studies in the SA-PPA (South African Participatory Poverty Assessment, 1998), shows that *life-cycle dynamics* and *economic and social factors* affect household composition. Household composition may vary owing to economic hardship, resulting in a need to reduce the number of dependents because they cannot be supported by the livelihood strategy adopted by the household members (Sharp and Spiegel, 1985; Spiegel, 1987; Ardington, 1988). If the source of income is lost, individuals may disperse to join households that have an income. Similarly, when a new source is accessed, individuals may leave to establish their own household. These processes have been found in both rural areas and dense informal settlements in the cities (Ross, 1993; Annecke, 1992).

3.3b Variations in female-headed households

Since at least the nineteen-forties there has been a high proportion of female-headed households in both urban and rural areas in South Africa (Budlender, 1991). Government figures and university research conducted even as early as the 1980s (Simkins, 1986) had suggested that the number of these female-headed households is increasing. In 1980 between 18% and 30% of urban African households had women as heads. In the former “bantustan” urban areas the figure for female-headed households was between 36% and 47%. In the former “bantustan” rural areas it was

59% -- over half. Influx control was responsible for much of this. In 1980 27% of husbands were living away from their wives and 17% of children under 17 years of age away from their mothers. These figures are underestimates as they are only for married couples.

South Africa has also had a very large proportion of single women – whether never married, separated or divorced -- and partly as a result of this, a very high rate of non-marital births. Non-marital births stood at 43% for Africans and 52% for Coloreds in 1980. Others report even higher rates, for example 60% in Soweto (Van der Vliet, 1984).

Households headed by females resident in the household have a significantly increased probability of being poor relative to those headed by resident males (May, Woolard and Klasen, 2000). Single women are in a vulnerable economic position. Traditionally, the state had provided assistance to certain women, for example poorer women whose husbands were deceased or committed to an institution, or women with foster children. But it appears that the government department responsible for maintenance grants had an informal policy not to grant maintenance to black women of under 38 who had fewer than two children (Van der Vliet, 1984).

Separated and divorced women are unlikely to receive adequate maintenance grants for themselves or their children from their former husbands. Prior to the change in marriage laws in late 1988, African women married by customary law were particularly vulnerable. A customary law marriage was void in terms of the law if the husband married another woman under civil law. Because many couples were separated by migrant labor and influx control laws, this was not uncommon. Under

the new act a first marriage, whether customary or civil, takes precedence over any later attempts of the man to marry. However, most women separated from their husbands still face financial difficulties. Even if they are able to extract maintenance from their former husbands, the amounts are very low because of the low wages earned by most African men.

Many women choose to be single. The decision is very often based on economic considerations. The women see men as not giving an adequate share of their wage to their wife and family, or, in some cases, living off the woman's wage (Van der Vliet, 1984). Men are also, on the whole, more opposed to contraception than women. By remaining single, women can control the number of children they bear according to their wishes and their ability to support them financially.

3.3c Paid Employment: The Work Women Do

Over the decades the number of women engaged in the formal economy has increased. However, women remain disadvantaged. They congregate in certain sectors of the economy and certain jobs within each sector. African women are particularly disadvantaged, both in comparison with women of other race groups and in comparison to African men.

Particularly worrying areas are those of menial and domestic work, work in the former "bantustans" and work on the farms. All of these areas have few men, and what men there are, are often in more skilled, permanent or privileged positions compared to women.

Formal Employment in the “Common” Area

The participation of women in the formal economy has increased over the last few decades. Women have moved into specific sectors and into specific jobs. Sectorally women outnumber men in community and personal services and there are more or less equal numbers of men and women in finance. There are very few women comparative to men in mining, construction and electricity. Despite the low overall percentage in manufacturing, women predominated in a few industries, namely clothing and personal services and also featured strongly in textiles and shoes. These patterns are common in other countries, where women are employed in areas which are traditionally viewed as “female” and which are labor-intensive and low-paid. On the other hand, very few women are found in heavy industries such as metal and transport.

Women’s presence in different sectors also varies by racial group. Colored women account for 35% of women in production and 31% of unskilled workers. Indian women account for the smallest percentage of women in virtually all sectors but are proportionately most evident in manufacturing, where they account for 8%. African women account for 82% of those in service and 85% of those in farming. White women account for half of all women workers in all of the nine officially defined sectors except agriculture, mining, manufacturing, and community and personal services. *Overall as expected, African women predominate in the lower-paid areas and White women in the higher-paid jobs.*

Formal Employment in the former “Bantustan”

Most workers in these areas are African. The women outnumber men mostly in the “productive” age group of 20-64 years (Budlender, 1991). The conditions under which bantustan workers worked were, on the whole, much worse than those of workers doing equivalent jobs in the “common” areas. Because the areas supposedly governed themselves, the labor legislation of the central South African State was not automatically applicable to either the “independent” or non-independent “bantustan”. In order to attract business to basically unfavorable areas with poor infrastructures, the areas tended to be even more restrictive in regard to labor matters than central state. They were exempt from most labor legislation and did not allow unions. There were no minimum wages and very few benefits. Wages were in cases less than a tenth that being earned by organized workers doing similar work within the “common” area (Cobbett and Nakei, 1987).

Companies investing in the area, from countries such as Taiwan and Israel, were labor-intensive, attracted by the presence of large numbers of captive unemployed, and impoverished potential workers, by an “un-unionised” workforce and by state incentives such as subsidies for wages, training, rentals, electricity, housing, technology imports, relocation and taxes. Employers were also clear about the advantages of employing women.

“The company can pay women lower wages than men, so the company is saving. And women are more reliable than men women, even if they have to do shift work, they are always back. They feel they have to work for their children. They have responsibilities.” (Personnel Assistant, quoted by Anne Mager, 1989).

Formal Employment on the Farms and in the Home

The converse of the relatively low percentage of black, especially African women employed in industry is the large number of women employed in domestic work and on the farms (Budlender, 1991). The figures, particularly for domestic work are almost underestimates. Firstly, government statistics emanating from information from employers do not include private domestic work. Secondly, for the period when most statistics are available many domestic workers were illegally in the towns and their employers did not register their employment.

In general men are more likely to be employed on the farms as permanent workers, while women are employed in the domestic work and to perform casual or seasonal jobs. In most cases women living on the farm are conveniently available for this work. In other cases, farmers recruit women and child workers on a daily basis from neighboring, impoverished “bantustan” areas. Patterns of employment have changed on the farms over the last few decades. Some farmers experienced a real shortage of available male workers, especially young strong men, as these men chose to move to the towns. In the Western Cape, where, because of the “coloured preference” policy, farm workers were colored, farmers began to recruit African migrant workers to fill the gap. In other areas farmers chose to employ women and children in jobs previously performed by men rather than compete with urban wages. This often went hand in hand with mechanization. Mechanization in some cases made jobs less physically demanding, and thus more suitable for women (Budlender, 1984). In other cases mechanization meant that fewer workers were required.

Self-Employment: Earning Outside the Formal Sector

The development of the informal sector is sometimes held out as an important way in which economic problems can be solved. The experience of most women in this sector would contradict this (Budlender, 1991). The majority of women in the informal sector probably choose this avenue out of desperation at the lack of alternatives. In this sector, as in others, women generally earn less than men.

The growth of the informal sector is linked to the rise in employment and also to new opportunities with the increase in the number of people living in informal settlements, where there are no other outlets. The new opportunities have led some economists to propose the informal sector as a way of solving the enormous problem of unemployment. However, most of those working in the sector choose it because of the lack of other alternatives i.e. because of the absolute lack of jobs or because jobs available are so low-paying that they are not adequate to live on. Many women, particularly single parents, are forced into the informal sector because of not having somewhere to leave their children if involved in a formal job. Still others use informal sector activities to supplement inadequate income in formal jobs such as domestic work. A study in Soweto around 1980 found that the majority of small-time *shebeen* operators were single women, women unable to find formal jobs. Men predominate in the more lucrative sectors such as taxis. They also own most of the larger informal businesses, although women family members are employed (often unpaid) and run them. Within sectors there are also wide discrepancies, with a few individuals at the higher end and most clustered at the lower end. As usual women are found at the low end, often in one-person operations. Thus a 1987 micro-study in informal settlement

areas around Durban found a “marked sexual division of labor” with women engaging in the selling of clothes, food, childminding and midwifery while men were mechanics, built and dealt in livestock and traditional beer. The income of women was also considerably lower (Bendheim, (1987).

3.4. Intrahousehold Resource Distribution and Welfare

In South Africa, household dynamics skew the distribution of income and well being within the household. Rather than a single unit, the household is made up of individuals that experience poverty and inequality to different extents. Though not universally true throughout South Africa, women, the young and the very old tend to suffer the worst and have the most limited access to resources, assets and power (Bornstein, 2000).

Quantitative and qualitative research has shown that the experience of welfare and poverty is differentiated within the household (Bornstein, 2000). The SA-PPA (1998) reports that in terms of access to decision-making and power, women tended to indicate that they had no option but to accept the decisions and demands made by men within the household. Interviews with female South African National Civic Organization members in the Eastern Cape indicate such vulnerabilities among women.

‘My husband is demanding money. I have no choice, I must give him. I am alone. No one is helping me.’

‘In our culture, women tend to feel very small. Men have always been the leaders, their voice is final.’

‘Another thing that makes me very unhappy. Everybody is allowed to voice their opinion. In many cases, I’m cut off while I am voicing my opinion.’ (SA-PPA, 1998:49).

Even between women, younger women may be required to follow the instruction of older women in the household. The elderly, on the other hand, expressed concerns over their perceived isolation and abuse by other family members, while children indicated that they experienced poverty in a manner distinct from that of the rest of the family (SA-PPA, 1998:44).

The existence of agricultural resources, among other factors, influences power relations in the household. Where agriculture is undertaken, some scope is provided for women to exercise control of some resources and place themselves in stronger position vis-à-vis men. Where these resources are absent, the subordination of women is a more direct reflection of gender relationships in a patriarchal system.

It has also been argued that household size and poverty are closely related (RDP 1995). **Large households with many dependents are much more likely to be poor.** In fact, the average household size among the poor is 5.9, compared to only 3.5 among the non-poor. The dependency ratio (the number of children below 16 and those aged above 64 combined, divided by the number of people aged 16-64) is more than twice as high among the poor than the better-off (1.1 among the poor, as against 0.5 among the non-poor).

In addition, household structure and poverty are also linked. **Female-headed households have a 50% higher poverty rate than male-headed households.** Women suffer from substantially higher unemployment rates than men (36% versus 26%). Therefore, a higher proportion of working-age women lives in poor households. Also, higher proportions of the poor elderly are women (61%). In addition, although children make up only 38% of the population, **45% of the poor**

are children below 16 years.

According to Table 3.5, poverty rates among female-headed households, for both *de jure* (where the head is officially female) and *de facto* (where the head is in practice female, since the official male head is absent for most of the year), are much higher compared to households with a resident male head. While ***de facto* female-headed households have nearly a 70% poverty rate, it is only 43.6% among families with a resident male head.** As a result, nearly 50% of the ultra-poor¹⁵ live in families without a resident male head, although they make up only 39% of the population.

¹⁵ 'Poor' has been defined as the poorest 40% of households and 'ultra-poor' as the poorest 20% of households (RDP 1995). According to these definitions, households that expend less than R352.53 per adult equivalent are regarded as poor; households that expend less than R193.77 per adult equivalent are regarded as ultra-poor.

Table 3.5 Population Share according to Household Type

	Population Share	Poverty share (%)		Poverty rates (%)	
		Poor	Ultra	Poor	Ultra
1. de jure* female head	26.9	33.9	35.0	66.5	37.5
2. defacto** female head	10.5	13.9	13.7	69.9	37.5
3. absent female head	1.2	1.5	1.2	67.7	29.2
4. resident male head	61.4	50.7	50.1	43.6	23.5
Total	100.0	100.0	100.0	100.0	100.0

* Female-headed legally

** Female-headed in practice (male head absent)

Female-headed households tend to be more heavily reliant on remittances and state transfer income (pensions and grants) than male-headed households. The irregular and uncertain nature of remittance income increases the vulnerability of female-headed households. Average wage income in these households is about one-third of the average wage income in male-headed households.

3.5. Children's Welfare: Health

This study chooses to use information on child anthropometry as a proxy of child welfare. Specifically, *stunting*, height for age that is below x standard deviations of the reference standard, is the chosen measure of child anthropometry.

Stunting among young children is a moderate public health problem in South Africa. The national stunting rate, captured by height-for-age measurements, ranges between 23% (South African Vitamin A Consultative Group [SAVACG], 1995) and 27% (Project for Statistics on Living Standards and Development [PSLSD], 1994).

Among the poorest 20% of households the rate is 38%. Acute malnutrition, measured by weight-for-age, is a less significant problem, but very important as an easily measurable indicator of recent under-nutrition.

Malnutrition rates among school entrants appear to be substantially lower than rates for pre-school children. However, the wide range of under-nutrition prevalence in localized studies suggests that malnutrition is a problem in specific areas and among specific groups of children.

Micro-nutrient malnutrition, which leads to learning disabilities, mental retardation, poor health, low work capacity, blindness and premature death, is a public health problem of considerable significance in South Africa. One in three children display marginal vitamin A status. Some 20% of children are anaemic and 10% iron deficient (SAVACG, 1995).

The PSLSD survey included a physical examination of the heights and weights of a sub-sample of children and showed that poor children suffer from much higher rates of chronic under-nutrition (i.e. stunting) (May, Woolard and Klasen, 2000). The barriers that prevent the poor from having access to high-quality basic health services are however, specific to particular social and environmental situations. Among the SA-PPA (1998) studies that dealt in detail with this issue, the costs of transport and physical distance from health facilities, and the lack of support from the health systems such as Village Health Workers, are all mentioned.

Chapter 4: Conceptual Framework

The focus of the literature survey in Chapter 2 suggests that variations in household structure which go beyond the traditional male-female headship should be incorporated in this study of children's welfare. Chapter 3, drawing on the SALDRU data set confirms the complexity of household structures in the South African context. This chapter, while remaining embedded in the gender headship approach described in Chapter 2, and drawing on the empirical evidence from South Africa, offers an alternate framework for categorizing household structures. The chapter then outlines the hypotheses to be tested in analyzing the relationship between different household structure and children's welfare. In doing so, the chapter describes the various variables used to test the hypotheses and the how these variables are measured.

4.1. Link Children's Welfare to Household Structure rather than Household Headship

This thesis will attempt to look at the issue of children's welfare according to the following household structures – (a) “Female-only” versus “Mixed-gender” households; (b) “Mixed-gender” households are further divided among “Nuclear”, “Extended” and “Other” households. All households in the sample contain children between the ages of 0+ months to 90 months. “Female-only” households consist of at least one female adult and no male adults. “Mixed-gender” households consist of at least one male adult and most consist of adult women. “Nuclear” households include both biological parents and no other adult relatives. “Extended” households include both biological parents as well as relatives. In the “Other” category, only non-parental

relatives are present and if biological parents are present then it is either the biological mother or the biological father but not both at the same time.

4.1a Conceptualization of “Female-only” Households”

The earlier discussion has mentioned that the *main income earner/s* may hold the greatest decision-making power in income allocation (or expenditure) within the household. Theoretically the earner is established as the *sole* decision-maker with some degree of certainty in those particular circumstances where the earning member is the only adult, residing within the household (and no other adult household member lives in that household). Ideally under such circumstances, children’s welfare could be compared between “single female households” and “single male households”. Hence a *gender* comparison in resource allocation may be possible.

In principle, establishing a gender differential in household resource allocation is also possible in a *multiple-adult-resident household* category. The appropriate comparison would be between households that are “absent male” or “adult Female-only” (those households in which no adult male members co-reside) and households that are “absent-female” or “adult male-only” (those households in which no adult female members co-reside). However, given that these households consist of more than one adult the linkage between *earning* and *decision making* becomes diluted. In households consisting of multiple adults, all may or may not be earning members. Hence, it becomes harder to conclude as to *who* actually are making decisions about expenditure. There are several possibilities in the decision-making process: (a) Only the earner(s) make the expenditure decisions; (b) The earner(s) and non-earner(s)

decide jointly; (c) The non-earner(s) decide.

In reality, however, “Male-only” households, whether single or multiple are harder to come by. Generally households with men will contain at least one female. Therefore it may be more realistic to compare “Female-only” households whether single or multiple, to “Mixed gender” households, rather than “male-only” in order to address the issue of gender differential in expenditure patterns leading to differences in child welfare among different types of household structures.

4.1b Conceptualization of “Mixed-gender” Households

Thus far it has been suggested that realistically “Female-only” households can be compared to “Mixed-gender” households rather than to “male-only” households given that “male-only” households almost invariably included female adult members and hence giving them the status of “Mixed-gender”. Moreover, these “Mixed-gender” households constitute a bulk of families, which need to be taken into account. There are complexities in dealing with “Mixed-gender” households as well. The complexities are two-fold. For “Mixed-gender” households, the dilution of the earning-expenditure linkage, as mentioned in the preceding paragraphs, remains. Again, in such a scenario it is difficult to conclude with certainty as to who actually is making decisions about household expenditure. Given the greater probability of the presence of more than one adult within a given household, the possibilities in the decision-making process are: (a) Only the earner(s) make the expenditure decisions; (b) The earner(s) and non-earner(s) decide jointly; (c) Only the non-earner(s) decide.

Secondly, in “Mixed-gender” households, not only is it unclear as to whether

expenditure decisions are made by the earning members or jointly by both earning as well as non-earning members, it is also difficult to establish a *gender differential* in commitment to child welfare. It is possible that expenditure decisions are made either by (a) male members only, (b) female members only, or (c) jointly by both male and female members within a given household. To reiterate, even though a gender distinction in resource allocation may not always be possible among “Mixed-gender households”, it is important to study the variation in children’s welfare among the various types of “Mixed-gender households” since these are integral parts of the household structure scenario.

H1: In South Africa, holding income constant, the welfare of children is greater within “Female-only households” compared to children’s welfare in “Mixed gender households”.

Functions:

Children’s height-for-age (Y variable) = f (household structures [X variable], controlling for race, age, geographic residence, gender of child, household size, income).

Incorporating “Mixed-gender” households in the analysis opens up a related issue, relevant for South Africa. This includes studying children’s welfare in *nuclear* and *extended* households.

Whether children’s welfare is better in nuclear families compared to extended families, or vice-versa has been a complicated research issue. Traditionally, researchers and policymakers concerned with child welfare have assumed that, apart from exceptional cases, children live with their biological mothers, experience

childhood together with their siblings, and have access to resources from both biological parents (Lloyd and Desai, 1992). However, data from various parts of the world such as many countries in sub-Saharan Africa, Latin America, Asia, and North Africa contradicts this narrow view that children's welfare is best in nuclear families. Their research suggests that significant proportions of young children, particularly in sub-Saharan Africa, benefit from the support provided by family members other than their biological parents. This support, which involves the co-residence of family members beyond the nuclear unit, can take many forms: the co-residence of multiple generations within the same household, the inclusion of a single mother and her children as a sub-family within a more complex household, or the exchange of children between kin.

Another branch of research, mainly US-based, highlights the importance of the *father's* role. It suggests a close link between a father's presence in the home and the extent of his financial and emotional commitment to his children. Research on child support arrangements demonstrates that, when parents are divorced or separated, relatively few children receive financial support from their father (Peterson and Nord 1990). That the effect of a father's absence is to substantially lower children's economic status (Macunovich and Easterlin 1990) and to increase the likelihood of poverty as well as its duration and severity (Garfinkel & McLanahan 1986; Duncan & Rogers 1988; Weiss 1984). Poorer health and educational outcomes for children in mother-only families and in families containing neither biological parents have been linked to the relative lack of resources in such families (Bumpass 1990; Mauldon 1990; Krein and Beller 1988) and to emotional stress and relative lack

of attention and supervision (Dawson 1991).

Moreover, a child's access to the resources of her/his father as well as to his emotional and physical support will depend not only on his *proximity* but also on the *extent of his commitment* and *on other competing demands*. Recent research suggests the possibility of lesser *commitment* among partners in consensual unions than in formal marriages (Desai 1991) and of *competing demands* on polygamous husbands for the support of children of different mothers (Bledsoe 1988). *Proximity* too, of fathers, has been demonstrated to be lower in polygynous unions compared to monogamous unions (Mather, 1994).

In addition, as migration has become increasingly prevalent across developing countries, members not linked to households through *proximity* may be linked functionally through remittances. For example the absent *husband/male partner* in the form of the economic migrant.

The above discussion indicates that the relationship between children's welfare and nuclear/extended families is not clear-cut and varies according to cultural contexts. The sub-Saharan African examples highlight the economic and social importance of extendedness over nuclear families. Other research, on the other hand, has emphasized the role of the father in the form of physical proximity as well as his willingness to economic commitment to his family. Thus whether the nuclear or extended family works better for child welfare depends on the context and should be approached as an empirical issue.

H2: In South Africa, children's welfare differs between nuclear and extended families.

Functions:

Children's height-for-age (Y variable) = f (household structures [X variable], controlling for race, age, geographic residence, gender of child, household size, income).

4.2. "Female-only" Households are Economically Poorer compared to "Mixed-gender" Households.

It has been argued that given societal or macro-level inequalities, men and women have very different prospects in life even in same cultural settings and class groups (Bruce 1989). The contrasts are often dramatic, in their participation in labor markets, the content of their work, the returns to their labor, the pattern of economic participation over the lifecycle, daily time use, and parenting responsibilities. Women's possibilities for finding adequate livelihoods, retaining assets, and maintaining their social status when marriages dissolve, whether through separation, abandonment, migration, or death, are often markedly poorer than men's. The Women in Development advocacy provides a similar view. Given this scenario, Bruce argues that it is only natural that such societal inequalities between men and women will play up within households also. Given the labor market segmentation and discrimination against women, many households with young children which are headed by women given male absence, due to widowhood, divorce or desertion (Desai and Ahmad, 1998), are considerably poorer compared to households that contain men (Buvinic and Gupta, 1994; Bruce, 1989).

In South Africa, **female-headed households have a 50% higher poverty**

rate than male-headed households (RDP, 1995). For women suffer from substantially higher unemployment rates than men (36% versus 25%).

H3: In South Africa, income in “Female-only” households is significantly lower compared to income in “Mixed-gender” households and this forms an important avenue by which household structure influences child outcomes.

Function:

Income (Y variable) = f (Household structure [X variable], controlling for race, age, geographic residence, gender of child, household size).

4.3 Expenditure Patterns.

Expenditure has been included in this analysis as an alternative to *income* measure influencing children’s welfare. There is an on-going debate both internationally and locally about whether data on income or data on expenditure are more accurate.

In this context it will be useful to review some of the difficulties in using *income* as a measure of welfare. Income poverty measures can be derived from welfare economics and are implicitly grounded in utilitarianism, with its emphasis on individual utilities as the critical welfare metric (Klasen, draft mimeo). This approach presents considerable difficulties. The *first* difficulty relates to the appropriateness and interpretation of utility as the measure for welfare (Sen, 1992). The *second* relates to the question of interpersonal variation among individuals in translating incomes into utilities (Friedman, 1947; Sen, 1992). A *third* raises the difficulty of interpersonal comparisons of utility, for which there is neither satisfactory theory nor satisfactory empirical procedures, without resorting to very stringent assumptions

about utility functions (Jorgensen 1990). Finally, the assumptions about economic structures needed for income to be the best measure of welfare are so stringent as to render them effectively useless in most settings. In particular, there are many instances of incomplete markets for welfare-related goods; externalities and public goods are a pervasive phenomenon in all societies; and increasing returns to scale and the consequent distortions of product markets are common to many societies, particularly developing countries.

An additional difficulty is the inability of most surveys to observe individual incomes directly. As most individuals reside in households of various sizes and age structures, individual income must be deduced by translating household members into adult equivalents and making assumptions about economies of scale within the households (or household-specific public goods). Different ways to adjust for household structure and size can have a considerable impact on presumed poverty of various household types (Deaton and Paxson, 1996a, 1996b).

This study attempts to include *food expenditure* as an independent variable to compensate for the potential shortcomings in an *income* measure. Moreover, given that there is no direct information on decision making, food expenditure will be used as a proxy for decision-making. The intention here is to find out whether expenditure patterns vary between different types of households.

H4: In South Africa, expenditure patterns in “Female-only households” is more food oriented, compared to expenditure patterns in “Mixed-gender households”.

Food expenditure patterns (Y variable) = f (Household structures [X variable], controlling for race, age, geographic residence, gender of child, household size,

income).

And,

H5: Expenditure patterns differ between nuclear and extended families.

Expenditure patterns (Y variable) = *f* (Household structures [X variable], controlling for race, age, geographic residence, gender of child, household size, income).

4.4 Household Structure and Race

In South Africa the evolution of the variation in household structures has been strongly influenced, and even forced, by its all-encompassing political vehicle of *apartheid*. With the policy of *apartheid*, the separate development of the races, each racial group was faced with differential life opportunities given the existing discriminatory social, economic, political and legal structures. Specifically, the White (13.6%) community benefited the most while the Indian (2.6%), the Coloured (7.64%) and the African (75.2%) racial groups all were discriminated against.

Given its *apartheid* legacy, South Africa has been characterized by a wide diversity of household structures (Bornstein, 2000). In fact, a large proportion of South African population live in neither nuclear families nor traditional forms of the extended family (Budlender, 1991). For example, in rural areas three- and four-generation households are common, and empirical evidence suggests it is not the norm for children (below the age of 17 years) to live with both their parents (Bornstein, 2000). Upto three-fifths of children included in various surveys have been found to be living with only their mother, while just over a fifth live without either of

their parents (Ardington, 1988; James, 1992; Ross, 1993).

Since at least the 1940s there has been a high proportion of female-headed households in both urban and rural areas (Budlender, 1991). Government figures and university research conducted even as early as the 1980s (Simkins, 1986) had suggested that the number of these female-headed households is increasing. In 1980 between 18% and 30% of urban African households had women as heads. In the former “bantustan” urban areas the figure for female-headed households was between 36% and 47%. In the former “bantustan” rural areas it was 59% -- over half. Influx control was responsible for much of this. In 1980 27% of husbands were living away from their wives and 17% of children under 17 years of age away from their mothers. These figures are underestimates as they are only for married couples.

The interest to focus on the African group separately is due to the fact that this racial group comprises the largest percentage of the population – more than 75%. The laws and customs of the land have treated each racial group differentially with the non-White population suffering in all aspects. Within this context, non-white women, especially African women have suffered not only in the hands of *apartheid* (White women enjoying the most benefits while African women enjoying the least with the Colored and Indian women in between) but also persisting *patriarchy*. Although each population group in South Africa – African, Colored, Indian, and White -- is more or less equally divided between men and women, they are however, not equally present in different areas in South Africa (Budlender, 1991). African women have been forced to live in the most economically disadvantaged areas, within this group more men compared to women have been employed under the migrant labor system

belonging to *apartheid*. Men could easily live and work legally in urban areas while women and children were forced to remain in the rural areas. Given the abysmal circumstance in which the African women found themselves in, the need to find survival strategies became imperative. Thus it is being assumed that over time it is the African families who had become more adept at living in “Female-only” households compared to “Female-only” households of other races. The disadvantages of social stigma and lack of social support that the Indian and Coloured women were likely to face did not exist for the African women, leaving them with greater flexibility to set up their own households and make decisions on resource allocation within the household.

H6: In South Africa, holding income constant, children’s welfare is greater within African “Female-only households” compared to children’s welfare in African “Mixed gender households”.

Functions (African group only):

Children’s height-for-age (Y variable) = f (household structures [X variable], controlling for age, geographic residence, gender of child, household size, income).

H7: In South Africa, children’s welfare differs between African “Nuclear” and African “Extended” families.

Functions (African group only):

Children’s height-for-age (Y variable) = f (household structures [X variable], controlling for race, age, geographic residence, gender of child, household size,

income).¹⁶

4.5 Conceptualization of Children's Welfare through Anthropometric Measures

This thesis uses one dependent variable, *height-for-age z-scores (HAZ)*, to be used as a proxy for children's welfare.

To elaborate, the focus of this thesis is on children's welfare in terms of *human development outcomes* related to health, specifically children's nutritional status. For health, empirical work has traditionally used anthropometric measures as proxies for children's nutritional status. These have included "Wasting" (insufficient weight-for-height indicating acute under-nutrition) and "Stunting" (insufficient height-for-age indicating chronic under-nutrition) (Klasen, 1997). This study selects *stunting* (height-for-age or **HAZ**) as the dependent variable since height is viewed as a longer-run indicator of nutritional status which is clearly determined by the time an individual reaches adulthood (apart from shrinking later in life) (Strauss and Thomas, 1995). It is measured as the height-for-age that is below x standard deviations of the reference standard.

Stunting among young children is a moderate public health problem in South Africa. The national *stunting* rate ranges between 23% (South African Vitamin A Consultative Group [SAVACG], 1995) and 27% (Project for Statistics on Living

¹⁶ Note, the results and discussion of results based on hypotheses 6 and 7 which analyzes the African group separately have been included in Appendix 1 since the findings did not differ significantly from the whole sample which includes all racial groups.

Standards and Development [PSLSD], 1994). Poor children suffer from much higher rates of *stunting* (May, Woolard and Klasen, 2000).

Conclusion

This study attempts to observe children's welfare vis-à-vis different types of household structures. Hypotheses are formulated that children's welfare varies according to household types -- "Female-only", "Mixed-gender", "Nuclear" and "Extended" households. It is also being hypothesized that among all households, the "Female-only" are economically the most disadvantaged. Yet the expectation is that expenditure patterns are relatively more child-oriented in "Female-only" households compared to "Mixed-gender" households, thus leading to better health outcomes for children in "Female-only" households compared to those of "Mixed-gender" households. Differences in income, expenditure patterns vis-à-vis children's welfare will also be tested between "Nuclear" and "Extended" households. The above analysis has been extended to African households exclusively as well, as shown in Appendix 1.

Chapter 5: Description of Data

5.1 Sample Description

The sample for this dissertation is derived from a major survey, which included a Project for Statistics on Living Standards and Development in South Africa. The idea for such a survey was first mooted by a delegation of South Africans when they met officials of the World Bank in Washington in April 1992. The aim was to develop more effective strategies to combat poverty in South Africa. The Southern Africa Labor and Development Research Unit (Saldrú) at the University of Capetown was asked to coordinate and manage the collection of data required. Hence this survey is known as SALDRU. SALDRU is a major survey of some 9000 households, drawn from a random sample throughout the length and breadth of South Africa. The principal purpose of the survey was to collect statistical information about the conditions under which South Africans live in order to provide policy makers with the data required for planning strategies to implement such goals as those outlined in the Government of National Unity's Reconstruction and Development Programme. This survey was undertaken during the nine months leading up to the country's first democratic elections at the end of April 1994.

The governments of Denmark, the Netherlands and Norway working through the World Bank provided funding for the Project. The main instrument in the survey was a comprehensive household questionnaire. It was an integrated questionnaire aimed at capturing different aspects of living standards. The topics covered included

demography, household services, household expenditure, educational status and expenditure, remittances and marital maintenance, land access and use, employment and income, health status and expenditure and anthropometry.

The questionnaire was available to households in two languages – English and Afrikaans. In addition, interviewers had in their possession a translation in the dominant African language/languages of the region. The first section of the questionnaire was a detailed household roster, which provided for the basic demographic or personal details of individuals whom the respondent considered members of the household in terms of the specified criteria (see below).

(i) Who are the poor?

(ii) What is the relationship between education, age, gender and household income?

(iii) Are female-headed households more likely to be poor?

A crucial concept in the questionnaire was the definition of the household. The household definition was drawn up in such a manner as to avoid double counting of individuals who may live in more than one place. Two definitions of the household were used. The first was used only in the first section of the questionnaire, i.e. the Household Roster and the second was used for the rest of the questionnaire. The first definition of the household comprised all individuals who,

“(i) live under this ‘roof’ or within the same compound/homestead/stand at least 15 days out of the past year; AND

(ii) When they are together they share food from a common source [i.e. they cook and eat together]; AND

(iii) Contribute to or share in, a common resource pool” [they contribute to the

household through wages and salaries or other cash and in-kind income or they may be benefiting from this income but not contributing to it, e.g. children, and other non-economically active people in the household]. Visitors were excluded from this definition.

The second definition of the household included only those members who had lived “under this roof for more than 15 days of the last 30 days”. This definition was derived to eliminate double counting of individuals.

Section Two on *household services* was designed to obtain information regarding access to services, namely housing, water, sanitation and energy.

Section Three of the questionnaire concerned *food spending and consumption patterns* of the household. There is an on-going debate both internationally and locally about whether data on income or data on expenditure are more accurate. Data on food expenditure is important for a number of reasons. Where income data is unreliable, absent or incomplete, expenditure may provide an alternative measure of household welfare. From a policy point of view, data on food spending is essential for three main reasons. An analysis of the food expenditure pattern, particularly in poor households, can lead to government designing subsidies for particular commodities, e.g. maize, bread, milk, so that prices of these products are kept within the range of poor households. Secondly, analysis of food expenditure patterns, particularly again of poor households, may result in the elimination or reduction of indirect taxes – GST, VAT on particular products. Third, analysis of food expenditure patterns is important from a cost-of-living aspect.

Section Four of the questionnaire related to *spending on items other than food* and completed the data on household expenditure (other than on education and health).

Section Five on *education* attempted to gather data on enrolment patterns of household members, transport to school, and education spending.

Section Six contained a number of questions relating to *remittances*. One of the major aims of the survey was to obtain data on household income. For many households in South Africa remittances comprise an integral part of their monthly or annual income. Given the prolonged economic crisis in this country reflected in, inter alia, high levels of unemployment, data obtained in this section can inform policy makers about how the poor, particularly in rural areas where the economic crisis is probably at its most intense, are coping.

Questions in *Section Seven* on *land access and use* were designed to obtain information about the extent to which households had access to land for farming and grazing, whether they were able to use this land and to obtain a measure a degree of land ownership. The second part of this section asked questions *about ownership of other property and income derived from such property*.

Section Eight includes *information on employment, unemployment and income*. Such data collected from households may be valuable to policymakers and researchers in improving their understanding of how the labor market operates in South Africa. This may also help to develop an adequate picture of poverty in South Africa.

Section Nine asked questions about the *health status of household members*.

Information was obtained about the incidence of disease and health expenditure.

Finally, in *Section Ten*, information on *anthropometry* was included. In each household children under the age of six were weighed and their heights were measured.

In addition to the detailed questionnaire referred to above, two other questionnaires were also designed. A “Community Questionnaire” was administered in each cluster. The purpose of this questionnaire was to elicit information on the facilities available to the community in each cluster. Questions related primarily to the provision of education, health and recreational facilities.

The third questionnaire that was developed and administered was Literacy Assessment Module (LAM). The aim of LAM was to test proficiency in English and mother tongue with respect to both reading comprehension and numeracy. This module was administered to approximately one-fifth of the households in each cluster. The mother tongue questions were available in Afrikaans, English, Pedi, Southern Sotho, Tsonga, Tswana, Xhosa, Venda and Zulu.

Sampling

The sample design adopted for the study was a two-stage self-weighting design in which the first stage units were Census Enumerator Sub-Districts (ESDs, or their equivalent), and the second stage units were households.

The advantage of using such a design is that it provides a representative sample that need not be based on accurate census population distribution. In the case of South Africa, the sample will automatically include many poor people, without the

need to go beyond this and oversample the poor. Proportionate sampling as in such a self-weighting sample design offers the simplest possible data files for further analysis, as weights do not have to be added. However, in the end this advantage could not be retained and weights had to be added.

The sampling frame was drawn up on the basis of small, clearly demarcated area units, each with a population estimate. The nature of the self-weighting procedure adopted ensured that this population estimate was not important for determining the final sample, however. For most of the country, census ESDs was used. Where some ESDs comprised relatively large populations as for instance in some black townships such as Soweto, aerial photographs were used to divide the areas into blocks of approximately equal population size. In other instances, particularly in some of the former homelands, the area units were not ESDs but villages or village groups.

In the sample design chosen, the area stage units (generally ESDs) were selected with probability proportional to size, based on the census population. Systematic sampling was used throughout, that is, sampling at a fixed interval in a list of ESDs, starting at a randomly selected starting point. Given that sampling was self-weighting, the impact of stratification was expected to be modest. The main objective was to ensure that the racial and geographic breakdown approximated the national population distribution. This was done by listing the area stage units (ESDs), by statistical region and then within the statistical region by urban or rural. Within these sub-statistical regions, the ESDs were then listed in order of percentage African. The sampling interval for the selection of the ESDs was obtained by dividing the 1991

census population of 38 120 853 by the 360 clusters to be selected. This yielded 105 800. Starting at a randomly selected point, every 105 800th down the cluster list was selected. This ensured both geographic and racial diversity (ESDs were ordered by statistical sub-region and proportion of the population African). In three or four instances, the ESD chosen was judged inaccessible and replaced with a similar one.

In the second sampling stage the unit of analysis was the household. In each selected ESD a listing or enumeration of households was carried out by means of a field operation. From the households listed in an ESD a sample of households was selected by systematic sampling. Even though the ultimate enumeration unit was the household, in most cases “stands” was used as enumeration units. However, when a stand was chosen as the enumeration unit all households on that stand had to be interviewed.

Census population data, however, was available only for 1991. An assumption on population growth was made to obtain an approximation of the population size for 1993, the year of the survey. The sampling interval at the level of the household was determined in the following way. Based on the decision to have a take of 125 individuals on average per cluster (i.e. assuming 5 members per household to give an average cluster size of 25 households), the interval of households to be selected was determined as the census population divided by 118.1, i.e. allowing for population growth since the census.

Individuals in hospitals, old age homes, hotels and hostels of educational institutions were not included in the sample. Migrant labor hostels were included. In addition to those that turned up in the selected ESDs, a sample of three hostels was

chosen from a national list, provided by the Human Sciences Research Council, and within each of these hostels, a representative sample was drawn on a similar basis as described above for the households in ESDs.

Data collection was carried out by survey organizations such as the Bureau of Market Research, Mark Data, Social Surveys, Data Research Africa, the Human Science Research Council in Durban and Cape Town and so on.

Weights

A self-weighting sample design should in principle eliminate the need for weighting. A number of factors intervened, however, which made it essential to use weights after all. Amongst these was violence, which prevented survey teams from conducting interviews in two clusters on the East Rand; failure to continue interviewing in a cluster until the required take had been interviewed; and systematic under-representation of whites in the sample (whites were found to be more likely to refuse to be interviewed, or to be absent than other groups).

The importance of race in determining living standards in South Africa is such that the racial distribution of the population has a major bearing on measures of living standards and inequality. It was thus regarded as essential that the problems mentioned above should be overcome by applying appropriate weights to the data. The most appropriate weights to apply would usually be the average values obtained in a cluster for the missing questionnaires from that cluster in order to capture the homogeneity usually inherent in residential contiguity. However, that presented some difficulty for the two clusters in which violence prevented surveying and for those

clusters in which there were only a small number of questionnaires completed. It was felt that this method would therefore not be appropriate.

Accordingly, it was decided to use weights as far as possible at the level of the old provincial/homeland boundaries and race. The listing of households in each cluster combined with the sampling interval was used to determine how many households should have been interviewed. When this deviated from the number actually interviewed, this was taken into account. The assumption was that the households left out were racially distributed in the same proportion as the actual households interviewed. When these numbers were then calculated at the provincial level, a weight could be calculated for each race group to rectify errors made in the fieldwork. These errors typically resulted from the fact that most field work organizations involved had little experience of using anything but a weighted sample and were used to replacements that could easily be added *ex post*, not necessarily in the same area. When these mistakes were discovered, it was too late to go back to the field.

The sample of 360 clusters of 25 households each based on an expected household size of 5 should have yielded a population of 45 000. In fact a different household size should not affect the results. In any particular cluster, the expected take of individuals would remain the same if the census population were accurate, irrespective of household size, for a smaller household size (as in the case of whites) would only have yielded more households, of whom a given proportion would have been interviewed. If in a particular cluster the census population was 472, every fourth household should have been interviewed (based on a sampling interval

calculated to produce 125 persons per cluster in 1993, the expected take based on the census data of 118.1 per cluster divided into the same population size). Irrespective of household size, then, one quarter of the cluster population would have been included in the survey. An average household size of 5 would have given 94 households of whom 23 would have been interviewed, i.e. 115 resident household members would have been found. If the household size was only three, on the other hand, one-quarter of the 157 households would have been 39, representing 117 household members. Only small differences from the expected take of 118 should thus arise, due to rounding. Only if the estimate of population based on the census were wrong, however, would the actual number of households deviate substantially from the expected take. In such a case, one quarter of the actual (i.e. listed or enumerated) rather than of the census population would have been included in the survey, i.e. there would have been an automatic adjustment. This gives the sample design its self-weighting character.

The census population for the survey data was estimated by applying Sadie's population growth rates to the adjusted 1991 census figures. The resultant racial and geographic distribution of the population of 40.1 million presumes of course, that no migration across provincial and homeland boundaries had occurred since the census. This implies that a raising factor of 891.4154 (40.1 million divided by an expected take of 45 000) should be applied to the results weighted by enumeration to obtain the population it represents. Applying the weights according to enumeration, 38.1 million people were covered by the survey. Broken down by race the under-enumeration was particularly large amongst whites, for which the best census data exists, indicating

that the problem did not lie so much with the census as with the survey. However, this is to be expected – a survey of this nature is better at capturing inequality and living standards than population size. Nevertheless, the margin of error in aggregate population estimates is relatively small, considering the presence of homeless people, uncertainties about ESD boundaries in some areas and the likelihood of incomplete listings of households for various reasons. These results are therefore encouraging regarding the accuracy of the survey and also confirm that the adjusted census does not deviate substantially from population estimates obtained in a different manner.

However, the raised enumeration results deviate more from the census results where the provincial breakdown is concerned. The reason for this is not hard to find. The sample design introduced stratification only by geographic area (statistical regions) and proportion of the ESD population that was black. South African population clusters are still predominantly racially homogeneous, *inter alia*, because of past controls on residential patterns. It is therefore not surprising that in particular regions too few or too many clusters of a particular group were selected. In Natal, for instance, Colored and Indians are over represented in the data, even when weighted by enumeration, while Whites are under-represented. At the aggregate level, this should have little effect on the validity of the conclusions drawn, but it emphasizes the fact that care should be taken when drawing implications from the survey for small populations.

5.2 Sample and Variables for this study

The SALDRU data covers 43,190 individuals between the ages of 0 and 110 in 8,809 households throughout the length and breadth of South Africa. The sample selected for this dissertation includes 4,567 children between the ages of 0 to 90 months. Among these children 2236 are female and 2331 male. About 83% of the children are African and the rest are of the White, Colored and Indian ethnicity.

5.3 Dependent Variable

5.3a Height-for-age z-scores (Variable name: **HAZ**)

This thesis uses one dependent variable, *height-for-age z-scores*, to be used as a proxy for children's welfare. This is done so given the focus of this thesis is on children's welfare in terms of *human development outcomes* related to health, specifically children's nutritional status.

Empirical work has traditionally used anthropometric measures as proxies for children's nutritional status. These have included "Wasting" (insufficient weight-for-height indicating acute under-nutrition), "Stunting" (insufficient height-for-age indicating chronic under-nutrition) (Klasen, 1997). This study selects *stunting* (height-for-age or **HAZ**) as the dependent variable since height is viewed as a longer-run indicator of nutritional status which is clearly determined by the time an individual reaches adulthood (apart from shrinking later in life) (Strauss and Thomas, 1995). It is measured as the height-for-age that is below x standard deviations of the reference standard.

Given that the national *stunting* rate in South Africa ranges between 23% (South African Vitamin A Consultative Group [SAVACG], 1995) and 27% (Project for Statistics on Living Standards and Development [PSLSD], 1994), it qualifies for an important proxy for child welfare. Moreover, poor children suffer from even higher rates of *stunting* – 38%.

This study attempts to see whether there are variations in children’s nutritional status according to household types.

5.4 Independent Variables: Control Variables

5.4a Race (Variable name: race)

Race has played an integral role in every aspect of the South African society. *Apartheid*, the policy of racial segregation formerly followed in South Africa, had been the driving force in developing the unique nature of racial division within the country. The word *apartheid* means “separateness” in the Afrikaans language and it describes the rigid racial division between the governing white minority population and the nonwhite majority population. The National Party, the existing political party of that time, introduced *apartheid* as part of their campaign in the 1948 elections, and with the National Party victory, *apartheid* became the governing political policy for South Africa until the early 1990s.

The *apartheid* laws classified people according to three major racial groups—White; Bantu, or black Africans; and Colored, or people of mixed descent. Later Asians, or Indians and Pakistanis were added as a fourth category. It imposed strict

racial divide on all grounds – geographic, political, economic and social. It favored the White minority disproportionately, while disadvantaging the non-white communities, the Indian, the Colored and the African (which comprise a vast majority of the population), to various degrees. The laws determined where members of each group could live, what jobs they could hold, and what type of education they could receive. Laws prohibited most social contact between races, authorized segregated public facilities, and denied any representation of nonwhites in the national government. People who openly opposed *apartheid* were considered communists and the government passed strict security legislation that turned South Africa into a police state. As a result, in spite of the plentiful wealth of the country, a large share of the population has not been able to benefit from South Africa's resources, and a long legacy of *poverty* and *inequality* remains for a substantial portion of the population of South Africa.

Although there is no longer a legal basis for *apartheid*, the social, economic, and political inequalities between white and black South Africans continue to exist. In 1990, South Africa embarked on a transition from white *apartheid* rule to a democratic regime open to all members of the population (Klasen, 1997). This transition culminated in the first democratic and all-inclusive elections of April 1994 and the installation of a Government of National Unity under President Mandela in May 1994. A critical element of the mandate of the new government has been to address poverty and inequality. However, what the new government inherited was an *apartheid* state machinery which had been set up, on the one hand, to provide quality services for a privileged minority of the population, and on the other, to ensure

deliberate, systematic underdevelopment of the majority of South Africans. This had resulted in a huge backlog in basic service provision and remains a major challenge to the new government.

Given that the ghosts of *segregation and apartheid* which still haunt all aspects of South African society, the inclusion of *race* is imperative in this analysis. Not only does *race* act as a control variable in this analysis, it also makes it possible to identify racial differences in children's nutritional status. In other words, controlling for race, is a child better off in a certain type of household compared to others? Moreover, is a given child better off in certain racial groups compared to others? The sample of 4567 children shows a breakdown of Africans 83.18 %, Whites 6.74 %, Colored 7.64% and Indians 2.43 %. Comparatively, the overall racial breakdown of the country is Africans 75.2%, Whites 13.6%, Colored 8.6%, and Indians 2.6%. Note that the greatest discrepancy between the percentages is among the Whites (6.74% versus 13.6%). This is possibly due to the systematic non-response among the White group. Whites were found to be more likely to refuse to be interviewed or to be absent compared to other groups.

5.4b Age of child (Variable name: *agem*)

In the SALDRU survey, anthropometric data has been collected for children under the age of 8 years residing in the interviewed households. Children's ages in months, a continuous variable, have been included in the analysis as the second control variable. The ages range from 0 to 90 months with a mean age of 36.3 months. This variable also enables us to see how **HAZ** varies according to age.

5.4c Square of age of child (Variable name: *agem_sq*)

A second age variable follows as the third control variable. Here ages in months have been squared, in order to deal with potential nonlinearities in the relationship between *agem* and the dependent variable.

5.4d Gender of child (Variable name: *female*)

There are 2331 (51.04%) male children and 2236 (48.96%) female children in the sample. Gender of the children is also used as a control. Moreover, this variable enables us to see whether there is a difference in welfare between male and female children.

5.4e Region (Variable name: *Residence*)

Given its history of *apartheid*, it is difficult to spatially demarcate South Africa into rural and urban components. While *apartheid* legislation sought to separate the largely African rural population from the urban, the impact of the migrant labor system has been to link both the rural and urban economies through the movement of people (May and Rogerson, 2000).

Geographically, *apartheid* planning served in many respects to displace the problem of poverty and thereby to reduce its visibility. The poor were shifted to the margins, both of urban areas and more importantly of the country as a whole, placing the bulk of South Africa's poverty in the rural areas. Indeed during the 1970s *apartheid* planners had managed, *albeit* at economic, political and human costs, to maintain a pattern of 'dynamic equilibrium' between urban and rural areas, based on migrant labor and influx control (McCarthy and Hindson, 1997:4). Historically, the

system of migratory labor provided the basis for a system of exploitation and asset stripping in which the wealth of whites, particularly in town and cities, grew at the expense of the mass of Africans living in rural bantustans.

Thus notions of urban and rural are tenuous in the South African context, with complex economic and social linkages existing between cities, towns and the countryside. Although this appears to be recognized in many of the policies developed over the past few years, an urban or rural framework is usually implied. This convention is being followed by this thesis too.

Results from the 1996 census suggest that more than half (55.4%) of the estimated population of South Africa now live in the urban areas (CSS, 1997:11). Compared to the census figure, the sample shows a lower percentage of urban residence – 41.76%, whereas rural residence is much higher – 58.24%. The entire sample of 8809 households also shows a greater percentage of rural residence, compared to urban residence – 52.33%. Rural-urban residence not only work as a control in the analysis of the variation in child welfare within various household types, but also provides information on variations in children’s welfare within different geographic locations. For the purpose of this thesis, the variable “Residence” has been used. This variable consists of three categories: “rural” (the rural areas), “urban” (small towns) and “metro” (large metropolitan cities).

5.4f Number of Adults within a Household (Variable name: number of adults)

The actual number of adult household members was included as a control. It is being hypothesized that “number of adults” and children’s welfare are negatively

correlated. The assumption is that the greater the number of adults within a household, the greater the probability of more earners as well as more childcare providers within a household which in turn enhances children's welfare.

5.5 Independent Variables: Key Variables

5.5a Female versus Mixed-gender households (Variable name: Femonly)

"Femonly" is a dichotomous variable which indicates that the sample of children belong to either "Female-only" or "Mixed-gender" households. Out of the total of 4567 children, 481 children (10.53%) belong to "Female-only" households, whereas the rest, 4086 children (89.47%) to "Mixed-gender" households. The term "Mixed-gender" refers to households containing at least 1 male member above the age of 18 years. This result closely resembles the percentages for the entire sample of 8809 households. The entire sample shows that 14.19% households are "Female-only" and 85.81% are "Mixed-gender". These figures also closely tally with results presented by the Reconstruction and Development Program (October 1995). Their report shows that the population share of *de facto* female-headed households (where the head is in practice female, since the official male head is absent for most of the year) is 10.5 % compared to *de jure* female head (where the head is officially female) is 26.9 %. This thesis is using the *de facto* definition.

5.5b Categorical Household Variable (Variable name: hhtype1)

Recent research (Buvinic and Gupta 1994; Lloyd and Desai 1992) concerned with child welfare has highlighted the fluidity of household boundaries. Such research

has challenged the traditional view that, apart from exceptional cases, children live with their mothers, experience childhood together with their siblings, and have access to resources from both biological parents. On the contrary, these studies show that in different parts of the world, as in the sub-Saharan Africa and Latin America, children spend substantial portions of their childhood years apart from one or both parents, and by extension, apart from at least some of their siblings. Such circumstances thus give rise to the existence of a large variety of family types, of which the nuclear family consisting of a mother and a father living together in a conjugal union with their biological children is but one. Therefore it is important for studies concerned with intra-household activities to take into account the multiplicity of the family structure. Given this multiplicity, one can expect a *variation* in the relationship between gender differences in resource allocation and child welfare.

In this context, an attempt will be made to demonstrate a variation in household types in the South African context. A second household category variable “hhtype1” was introduced by decomposing variable “Femonly”. Specifically, the category “Femonly” remains the same, with 481 children (10.53%). “Femonly” (10.53 %) as mentioned in the previous variable description refers to children belonging to households with only adult females, whether they are biological mothers or not. The “Mixed-gender” households were sub-divided into three different categories -- “Nuclear”, “Extended” and “Others”. “Nuclear” (27.85%) refers to children who belong to households with *both* biological parents present. No form of extended families resides here. “Extended” (39.81%) refers to children from households where both biological parents as well as various forms of extended

families exist. “Others” (21.81%) is a combination of households with extended families and no biological parents. Where biological parents do exist in “Others”, both do not simultaneously, it is either the biological mother or the biological father but not both at the same time. The independent variable, *hhtype1*, has been introduced with the expectation that it would enable us to identify a variation in children’s welfare within a variety of households.

5.5c Income (Variable name: *minc*)

Apartheid has been integral in shaping the economic conditions and labor force participation in the South African society. The implication of laws that classified the South African people into four major racial groups— the White, the African, the Colored, and the Indian, was that it was legally decided what types of education and jobs each racial group had access to. In 1990, even after South Africa embarked on a transition from white *apartheid* rule to a democratic regime open to all members of the population, the new government was faced with the inheritance of an *apartheid* state machinery. The tradition continues on the one hand, to provide quality services for a privileged minority of the population, and on the other, to ensure deliberate, systematic underdevelopment of the majority of nonwhite South Africans. The inequality in access to jobs, services and economic resources among the races, as well as other opportunities to escape poverty (afforded through education, skills training, and better health, for example), remain huge. A bulk of the poor still do not have jobs, and those who do, work for low wages – often far away from their families. This has made the poor very dependent on pensions and remittances, and

hence vulnerable. Thus in spite of the plentiful wealth of the country, a large share of the population has not been able to benefit from South Africa's resources, and a long legacy of *poverty* and *inequality* remains for a substantial portion of the population of South Africa.

Given this background on income and inequality, it is important to include an *income* variable to see whether it has an effect on *HAZ*, and also whether *income* effects children's welfare differentially according to the different types of household. The *income* variable was created in the following way:

First, *total monthly income (totminc)* of a given household was divided by the square root of *adult equivalence*. *Totminc* already exists in the original data. Adult equivalence (variable *adult_eq*) was calculated using the following formula: $(A+0.5C)$. A is the number adults and C the number of children in a household. In other words, it is the number of adults in the family taking children into account (Woolard and Klasen, 2003). Variable *adult_sq* was then calculated by taking the square root of *adult_eq*. Finally the income variable *minc* was calculated as the following:

$$\text{minc} = (\text{totminc} / \text{adult_sq}) / 1000$$

5.5d Total Monthly Food Expenditure (2 Variables: foodmx and foodmx²)

Total monthly food expenditure has been included in this analysis in addition to *income*. For there is an on going debate both internationally and locally about whether data on income or data on expenditure are more accurate.

Some of the difficulties in using *income* as a measure of welfare have been

discussed in the Conceptual Chapter. For example, the appropriateness and interpretation of utility as the measure for welfare (Sen, 1992); the question of interpersonal variation among individuals in translating incomes into utilities (Friedman, 1947; Sen, 1992); the difficulty of inter-personal comparisons of utility (Jorgensen 1990) and so on. Moreover, the assumptions about economic structures needed for income to be the best measure of welfare are so stringent as to render them effectively useless in most settings. An additional difficulty is the inability of most surveys to observe individual incomes directly. As most individuals reside in households of various sizes and age structures, individual income must be deduced by translating household members into adult equivalents and making assumptions about economies of scale within the households (or household-specific public goods). Different ways to adjust for household structure and size can have a considerable impact on presumed poverty of various household types (Deaton and Paxson, 1996a; 1996b).

There, in fact, seems to be a consistent discrepancy between the income and expenditure data in the SALDRU data. Out of the total of 8809 households 4311 households show a lower total monthly income compared to total monthly expenditure. To overcome some of these problems of using an *income* measure an expenditure on food variable has been included in this analysis.

The variable *foodmx* was calculated as $(mxtfood/ 1000)$ where *mxtfood* (already included in the original data set) refers to *total monthly food expenditure*. The variable *foodmx²* was calculated as $(foodmx*foodmx)$. The squared expenditure variable may assist in identifying a nonlinear relationship between children's welfare

and expenditure on food¹⁷.

5.5e Unemployment and Time Availability (Variable name: Percent unemployed)

Resource allocation, through economic and non-economic means, is not the only way children's welfare is influenced. Gender-differentiated time use, specifically the number of unemployed people in the household is of interest here. True, adults not in the labor force means forgoing earnings for the household. On the other hand, an assumption can be made that an unemployed adult, generally a female adult, can provide childcare and hence influence child welfare positively. Keeping this argument in mind, variable "Percent Unemployed" has been introduced as an independent variable.

The above argument has been put forth for two reasons. First, Chapter III mentions the existence of high unemployment rates among women in South Africa. Second, gender-differentiated time use research indicate that fairly consistently, women in all parts of the world work more hours (paid and unpaid) than do men of the same age (Bruce, 1989).

However, the *issue of gender-differentiated time use* presents a new angle to the subject of childcare in the face of increases in marital instability and single parenthood. Given marital instability and single parenthood (more often single motherhood), there have been reductions in the amount of time children spend with their fathers and the amount of money fathers contribute to their children's support. The decline in children's access to parental resources and the disparity between

¹⁷ Same results were obtained using percent of household expenditure on food.

mothers' and fathers' contribution to children are highlighted in the mother-only family. Whereas in two-parent families the loss of the mother's time is more or less offset by the gain in economic resources, in single-mother families there is an absolute loss of both parents' time as well as a loss of fathers' economic support. With regard to money, married fathers contribute about 20 and 25 percent of their income to support their children, whereas nonresident fathers contribute less than 10 percent (in McLanahan and Garfinkel, 1995). Overall, these changes tend to decrease the resources available to children as a whole and increase the responsibilities of mothers vis-à-vis fathers. Not surprisingly, the children who grow up in single-mother families are disproportionately poor, and many suffer long-term disadvantages. Their educational attainment is lower; their earnings are lower; they are more likely to become single parents themselves; and they are more likely to be dependent on the government for income support (McLanahan and Booth, 1989). Thus the relationship between "Percent Unemployed" and children's welfare will be explored in this analysis. The expectation is that the correlation between the two variables will be either positive or negative and is indeed an empirical issue in the face of high unemployment and increasing marital instability in South Africa.

Chapter 6: Model, Results and Discussion

6.1 Methodology and Model Specification

The basic model estimated to understand the factors that may influence the welfare of children, and in this case, children's height-for-age or **HAZ** is:

$$Y1 = f(X1...X6, X7, X8, X9...X10, X11)$$

Where,

Dependent variable:

Y1 = height-for-age or **HAZ** (of children between ages 0 to 90 months)

Independent Variables:

X1...X6 = Control variables [race (**Race**), age in months (**agem**), age in months squared (**agem²**), gender of child (**female**), geographic location (**residence**) and number of adults in a household (**# of adults**)]

X7 = Different types of households (categorical variable **hhtype1**)

X8 = Income (**minc**)

X9...X10 = Total monthly expenditure on food (**foodmx** and **foodmx²**)

X11 = Percent unemployed (**% of household members unemployed**)

The dependent variable is continuous and the model is estimated using an Ordinary Least Square (OLS) regression. The model seeks to examine the relationship between various types of households and the welfare of children. In other words, does children's welfare vary amongst the various types of household setting they live in? For example, how does children's welfare differ between "Female-only"

versus “Mixed-gender” households? Specifically, it seeks to test whether in spite of being economically poorer, children in “Female-only” households are better-off due to resource allocation that is conducive to children’s well-being. The analysis begins with descriptive statistics presented in Table 6.1.

Table 6.1: Descriptive Statistics

Variables	Percentage(%)	Mean
Dependent		
HAZ		-1.033
Independent (Control)		
1. Race		
<i>African</i>	83.6	
<i>Colored</i>	7.5	
<i>Indian</i>	2.4	
<i>White</i>	6.6	
2. Gender		
<i>Female</i>	48.9	
<i>Male</i>	51.1	
3. Age in months		
		36.3
4. Residence		
<i>Rural</i>	58.4	
<i>Urban</i>	20.0	
<i>Metro</i>	21.8	
5. Average number of adults ¹⁸		
<i>Nuclear*</i>		2.0
<i>Femonly*</i>		2.5
<i>Extended*</i>		4.8
<i>Others*</i>		5.1
Independent (Main)		
6. Household Categories		
<i>Nuclear</i>	28.0	
<i>Femonly</i>	10.5	
<i>Extended</i>	39.8	
<i>Others</i>	21.7	
7. Average Income (in Rands)		
<i>Nuclear</i>		1305.8
<i>Femonly</i>		362.1
<i>Extended</i>		606.4
<i>Others</i>		460.7

¹⁸ To compare, the average number of household members, adults and children inclusive are: Nuclear = 4.8; Femonly = 6.3; Extendeder = 8.7; and Others = 8.6.

Table 6.1 continued...

Variables	Percentage(%)	Mean
Independent (Main)		
8. % unemployment within household categories ¹⁹		
<i>Nuclear</i>	46.5	
<i>Femonly</i>	73.2	
<i>Extended</i>	71.9	
<i>Others</i>	76.6	
9. Total monthly food expenditure (in Rands)		
<i>Nuclear</i>		591.6
<i>Femonly</i>		463.5
<i>Extended</i>		682.1
<i>Others</i>		649.2
Monthly food exp. as a % of total monthly expenditure		
<i>Nuclear</i>	47.6	
<i>Femonly</i>	56.9	
<i>Extended</i>	52.4	
<i>Others</i>	54.6	
N= 4567		
Nuclear* = Biological mother + biological father Femonly* = Female adults only Extended* = biological mother+biological father+extended Others* = extended only. May include either biological mother or father but not both.		

¹⁹ % in formal employment within different household categories: Nuclear = 54%; Femonly = 28%; Extended = 29%; and Other = 24%.

6.2 Results

The Women in Development literature postulates that although “female-headed” households are generally economically disadvantaged compared to “male-present” households they demonstrate child welfare enhancing resource allocation within their respective households. The analysis begins by reviewing whether the WID postulation holds true within this study.

This empirical study partially supports the thesis put forth by the literature in WID. First, according to the Descriptive Table 6.1, among all household categories, “Femonly” are economically most disadvantaged. It shows that “Femonly” households have the *lowest mean income* – only R 362.1 compared to R 460.7 for “Others”, R 606.4 for “Extended”, and R 1305.8 for “Nuclear” households. The regression results in Table 6.2 confirm that the “Femonly” households are indeed economically most disadvantaged compared to the other households.

By regressing income on race, age of child, gender of child, geographic residence, number of adults living within a given household, the result in Table 6.2 show that “Femonly” households are significantly poorer compared to “Nuclear” households. However, no economic disparity is apparent between “Nuclear” households and the two “male-present” extended households e.g. “Extended” and “Other”.

**Table 6.2: OLS Regressions: Relationship between
Types of Household and income (Dependent Variable: minc)**

Independent Variables		
<i>Control Variables</i>		
1. Race (omitted category: African)		
Colored		0.400**
Indian		1.104***
White		3.712***
2. Age (in months) of child (agem)		
		0.003
3. agem ²		-0.00004
4. Gender of child (female) : female = 1		
		-0.105
5. Residence (omitted category: rural)		
Urban		-0.060
Metro		0.225*
6. # of adults		0.014
<i>Household categories (hhtype1).</i>		
Omitted category: Nuclear		
Femonly		-0.314*
Extended		-0.160
Other		-0.161
N		4472
R-squared		0.162
Adj R-squared		0.160

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

Second, Table 6.1 had shown that on average, “total monthly food expenditure” is the lowest in “Femonly” households – R 463.5 compared to R 591.6 for “Nuclear”, R 649.2 for “Others” and R 682.1 for “Extended”. This result is confirmed in regression results in Table 6.3. Controlling for race, child’s age, residence, gender of child, number of adults in a given household and income, there is a significant negative relationship between “Femonly” households and expenditure on food. In other words, compared to children in “Nuclear” households, children in “Femonly” households suffer from a significantly lower expenditure on food. However, even though “Femonly” has the lowest mean income among all of the household types as well as the lowest “total monthly food expenditure”, the “Monthly food expenditure as a % of total monthly expenditure” is the highest for “Femonly” compared to the other types of households; It is 56.9% in “Femonly” households compared to 47.6% for “Nuclear”, 52.4% for “Extended” and 54.6% for “Others”. A separate regression was run with “expenditure on food as a % of total monthly expenditure” as the dependent variable. The result in Table 6.4 indicate that controlling for the background variables and income, “Femonly” households are significantly positively related to this dependent variable. In other words, controlling for income compared to “Nuclear” households, “Femonly” households have a greater probability of spending a greater proportion of their income on food.

Table 6.3: OLS Regressions: Relationship between Types of Households and Expenditure on Food (Dependent Variable: foodmx)

Independent Variables		
<i>Control Variables</i>		
1. Race (omitted category: African)		
Colored		- 0.020
Indian		0.235***
White		0.315***
2. Age (in months) of child (agem)		- 0.002+
3. agem ²		- 0.00003*
4. Gender of child (female) : female = 1		0.023+
5. Residence (omitted category: rural)		
Urban		0.103***
<i>Metro</i>		0.179***
6. # of adults		0.076***
<i>Household categories (hhtype1).</i> Omitted category: Nuclear		
Femonly		- 0.058**
Extended		0.023
Other		- 0.076***
<i>Income</i>		0.024***
N		4468
R-squared		0.219
Adj R-squared		0.217

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

Table 6.4: OLS Regressions: Relationship between Types of Households and Percentage of Expenditure on Food (Dependent Variable: pc_foodx)

Independent Variables		
<i>Control Variables</i>		
1. Race (omitted category: African)		
Colored		- 8.722***
Indian		-14.979***
White		-25.586***
2. Age (in months) of child (agem)		
		0.022
3. agem ²		
		- 0.0002
4. Gender of child (female) : female = 1		
		1.236**
5. Residence (omitted category: rural)		
Urban		-6.736***
Metro		-10.539***
6. # of adults		
		-0.293*
<i>Household categories (hhtype1).</i>		
Omitted category: Nuclear		
Femonly		3.197***
Extended		-0.980
Other		1.163
<i>Income</i>		
		- 0.676***
N		4468

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

6.2a The Basic Model

Table 6.5 presents the overall results of this study using a series of stepwise regressions to enable a better understanding of the relationships between the independent and dependent variables.

Model 1 shows the baseline model showing how HAZ is related to the control variables race, age in months (*agem*), age in months squared (*agem*²), gender of child (*female*), geographic location of residence (*residence*), and number of adults within a given household (*# of adults*).

Within the race categories, the “Colored”, the “Indian” and the “White” children are being compared to that of the “African” children. No significant well-being differences exist between the “African” and the “Colored” children. However, both the “Indian” and the “White” children, and the “White” children more so, compared to the “Indian” children, are significantly better off compared to the “African” children.

There is a significant negative relationship between ***agem*** and **HAZ**, suggesting increasing malnutrition as a child gets older although at a decreasing rate as suggested by the variable ***agem*²**. Variable ***female*** indicates that female children are significantly better off compared to male children. According to results from the variable ***residence***, both urban and metro residents are significantly better off compared to rural residents, and more so the metro residents. ***# of adults*** in a given household has no significant impact on welfare.

Table 6.5: OLS Regressions: Determinants of Height-for-age

Independent Variables	Model 1	Model 2	Model 3	Model 4
Control Variables				
1. Race (omitted category: African)				
Colored	- 0.088	- 0.093	- 0.099	- 0.092
Indian	0.646**	0.617**	0.600**	0.487*
White	1.143***	1.104***	1.046***	0.911***
2. Age (in months) of child (agem)				
	- 0.040***	- 0.040***	- 0.040***	- 0.040***
3. agem ²				
	0.0004***	0.0004***	0.0004***	0.0004***
4. Gender of child (female) : female = 1				
	0.129*	0.131*	0.132*	0.122+
5. Residence (omitted category: rural)				
Urban	0.189*	0.176*	0.176*	0.129
Metro	0.388***	0.377***	0.374***	0.294**
6. # of adults				
	-0.008	- 0.003	- 0.003	- 0.028
<i>Household categories (hhtype1).</i> Omitted category: Nuclear				
Femonly	---	- 0.254*	- 0.249*	- 0.221+
Extended	---	- 0.150	- 0.148	- 0.162+
Other	---	- 0.030	- 0.027	- 0.014
Income				
	---	---	0.015	0.008
Foodmx (Total monthly food expenditure)				
	---	---	---	0.762***
Foodmx ²				
	---	---	---	- 0.184**
N				
	4472	4472	4472	4468
R-squared				
	0.048	0.050	0.050	0.055
Adj R-squared				
	0.046	0.047	0.047	0.052

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

These findings are quite stable in Models 1 through 4 with the exception of Model 4 where the significant differences between the welfare of children between rural and urban children no longer hold.

In Model 2 variable **hh_{type1}**, is introduced which defines the various types of households: “Nuclear” (Biological mother + biological father), “Femonly” (Female adults only), “Extended” (Biological mother + biological father + extended) and “Other” (Extended only -- may include either biological mother or father but not both). The omitted category is “Nuclear”. In other words, all household types are compared to “Nuclear” households. Holding constant the control variables, the results indicate that children in “Femonly” households are significantly worse-off compared to those in “Nuclear” households in Models 2 and 3, and both “Femonly” and “Extended” household are significantly worse-off compared to “Nuclear” households in Model 4. The finding that children in “Nuclear” families are significantly better off compared to children in “non-Nuclear” households seems consistent with the theoretical arguments made earlier. In “Nuclear” families children co-reside with both biological parents and are expected to have greater access to both parents’ monetary and time resources. However, the observation that children who live in our catchall mixed category “Other” are not significantly worse off than children in “Nuclear” families is surprising. It is not clear whether this is due to small sample size or because children may be fostered in relatively better off families.

As discussed in chapter 4, some of the effects of household type may be attributed to lower income of “Female-only” households. Hence, I control for

income²⁰ in Model 3. While addition of income reduces some of the household type effects, it does not totally explain the impact of household type on child anthropometric status.

It had also been hypothesized that while “Female-only” households may be poorer, they may spend greater proportion of their income on food, ameliorating some of the negative impact. In order to test this, **Total Monthly Food Expenditure (foodmx and foodmx2)** is added in Model 4. **Foodmx** is significantly positively related to **HAZ**, suggesting that **HAZ** increase with increases in food expenditure. This increase however, happens at a decreasing rate, as shown by the negative significant relationship between **foodmx²** and **HAZ**. *In sum, Models 2, 3 and 4 establish the point that, even after controlling for income and food expenditure, children in both “Femonly” and “Extended” households are significantly worse-off compared to children in “Nuclear” households.* Interestingly, as mentioned earlier, no significant differences show up in well being between “Nuclear” and “Other” households in any of the regression models.

Income itself has no significant effect on child well being in neither Model 3 nor Model 4. This finding is not unusual since many surveys suffer from

²⁰ *Income* was calculated by dividing *total monthly income (totminc)* of a given household by the square root of *adult equivalence*. *Totminc* already exists in the original SALDRU data. Adult equivalence (variable *adult_eq*) was calculated using the following formula: $(A+0.5C)$. A is the number adults and C, the number of children in a given household. In other words, it is the number of adults in the family taking children into account (Woolard and Klasen, 2003). Variable *adult_sq* was then calculated by taking the square root of *adult_eq*. Finally the variable *income* was calculated as:

$$\text{income} = \text{totminc} / \text{adult_sq}$$

underreporting of income. This survey is no exception. Specifically, a discrepancy between household income and expenditure exists. Out of 8809 households of the original sample, 4311 – almost 50% of the households show a lower total monthly income compared to total monthly expenditure. Other studies have also failed to find a clear linkage between income and nutritional status.

6.2b Unemployment and HAZ

Table 6.6 presents Model 5 demonstrating the relationship between **unemployment (% Unemployed)** and **HAZ**. Model 5 includes all the independent variables shown in the full model in Model 4 in Table 6.5 with the addition of variable **% Unemployed**.

The results from the control variables remain more or less the same as the basic models shown in Table 6.5. No significant well-being differences exist between the “African” and the “Coloured” children. However, both the “Indian” and the “White” children, and the “White” children more so, compared to the “Indian” children, are significantly better off compared to the “African” children. **HAZ** increases with age, however at a decreasing rate. Female children are significantly better off compared to male children. The metro residents are significantly better off compared to rural residents. **Number of adults** has no significant impact on welfare.

Model 5 shows that variable **% Unemployment** is significantly negatively related to children’s welfare. However, with the inclusion of **% Unemployed**, all three household categories – “Femonly”, “Extended” and “Other” – fail to show any

significant differences in children's welfare in relation to "Nuclear" households. This suggests that household structures are closely related to unemployment. The cause is not clear. It may be speculated that unemployed people are unable to set up "Nuclear" households. Instead the alternative is to live in "Mixed-gender extended" households or "Female-only" households, where total income may be high in the short-term but in the long-term income may not be stable and high.

The results for **income**, and **foodmx** and **foodmx²** remain the same as in Table 6.5. In other words, income is not significantly related to **HAZ** and that **monthly food expenditure** is positively significantly related to **HAZ** albeit at a decreasing rate.

**Table 6.6: OLS Regressions: Determinants of Height-for-age
(Percent of unemployment included)**

Independent Variables		Model 5
<i>Control Variables</i>		
1. Race (omitted category: African)		
Colored		- 0.145
Indian		0.463*
White		0.750***
2. Age (in months) of child (agem)		- 0.039***
3. agem ²		0.0004***
4. Gender of child (female) : female = 1		0.125+
5. Residence (omitted category: rural)		
Urban		0.058
<i>Metro</i>		0.209*
6. # of adults		- 0.014
<i>Household categories (hhtype1).</i>		
Omitted category: Nuclear		
Femonly		- 0.121
Extended		- 0.090
Other		0.082
<i>Income</i>		0.003
<i>(Total monthly food expenditure (Foodmx)</i>		0.678***
<i>Foodmx</i> ²		- 0.163*
<i>% Unemployed</i>		- 0.579***
N		4463
R-squared		0.060
Adj R-squared		0.056

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

6.3 Discussion:

This study has been inspired by a rapidly growing literature on Women in Development (WID) which advocates that public policies should focus on creating income-earning opportunities for women for several reasons. This advocacy, in turn, has been generated from two opposing observations. (1) Many households with young children are headed by women due to absence of male residents within the household, due to widowhood, divorce or desertion (Desai and Ahmad, 1998). Given labor market segmentation and discrimination against women, “Female-only” households are considerably economically poorer compared to households that contain men (Buvinic and Gupta, 1994; Bruce, 1989). (2) Even when men are present in the household, when women contribute a large proportion of household income, they are far more likely to have greater control over how income is spent. It is argued that since women are more child-centered than men (Bruce, 1989; Rogers, 1995), income under female control has greater positive impact for children’s health, nutrition and education than that earned by men (Blumberg, 1986; Knudsen and Yater, 1981; Tripps 1981).

To reiterate, on the one hand, it is being argued that children in “Female-only” households are more vulnerable because women are economically poorer compared to “Mixed-gender” households, and on the other, children in the former types of households are better-off because women have greater pro-child expenditure preferences. These two approaches have coalesced into the literature on ‘female-headed households’ (FHH) which attempts to link female headship with positive child

outcomes.

This study utilizes the concept of female versus male “headship” in order to develop various types of household structures. Specifically, it does so by recognizing that different criteria have been developed in order to define “female headship”. They are as follows. First, headship is created *normatively*, based on age, gender and relationship to other members of the household. Second, a *de jure* headship (female-headed legally) implies households with no adult male members present, or households in which women have been established as household head through some sort of family-level consensus. Third, a *de facto* headship (female-headed in practice [male head absent]) includes households whereby women provide a majority of economic support. This study addresses the issue of “female headship” versus “male headship” by using the *de facto* criterion. Based on this criterion, 4 household categories, as shown in variable **hhtype1**, “Nuclear”, “Femonly” (meaning “Female-only”), “Extended” and “Other”, has been developed. First, household structures have been defined on the basis of presence or absence of adult male members (age \geq 18 years). A household is “Female-only” (hhtype1 = Femonly) if there are no adult male present within the household and all adults present are female. On the other hand, a household with at least one adult male member present is a “Mixed-gender” household. Second, the “Mixed-gender” category has been further decomposed as “Nuclear”, “Extended” and “Other” households.

Various categories of households were created for this analysis in order to recognize that recent research (Buvinic and Gupta 1994; Lloyd and Desai 1992)

concerned with child welfare makes note of the *fluidity of household boundaries*. Such research has challenged the traditional view that, apart from exceptional cases, children live with their mothers, experience childhood together with their siblings, and have access to resources from both biological parents. On the contrary, these studies show that in different parts of the world, as in the sub-Saharan Africa and Latin America, children spend substantial portions of their childhood years apart from one or both parents, and by extension, apart from at least some of their siblings. The mothers of many of these children do not live with a partner or are in marital circumstances that may attenuate the link between the child and the father. Such circumstances thus give rise to the existence of a large variety of family types, of which the nuclear family consisting of a mother and a father living together in a conjugal union with their biological children is but one. Therefore it is important for studies concerned with intra-household activities to take into account the *multiplicity* of the family structure. It can be assumed that given this multiplicity, one can expect a *variation* in child welfare, depending on the type of household a given child resides in.

Given its unique history of the *apartheid* legacy, South Africa has been characterized by *a wide diversity of household structures* (Bornstein, 2000). A large proportion of South African population is living in neither nuclear families nor traditional forms of the extended family (Budlender, 1991). Three- and four-generation households are common, and it is not the norm for children (below the age of 17 years) to live with both their parents (Bornstein, 2000). Many children have been found to be living with only their mother, while many others live without either

of their parents (Ardington, 1988; James, 1992; Ross, 1993).

'Double rootedness' has been used to describe patterns of migration as well as dual residence in which individuals have stakes in households in rural and urban areas, or multiple households within the urban areas. Although originally imposed by apartheid legislation, dual residence continues to be a strategy adopted by many households in South Africa as a means of keeping their options open in rural and urban areas, thereby sharing risks between these areas (Mayer and Mayer, 1961; Bank, 1995; Cross et.al. 1992a,b).

Overall, the regression results meet the expectation that there *is* a variation in children's welfare among the variety of households. Specifically, the results show significant differences in children's welfare among "Femonly", "Nuclear", and "Extended" households. However, the regression results fail to show that holding income constant, children in "Femonly" households are better off compared to "Mixed-gender" households. Instead, the regression results in Models 2 and 3, from Table 6.5 (using the entire sample: N= 4567) indicate that **HAZ** is significantly lower in "Femonly" households, vis-à-vis "Nuclear" households. In Model 4 **HAZ** is significantly lower both in "Femonly" and "Extended" households vis-à-vis "Nuclear" households. In other words, controlling for race, age, place of residence, gender of child, household size, income, and total monthly expenditure on food, children in various forms of "non-nuclear/extended" households are significantly worse off compared to children in "Nuclear" households. Moreover, each of the mentioned regression models indicates that, the height-for-age z-scores in "Femonly" households are consistently lower compared to the "Extended" households. In other

words, “Femonly” households do worse compared to the “Extended” households on the welfare index vis-à-vis “Nuclear” households.

Why are “Femonly” households overwhelmingly disadvantaged?

“Female-only” households, worldwide, are facing severe disadvantages today. A report titled **Families in Focus: New Perspectives on Mothers, Fathers, and Children** (1995) released by the Population Council provides important insights into this matter by drawing information from both developed as well as developing nations.

This report highlights *a dramatic increase in households headed by women in less developed countries and a rising number of single-parent families (generally single mothers/women) in more developed countries*. In the 1980s in the United States, one parent, usually the mother -- a doubling in 15 years, headed over 24 percent of households with dependent children. The percent of households headed by single parents in other developed countries range from a low 4 percent in Japan to 20 percent in the former Soviet Union, where it doubled in 15 years. In Asia, women-headed households range from over 11 percent of all households in the Philippines, to over 25 percent in Hong Kong. Surveys of Latin American and Caribbean countries showed a range of households headed by women from 13 percent in Mexico to 29 percent in Trinidad and Tobago. Data on households headed by women in sub-Saharan Africa ranged from 10 percent of all households in Burkina Faso, where it doubled in ten years, to 19 percent in Cameroon.

In the South African case, since at least the forties there has been a high

proportion of “Female-only” households in both urban and rural areas (Budlender, 1991). This is true especially for the African community. Government figures and university research conducted even as early as the 1980s suggests that between 18% and 30% of urban African households had women as heads (Simkins, 1986) with rural figures to be even higher. More recent research also suggests a high percentage of “Female-only” households in South Africa. According to the Reconstruction and Development Programme (1995), *de jure* female headship is 26.9 % and *de facto* female headship is 10.5% of the population share. This study confirms a significant prevalence of “Female-only” households in South Africa, 10.53% of the total households.

Moreover, the SALDRU data shows that the number of “single-adult” households is disproportionately high within the “Female-only” category compared to the “Mixed-gender” category among households with children. This point is demonstrated in Table 6.7.

Table 6.7: Number of Adults within Female-only & Mixed-gender Households

# of adults within Female-only HHs	Freq.	Percent	# of adults within Mixed-gender HHs	Freq.	Percent
1	355	44.99	1	48	0.92
2	233	29.53	2	1941	37.15
3	125	15.84	3	1134	21.70
4	50	6.34	4	847	16.21
5	14	1.77	5	522	9.99
6	7	0.89	6	332	6.35
7	4	0.51	7	204	3.90
8	1	0.13	8	104	1.99
9	--	--	9	52	1.00
10	--	--	10	18	0.34
11	--	--	11	9	0.17
12	--	--	12	2	0.04
13	--	--	13	6	0.11
14	--	--	14	5	0.10
15	--	--	15	1	0.02
16	--	--	16		
N	789	100.00	N	5225	100.00

Table 6.7 shows about 45 % of the “Femonly” households are “single-adult” compared to a less than 1 % in the “Mixed-gender” category. Living in a “single-adult” household has important consequences for the nutritional status of very young children. For parental time may be at a premium in such families and young children need to be fed frequently and patiently, an area that may not get sufficient attention when the mother is carrying all the burden of household work as well as wage work.

Given this dramatic increase of “Female-only” households worldwide, as well as their increasing representation among “single-adult” households, women are *carrying an increasing share of economic responsibility for their children, becoming the sole or most substantial economic support to a large proportion of the world's families* (Population Council, 1995). Again, empirical evidence is rife all over the world.

Women provide half of family income in Thailand and Nepal, taking into account all forms of production. In the Philippines, women’s share of income exceeds men’s by 10 percent, when home production is taken into account. In Peru women are primary earners in 29 percent of urban households and 32 percent of rural households. In Ghana women are primary earners in one-third of all households with children. Thus Bruce (in Bruce et. al. 1995) aptly puts it, “Mothering is about earning as much as it is about nurturing... In the future, being a mother may be the most important factor disposing women to poverty unless women's family roles are more fully valued and responsibility for children is more equitably balanced between men and women.” This study supports these findings. Given that almost 50% of the “Femonly” households belong to the “single-adult” group, compared to a less than 1% of the

“Mixed-gender” households in this study, it can be assumed that women are carrying an increasing share of economic responsibility for their families.

These increases in “Female-only” households have been caused *by high levels of marital dissolution, rising divorce rates, migration flows, childbearing by unmarried women and widowhood*. In the United States, 55 out of every 100 marriages end in divorce. Divorce rates have more than doubled between 1970 and 1990 in Canada, France, Greece, the Netherlands, the United Kingdom, and the former West Germany. In less developed countries an average of about 25 percent of first marriages have dissolved by the time women are in their forties, as a result of death, divorce or separation. In the Dominican Republic, Ghana, Indonesia, and Senegal, between 40 to 60 percent of women in her forties reported that their first marriage had dissolved. Added pressures on families from civil disruption and unstable employment are also leaving many children without adequate social and economic support from fathers. Similarly in South Africa, the high rate of “female headship”, whether *de jure* (26.9%) or *de facto* (10.53%) [RDP, 1995], has been a function of divorce, separation, migration flows, out-of-wedlock childbearing and widowhood.

Children in single-parent households are much more likely to be poor than those who live with two parents, largely because of the loss of economic support from absent fathers. Two-fifths of divorced fathers in the U.S. do not pay child support, while half of Malaysian divorced fathers and a three-quarter of Japanese fathers do not make support payments. In countries such as Mexico, Egypt, and Senegal, and in Southern Africa, women face substantial difficulties in obtaining child support from

fathers who do not have custody. Studies from the United States and Germany show that in the first year after a couple separates, the wife's income declines substantially (24 percent in the U.S., 44 percent in Germany), while the husband's income declines only slightly (6 and 7 percent respectively.) In Chile a study found that 42 percent of fathers of children born to adolescent mothers were providing no child support six years after their child's birth. In Jamaica a father is held responsible for providing child support only to the children with whom he lives, who may not necessarily be his biological offspring. In Australia, over 64 percent of children in one-parent families are poor, compared to 11 percent of children in two-parent families. In Canada more than half of children in one-parent families are poor, compared to 12 percent of those in two-parent families. In the United States, close to 60 percent of children in one-parent families are poor, compared with 14 percent of children from two-parent families.

Similarly, in South Africa, households headed by females resident in the household have a significantly increased probability of being poor relative to those headed by resident males (May, Woolard and Klasen, 2000). Especially, certain types of single women have been in a greater vulnerable economic position compared to other types of women. The state would provide assistance to certain women, for example poorer women whose husbands were deceased or committed to an institution, or women with foster children. On the contrary, the government department responsible for maintenance grants had an informal policy not to grant maintenance to black women of under 38 who have fewer than two children (Van der Vliet, 1984). Prior to the change in marriage laws in late 1988, African women

married by customary law were particularly vulnerable. A customary law marriage was void in terms of the law if the husband married another woman under civil law. Because many couples were separated by migrant labor and influx control laws, this was not uncommon. Under the new act a first marriage, whether customary or civil, takes precedence over any later attempts of the man to marry. However, most women separated from their husband still face financial difficulties, and separated and divorced women are unlikely to receive adequate maintenance grants for themselves or their children from their former husbands. Even if they are able to extract maintenance from their former husbands, the amounts are very low because of the low wages earned by most African men. Following is a quote from a report originally written in late 1990 to form the basis of the annual report of the Secretary-General of the United Nations on Women under Apartheid.

“...South Africa is still a racist society and will suffer the consequences of apartheid for many decades to come. The position of women in South Africa parallels this. ...Laws have been liberalised. Sex discrimination has in some cases been removed. Yet the current situation of women, particularly black women, and the opportunities open to them reflect their years of living in a racist and sexist society.” (Budlender, 1991).

Bruce (1989) argues that societal or macro-level inequalities also disadvantage women vis-à-vis men. Women face very different prospects in life even in same cultural settings and class groups. The contrasts are often dramatic, in their participation in labor markets, the content of their work, the returns to their labor, the pattern of economic participation over the lifecycle, daily time use, and parenting

responsibilities. Women's possibilities for finding adequate livelihoods, retaining assets, and maintaining their social status when marriages dissolve, whether through separation, abandonment, migration, or death, are often markedly poorer than men's. Given this scenario, Bruce argues that it is only natural that such societal inequalities between men and women will play up within households also.

In this nexus, it is very important to review of how women have fared in the *apartheid* as well as the *post-apartheid era* in South Africa since *apartheid* had been the underlying driving force of the macro context. And indeed, although the prospect of change in South Africa seemed greater since 1990, the legacy of not only *apartheid* but also *patriarchy* continues – and continue – to negatively affect the position of women within the society (Budlender 1991; May, Woolard and Klasen, 2000). The current situation of women, particularly black women, and the limited opportunities open to them reflect their years of living in a racist and sexist society.

The PSLSD (Project for Statistics on Living Standards and Development, 1994) survey in South Africa indicates that the poverty rate amongst female-headed households is 60%, considerably higher than the rate of 31% in “Mixed-gender” households. At least four factors account for this. (1) “Female-only” households are more likely to be in the rural areas where poverty is concentrated, (2) “Female-only” households tend to have fewer adults of working age, (3) female unemployment rates are higher, (4) the wage gap between male and female earnings persists. “Female-only” households tend to be more heavily reliant on remittance and state transfer income (pensions and grants) than “Mixed-gender” households. The irregular and uncertain nature of income increases the vulnerability of “Female-only” households.

Average income in these households is about one-third of the average income in “Mixed-gender” households.

Why are Children in “Non-Nuclear” Households Worse-off Compared to Children in “Nuclear” Households?

The previous discussion addresses the issue of why “Femonly” households, as the results indicate, are significantly the worse off group compared to “Nuclear” households. In this nexus, another related issue of interest is that why is it that both “Femonly” as well “Extended” households are significantly worse-off compared to “Nuclear” households as shown in Model 4 in Table 6.5. In other words, it is worthwhile to investigate why children in “non-Nuclear” households show a lower level of **HAZ** compared to children in “Nuclear” households.

Lloyd and Desai (1992) have presented an interesting debate about this issue. It has been argued that the availability of other related adults (non-biological parents) in the household may provide a child with greater access to financial resources and responsible childcare arrangements. However, the contrary may be true too. In many cases, children without fathers have been found in “Mixed-gender” households, since mother-child units were not economically viable and had to be absorbed into larger household units. While other relatives may compensate for the absence of a parent, they may also compete for scarce resources. ‘Living in an extended family household may only be a survival strategy of the poor that would not be preferred if people could afford separate residences at a certain standard of living’ (De Vos 1987: 517).

Francis (1996) addresses a similar issue by studying forms of coping

strategies adopted by women. For instance the formation of households comprising of several adult women and their children. Such households are explained as a response to the vulnerabilities women face in more conventionally constructed households in which they may be highly dependent on remittances from a male migrant. Francis' analysis illustrates the partial success such households have in meeting their basic subsistence needs and points to one way in which women attempt to cope with their higher vulnerability to poverty.

That "Nuclear" households are the most economically stable family units, compared to other forms of family units, can be evaluated in another way. This is done so by introducing the variable, **% Unemployed**, in the regression analysis. Table 6.6 shows that while **% Unemployed** is negatively significantly related to **HAZ**, as is expected, none of the household types, "Femonly", "Extended" and "Other" are significantly related to children's welfare. It is likely that the higher the unemployment rate, the less likely it is for a family to set up a household independently. They resort to, as Francis (1996) mentions, to "coping strategies", by setting up various types of "non-Nuclear" forms of households e.g. "Female-only", and different types of "Mixed-gender extended" households.

Chapter 7: Summary and Conclusion

This study took as its starting point the question whether greater control over household resources in the hands of women, vis-à-vis men, translates into greater proportion of household resources getting allocated to children. The question is based on two premises. First, household decisions are made through a bargaining process involving different household members. Second, differences in preferences and bargaining power between men and women are central in determining children's welfare in the household.

Many studies have adopted this overall approach (Thomas 1990, 1997; Rogers 1996) and looked at the differences in resource allocation between “female-and-male-headed” households. These studies – considered part of the Women in Development literature – have shown that “female-headed” households are generally economically poorer and yet, demonstrate child welfare enhancing resource allocation within their respective households.

This thesis analyzes the South African story in a framework embedded in household bargaining models. However, in classifying households along a gender dimension a different approach has been taken. The “female” versus “male” headship in distinguishing households was found to be too broad a categorization to capture the complexity of household structures. Instead the study classified households as “Female-only” and “Mixed-gender” households. The “Mixed-gender” category was further differentiated as “Nuclear” and “Extended”.

The introduction of a series of household types – moving beyond the simple

“male-female” headship dichotomy – enables one to capture the reality that households are not only defined by gender classification but also through kinship and other relationships that vary among countries. Indeed, these different relationships and not only gender differences influence the bargaining within the household. The more extended classification of households also captures the reality reflected in the data from different parts of the world that children live in nuclear families and in various forms of extended families defined by gender and other relationships. To understand the impact of household structures on children’s welfare one has to analyze the status of children in the reality of these complex household structures. The status of children in “female-headed” households – in this thesis classified as “Female-only” – is therefore compared to “Nuclear”. “Extended” and “Other” households – collectively called “Mixed-gender” households – instead of the simple classification of “male-headed” household.

This thesis also takes a different approach to measuring the impact of household structures on children. Instead of looking solely at different expenditure patterns, the analysis focuses on welfare outcomes of children, namely, height-for-age z-scores. In focusing on outcomes, the thesis is able to look at not only resource allocation impacts of household structures but also non-tangibles, such as presence of fathers and mothers, and their impact on children’s welfare.

Given this background, the following hypotheses were formulated and tested.

H1: In South Africa, holding income constant, the welfare of children is greater within “Female-only households” compared to children’s welfare in “Mixed-gender households.

The results suggest the opposite. Holding income and other variables constant, the welfare of children (children's height-for-age z-scores) is significantly lower in "Female-only" households compared to "Mixed-gender", and specifically "Nuclear" households.

H2: In South Africa, children's welfare differs between "Nuclear and "Extended" households.

The results show that holding income constant, children's welfare in "Mixed-gender extended" households are significantly lower compared to "Nuclear" households. Moreover, among all the household types, "Female-only" households are the worst-off compared to both "Nuclear" as well as "Extended" households.

H3: In South Africa, income in "Female-only" households is significantly lower compared to income in "Mixed-gender" households.

This hypothesis is supported by the results. Mean income in "Female-only" households is significantly lower compared to "Nuclear" households.

H4: In South Africa, household expenditure patterns in "Female-only households" is more oriented towards food compared to expenditure patterns in "Mixed-gender households".

Controlling for income, the analysis suggests that "Female-only" households spend a greater proportion of their income on food than "Mixed-gender" households do while the absolute level of expenditure is lower.

H5: Expenditure patterns differ between "Nuclear" and "Extended" households.

There are no differences in expenditure on food among "Nuclear", "Extended" and "Other" households.

The overall analysis suggests that “Female-only” households are on average poorer compared to other types of households. This result confirms the finding of the research defined by the literature on Women in Development (WID). However, this thesis does not confirm that the welfare of children in “Female-only” households could still be protected through expenditure-switching strategy despite the lower incomes in these households. In fact, the results suggest that children’s welfare is enhanced in family structures that have the presence of both males and females. The analysis therefore implies that the relationship between household structures and children’s welfare is far more complex than suggested by the simple dichotomy of “male-female” headship.

In examining potential areas of research on household decision-making several possibilities exist. First, methodologically more techniques need to be evolved to understand decision-making directly. This thesis follows the tradition of using household data to infer decision-making processes indirectly. Complementing this approach, it may be useful to undertake detailed case studies of decision-making in households adopting perhaps, a more anthropological approach to the research. Marrying the two approaches will give us a more realistic insight into household decision-making.

Second, in the case of South Africa, the follow-up of the SALDRU data collection should be used to further document the evolution of household structures. The first SALDRU dataset is based on household systems that emerged in the context of *apartheid* and government imposed policies. In the post-*apartheid* era households have greater choice in terms of migration, education, and economic opportunities. In

this context of choice, household structures are surely changing in different ways and as a result, may be impacting on the welfare of children differently.

Third, again in the context of South Africa, there is a need to analyze the evolution of household structures in light of the AIDS pandemic. AIDS is changing the nature of households and leading in particular to the emergence of children-headed households and households headed by elderly relatives – grandparents and others. The impact of such profound changes in the structure of households and their implication on poverty and inequality are of tremendous import to policy-makers and ultimately the welfare of citizens in South Africa.

From a policy perspective, this thesis confirms the importance of understanding household structures. In particular, for a country like South Africa, which is designing a comprehensive safety-net program, including programs aimed at poor children and elderly, the information on household formation and income level is crucial. It is well known that safety programs are often poorly targeted or results in displacing inter household support systems. Household level data therefore continue to be a prerequisite in the design of welfare programs.

Appendix 1: The African Community

Given that the African group is the largest (83%) of all the racial groups, a separate statistical analysis has been conducted for this group. The same regressions shown in the previous chapter in Tables 6.1 and 6.2, using Models 1 through 5 are repeated for the African group *only*. The results are presented in Table 7.1 by means of stepwise regression.

Model 1 in Table Appendix 1.1 presents results for the control variables -- **agem**, (**agem**²), **female**, **residence**, and **hhsizem**. The relationship between the control variables and **HAZ** remain more or less similar to Tables 6.1 and 6.2 from chapter 6. **HAZ** decreases with age, although at a decreasing rate. Female children are significantly better off compared to male children. Metro residents are significantly better off compared to rural residents in models 1 through 5, and urban residents are significantly better off, compared to rural residents, in models 1 and 2. Household size or **hhsizem** has no significant impact on welfare.

Models 2 through 4 suggest that compared to “Nuclear” households, both “Femonly” and “Extended” are significantly worse-off. Model 5 shows that unemployment is negatively significantly related to **HAZ**. However, here no statistically significant relationships remain between “Nuclear” households and the other three household types – “Femonly”, “Extended” and “Other”. Income has a significant positive effect on child well being in both models 3 and 4.

Table Appendix 1.1: OLS Regressions: Determinants of Height-for-age (African group only)

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Control Variables</i>					
1. Age (in months) of child (agem)	-0.041***	-0.041***	-0.042***	-0.041***	-0.040***
2. agem ²	0.0004***	0.0004***	0.0004***	0.0004***	0.0004***
3. Gender of child (female) : female = 1	0.148*	0.152*	0.155*	0.144*	0.147*
4. Residence (omitted category: rural)					
Urban	0.233*	0.221*	0.159	0.121	0.055
Metro	0.406***	0.396***	0.319**	0.264**	0.203*
5. hhsizem	-0.004	0.002	0.005	-0.008	-0.004
<i>Household categories (hhtype1). Omitted category: Nuclear</i>					
Femonly	---	-0.303*	-0.257*	-0.235+	-0.146
Extended	---	-0.197*	-0.203*	-0.229*	-0.138
Other	---	-0.092	-0.066	-0.075	0.042
<i>Income (minc)</i>					
	---	---	0.206**	0.143*	0.070
<i>(Total monthly food expenditure [Foodmx])</i>					
	---	---	---	0.830***	0.785***
<i>Foodmx²</i>					
	---	---	---	-0.224**	-0.211*
<i>% Unemployed</i>					
	---	---	---	---	-0.567***
N	3799	3799	3737	3736	3731

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

This finding differs from that of Tables 6.1 and 6.2, where no significant relationship exists between income and children's welfare. The positive significant relationship between income and **HAZ** does not hold in Model 10 where unemployment is introduced.

In models 4 and 5, variables **foodmx** and **foodmx**² suggest that monthly expenditure on food is significantly positively related to **HAZ**, however, at a decreasing rate.

The results thus far suggest that much of the findings using the entire sample remain the same for the African group, with only a few exceptions. Once more, "Femonly" households are economically most disadvantaged, compared to the different types of "Mixed-gender" households. This is confirmed in the regression Table Appendix 1.2.

Table Appendix 1.2: OLS Regressions: Relationship between Types of Household and Income for African households (Dependent Variable: minc)

Independent Variables		Model 5
<i>Control Variables</i>		
1. Age (in months) of child (agem)		0.001
2. agem ²		-0.00003
3. Gender of child (female) : female = 1		-0.042*
4. Residence (omitted category: rural)		
Urban		0.251***
<i>Metro</i>		0.378***
5. hhsizem		- 0.003
<i>Household categories (hhtype1). Omitted category: Nuclear</i>		
Femonly		-0.160***
Extended		0.021
Other		-0.012
N		3737

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

Second, the “Femonly” household *expenditure behavior*, on the contrary, seems to be *most food oriented*, compared to the other three types of household categories. This confirmed in Table Appendix 1.3.

Table Appendix 1.3: OLS Regressions: Relationship between Types of Household and expenditure on food for African households (Dependent Variable: foodmx)

Independent Variables		Model 5
<i>Control Variables</i>		
1. Age (in months) of child (agem)		- 0.002
2. agem ²		0.00002+
3. Gender of child (female) : female = 1		0.028*
4. Residence (omitted category: rural)		
Urban		0.100***
<i>Metro</i>		0.136***
5. hhsizem		0.049***
<i>Household categories (hhtype1).</i>		
Omitted category: Nuclear		
Femonly		- 0.058**
Extended		-0.007
Other		- 0.024
Income		0.141***
N		3736

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

Once more, the regression results meet the expectation that there *is* a variation in children’s welfare among the variety of households. Specifically, the results show significant differences in children’s welfare among “Femonly”, “Nuclear”, and “Extended” households among African households. However, the regression results fail to show that children in “Femonly” households are better-off compared to “Mixed-gender” households. Instead, the regression results in Models 2, 3 and 4 from Table Appendix 1.1 indicate that **HAZ**, both in “Femonly” and “Extended” households, are significantly lower, vis-à-vis “Nuclear” households. Moreover, each of the mentioned regression models indicates that, the height-for-age z-scores in “Femonly” households are consistently lower compared to not only “Nuclear” households but also “Extended” households. Table Appendix 1.4 presents the appropriate coefficients comparing the “Femonly” coefficients to the “Extended” coefficients, and both coefficients with those of “Nuclear”.

Table Appendix 1.4: Coefficients for “Femonly” and “Extended” (omitted category: “Nuclear”)

OLS regression models	Femonly	Extended
Model 7	-0.303*	-0.197*
Model 8	-0.257*	-0.203*
Model 9	-0.235+	-0.229*

Significance Levels:

.05 < p <= .10 +

.01 < p <= .05 *

.001 < p <= .01 **

p <= .001 ***

The results for the African community present the following findings:

- Within the African community, “Femonly” households are the worst-off compared to both “Extended” as well “Nuclear” households.
- Children’s height-for-age is significantly better in “Nuclear” households compared to “non-Nuclear” households e.g. “Femonly” and “Extended”.
- Unemployment has a significant negative relationship to **HAZ**.
- Income is significantly positively related to **HAZ**.

To understand these findings it is important to place them within the macro context of South Africa. It has been mentioned repeatedly that the *apartheid* era is unique to the history of South Africa. *Apartheid* imposed strict racial divide on all grounds – geographic, political, economic and social, favoring only the White minority disproportionately, while disadvantaging the non-white communities, the Indian, the Colored and the African to various degrees. The worst hit racial group was the largest – the African group.

In 1913 South Africa was divided artificially under the policy of separate development into the “common” area, comprising 87% of the land, and areas reserved for Africans, accounting for the remaining 13%. This enabled the South African economic system to encompass two diverse modes of production, the white-focused capitalist mode and the black-focused redistributive mode (Wolpe, 1972). According to Colin Bundy,

“...an economy was created whose structure was such as to render “market forces” highly favourable to the White capitalist sector. The decline in productivity and profitability of African agriculture –

and the corollary of greater dependence of Africans on wage labor ... (October 1972).

The salient feature of black wage labor was its migratory and temporary nature, with migrants returning to the Reserve between periods of employment in “white areas”. (Magubane, 1975).

In 1948, the application of policies shifted from *segregation* to those of *apartheid*. *Apartheid* served to insure, in the period of South Africa’s industrialization, the availability of a cheap and controlled labor force in the face of the disintegration of the pre-capitalist systems of production in the black areas (Wolpe, 1972).

The expansion of capitalism in South Africa resulted in the institutionalization of a massive structural imbalance in the relationship between the geographical location of job opportunities and the settlement pattern of the black population (Natrass, 1976). Thus, a situation was created whereby a rapid increase in the migration of blacks to the white areas on a temporary basis was inevitable (Magubane, 1975).

In 1990, South Africa embarked on a transition from white *apartheid* rule to a democratic regime open to all members of the population (Klasen, 1997). This transition culminated in the first democratic and all-inclusive elections of April 1994 and the installation of a Government of National Unity under President Mandela in May 1994.

A critical element of the mandate of the new government has been to address and improve the situation of poverty and inequality. However, what the new

government inherited was an apartheid state machinery which had been set up, on the one hand, to provide quality services for a privileged minority of the population, and on the other, to ensure deliberate, systematic underdevelopment of the majority of South Africans. This had resulted in a huge backlog in basic service provision and remained a major challenge to the new government.

Among comparable middle-income developing countries, South Africa has one of the worst records in terms of social indicators (health, education, safe water, fertility) and among the worst records in terms of income inequality (Reconstruction and Development Program [RDP], 1995). Indeed, its social indicators are not very different from those of some low-income sub-Saharan African countries.

Poverty in South Africa is multi-dimensional reflecting **race, gender, and location of residence and deeply influenced by the unemployment problem. Nearly 95% of South Africa's poor are African. Some 75% of South Africa's poor live in rural areas, concentrated in the former homelands and TBVC (Transkei, Venda, Bophuthatswana and Ciskei) states.** In addition, the burden of poverty is largest in rural areas. Compared to the poor in urban and metropolitan areas, the rural poor suffer from higher unemployment rates, lower educational attainment, much lower accesses to services such as water and electricity, as well as lower access to productive resources. Africans have nearly twice the unemployment rate (38%) of Coloreds (21%), more than three times the unemployment rate of Indians (11%), and nearly ten times the unemployment rate of Whites. Finally, unemployment in rural areas is nearly twice as high as in metropolitan areas. Within this poverty scenario, it is the Africans in generally, and African women more so,

who are at the greatest economic and social disadvantage.

Finding 1: Within the African community, “Femonly” households are the worst-off compared to both “Extended” as well “Nuclear” households.

Bruce (1989) argues that societal or macro-level inequalities disadvantage women vis-à-vis men. Women face very different prospects in life even in same cultural settings and class groups. The contrasts are often dramatic, in their participation in labor markets, the content of their work, the returns to their labor, the pattern of economic participation over the lifecycle, daily time use, and parenting responsibilities. Women’s possibilities for finding adequate livelihoods, retaining assets, and maintaining their social status when marriages dissolve, whether through separation, abandonment, migration, or death, are often markedly poorer than men’s. Given this scenario, Bruce argues that it is only natural that such societal inequalities between men and women will play up within households also.

In the macro context of *apartheid* as well as *post-apartheid era* how have women, especially African women fared? Following is a quote from a report originally written in late 1990 to form the basis of the annual report of the Secretary-General of the United Nations on Women under Apartheid.

“...South Africa is still a racist society and will suffer the consequences of apartheid for many decades to come. The position of women in South Africa parallels this. ...Laws have been liberalised. Sex discrimination has in some cases been removed. Yet the current situation of women, particularly black women, and the opportunities open to them reflect their years of living in a racist and sexist society.” (Budlender, 1991).

And indeed, although the prospect of change in South Africa seemed greater since 1990, the legacy of not only *apartheid* but also *patriarchy* continues – and continue – to negatively affect the position of women within the society (Budlender 1991; May, Woolard and Klasen, 2000).

South African women are not a *homogeneous* group. The situation of women need to be observed in their racial categories the laws and customs of the land have treated women differently according to these categories and have been very effective in disadvantaging non-white women, especially African women.

Approximately *half* of the population in South Africa is women. However, when the country is divided up along rural/urban, former “common” area/bantustan and similar lines the proportions of men and women are no longer equal. Women consistently predominate in the economically disadvantaged regions (Budlender 1991; RDP 1995). Particularly among Africans, men and women are not equally present in different areas. This primarily is because more men than women are and have been employed under the migrant labor system. Men could easily live and work legally in urban areas while women and children were forced to remain in the economically disadvantaged rural areas.

Hence historically there has been a high proportion of female-headed households in both urban and rural areas (Budlender, 1991). Government figures and university research conducted even as early as the 1980s (Simkins, 1986) had suggested that the number of these female-headed households is increasing. In 1980 between 18% and 30% of urban African households had women as heads. In the

former “bantustan” urban areas the figure for female-headed households was between 36% and 47%. In the former “bantustan” rural areas it was 59% -- over half. Influx control was responsible for much of this. The following table shows the percentage of households within the sample of this study.

Table Appendix 1.5: “Femonly” households as a percentage of all households in the sample

<i>Household Categories</i>	
Nuclear*	22.51
Femonly*	11.37
Extendeder*	42.01
Others*	24.11

Female-headship is a representation of large proportion of *single women* – whether never married, separated or divorced and partly as a result of this, a very high rate of births out-of wedlock at 43% for Africans (Van der Vliet, 1984).

Households headed by females have a significantly increased probability of being poor relative to those headed by resident males (May, Woolard and Klasen, 2000). Many factors account for this. “Female-only” households are more likely to be in the rural areas where poverty is concentrated; “Female-only” households tend to have fewer adults of working age. Such households tend to be more heavily reliant on remittance and state transfer income (pensions and grants) than “Mixed-gender” households. The irregular and uncertain nature of income increases the vulnerability of “Female-only” households. Average income in these households is about one-third of the average income in “Mixed-gender” households. Moreover, the state provides limited assistance to women, inadequate maintenance grants are available for

themselves or their children from their former husbands/male partners, marriage laws²¹ have historically discriminated against South African women, especially African women.

Most importantly, female unemployment rates are higher compared to men, and the wage gap between male and female earnings persists. Women suffer from a 36% unemployment rate, compared to only 26% among men. Moreover, among employed women, African women predominate in the lower-paid areas compared to women of other races who enjoy higher-paid jobs.

Findings 2 and 3: Children’s height-for-age is significantly better in “Nuclear” households compared to “non-Nuclear” households e.g. “Femonly” and “Extended”. This issue is linked to unemployment being inversely significantly related to children’s welfare.

The *apartheid* complex in South Africa encompassed all – the economy, the society, and the political ideology. That it led South Africa to be characterized by a wide diversity of household structures (Bornstein, 2000) is predictable. ‘Double rootedness’ has been the way of life for most non-white South Africans, especially

²¹ Prior to the change in marriage laws in late 1988, African women married by customary law were particularly vulnerable. A customary law marriage was void in terms of the law if the husband married another woman under civil law. Because many couples were separated by migrant labor and influx control laws, this was not uncommon. Under the new act a first marriage, whether customary or civil, takes precedence over any later attempts of the man to marry. However, most women separated from their husband still face financial difficulties. Even if they are able to extract maintenance from their former husbands, the amounts are very low because of the low wages earned by most African men.

the Africans. It used to describe patterns of migration as well as dual residence set up by individuals in rural and urban areas, or multiple households within the urban areas. The salient feature of wage labor, especially African wage labor, was its migratory and temporary nature, with migrants returning to the Reserves between periods of employment in “white areas”. The migrant retained a means of subsistence in the redistributive economies of the black areas, thus creating a geographical separation of the two processes of labor-force maintenance and renewal.

This system of oscillation between the place of work and the place of residence forced the rise of a great variety of households as a mechanism of survival. Even to this day a large proportion of South African population, especially the Africans, is living in neither nuclear families nor traditional forms of the extended family (Budlender, 1991). Three- and four-generation households are common, and empirical evidence suggests it is not the norm for children (below the age of 17 years) to live with both their parents (Bornstein, 2000). Upto three-fifths of children included in various surveys have been found to be living with only their mother, while just over a fifth live without either of their parents (Ardington, 1988; James, 1992; Ross, 1993). Also, since at least the forties there has been a high proportion of female-headed households in both urban and rural areas, especially among the Africans (Budlender, 1991). Although originally imposed by apartheid legislation, even to this day, ‘double rootedness’ or dual residence continues to be a strategy adopted by many households in South Africa. This is survival strategy used as a means of keeping their options open in rural and urban areas, thereby sharing risks between these areas (Mayer and Mayer, 1961; Bank, 1995; Cross et.al. 1992a,b).

Empirical evidence, including studies in the SA-PPA (South African Participatory Poverty Assessment, 1998), shows that *life-cycle dynamics* and *economic and social factors* affect household composition. Household composition may vary owing to economic hardship, resulting in a need to reduce the number of dependents because they cannot be supported by the livelihood strategy adopted by the household members (Sharp and Spiegel, 1985; Spiegel, 1987; Ardington, 1988). If the source of income is lost, individuals may also disperse to join households that have an income. Similarly, when a new source is accessed, individuals may leave to establish their own household. These processes have been found in both rural areas and dense informal settlements in the cities (Ross, 1993; Anneck, 1992).

The discussion above supports the finding of Table Appendix 1.1 that children's height-for-age is significantly better in "Nuclear" households compared to "non-Nuclear" households e.g. "Femonly" and "Extended". The argument being made is households are forced to be "non-Nuclear" since they cannot afford to set up independent households. This finding is further highlighted in model 5 where unemployment is inversely significantly related to HAZ and that no significant relationship remain among the various types of households. It reinforces the point that when a source of income is lost individuals are unable to set up "Nuclear" households.

Finding 4: Income is significantly positively related to HAZ within African households.

As a result of high unemployment and low labor force participation rates, the

patterns of income differ substantially among the poor, ultra-poor, and the rest of the society in South Africa. Many people, especially the poor, rely on multiple sources of income as a coping strategy. While regular wage (including wages from agricultural labor) is the main source of income for only about 39% of the poor and 32% of the ultra-poor, it is the main source of income for 72% of the non-poor. In contrast, **pensions for disability and old age (social pensions) and remittances are the main sources of income for over 40% of the poor and nearly 50% of the ultra-poor.**

The dependence on old-age/disability pensions and remittances is particularly strong in rural areas where there is a high concentration of African women. Here nearly half of the poor depend on remittances and social (old age/disability) pensions as their primary source of income. In contrast, the metropolitan poor rely predominantly on regular and casual wages as their primary source of income.

While the biggest problem for the poor is lack of employment, **low productivity resulting in low wages or income are another cause of poverty for those relatively few poor who are employed.** The average household total monthly wage (from regular and casual labor) ranges from R281/month among the poorest African households, to R5,055/month among the whites in the top quintile – which is almost 20 times higher. Similarly **within** each quintile, there is a wide range of wages received by race, with Africans receiving much the lowest, and Whites much the highest wages.

Therefore it is not surprising that income is significantly related to child

welfare. Given that there is a high concentration of poverty among the African community, their sources of income are unreliable. The percentage of income from wage labor is much lower compared to other racial groups and the reliance on less stable sources such as remittances, pensions is high.

Appendix 2: Calculation of the Household Structure Variable “hhtype1”

	No Males	Bio Dad only	Bio Dad + other men	Other men/no bio dad
No Women		<i>1</i>	<i>0</i>	<i>0</i>
Bio Mom only	<i>92</i>	<i>924</i>	<i>113</i>	<i>19</i>
Bio mom + other women	<i>98</i>	<i>157</i>	<i>536</i>	<i>166</i>
Other women, no bio-mom	<i>123</i>	<i>2</i>	<i>22</i>	<i>718</i>

Total # of HHs in the whole dataset = 9000

Total # of HHs with anthropometric data = 2971. Within this category:

Total “female-only” HHs = 313

Total “male-only” HHs = 1

Total “mixed-gender” HHs = 2657

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